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## WITH ORIGINAL DRAWINGS。

## PHRNANI (Thamas).

Vol. I. Class Io Quadrupeds.
Vol. II. Class II. Birds. III. Reptiles. IV. Tish.
V. Insects.

Vo1. III. Introduction to the Axctic Zoology.

## UNIQUE SET. LARGE PAPER. WITH THE PLATES IN

ALMOST EVERY CASE IN TWO STATES:-
I. Proofs on French paper.
II. Nost beautifully coloured by hand. THE VOLUMES ARE FURTHER ENRICHRD WITH A SERIES OF 170 MOST EXQUISITE WATER COLOUR DRAWINGS OF NATURAL HISIORY SPECIMENS AND SCTNES IN THE ARCTIC REGIONS.
These drawings are by MERCATTI and MOSES GRIFFITH, in many cases from the slight sketches of Pennant himself.

3 rols. 4to. Handsomely bound in contemporary straight grain crimson morocco, gold decoration on sides and backs,gilt edges.

London: 1792.
ま120. 0. 0.

These are probably three of the most remarkable volumes of Natural History; the drawings are most exquisitely made, and are on separate leaves or decorating the wide margins.

$\square$

## ARCTIC ZOOLOGY.

V O L. I.

CLASS I. QUADRUPEDS. II. BIRDS.

LONDON:

PRINTED FOR ROBERT FAULDER, NEW BOND STREET.
M.DCC.XCII.


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## ARCTIC ZOOLOGY.

## CLASSI. QUADRUPEDS.

D I V. I. H O O F E D.

$$
\text { HISST. } 2 U A \text { D. GENUS II. }
$$

American Ox, Hif. 2uad. p. 19. H.-Smellie, vi. 198.

OX. With fhort, black, rounded horns; with a great fpace between their bafes: on the fhoulders a vaft bunch, compofed of a flefhy fubftance, much elevated: the fore part of the body thick and ftrong: the hind part flender and weak: tail a foot long, naked to the end, which is tufted : the legs fhort and thick.

The head and fhoulders of the Bull are covered with very long flocks of reddifh woolly hair, falling over the eyes and horns, leaving only the points of the latter to be feen : on the chin, and along the dewlaps, is a great length of fhaggy hairs : the reft of the body during fummer is naked, in winter is cloathed equally in all parts. The Cow is leffer, and wants the fhaggy coat, which gives the Bull fo tremendous an afpect.
It grows to a great fize, even to the weight of fixteen hundred or two thoufand four hundred pounds *. The ftrongeft man cannot lift the hide of one of thefe animals from the ground $\dagger$.

$$
\text { * Larwfon, } 116 .
$$

Vol. I.
I. OX.

1. Bison.

Size.

## B I S O N.

The Bijon and Aurochs of Europe is certainly the fame fpecies with this; the difference confifts in the former being lefs fhaggy, and the hair neither fo foft nor woolly, nor the hind parts fo weak. Both European and American kinds fcent of mufk.

In antient times they were found in different parts of the old world, but went under different names; the Bonafus of Ariftotle, the Urus of Cafar, the Bos ferus of Strabo, the Bijon of Pliny, and the Bifton of Oppian, fo called from its being found among the Bifones, a people of Thrace. According to thefe authorities, it was found in their days in Media and in Pconia, a province of Macedonia; among the Alps, and in the great Hercynian foreft, which extended from Germany even into Sarmatia*. In later days a white fpecies was a native of the Scottijb mountains; it is now extinet in its favage flate, but the offspring, fufficiently wild, is ftill to be feen in the parks of Drumlanrig, in the South of Scotland, and of Cbillingbam Cafte in Nortbumberland $\dagger$.

In there times it is found in very few places in a ftate of nature; it is, as far as we know, an inhabitant at prefent only of the forefts of Litbuania, and among the Carpatbian mountains, within the extent of the great Hercynian wood $\ddagger$, its antient haunts; and in Afa, among the vaft mountains of Caucafus.

It is difficult to fay in what manner thefe animals migrated originally from the old to the new world; it is moft likely it was from the north of $A f a$, which in very antient times might have been ftocked with them to its moft extreme parts, notwithfanding they are now extinct. At that period there is a probability that the old and the new continents might have been united in the narrow chan-

[^0]
## B I S O N

nel between Tcrbutki no/s and the oppofite headlands of America; and the many illands off of that promontory, with the Aleutian or New Fox Iflands, fomewhat more diftant, ftretching very near to America, may with great reafon be fuppofed to be fragments of land which joined the two continents, and formed into their infular ftate by the mighty convulfion which divided Afa from America. Spain was probably thus disjoined from Africa; Britain from France; Iceland from Greenland; Spitzbergen from Lapland.

But that they paffed from Afia to America is far the more probable, than that they flocked the new world from the fide of Europe, not only on account of the prefent narrownefs of the ftreight between the two continents, which gives a greater caufe to fuppofe them to have been once joined ; but that we are now arrived at a certainty, that thefe animals in antient days were natives of Sibiria: the fculls, with the horns affixed, of a fize far fuperior to any known at this time, have been found foffil not only on the banks of the Ilga, which falls into the Lena, but even in thofe of the Anadyr, the moft eaftern of the Sibirian rivers, and which difembogues north of Kamtycbatka into thofe ftreights : fimilar fculls and horns have been difcovered near Dircchau, in Poland, alfo of a gigantic magnitude; and in my opinion of the fame fpecies with the modern Bijons *.

In America thefe animals are found in the countries fix hundred miles weft of Hudjon's Bay; this is their moft northern refidence. From thence they are met with in great droves as low as Cibole $\dagger$, in lat. 33, a little north of California, and alfo in the province of Mivera, in Nero Mexico $\ddagger$; the fpecies inftantly ceafes fouth of thofe

[^1]B 2 countries.
America.

Chase.

## Another.

 METHOD.
## B I S O N.

countries. They inhabit Canada, to the weft of the lakes; and in greater abundance in the rich favannas which border the river Mif$f_{1} I_{2} i_{\text {, a }}$ and the great rivers which fall into it from the weft, in the upper Louifiana*. There they are feen feeding in herds innumerable, promifcuounly with multitudes of ftags and deer, during morning and evening; retiring in the fultry heats into the fhade of tall reeds, which border the rivers of America.

They are exceedingly fhy; and very fearful of man, unlefs they are wounded, when they purfue their enemy, and become very dangerous.

The chafe of thefe animals is a favorite diverfion of the $I n-$ dians : it is effected in two ways; firft, by fhooting; when the markfman muft take great care to go againft the wind, for their fmell is fo exquifite that the moment they get fcent of him they inftantly retire with the utmoft precipitation $\dagger$. He aims at their fhoulders, that they may drop at once, and not be irritated by an ineffectual wound. Provided the wind does not favor the beafts, they may be approached very near, being blinded by the hair which covers their eyes. The other method is performed by a great number of men, who divide and form a vaft fquare: each band fets fire to the dry grafs of the favanna where the herds are feeding; there animals have a great dread of fire, which they fee approach on all fides; they retire from it to the center of the fquare $\ddagger$; the bands clofe, and kill them (preffed together in heaps) without the left hazard. It is pretended, that on every expedition of this nature, they kill fifteen hundred or two thoufand beeves.

The hunting-grounds are prefcribed with great form, leaft the different bands fhould meet, and interfere in the diverfion. Pe-

[^2]$$
\text { B I } S \quad 0 \quad N \text {. }
$$
nalties are enacted on fuch who infringe the regulations, as well as on thofe who quit their pofts, and fuffer the beafts to efcape from the hollow fquares; the punifhments are, the ftripping the delinquents, the taking away their arms (which is the greateft difgrace a favage can undergo), or laftly, the demolition of their cabins*.
The ufes of thefe animals are various. The Indions often fix the hoofs of Buffaloes to their own feet, to deceive their enemies and avoid being tracked: and fometimes ufe for the fame purpofe the broad paws of the bear $\dagger$. Powder-flafks are made of their horns. The fkins are very valuable; in old times the Indians made of them the beft targets $\ddagger$. When dreffed, they form an excellent buff; the Indians drefs them with the hair on, and cloath themfelves with them; the Europeans of Louifiana ufe them for blankets, and find them light, warm, and foft. The flefh is a confiderable article of food, and the bunch on the back is efteemed a very great delicacy. The Bulls become exceffively fat, and yield great quantity of tallow, a hundred and fifty pounds weight has been got from a fingle beaft $\|$, which forms a confiderable matter of commerce, Thefe over-fed animals ufually become the prey of Wolves; for, by reafon of their great unwieldinefs, they cannot keep up with the herd.
The Indians, by a very bad policy, prefer the flefh of the Cows; which in time will deftroy the fecies : they complain of the ranknefs of that of the Bulls; but Du Pratz thinks the laft much more tender, and that the ranknefs might be prevented, by cutting off the tefticles as foon as the beaft is killed.

The hair or wool is fpun into cloth, gloves, ftockings, and garters, which are very ftrong, and look as well as thofe made of the

[^3]Uses.
$S_{\text {Kin. }}$

Tallow.

Hatr.
beft fheeps wool; Governor Porionall affures us, that the moft luxurious fabrick might be made of it*. The fleece of one of thefe animals has been found to weigh eight pounds.
Their fagacity in defending themfelves againft the attacks of Wolves is admirable: when they fcent the approach of a drove of thofe ravenous creatures, the herd fings itfelf into the form of a circle: the weakeft keep in the middle, the ftrongeft are ranged on the outfide, prefenting to the enemy an impenetrable front of horns: fhould they be taken by furprize, and have recourfe to flight, numbers of the fatteft or the weakeft are fure to perifh $\dagger$.
Attempts have been made to tame and domefticate the wild, by catching the calves and bringing them up with the common kind, in hopes of improving the breed. It has not yet been found to anfwer: notwithftanding they had the appearance for a time of having loft their favage nature, yet they always grew impatient of reftraint, and, by reafon of their great ftrength, would break down the ftrongeft inclofure, and entice the tame cattle into the cornfields. They have been known to engender together, and to breed; but I cannot learn whether the fpecies was meliorated $\ddagger$ by the intercourfe: probably perfeverance in continuing the croffes is only wanted to effect their thorough domeftication; as it is notorious that the Bijons of the old world were the original ftock of all our tame cattle.

Thefe were the only animals which had any affinity to the European cattle on the firft difcovery of the new world: before that period, it was in poffeffion of neither Horfe nor Afs, Cow nor Sheep, Hog, Goat, nor yet that faithful animal the Dog. Mankind were here in a ftate of nature; their own paffions unfubdued, they never thought of conquering thofe of the brute creation,

[^4]and rendering them fubfervient to their will. The few animals which they had congenerous to thofe mentioned, might poffibly by induftry have been reclamed. This animal might have been brought to all the ufes of the European Cow; the Pecari might have been fubftituted for the Hog; the Fox or Wolf for the Dog: but the natives, living wholly by chafe, were at war with the animal creation, and neglected the cultivation of any part, except the laft, which was imperfectly tamed.
Such is the cafe even to the prefent hour; for neither the example of the Europeans, nor the vifible advantages which refult from an attention to that ufeful animal the Cow, can induce the Indian to pay any refpect to it. He contemns every fpecies of domeftic labour, except what is neceffary for forming a provifion of bread. Every wigwam or village has its plantation of Mayz, or Indian corn, and on that is his great dependence, fhould the chafe prove unfuccefsful.

Domefticated cattle are capable of enduring very rigorous climatés; Cows are kept at Quickjock in Lecha Lapmark, not far from the arctic circle; but they do not breed there, the fucceffion being preferved by importation: yet in Iceland, a fimall portion of which is within the circle, cattle abound, and breed as in more fouthern latitudes : they are generally fed with hay, as in other places; but where there is fcarcity of fodder, they are fed with the fifh called the Sea-Wolf, and the heads and bones of Cod beaten fmall, and mixed with one quarter of chopped hay: the cattle are fond of it, and, what is wonderful, yield a confiderable quantity of milk. It need not be faid that the milk is bad.

Kamt $f_{c b a t k a}$, like America, was in equal want of every domertic animal, except a wolf-like Dog, till the Rufians of late years introduced the Cow and Horfe. The colts and calves brought from the north into the rich paftures of Kamt $f_{c h a t k a, ~ w h e r e ~ t h e ~ g r a f s ~ i s ~ h i g h, ~}^{\text {, }}$

Lapmark.

Iceland.

Kamtschatia.
grow to fuch a fize, that no one would ever fufpect them to be defcended from the Ponies and Runts of the Lena ${ }^{*}$. The Argali, the ftock of the tame Sheep, abounds in the mountains, but even to this time are only objects of chafe. The natives are to this hour as uncultivated as the good Evander defcribes the primary natives of Latium to have been, before the introduction of arts and fciences.

Queis neque mos, neque cultus erat, nec jungere tauros, Aut componere opes norant, aut parcere parto: Sed rami atque afper victu venatus alebat.

No laws they know, no manners, nor the care Of lab'ring Oxen, or the fhining Share;
No arts of gain, nor what they gain'd to fpare:
Their exercife the chafe : the running flood
Supplied their thirft the trees fupplied their food.

## Dryden.

2. Musk.

Mufk Ox, Hijf. 2uad. $\mathrm{N}^{\circ} 9$.
Lè Beuf mufque, de M. Feremie, Voy. au Nord, iii. 314.-Cbarleroix, N. France, v. 194-Lev. Mus.

BULL. With horns clofely united at the bafe ; bending inwards and downwards; turning outwards towards their ends, which taper to a point, and are very fharp: near the bafe are two feet in girth; are only two feet long meafured along the curvature: weight of a pair, feparated from the head, fometimes is fixty pounds $\dagger$.

The hair is of a dufky red, extremely fine, and fo long as to trail on the ground, and render the beaft a feeming fhapelefs mafs, with-

> * Pallas, Sp. Zool. fafc. xi. 76.
> + M. Jeremie, in Voyages au Nord, iii. 315 .



out diftinction of head or tail *: the legs and tail very fhort: the fhoulders rife into a lump.

In fize lower than a Deer, but larger as to belly and quarters $\dagger$. I have only feen the head of this animal; the reft of the defcription is taken from the authorities referred to: but by the friendihip of Samuel Wegg, Efq; I received laft year a very complete flkin of the cow of this fpecies, of the age of three years, which enables me to give the following defcription:

Cow. The noftrils long and open: the two middle cutting teeth broad, and fharp-edged; the three on each fide fmall, and truncated: under and upper lips covered with fhort white hairs on their fore part, and with pale brown on their fides: hair down the middle of the forehead long and erect; on the cheeks fmooth and extremely long and pendulous, forming with that on the throat a long beard: the hair along the neck, fides, and rump hangs in the fame manner, and almoft touches the ground: from the hind part of the head to the fhoulders is a bed of very long foft hair, forming an upright mane : in the old beafts the fpace between the fhoulders rifes into a hunch: the legs are very fhort, covered with fmooth whitifh hairs; thofe which encircle the hoofs very long; and of a pure white: hoofs fhort, broad, and black: the falfe hoofs large in proportion : tail only three inches long, a mere ftump, covered with very long hairs, fo as to be undiftinguifhable to the fight. Of the tail, the Efkimaux of the north-weft fide of the bay make a cap of a moft horrible appearance; for the hairs fall all round their head, and cover their faces; yet it is of fingular fervice in keeping off the Mufquetoes, which would otherwife be intolerable $\ddagger$.

Space between the horns nine inches: the horns are placed ex-

Stze.

Horns. actly on the fides of the head; are whitifh; thirteen inches and a

[^5]half long; eight inches and a half round at the bafe; of the fame fort of curvature with thofe of the Bull: the ears are three inches long, quite erect; fharp-pointed, but dilate much in the middle; are thickly lined with hair of a dulky color, marked with a ftripe of white.
The color of the hair black, except on thefe parts:-from the bafe of one horn to that of the other, is a bed of white and light ruft-colored hair: the mane is dufky, tinged with red, which is continued in a narrow form to the middle of the back; on which is a large roundifh bed of pure white, and the hairs in that fpace fhorter than any of the reft, not exceeding three inches in length, and of a pale brown towards their roots.

The hairs are of two kinds, the longeft meafure feventeen inches; are very fine and gloffy, and when examined appear quite flat: this is the black part, which cloaths moft part of the animal.

The bed of hair between the horns, and that which runs along the top of the neck, is far finer and fofter than any human hair, and appears quite round. The white bed is ftill finer, and approaches to the nature of wool.

Beneath every part of the hair grows in great plenty, and often in flocks, an afh-colored wool, moft exquifitely fine, fuperior, I think, to any I have feen, and which might be very ufeful in manufactures if fufficient could be procured. I give full credit to $M$. $\mathcal{F}_{e}-$ remie, who fays, that he brought fome of the wool to France, and got ftockings made with it, more beautiful than thofe of filk *. The fkin is thin.

The length of the whole hide, from nofe to tail, is about fix feet four inches: of the head alone fourteen inches. The legs could not be well meafured, but were little more than a foot long.

$$
\text { * Voy. au Nord, iii. } 314 \text {. }
$$

## M U S K.

The fituation of thefe animals is very local. They appear firf in the tract between Cburcbill river and that of Seals, on the weft fide of Hudfon's Bay. They are very numerous between the latitudes 66 and 73 north, which is as far as any tribes of Indians go. They live in herds of twenty or thirty. Mr. Hearn * has feen in the high latitudes feveral herds in one day's walk. They delight moft in the rocky and barren mountains, and feldom frequent the woody parts of the country. They run nimbly, and are very active in climbing the rocks. The flefh taftes very ftrong of Mufk, and the heart is fo ftrongly infected as hardly to be eatable; but the former is very wholefome, having been found to reftore fpeedily to health the fickly crew who made it their food $\dagger$.

They are fhot by the Indians for the fake of the meat and fkins, the laft from its warmth making excellent blankets. They are brought down on fledges to the forts annually during winter, with about three or four thoufand weight of the flefh. Thefe are called Cburcbill Buffaloes, to diftinguifh them from the laft fpecies, which are in Hudjon's Bay called Inland Buffaloes, of which only the tongues are brought as prefents $\ddagger$.

They are found alfo in the land of the Cris or Crifinaux, and the Afinibouels: again among the Attimofpiquay, a nation fuppofed to inhabit about the head of the river of Seals $\S$, probably not very remote from the South Sea. They are continued from thefe countries fouthward, as low as the provinces of 2 uivera and Cibola; for Father Marco di Niça, and Gomara, plainly defcribe both kinds \|.

[^6]
## $\begin{array}{llll}\mathrm{M} & \mathrm{U} & \mathrm{S}\end{array}$

Some of the fkulls of this fpecies have been difcovered on the moffy plains near the mouth of the Oby in Sibiria. It is not faid how remote from the fea; if far, they probably in fome period might have been common to the north of Afia and of America; if near the fhore, it is poffible that the carcafes might have floated on the ice from America to the places where the remains might have been found *. Of this fpecies was the head, and fuch were the means of conveyance, from the coaft of Hudjon's or Baffin's, mentioned by Mr. Fabricius, and which he faw fo brought to Greenland $\dagger$; for it could not have been, as he conjectures, the head of the grunting Ox , an animal found only in the very interior parts of northern Afa.

[^7]SHEEP.


## S HEE P. Hift. 2uad. GENus III.

A R G A L I: Wild Sheep, Hif. 2uad. No 11. H. p. 38.-Smellie, vi. 205.Lev. Mus.

THE Sheep, in its wild fate, inhabits the north-eaft of $A f a$, beyond lake Baikal, between the Onon and Argun, to the height of latitude 60, on the eaft of the Lena, and from thence to Kamt $f$ cbatka, and perhaps the Kurile iflands. I dare not pronounce that they extend to the continent of America; yet I have received from Doctor Pallas a fringe of very fine twifted wool, which had ornamented a drefs from the ine of Kadjak; and I have myfelf another piece from the habit of the Americans in latitude 50. The firft was of a fnowy whitenefs, and of unparalleled finenefs; the other as fine, but of a pale brown color : the firft appeared to be the wool which grows intermixed with the hairs of the Argali ; the laft, that which is found beneath thofe of the Mufk Ox. Each of thefe animals may exift on that fide of the continent, notwithftanding they might have not fallen within the reach of the navigators in their fhort ftay off the coaft.
Certain quadrupeds of this genus were obferved in California by the miffionaries in 1697 ; one as large as a Calf of one or two years

## S H E E P.

old, with a head like a Stag, and horns like a Ram : the tail and hair fpeckled, and fhorter than a Stag's. A fecond kind was larger, and varied in color ; fome being white, others black, and furnifhed with very good wool. The Fathers called both Sheep, from their great refemblance to them *. Either the Americans of latitude 50 are poffeffed of thefe animals, or may obtain the fleeces by commerce from the fouthern Indians.

The Argali abound in Kamt cbatka; they are the moft ufeful of their animals, for they contribute to food and cloathing. The Kamt fchatkans cloath themfelves with the fkins, and efteem the flefh,

Chasein Kamtschatia. efpecially the fat, diet.fit for the Gods. There is no labor which they will not undergo in the chafe. They abandon their habitations, with all their family, in the fpring, and continue the whole fummer in the employ, amidft the rude mountains, fearlefs of the dreadful precipices, or of the avelencbes, which often overwhelm the eager fportfinen.

Thefe animals are fhot with guns or with arrows; fometimes with crofs-bows, which are placed in the paths, and difcharged by means of a ftring whenever the Argali happens to tread on it. They are often chafed with dogs, not that they are overtaken by them; but when they are driven to the lofty fummits, they will often ftand and look as if it were with contempt on the dogs below, which gives the hunter an opportunity of creeping within reach while they are fo engaged; for they are the fhyeft of animals.

The Mongols and Tungufi ufe a nobler fpecies of chafe: they collect together a vaft multitude of horfes and dogs, attempting to furround them on a fudden; for fuch is their fwiftnefs and cunning, that if they perceive, either by fight or fmell, the ap-
proach of the chaffeurs, they inftantly take to flight, and fecure themfelves on the lofty and inacceffible fummits.

Domefticated Sheep will live even in the dreadful climate of Greenland. Mr. Fabricius* fays, they are kept in many places. They are very numerous in Iceland. Before the epidemical difeafe which raged among them from 1740 to 1750 , it was not uncommon for a fingle perfon to be poffeffed of a thoufand or twelve hundred. They have upright ears, fhort tails, and often four or five horns $\dagger$. They are fometimes kept in ftables during winter, but ufually left to take their chance abroad, when they commonly hide themfelves in the caves of exhaufted vulcanoes $\ddagger$. They are particularly fond of fcurvy-grafs, with which they grow fo fat as to yield more than twenty pounds. The ewes give from two to fix quarts of milk a day, of which butter and cheefe is made. The wool is never fhorn, but left on till the end of May, when it grows loofe, and is ftripped entirely off in one fleece; and a fine, fhort, and new wool appears to have grown beneath; this continues growing all fummer, becomes fmooth and gloffy like the hair of Camels, but more fhaggy \|. With the wool the natives manufacture their cloth; and the flefh dried is an article of commerce.

In all parts of European Rufia are found the common Sheep. Thofe of the very north, and of the adjacent Finmark, have fhort tails and upright ears, and wool almoft as rude as the hair of Goats; but are feldom polyceratous. They fometimes breed twice in a year, and bring twins each time §.

In the Afatic dominions of Rufia, from the borders of Rufia to thofe of Cbina, is a moft fingular variety of Sheep, deftitute of

[^8]
## S H E E P.

tails, with rumps fwelling into two great, naked, and fmooth hemifpheres of fat, which fometimes weigh forty pounds: their nofes are arched: their ears pendulous: their throats wattled: their heads horned, and fometimes furnifhed with four horns. Thefe are fo abundant throughout Tartary, that a hundred and fifty thoufand have been annually fold at the Orenburg fairs; and a far greater number at the fort Troizkaja, from whence they are driven for naughter into different parts of Rufla*. Sheep do not thrive in Kamtjchatka, by reafon of the wetnefs of the country.

Sheep abound in New England and its iflands: the wool is fhort, and much coarfer than that of Great Britain ; poffibly proper attention to the houfing of the Sheep may in time improve the fleece; but the feverity of the climate will ever remain an obftacle to its perfection. Manufactures of cloth have been eftablifhed, and a tolerable cloth has been produced, but in quantities in no degree equal to the confumption of the country. America likewife wants downs; but by clearing the hills of trees, in a long feries of years that defect may be alleviated. As we advance further fouth, the Sheep grow fcarcer, worfe, and the wool more hairy.

$$
\text { * Pallas, Sp. Zool. fafc. xi. } 63 \text {. tab. iv. }
$$

## G O A T. Hif. Quad. Genus IV.

> I B E X, Hift शuad. No 13 *, is fuppofed to extend to the mountains of the eaftern part of Sibiria, beyond the Lena, and to be found within the government of Kamt fobatka.-Lev. Mus.

THE tame Goat inhabits northern Europe as high as Wardbuys, in latitude 7 I , where it breeds, and runs out the whole year, only during winter has the protection of a hovel: it lives during that feafon on mofs and bark of Fir-trees, and even of the logs cut for fuel. They are fo prolific as to bring two, and even three, at a time. In Norway they thrive prodigiounly, infomuch that 70 or 80,000 of raw fkins are annually exported from Bergen, befides thoufands that are fent abroad dreffed.

Goats are alfo kept in Iceland, but not in numbers, by reafon of the want of fhrubs and trees for them to brouze. They have been introduced into Greenland, even to fome advantage. Befides vegetable food, they will eat the Arctic trouts dried; and grow very fat $\dagger$.

The climate of South America agrees fo well with Goats, that they multiply amazingly: but they fucceed fo ill in Canada, that it is neceffary to have new fupplies to keep up the race $\ddagger$.

[^9]
## D E E R. Hif. 2uad. Genus VII.

Elk, Hijt. 2uad. No ${ }_{42}$ - Smellie, vi. 315.-Lev. Mus.

DEER. With horns with fhort beams, fpreading into a broad palm, furnifhed on the outward fide with fharp fnags; the inner fide plain: no brow antlers: fmall eyes: long flouching afinine ears: noftrils large: upper lip fquare, great, and hanging far over the lower; has a deep furrow in the middle, fo as to appear almoft bifid: under the throat a fmall excrefcence, with a long tuft of coarfe black hair pendent from it: neck fhorter than the head; along the top an upright, fhort, thick, mane: withers elevated: tail fhort: legs long; the hind legs the fhorteft: hoofs much cloven.

Color of the mane a light brown ; of the body in general a hoary brown: tail dufky above; white beneath. The vaft fize of the head, the fhortnefs of the neck, and the length of the ears, give the beaft a deformed and ftupid look.
The greateft height of this animal, which I have heard of, is feventeen hands; the greateft weight 1229 pounds.

The larget horns I have feen are in the houfe of the Hudfon's Bay Company; they weigh fifty-fix pounds: their length is thirtytwo inches; breadth of one of the palms thirteen inches and a half; fpace between point and point thirty-four.

The female is leffer than the male, and wants horns.
Inhabits the ine of Cape Breton, Nova Scotia, and the weftern fide of the Bay of Fundy; Canada, and the country round the great lakes, almoft as far fouth as the river Obio*. Thefe are its prefent

[^10]northern
VIII

$\mathbb{M} \cap O S \mathbb{E}_{4} \quad D \mathbb{E}_{\mathbb{E}} \mathbb{R}$


## M O O S E.

northern and fouthern limits. In all ages it affected the cold and wooded regions in Europe, Afia, and America. They are found in all the woody tracts of the temperate parts of Rulia, but not on the Arctic flats, nor yet in Kamtfchatka. In Sibiria they are of a monftrous fize, particularly among the mountains.

The Elk and the Moofe are the fame fpecies; the laft derived from Mufu, which in the Algonkin language fignifies that animal *. The Englifh ufed to call it the Black Moofe, to diftinguifh it from the Stag, which they named the Grey Moofe $\dagger$. The French call it L'Original.

Thefe animals refide amidft forefts, for the conveniency of broufing the boughs of trees, becaufe they are prevented from grazing with any kind of eafe, by reafon of the fhortnefs of their necks and length of their legs. They often have recourfe to water-plants, which they can readily get at by wading. M. Sarrafin fays, that they are very fond of the anagyris fotida, or ftinking bean trefoil, and will uncover the fnow with their feet in order to get at it.
In paffing through the woods, they raife their heads to a horizontal pofition, to prevent their horns from being entangled in the branches.

They have a fingular gait : their pace is a fhambling trot, but they go with great fwiftnefs. In their common walk they lift their feet very high, and will without any difficulty ftep over a gate five feet high.

They feed principally in the night. If they graze, it is always againft an afcent; an advantage they ufe for the reafon above affigned. They ruminate like the Ox.

They go to rut in autumn; are at that time very furious, feeking the female by fwimming from ifle to infe. They bring two young

Gait.

Ruminate.

Young.
Name.
*Kalm, i. 298. iii. 204. + Mr. Dudley's Pbil. Tranf. Abridg. vii. 447.
at a birth, in the month of April, which follow the dam a whole year. During the fummer they keep in families. In deep fnows they collect in numbers in the forefts of pines, for protection from the inclemency of the weather under the fhelter of thofe evergreens.
They are very inoffenfive, except in the rutting-feafon; or except they are wounded, when they will turn on the affailant, and attack him with their horns, or trample him to death beneath their great hoofs.

Their flefh is extremely fweet and nourifhing. The Indians fay, that they can travel three times as far after a meal of Moofe, as after any other animal food. The tongues are excellent, but the nofe is perfect marrow, and efteemed the greateft delicacy in all Canada.

The fkin makes excellent buff; is ftrong, foft, and light. The Indians drefs the hide, and, after foaking it for fome time, ftretch and render it fupple by a lather of the brains in hot water. They not only make their fnow-fhoes of the fkin, but after a chafe form the canoes with it: they few it neatly together, cover the feams with an unctuous earth, and embark in them with their fpoils to return home *.

The hair on the neck, withers, and hams of a full-grown Elk is of much ufe in making mattraffes and faddles; being by its great length well adapted for thofe purpofes.

The palmated parts of the horns are farther excavated by the favages, and converted into ladles, which will hold a pint.

It is not ftrange that fo ufeful an animal fhould be a principal object of chafe. The favages perform it in different ways. The firf, and the more fimple, is before the lakes or rivers are frozen.

[^11]Multitudes


## M O O S E.

Multitudes affemble in their canoes, and form with them a vaft crefcent, each horn touching the fhore. Another party perform their fhare of the chafe among the woods ; they furround an extenfive tract, let loofe their dogs, and prefs towards the water with loud cries. The animals, alarmed with the noife, fly before the hunters, and plunge into the lake, where they are killed by the perfons in the canoes, prepared for their reception, with lances or clubs *.

The other method is more artful. The favages inclofe a large fpace with ftakes hedged with branches of trees, forming two fides of a triangle: the bottom opens into a fecond enclofure, completely triangular. At the opening are hung numbers of fnares, made of nips of raw hides. The Indians, as before, affemble in great troops, and with all kinds of noifes drive into the firf enclofure not only the Moofes, but the other fpecies of Deer which abound in that country: fome, in forcing their way into the fartheft triangle, are caught in the fnares by the neck or horns; and thofe which efcape the fnares, and pafs the little opening, find their fate from the arrows of the hunters, directed at them from all quarters $\dagger$.

They are often killed with the gun. When they are firft unharboured, they fquat with their hind parts and make water, at which inftant the fportfman fires; if he miffes, the Moofe fets off in a moft rapid trot, making, like the Rein-deer, a prodigious rattling with its hoofs, and will run for twenty or thirty miles before it comes to bay or takes the water. But the ufual time for this diverfion is the winter. The hunters avoid entering on the chafe till the fun is ftrong enough to melt the frozen cruft with which the fnow is covered, otherwife the animal can run over the firm

[^12]furface:
furface: they wait till it becomes foft enough to impede the flight of the Moofe; which finks up to the fhoulders, flounders, and gets on with great difficulty. The fportfman purfues at his eafe on his broad rackets, or fnow-fhoes, and makes a ready prey of the diftreffed animals :

As weak againft the mountain heaps they pufh Their beating breaft in vain, and piteous bray, He lays them quivering on th' enfanguin'd fnows, And with loud fhouts rejoicing bears them home.

Thomson.

SUPERSTITIONS RELATING TO the Moose。

The opinion of this animal's being fubject to the epilepry feems to have been univerfal, as well as the cure it finds by fcratching its ear with the hind hoof till it draws blood. That hoof has been ufed in Indian medicine for the falling-ficknefs; they apply it to the heart of the afficted, make him hold it in his left hand, and rub his ear with it. They ufe it alfo in the colick, pleurify, vertigo, and purple fever; pulverifing the hoof, and drinking it in water. The Algonkins pretend that the flefh imparts the difeafe; but it is notorious that the hunters in a manner live on it with impunity.

The favages efteem the Moofe a beaft of good omen; and are perfuaded that thofe who dream often of it may flatter themfelves with long life *.

Their wild fuperftition hath figured to them a Moofe of enormous fize, which can wade with eafe through eight feet depth of fnow; which is invulnerable, and has an arm growing out of its fhoulder, fubfervient to the purpofes of the human: that it has a court of other Moofes, who at all times perform fuit and fervice, according to his royal will $\dagger$.

* Charlevoix, v. 186.

I lament that I am not able to difcover the animal which owned the valt horns fo often found in the bogs of Ireland, fo long and fo confidently attributed to the Moofe. Thefe have been found to be fometimes eight feet long, fourteen between tip and tip *, furnifhed with brow antlers, and weighing three hundred pounds: the whole fkeleton is frequently found with them.

The fables delivered by Foffelyn, of the Moofe being thirty-three hands, or twelve feet, high ; and by Le Hontan, of its horns weighing between three and four hundred pounds; occafioned the naturalifts of paft times to call the foffil horns thofe of the Moofe ; and to flatter themfelves that they had difcovered the animal they belonged to: but recent difcoveries evince the error. I once entertained hopes that the Wafkefe $\dagger$ of the Hudjon's Bay Indians was the fpecies ; but by fome late information I received from Mr. Andrew Grabam, factor in the Bay, I find it to be no other than the common Moofe.

The Elk has deferted the fouth of Sweden for a confiderable time; ftill fome are found in the forefts near Stockbolm, more or fewer, according to the year, for they are a fort of vagabond animals. The chafe is entirely referved for the nobility or gentry; and even they are prohibited from killing them before the 24 th of Auguft, under penalty of fifty rix-dollars, or IIl. I3s. 4 d . The inhabitants diflike them greatly as neighbors, fo much mifchief do they do in the cultivated grounds. In May, Fune, and fuly, they are fo bold, that the people are obliged to drive them away with blows of a ftick: after that they are more difficult of approach. In Femtland, a province of Norland, their chafe is free to every one. The largeft Elk Mr. Oedman ever heard of, weighed eleven hundred and fixty pounds. A fawn of this fpecies, taken very young;

[^13]Fossil horns not bblonging to the Moose.
is capable of being eafily tamed, and may be made as familiar as a dog; but the male becomes fierce when it is in heat, at left if it is not caftrated. It will drink greedily of wine, if given to it; and when it gets drunk, it will fnort it out of its noftrils. In a wild ftate, this animal feeds on the lichens, bark of the afpen poplar, the grey and the goat willows: when tame, it eats hay, and is very fond of peas ftraw ; but the laft muft be given in fmall quantity, as it is apt to produce a fatal coftivenefs. When the female is clofely purfued by the dogs, it will fling itfelf into the water with its fawn, and will continue fwimming with it for many hours. She rarely brings more than one at a time. During winter, when the ground is covered with fnow, the hunter cloaths himfelf with white linen, in order to render himfelf lefs vifible,
4. Rein. Hift. Quad. $\mathrm{N}^{\circ}$ 43.-Smellie, vi. 316.-Hackluyt, iii. 114.-Lev. Mus.

DEER. With large but flender horns, bending forward; with brow antlers broad and palmated, fometimes three feet nine inches long; two feet fix from tip to tip; weight, nine pounds twelve ounces avoirdupoife. The body is thick and fquare: the legs fhorter than thofe of a Stag: the height of a full-grown Rein four feet fix.

Color of the hair, at firft fhedding of the coat, of a brownifh afh ; afterwards changes to a hoary whitenefs. The animal is admirably guarded againft the rigor of the climate by the great thicknefs of the hairs, which are fo clofely placed as totally to hide the fkin, even if they are put afide with ever fo much care.

Space round the eyes always black: nofe, tail, and belly white: above the hoofs a white circle: hair along the lower fide of the neck very long: tail fhort.

Hoofs,

Hoofs, and falfe hoofs, long and black; the laft loofely hung, making a prodigious clatter when the animal runs,

The female is furnifhed with horns; but leffer, broader, and flatter, and with fewer branches than thofe of the male. She has fix teats, but two are fpurious and ufelefs. They bring two young at a time.

The habitation of this Deer is ftill more limited than that of the former, confined to thofe parts where cold reigns with the utmoft feverity. Its moft fouthern refidence is the northern parts of Ca nada, bordering on the territories of Hudjon's Bay. Cbarlevoix mentions a fingle inftance of one wandering as far as the neighborhood of $Q^{\text {uebec*. Their true place is the vaft tract which furrounds }}$ the Bay. They are met with in Labrador, and again in Nerofoundland, originally wafted thither acrofs the narrow ftraits of Belleifle, on iflands of ice.

They fpread northerly into Greenland, particularly on the weftern coaft, about $D i / k 0 t$. I can find no traces (even traditional) of them in Iceland; which is the more furprizing, as that inand lies nearer to Greenland than Nerefoundland does to the Labrador coaft. It is probable that they were deftroyed in very early times, when that ifland was fo infinitely more populous than it is at prefent; and the farther migration of thefe animals prevented by the amazing aggregate of ice, which in later ages blocked up and even depopulated the eaftern fide of Greenland. No vegetable, not even mofs, is to be found on that extenfive coaft to fupport thefe hardy animals. Their laft migration was from the weftern parts of Greenland, over unknown regions and fields of ice, to the inhofpitable Alps of Spitzbergen. Thefe, with the Polar Bear and Arctic Fox, form the fhort catalogue of its quadrupeds. They refide

[^14]Vol. I.
E
there

FEMALE。

Place.

Hudson's-Bay.

Labrador. Newfoundiand. Gremifand.

Spitzbergen.

## R E I N.

there throughout the year; and by wondrous inftinct difcover their food, the lichen rangiferinus, beneath the fnow, which they remove to great depths by means of their broad and fpade-like antlers; and thus find fubfiftence thirteen degrees beyond the Aratic circle *.

To the weftern fide of Hudjon's Bay I trace the Rein as far as the nation called Les Plat-coté des Cbiens $t$, the remoteft we are acquainted with in the parallel of that latitude. Beyond, are lands unknown, till we arrive at that new-difcovered chain of iflands, which extends to within a fmall diftance of $A f i a$, or the northern

Kamtschatka.

Samoiedea. cape of Kamt $\mathrm{jchatk}^{\prime}$, where I again recover thefe animals. There is reafon to imagine that they are continued acrofs the continent of America, but not on the iflands which intervene between it and Afia $\ddagger$. But in the inle of Kadjak, and others of the eafternmoft Fox illands, the inhabitants have fkins of them from the American continent, and border their bonnets with the white hairs of the domeftic Rein-deers, ftained red. They are found again in the countries which border on the Icy fea §; from which they retire, at approach of winter, towards the woods, to feed on the mofs, not only that which grows on the ground, but the fpecies pendulous from the trees. The whole north-eaft of Sibiria abounds with them. They alfo are yet found wild in the Urallian mountains; along the river Kama, as far as Kungus; and about fome fnowy fummits more fouth : and again on the high chain bordering on Sibiria on the fouth, and about lake Baikal. Towards the weft they are continued in the land of the Samoieds; and finally among the well-known Laplanders. Wild Rein-Deer are very fcarce in the north of Sweden: the Wolves having almoft extirpated this fine

[^15]and ufeful animal. It is certain that horfes cannot bear the fmell of the Rein; they will, even on the firft perception, become unmanageable, fo that the riders cannot without difficulty keep them from running away with them.-I here tranfgrefs the limits of my plan, to give a flight comparative view of the progrefs of civilization among the inhabitants of thefe frozen climes.
With the Laplanders this animal is the fubftitute to the Horfe, the $\mathrm{C}_{\Omega} \mathrm{w}$, the Sheep, and the Goat. Thofe moft innocent of people have, even under their rigorous fky, fome of the charms of a paftoral life. They have fubdued thefe animals to various ufes, and reclamed them from their wild ftate. They attend their herds of Rein-deer, during fummer, to the fummits of their alps; to the fides of their clear lakes and ftreams, often bordered with native rofes. They know the arts of the dairy, milk thefe their cattle, and make from it a rich cheefe. They train them to the fledge, confider them as their chief treafure, and cherifh them with the utmoft tendernefs.

The brutifh Samoied confiders them in no other view than as animals of draught, to convey them to the chafe of the wild Reins; which they kill for the fake of the fkins, either to cloath themfelves, or to cover their tents. They know not the cleanly delicacy of the milk or cheefe; but prefer for their repaft the inteftines of beafts, or the half-putrid flefh of a horfe, ox, or fheep, which they find dead on the high road *.
The Koreki, a nation of Kamtjcbatka, may be placed on a level with the Samoieds: they keep immenfe herds of Reins; fome of the richeft, to the amount of ten or twenty thoufand; yet fo fordid are they as to eat none except fuch which they kill for the fake of the fkins; an article of commerce with their neighbors the Kamtf-

$$
\text { * Le Bruyn, i. 7, } 8 \text {. }
$$

E 2
chatkans:

Laplanders, theirusesofit.

Samorzds.

Koreki.

## $R \quad \mathrm{I}$ N.

chatkans: otherwife they content themfelves with the flefh of thofe which die by difeafe or chance. They train them in the fledge, but neglect them for every domeftic purpofe *. Their hiftorian fays, they couple two to each carriage; and that the Deer will travel a hundred and fifty verfts in a day, that is, a hundred and twelve Englijb miles. They caftrate the males by piercing the feermatic arteries, and tying the fcrotum tight with a thong.

The inhabitants about the river Kolyma make ufe of the foft fkins of the Rein-deer, dreffed, for fails for a kind of boat called Scbitiki, caulked with mofs; and the boards as if fewed together with thongs; and the cordage made of flices of the fkin of the Elk $\dagger$.

EskIMAUX AND
Greenlanders.

The favage and uninformed E/kimaux and Greenlanders, who poffefs, amidit their fnows, thefe beautiful animals, neglect not only the domeftic ufes, but even are ignorant of their advantage in the fledge. Their element is properly the water; their game the Seals. They feem to want powers to domefticate any animals unlefs Dogs. They are at enmity with all ; confider them as an object of chafe, and of no utility till deprived of life. The flefh of the Rein is the moft coveted part of their food; they eat it raw, dreffed, and dried and fmoked with the fnow lichen. The wearied hunters will drink the raw blood; but it is ufually dreffed with the berries of the heath : they eagerly devour the contents of the ftomach, but ufe the inteftines boiled. They are very fond of the fat, and will not lofe the left bit $\ddagger$. The fkin, fometimes a part of their cloathing, dreffed with the hair on, is foft and pliant; it forms alfo the inner lining of their tents, and moft excellent blankets. The tendons are their bow-ftrings, and when fplit are the threads with which they few they jackets §.

[^16]
## R E I N.

The Greenlanders, before they acquired the knowledge of the gun, caught them by what was called the clapper-bunt *. The women and children furrounded a large fpace, and, where people were wanting, fet up poles capped with a turf in certain intervals, to terrify the animals; they then with great noife drove the Reins into the narrow defiles, where the men lay in wait and killed them with harpoons or darts. But they are now become very fcarce.
On the contrary, they are found in the neighborhood of Hudjon's Bay in moft amazing numbers, columns of eight or ten thoufand are feen annually paffing from north to fouth in the months of March and April $\dagger$, driven out of the woods by the mufketoes, feeking refrefhment on the fhore, and a quiet place to drop their young. They go to rut in September, and the males foon after fhed their horns ; they are at that feafon very fat, but fo rank and mufky as not to be eatable. The females drop their young in fune, in the moft fequeftered fpots they can find; and then they likewife lofe their horns. Beafts of prey follow the herds : firft, the Wolves, who fingle out the ftragglers (for they fear to attack the drove) detach and hunt them down : the Foxes attend at a diftance, to pick up the offals left by the former. In autumn the Deer with the Fawns re-migrate northward.

The Indians are very attentive to their motions; for the Rein forms the chief part not only of their drefs but food. They often kill multitudes for the fake of their tongues only; but generally they feparate the flefh from the bones, and preferve it by drying it in the fmoke: they alfo fave the fat, and fell it to the Englifh in bladders, who ufe it in frying inftead of butter. The fkins are alfo an article of commerce, and ufed in London by the Breechesmakers.

[^17]Multitudes IN
HUDSON's BAY. Migration

Uses.
G.

Chase. The Indians fhoot them in the winter. The Englifh make hedges, with ftakes and boughs of trees, along the woods, for five miles in length, leaving openings at proper intervals befet with fnares, in which multitudes are taken.

The Indians alfo kill great numbers during the feafons of migration, watching in their canoes, and fpearing them while paffing over the rivers of the country, or from inland to inland; for they fwim moft admirably well.

A benevolent governor of Iceland, about twenty years ago, introduced the Rein Deer into that ifland; and I am informed by Mr. Stanley, that they increafe and profper greatly.
5. Stag.

Hif. Quad. $\mathrm{N}^{\circ} 45$--Smellie, iv. 74.-Lev. Mus.
DEER. With long upright horns much branched : flender and fharp brow antlers: color a reddifh brown: belly and lower fide of the tail white: the horns often fuperior in fize to thofe of the European Stags, fome being above four feet high, and thirty pounds in weight.

Inhabits Canada, particularly the vaft forefts about the lakes; are feen in great numbers grazing with the Buffaloes on the rich favannas bordering on the Miffipi, the Miffouri, and other American rivers; they are alfo found within our Colonies, but their numbers decreafe as population gains ground. An Indian living in 1748 had killed many Stags on the fpot where Pbiladelphia now ftands *.

They feed eagerly on the broad-leaved Kalmia; yet that plant is a poifon to all other horned animals; their inteftines are found filled with it during winter. If their entrails are given to Dogs,

- Kalm, i. 336.
they become ftupified, and as if drunk, and often are fo ill as hardly to efcape with life *.

Stags are alfo found in Mexico, where they are called Aculliame: they differ not from thofe of Spain in fhape, fize, or nature $\dagger$. South America is deftitute of thefe animals : they can bear the extremes of heat but not of cold. They are found neither in Hudjon's Bay, Kamt chatka, nor in any country inhabited by the Rein-a line in a $^{\text {a }}$ manner feparates them.

Their fkins are an article of commerce imported $\ddagger$ by the Hudfon's Bay company ; but brought from the diftant parts far inland by the Indians, who bring them from the neighborhood of the lakes. In moft parts of North America they are called the Grey Moofe, and the Elk; this has given occafion to the miftaken notion of that great animal being found in Virginia, and other fouthern provinces.

The Stags of America grow very fat: their tallow is much efteemed for making of candles. The Indians fhoot them. As they are very fhy animals, the natives cover themfelves with a hide, leaving the horns erect; under fhelter of which they walk within reach of the herd. De Brie, in the xxvth plate of the Hiftory of Florida, gives a very curious reprefentation of this artful method of chafe, when it was vifited by the French in 1564.

Stags are totally extirpated in Rufia, but abound in the mountanous fouthern tract of Sibiria, where they grow to a fize far fuperior to what is known in Europe. The height of a grown Hind is four feet nine inches and a half, its length eight feet; that of its head one foot eight inches and a half.

It is pofitively faid by Stiernbook, in his treatife De jure Sueonum vetufto, that in old time Stags were unknown in Sweden, and that

[^18] of $1764,1,307$ were entered.
6. Virginian.

Hif. Quad. $\mathrm{N}^{\circ}{ }^{46}$-LLev. Mus.
DEER. With round and flender horns, bending greatly forward; numerous branches on the interior fides: deftitute of brow antlers: color of the body a cinereous brown: head of a deep brown: belly, fides, fhoulders, and thighs, white, mottled with brown: tail ten inches long, of a dufky color: feet of a yellowifh brown. Are not fo well haunched as the Engli/h Buck, and are lefs active *.
Place. Inhabits all the provinces fouth of Canada, but in greateft abundance in the fouthern; but efpecially the vaft favannas contiguous to the Mifisipi, and the great rivers which flow into it. They graze in herds innumerable, along with the Stags and Buffaloes. This fpecies probably extends to Guiana, and is the Baieu of that country, which is faid to be about the fize of a European Buck, with fhort horns, bending at their ends $\dagger$.

They are capable of being made tame; and when properly trained, are ufed by the Indians to decoy the wild Deer (efpecially

* The late ingenious Mr. Ellis fhewed me a Bezoar found in one of thefe Deer, killed in Georgia. It was of a fpheroid form, an inch and three quarters broad, half an inch thick in the middle; of a pale brown color; hard, fmooth, and glofy.
+ Bancroft.
in the rutting feafon) within fhot. Both Bucks and Does herd from September to March; after that they feparate, and the Does fecrete themfelves to bring forth, and are found with difficulty. The Bucks from this time keep feparate, till the amorous feafon of September revolves. The Deer begin to feed as foon as night begins; and fometimes, in the rainy feafon, in the day : otherwife they feldom or never quit their haunts. An old American fportfman has remarked, that the Bucks will keep in the thickets for a year, or even two *.

Thefe animals are very reftlefs, and always in motion, coming and going continually $t$. Thofe which live near the fhores are lean and bad, fubject to worms in their heads and throats, generated from the eggs depofited in thofe parts $\ddagger$. Thofe that frequent the hills and favannas are in better cafe, but the venifon is dry. In hard winters they will feed on the long mofs which hangs from the trees in the northern parts.

Thefe and other cloven-footed quadrupeds of America are very fond of falt, and refort eagerly to the places impregnated with it. They are always feen in great numbers in the fpots where the ground has been torn by torrents or other accidents, where they are feen licking the earth. Such fpots are called licking-places. The huntfmen are fure of finding the game there; for, notwithftanding they are often difturbed, the Buffaloes and Deer are fo paffionately fond of the favory regale, as to bid defiance to all danger, and return in droves to thefe favorite haunts.

The fkins are a great article of commerce, 25,027 being imported from Nerw-York and Penfllvania in the fale of 1764.

The Deer are of the firt importance to the Savages. The skins form the greateft branch of their traffick, by which they pro-

| * Doctor Garden. | $+D_{u}$ Pratz, ii. 51. | $\ddagger$ Larwfon, 124. |
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| VOL. I. | F |  |

Fond of Salt. Vol. I. Fure
cure from the colonits, by way of exchange, many of the articles of life. To all of them it is the principal food throughout the year; for by drying it over a gentle but clear fire, after cutting it into fmall pieces, it is not only capable of long prefervation, but is very portable in their fudden excurfions, efpecially when reduced to powder, which is frequently done.

Hunting is more than an amufement to thefe people. They give themfelves up to it not only for the fake of fubfiftence, but to fit themfelves for war, by habituating themfelves to fatigue. A good huntfman is an able warrior. Thofe who fail in the fports of the field are never fuppofed to be capable of fupporting the hardfhips of a campaign; they are degraded to ignoble offices, fuch as dreffing the fkins of Deer, and other employs allotted only to flaves and women *.

When a large party meditates a hunting-match, which is ufually at the beginning of winter, they agree on a place of rendezvous, often five hundred miles diftant from their homes, and a place, perhaps, that many of them had never been at. They have no other method of fixing on the fpot than by pointing with their finger. The preference is given to the eldeft, as the moft experienced $\dagger$.

When this matter is fettled, they feparate into fmall parties, travel and hunt for fubfiftence all the day, and reft at night ; but the women have no certain refting-places. The Savages have their particular hunting countries; but if they invade the limits of thofe belonging to other nations, feuds enfue, fatal as thofe between Percy and Douglas in the famed Cbery Cbace.

As foon as they arrive on the borders of the hunting country, (which they never fail doing to a man, be their refpective routes
-Lavfon, 208. $\quad+$ Cateßy, App. xii.
ever fo diftant or fo various) the captain of the band delineates on the bark of a tree his own figure, with a Rattlefnake twined round him with diftended mouth; and in his hand a bloody tomahawk. By this he implies a deftructive menace to any who are bold enough to invade their territories, or to interrupt their diverfion *.

The chafe is carried on in different ways. Some furprife the Deer by ufing the ftale of the head, horns, and hide, in the manner before mentioned: but the general method is performed by the whole body. Several hundreds difperfe in a line, encompaffing a vaft fpace of country, fire the woods, and drive the animals into fome ftrait or peninfula, where they become an eafy prey. The Deer alone are not the object; Foxes, Raccoons, Bears, and all beafts of fur, are thought worthy of attention, and articles of commerce with the Europeans.

The number of Deer deftroyed in fome parts of America is incredible; as is pretended, from an abfurd idea which the Savages have, that the more they deftroy, the more they fhall find in fucceeding years. Certain it is that multitudes are deftroyed; the tongues only preferved, and the carcafes left a prey to wild beafts. But the motive is much more political. The Savages well difcern, that fhould they overfock the market, they would certainly be over-reached by the European dealers, who take care never to produce more goods than are barely fufficient for the demand of the feafon, eftablifhing their prices according to the quantity of furs brought by the natives. The hunters live in their quarters with the utmoft feftivity, and indulgence in all the luxuries of the country. The chafe rouzes their appetites; they are perpetually eating, and will even rife to obey, at midnight, the calls of hunger. Their

- Cateßp, App. ix.

D E ER.
viands are exquifite. Venifon boiled with red peafe; turkies barbecued and eaten with bears fat; fawns cut out of the does belly, and boiled in the native bag; fifh, and crayfiif, taken in the next ftream; dried peaches, and other fruits, form the chief of their good living *. Much of this food is carminative : they give loofe to the effects, and (reverfe to the cuftom of the delicate Arabs $\dagger$ ) laugh moft heartily on the occafion $\ddagger$.

They bring along with them their wives and miftreffes : not that they pay any great refpect to the fair. They make (like the Catbnefians) errant pack-horfes of them, loading them with provifions, or the fkins of the chafe; or making them provide fire-wood. Love is not the paffion of a Savage, at left it is as brief with them as with the animals they purfue.

Mr. Hutchins was prefented, by the Weabipouk Indians, with a Deer four feet eight inches long, and three feet two high. It was entirely white, except the back, which was mottled with brown. The fur was fhort and fine, like that of the Ermine. The Indians, in their manner of expreffion, faid it came from a place where there was little or no day.
7. Mexican.

Mexican Roe? Hijf. Quad. No 52.-Smellie, iv. 136.
DEER. With horns near nine inches long, meafuring by the curvature; and near nine inches between tip and tip, and two inches diftant between the bafes. About an inch and a half from the bottom is one fharp erect fnag. This, and the lower parts of the horns, are very rough, ftrong, and fcabrous. The upper parts bend forwards over the bafes; are fmooth, flatted, and broad, dividing into three fharp fnags. Color of the hair like the Eu-

* Lawdon, 207. $+D^{\prime}$ Arvieux's travels, 147.
$\ddagger$ Larwon, 207.
ropean Roe; but while young are rayed with white. In fize fomewhat fuperior to the European Roe.

Inhabits Mexico*; probably extends to the interior north-weftern parts of America, and may prove the Scenoontung or Squinaton, defcribed as being lefs than a Buck and larger than a Roe, but very like it, and of an elegant form $\dagger$

$$
\text { Hift. } 2^{\text {uad. } \mathrm{N}^{\circ}} 5 \mathrm{r} \text {.-Smellie, iv. 120.-Lev. Mus. }
$$

DE ER. With upright, round, rugged horns, trifurcated: hairs tawny at their ends, grey below : rump and under-fide of the tail white. Length near four feet: tail only an inch.

According to Cbarlevoix, they are found in great numbers in Canada. He fays they differ not from the European kind: are eafily domefticated, The Does will retreat into the woods to bring forth, and return to their mafter with their young $\ddagger$. They extend far weft $\S$. If Pijo's figure may be depended on, they are found in Brazil II; are frequent in Europe; and inhabit as high as Sweden and Norway II: is unknown in Ruffa.

Roes are at prefent found fcarcely any where but in the foreft of Smaland, and that but rarely. The female brings only two at a time: the buck will defend itfelf with courage againft the dogs, when driven to extremity. They never make a ring when they are hunted, but run ftrait forward, two or three Swedifh miles, or twelve or eighteen Englifh; and then return along their former track; but fo fatigued as feldom to efcape.

- Hernandez. + Dobbs's Hudjon's Bay, 24. $\ddagger$ Hif. Nouv. France, v. $195^{\circ}$ § Dobbs's Hudjon's Bay, 24. $\|$ 97. If Faun. Suec. No 43, and Pontopo Norway, ii. 9 .

A. Tail-less Roe, Hift. 2uad. p. 109.

In its ftead is a larger variety: with horns like the laft, and color the fame; only a great bed of white covers the rump, and extends fome way up the back: no tail, only a broad cutaneous excrefcence around the anus.

Inhabits all the temperate parts of Rufia and Sibiria, and extends as far to the north as the Elk. Defcends to the open plains in the winter. The Tartars call it Saiga: the Ruflans Dikaja Roza.
B. Fallow-deer, Hift. 2uad. $\mathrm{N}^{0} 44$.

Are animals impatient of cold: are unknown in the Ruffian empire, except by importation: and are preferved in parks in Sweden*. The Englifh tranflator of Pontoppidan mentions them (perhaps erroneoufly) among the deer of Norway.

Fallow-deer feem not to have been natives of Sweden; there are none in the forefts, but which have efcaped out of the king's parks: fuch as thofe near the capital; in the inle of Oeland; that of Wefengore, in lake Wetter; and at Omberg. Even Stags are rare in a ftate of nature, and thofe only in the forefts of Smaland.

* Du Pratz, ii. 54 .


## M U S K. Hijf. 2uad. Genus. X.

A. Tibet M. Hif. 2uad. No 54 --Mofchus, Pallas Sp. Zool. fafc. xiii. Lev. Mus.

MUS K. With very fharp flender white tufks on each fide of the upper jaw, hanging out far below the under jaw : ears rather large : neck thick: hair on the whole body long, upright, and thick fet; each hair undulated; tips ferruginous; beneath them black ; the bottoms cinereous : on each fide of the front of the neck is a white line edged with black, meeting at the cheft; another croffes that beneath the throat: limbs very flender, and of a full black: tail very fhort, and fcarcely vifible. The female wants the tufks and the murk-bag.

The mufk-bag is placed on the belly, almoft between the thighs. A full-grown male will yield a drachm and a half of mufk; an old one two drachms.

The length of the male is two feet eleven; of the female, two feet three. The weight of a male from twenty-five to thirty pounds, Troy weight: of an old female, from thirty to thirty-five; but fome young ones do not exceed eighteen.

Inhabits Afa, from lat. 20 to 60 , or from the kingdoms of Laos and Tong-King, between India and Cbina, and through the kingdom of Tibet* as high as Mangajea. The river Yenefei is its weftern boundary, and it extends eaftward as far as lake Baikal, and about the rivers Lena and Witim; but gradually narrows the extent of its refidence as it approaches the tropic. Lives on the higheft and rudeft mountains, amidft the fnows, or in the fir-woods which lie

- Correct in p. 113, Hijf. 2uad. 9. 44 or 45 , read 20.

40
between them: goes ufually folitary, except in autumn, when they collect in flocks to change their place: are exceffively active, and take amazing leaps over the tremendous chafms of their alps, or from rock to rock: tread fo light on the fnow, with their true and falfe hoofs extended, as fcarcely to leave a mark; while the dogs which purfue them fink in, and are forced to defift from the chafe: are fo fond of liberty as never to be kept alive in captivity. They feed on licbens, arbutus, rbododendron, and whortleberry-plants. Their chafe is moft laborious: they are taken in fnares; or fhot by crofsbows placed in their tracks, with a ftring from the trigger for them to tread on and difcharge. The Tungufi fhoot them with bows and arrows. The fkins are ufed for bonnets and winter dreffes. The Ruffians often fcrape off the hair, and have a way of preparing them for fummer cloathing, fo as to become as foft and fhining as filk.
Camel.

Wild Boar.
The two other hoofed animals of the north of Afia, the Twobunched Camel, and the Wild Boar, do not reach as high as lat. 60: the firft is found in great troops about lake Baikal, as far as lat. $5^{6}$ or 57 ; but if brought as high as $\mathfrak{F a k u t} / k$, beyond lat. 60 , perifh with cold *. The Wild Boar is common in all the reedy marfhes of Tartary and Sibiria, and the mountanous forefts about lake Baikal, almoft to lat. 55 ; but none in the north-eaftern extremity of Sibiria.

- Zimmerman, $357^{\circ}$


## D I V. II.

## DIGITATED QUADRUPEDS.

S E C T. I. With Canine Teeth.

D I V. II. Digitated Quadrupeds.

S E C T. I. With Canine Teeth. Rapacious, Carnivorous.

DOG.
9. Woly.

HIST. $2 U A D . \quad G e n u s$ XVII.
Hif. 2uad. No 137.-Smellie, iv. 196.-Lev. Mus.
OG. With a long head : pointed nofe : ears fharp and erect: legs long: tail bufhy, bending down: hair pretty long. Color ufually of a pale brown, mixed with dull yellow and black. Inhabits the interior countries fouth of Hudjon's Bay; and from thence all America, as low as Florida. There are two varieties, a greater and a leffer. The firft ufually confines itfelf to the colder parts. The latter is not above fifteen inches high *. In the more uninhabited parts of the country, they go in great droves, and hunt the deer like a pack of hounds, and make a hideous noife. They will attack the Buffalo; but only venture on the ftragglers. In the unfrequented parts of America are very tame, and will come near the few habitations in hopes of finding fomething to eat. They are often fo very poor and hungry, for want of prey, as to go into a fwamp and fill themfelves with mud, which they will difgorge as foon as they can get any food.
Color,

The Wolves towards Hudjon's Bay are of different colors; grey and white; and fome black and white, the black hairs being mixed with the white chiefly along the back. In Canada they have been
found entirely black *. They are taken in the northern parts in log-traps, or by fpring-guns; their fkins being an article of commerce.

In the Leverian mufeum is the head and fcull of a wolf: dufky and brown, formed by the natives into a helmet. The protection of the head was the natural and firft thought of mankind; and the fpoils of beafts were the firtt things that offered. Hercules feized on the fkin of the Lion: the Americans, and ancient Latians that of the Wolf.

## Fulvofque Lupi de pelle galeros

Tegmen habet capiti.
Wolves are now fo rare in the populated parts of America, that the inhabitants leave their fheep the whole night unguarded : yet the governments of Penfylvania and New ferfey did fome years ago allow a reward of twenty fillings, and the laft even thirty fhillings, for the killing of every Wolf. Tradition informed them what a fcourge thofe animals had been to the colonies; fo they wifely determined to prevent the like evil. In their infant ftate, wolves came down in multitudes from the mountains, often attracted by the fmell of the corpfes of hundreds of Indians who died of the fmallpox, brought among them by the Europeans : but the animals did not confine their infults to the dead, but even devoured in their huts the fick and dying Savages $\dagger$.

The Wolf is capable of being in fome degree tamed and domefticated $\ddagger$. It was, at the firft arrival of the Europeans, and is ftill in many places, the Dog of the Americans §. It ftill betrays its favage defcent, by uttering only a howl inftead of the fignificant bark of the genuine Dog. This half-reclamed breed wants the

* Smellic, iv. 212. -Lawfon, IIg.
+ Kalm, i. 285. Smitb's Hift. Virginia, 27.-Crantz Greenland, i. 74.
fagacity of our faithful attendant; and is of little farther ufe in the chafe, than in frightening the wild beafts into the fnares or traps.
The Kamtccbatkans, Efkimaux, and Greenlanders, ftrangers to the fofter virtues, treat thefe poor animals with great neglect. The former, during fummer, the feafon in which they are ufelefs, turn them loofe to provide for themfelves; and recall them in October into their ufual confinement and labor: from that time till fpring they are fed with fifh-bones and opana, i. e. putrid fifh preferved in pits, and ferved up to them mixed with hot water. Thofe ufed for draught are caftrated ; and four, yoked to the carriage, will draw five poods, or a hundred and ninety Englifb pounds, befides the driver; and thus loaden, will travel thirty verfts, or twenty miles, a day ; or if unloaden, on hardened fnow, on fliders of bone, a hundred and fifty verfts, or a hundred Englifb miles *.
It is pretty certain that the Kamtcichatkan Dogs are of wolfifh defcent ; for Wolves abound in that country, in all parts of Sibiria, and even under the Arctic circle. If their mafter is flung out of his fledge, they want the affectionate fidelity of the European kind, and leave him to follow, never ftopping till the fledge is overturned, or elfe ftopped by fome impediment $\dagger$. I am alfo ftrengthened in my opinion by the ftrong rage they have for the purfuit of deer, if on the journey they crofs $\ddagger$ the fcent; when the mafter finds it very difficult to make them purfue their way.

The great traveller of the thirteenth century, Marco Polo, had knowledge of this fpecies of conveyance from the merchants who went far north to traffic for the precious furs. He defcribes the

[^19]fledges ; adds, that they were drawn by fix great dogs ; and that they changed them and the fledges on the road, as we do at prefent in going poft *.
The Kamt fchatkans make ufe of the fkins of dogs for cloathing, and the long hair for ornament : fome nations are fond of them as a food; and reckon a fat dog a great delicacy $\dagger$. Both the Afiatic and American Savages ufe thefe animals in facrifices to their gods $\ddagger$, to befpeak favor, or avert evil. When the Koreki dread any infection, they kill a dog, wind the inteftines round two poles, and pafs between them.
The Greenlanders are not better mafters. They leave their dogs to feed on muffels or berries; unlefs in a great capture of feals, when they treat them with the blood and garbage. Thefe people alfo fometimes eat their dogs : ufe the fkins for coverlets, for cloathing, or to border and feam their habits : and their beft thread is made of the guts.
The Dogs in general are large; and, in the frigid parts at left, have the appearance of Wolves : are ufually white, with a black face; fometimes varied with black and white, fometimes all white; rarely brown, or all black : have fharp nofes, thick hair, and fhort ears : and feldom bark; but fet up a fort of growl, or favage howl. They fleep abroad; and make a lodge in the fnow, lying with only their nofes out. They fwim moft excellently : and will hunt, in packs, the ptarmigan, arctic fox, polar bear, and feals lying on the ice. The natives fometimes ufe them in the chafe of the bear. They are exceffively fierce; and, like wolves, inftantly fly on the few domeftic animals introduced into Greenland. They will fight among themfelves, even to death. Canine mad-

[^20]nefs is unknown in Greenland*. They are to the natives in the place of horfes: the Greenlanders faften to their nedges from four to ten; and thus make their vifits in favage ftate, or bring home the animals they have killed. Egede fays that they will travel over the ice fifteen German miles in a day, or fixty Englifh, with fledges loaden with their mafters and five or fix large feals $\dagger$.

Thofe of the neighboring ifland of Iceland have a great refemblance to them. As to thofe of Nerofoundland, it is not certain that there is any diftinct breed : moft of them are curs, with a crofs of the maftiff: fome will, and others will not, take the water, abfolutely refufing to go in. The country was found uninhabited, which makes it more probable that they were introduced by the Europeans; who ufe them, as the factory does in Hudjon's Bay, to draw firing from the woods to the forts.

The Savages who trade to Hudjon's Bay make ufe of the wolfifh kind to draw their furs.

It is fingular, that the race of European Dogs fhew as ftrong an antipathy to this American fpecies, as they do to the Wolf itfelf. They never meet with them, but they fhew all poffible figns of dinike, and will fall on and worry them; while the wolfifh breed, with every mark of timidity, puts its tail between its legs, and runs from the rage of the others. This averfion to the Wolf is natural to all genuine Dogs: for it is well known that a whelp, which has never feen a wolf, will at firft fight tremble, and run to its mafter for protection : an old dog will inftantly attack it.
I fhall conclude this article with an abftract of a letter from Dr. Pallas, dated October 5th, 1781 ; in which he gives the following confirmation of the mixed breed of thefe animals and Dogs.
"I have feen at Mofcow about twenty fpurious animals from " dogs and black wolves. They are for the moft part like wolves,

- Faun. Greenl. p. 1 g.

$$
+ \text { Egede, } 6_{3} \text {-Crantz, i. } 74 \text {. "except }
$$

" except that fome carry their tails higher, and have a kind of " coarfe barking. They multiply among themfelves : and fome
" of the whelps are greyifh, rufty, or even of the whitifh hue of " the Arctic wolves : and one of thofe I faw, in thape, tail, and " hair, and even in barking, fo like a cur, that, was it not for his " head and ears, his ill-natured look, and fearfulnefs at the ap" proach of man, I fhould hardly have believed that it was of "the fame breed."
In many parts of Sweden the number of Wolves has been confiderably diminifhed by placing poifoned carcafes in their way: but in other places they are found in great multitudes. Hunger fometimes compels them to eat lichens; thofe vegetables were found in the body of one killed by a foldier, but it was fo weak, that it could fcarcely move. It probably had fed on the lichen vulpinus, which is a known poifon to thefe animals.

Madnefs, in certain years, is very apt to feize the Wolf. The confequences are often very melancholy. Mad Wolves will bite Hogs and Dogs, and the laft again, the human fpecies. In a fingle parifh fourteen perfons were victims to this dreadful malady. The fymptoms are the fame with thofe attendant on the bite of a mad dog. Fury fparkles in their eyes ; a glutinous faliva diftils from their mouths; they carry their tails low, and bite indifferently men and beafts. It is remarkable that this difeafe happens in the depth of winter, fo can never be attributed to the rage of the dogdays.

Often, towards fpring, Wolves get upon the ice of the fea, to prey on the young Seals, which they catch afleep: but this repaft often proves fatal to them; for the ice, detached from the fhore, carries them to a great diftance from land, before they are fenfible of it. In fome years a large diftrict is by this means delivered from thefe pernicious beafts; which are heard howling in a moft dreadful manner, far in the fea,

When Wolves come to make their attack on cattle, they never fail attempting to frighten away the men by their cries; but the found of the horn makes them fly like lightning.
10. Arctic.

Arctic Fox, Hif. Quad. No -Lev. Mus.
DOG. With a fharp nofe : ears almoft hid in the fur, fhort and rounded : hair long, foft, and filky: legs fhort: toes covered above and below with very thick and foft fur: tail fhorter than that of the common Fox, and more bufhy.

Inferior in fize to the common Fox: color a blueifh-grey, and fometimes white. The young, before they come to maturity, dufky. The hair, as ufual in cold regions, grows much thicker and longer in winter than fummer.

Thefe animals are found only in the Arctic regions, a few degrees within and without the Polar circle. They inhabit Spitzbergen, Greenland, and Iceland *: are only migratory in Hudjon's Bay, once in four or five years $\dagger$ : are found again in Bering's and $\ddagger$ Copper Ille, next to it; but in none beyond: in Kamtfcbatka, and all the countries bordering on the frozen fea, which feems their great refidence; comprehending a woodlefs tract of heath land, generally from 70 to 65 degrees lat. They abound in Nova Zembla ||: are found in Cherry ifland, midway between Finmark and Spitzbergen $\S$, to which they muft have been brought on inlands of ice; for it lies above four degrees north of the firf, and three fouth of the laft: and laftly, in the bare mountains between Lapland and Norway. When the Arctic Fox has been in purfuit of the wandering Lemmus, p. 136. ArEt. Zool. it fometimes lofes its way home, and has been taken in places far from its

* Egede, 62.-Marten's Spitzb. 100.-Horrebow's Iceland, 43. + Mr. Grabam. $\ddagger$ Muller's Col. Voy. 53 . \|I Heemßirk's Koy. 34. § Purchas, iii. 559. natural


## A R C T I C F O X.

natural haunts. The late Mr. Kalm has left an inftance of one being taken in Wefrogotbia. Profeffor Retzius favored me with an account of one fhot near to Lund, in lat. 55.42.

They are the hardieft of animals, and even in Spitzbergen and Nova Zembla prowl out for prey during the feverity of winter They live on the young wild geefe, and all kind of water-fowl; on their eggs ; on hares, or any leffer animals; and in Greenland, (through neceffity) on berries, fhell-fifh, or whatfoever the fea throws up. But in the north of Afia, and in Lapland, their principal food is the Lemings *. The Arctic foxes of thofe countries are as migratory as thofe little animals; and when the laft make their great migrations, the latter purfue them in vaft troops. But fuch removals are not only uncertain, but long: dependent on thofe of the Leming. The Foxes will at times defert their native countries for three or four years, probably as long as they can find any prey. The people of Yenifea imagine, that the wanderers from their parts go to the banks of the Oby.

Thofe found on Bering's and Copper Iles were probably brought from the Afatic fide on floating ice: Steller having feen in the remoter iflands only the black and brown foxes : and the fame only on the continent of America. They burrow in the earth, and form holes many feet in length ; ftrewing the bottom with mofs. But in Spitzbergen and Greenland, where the ground is eternally frozen, they live in the cliffs of rocks : two or three inhabit the fame hole. They fwim well, and often crofs from ifland to ifland in fearch of prey. They are in heat about Lady-day; and during that time continue in the open air: after that, retreat to their earths. Like

[^21]Vol, I.

AR C T I C FO X.
dogs, continue united in copulation: bark like them: for which reafon the Rufians call them Pefzti. They couple in Greenland in March, and again in May; and bring forth in April and in fune*.

They are tame and inoffenfive animals; and fo fimple, that there are inftances of their ftanding by when the trap was bating, and inftantly after putting their heads into it. They are killed for the fake of their fkins, both in Afia and Hudjon's Bay: the fur is light and warm, but not durable. Mr. Grabam informed me, that they have appeared in fuch numbers about the fort, that he has taken, in different ways, four hundred from December to March. He likewife affured me, that the tips of their tails are always black; thofe of the common foxes always white: and that he never could trace the breeding-places of the former.

The Greenlanders take them either in pitfalls dug in the fnow, and baited with the Capelin fifh; or in fprings made with whale-bone, laid over a hole made in the fnow, ftrewed over at bottom with the fame kind of firh; or in traps made like little huts, with flat ftones, with a broad one by way of door, which falls down (by means of a ftring baited on the infide with a piece of flefh) whenever the fox enters and pulls at it $\dagger$. The Greenlanders preferve the fkins for traffic ; and in cafes of neceffity eat the flefh. They alfo make buttons of the fkins: and fplit the tendons, and make ufe of them inftead of thread. The blue furs are much more efteemed than the white.
so A. The Sooty. D. with a dulky fur on every part; in fize and habit refembling the former.

A diftinct fpecies. Inhabits Iceland in great numbers. Commupicated to me by Fobn Thomas Stanley, Efq; who, excited by his paf-

* Faun. Groenl. 20. $\quad+$ Crantz, i. 72.
fion


## EUROPEAN FOX.

fion for fcience, in 1789 made a voyage to Iceland; and returned highly informed of the various inftructive particulars refpecting that wondrous ifland.
so B. Greenland. D. above of a footy brown: ears rounded, white within: a white bed extends from each to the lower part of the throat; which, with the whole underfide, and infide of the haunches, is white: tail white below, brown above; in one fpecimen the one half of the tail wholly white: beneath each eye a white fpot: feet furred beneath. A very fmall fpecies.

Inhabits Greenland. Bought by Mr. Stanley, at Copenbagen.

European Fox, Hif. 2uad. No 139.-Smellie, iv. 214.-LEv. Mus,
71. European. OG. With a pointed nofe : pointed erect ears : body of a tawny red, mixed with afh-color: fore part of the legs black: tail long and bufhy, tipt with white.

Inhabits the northern parts of Nortb America, from Hudjon's Bay probably acrofs the continent to the iflands intermediate between America and Kamtfchatka. Captain Bering faw there five quite tame, being unufed to the fight of man.

This fpecies gradually decreafes to the fouthward, in numbers and in fize: none are found lower than Penfllvania. They are fuppofed not to have been originally natives of that country. The Indians believe they came from the north of Europe in an exceffive hard winter, when the fea was frozen. The truth feems to be, that they were driven in fome fevere feafon from the north of their own country, and have continued there ever fince. They abound about Hudjon's Bay, the Labrador country, and in Nerefoundland $\mathrm{H}_{2}$
and
and Canada; and are found in Iceland*. They burrow as the European foxes do; and in Hudjon's Bay, during winter, run about the woods in fearch of prey, feeding on birds and leffer animals, particularly mice.

New England is faid to have been early focked with foxes by a gentleman who imported them from England, for the pleafure of the chafe $\dagger$; and that the prefent breed fprung from the occafion. This fpecies is reckoned among the pernicious animals, and, being very deftructive to lambs, are profcribed at the rate of two fhillings a head.

The variety of Britifl fox, with a black tip to the tail, feems unknown in America.

The fkins are a great article of commerce: abundance are imported annually from Hudjon's Bay and Nerofoundland. The natives of Hudfon's Bay eat the flefh, rank as it is.

This fpecies abounds in Kamtfchatka, and is the fineft red fur of any known: grows fcarce within the Arctic circle of the Afatic regions, and is found there often white.
\& Black. THIS variety is found very often entirely black, with a white tip to the tail; and is far inferior in value and beauty to thofe of Kamt Jcbatka and Sibiria, where a fingle fkin fells for four hundred rubles.

The beft in North America are found on the Labrador fide of Hudjon's Bay. They are alfo very common on the iflands oppofite to Kamt ccbatka. The American black foxes, which I have examined, are frequently of a mixed color: from the hind part of the head to

Olaffen, i. 31. $\quad$ Kalm, i. 283.

## CROSS AND BRANT FOX.

the middle of the back is a broad black line : the tail, legs, and belly, black: the hairs on the face, fides, and lower part of the back, cinereous; their upper ends black; the tip white.

FOX. With a bed of black running along the top of the back, croffed by another paffing down each fhoulder; from whence it took the name. The belly is black : the color of the reft of the body varies in different fkins; but in all is a mixture of black, cinereous, and yellow : the fur in all very foft : and the tail very bufhy and full of hair; for nature, in the rigorous climate of the North, is ever careful to guard the extremities againft the injury of cold.

This is likewife a very valuable variety. It is remarked, that the more defireable the fur is, the more cunning and difficult to be taken is the fox which owns it *. The Coffacks quartered in Kamtfobatka have attempted for two winters to catch a fingle black fox. The Crofs-fox, Vulpes crucigera of Gefner, and Kors-raef of the Swedes $t$, is found in all the Polar countries.

In the new-difcovered Fox ilands thefe animals abound: one in three or four are found entirely black, and larger than any in Sibiria: the tail alfo is tipt with white. But as they live among the rocks, there being no woods in thofe iflands, their hair is almoft as coarfe as that of the Wolf, and of little value compared to the Sibirian.

## Brant Fox, Hif. 2uad. p. $235^{\circ}$

FOX. With a very fharp and black nofe: fpace round the ears ferruginous: forehead, back, fhoulders, fides, and thighs, red, cinereous, and black: the afh-color predominates, which

- Hif. Kamtfchatka, 95. + Gefner 2uad. 967.-Faun. Suec. $\mathrm{N}^{\circ} 4$.
gives

[^22]gives it a hoary look : belly yellowifh : tail black above, cinereous on the fides, red beneath.

About half the fize of the common fox. Defcribed from one Mr. Brooks received from Penfylvania, under the name of Brandtfox; but it had not that bright rednefs to merit the name of either Brandt-fuchfe, or Brand-raef, given by Gefner and Linnaus.
:Corsak.
Corfak Fox, Hijf. 2uad. p. 236 .
HOX. With upright ears: yellowifh-green irides: throat white : color, in fummer, pale tawny; in winter, cinereous: middle of the tail cinereous; bafe and tip black; the whole very full of hair: the fur is coarfer and fhorter than that of the common fox.

I difcovered this fpecies among the drawings of the late Taylor White, Efq; who informed me that it came from Nortb America. I imagine, from Hudfon's Bay.

This fpecies is very common in the hilly and temperate parts of Tartary, from the Don to the Amur; but never is found in woody places: it burrows deep beneath the furface. It is alfo faid to inhabit the banks of the rivers Indigikky and Anadyr, where the hills grow bare. In the reft of Sibiria it is only known beyond lake Baikal; and from fkins brought by the Kirgbifian and Bucbarian traders. In Rufla it is found in the defarts towards Crimea and Aftracan, and alfo on the fouthern end of the Urallian mountains.
32. Grey.

Grey Fox, Hijf. 2uad. No 142.
FOX. With a fharp nofe: long fharp upright ears: long legs: color entirely grey, except a little rednefs about the cars.

## GREY and SILVERY FOX.

Inhabits from New England to the fouthern end of North America; but are far more numerous in the fouthern colonies. They have not the rank fmell of the red foxes. They are alfo lefs active, and grow very fat*. They breed in hollow trees: give no diverfion to the fportfmen, for after a mile's chafe they run up a tree $\dagger$. They feed on birds; are deftructive to poultry; but never deftroy lambs $\ddagger$. The fkins are ufed to line clothes: the fur is in great requeft among the hatters. The greafe is reckoned efficacious in rheumatic diforders.

$$
\text { Silvery Fox, Hif. 2 uad. No } 143 \text {. }
$$

FOX. With a fine and thick coat of a deep brown color, overfpread with long filvery hairs of a moft elegant appearance.
Inhabits Louifana, where their holes are feen in great abundance on the woody heights. As they live in forefts, which abound in game, they never moleft the poultry, fo are fuffered to run at large $\S$.

They differ fpecifically from the former, more by their nature in burrowing, than in colors.

Mr. Hutcbins informed me of a whitifh grey Fox, no larger than a Hare, common among the Arcbitbinue Indians : four thoufand of their fkins have been fent in one year to the factories.

[^23]CAT.
14. Puma.

HIST. $2 U A D$. Genus XIX.

Hif. 2uad. No 160.-Smellie, v. 197. 200.-Lev. Mus.

A T. With a fmall head; large eyes : ears a little pointed: chin white: back, neck, fides, and rump, of a pale brownifh red, mixed with dufky hairs: breaft, belly, and infide of the legs, cinereous: tail a mixture of dufky and ferruginous, the tip black.

The teeth of a vaft fize: claws whitifh; the outmoft claw of the fore feet much larger than the reft: the body very long: the legs bigh and ftrong. The length of that I examined was five feet three from head to tail ; of the tail, two feet eight.

Inhabits the continent of North America, from Canada to Florida; and the fpecies is continued from thence low into South America, through Mexico, Guiana, Brafil, and the province of Quito, in Peru, where it is called Puma, and by the Europeans miftaken for a Lion: it is, by reafon of its fiercenefs, the fcourge of the country. The different climate of North America feems to have fubdued its rage, and rendered it very fearful of mankind: the left cur, in company with his mafter, will make it run up a tree *, which is the opportunity of fhooting it. It proves, if not killed outright, a dangerous enemy; for it will defcend, and attack either man or beaft. The flefh is white, and reckoned very good. The Indians ufe the fkin for winter habits ; and when dreffed is made into fhoes for women, and gloves for men $\dagger$.

$$
\text { Catefby, App, xxv. } \quad+\text { Lawufon, } 118
$$

P U M A. L Y NX.

It is called in Nortb America the Panther, and is the moft pernicious animal of that continent. Lives in the forefts. Sometimes purs, at other times makes a great howling. Is extremely deftructive to domeftic animals, particularly to hogs. It preys alfo upon the Moofe, and other deer; falling on them from the tree it lurks in, and never quits its hold*. The deer has no other way of faving itfelf, but by plunging into the water, if there happens to be any near; for the Panther, like the Cat, detefts that element. It will feed even on beafts of prey. I have feen the fkin of one which was fhot, juft as it had killed a wolf. When it has fatisfied itfelf with eating, it carefully conceals the reft of the carcafe, covering it with leaves. If any other animal touches the reliques, it never touches them again.

$$
\text { Hif. } 2 \text { uad. } \mathrm{N}^{0} \text { 170.-Smellie, v. 207. 217.-Lev. Mus. }
$$

CAT. With pale yellow eyes: ears erect, tufted with black long hair: body covered with foft and long fur, cinereous tinged with tawny, and marked with dufky fpots, more or lefs vifible in different fubjects, dependent on the age, or feafon in which the animal is killed: the legs ftrong and thick: the claws large. About three times the fize of a common Cat: the tail only four inches long, tipt with black.

Inhabits the vaft forefts of North America: is called in Canada, Le Cbat, ou Le Loup-cervier $\dagger$, on account of its being fo deftructive to deer; which it drops on from the trees, like the former, and,

[^24]fixing on the jugular vein, never quits its hold till the exhaufted animal falls through lofs of blood *.
The Englijh call it a Wild Cat. It is very deftructive to their young pigs, poultry, and all kind of game. The fkins are in high efteem for the foftnefs and warmnefs of the fur; and great numbers are annually imported into Europe.

The Lynx is the moft formidable enemy which the Sheep has: it is pretended that they only fuck the blood: but it is pretty certain that they alfo devour the liver and lungs, for thofe parts are often found eaten. The little Kat-lo or Lynx is very fcarce; its fur is efteemed more valuable than that of the greater or Warglo. It is fuppofed to be a particular fpecies. -Mr . Oedman.
16. BAY.

Bay Lynx. Hif. 2uad. No 171.
CAT. With yellow irides: ears like the former: color of the head, body, and outfide of the legs and thighs, a bright bay, obfcurely marked with durky fpots: the forehead marked with black ftripes from the head to the nofe : cheeks white, varied with three or four incurvated lines of black : the upper and under lip, belly, and infides of the legs and thighs, white: the infide of the upper part of the fore legs croffed with two black bars: the tail fhort; the upper part marked with dulky bars, and near the end with one of black ; the under fide white. In fize, about twice that of a common Cat; the fur fhorter and fmoother than that of the former.

This fpecies is found in the internal parts of the province of Nerw York. I faw one living a few years ago in London. The black bars on the legs and tail are fpecific marks.

- Lawjon, 118.-Catefoy, App. xxv.


## MOUNTAINCAT.

Hift. 2uad. No 168.
Cat-a-mountain ? Lawfon, 118.—Du Pratz, ii. 64.

CAT. With upright pointed ears, marked with two brown bars: head and upper part of the body of a reddifh brown, with long narrow ftripes of black: the fides and legs with fmall round fpots: chin and throat of a clear white: belly of a dull white: tail eight inches long, barred with black. Length from nofe to tail two feet and a half.

Inhabits North America. Is faid to be a gentle animal, and to grow very fat. Defcribed originally in the Memoires de l'Academie: fince which an account of another, taken in Carolina, was communicated by the late Mr. Collinfon to the Count de Buffon *. The only difference is in fize; for the laft was only nineteen inches long: the tail four; but the fame characteriftic ftripes, fpots, and bars, on the tail, were fimilar in both.

There ftill remain undefcribed fome animals of the Feline race, which are found in North America, but too obfcurely mentioned by travellers to be afcertained. Such is the beaft which Larejon faw to the weftward of Carolina, and calls a Tiger. He fays it was larger than the Panther, i. e. Puma, and that it differed from the Tiger of Afia and Africa $\dagger$. It poffibly may be the Brafilian Panther, Hifo. Quad. $\mathrm{N}^{\circ}{ }^{1} 58$, which may extend further north than we imagine. It may likewife be the Cat-a-mount of Du Pratz $\ddagger$; which, he fays, is as high as the Tiger, i. e. Puma, and the fkin extremely beautiful.

The Pijoux of Louifiana, mentioned by Cbarlevoix §, are alfo ob-

[^25]59
17. Mountain.

Size,

Obscure Specres.

60
D O MESTIC CAT.
fcure animals. He fays they are very like our Wild Cats, but larger: that fome have fhorter tails, and others longer. The firft may be referred to one of the three laft fpecies; the laft may be our Cayenne Cat, $\mathrm{N}^{\circ}{ }^{1} 63$.


Domeftic Cats are kept in Iceland and Norrway *. Some of them efcape and relapfe to a favage ftate. In Iceland thofe are called $U_{r}$ dakelter, becaufe they live under rocks and loofe ftones, where they hide themfelves. They prey on fmall birds. The moft valuable of their fkins are fold for twelve Dani/b fkillings, or fix pence apiece. Linnous, fpeaking of the cats of Sroeden, fays, they are of exotic origin $t$. They are not found wild either in that kingdom, or any part of the Rufian dominions. Unknown in America.
*Olaf. Iceland, i. Paragr. 80.-Pontop. ii. 8.

## HIST. QUAD. GENus XX.

Hiff. Quad. No 175.-Lev. Mus.

BEAR. With a long narrow head and neck: tip of the nofe black: teeth of a tremendous magnitude: hair of a great length, foft, and white, and in part tinged with yellow: limbs very thick and ftrong : ears fhort and rounded.

Travellers vary about their fize. De Buffon quotes the authority of Gerard le Ver* for the length of one of the fkins, which, he fays, was twenty-three feet. This feems to be extremely mifreprefented; for Gerard, who was a companion of the famous Barentz, and Heemfkirk, a voyager of the firft credit, killed feveral on Nova Zembla, the largeft of which did not exceed thirteen feet in length $\dagger$. They feem fmaller on Spitzbergen: one meafured by order of a noble and able navigator $\ddagger$, in his late voyage towards the Pole, was as follows: I give all the meafurements to afcertain the proportions.
Length from fnout to tail
from fnout to fhoulder-bone
Feight.
He the fhoulder
Circumference near the fore legs
of the neck near the ear
Breadth of the fore-paw
Weight of the carcafe without the head,
fkin, or entrails -

* De Buffon, Suppl. iii. 200. + See Le Ver, p. 14. ed. 1606. Amfeld.

[^26]BEAR.
18. Polar.

POLAR BEAR.

This fpecies, like the Rein and Arctic Fox, almoft entirely furrounds the neighborhood of the Polar circle. It is found within it, far as navigators have penetrated; in the inland of Spitzbergen, and within Baffin's Bay; in Greenland and Hudjon's Bay; in Terra di Labrador *; and, by accident, wafted from Greenland, on iflands of ice, to Iceland and Nerefoundland. It perhaps attends the courfe of the Arctic circle along the vaft regions of America; but it is unknown in the groupes of inlands between that continent and Afa; neither is it found on the T'cbuktki Nofs, or the Great Cape, which juts into the fea north of Kamtccbatka $\dagger$. None are ever feen in that country. But they are frequent on all the coafts of the Frozen Ocean, from the mouth of the $\mathrm{Ob} \ddagger$, eaftward; and abound moft about the eftuaries of the Fenefei and T.ena. They appear about thofe favage tracts, and abound in the unfrequented iflands of Nova Zembla, Cberry, and Spitzbergen, where they find winter quarters undifturbed by mankind. The fpecies is happily unknown along the fhores of the White fea, and thofe of Lapland and Norway. Poffibly even thofe rigorous climates may be too mild for animals that affect the utmoft feverity of the Arctic zone. They never are feen farther fouth in Sibiria than Mangafea, nor wander into the woody parts, unlefs by accident in great mifts.

They are fometimes brought alive into England. One which I faw was always in motion, reftlefs, and furious, roaring in a loud and hoarfe tone; and fo impatient of warmth, that the kecper was obliged to pour on it frequently pailfuls of water. In a ftate of nature, and in places little vifited by mankind, they are of dreadful ferocity. In Spitzbergen, and the other places annually frequented by the human race, they dread its power, having experienced its fuperiority,

[^27]and fhun the conflict: yet even in thofe countries prove tremendous enemies, if attacked or provoked.

Barentz, in his voyages in fearch of a north-eaft paffage to Cbina, had fatal proofs of their rage and intrepidity on the inland of Nove Zembla: his feamen were frequently attacked, and fome of them killed. Thofe whom they feized on they took in their mouths, ran away with the utmoft eafe, tore to pieces, and devoured at their leifure, even in fight of the furviving comrades. One of thefe animals was fhot preying on the mangled corpfe, yet would not quit its hold; but continued ftaggering away with the body in its mouth, till difpatched with many wounds*.

They will attack, and attempt to board, armed veffels far diftant from thore; and have been with great difficulty repelled $\dagger$. They feem to give a preference to human blood; and will greedily difinter the graves of the buried, to devour the cadaverous contents $\ddagger$.

Their ufual food is fifh, feals, and the carcafes of whales. On land, they prey on deer §, hares, young birds, and eggs, and often on whortleberries and crowberries. They are at conftant enmity with the Walrus, or Morfe: the laft, by reafon of its vait tufks, has generally the fuperiority; but frequently both the combatants perifh in the conflict $\|$.

They are frequently feen in Greenland, in lat. $76_{2}$ in great droves; where, allured by the fcent of the flefh of feals, they will furround the habitations of the natives, and attempt to break in $\mathbb{G}$; but are foon driven away by the fmell of burnt feathers **. If one of them is by any accident killed, the furvivors will immediately eat it $\dagger \dagger$.

[^28]FOOD.

## POLAR BEAR,

They grow exceffively fat; a hundred pounds of fat has been taken out of a fingle beaft. Their fefh is coarfe, but is eaten by the feamen : it is white, and they fancy it taftes like mutton. The liver is very unwholefome, as three of Heem/kirk's failors experienced, who fell dangeroufly ill on eating fome of it boiled *. The fkin is an article of commerce : many are imported, and ufed chiefly for covers to coach-boxes. The Greenlanders feed on the flefh and fat; ufe the fkins to fit on, and make of it boots, fhoes, and gloves; and fplit the tendons into thread for fewing.
During fummer they refide chiefly on inlands of ice, and pafs frequently from one to the other. They fwim moft excellently, and fometimes dive, but continue only a fmall fpace under water, They have been feen on iflands of ice eighty miles from any land, preying and feeding as they float along. They lodge in dens formed in the vaft maffes of ice, which are piled in a ftupendous manner, leaving great caverns beneath: here they breed, and bring one or two at a time, and fometimes, but very rarely, three. Great is the affection between parent and young; they will fooner die than defert one another $\dagger$. They alfo follow their dams a very long time, and are grown to a very large fize before they quit them.

During winter they retire, and bed themfelves deep beneath, forming fpacious dens in the fnow, fupported by pillars of the fame, or to the fixed ice beneath fome eminence; where they pafs torpid the long and difmal night $\ddagger$, appearing only with the return of the fun §. At their appearance the Arctic Foxes retire to other haunts $\|$.

The Polar Bear became part of the royal menagery as early as

[^29]the reign of Henry III. Mr. Walpole has proved how great a patron that defpifed prince was of the Arts. It is not lefs evident that he extended his protection to Natural Hiftory. We find he had procured a White Bear from Norway, from whence it probably was imported from Greenland, the Norwegians having poffefled that country for fome centuries before that period. There are two writs extant from that monarch, directing the fheriffs of London to furnifh fix pence a day to fupport our White Bear in our Tower of London; and to provide a muzzle and iron chain to hold him when out of the water; and a long and ftrong rope to hold him, when he was fifhing in the Tbames *. Fit provifion was made at the fame time for the king's Elephant.

The fkins of this fpecies, in old times, were offered by the hunters to the high altars of cathedrals, or other churches, that the prieft might ftand on them, and not catch cold when he was celebrating high mafs in extreme cold weather. Many fuch were annually, offered at the cathedral at Drontbeim in Norway; and alfo the fkins of wolves, which were fold to purchafe wax-lights to burn in honor of the faints $\dagger$.

$$
\text { Hijt. Quad. No 174.-Smellie, v. } 19 .
$$

BEAR. With a long pointed nofe, and narrow forehead: the cheeks and throat of a yellowifh brown color: hair over the whole body and limbs of a gloffy black, fmoother and fhorter than that of the European kind.

They are ufually fmaller than thofe of the old world; yet Mr. Bartram gives an inftance of an old he-bear killed in Florida, which

> Madox's Antiquities of the Exchequer, i. 376 .
> + Olaus Magnus, lib. xviii. c. 20.

## BLACK BEAR.

was feven feet long, and, as he gueffed, weighed four hundred pounds *.

Thefe animals are found in all parts of Nortb America, from Hudfon's Bay to the fouthern extremity; but in Louifana and the fouthern parts they appear only in the winter, migrating from the north in fearch of food. They fpread acrofs the northern part of the American continent to the Aflatic ines. They are found in the Kurilgi iflands, which intervene between Kamt fcbatka and fapan $\dagger$, Fefo Mafima, which lies north of Fapan $\ddagger$, and probably Fapan itfelf; for Kampfer fays, that a few fmall bears are found in the northern provinces §.
It is very certain that this fpecies of bear feeds on vegetables. Du Pratz, who is a faithful as well as intelligent writer, relates, that in one fevere winter, when thefe animals were forced in multitudes from the woods, where there was abundance of animal food, they rejected that, notwithftanding they were ready to perifh with hunger; and, migrating into the lower Louifiana, would often break into the courts of houfes. They never touched the butchers meat which lay in their way, but fed voracioufly on the corn or roots they met with $\|$.

Neceffity alone fometimes compels them to attack and feed on the fwine they meet in the woods : but flefh is to them an unnatural diet. They live on berries, fruits, and pulfe of all kinds, and feed much on the black mulberry 4 ; are remarkably fond of potatoes, which they very readily dig up with their great paws; make great havock in the fields of maize; and are great lovers of milk and honey. They feed much on herrings, which they catch in the feafon when thofe filh come in fhoals up the creeks, which gives their

[^30]flefh a difagreeable tafte; and the fame effect is' obferved when they eat the bitter berries of the Tupelo.

They are equally inoffenfive to mankind, provided they are not irritated; but if wounded, they will turn on their affailant with great fury, and, in cafe they can lay hold, never fail of hugging him to death; for it has been obferved they never make ufe, in their rage, of either their teeth or claws. If they meet a man in a path they will not go out of his way; but will not attack him. They never feek combat. A fmall dog will make them run up a tree.

The American bears do not lodge in caves or clefts of rocks, like thofe of Europe. The bears of Hudfon's Bay form their dens beneath the fnow, and fuffer fome to drop at the mouth, to conceal their retreat.

The naturalift's poet, with great truth and beauty, defcribes the retreat of this animal in the frozen climate of the north :

> There through the piny foreft half abforpt,
> Rough tenant of thofe fhades, the fhapelefs BEAR, With dangling ice all horrid, ftalks forlorn; Slow pac'd, and fourer as the forms increafe, He makes his bed beneath th' inclement drift, And with ftern patience, fcorning weak complaint, Hardens his heart againft affailing want.

Thofe of the fouthern parts dwell in the hollows of antient trees The hunter difcovers them by ftriking with an ax the tree he fufpects they are lodged in, then fuddenly conceals himfelf. The Bear is immediately rouzed, looks out of the hollow to learn the caufe of the alarm ; feeing none, finks again into repofe *. The hunter then forces him out, by flinging in fired reeds; and fhoots him while he defcends the body of the tree, which, notwithftanding his aukward

> * Du Pratz, ii. 61.

$$
\mathrm{K} 2 \quad \text { appearance }
$$

## BLACK BEAR.

appearance, he does with great agility; nor is he lefs nimble in afcending the tops of the higheft trees in fearch of berries and fruits.

The long time which thefe animals fubfift without food is amazing. They will continue in their retreat for fix weeks without the left provifion, remaining either afleep or totally inactive. It is pretended that they live by fucking their paws; but that is a vulgar error. The fact is, they retire immediately after autumn, when they have fattened themfelves to an exceffive degree by the abundance of the fruits which they find at that feafon. This enables animals, which perfire very little in a fate of reft, to endure an abitinence of uncommon length. But when this internal fupport is exhaufted, and they begin to feel the call of hunger, on the approach of the fevere feafon, they quit their dens in fearch of food. Multitudes then migrate into the lower parts of Louifiana: they arrive very lean; but foon fatten with the vegetables of that milder climate *. They never wander far from the banks of the Miffipi, and in their march form a beaten path like the track of men.

Larefon and Catefby $\dagger$ relate a very furprizing thing in refpect to this animal, which is, that neither European or Indian ever killed a Bear with young. In one winter were killed in Virginia five hundred bears, and among them only two females ; and thofe not pregnant. The caufe is, that the male has the fame unnatural dinike to its offspring as fome other animals have : they will kill and devour the cubs. The females therefore retire, before the time of parturition, into the depth of woods and rocks, to elude the fearch of their favage mates. It is faid that they do not make their appearance with their young till March $\ddagger$.

[^31]All who have tafted the flefh of this animal fay, that it is moft delicious eating: a young Bear, fattened with the autumnal fruits, is a difh fit for the niceft epicure. It is wholefome and nourifhing, and refembles pork more than any other meat. The tongue and the paws are efteemed the moft exquifite morfels; the hams are alfo excellent, but apt to ruft, if not very well preferved.

Four inches depth of fat has been found on a fingle Bear, and fifteen or fixteen gallons of pure oil melted from it *. The fat is of a pure white, and has the fingular quality of never lying heavy on the ftomach, notwithftanding a perfon drank a quart of it $\dagger$. The Americans make great ufe of it for frying their fifh. It is befides ufed medicinally, and has been found very efficacious in rheumatic complaints, achs, and ftrains.

The Indians of Louifiana prepare it thus:-As foon as they have killed the Bear, they fhoot a Deer; cut off the head, and draw the fkin entire to the legs, which they cut off: they then ftop up every orifice, except that on the neck, into which they pour the melted fat of the Bear; which is prepared by boiling the fat and flefh together. This they call a Deer of oil, and fell to the French for a gun, or fomething of equal value $\ddagger$.

Bears greafe is in great repute in Europe for its fuppofed quality of making the hair to grow on the human head. A great chymift in the Haymarket in London ufed to fatten annually two or three Bears for the fake of their fat.
The fkin is in ufe for all purpofes which the coarfer forts of furs are applied to: it ferves in America, in diftant journies, for coverlets; and the finer parts have been in fome places ufed in the hat manufacture §.

The Indians of Canada daub their hands and face with the greafe,

[^32]to preferve them from the bite of mufketoes: they alfo fmear their bodies with the oil after exceffive exercife *. They think, like the Romans of old, that oil fupples their joints, and preferves them in full activity.
20. Brown.

Black Bear, Hift. 2uad. No 174.-Smellie, v. 19.
BEAR. With long fhaggy hair, ufually dulky or black, with brown points; liable to vary, perhaps according to their age, or fome accident, which does not create a fpecific difference.
. A variety of a pale brown color, whofe fkins I have feen imported from Hudjon's Bay. The fame kind, I believe, is alfo found in Europe. The cubs are of a jetty black, and their necks often encircled with white.
ß. Bears fpotted with white.
$\gamma$. Land Bears, entirely white. Such fometimes fally from the lofty mountains which border on Sibiria, and appear in a wandering manner in the lower parts of the country $\dagger$. Marco Polo relates, that they were frequent in his time in the north of Tartary, and of a very great fize.
d. Grizzly Bears. Thefe are called by the Germans Silber-bar, or the Silver-bear, from the mixture of white hairs. Thefe are found in Europe, and the very northern parts of North America, as high as lat. 70; where a hill is called after them, Grizzle Bear Hill, and where they breed in caverns $\ddagger$. The ground in this neighborhood is in all parts turned by them in fearch of the hoards formed by the Ground Squirrels for winter provifion.

* Kalm, iii. 13.

All thefe varieties form but one fpecies. They are granivorous and carnivorous, both in Europe and America; and I believe, according to their refpective palates or habits, one may be deemed a variety which prefers the vegetable food; another may be diftinguifhed from its preference of animal food. Mr. Grabam affures me, that the brown Bears, in the inland parts of Hudjon's Bay, make great havock among the Buffaloes: are very large, and very dangerous when they are attacked and wounded.

The Bears of Kamt $f$ chatka are of a dun brown color: and feed chiefly on fifh, or berries. They are far from rejecting animal food; even mankind becomes their prey when preffed by hunger; and hey will hunt the natives, in fuch cafes, by fcent, and prowl out of their ufual tracts for that purpofe : at thofe times, or when wounded they are exceedingly fierce *. It is faid that they give chafe to the Argali with great addrefs. They know that they have no chance in taking them by fpeed; the Bears therefore climb up the rugged mountains, and gain the heights above the fpots where the wild fheep feed: they with their paws fling down pieces of rock upon the herd; and, if they happen to maim any, defcend and make a repart on the lamed animal $\dagger$. When the Bears find plenty of food they will not attack the human kind: yet if they find a Kametchadale afleep on the ground, they will through wanntonnefs bite him feverely, and fometimes tear a piece of flefh away. People thus injured are called Dranki, or the flayed $\ddagger$.

In all favage nations the Bear has been an object of veneration. Among the Americans a feaft is made in honor of each that is killed. The head of the beaft is painted with all colors, and placed on an elevated place, where it receives the refpects of all the guefts, who

Bears venerated in America.

* Captain King, in Cook's voy. iii. 305. $\quad+$ Same 306.
$\ddagger$ Hif. Kamt/chatka, iii. 386.
celebrate in "fongs the praifes of the Bear. They cut the body in pieces, and regale on it, and conclude the ceremony *.
Chase.
The chafe of thefe animals is a matter of the firft importance, and never undertaken without abundance of ceremony. A principal warrior firft gives a general invitation to all the hunters. This is followed by a moft ferious faft of eight days, a total abftinence from all kinds of food; notwithftanding which, they pafs the day in continual fong. This they do to invoke the fpirits of the woods to direct them to the place where there are abundance of Bears. They even cut the flefh in divers parts of their bodies, to render the fpirits more propitious. They alfo addrefs themfelves to the manes of the beafts flain in preceding chafes, as if it were to direct them in their dreams to plenty of game. One dreamer alone cannot determine the place of chafe, numbers muft concur ; but, as they tell each other their dreams, they never fail to agree: whether that may arife from complaifance, or by a real agreement in the dreams from their thoughts being perpetually turned on the fame thing.

The chief of the hunt now gives a great feaft, at which no one dares to appear without firft bathing. At this entertainment they eat with great moderation, contrary to their ufual cuftom. The mafter of the feaft alone touches nothing; but is employed in relating to the guefts antient tales of the wonderful feats in former chafes: and frefh invocations to the manes of the deceafed Bears conclude the whole. They then fally forth amidft the acclamations of the village, equipped as if for war, and painted black. Every able hunter is on a level with a great warrior; but he muft have killed his dozen great beafts before his character is eftablifhed: after which his alliance is as much courted as that of the moft valiant captain.

They now proceed on their way in a direct line: neither rivers, marfhes, or any other impediments, ftop their courfe; driving before them all the beafts which they find in their way. When they arrive in the hunting-ground, they furround as large a fpace as their company will admit, and then contract their circle; fearching, as they contract, every hollow tree, and every place fit for the retreat of the bear, and continue the fame practice till the time of the chafe is expired.

As foon as a bear is killed, a hunter puts into its mouth a lighted pipe of tobacco, and, blowing into it, fills the throat with the fmoke, conjuring the fpirit of the animal not to refent what they are going to do to its body; nor to render their future chafes unfucceisful. As the beaft makes no reply, they cut out the ftring of the tongue, and throw it into the fire: if it crackles and runs in (which it is almoft fure to do) they accept it as a good omen; if not, they confider that the fpirit of the beaft is not appeafed and that the chafe of the next year will be unfortunate.

The hunters live well during the chafe, on provifions which they bring with them. They return home with great pride and felffufficiency; for to kill a bear forms the character of a complete man. They again give a great entertainment, and now make a point to leave nothing. The feaft is dedicated to a certain genius, perhaps that of Gluttony, whofe refentment they dread, if they do not eat every morfel, and even fup up the very melted greafe in which the meat was dreffed. They fometimes eat till they burf, or bring on themfelves fome violent diforders. The firft courfe is the greateft bear they have killed, without even taking out the entrails, or taking off the fkin, contenting themfelves with fingeing the fkin, as is practifed with hogs*.

- Charlevoix, v. 169 to 174 .

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L
The

BEAR.
In Kamtschat - The Kamtfcbatkans, before their converfion to Chriftianity, had alKA。 moft fimilar fuperftitions refpecting bears and other wild beafts: they entreated the bears and wolves not to hurt them in the chafe, and whales and marine animals not to overturn their boats. They never call the two former by their proper name, but by that of $S i$ pang, or ill-luck.

At prefent the Kamtjchatkans kill the bear and other wild beafts with guns: formerly they had variety of inventions; fuch as filling the entrance of its den with logs, and then digging down upon the animal and deftroying it with fpears*. In Sibiria it is taken by making a trap-fall of a great piece of timber, which drops and crufhes it to death: or by forming a noofe in a rope faftened to a great $\log$; the bear runs its head into the noofe, and, finding itfelf engaged, grows furious, and either falls down fome precipice and kills itfelf, or wearies itfelf to death by its agitations.

The killing of a bear in fair battle is reckoned as great a piece of heroifm by the Kamtjchatkans as it is with the Americans. The victor makes a feaft on the occafion, and feafts his neighbors with the beaft ; then hangs the head and thighs about his tent by way of trophies.

Thefe people ufe the fkins to lie on, and for coverlets; for bonnets, gloves, collars for their dogs, foles for their fhoes, to prevent them from flipping on the ice. Of the fhoulder-blades they make inftruments to cut the grafs; of the inteftines, covers for their faces, to protect them from the fun during fpring; and the Coffacks extend them over their windows inftead of glafs. The flefh and fat is among the chief dainties of the country $\dagger$.

Superftitions, relative to this animal, did not confine themfelves to America and Afia, but fpread equally over the north of Europe.

- Hiff. Kamtfchatka, Fr, iii. 73.
+ The fame, 390.


## BROWN BEAR.

The Laplanders held it in the greateft veneration: they called it the Dog of God, becaufe they efteemed it to have the ftrength of ten men, and the fenfe of twelve*. They never prefume to call it by its proper name of Guouzhja, leaft it revenge the infult on their flocks; but ftyle it Moedda-aigia, or the old man in a furred cloak $\dagger$.

The killing of a Bear was reckoned as great an exploit in Lapland as it was in America, and the hero was held in the higheft efteem by both fexes; and, by a fingular cuftom, was forbid all commerce with his wife for three days. The Laplanders bring home the flain beafts in great triumph. They erect a new tent near their former dwelling, but never enter it till they have flung off the drefs of the chafe. They continue in it three entire days; and the women keep at home the fame fpace. The men drefs the flefh of the Bear in the new tent, and make their repaft, giving part to the females; but take great care never to beftow on them a bit of the rump. Neither will they deliver to them the meat through the common entrance of the hut, but through a hole in another part. In fign of victory, the men fprinkle themfelves with the blood of the beaft.

After they have finifhed eating the flefh, they bury the bones with great folemnity, and place every bone in its proper place, from a firm perfuafion that the Bear will be reftored, and re-animate a new body.

At the pulling off the fkin, and cutting the body into pieces, they were ufed to fing a fong, but without meaning or rhyme $\ddagger$; but the antient Fins had a fong, which, if not highly embellifhed by the tranflator, is far from inelegant.

[^33]L. 2

Beaft !

Beaft ! of all foreft beafts fubdued and flain, Health to our huts and prey a hundred-fold Reftore ; and o'er us keep a conftant guard! I thank the Gods who gave fo noble prey ! When the great day-ftar hides beyond the alps, I hie me home; and joy, all clad in flowers, For three long nights fhall reign throughout my hut. With tranfport fhall I climb the mountain's fide. Joy op'd this day, joy fhall attend its clofe. Thee I revere, from thee expect my prey: Nor e'er forgot my carol to the Bear *.
21. Wolverene.

Hift. 2uad. No 176, 177. Syn. 2uad.
Gulo, Pallas Spicil. Zool. Fafc. xiv. 25. tab. ii.-Lev. Mus.

BEAR. With fhort rounded ears, almoft concealed by the fur: face fharp, black, and pointed: back broad, and, while the animal is in motion, much elevated, or arched; and the head carried low : the legs fhort and ftrong: claws long and fharp, white at their ends.

The length from nofe to tail twenty-eight inches; of the trunk of the tail feven inches. It is covered with thick long hairs, reddifh at the bottom, black at the end; fome reach fix inches beyond the tip.

The hairs on the head, back, and belly, are of the fame colors, but much finer and fofter. Before they are examined, the animal appears wholly black. The throat whitifh, marked with black. Along the fides, from the fhoulders to the tail, is a broad band of a ferruginous color: in feveral of the fkins, brought from Hudjon's Bay, I obferved this band to be white. The legs are black; the
feet covered with hair on the bottom. On the fore feet of that which I examined were fome white fpots. On each foot were five toes, not greatly divided.

It hath much the action of a Bear; not only in the form of its back, and the hanging down of its head, but alfo in refting on the hind part of the firt joint of its legs.

This is one of the local animals of America. I trace it as far north as the Copper river, and to the countries on the weft and fouth of Hudjon's Bay, Canada, and the tract as far as the ftraits of Micbillmakinac, between the lakes Huron and Superior.

I have reafon to think that the Glutton of the old writers is the fame with this animal; and that in my Hiftory of Quadrupeds I unneceffarily feparated them. Since I have received the late publication of Dr. Pallas, I am fatisfied that it is common to the north of America, Europe, and Afa, even to Kamt $\mathrm{c}_{\mathrm{c} / a t k a}$; inhabiting the valt forefts of the north, even within the Polar circle. The Kamtfobatkans value them fo highly as to fay, that the heavenly beings wear no other furs. The fkins are the greateft prefent they can make their miftreffes; and the women ornament their heads with the parts of the white banded variety. The Rulfians call thefe animals Rofomak; the Kamtfobatkans, Tymi, or Tummi.
It is a beaft of uncommon fiercenefs, the terror of the Wolf and Bear; the former, which will devour any carrion, will not touch the carcafe of this animal, which fmells more fetid than that of a Polecat. It has great ftrength, and makes vaft refiftance when taken; will tear the traps often to pieces; or if wounded, will fnap the ftock from the barrel of the mufket; and often do more damage in the capture than the fur is worth.

It preys indifferently on all animals which it can mafter. It feeds by night, and, being flow of foot, follows the track of wolves and foxes in the fnow, in order to come in for fhare of their prey. It

Place.

Glutton of old Writers.

Manners.
will dig up the carcafes of animals, and the provifions concealed by the huntfmen deep in the fnow, which it will carry away to other places to devour. About the Lena it will attack horfes, on whofe backs are often feen the marks of its teeth and claws. By a wonderful fagacity it will afcend a tree, and fling from the boughs a fpecies of mofs which Elks and Reins are very fond of; and when thofe animals come beneath to feed on it, will fall on them and deftroy them: or, like the Lynx, it afcends to the boughs of trees, and falls on the Deer which cafually pafs beneath, and adheres till they fall down with fatigue. It is a great enemy to the Beaver *, and is on that account fometimes called the Beaver-eater. It watches at the mouth of their holes, and catches them as they come out. It fearches the traps laid for taking other beafts, and devours thofe which it finds taken. It breaks into the magazines of the natives, and robs them of the provifions; whether they are covered with logs, brufhwood, and built high between two or three ftanding trees $\dagger$.

It lodges in clefts of rocks, or in hollows of trees, and in Sibiria often in the deferted holes of Badgers ; never digging its own den, nor having any certain habitation. It breeds once a year, bringing from two to four at a litter $\ddagger$. Its fur is much ufed for muffs. Notwithftanding its great fiercenefs when wounded, or firf feizure, it is capable of being made very tame $\S$.
Fur.
The fkins are frequently brought from Hudjon's Bay, and commonly ufed for muffs. In Sibiria the fkin is moft valued which is black, and has left of the ferruginous band. Thefe are chiefly found in the mountanous forefts of Fakut/k, and ufed by the natives to adorn their caps. Few of the Sibirian fkins are fent into Ruffia, but are chiefly fold to the Mongals and Cbinefe.

* Dobbs, 40. + Mr. Grabam. $\ddagger$ The fame.
§ Edw. ii. 103 .


## $\begin{array}{lllllll}\mathrm{R} & \mathrm{A} & \mathrm{C} & \mathrm{O} & \mathrm{O} & \mathrm{N} .\end{array}$

The relations of the exceffive gluttony of this animal ; that it eats till it is ready to burft, and that it is obliged to unload itfelf by fqueezing its body between two trees; are totally fabulous: like other animals, they eat till they are fatisfied, and then leave off *.

> Hif. 2uad. No 178.—Smellie, v. 46.-Lev, Mus,

BEAR. With upper jaw larger than the lower: face fharppointed, and fox-like: ears fhort and rounded: eyes large, of a yellowifh green; the fpace round them black : a dufky line extends from the forehead to the nofe; the reft of the face, the cheeks, and the throat, white : the hair univerfally long and foft; that on the back tipt with black, white in the middle, and cinereous at the roots : tail annulated with black and white, and very full of hair: toes black, and quite divided : the fore-feet ferve the purpofes of a hand.

Thefe animals vary in color. I have feen fome of a pale brown, others white. Their ufual length, from nofe to tail, is two feet: near the tail about one.

Raccoons inhabit only the temperate parts of North America, from New England $\dagger$ to Florida $\ddagger$. They probably are continued in the fame latitudes acrofs the continent, being, according to Dampier, found in the ines of Maria, in the South Sea, between the fouth point of California and Cape Corientes. It is alfo an inhabitant of Mexico, where it is called Mapach $\S$.

It lives in hollow trees, and is very expert at climbing. Like other beafts of prey, keeps much within during day, except it proves dark and cloudy. In fnowy and ftormy weather it confines itfelf to

* Hift. Kamt cb .385.
+ Fowlelyn's Voy. 85.
$\ddagger$ Account of Florida, 50 .
§ Fernand, Nov. Hip. i.

22. Raccoon.

Place.

Manners.
its hole for a week together. It feeds indifferently on fruits or flefh; is extremely deftructive to fields of mayz, and very injurious to all kinds of fruits; loves ftrong liquors, and will get exceffively drunk. It makes great havock among poultry, and is very fond of eggs. Is itfelf often the prey of Snakes *.

Thofe which inhabit places near the fhore live much on fhellfifh, particularly oyfters. They will watch the opening of the fhell, dextroufly put in its paw, and tear out the contents; fometimes the oyfter fuddenly clofes, catches the thief, and detains it till drowned by the return of the tide. They likewife feed on crabs, both fea and land. It has all the cunning of the Fox. Lawfon $\dagger$ fays, that it will ftand on the fide of a fwamp, and hang its tail over into the water: the crabs will lay hold, miftaking it for a bait ; which, as foon as the Raccoon feels, it pulls out with a fudden jerk, and makes a prey of the cheated crabs.

It is made tame with great eafe, fo as to follow its mafter along the ftreets; but never can be broke from its habit of ftealing, or killing of poultry $\ddagger$. It is fo fond of fugar, or any fweet things, as to do infinite mifchief in a houfe, if care is not taken $\S$.

It has many of the actions of a Monkey; fuch as feeding itfelf with its fore feet, fitting up to eat, being always in motion, being very inquifitive, and examining every thing it fees with its paws. Notwithftanding it is not fond of water, it dips into it all forts of dry food which is given to it ; and will wafh its face with its feet, like a Cat.

It is fought after on account of the fur. Some people eat it, and efteem it as very good meat. The Swedes call it Siup, and Eppan; the Dutch, Hefpan; and the Iroquefe, Affigbro. The hair makes the beft hats, next to that of the Beaver. The tail is worn round the neck in winter, by way of prefervative againft the cold $\|$.

* Kalm, i. 97. ii. 63.
+ 121. $\ddagger$ Kalm, i, 208.
§ The fame.
|| Kalm, ii. 97.

B A D G E R. 8I
HIST. QUAD. GENUS XXI.

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American Badger, Hift. 2uad. p. 298. \(\beta\)--Smellie, iv. 226.-Lev. Mus.
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BADGER. With rounded ears : forehead, and middle of the cheeks, marked with a white line, extending to the beginning of the back, bounded on each fide by another of black: cheeks white : fpace round the ears dufky : body covered with long coarfe hair, cinereous and white.

The legs were wanting in the fkin which I faw ; but I fupply that defect from M. de Buffon's defcription. They were dufky, and the toes furnifhed with claws, like the European kind. M. de Buffon obferved only four toes on the hind feet; but then he fufpected that one was torn off from the dried fkin he faw.

Thefe animals are rather fcarce in America. They are found in the neighborhood of Hudjon's Bay, and in Terra di Labrador; and perhaps as low as Pennfllvania, where they are called Ground Hogs*. They do not differ fpecifically from the European kind; but are fometimes found white in America $\dagger$.

I do not difcover them in northern Afia, nearer than the banks of the Yaik $\ddagger$. They are common in Cbina, where they are frequently brought to the fhambles, being an efteemed food $\S$. In northern Europe, they are found in Norway and Sweden \|.

Le Comte de Buffon imagines this animal II to be the Carcajou of the Americans, and not the Wolveren. The matter is uncertain:

* Kalm, i. 189. Travels, ii. 83 . tom. iii. 242.

Vol. I.
$\dagger$ Brifon Quad. 185. $\ddagger$ Pallas.
$\oint$ Bell's $\|$ Pontoppidan, ii. 28.-Faun. Suec, $\mathrm{N}^{\circ}$ 20. II Supplo
yet

BADGER.
23. Соmmon.
yet I find that name beftowed on the latter by La Hontan; by Dobbs, who makes it fynonymous; and by Charleroix, though the laft miftakes the animal, yet not the manners of that which he afcribes it to. On the other hand, Mr. Grabam and Mr. Edruards omit that title, and call it only Wolveren, or Queequehatch.

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HIST: QUAD. GENUS XXII.

Hijf. 2uad. No ${ }_{181}$ 1.

OPOSSUM. With ten cutting teeth above, eight beneath : eyes black, fmall, and lively : ears large, naked, membranaceous, and rounded : face long and pointed; whifkers on each fide of the nofe, and tufts of long hairs over the eyes: legs are fhort; the thumb on the hind feet has a flat nail, the reft of the toes have on them fharp talons: the body is fhort, round, and thick : the tail long; the bafe is covered with hair for three inches, the reft is covered with fmall fcales, and has the difgufting refemblance of a Snake.

On the lower part of the belly of the female is a large pouch, in which the teats are placed, and in which the young lodge as foon as they are born. The body is cloathed with very long foft hairs, lying ufually uneven: the color appears of a dirty white; the lower parts of the hairs dulky : and above each eye is a whitifh fpot: the belly tinged with yellow.

The length of one I examined was feventeen inches, of the tail fourteen.

This fpecies is found as far north as Canada *, where the French call it Le Rat de bois; from thence it extends fouthward, even to the Brafils and Peru. The fingularity of the ventral pouch of the female, and the manner of its bringing up its young, places it among the moft wonderful animals of the new continent.

- Charlıvoix, v. 197.

M 2

Place.

OPOSSUM.
24. Virginian.
24. VIRGINTAN.

As foon as the female finds herfelf near the time of bringing forth, fhe prepares a neft of coarfe grafs, covered with long pieces of fticks, near four feet high and five in diameter, confufedly put together *. She brings forth from four to fix at a time. As foon as they come into the world they retreat into the falfe belly, blind, naked, and exactly refembling little foetufes. They faften clofely to the teats, as if they grew to them; which has given caufe to the vulgar error, that they were created fo. There they adhere as if they were inanimate, till they arrive at a degree of perfection in fhape, and attain fight, ftrength, and hair: after which they undergo a fort of fecond birth. From that time they run into the pouch as an afylum from danger. The female carries them about with the utmoft affection, and would rather be killed than permit this receptacle to be opened; for the has the power of contracting or dilating the orifice by the help of fome very ftrong mufcles. If they are furprifed, and have not time to retreat into the pouch, they will adhere to the tail of the parent, and efcape with her $\dagger$.

The Opoffum is both carnivorous and frugivorous. It is a great enemy to poultry; and will fuck the blood and leave the flefh untouched $\ddagger$. It climbs trees very expertly, feeding on wild fruits, and alfo on various roots. Its tail has the fame prehenfile quality as that of fome fpecies of Monkies. It will hang from the branches by it, and by fwinging its body, fling itfelf among the boughs of the adjacent trees. It is a very fluggifh animal; has a very flow pace, and makes fcarcely any efforts to efcape. When it finds itfelf on the point of being taken, it counterfeits death; hardly any torture will make it give figns of life §. If the perfon retires, it will put itfelf in motion, and creep into fome neighboring bufh.

[^34]
## O P O S S U M.

It is more tenacious of life than a Cat, and will fuffer great violence before it is killed *.

The old animals are efteemed as delicate eating as a fucking pig; yet the fkin is very fretid. The Indian women of Louifana dye the hair, and weave it into girdles and garters $\dagger$.

[^35]WEESEL.
25. COMMON.

Place.

HIST. 2UAD. GENUS XXIII.

Hif. Quad. No 192.-Smellie, iv. 257.-LEv. Mus.
TEESEL. With fmall rounded ears: beneath each corner of the mouth is a white fpot: breaft and belly white ; reft of the body of a pale tawny brown. Its length, from the tip of the nofe to the tail, is about feven inches ; the tail two and a half.
Inhabits the country about Hudfon's Bay, Nerefoundland, and as far fouth as Carolina *. Mr. Grabam fent fome over, both in their fummer coat, and others almoft entirely white, the color they affume in winter. We meet with them again in Kamtfcbatka, and all over Rufia and Sibiria; and in thofe northern regions they regularly turn white during winter. One, which was brought from Natka Sound in North America, had between the ears and nofe a bed of gloffy black, which probably was its univerfal color before its change. Dr. Irving faw on Moffen ifland, north of Spitzbergen, lat. 80 . an animal, perhaps of this kind, fpotted black and white $\dagger$.

Hif. Quad. No 193.-Smellie, iv. 262.-Lev. Mus.
WEESEL. With fhort ears, edged with white: head, back, fides, and legs, of a pale tawny brown : under fide of the body white : lower part of the tail brown, the end black.

In northern countries, changes in winter to a fnowy whitenefs,

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\text { * Cate } b y, \text { App. } \quad+\text { Pbipps's Voy. } 58
$$

the end of the tail excepted, which retains its black color: in this ftate is called an Ermine.

Length, from nofe to tail, ten inches; the tail is five and a half.
Inhabits only Hudjon's Bay, Canada, and the northern parts of North America. In Nerofoundland it is fo bold as to commit its thefts in open view. Feeds on eggs, the young of birds, and on the mice with which thofe countries abound. They alfo prey on Rabbits, and the White Grous. The fkins are exported from Canada among what the French call la menuë pelleterie, or fmall furs *.

It is found again in plenty in Kamt $f$ chatka $\dagger$, the Kurili inlands, Sibiria, and in all the northern extremities of Europe. It is fcarce in Kamtfchatka; and its chafe is not attended to, amidit the quantity of fuperior furs. But in Sibiria and Norway they are a confiderable article of commerce. In the former, they are taken in traps, baited with a bit of flefl $\ddagger$; in the latter, either fhot with blunt arrows, or taken, as garden mice are in England, by a flat ftone propped by a baited ftick, which falls down on the left touch, and crufhes them to death $\S$. They are found in Sibiria in great plenty in woods of birch, yet are never feen in thofe of fir. Their fkins are fold there on the fpot from two to three pounds fterling per hundred $\|$.

They are not found on the Arefic flats. The inhabitants of the $T j c b u k t f c b i$ Nofs get them in exchange from the Americans, where they are of a larger fize than any in the Ruflan dominions.

The exceffive cold of certain winters has obliged even thefe hardy animals to migrate, as was evident in the year 1730 , and 1744 I.

[^36]Place.

Capture,

Hijt. 2uad. No 200.-Br. Zool. i. No 16 . - Smellie, iv. 245 -Lev. Mus.
WEESEL. With white cheeks and tips of ears; yellow throat and breaft ; reft of the fur of a fine deep chefnut-color in the male, paler in the female : tail bufhy, and of a deeper color than the body.

Thefe animals inhabit, in great abundance, the northern parts of America; but I believe the fpecies ceafes before it arrives at the temperate provinces. They appear again in the north of Europe, extend acrofs the Urallian chain, but do not reach the Oby.

They inhabit forefts, particularly thofe of fir and pine, and make their nefts in the trees. Breed once a year, and bring from two to four at a litter. They feed principally upon mice; but deftroy alfo all kinds of birds which they can mafter. They are taken by the natives of Hudjon's Bay in fmall log-traps, baited, which fall on and kill them. The natives eat the flefh.

Their fkins are among the more valuable furs, and make a moft important article of commerce. I obferved, that in one of the Hudjon's Bay Company's annual fales, not fewer than 12,370 good fkins, and 2,360 damaged, were fold; and in that year (1743) 30,325 were imported by the French from Canada into the port of Rocbelle. They are found in great numbers in the midft of the woods of Canada; and once in two or three years come out in great multitudes, as if their retreats were overfocked: this the hunters look on as a forerunner of great fnows, and a feafon favorable to the chafe *.

It is remarkable, that notwithftanding this fpecies extends acrofs the continent of America, from Hudjon's Bay to the oppofite fide,

[^37]PW EOK A N.
yet it is loft on the Afiatic fide of the ftraits of $T \mathcal{T}$ cbukt $f(b i$; nor is it recovered till you reach Catherinebourg, a diftrict of Sibiria weft of Tobolk, and twenty-five degrees weft longitude diftant from America. The fineft in the known world are taken about $U_{f}$, and in the mountains of Caucafus *. It is known that the $T_{j}$ cbukt $\mathrm{c}_{\mathrm{c} i} \dagger$ procure the fkins for cloathing themfelves from the Americans; their country being deftitute of trees, and confequently of the animals, inhabitants of forefts, furnifhing thofe ufeful articles.
The Houfe Martin, HiJ. Quad. N ${ }^{\circ}$ 199, is found neither in America, or the Arctic countries.
Hijt. 2uad. No 204.-Smellie, vii. 307.-Lev. Mus.

WEESEL. With ears a little pointed: body and head covered with hair of a mixture of grey, chefnut, and black, and beneath protected by a cinereous down : the lower jaw encircled with white : legs and tail black : on the breaft, between the fore-legs, a fpot of white, and another on the belly between the hind-legs : toes covered above and below with fur.

I faw this and the following animal at Paris, in the cabinet of M. Aubry, Curè de St. Louis en L'Ifle. They were in glafs cafes, fo I could get only an imperfect view of them. According to M. de Buffon, the length of this was a foot and a half French meafure; the tail ten inches $\ddagger$. The fur is fine; and the fkins were often imported by the Frencb from Canada.
This feems to me to be very nearly allied to the European Martin, $\mathrm{N}^{\circ}$ I5. Br. Zool. vol. i. It agrees very much in dimenfions,

* Docfor Pallas. $\quad+$ Muller, Pref, xxix. $\ddagger L_{\ell}$ Pekan, tom, xiii. 304. tab. xlii. xliii.
and in the white marks. It is alfo the animal which Mr. Grabams fent to the Royal Society from Hudjon's Bay, under the name of Facka/h, which he fays harbours about creeks, and lives on fifh. Brings from two to four young at a time. Is caught by the natives, who eat the flefh and barter the fkins.

29. Vison.
30. Sable.

Place.

Hijf. 2rad. $\mathrm{N}^{\circ}$ 201, and p. 328.-Smellie, vii. 309.
Muftela Zibellina, Pallas Sp. Zool. fafc. xiv. 54. tab.
WEESEL. With head and ears whitifh : the ears broad, inclining to a triangular form, and rounded at top, in the Afiatic fpecimens; in the American, rather pointed: whole body of a light tawny: feet very large, hairy above and below : claws white.

Length, from nofe to tail, twenty inches; of the trunk of the tail, four inches; from the bafe to the end of the hairs eight: of a dufky color.
This defcription is taken from a fkin fent from Canada: but it extends acrofs the whole continent, being frequently found among the furs which the Americans traffic with among the inhabitants of

## S A B L E.

the Tjobuktjcbi Nofs*. The American fpecimen, which I had opportunity of examining, was of the bleached, or worft kind; probably others may equal in value thofe of Afia.

The great refidence of thefe animals is in Afia, beginning at the Urallian chain, and growing more and more plentiful as they advance eaftward, and more valuable as they advance more north. None are found to the north-eaft of the Anadir, nor in any parts deftitute of trees. They love vaft forefts, efpecially thofe of fir, in which thofe of moft exquifite beauty are found. They are frequent in Kamtfcbatka, and are met with in the Kuril ifles $\dagger$. They extend from about lat. 50 to lat. 58.

They are very eafily made tame: will attach themfelves fo to their mafter, as to wander a confiderable way, and return again to their home. They abhor water : therefore the notion of their being the Satherion of Arifotle is erroneous.

Another way of taking them, befides thofe which I before mentioned in my Hiftory of Quadrupeds, is by placing a piece of timber from tree to tree horizontally; near one end of this is placed a bait : over the lower piece of wood is placed another, fufpended obliquely, and refting at one end on a poft very flightly : a rod extends from it to a noofe, to which the bait is faftened. As foon as the Sable feizes the meat, the upper timber falls, and kills the precious animal $\ddagger$. The hunting feafon always begins with the firft fnows : but they are now become fo very fcarce, as to be confined to the vaft forefts of the extreme parts of Sibiria, and to the diftant Kamtfchatka. Such has been the rage of luxury!

It was not till the later ages that the furs of beafts became an article of luxury. The more refined nations of antient times ne-

Capturb.

[^38]ver made ufe of them : thofe alone whom the former ftigmatized as barbarians, were cloathed in the fkins of animals. Strabo defcribes the Indians covered with the fkins of Lions, Panthers, and Bears *; and Seneca $\dagger$, the Scytbians cloathed with the fkins of Foxes, and the leffer quadrupeds. Virgil exhibits a picture of the favage Hyperboreans, fimilar to that which our late circumnavigators can witnefs to in the cloathing of the wild Americans, unfeen before by any polifhed people.

> Gens effrrna virum Ripbco tunditur Euro; Et pecudum fulvis velantur corpora fetis.

Moft part of Europe was at this time in fimilar circumftances. Cafar might be as much amazed with the fkin-dreffed heroes of Britain, as our celebrated Cook was at thofe of his new-difcovered regions. What time hath done to us, time, under humane conquerors, may effect for them. Civilization may take place, and thofe fpoils of animals, which are at prefent effential for cloathing, become the mere objects of ornament and luxury.

I cannot find that the Greeks or old Romans ever made ufe of furs. It originated in thofe regions where they moft abounded, and where the feverity of the climate required that fpecies of cloathing. At firft it confifted of the fkins only, almoft in the fate in which they were torn from the body of the beaft; but as foon as civilization took place, and manufactures were introduced, furs became the lining of the drefs, and often the elegant facing of the robes. It is probable, that the northern conquerors introduced the fafhion into Europe. We find, that about the year 522, when Totila, king of the Vifgotbs, reigned in Italy, that the Suetbons (a people of modern Sweden) found means, by help of the commerce of numberlefs intervening people, to tranfmit, for the ufe of the

[^39]Romans, Sapbilinas pelles, the precious fkins of the Sables *. As luxury advanced, furs, even of the moft valuable fpecies, were ufed by princes as lining for their tents: thus Marco Polo, in 1252, found thofe of the Cbamz of Tartary lined with Ermines and Sables t. He calls the laft Zibelines, and Zambolines. He fays that thofe, and other precious furs, were brought from countries far north; from the land of Darknefs, and regions almoft inacceffible, by reafon of moraffes and ice $\ddagger$. The Welfb fet a high value on furs, as early as the time of Howel Dda §, who began his reign about 940 . In the next age, furs became the farhionable magnificence of Europe. When Godfrey of Boulogne, and his followers, appeared before the emperor Alexis Comnene, on their way to the Holy Land, he was ftruck with the richnefs of their dreffes, tam ex oftro quam aurifrigio et niveo opere barmelino et ex mardrino grifoque et vario. How different was the advance of luxury in France, from the time of their great monarch Cbarlemagne, who contented himfelf with the plain fur of the Otter! Henry I. wore furs; yet in his diftrefs was obliged to change them for warm $W_{e l / b}$ flannel $\|$. But in the year 1337, the luxury had got to fuch a head, that Edward III. enacted, that all perfons who could not fpend a hundred a year, fhould abfolutely be prohibited the ufe of this fpecies of finery. Thefe, from their great expence, mult have been foreign furs, obtained from the Italian commercial fates, whofe traffic was at this period boundlefs. How ftrange is the revolution in the fur trade! The north of $A f i a$, at that time, fupplied us with every valuable kind; at prefent we fend, by means of the poffeffion of Hudfon's Bay, furs, to immenfe amount, even to Turkey and the diftant Cbina.

[^40]Hijf. 2uad. No 207.-Smellie, v. 297.

WEESEL. With fmall and rounded ears: the ground color of the whole animal black, marked on the back and fides with five long parallel lines of white; one extending from the head along the top of the back to the bafe of the tail; with two others on each fide, the higheft of which reaches a little way up the tail: the tail is long, and very bufhy towards the end.

This fpecies varies in the difpofition of the ftripes, and I furpect the male is entirely black, as defcribed by $M . D u$ Pratz*; who fays, that the female has rings of white intermixed. If that is the cafe, the Coafe, which M. de Buffon $\dagger$ received from Virginia, is of this kind. It is of an uniform color; but what is a ftronger proof of their differing only in fex, is the agreement in number of toes in the fore feet, there being four on each; an exception to the character of this Genus.

In fize it is equal to an European Pole-cat, but carries its back more elevated.

Thefe animals are found from Penfylvania as far as Louifiana, where they are known by the name of the Pole-cat $\ddagger$ or Skunk; which is given indifferently to both of thefe foetid beafts.

Nature hath furnifhed this and the following a fpecies of defence fuperior to the force either of teeth or claws. The French moft juftly call thefe animals enfans du Diable, or children of the Devil, and Bêtes puantes, or the ftinking beafts; as the Swedes beftow on them that of Fikkatta. The peftiferous vapour which it emits from behind, when it is either attacked, purfued, or frightened, is fo

* Vol. ii. 67 . + xiii, Coafe, p. 288. - Le Conepute (the female) ibid. tab. xxxviii. xl . $\ddagger$ Catefy, ii. tab. 62.
fuffocating and foetid, as at once to make the boldeft affailant retire with precipitation. A fmall fpace is often no means of fecurity; the animal either will turn its tail, and by a frequent crepitus prevent all repetition of attempts on its liberty; or elfe ejaculate its ftifling urine to the diftance of eighteen feet*. Its enemy is ftupified with the abominable ftench; or perhaps experiences a temporary blindnefs, fhould any of the liquid fall on his eyes. No wafhing will free his cloaths from the fmell : they muft even be buried in frefh foil, in order to be effectually purified.
Perfons who have juft undergone this misfortune, naturally run to the next houfe to try to free themfelves from it; but the rights of hofpitality are denied to them : the owner, dreading the infection, is fure to fhut the door againft them.

Profeffor Kalm ran the danger of being fuffocated by the ftench of one, which was purfued into a houfe where he was.

A maid-fervant, who deftroyed another in a room where meat was kept, was fo affected by the vapour as to continue ill for feveral days; and the provifions were fo infected, that the mafter of the houfe was forced to fling them away $\dagger$.

Travellers are often obliged, even in the midft of forefts, to hold their nofes, to prevent the effects of its ftench.

The brute creation are in like dread of its effluvia. Cattle will roar with agony; and none but true-bred dogs will attack it : even thofe are often obliged to run their nofes into the ground before they can return to complete its deftruction. The fmell of the dogs, after a combat of this nature, remains for feveral days intolerable.

Notwithftanding this horrible quality, the flefh is eaten, and is efteemed as fweet as that of a Pig. The bladder muft be taken out, and the fkin flayed off, as foon as the animal is killed $\ddagger$.

[^41]I hould

I fhould think it a very difagreeable companion: yet it is often tamed fo as to follow its mafter like a Dog; for it never emits its vapour unlefs terrified *. It furely ought to be treated with the higheft attention.
The fkin is neglected by the Europeans, by reafon of the coarfenefs of the hair. The Indians make ufe of it for tobacco pouches, which they carry before them like the Higblanders.

It climbs trees with great agility. It feeds on fruits $\dagger$ and infects. Is a great enemy to birds, deftroying both their eggs and young. It will alfo break into hen-roofts, and deftroy all the poultry $\ddagger$. It breeds in holes in the ground, and hollow trees, where it leaves its young, while it is rambling in queft of prey.

$$
\text { Hif. 2uad. } \mathrm{N}^{\circ} \text { 218.-Smellie, v. 297.-Lev. Mus. }
$$

WEESEL. With fhort rounded ears : fides of the face white: from the nofe to the back extends a bed of white; along the top of the back, to the bafe of the tail, is another broad one of black, bounded on each fide by a white ftripe: the belly, feet, and tail, black. But the colors vary : that which is figured by M. de Buffon has a white tail : the claws on all the feet very long, like thofe of a Badger : the tail very full of hair.

This inhabits the continent of America, from Hudjon's Bay § to Peru $\|$. In the laft it is called Cbinche. It burrows like the former, and has all the fame qualities. It is alfo found in Mexico, where it is called Conepatl, or Boy's little Fox $\mathbb{\square}$.

[^42]Vol. I.
0
Muftela

A. Muftela nivalis.-Fennorum Nirpa Lumiko, Lumitirka, Nov. Act. Acad. Reg. Scient. Suec. vi. $1785 \cdot$ p. 212.-Lappon. Seibbfh.-Ruffis Lafka.
W. With large canine teeth: body in fummer grey, with a tincture of rufous: tail of the fame color: belly white. Length from the tip of the nofe to the bafe of the tail fix inches and a half: tail an inch and a half. Shape of the Stoat.

Inhabits the north of Finland and Lapland. Lives during the fummer in the forefts; in winter frequents villages and houfes. Feeds on mice, fmall birds, their eggs and young; eats alfo frogs Is itfelf the prey of rapacious birds, and of the Ermine or Stoat. In winter changes to white, the whifkers, and a few hairs in the tail, excepted. Has not the foetid fmell of the Weefel and Stoat. Is taken in traps baited with a moufe, or fmall bird. The fkin is equal in price to that of the Ermine.-Profeffor Retzius.



HIST. QUAD. Genus XXIV.

Hif. 2uad. $\mathrm{N}^{\circ}$ 226.-Br. Zool. i. $\mathrm{N}^{\circ}$ 19.-Smellie, iv. 232.-Lev. Mus.

O
TTER. With fhort rounded ears : head flat and broad: long whifkers: aperture of the mouth fmall : lips very mufcular, defigned to clofe the mouth firmly while in the action of diving: eyes fmall, and placed nearly above the corners of the mouth : neck fhort: body long: legs fhort, broad, and thick: five toes on each foot, each furnifhed with a ftrong membrane or web: tail depreffed, and tapering to a point.
The fur fine; of a deep brown color, with exception of a white fpot on each fide of the nofe, and another under the chin.

Thefe animals inhabit as far north as Hudjon's Bay, Terra di Labrador, and Canada, and as low fouth as Carolina and Louifiana*; but in the latter provinces are very fcarce. The fpecies ceafes farther fouth. Larvfon fays that they are fometimes found, to the weftward of Carolina, of a white color, inclining to yellow. Thofe of North America are larger than the European, and the furs of fuch which inhabit the colder parts are very valuable. Their food is commonly fifh; but they will alfo attack and devour the Beaver $\dagger$.

They are found again in Kamt $\delta_{c h a t k a, ~ a n d ~ i n ~ m o f t ~ p a r t s ~ o f ~ n o r-~}^{\text {a }}$ thern Europe and Afia, but not on the Arctic flats: are grown very fcarce in Rufia. The Kamt fcbatkans ufe their furs to face their

* Larufon, 119, and Du Pratz, ii, 69. + Dobbs, 40.
$\mathrm{O}_{2}$
garments,

OTTER.
34. Common.
garments, or to lap round the fkins of Sables, which are preferved better in Otter fkins than any other way. They ufually hunt them with dogs, in time of deep fnow, when the Otters wander too far from the banks of rivers *.

The Americans round Hudjon's Bay fhoot or trap them for the fake of the fkins, which are fent to Europe. They alfo ufe the fkins for pouches, ornamented with bits of horn; and eat the flefh.

Otters are probably continued along the Arctic parts of America, weftward; being found on the moft eaftern, or the greater Fox Iflands, which are fuppofed to be pretty near to that continent.
35. MinX.

Description.

AMERICA.
It inhabits the middle provinces of North America, from New Ferfey to the Carolinas. I did not difcover it among the fkins fent by Mr. Grabam from Hudjon's Bay; the animal defcribed as one of this fpecies differing from the many I have feen from the more fouthern colonies : yet poffibly it may be found in a more northern latitude than that which I have given it, if the Foutereaux, an amphibious fort of little Polecats mentioned by La Hontan, be the fame $\dagger$.
*Hif. Kamtf. $115,116 .+$ i, 62 .

## LESSER OTTER.

It frequents the banks of rivers, inhabiting hollow trees, or holes which it forms near the water*. It has, like the Skunks, when provoked, a moft exceffively foetid fmell. It lives much upon fifh, frogs, and aquatic infects; dives admirably, and will continue longer under water than the Mufk-beaver $\dagger$ : yet at times it will defert its watery haunts, and make great havoke in the poultry yards, biting off the heads of the fowls, and fucking the blood. At times it lurks amidft the docks and bridges of towns, where it proves a ufeful enemy to rats $\ddagger$.
It is befides very deftructive to the Tortoife; whofe eggs it fcrapes out of the fand and devours: and eats the frefh-water mufcles; whofe fhells are found in great abundance at the mouth of their holes. It is capable of being made tame, and domefticated §.

The fpecies is fpread in Afia, along the banks of the $Y_{a i k}$, in the Orenburg government $\rrbracket$. None are feen in Sibiria; but appear again near the rivers which run into the Amur. Its fur is in thofe parts very valuable, and efteemed as next in beauty to the Sable. It is either hunted with dogs or taken in traps. In Europe it is found in Poland and Litbuania, where it is named Nurek; and the Germans call it Nurtz. It is alfo an inhabitant of Finland: the natives call it Ticburi; the Swedes, Mank $\mathbb{\Pi}$, a name carried into America by fome Swedifb colonift, and with a flight variation is ftill retained.

[^43]36. SEA.

DESCRIPTION.

Size.

Place.

Hift. Quad. $\mathrm{N}^{\circ} 230^{\circ}$
Lutra Marina, Kalan. Nov. Comr. Petrop. ii. 367. tab. xvì.
Caftor Marin, Hiff. Kamtfchatka, 444.
Sea Otter, Muller, 57, $58^{* *}$.Lev. Mus.

OTTER. With hazel irides: upper jaw long, and broader than the lower: nofe black: ears erect, conic, fmall: whifkers long and white: in the upper jaw fix, in the lower four, cutting teeth : grinders broad: fore legs thick; on each four toes, covered with hair, and webbed: the hind feet refemble exactly thofe of a Seal : the toes divided by a ftrong fhagreened membrane, with a fkin fkirting the external fide of the outmoft toe, in the manner of fome water fowl.

The fkin is extremely thick, covered clofely with long hair, vemarkably black and gloffy; and beneath that is a foft down. The hair fometimes varies to filvery. The hair of the young is foft and brown.
The length, from nofe to tail, is about three feet; that of the tail thirteen inches and a half. The tail is depreffed, full of hair in the middle, and fharp-pointed. The weight of the biggeft, feyenty or eighty pounds.

Thefe are the moft local animals of any we are acquainted with, being entirely confined between lat. 49 and 60 , and weft longitude 126 to 150 eaft from London, in the coaft and feas on the north-eaft parts of America; and again only between the Kamt-

* I here infert the fynonyms; for in the Synopfis of Quadrupeds, following Linnous and Bifon, I confound the Brafilian Otter of Marcgrave with this animal.
fchatkan
fcbatkan fhores and the ifles which intervene between them and America. They land alfo on the Kuril inlands; but never are feen in the channel between the nor:h-eaft part of Sibiria and America.

They are moft extremely harmiefs, and moft fingularly affectionate to their young. They will never defert them, and will even pine to death on being rotbed of them, and ftrive to breathe their laft on the fpot where tiey experienced the misfortune.

It is fuppofed that they bring but one at a time. They go between eight and nine months with young, and fuckle it almoft the whole year. The young never quits its dam till it takes a mate. They are monogamous, and very conftant.

They bring forth on land: often carry the young between their teeth, fondle them, and frequently fling them up and catch them again in their paws. Before the young can fwim, the old ones will take them in their fore feet, and fwim about upon their backs.

They run very fwiftly: fwim fometimes on their fides, on their backs, and often in a perpendicular direttion. They are very fportive, embrace each other, and kifs.

They never make any refiftance; but endeavour, when attacked, to fave themfelves by flight : when they have efcaped to fome diftance, they will turn back, and hold one of their fore feet over their, eyes, to gaze, as men do their hands to ee more clearly in a funny day; for they are very dull-fighted, but remarkably quickfcented.
They are fond of thofe parts of the fea which abound moft with weeds, where they feed on fifh, fepix, lobiters, and fhell-fifh, which they comminute with their flat grinders.

Capture.
They are taken different ways: in the fummer, by placing nets among the fea-plants, where thefe animals retire in the frequent ftorms of this tempeftuous coaft.

They are killed with clubs or fpears, either while they lie afleep on the rocks, or in the fea floating on their backs.

Thirdly, they are purfued by two boats till they are tired, for they cannot endure to be long at a time under water.

During winter they are brought in great numbers to the Kurilian inlands, by the eaftern winds, from the American fhore.

The hunter goes with a dog, who points them. He knocks it on the head, and flays it, while the dog is beating about for another.

They are called in the Kamtccbatkan tongue Kalan, in the plural Kalani.

Their flefh is preferred to that of Seals by the natives; but the unfortunate crew who were fhipwrecked in the expedition in $\mathbf{1 7 4 1}$, under Captain Bering, found it to be infipid, hard, and tough as leather; fo that they were obliged to cut it in fmall pieces before they could eat it. Others pretend, that the flefh of the young is very delicate, and fcarcely to be diftinguifhed from young lamb.
Fur. But the valuable part of them is their fkin. Few are brought into Europe; but great quantities are fold to the Cbinefe, at vaft prices, from feventy to a hundred rubles apiece, or 14 or $25 \%$ fterling each. What a profitable trade might not a colony carry on, was it poffible to penetrate to thefe parts of North America by means of the rivers and lakes! The accefs to Pekin would be then eafy, by failing up the gulph of Petcbeli. At prefent, thefe valuable furs are carried by land above three thoufand miles to the frontiers of Cbina, where they are delivered to the merchants.

## S EA O T T E R.

Thefe animals partake very much of the nature of Seals, in their almoft conftant refidence in the water, their manner of fwimming, fin-like legs, and number of fore teeth. In their ears they greatly refemble the little Seal of my Hiftory of Quadrupeds, $\mathrm{N}^{\circ} 386$, and feem the animals which connect the genera of Otters and Seals.

They are feen very remote from land, fometimes even at the diftance of a hundred leagues.
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D I V.

D I V. II. Sect. II.
DIGITATED QUADRUPEDS.
Without Canine Teeth: and with two Cutting Teeth only in each jaw.

D I V. II. Sect. II. Digitated Quadrupeds.

HARE. HIST. $2 U A D . \quad G E N U S$ XXVI.
37. Varying. Hif. Quad. $\mathrm{N}^{\circ}$ 242.-Alpine Hare, Br. Zool. i. $\mathrm{N}^{0}$ 2r.-Lev. Mus.

ARE. With the edges of the ears and tips black: the colors, in fummer, cinereous, mixed with black and tawny: tail always white.

Mr. Grabam fays, that thofe of Hudfon's Bay are of the fame fize with the common; but thofe which I have examined in Scotland are much lefs, weighing only fix pounds and a half: the common Hare weighs upwards of eight.

This fpecies inhabits Greenland, where alone they continue white throughout the year*; and are very numerous amidft the fnowy mountains. They are ufually fat; and feed on grafs, and the white mofs of the country. They are found about the rocks at Cburcbill, and the ftreights of Hudjon's Bay; but are not common. They breed once a year, and bring two at a time $\dagger$. They change their color to white at approach of winter. They are met with in

* Crantz, i. 70.-Egede, 62.


## AMERICAN HARE.

Canada and Nerefoundland; after which the fpecies ceafes to the fouthward, or at left I have no authority for its being continued; the Hare of Nero England feeming, by Foffelyn's account, to be the following fpecies.
The Greenlanders eat the flefh dreffed, and the contents of the ftomach raw. They ufe the excrements for wick for their lamps; and cloath their children with the foft and warm fkins.

This fpecies abounds from Livonia to the north-eaft part of Sibiria and Kamt chatka; and from Archangel to Saratof, on the banks of the Wolga, in eaft lat. 49.52, and even farther into the Orenburg government. In Sibiria they quit the lofty mountains, the fouthern boundaries of that country, and, collecting in flocks innumerable, at approach of winter migrate to the plains, and northern wooded parts, where vegetation and food abound. Mr. Bell met with them daily in their progrefs *. Multitudes of them are taken in toils by the country people, not for the fake of the flefh, but the fkins; which are fent to Peterfourg, and from thence exported to various parts. ARE. With ears tipt with grey : neck and body rufty, cinereous, and black: legs pale ruft-color: belly white : tail black above, white beneath.
The diftinctions between this and the common Hares and varying Hares are thefe:-They are lefs, weighing only from three pounds eight ounces to four pounds and a half: the length to the fetting-on of the tail only nineteen inches. The hind legs are longer in proportion than thofe of the common Hare or varying Hare;

$$
\text { * Travels, octavo ed. i, } 246 .
$$

38. Amertcan.

Size,
the length of this, from the nofe to the tip of the hind legs, extended , being two feet five: of a varying Hare, meafured at the fame time, in Hudjon's Bay, only two feet feven and a half; but from the nofe to the tail was two feet: its weight feven pounds fix ounces.

Thefe animals are found from Hudjon's Bay to the extremity of North America; but fwarm in countries bordering on the former. In the time of $M$. Feremie, who refided in Hudjon's Bay from 1708 to 1714 , twenty-five thoufand were taken in one feafon*. At prefent they are a principal winter food to our refidents there. They are taken in wire fnares, placed at certain intervals in fmall openings made in a long extent of low hedging formed for that purpofe; the animals never attempting to jump over, but always feek the gaps. Thefe hedges are removed, on the falling of the fnows, to other places, when the Rabbets feek new tracks $t$. Their flefh is very good; but almoft brown, like that of the Englijh Hare.
From Hudjon's Bay, as low as New England, thefe animals, at approach of winter, receive a new coat, which confifts of a multitude of long white hairs, twice as long as the fummer fur, which ftill remains beneath. About the middle of April they begin to fhed their winter covering.

From New England fouthward they retain their brown color the whole year. In both warm and cold climates they retain the fame nature of never burrowing; but lodge in the hollow of fome decayed tree, to which they run in cafe they are purfued. In the cultivated parts of America, they make great havoke among the fields of cabbage, or turnips $\ddagger$. In Carolina, they frequent meadows and marihy places ; and are very fubject to have maggots breed in the Ikin §. In that province they breed very often, and even in the

[^44]
## ALPINE HARE.

winter months, and bring from two to fix at a time ; but ufually two or four *.

I know of no ufe that is made of the fkins, excepting that the natives of Hudjon's Bay wrap them round the limbs of their children, to preferve them againft the cold.

> * * Without a tail.

Hijf. Quad. $\mathrm{N}^{\mathrm{o}}{ }_{248}$ 8.—Blackb. MuJ.
ARE. With fhort, broad, rounded ears: long head, and whifkers: fur dufky at the roots; of a bright bay near the ends; tips white: intermixed are divers long dufky hairs.
Length nine inches.
Found from the Altaic chain to lake Baikal, and from thence to Kamtccbatka. They dwell amidft the fnows of the loftieft and moft dreadful rocky mountains, and never defcend to the plains. They alfo are faid to inhabit the fartheft Fox or Aleutian iflands: therefore poffibly may be met with in America.

The manners are fo amply defcribed in my Hiftory of Quadrupeds, that I fhall not repeat an account of them.

[^45]
A. European, Br. Zool. i. No -Hif. Quad. ii. No .

The common Englifb Hare is found in Sweden, and is perhaps the only kind in the fouthern part. Profeffor Retzius is of opinion, that it does not differ in fpecies from the Varying, $\mathrm{N}^{\circ} 37$. I have given my reafons, in the Tour to Scotland, and my Hijtory of Quadrupeds, vol. II. p. 370 , for differing from his refpectable opinion.

In Sweden the common Hare is in fummer of a dufky brown: in winter becomes cinereous. In that ftate, I have feen a brace fent over to England. In Scania they are twice as large as they are in the northern parts of Sweden, i, e. as thofe I call the Varying.


HIST. 2UAD. GENUS XXVII.

Hift. 2uad. $\mathrm{N}^{\circ} 25^{1}$ - - Smellie, v. 21.-Lev. Mus.

BEAVER. With a blunt nofe: ears fhort, rounded, and hid in the fur: eyes fmall : very ftrong cutting teeth : hair of a deep chefnut brown: fore feet fmall, and the toes divided: hind feet large, and the toes webbed : the tail eleven inches long, and three broad; almoft oval; flat, and covered with thin fcales.

The ufual length, from nofe to tail, is about two feet four; but I have meafured the fkin of one, which was near three feet long.

Beavers vary in color. They are fometimes found of a deep black, efpecially in the north. In Sir A/bton Lever's mufeum is a fpecimen quite white. As they advance fouthward, the beauty of their fur decreafes. Among the Illinois they are tawny, and even as pale as ftraw color *.
In North America thefe animals are found in great plenty all round Hudjon's Bay, and as low as Carolina $\dagger$ and Louifana $\ddagger$. They are not known in Eaft Florida §. The fpecies alfo ceafes before it arrives in South America. To fpeak with precifion, it commences in lat. 60, or about the river of Seals, in Hudjon's Bay; and is loft in lat. 30, in Louifana.

From Hudjon's Bay and Canada, I can trace them weftward to 120 degrees of longitude, as far as the tract weft of Lac Rouge, or the Red lake \|. The want of difcovery prevents us from know-

[^46]BEAVER.
40. Castor.

Description.

Place.
ing whether they are continued to the weftern extremity of this great continent oppofite to $A f a$ : probably they are, for the Ruflan adventurers got fome of their fkins on the inle of Kadjak, which the natives muft have had from America. They certainly are not found in the inlands of the new Archipelago; nor yet in Kamtfcbatka*, by reafon of the interruption of woods, beyond the river Konyma. From thence I doubt whether they are met with affociated, or in a civilized ftate, nearer than the banks of the river Fenefei, or the Konda, and other rivers which run into the Oby: but they are found fcattered in the woody parts of independent Tartary; alfo in Cajan, and about the Yaik, in the Orenburg government. In the fame unfociable ftate they inhabit Europe, and are found in Rufla, in Lapland, Norway, and Sweden. The Beaver is extremely fcarce in the lower part of Sreeden. Mr. Oedman recollects but one inftance, and that was in Weftrogotbia. It was fo little known there, that the common people regarded it as a prodigy.
Sagacity.

Dwellings.

Labors.
proper places. A fifth party is bufied in collecting twigs to wattle the piles. A fixth, in collecting earth, fones, and clay; others carry it on their broad tails to proper places, and with their feet beat and temper the earth into mortar, or ram it between the piles, or plaifter the infide of the houfes.

All thefe preparations are to form their dwellings within an artificial piece of water or pond, which they make by raifing a dam acrofs the level fpot they had pitched on. This is done, firf by driving into the ground ftakes, five or fix feet long, placed in rows, and fecuring each row by wattling it-with twigs, and filling the interftices with clay, ramming it down clofe. The fide next to the water is floped, the other perpendicular. The bottom is from ten to twelve feet thick; the thicknefs gradually diminifhes to the top, which is about two or three. The centre of the dam forms a fegment of a circle; from which extends, on each fide, a ftrait wing: in the midft of the centre is ufually a gutter left for the wafte water to difcharge itfelf. Thefe dams are often a hundred feet long, and nicely covered with turf.

The houfes thefe wife animals make, are placed in the water collected by means of the dam, and are feated near the fhore. They are built upon piles, and are fometimes round, fometimes oval; the tops are vaulted, fo that their infide refembles an oven, their outfide a dome. The walls are made of earth, ftones, and fticks, and ufually two feet thick. They are commonly about eight feet high above the furface of the water ${ }^{*}$, and are very neatly and clofely plaittered on the infide. The floor is a foot higher than the water. The houfe, fometimes, has only one floor, which is ftrewed with leaves or mofs, on which each Beaver lies in its proper place; at other times there are three apartments; one to lodge, another to

[^47]eat in, and a third to dung in *: for they are very cleanly, and inftantly caufe the filth to be carried off by the inferior Beavers.
M. Du Pratz $\dagger$ fays, that thofe of Louifiana form numbers of cells, and that each animal, or more probably each pair, poffefs one. He fays, that he has feen no lefs than fifteen of thefe cells furrounding the centre of one houfe. He alfo acquaints us, that the Beavers of Louifiana are a third lefs than the brown fort; are covered with a cinereous down, which is covered with long filvery hairs.

In each houfe are two openings; one towards the land, the other is within, and communicates with the water, for the conveniency of

Magazines.

Food.

Number of
HOUSES;

OFINHABITANTS. getting to their magazine of provifion in frofty weather. This orifice is formed fo as to be beyond the thicknefs of the ice; for they lodge their provifions under the water, and dive and bring it into their houfe according as they want it.
Their food is laid in before winter by the tenants of each houfe; it confifts of the bark and boughs of trees. Larefon fays that they are fondeft of the faffafras, afh , and fweet gum. In fummer they live on leaves, fruits, and fometimes crabs and cray-fifh; but they are not fond of fifh.

The number of houfes in each pond is from ten to twenty-five: the number of animals in each, from two to thirty. They are fuppofed to affociate in pairs; are therefore monogamous: another proof of their advances towards civilization.
I think I have heard that every family confifts of an even number. Sometimes the community, within the precinct of a dam, confifts of four hundred; but I prefume this muft be in places little frequented by mankind.

They begin to build their houfes, when they form a new fettlement, in the fummer; and it cofts them a whole feafon to finifh their work, and lay in their provifions.
*Mr. Grabam,-Cate $b y$, App. xxx.
+i. 24 I .

They are very attentive to their fafety; and on any noife take to the water for their further fecurity. They form vaults or burrows in the banks of the creek formed by the dam, into which they retreat in cafe of imminent*danger.

They feem to be among quadrupeds, what Bees are among infects. They have a chief, or fuperintendant, in their works, who directs the whole. The utmoft attention is paid to him by the whole community. Every individual has his tafk allotted, which they undertake with the utmoft alacrity. The overfeer gives a fignal by a certain number of fmart flaps with his tail, expreffive of his orders. The moment the artificers hear it, they haften to the place thus pointed out, and perform the allotted labor, whether it is to carry wood, or draw the clay, or repair any accidental breach.

They have alfo their centinels, who, by the fame kind of fignal, give notice of any apprehended danger.

They are faid to have a fort of navifh Beaver among them (analogous to the Drone) which they employ in fervile works, and the domeftic drudgery *.

I have mentioned before their fagacity in laying in the winter provifion. They cut the wood they prefer into certain lengths; pile them in heaps beneath the water, to keep them moift; and, when they want food, bite the wood into fmall pieces, and bring it into their houfes. The Indians obferve the quantity which the Beavers lay in their magazine at approach of winter. It is the Almanack of the Savages; who judge, from the greater or lefs ftock, of the mildnefs or feverity of the approaching feafon $\dagger$.

The expedition with which they cut down trees, for the forming their dams, is amazing. A number furrounds the body, and will
*Mr. Grabama + Charlevoix, v. 151.
in a few minutes gnaw through a tree of three feet in circumference; and always contrive to make it fall towards the fpot they wih *.

Beavers have in America variety of lakes and waters in which they might fix their feats; but their fagacity informs them of the precarious tenure of fuch dwellings, which are liable to be overthrown by every flood. This induces them to undertake their mighty and marvellous labors. They therefore felect places where no fuch inconveniences can be felt. They form a dam to fupport a refervoir, fed only by a fmall rill; and provide for the overflow of the wafte water by a fuitable channel in the middle of their bank. They have nothing to fear but from land floods, or the fudden melting of the fnows. Thefe fometimes make breaches, or damage their houfes; but the defects are inftantly repaired.

During the winter they never ftir out, except to their magazines of provifion; and in that feafon grow exceffively fat.

They are ftrongly attached to certain haunts, there being places which they will not quit, notwithftanding they are frequently difturbed. There is, fays Cbarlevoix, a ftrong inftance on the road between Montreal and lake Huron, which travellers, through wantonnefs, annually moleft; yet is always repaired by the induftrious inhabitants.

In violent inundations they are fometimes overpowered in their attempts to divert the fury of the water. In thofe cafes they fly into the woods: the females return as foon as the water abates; the males continue abfent till $\mathcal{F u l y}$, when they come back to repair the ravages made in their houfes $\dagger$.

Beavers breed once a year, and bring forth the latter end of winter ; and have two or three young at a birth.

* Catefby, App. 30. + Charlervix, v. 35 1.

There

## C A S T O R.

There is a variety of the Beaver kind, which wants either the fagacity or the induftry of the others, in forming dams and houfes. Thefe are called Terriers. They burrow in the banks of rivers, and make their holes beneath the freezing depth of the water, and work upwards for a great number of feet. Thefe alfo form their winter magazines of provifion. Beavers which efcape the deftruction of a community, are fuppofed often to become Ter riers.

Strange animal feen by Mr. Pbipps and others in Nerefoundland, of a fhining black: bigger than a Fox: fhaped like an Italian grehound: legs long: tail long and taper. One gentleman faw five fitting on a rock with their young, at the mouth of a river; often leapt in and dived, and brought up trouts, which they gave to their young. When he fhewed himfelf, they all leapt into the water, and fwam a little way from fhore, put their heads out of the water and looked at him. An old furrier faid, he remembered a fkin of one fold for five guineas. The French often fee them in Hare Bay.

Beavers have, befides man, two enemies; the Otter, and the Wolverene ; which watch their appearance, and deftroy them. The laft is on that account called, in fome parts of America, the Beavereater. They are very eafly overcome; for they make no reffitance: and have no fecurity but in flight.

It is not wonderful that fuch fociable animals fhould be very affectionate. Two young Beavers, whieh were taken alive and brought to a neighbouring factory in Hudfon's Bay; were preferved for fome time ; and throve very faft, till one of them was killed by an accident. The furvivor inftantly felt the lofs, began to moan, and abftained from food till it died *.

$$
\text { * Drage's Voy. i. } 15 \text { 1. }
$$

They

Tériér
Beavers.

How taken. They are taken feveral ways: fometimes in log-traps, baited with poplar fticks, laid in a path near the water. The Indians always wafh their hands before they bait the traps, otherwife the fagacious animal is fure to fhun the fnare.

Sometimes they are fhot, either while they are at work, or at food, or in fwimming acrofs the rivers. But thefe methods are ufed only in fummer, and not much practifed; for the fkins in that feafon are far lefs valuable than in the winter. At that time they are taken in nets placed above and below their houfes, acrofs the creeks, on ftakes. If the water is frozen, the ice is cut from fhore to fhore, in order to put down the ftakes. When the net is fet, the Indians fend their women to the Beaver-houfes to difturb the animals; who dart into the water, and are ufually taken in the net, which is inftantly hauled up; and put down again with all expedition. If the Beaver miffes the net, it fometimes returns to its houfe, but oftener into the vaults on the fides of the banks; but the poor creature feldom efcapes, being purfued into all his retreats, the houfes being broke open, and the vaults fearched by digging along the fhores.

The value of the fur of thefe animals, in the manufacture of hats, is well known. It began to be in ufe in England in the reign of Cbarles I*, when the manufacture was regulated, in $163^{8}$, by proclamation; in which is an exprefs prohibition of ufing any materials except Beaver fuff, or Beaver wool; and the hats called demicaftors were forbidden to be made, unlefs for exportation.

This caufed a vaft encreafe of demand for the fkins of the Beavers. The Indians, on the difcovery of America, feem to have paid very little attention to them, amidft the vaft variety of beafts they at that time poffeffed, both for food and cloathing. But

* Rymer's Foedera, xx. 230.


## C A S T O R.

about the period of the fafhion of hats, they became an article of commerce, and object of chafe. The fouthern colonies foon became exhaufted of their Beavers; and of later years the traffic has been much confined to Canada and Hudjon's Bay. The importance of this trade, and the ravages made among the animal creation in thofe parts, will appear by the following fate of the imports into the ports of London and Rocbelle in 1743 . I take that year, as I have no other comparative ftate:

Hudfon's Bay company fale, begun November 17th 1743.
26,750 Beaver fkins.
14,730 Martins.
590 Otters.
1, 110 Cats, i. e. Lynx.
320 Fox.
600 Wolverenes.
320 Black Bears.
1,850 Wolves.
40 Woodfhocks, or Fifhers.
10 Minx.
5 Raccoon.
120 Squirrels.
130 Elks, i. e. Stags.
440 Deer.
Imported into Rochelle in the fame year.
127,080 Beavers.
16,512 Bears.
110,000 Raccoon.
30,325 Martins.
12,428 Otters and Fifhers.
1,700 Minx.
1,220 Cats.
Vol. I.
R
8,267 Wolves.

1,267 Wolves.
92 Wolverenes.
10,280 Grey Foxes and Cats.
451 Red Foxes.
This great balance in favor of the Frencb arifes not only from their fuperior honefty in their dealings with the ignorant Indians, but the advantageous fituation of Canada for the fur trade. They had both fides of the river St. Lawrence; the country round the five great lakes; and the countries bordering on the rivers flowing into them; and finally, the fine fur countries bordering on the Hudjon's Bay company, many of whofe waters falling into the St. Lawrence, gave an eafy conveyance of thofe commodities to Montreal; where a fair is annually kept, with all the favage circumftances attendant on Indian concourfe.

The traffic carried on in Hudjon's Bay is chiefly brought from the chain of lakes and rivers that empty themfelves into the bay at Neljon's river, running foutherly from lat. 56 to lat. 45. Lake Pachegoia is the moft northerly: there the Indians rendezvous in March, to make their canoes for the tranfportation of the furs; for at that feafon the bark of the birch-tree feparates very eafily from the wood.
41. Musk.
$\mathbf{B}^{\text {EAVER. With a thick nofe, blunt at the end: ears fhort, }}$ hid in the fur: eyes large : body thick, and in form quite refembles that of the Beaver; its color, and that of the head, a reddifh brown: breaft and belly cinereous, tinged with ruft-color: the fur is very foft and fine.

The toes on every foot are diftinct and divided: thofe of the hind feet fringed on both fides with ftiff hairs or briftles, clofely fet together: tail compreffed, and thin at the edges, covered with fmall fcales, with a féw hairs intermixed.

Length, from nofe to tail, one foot: of the tail nine inches.
Thefe animals are in fome parts of America called the Little Beaver, on account of its form, and fome parts of its œconomy. From its fcent it is ftyled the Mufk Rat, and Mufquarh. The Hurons call it Ondatbra; from which M. de Bufon gives it the name of Ondatra*.

It is found from Hudjon's Bay to as low at left as Carolina $\dagger$ 。 Like the Beaver, it forms its houfe of a round fhape, covered with a dome, and conftructed with herbs and reeds cemented with clay: At the bottom and fides are feveral pipes, through which they pafs in fearch of food; for they do not lay in a ftock of provifion, like the former. They alfo form fubterraneous paffages, into which they retreat whenever their houfes are attacked.

Thefe houfes are only intended for winter habitations: are deferted, and rebuilt annually. During fummer, they live in pairs, and bring forth their young from three to fix at a time. At approach of winter, they conftruct their houfes and retire into them, in order to be protected from the inclemency of the feafon. Several families occupy the fame dwelling, which is oft-times covered many feet with fnow and ice; but they creep out and feed on the roots which lie beneath. They are very fond of the Acorus Verus, or Calamus Aromaticus $\ddagger$. This perhaps gives them that ftrong mufky fimell thefe animals are fo remarkable for; which they lofe during winter, probably when this fpecies of plant is not to be got. They alfo feed on the frefh-water Muffels. They feed too on fruit; for Kalm

[^48]$$
\mathrm{R} \cdot 2
$$
fays, that apples are the baits ufed for them in traps. We may add, that in winter they eat the roots of nettles, and in fummer, Atrawberries and rafberries*, during which time it is rare to fee the male and female feparate.
The flefh is fometimes eaten. The fur is made ufe of in the manufacture of hats. The Murk-bag is fometimes put among cloths, to preferve them from worms or infeets.

Thefe animals, as well as the Beaver, feem to have their Terriers, or fome which do not give themfelves the trouble of building houfes, but burrow, like Water-rats, in banks adjacent to lakes, rivers, and ditchest, and often do much damage, by admitting the water through the embankments of meadows. They continue in their holes, except when they are in the water in fearch of food. They make their nefts with flicks, placing a lining of fome foft materials within $\ddagger$. Cbarlevoix $\S$ adds, that they fometimes make ufe of a hollow tree for their refidence.

When taken young, they are capable of being tamed; are very playful and inoffenfive, and never bite.

[^49]HIST. 2UAD. Genus XXVIII.
Hij. 2ucd. No 257.-Lev. Mus.

PORCUPINE. With fhort ears, hid in the fur : hair on the head, body, legs, and upper part of the tail, long, foft, and of a dark brown color; but fometimes found white: on the upper part of the head, body, and tail, are numbers of ftrong fharp quils; the longeft, which are thofe on the back, are three inches long; the fhorteft are towards the head and on the fides, and concealed in the hair ; mixed with them are certain ftiff ftraggling hairs, at left three inches longer than the others, tipt with dirty white: the under fide of the tail is white.

On each fore foot are four toes; on the hind five; all armed with long claws, hollowed on the under fide.

The fize of one, which Sir Joseph Banks brought from Newfoundland, was about that of a Hare, but more compactly made; the back arched; and the whole form refembling that of the Beaver: the tail is fix inches long, which, in walking, is carried a little bent upwards.

This fpecies inhabits Anerica, from Hudjon's Bay to Canada*, Nerefoundland, New England, and, but rarely, as far fouth as Virginia $\dagger$. Larevon makes no mention of it among the animals of Carolina. Du Pratz $\ddagger$ fays, it loves the cold, and is found on the banks of the Illinois. It may therefore be ranked among the local northen animals.

PORCUPINE.
42. Canada.

They are found in great plenty about Hudjon's Bay, where the trading Indians depend much on them for food. They are reckoned excellent eating, even by the Europeans, tafting, when roafted, like fucking-pig. The bones, during winter, are of a greenifh yellow, owing, as is fuppofed, to their feeding during that feafon on the bark of the pine. It is obferved, that the bones of animals fometimes take a tincture from their diet; for example, thofe of beafts which feed on madder become red *. The Caqua, or Canada Porcupine, feeds much on the bark of pines or juniper: it is their food the greateft part of the year, and the buds of willows their chief fupport the reft. In walking it drags its tail along the ground. Indians difcover them by the track they make, but chiefly by the unbarked trees. In fummer, they live on the wild fruits, and lap water, but will not go into it. In winter, take fnow by way of beverage.

They neftle under the roots of great trees, and will alfo, in queft of fruits, afcend the boughs. When the Indians difcover one in a tree, they cut it down, and kill the animal by a blow on the nofe.

They defend themfelves with their quils. They fly from their purfuer ; but when they cannot efcape, will fidle towards their enemy, in order to pufh their quils into him : they are but weak inAtruments of offence; for a fmall ftroke with the hand againft the grain will bring them from the fkin, leaving them fticking flightly in the flefh. The Indians ufe them to make holes in their nofes and ears, for the placing their nofe and ear-rings, and other finery $\dagger$. They alfo trim the edges of their deer-fkin habits with fringes of dyed quils $\ddagger$, or make pretty linings with them for the bark boxes.
*Pbil. Tranf. Ixii. 374 .

## CANADA PORCUPINE.

They are very indolent animals, fleep much, and feldom travel a mile from their haunts *.
M. de Buffon gives two figures of this beaft, under the name of Le Coendou and L'Urfon. The firft he makes an inhabitant of Brafl: the laft, of Hudjon's Bay: but the Coendou is a very different animal $\dagger$. The two figures he has exhibited are of our Porcupine in the winter and fummer drefs, the hair growing thinner as the warm feafon approaches $\ddagger$. His Coendou fhews it in the firft ftate, his $U_{r}$ fon in the fecond $\S$.
They are faid to copulate in September, and to bring only one young, the firft week in April; another, which it brings forth, being always dead $\|$.

*Mr. Grabam. + See Syn. 2uad. No $\ddagger$ Ea'w. Hift. Birds, i. 52.<br>§ Hift. Nat. xii. tab. liv, lv, \| Mr. Grabam.

MARMOT.
43. Quebec.

HIST. $2 U A D$. GENus' XXIX.

Hif. Quad. No 259.
Mus empetra, Pallas, Nov. Sp. Quad. fafc. i. 75.

ARMOT. With fhort rounded ears: blunt nofe: cheeks
fwelled, and of a cinereous color: end of the nofe black: top of the head chefnut : the hair on the back grey at the bottom, black in the middle, and the tips whitifh: the belly and legs of a deep orange, or a bright ferruginous color.

Toes black, naked, and quite divided: four toes, with the rudiments of another, on the fore feet, five on the hind feet : tail fhort, dufky, and full of hair.

The fpecimen which I faw formerly at Mr. Brook's, alive, appeared larger than a Rabbet; but the fpecimen in the Royal Society's Mufeum* was only eleven inches long from nofe to the tail, and the tail three inches. This probably was a young one.

The Wenufk, or Quebec Marmot, feeds on coarfe grafs. It burrows in the earth in a perpendicular manner. The Indians take it by pouring water into the holes, which forces it out.
44. Maryland. Hijt. Quad. No 260.-Smellie, iv. 346.

MARMOT. With prominent dark eyes: fhort rounded ears: nofe fharper-pointed than that of the laft, and of a cinereous color: head and body of a brown color, which is lighter on the

## HOARY MARMOT.

fides, and ftill more fo on the belly: the legs and feet dufky: toes long, and divided : claws long, and fharp : tail dufky, and bufhy; half the length of the body: a fpecific diftinction from the other kinds.

Size of a Rabbet.
Inhabits the temperate and warm parts of North America, from Penflvania to the Babama Ifands. It feeds on fruits, berries, and vegetables. In the provinces it inhabits the hollows of trees, or burrows under ground, fleeping for a month together. The European fpecies continues dormant half the year: whether it takes a long fleep in the warm climate of the Babamas I am uncertain. It dwells there among the rocks, and makes its retreat into the holes on the approach of the hunters. In thofe inands it is very fond of the berries of the Ebretia Bourreria, called there Strong Back. The flefh is reckoned very good, but refembles more that of a Pig than a Rabbet *.

It is called there the Babama Coney. By Mr. Edrwards, who figures one from Maryland, the Monax, or Marmot of America $\dagger$.

$$
\text { Hif. Quad. } \mathrm{N}^{\circ}{ }_{261} \text {.-Lev. Mus. }
$$

MARMOT. With the tip of the nofe black: ears fhort, and oval: cheeks whitifh : crown dufky and tawny: hair in all parts rude and long; on the back, fides, and belly, cinereous at the bottoms, black in the middle, and tipped with white, fo as to fpread a hoarinefs over the whole : legs black: claws dufky : tail full of hair, black and ferruginous.

Size of the preceding.
Inhabits the northern parts of North America.

[^50]A. 45. Black Marmot. With the tip of the nofe whitifh: face, brown and hoary: tail, fix inches long: hair on the body fhort; and of a full black : palms naked beneath. Size of a Rabbet.

Defcribed from a fkin in the Hudjon's Bay houfe. Inhabits the interior parts of the country, and faid to be rare.
46. TAIL-LESS.
Hif. 2uad. No -Lev. Mus.

MI ARMOT. With fhort ears: color of the head and body a cinereous brown: the extremities of the hairs white: two cutting teeth above, four below : no tail.

About the fize of the common Marmot.
Inhabits Hudjon's Bay.
47. Ear-less.

Hif. 2uad. $\mathrm{N}^{\circ} 263$.-Smellie, viii. 234 -
MARMOT. Without ears: face cinereous: back, and hind part of the head, of a light yellowifh brown; fometimes fpotted diftinctly with white, at others undulated with grey: belly and legs of a yellowifh white: tail about four inches and a half long. Length, from nofe to tail, about nine and a half. But there is a pygmy variety wholly yellow, and with a fhort tail, frequent near the falt lakes, between the mouths of the Yaik and the femba.

Inhabits Bobemia, Aufria, and Hungary, and in the Ruffian empire; begins to be common about the Occa, eaft of Mofcow ; extends over all the temperate and open parts of Sibiria, and about $\because a k u t / k$, and in Kamt chatka. It is alfo on the ifland of Kadjak, and was feen in $^{\text {a }}$. great numbers by Steller on Scbamagin's inles, almoft clofe on the fhore of North America, which give it place in this part of the work.

## EAR-LESS MARMOT.

They burrow, and fink the pipes to their retreats obliquely, and then winding; and at the end is an arched oblong chamber, a foot in diameter, ftrewed with dried grafs. The entrances, or pipes, of the males are of greater, and thofe of the females of leffer, diameters. Towards winter they make a new pipe to their neft, but that only reaches to the turf; and with the earth which is taken out they fill up the fummer pipe.
They live entirely in a fate of folitude, unlefs in the amorous feafon, when the females are found in the fame burrows with the males; but they bring forth in their own burrows, and by that means prevent the males from deftroying the young, as they cannot enter by reafon of the narrownefs of the pipes, the males being fuperior in fize to their mates. They fleep all night; but in the morning quit their holes, efpecially in fine weather, and feed and fport till approach of night. If the males approach one another, they fight fharply. The females often fet up a very fharp whiftle; the males are, for the moft part, filent. At the fight of a man, they inftantly run into their burrows; and are often feen ftanding upright, and looking about them, as if on the watch : and if they fpy any body, give a loud whiftle, and difappear.

They are very eafily tamed, and become very fportive and amufing; and are very fond of being ftroked and cherifhed. In this ftate they will eat grain, and many forts of herbs. In a wild ftate they prey on mice, and fmall birds, as well as vegetables. Gmelin fays, that in Sibiria they inhabit granaries; but I do not find it confirmed by Doctor Pallas. Gmelin adds, that thofe who frequent granaries, feek for prey during the whole winter *: as to the others, they certainly remain torpid all the fevere feafon, and revive on the melting of the fnows.

[^51]They bring forth from three to eight at a time. The young grow very quick, and defert the maternal burrows in the fummer.

Their enemies are all forts of Weefels, which dig them out of their holes. More males than females perifh, as the latter are fiercer, and defend themfelves much better. During day they are fnatched up by hawks and hungry crows.

In fome places they are taken in fnares, for the fake of their fkins, which are ufually fent to Cbina. The Kamtfchatkans make moft elegant garments and hoods of them; fpecimens of the latter are preferved in the Leverian Mufeum. In Sibiria their flefh is efteemed a great delicacy, efpecially in autumn, when they are a lump of fat.

The Rufians call them Sufik; the Sibirians, Yevrafoba, and Jemuranka; the Kamt fchatkans, Syrath.

A. Вовак, Hift. 2uad. $\mathrm{N}^{\circ} 262 .-$ Smellie, vii. 198.

ARMOT. With fhort oval thick ears: fmall eyes: upper part of the body greyifh, mixed with long black and dufky hairs, tipt with grey: throat ruft-colored: reft of the body and infide of the limbs yellowifh ruft: four claws on the fore feet, and a fhort

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a fhort thumb furnifhed with a ftrong claw : five toes behind : tail fhort, flender, and full of hair. Length fixteen inches: of the tail five.
Inhabits in great plenty Kamt $c$ chatka, Sibiria, Tartary, the Ukraine, and Poland.
Its manners moft amply defribed in the Hiftory of Quadrupeds.

HUDSONSQUIRREL.

SQUIRREL.
48. Hudson.

HIS T. $2 U A D . \quad G E N$ US XXX.
N. B. The ears of the American Squirrels have no tufts.

QQUIRREL. Of a ferruginous color, marked along the top D of the back with a line of a deeper hue: belly of a pale afh-color, mottled with black, and divided from the fides by a dufky line: tail fhorter and lefs bufhy than that of the European kind; of a ruftcolor, barred, and fometimes edged with black.

Inhabits the pine-forefts of Hudfon's Bay and Labrador: live upon the cones: keep in their nefts the whole winter. Are found as high as the Copper river ; yet do not change their colors by the feverity of the winter, like the Petits gris of northern Europe and Afia, from which they form a diftinct fpecies. I know of only one exception in change of color in thofe of America, Sir Afbton Lever being poffeffed of a fpecimen of a milky whitenefs; but he did not know from what part of the continent it came.
a. Carolina*. With the head, back, and fides, grey, white, and ferruginous, intermixed : belly white : the color divided from that of the fides by a ruft-coloured line: lower part of the legs red : tail brown, mixed with black, and edged with white.

Both thefe are rather lefs than the European Squirrels.

* Leffer Grey Squirrel, Hijt. 2uad. p.

SQUIRREL. With hair of a dull grey color, intermixed with black, and frequently tinged with dull yellow : belly white. But they vary, the body being fometimes of a fine uniform grey.

This is the largeft of the genus, and grows to half the fize of a Rabbet.

In America I do not difcover this animal farther north than Newo England*; from whence they are found in vaft numbers as far fouth as Louifianat. Thefe, and the other fpecies of Squirrels, are the greateft pefts to the farmers of North America. They fwarm in feveral of the provinces, and often defcend in troops from the back fettlements, and join the reft in their ravages on the plantations of mayz, and the various nuts and maft which that fertile country produces.

Thofe which migrate from the mountains generally arrive in autumn; inftantly clear the ground of the fallen acorns, nuts, and maft, and form with them magazines for their winter provifions, in holes which they dig under ground for that purpofe. They are often robbed of their hoards; for the colonifts take great pains to find them out; and oft-times the hogs, which rove about the woods, root up and devour their magazines. It is from thefe that they fupply themfelves, from time to time, with provifions, quitting their nefts, and returning with a fufficient ftock to laft them for fome fpace; it being obferved, that during winter they do not care to quit their warm retreat, unlefs on a vifit to their ftorehoufes; therefore, whenever they are obferved to run about the woods in greater
numbers
numbers than ufual, it is a certain fign of the near approach of fevere cold; for inftinct directs them to lay in a greater ftock than ufual, leaft the inclemency of the weather fhould deprive them of accefs to their fubterraneous magazines.

The damage which they do to the poor planters, by deftroying the mayz, is incredible. They come by hundreds into the fields, climb up the ftalks, and eat the fweet corn wrapt up in the heads, and will deftroy a whole plantation in a night. For this reafon they were profcribed. In fome places the inhabitants were, each, obliged annually to bring in four Squirrels heads. In others, a fum was given, about three pence, for every one that was killed. This proved fuch an encouragement, as to fet all the idle people in the province in purfuit of them. Penfylvania paid, from Fanuary 1749 to Fanuary 1750,8000 . currency: but on complaint being made by the deputies, that their treafuries were exhaufted by thefe rewards, they were reduced to one half. How improved muft the ftate of the Americans then be, in thirty-five years, to wage an expenfive and fuccefsful war againft its parent country, which before could not bear the charges of clearing the provinces from the ravages of thefe infignificant animals!

It has been obferved, that the Squirrels are greatly multiplied within thefe few years, and that in proportion to the encreafe of the fields of mayz, which attract them from all parts; I mean not only the grey fpecies, but all the others.

They are eaten by fome people, and are efteemed very delicate. Their fkins, in America, are ufed for ladies fhoes; and are often imported into England, for lining or facing for cloaks.

They make their nefts in hollow trees, with mofs, ftraw, wool, and other warm materials. They chiefly inhabit trees of the deciduous kind; but fometimes in pines, whofe cones are an article of their provifion. They keep their nefts for feveral days together, feldom
feldom ftirring out, except for a frefh fupply of food. Should a deep fnow prevent them from getting to their ftorehoufes, multitudes perifh with hunger.

When they are fitting on a bough, and perceive a man, they inftantly move their tails backward and forward, and gnafh their teeth with a very confiderable noife. This makes them detefted by the fportfmen, who lofe their game by the alarm they give. The Grey Squirrel is a difficult animal to kill: it fits on the higheft trees, and often between the boughis, and changes its place with fuch expedition that the quickeft markfman can fcarcely find time to level his piece ; and if it can once get into a hole, or into any old neft, nothing can provoke it to get out of its afylum. They run up and down the bodies of trees, but very rarely leap from one to the other.

They are eafily made tame; will even be brought to play with cats and dogs, which in a ftate of domefticity will not hurt them. They will alfo attach themfelves fo far as to follow children to and from the woods.

They agree in their manner of feeding with the European kinds; and have all the fame fort of attitudes.

SQUIRREL. With coarfe fur, mixed with dirty white and black : the throat, and infide of the legs and thighs, black : the tail is much fhorter than is ufual with Squirrels, and of a dull yellow, mixed with black : in fize equal to that of the Grey.

Inhabits Virginia. Mr. Knaphan, in whofe collection I found it, informed me, that the planters called it the Cat Squirrel.

I fufpect that this animal is only a variety. Larefon* fays, that he has feen the Grey fpecies pied, reddifh, and black; but this

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\text { * Hijf. Carol. } 124 \text { - }
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point

BLACK SQUIRREL.
point muft be determined by natives of the countries which they inhabit, who, from obfervation, may decide by their manners, or their colors, in different feafons, or periods of life.
50. Black.

Hif. 2uad. $\mathrm{N}^{0}$ 273.-Brown's Zoology, tab, xlvii.-Lev, Mus.

SQUIRREL. With white ears, nofe, and feet: the body totally black: the tail black, tipt with white: in fize equal to the former.

Thefe fometimes vary: there being examples of individuals which are wholly deftitute of any white marks. The beautiful figure of one of thefe animals from Eaft Florida, in Mr. Brown's Zoology, has ears edged with white, and a much longer tail than ufual.

Inhabits neither Hudjon's Bay nor Canada, but is found in moft other parts of America, as far as Mexico *. It is equally numerous, and as deftructive to the mayz as the Grey Squirrel, but breeds and affociates in troops feparate from that fpecies $\dagger$; yet makes its neft in the fame manner, and like it forms magazines of provifion againft the fevere feafon.

In Mexico, and probably in other parts of America, they eat the cones of pine-trees; and lodge in the hollows of the trees.

- Is the 2uaubtechallotiltic, or Tilacotequillin, of the Mexicans. Fernandez, 8. + Cateßy, ii. 73.
A. With membranes from leg to leg.

Hift. 2uad. No 283.-Smellie, v. 307.-Lev. Mus.

SQUIRREL. With large black eyes: round and naked ears: a membrane, covered with hair, extending from the fore to the hind legs: the hairs on the tail difpofed flatways on each fide: are long in the middle, fhort towards the end, which tapers to a point: that and the body of a brownifh cinereous: the belly white, tinged with yellow.

Inhabits all parts of Nortb America, and as low as Mexico, where it is called 2 uimicbpatlan *. The natives of Virginia named it AJapanic $\dagger$.

They live in hollow trees. Like the Dormoufe, they fleep the whole day; but towards night creep out, and are very lively and active. They are gregarious, numbers being found in one tree. By means of the lateral membranes, they take prodigious leaps, improperly called flying; and can fpring ten yards at an effort. When they would leap, they extend the hind legs, and ftretch out the intervening fkin, which producing a larger furface, makes the animals fpecifically lighter than they would otherwife be: even with all this advantage, they çannot keep in a ftrait line, but are urged downward with their weight. Senfible of this, they mount the tree in proportion to the diftance of the leap they propofe to take, leaft they fhould fall to the ground before they had reached a place of fecurity.

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\begin{array}{ll}
\text { * Fernand. Nov. Hijp. 8, } \quad+\text { Smith's Virginia, } 27 . \\
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They
51. FLYiNG.

HOODED SQUIRREL.
They never willingly quit the trees, or run upon the ground, being conftant refidents of the branches. They go in troops of ten or twelve, and feem in their leaps, to people unaccuftomed to them, like leaves blown off by the wind.

They bring three or four young at a time. They ufe the fame food, and form their hoards like other Squirrels.

They are very eafily tamed, and foon grow very familiar. They feem of a tender nature, and to love warmth, being very fond of creeping to the neeve or pocket of the owner. If they are flung down, they fhew their diflike to the ground, by inftantly running up and fheltering themfelves in his cloaths.
52. Hojded.

Hij. 2uad. $\mathrm{N}^{\circ} \mathbf{2 8 4 .}^{\circ}$

SQUIRREL. With the lateral fkins beginning at the ears, uniting under the chin, and extending, like thofe of the former, from fore leg to hind leg: the ears naked, and rather long: the hairs on the tail difpofed horizontally.

The color of the upper part of the body reddifh : the lower part cinereous, tinged with yellow.

This fpecies, according to Seba, who is the only perfon who has defcribed or figured it, came from Virginia*. Linnous is very confufed in his fynonyms of this and the former kind; that of Mr. Edwards refers to the other fpecies; and that of Seba, in his article of Sciurus Volans, to both $\dagger$.
*Seb. Muf. i. tab. xliv. p. 72.

+ Syf. Nat. 85, where he calls it Mus Volans; and p. 88, where he fyles it Sciurus.


## SEVERN RIVER SQUIRREL.

It is fingular that there fhould be only one fpecimen ever brought of this fpecies, from a country we have had fuch great intercourfe with. It may perhaps be a monftrous variety, by the extent of the fkin into a fort of hood, As to color, that is an accidental difference, which happens to numbers of other animals.

> Hif. शuad. $\mathrm{N}^{0} 282$.
> Greater Flying Squirrel, $P h . \tau_{r}$. Ixii. 379 .

SQUIRREL. With the hair on the body and fides of a deep cinereous color at the bottom; the ends ferruginous: breaft and belly of a yellowifh white: the whole coat long and full: the tail thick of long hairs, difpofed in a lefs flatted manner than thofe of the European kind; brown on the upper fide, darkeft at the end; the lower part of the fame color with the belly : the lateral fkin, the inftrument of flight, dilpofed from leg to leg, in the fame manner as in the firft fpecies, $\mathrm{N}^{\circ}{ }_{51}$.

In fize it is far fuperior to the common Flying Squirrel, being at left equal to the Englijh kind.

This fpecies is found in the fouthern parts of Hudfon's Bay, in the forefts of the country bordering on Severn river in fames's bay.

COMMON SQUIRREL.

A. Common, Hijf. 2uad. No 266.-Smellie, iv. 268.-Lev. Mus.

SQUIRREL. With tufted ears: head, body, and legs, ferruginous: breaft and belly white: tail reddifh brown.
This fpecies inhabits the northern world, as high as Lapmark; is continued through all the Arctic countries, wherefoever wood is found; abounds throughout Sibiria, except in the north-eaft parts, and in KamtJchatka, where it ceafes, by reafon of the ceffation of forefts.
In all thefe countries they are red in fummer, but at approach of winter change to various and elegant greys. Their furs are of exquifite foftnefs, and are the forts known to us by the name of Petit Gris. In the more foutherly parts of thefe cold climates, they retain a tinge of the fummer red, and are lefs valuable. The change of color is effected gradually, as is its return in fpring to its ferruginous coat.
It is very fingular, that the alteration is not only performed in the feverity of the open air, but even in the warmth of a ftove. Dr. Pallas made the experiment on one which was brought to him on the 12 th of September, and was at that time entirely red. About the 4th of October many parts of the body began to grow hoary,; and at the time it happened to die, which was on the $4^{\text {th }}$ of November,
vember, the whole body had attained a grey color, and the legs, and a fmall part of the face, had alone the reddifh tinge *.
The varieties are as follow:-A blackifh one, with the fur footy tipt with red, and full black gloffy tail, are common about lake Baikal, and the whole courfe of the Lena. Sir Afbon Lever is in poffeffion of one of a jetty blacknefs, with a white belly: its ears, as well as thofe of all the Petit Gris, are adorned with very long tufts. Thefe change in winter to a lead-color, and are taken in the thick Alpine forefts, where the Pinus Cembra, or Stone Pines, abound. The fkins of thefe are neglected by the Cbinefe, but greatly efteemed in Europe, efpecially the tails, for facings of dreffes.

This variety is obferved fometimes to migrate in amazing numbers from their lofty alpine abodes, compelled to it whenever there happens to be a fcarcity of provifion $\dagger$. Swarms have appeared even in the town of Tom $k$, in deferted houfes, and in the towers of the fortifications; where numbers are taken alive, and of great fize, by the children of the place.

A beautiful and large variety, about the Baraba, called the Teleutian, is in great efteem for its beautiful grey color, like a Gull's back, with a filvery glofs, and finely undulated. Their fummer color is ufually dufky red, and the fides and feet black. Thefe are highly efteemed by the Cbinefe, and fell at the rate of 6 or 7 l. fterling per thoufand $\ddagger$.

A fmall variety of this, leffer even than the common kind, is met with about the neighbourhood of the Kafym and IJet.
A variety is alfo met with which change to a white color; and others again retain a white color both in winter and fummer.

[^52]The late navigators to the Icy fea brought home with them from Pulo Condor, a knot of inlands in north lat. 8. 40. on the coart of Cambodia, a Squirrel totally black.
B. European Flying SQuirrel, Hiff. Quad. $\mathrm{N}^{\circ} 285$.-Smellie, v. 307.-Lev. Mus.

SQUIRREI. With naked ears: flying membranes extending from the middle of the hind legs to the bafe of the fore feet, and fpreading there in a rounded fail: tail full of hair, and round at the end: color of the upper part of the body a fine grey, like that of a Gull's back: the lower part white.

Length to the tail four inches and a quarter; of the tail, five. Inhabits the birch-woods of Finmark, Lapland, Finland, Litbuania, and Livonia. Is found in Afia, in the woods of the Urallian chain, and from thence to the river Kolyma. Neftles in the hollows of trees remote from the ground, where it makes its neft of the fofteft moffes. Is always folitary, except in the breeding-feafon, and never appears in the day-time. Lives on the buds and catkins of the birch, and on the fhoots and buds of pines, which give its juices a ftrong refinous fmell; and its excrements will burn ftrongly with a pitchy fcent. The laft are always found at the root of the tree, as if the animal defcended to eafe nature. It feldom comes out in bad weather; but certainly does not remain torpid during winter; for it is often taken in the traps laid for the Grey Squirrels. The fkins are often put up in the bundles with the latter, fo that the purchafer is defrauded, as their fur is of no value. They leap at vaft diftances from tree to tree, and never defcend but for the purpofe before mentioned. By reafon of fimilitude of color between them and the birch bark, they are feen with great difficulty, which preferves them from the attacks of rapacious birds.

## EUROPEAN FLYING SQUIRREL.

They bring forth two, three, and rarely four, young at a time. When the parent goes out for food, fhe laps them carefully up in the mofs. They are very difficult to be preferved, and feldom can be kept alive, by reafon of want of proper food. They are born blind, and continue fo fourteen days. The mother pays them great attention; broods over them, and covers them with its flying membrane. The Rufians call them Ljetaga, or the Flying.

Yol. I.

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HIST:

146
STRIPED DORMOUSE.

DORMOUSE.
54. STRIPED.

Ground Squirrel, Hift. 2uad. No 286.-Smellie, v. 32g.-LEv. Mus.
D
ORMOUSE. With naked rounded ears: the eyes full and black; about them a whitifh fpace: the head, body, and tail, of a reddifh brown, deepeft on the laft: from neck to tail a black line extends along the top of the back: on each fide run two others, parallel to the former, including between them another of a yellowifh white: breaft and belly white: the toes almoft naked, and of a flefh-color; long, flender, and very diftinct; four, with the rudiment of a fifth, on the fore feet; five perfect toes on the hind.
Size. The length is about five inches and a half; of the tail, to the end of the hairs, rather longer.

Inhabits all parts of Nortb America, I think, from Hudjon's Bay to Louifiana; certainly from Canada, where the French call them Les Suiffes, from their fkins being rayed with black and white, like the breeches of the Switzers who form the Pope's guard *.

They are extremely numerous: live in woods, yet never run up trees, except when purfued, and find no other means of efcape. They live under ground, burrow, and form their habitations with two entrances, that they may fecure a retreat through
the one, in cafe the other fhould be ftopped. Thefe little animals form their fubterraneous dwellings with great fkill, working them into the form of long galleries, with branches on each fide, every one terminating in an enlarged apartment, in which they hoard their ftock of winter provifion *. Their acorns are lodged in one, in a fecond the mayz, in a third the hickery-nuts, and in the laft their moft favorite food, the Cbinquaquin, or chefnut. Nature has given to them, as to the Hamftert, a fine conveniency for collecting its provifions, having furnifhed them with pouches within their cheeks, which they fill with mayz, and other articles of food, and fo convey them to their magazines.

Thofe of Sibiria live chiefly on feeds, and particularly on the kernels of the Cembra, or Stone Pine ; and thefe they hoard up in fuch quantities, that ten or fifteen pounds of the moft choice have been found in a fingle magazine $\ddagger$.

They pafs the whole winter either in fleep or in eating. During the fevere feafon, they very rarely ftir out, at left as long as their provifions laft; but if by an unexpected continuance of bad weather their provifions fail, they will then fally out, and dig under ground in cellars where apples are kept, or into barns where mayz is ftored, and make great devaftations. They will even enter houfes, and eat undifmayed, before the inhabitants, any corn they chance to meet with §. The Cat makes great havock among them, being at all feafons as great an enemy to them as to do meftic Mice. It is hunger alone that tames them. They are naturally of a very wild nature, will bite moft feverely, and cannot by any means be rendered familiar.

[^53]They are remarkably nice in the choice of their food, when the variety of autumnal provifions gives opportunity. They have been obferved, after having ftuffed their pouches with the grains of rye, to fling it out when they meet with wheat, and to replace the rye with the more delicious corn.

Their fkins form a trifling article of commerce, being brought over among le menue pelliterie, the fmall furs, and ufed for the lining of ladies cloaks.

In Sibiria they are killed with blunt arrows, or caught in falltraps. About the Lena, the boys go out in the amorous feafon of thefe little animals, and, ftanding behind a tree, mimic the noife of the females, which brings the males within reach of their fticks, with which they kill them. The fkins are fold to the Cbinefe merchants. About the Lena, a thoufand of their fkins are not valued at more than fix or eight rubles *.

Thefe animals are found in great numbers in Afia, beginning about the river Kama $\dagger$, and from thence growing more and more frequent in the wooded parts of Sibiria; but thefe, and all the fpecies of Squirrel, ceafe towards the north-eaft extremity of the country, by reafon of the interruption of woods, which cuts them off from Kamt ccbatka.

- Pallas, Nov. Sp. an. 380.
t A river falling into the Wolga about forty miles below Cafar.

Dormoufe, Br. Zool. i. No 234-Hift. 2uad. No 289.-Smellie, iv. 334-Lev. Mus. 55. English ?
Mr. Larefon fays that the Englifh Dormoufe is found in Carolina; but it has not as yet been tranfmitted to Great Britain. In order to afcertain the fpecies, I add a brief defcription.

DORMOUSE. With full black eyes : broad, thin, femi-tranfparent ears : throat white : reft of the body and the tail of a tawny red. Size of the common Moufe; but the body of a plumper form, and the nofe more blunt: tail two inches and a half long, covered on every fide with hair.

In Europe, inhabits thickets; forms its neft at the bottom of a tree or fhrub; forms magazines of nuts for winter food; fits up to eat, like the Squirrel; lies torpid moft of the winter, in its retreat, rolled up into the fhape of a ball; retires to its neft at approach of cold weather.

RAT.
56. Black.

HIST. QUAD. GENUSXXXIII.

Br. Zool. i. No 25-Hift. 2uad. No 297.-Smellie, iv, 275.-LEv. Mus.
1 AT. With head and body of a very deep iron grey, nearly black: belly afh-colored: legs almoft naked, and dufky: a claw inftead of a fifth thumb on the fore feet. Length, from nofe to tail, feven inches; tail near eight.

Inhabits Nortb America, not only the fettled parts, but even the rocks of the Blue mountains*, remote from all human dwellings. There they live among the ftones, and in the fubterraneous grottos frequent in thofe hills. They lie clofe during day, but at night come out, and make a moft horrible noife amidft thefe American alps. In violent frofts they lie torpid; and in the inhabited parts of the country they are obferved to redouble their fcreaks before fevere weather, as if they had fome prefage from their conftitutions.

By Mr. Bartram's obfervations it appears very certain, that thefe animals are natives of America. They are found even at prefent in the moft defolate places, as well as in the houfes and barns of the inhabited parts. It is unknown in Europe, that either the common Rat or Moufe ever deferted the haunts of mankind, for rocks and deferts : they therefore have been there from the earlieft times. It is likely, that if ever the Blue mountains become inhabited, the wild Rats will quit their rocks, and refort to thofe places

## BROWN AND AMERICAN RAT.

where they find harvefted food, and will quickly become perniciounly domeftic.

We are pofitively told, that South America was free from thefe troublefome animals, till they were introduced there from Europe, by the means of flips, in 1544*.

We find none of the fpecies in Kamtfcbatka, nor any where to the eaft of the Urallian chain. America muft therefore have been ftocked with them from the fide of Europe. They are very common in Rufia. Towards Afracan they are very fmall, but of the fame color with the others.

$$
\text { Br. Zool. i. } \mathrm{N}^{\circ} \text { 26.—Hif. Quad. } \mathrm{N}^{\circ} \text { 2g8.-Smellie, iv. 336.-Lev. Mus. }
$$

R
AT. Above, light brown mixed with tawny, dufky, and cinereous: below, of a dirty white: four toes before, and a claw inftead of a fifth toe.

I have no authority for giving this fpecies a place here : but muft fuppofe that the new world could not poffibly efcape the peft, as it is univerfally become a moft deftructive inhabitant of European fhips.

Hif. 2uad. No 299.
Characho, Jike Cbolqomac, or Great Moufe of the Monguls.-Lev. Mus.
AT. With the upper jaw extending very far beyond the lower: ears large and naked : tail rather fhorter, in proportion, than that of the Black, to which it is rather fuperior in fize: color a dufky brown.

The feecimen, from which this defeription is taken, was fent

[^54]WATER RAT AND MOUSE.
from North America to Sir Afbton Lever; but I am not informed, whether it only frequented the deferts, or infefted houfes.
 Br. Zool. No 300.-Hif. 2uad. No 300.-Smellie, iv. 290.-Lev. Mus.
59. Water,

RAT. With fmall eyes : ears covered with the fur: teeth yellow: body covered with long hairs, black mixed with a few of a ruft-color: belly of a deep grey.

Length of the head and body feven inches; tail five, covered with fhort black hairs. Weight nine ounces.

Inhabits North America, from Canada to Carolina*. In the firt, varies to tawny and to white $\dagger$ : feeds on the fry of fifh, infects, fhell-fifh, frogs, and roots; burrows on the banks of ponds and rivers; and dives and fwims as well as an Otter, notwithftanding it. is not web-footed.

In northern Europe and $A f a$ it is extremely common; from $P e$ terfourgh to Kamtjcbatka in Sibiria, they are twice as large as in other places. They are found alfo from Lapland to the Cafpian fea, and alfo in Perfia; and are one of the animals which endure the cold of the Arctic circle.
60. Mouse. Br. Zool. i. No 30 .-Hif. 2uad. No 301 .-Smellie, iv. 282.-Lev. Mus.

THIS common animal needs no defcription. It is very abundant in the inhabited parts of America $\ddagger$, and is to be found from Peterfburgh perhaps as far as Kamtfcbatka.

Kalm imagines them to be natives of America; for he affures us

- Lawfon Carolina, 122.


## FIELD, VIRGINIAN, AND LABRADOR, RAT.

that he has killed them in the crevices of the rocks in defert places, far from the haunt of man*。
Hiff. 2uad. No 302. a. American.-Smellie, iv. 285.-Lev. Mus.

R
A T. With great, naked, and open ears : cheeks, fpace below the ears, and fides quite to the tail, orange-colored: back dufky and ruft-colored, marked along the top, from head to tail, with a dark line : throat, breaft, and belly, of a pure white: tail dufky above, white beneath : feet white: hind legs longer than thofe of the Englifb kind.
Length about four inches and a half; of the tail, four inches. Inhabits Hudfon's Bay and New York.

$$
\text { Hif. 2uad. No } 307 .
$$

R
A T. With a black nofe: fur fhort, and in all parts white: limbs flender : tail very thick at the bafe, tapering to a point, and cloathed with long hair.

Seba alone, vol. i. p. 76. tab. xlvii. fig. 4, defcribes this fpecies.
Hift. 2uad. No 295. .

R
AT. With a blunt nofe: mouth placed far below: upper lip bifid: ears large, naked, rounded: fore legs fhort, furnifhed with four toes, and a tubercle inftead of a thumb: hind legs long and naked, like fome of the ferboas : toes long, nender, and diftinct ; the exterior toe the fhorteft : thumb fhort.

- Kalm, ii, 47 .

Vol, I.
X

The
63. Labrador.
61. Field.
62. Virginian.

354
SIzE.

Colors.

HUDSON's AND MEADOW RAT.
The whole length of the animal is eight inches, of which the tail is four and three quarters.

Color above a deep brown, beneath white, feparated on each fide by a yellow line.

Inhabits Hudjon's Bay and Labrador. Sent over by Mr. Grabam.

* With fhort tails.

Hif. Quad. No ${ }_{3}$ rg.-Lev. Mus.
RAT. With foft long hair, dufky at the bottom, whitifh brown at the points: along the middle of the back, from head to tail, runs a dufky line: fides yellowifh: belly and infide of the thighs of a dirty white.

Legs very fhort: on the toes of the fore feet of the male only are four very large and fharp claws, tuberculated beneath; in the female fmaller and weaker: on the hind feet five toes with flender claws.

Tail not three quarters of an inch long, terminating with long ftiff hairs ; it is fcarcely vifible, being almoft loft in the fur.

Defcribed from a fkin which Doctor Pallas favored me with, which he received from the Labrador coaft.

This is nearly a-kin to the Lemmus.
65. Meadow ?

Short-tailed Field Moufe? Br. Zool. i. No 31.-Hif. Quad. No 322 ?-Smellie, iv. 293.-Lev. Mus.

RAT. With a blunt nofe: great head: prominent eyes: ears buried in the fur: head and upper part of the body of a ferruginous brown mixed with black: belly of a deep afh-color.

## HARE-TAILED AND CECONOMIC RAT.

Length, from head to tail, fix inches; tail only one and a half, with a fmall tuft at the end.

Inhabits Hudjon's Bay and Nerufoundland, in the laft very numerous, and does vaft damage in the gardens; refides under ground.

$$
\text { Hijt. Quad. } \mathrm{N}^{\circ} 320 .
$$

RA T. With fimall and rounded ears: head broad; color dufky and tawny brown: the belly of a dirty white: a dufky line paffes from between the eyes, and extends obfcurely along the back. I arger than the common Moufe. Defcribed from fo mutilated a fpecimen, fent to the Royal Society from Hudjon's Bay ${ }^{*}$, that it was impoffible to determine the fpecies; only, by the dark line along the back, it feemed likeft the Hare-tailed, an inhabitant of Sibiria, whofe manners are defcribed in the Hiftory of Quadrupeds.

A. ©cоnomic, Hif. 2uad. No 313.-Defcr. Kamffchatka, Fr. ed. 392.

R AT. With naked ears, ufually hid in the fur: finall eyes : teeth tawny: limbs ftrong : color, an intermixture of black and yellow, darkeft on the back : under fide hoary.

$$
\begin{aligned}
& \text { - Pb. Tr. 1xii. } 379 . \mathrm{Sp}_{15} . \\
& \mathrm{X}_{2} \\
& \text { Length }
\end{aligned}
$$

66. Hare-
tailed.

R A T.
Length four inches and a quarter, to the tail; the tail one inch.
Inhabits in vaft abundance Sibiria, from the eaft fide of the Urallian chain, even within the Arctic circle, and quite to Kamtfchatka. It is the noted Tegulfccbitch of that country, diftinguihed by its curious œconomy and by its vaft migrations.

They make their burrows with the greateft fkill, immediately below the furface of the foft turfy foil. They form a chamber of a flattifh arched form, of a fmall height, and about a foot in diameter, to which they fometimes add as many as thirty fmall pipes or entrances. Near the chamber they often form other caverns, in which they lodge their winter ftores: thefe confift of various kinds of plants, even fome of fpecies poifonous to mankind. They gather them in fummer, harveft them, and even at times bring them out of the cells to give them a more chorough drying in the fun. The chief labor refts on the females. The males, during fummer, go about folitary, and inhabit fome old nefts; and in that feafon never touch their hoards, but live on berries. They are monogamous, and the male and female at other times found in the fame neft. The female brings two or three young at a time, and breeds often in the year.

No little animals are fo refpected by the Kamtfchatkans as thefe, for to them they owe a delicious food; and with great joy, about autumn, rob the hoards, and leave there many ridiculous prefents by way of amends : they alfo never take the whole of their provifions, and leave befides a little dried ovaries of firh for their fupport.
Migrations.
But the migrations of thefe Mice, in certain years, is as extraordinary a fact as any in natural hiftory : I will only mention thofe of Kamtycbatka. The caufe is unknown. Doctor Pallas thinks it may arife from the fenfations of internal fire in that vulcanic tract, or a prefcience of fome unufual and bad feafon. They gather together
in the fpring in amazing numbers, except the few that are converfant about villages, where they can pick up fome fubfiftance. This makes it probable that the country is over-ftocked, and they quit it for want of food. The mighty hoft proceeds in a direct courfe weftward, and with the utmoft intrepidity fwims over rivers, lakes, and even arms of the fea: many are drowned, many deftroyed by water-fowl, or rapacious fifh ; thofe which efcape reft awhile, to bafk, dry their fur, and refrefh themfelves. If the inhabitants find them in that fituation, they treat them with the utmoft tendernefs, and endeavour to bring them to life and vigor. As foon as they have croffed the river Penjobim, at the head of the gulph of the fame name, they turn fouthward, and reach the rivers fudoma and Ochot by the middle of Yuly. The fpace is moft furprifing, on confulting the map of the country. The flocks are alfo fo numerous, that an obferver has waited two hours to fee them all pafs. Their return into Kamtfcbatka, in October, is attended with the utmoft feftivity and welcome. The natives confider it as a fure prognoftic of a fuccesfful chafe and firhery : the firft is certain, as the Mice are always followed by multitudes of beafts of prey. They equally lament their migration, as the feafon is certainly filled with rains and tempefts.
B. RED, Hij. 2uad. $\mathrm{N}^{\circ} 314$.
$\mathbf{R A T}^{\text {AT }}$. With briftly nofe and face: ears oval, rifing above the hair, naked, only tipt with fur : color, from forehead to rump, a bright red : fides light grey and yellow : belly whitifh : tail dufky above, light below.

Length not four inches; tail more than one.

LEMMUSRAT.
Grow very common beyond the $O b$, and live fcattered over all Sibiria, in woods and mountains, and about villages; extend even to the Arctic circle. It is the TJcbetanauffccbu, or Red Moufe of the Kamt $f$ chatkans. It is a fort of drone : makes no provifion for itfelf, but robs the hoards of the laft fpecies*. Lives under logs of trees; frequents houfes; dares the fevereft weather, and is abroad amidft the fnows; feeds on any thing, and is often caught in the traps fet for Ermines, in attempting to devour the bait.
C. Lemmus, Hif. 2uad. No 317.-Godde Saeppan, Leems, $224^{\circ}$

RAT. With fmall eyes and mouth : upper lip divided : ears fmall, placed far backwards: four flender toes on the fore feet, and a fharp claw, like a cock's fpur, in place of a thumb: fkin very thin. Color of the head black and tawny, of the belly yellow.

Length of thofe of Scandinarian Lapland, above five inches; thofe of the Ruflan dominions not four.

The manners and wonderful migrations of the Lemmi of Europe, have been fully treated of in my Hiftory of Quadrupeds.

They abound in the countries from the Wbite Sea to the gulph of the Oby, and in the northern end of the Urallian chain; but differ in fize and color from thofe of Europe. Like them, they migrate at certain periods; and tend from the Urallian mountains, fometimes towards $\mathcal{F e n e f e i}$, fometimes towards Petzorah, and at thofe times rejoice the Samoieds with a rich chafe of the animals which purfue the wanderers. The Samoieds affert, that the Rein-Deer will greedily devour them; perhaps they take them medicinally, as Sheep are known as greedily to feek and fwallow Spiders.

* Defcr. Kamtfchatka, 392.
D. Lena,
D. Lena, Mus Gmelini, Pallas, Nov. Sp. an. 195.

RAT. With fhort round ears: white whifkers: thick broad body, in all parts nearly of equal breadth : tail fhort, thickly covered with rude hairs: five toes on the fore feet, with claws very ftrong and white: four on the hind feet, with claws much weaker: the fur pretty long; three parts of its length, from the roots, cinereous, the reft white; fo that the animal appears entirely white, except the cheeks, which are afh-colored, and the chin, which is dufky.

The length is three inches one-fifth, the tail four-fifths of an inch.

They are feen in great numbers in autumn, on the borders of the Icy Sea, and about the parts of the Lena that fall into it. They appear fuddenly, and depart as expeditiounly. They feed on the roots of moffes, and are themfelves the food of Arctic Foxes. Perhaps they extend to the Fenefei: for it is faid that there are two forts of Mice found there; one wholly white; the other black, yellow, and white, which perhaps is the Lemmus *.
E. Ringed, Hif. 2uad. No $205^{\circ}$

RA.T. With a blunt nofe : ears hid in the fur: hair very fine : claws ftrong and hooked : color of the upper part, fometimes ferruginous, fometimes light grey undulated with deep ruft-color: a crefcent of white extends on each, from the hind part of the head towards the throat, bounded on each fide by a bed of ruft-color.

$$
\text { Norv. Sp. an. } 197
$$

Length

Length to the tail little more than three inches; tail one, terminated by a briftly tuft.

Found in the Arctic neighborhood of the Oby. Makes its neft with rein-deer and fnowy liver-worts, juft beneath the turfy furface. Are faid to migrate, like the Lemmus.
$\qquad$
F. Tchelag, Defor. Kamtychatka, 392 .

1 HE author of the defcription of that great peninfula fays no more than that it is a very fmall fpecies; frequents houfes; and will go out and eat boldly any thing it has ftolen. The natives call it I'cbelagatcbitch.








$\qquad$


$$
\begin{aligned}
& \text { F CE T I D S H R E W. } \\
& \text { HIS T. QUAD. GENUS XXXIX. } \\
& \text { Br. Zool. i. No 32.-Hift. Quad. No 341.-Smellie, iv. 305. } \\
& \text { SHREW. }
\end{aligned}
$$

SHREW. With the head and upper part of the body dufky: fides of a brownifh ruft-color : eyes very fmall, almoft hid in the fur: ears fhort: nofe very long and flender: upper mandible extends far beyond the lower.

Inhabits Hudfon's Bay, and probably Carolina, as Lavefon mentions a Moufe found there which poifons Cats * if they eat it. It is a notion in England that they are venomous; it is notorious that our Cats will kill, but not feed on them; probably thofe of America have the fame inftinct: fo that their deaths in the new world muft arife from fome other caufe, and be falfely attributed to thefe animals.

Mr. Grabam fent over two other fpecimens, befides that defcribed. They were of a dulky grey above, and of a yellowifh white beneath : their fize, rather lefs than the Englifh kind; one being only two inches and a quarter long, the other only two inches; but they feemed not to differ fpecifically from the other.

The common Shrew is found in Rufia; in all parts of Sibiria, even in the Arctic flats; and in Kamtfchatka.

- Hijf. Carolina, 125.

Vol. I. Y

HIST.

LONG-TAILED AND RÁDIATED MOLE.

HIST. 2UAD. Genus XXXV.

$$
\text { Hijf. 2uad. No } 35^{2} \text {.-Levv. Mus. }
$$

ID.

MOLE. With two cutting teeth in each jaw, and two fharp flender canine: the grinders fmall and fharp: nofe long, the end radiated with fhort tendrils: fore feet not fo broad as thofe of the Englifh Mole, furnifhed with very long white claws: toes on the hind feet quite feparated: body not fo thick and full as that of the common fecies: hair long, foft, and of a rufty brown : tail covered with fhort hair.
Length of the body four inches two-tenths; of the tail, two and a half.

Inhabits North America. Received from New York.

Hif. 2uad. No 351.-Smellic, iv. $3^{16 .-L e v . ~ M u s . ~}$

MOLE. With a long nofe, radiated like the former: the body fhorter, and more full: hair dufky, very long, fine, and compact: fore feet refembling thofe of the preceding; but the toes of the hind feet are clofely connected.
Length to the tail three inches three quarters: the tail flender, round, and taper, one inch three-tenths long.

Received from New York.

## BROWN MOLE.

This fpecies forms fubterraneous paffages in the fields, running in various directions, and very fhallow. Their courfe may be traced by the elevation of the earth on the furface, in form of a little bank, two inches high, and as broad as a man's hand. Thefe holes are unable to fupport any weight, fo that walkers find it very troublefome to go over places where thefe animals inhabit, the ground perpetually breaking under their feet *.

Thefe Moles have all the ftrength in their legs as thofe of Europe, and work in the fame manner. They feed on roots, are very irafcible, and will bite very feverely.

$$
\text { Hif. 2uad. No } 353 \text {.-Lev. MUs. }
$$

MOLE. With a long and very flender nofe: two broad cutting teeth in the upper, four fharp and flender in the lower, jaw ; the two middlemoft fhort: the grinders very numerous, ftrong, fharp, and feparate : the fore feet very broad; thofe and the hind feet exactly like thofe of the European kind.

Length about fix inches; tail one.
I received two fecimens of this animal from Nerw York. The hair in both foft, filky, and gloffy: the hair in each dufky at the bottom; but in one, the ends were of a yellowifh brown : in the other, brown : the feet and tail of both were white. I fufpect that they were varieties of the kind defcribed by Seba $\dagger$, which he got from Virginia: it was totally black, gloffed over with a moft refplendent purple. I may here note, the Tail-lefs Mole, figured by Seba in the fame plate, is not a native of Sibiria, as he makes it; but is an inhabitant of the Cape of Good Hope.

- Kalm, i. 1go. + P. 51. tab. xxxii.
$\mathrm{Y}_{2}$ Thefe

Manners.

70! Brown.

Place.

Thefe three fpecies agree pretty nearly with the Shrew in the fore teeth; for which reafon Linneus claffes the two he defcribes among the Sorices. I call them Moles from their fhape, which differs not from the European kind; but thofe who chufe to be very fyftematic, may divide the genus of Shrews, and ftyle thefe Sorices Talpeformes.

A. European, Hift 2uad. ii. No

Br. Zool, i.
MOLE. With fix cutting teeth in the upper; eight in the lower jaw ; and two canine teeth in each: color of the fur black.
Pracz. Inhabits Sweden; but does not extend farther than the fouth of Norway, where it is called Vond. Is frequent in the temperate parts of Rufia, and even in Sibiria, as far as the Lena. In Sibiria it is twice as big as thofe of Europe. Is found there milk-white, but more ufually fo in the Verchoturian mountains.

## H E D G E-H O G, Hif. 2uad. Genus XXXVI.

B. Common, Hiff. 2uad. ii. $\mathrm{N}^{\circ} 355 .-B r$. Zool. i. $\mathrm{N}^{\circ}$

HED GE-HOG. With noftrils bounded on each fide by a loofe flap: ears rounded: back covered with prickles, white, barred with black: face, fides, and rump, with ftrong coarfe hair : tail an inch long.

Is found in Sweden. In the diocefe of Aggerbuys; and in that of Place. Bergen in Norway*. It is called, in the Norwegian tongue, Buftedyvel. Is common in Ruflia, except in the extreme northern and fouthern parts. None in Sibiria, or very fcarce at left.

- Leems, 229,-Pontoppidan, ii. 28.

D I V.

# D I V. III. <br> PINNATED QUADRUPEDS; Or, with Fin-like Feet. 

## D I V. III. Pinnated Quadrupeds;

Or, with Fin-like Feet.
walrus.
71. Arctic.

HIST. QUAD. Genus XLI.

Hijf. Quad. No 373.-Phipps's Voy. 184. Rofmarus, Zimmerman, 330 . Le Tricheque, Schreber, ii. 82. tab. 1xxix. Cheval Marin, Hijf. Kamtfchatka, 427.-Smellie, vii. 354--Lev. Mus.

WALRUS. With a round head; fhort neck; fmall and fiery eyes, funk a finger's depth in the fockets, and retractile from external injuries *: mouth very fmall; lips very thick, befet above and below with great whifkers, compofed of briftles, tranfparent, and thick as a ftraw : inftead of ears are two minute orifices, placed in the moft diftant part of the head.

Body is very thick in the middle, leffening gradually towards the tail. The fkin in general is an inch thick, and two about the neck $\dagger$, and much wrinkled about the joints: it is covered with fhort hair, of a moufe-color; fome with reddifh, others with grey; others are almoft bare, as if they were mangy, and full of fcars $\ddagger$.

The legs are very fhort; on each foot are five toes, connected by webs, with a fmall blunt nail to each. The hind feet, like thofe of

## ARCTIC WALRUS.

Seals, are very broad: the tail is very fhort: the penis two feet long, and of a bony fubtance.

In the upper jaw are two very long tufks, bending downwards. No cutting teeth; but in each jaw, above and below, four grinders, flat at top, and the furfaces of thofe which I examined much worn. The length of the largeft tufk I have heard of, was two feet three inches, Englifh meafure, the circumference at the lower end, eight and a half; the greateft weight of a fingle tufk twenty pounds: but fuch are rarely found, and only on the coafts of the Icy fea, where they are feldom molefted, and of courfe permitted to attain their full growth *.
The Walrus is fometimes found of the length of eighteen feet, and the circumference, in the thickeft part, ten or twelve. The weight from fifteen hundred to two thoufand pounds.
Inhabits, in prefent times, the coafts of the Magdalene iflands, in the gulph of St. Laurence, between latitude 47 and 48, their moft foutherly refidence in any part of the globe. They are not found on the feas of Labradore. The Efkimaux purchafe the teeth, for the heading their Seal-darts, from the Indians of Nuckvank, about lat. 60 ; who fay, that they are annually vifited in the winter by multitudes of thefe animals $\dagger$. They are found in Davis's Streigbts, and within Hudjon's Bay $\ddagger$, in lat. 62. They alfo inhabit the coaft of Greenland. I am uncertain whether they frequent Iceland; but they are found in great numbers near the iflands of Spitzbergen, and on all the floating ice from thence to Cberry Ifle, a folitary fpot intermediate between the laft and the moft northerly point of Norway. In 1608, they were found there in fuch numbers, huddled on one another, like hogs, that a fhip's crew killed above nine hundred in feven hours time $\S$.

[^55]Temth.

Size,

Place. America.

Spitzbergen。 Cherry Isle。

370
Norway.

ARCTIC WALRUS.
If they are found in the feas of Norway, it is very rare * in thefe days. Leems, p. 316, fays that they fometimes frequent the fea about Finmark; but about the year 980 , they feemed to have been fo numerous in the northern parts, as to become objects of chafe and commerce. The famous Oetber the Norwegian, a native of Helgeland in the diocefe of Drontbeim, incited by a moft laudable curiofity and thirft of difcovery, failed to the north of his country, doubled the North Cape, and in three days from his departure arrived at the fartheft place, frequented by the Horje-whale fifhers. From thence he proceeded a voyage of three days more, and perhaps got into the White Sea. On his return he vifited England, probably incited by the fame of King Alfred's abilities, and the great encouragement he gave to men of diftinguifhed character in every profeffion. The traveller, as a proof of the authenticity of his relation, prefented the Saxon monarch with fome of the teeth of thefe animals, then a fubftitute of ivory, and valued at a high price. In his account of his voyage, he alfo added that their fkins were ufed in the fhips inftead of ropes $\dagger$.
Nova Zembla, and Icy Sea.

They are found again on the coafts of Nova Zembla, and on the headlands which ftretch moft towards the north pole; and as far as the $\mathcal{T}$ fcbutki point, and the ifles off that promontory. They fcarcely extend lower than the neighborhood of the country of the Anadyr, but are feen in great abundance about cape Nermbam, on the coaft of America. The natives of the iflands off the $\mathcal{T}_{\text {cbutki }} N o \rho_{s}$ ornament themfelves with pieces of the Walrus ftuck through their lips or nofes; for which reafon they are called by their neighbors Zoobatee, or large-teetbed $\ddagger$. The natives about Unalafcha, Sandrwich Sound, and Turn-again river, obferve the fame fafhion. I entertain doubts whether thefe animals are of the fame fpecies with thofe of the

- Pontoppidan, ii. 157. + Hackluyt, i. 5. $\ddagger$ Hif. Kamtfcbatka, 47.


## ARCTIC WALRUS.

Gulph of St. Laurence. The tufks of thofe of the Frozen Sea are much longer, more flender, and have a twift and inward curvature.

They are gregarious, and fometimes have been found together in thoufands; are very fhy, and avoid the haunts of mankind. They ufually are feen on the floating ice, preferring that for their refidence, as their bodies require cooling, by reafon of the heat which arifes from their exceffive fatnefs *.

They are monogamous; couple in fune, and bring forth in the earlieft fpring $\dagger$. They bring one $\ddagger$, or very rarely two young at a time; feed on fea-plants, fifh, and fhells, which they either dig out of the fand, or force from the rocks with their great teeth. They make ufe alfo of their teeth to afcend the iflands of ice, by fattening them in the cracks, and by that means draw up their bodies.

They fleep both on the ice and in the water, and fnore exceffively loud §.
They are harmlefs, unlefs provoked; but when wounded, or attacked, grow very fierce, and are very vindictive. When furprifed upon the ice, the females firtt provide for the fafety of the young, by flinging it into the fea, and itfelf after it, carrying it to a fecure diftance, then returning with great rage to revenge the injury They will fometimes attempt to faften their teeth on the boats, with an intent to fink them, or rife in numbers under them to overfet them; at the fame time they fhew all marks of rage, by roaring in a dreadful manner, and gnafhing their teeth with great violence; if once thoroughly irritated, the whole herd will follow the boats till they lofe fight of them. They are ftrongly attached to each other, and will make every effort in their power, even to death, to fet at liberty their harpooned companions $\|$.

[^56]A wounded Walrus has been known to fink to the bottom, rife fuddenly again, and bring up with it multitudes of others, who united in an attack on the boat from which the infult came *.

They fling the water out of their noftrils, as the Whale does out of its head. When chafed hard, they commonly vomit, and fling up fmall ftones. Their dung is like that of a Horfe, and exceffively fetid, efpecially where they are found in large companies.
Uses. The tongue, which is about the fize of a Cow's, may be eaten if boiled frefh; but if kept, foon runs into oil. The teeth ufed to be applied to all the purpofes of ivory; but the animals are now killed only for the fake of the oil. Seamen make rings of the briftles of the whifkers, which they wear as prefervatives againft the cramp. The French coach-makers have made traces for coaches of the fkins, which are faid to be ftrong and elaftic $\dagger$. The Ruffians formerly ufed the bone of the penis pulverifed, as a remedy againft the ftone $\ddagger$. Bartbolinus § recommends it, infufed in ale, in fits of the ftrangury. The Greenlanders eat the fleih and lard, and ufe the laft in their lamps. Of the fkin they make ftraps. They fplit the tendons into thread; and ufe the teeth to head their darts, or to make pegs in their boats.

Their only enemies, befides mankind, are the Polar Bears, with whom they have dreadful conflicts. Their feuds probably arife from the occupancy of the fame piece of ice. The Walrus is ufually victorious, through the fuperior advantage of its vaft teeth $\|$. The effects of the battle are very evident; for it is not often that the hunters find a beaft with two entire tufks 9 .

- Pbipps's Voy. 57. $\quad+D_{e}$ Buffon. $\ddagger$ Worm. Muf. 290.

5 As quoted in Mufeum Regium Hafnia, \&cc. pars i. fect. iii. 9. $\|$ Egede, 83.
बा Crantz, i. 126.

## ARCTIC WALRUS.

"The Walrus, or Sea Cow, as it is called by the Americans," fays Lord Sbuldham *, " is a native of the Magdalene iflands, St. " Fobn's, and Anticofti, in the gulph of St. Laurence. They refort, " very early in the fpring, to the former of thefe places, which " feems by nature particularly adapted to the nature of the animals, " abounding with clams (efcallops) of a very large fize ; and the " moft convenient landing-places, called Ecboueries. Here they " crawl up in great numbers, and remain fometimes for fourteen "days together without food, when the weather is fair; but on the " firft appearance of rain, they retreat to the water with great pre"cipitation. They are, when out of the water, very unwieldy, " and move with great difficulty. They weigh from fifteen hun" dred to two thoufand pounds, producing, according to their fize, " from one to two barrels of oil, which is boiled out of the fat be" tween the fkin and the flefh. Immediately on their arrival, the " females calve, and engender again in two months after; fo that " they carry their young about nine months. They never have " more than two at a time, and feldom more than one.
«The Echoueries $\dagger$ are formed principally by nature, being a " gradual flope of foft rock, with which the Magdalene illands " abound, about eighty or a hundred yards wide at the water-fide, " and fpreading fo as to contain, near the fummit, a very large " number of thefe animals. Here they are fuffered to come on " fhore, and amufe themfelves for a confiderable time, till they " acquire a degree of boldnefs, being at their firft landing fo ex-

[^57]
## ARCTIC WALRUS.

" ceedingly timid as to make it impoffible for any perfon to ap" proach them.
" In a few weeks they affemble in great multitudes: formerly, " when undifturbed by the Americans, to the amount of feven or " eight thoufand. The form of the Ecbouerie not allowing them " to remain contiguous to the water, the foremoft are infenfibly " pufhed above the flope. When they are arrived at a conve" nient diftance, the hunters, being provided with a fpear fharp on " one fide, like a knife, with which they cut their throats, take
" advantage of a fide wind, or a breeze blowing obliquely upon the
" fhore, to prevent the animals from fmelling them, becaufe they
" have that fenfe in great perfection. Having landed, the hunters,
" with the affiftance of good dogs, trained for that purpofe, in the
" night-time endeavour to feparate thofe which are moft advanced
" from the others, driving them different ways. This they call
" making a cut; it is generally looked upon to be a moft dangerous
" procefs, it being impoffible to drive them in any particular di-
" rection, and difficult to avoid them; but as the Walrufes, which
" are advanced above the flope of the Ecbouerie, are deprived by
" the darknefs of the night from every direction to the water, they
" are left wandering about, and killed at leifure, thofe that are
" neareft the fhore being the firft victims. In this manner have
" been killed fifteen or fixteen hundred at a cut.
" The people then fkin them, and take off a coat of fat which " always furrounds them, and diffolve it into oil. The fkin is cut " into flices of two or three inches wide, and exported to America " for carriage traces, and into England for glue. The teeth make " an inferior fort of ivory, and is manufactured for that purpofe; " but very foon turns yellow."

> COMMON SEAL.

HIST0 QUAD. Genus XLII.

SEAL.

> Br. Zool. i. No $7 \mathrm{I} .-H i f$. 2 quad. $\mathrm{N}^{\circ} 375$.-Smellif.
> Kaffigiak, Faun. Greenl. No 6. Lev. Mus.

SEAL. With a flat head and nofe : large black eyes: large whifkers: fix cutting teeth in the upper jaw; four in the lower: two canine teeth in each jaw : no external ears: hair on all parts fhort and thick: five toes on each foot, furnifhed with ftrong fharp claws, and ftrongly webbed : tail fhort and flat.
Ufual length of this fpecies, from five to fix feet. Their color differs; dufky, brinded, or fpotted with white and yellow.
Inhabits all the European feas, even to the extreme north; and is found far within the Arotic circle, in both European and Afatic feas. It is continued to thofe of Kamt fcbatka ${ }^{*}$.
Thefe animals may be called the flocks of the Greenlanders, and many other of the Arctic people. I cannot defrribe the ufes of them to the former more expreffively than in the very words of Mr . Crantz, a gentleman very long refident in their chilly country.
"Seals are more needful to them than Sheep are to us, though " they furnifh us with food and raiment; or than the cocoa-tree is " to the Indians, although that prefents them not only with meat
" to eat, and covering for their bodies, but alfo houfes to dwell in, " and boats to fail in, fo that in cafe of neceffity they could live " folely from it. The Seals flefh (together with the Rein-deer, " which is already grown pretty fcarce) fupplies the natives with

[^58]THEIR GREAT
USE TOTHE Greenlanders。
$s$ their moft palatable and fubstantial food. Their fat furnifhes
" them with oil for lamp-light, chamber and kitchen fire ; and
" whoever fees their habitations, prefently finds, that if they even
" had a fuperfluity of wood, it would not do, they can ufe nothing
" but train in them. They alfo mollify their dry food, moftly fifh,
" in the train; and finally, they barter it for all kinds of neceffaries
" with the factor. They can few better with fibres of the Seals
" finews than with thread or filk. Of the fkins of the entrails they
"s make their windows, curtains for their tents, fhirts, and part of
" the bladders they ufe at their harpoons; and they make train
" bottles of the maw. Formerly, for want of iron, they made all
"s manner of inftruments and working-tools of their bones. Nei-
" ther is the blood waited, but boiled with other ingredients, and
" eaten as foup. Of the fkin of the Seal they ftand in the greateft
"s need; for, fuppofing the fkins of Rein-deer and birds would
" furnifh them with competent cloathing for their bodies, and co-
"s verings for their beds; and their flefh, together with fifh, with
" fufficient food; and provided they could drefs their meat with
"sood, and alfo new model their houfe-keeping, fo as to have
" light, and keep themfelves warm with it too; yet without the
"Seals fkins they would not be in a capacity of acquiring thefe
" fame Rein-deer, fowls, fifhes, and wood; becaufe they muft
" cover over with Seal-fkin both their large and fmall boats, in
" which they travel and feek their provifion. They muft alfo cut
" their thongs or ftraps out of them, make the bladders for their
" harpoons, and cover their tents with them; without which they
" could not fubfift in fummer.
" Therefore no man can pafs for a right Greenlander who cannot
" catch Seals. This is the ultimate end they afpire at, in all their
"device and labor from their childhood up. It is the only art
" (and in truth a difficult and dangerous one it is) to which they
"s are

## COMMON SEAL.

" are trained from their infancy; by which they maintain them-
"felves, make themfelves agreeable to others, and become benefi"cial members of the community *.
"The Greenlanders have three ways of catching Seals: either
" fingly, with the bladder; or in company, by the clapper-bunt;
" or in the winter on the ice: whereto may be added the fhooting " them with a gun.
"The principal and moft common way is the taking them with " the bladder. When the Greenlander fets out equipped according " to the 7th Section, and fpies a Seal, he tries to furprife it una" wares, with the wind and fun in his back, that he may not be " heard or feen by it. He tries to conceal himfelf behind a wave, " and makes haftily, but foflly, up to it, till he comes within four, " five, or fix fathom of it; mean while he takes the utmoft care " that the harpoon, line, and bladder, lie in proper order. Then
" he takes hold of the oar with his left hand, and the harpoon with
" his right by the hand-board, and fo away he throws it at the "Seal, in fuch a manner that the whole dart flies from the hand" board and leaves that in his hand. If the harpoon hits the mark, " and buries itfelf deeper than the barbs, it will directly difengage " itfelf from the bone-joint, and that from the fhaft; and alfo un" wind the ftring from its lodge on the kajak. The moment the " Seal is pierced, the Greenlander muft throw the bladder, tied to "the end of the fring, into the water, on the fame fide as the Seal "runs and dives; for that he does inftantly, like a dart. Then "the Greenlander goes and takes up the fhaft fwimming on the " water, and lays it in its place. The Seal often drags the bladder " with it under water, though 'tis a confiderable impediment, on " account of its great bignefs; but it fo wearies itfelf out with it,

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\text { - Hift. Greenl. i. } 130 .
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Manner of TAKING。
" that it muft come up again in about a quarter of an hour to take " breath. The Greenlander haftens to the fpot where he fees the " bladder rife up, and fmites the Seal, as foon as it appears, with "the great lance defcribed in the 6th Section*. This lance al${ }^{66}$ ways comes out of its body again; but he throws it at the crea" ture afrefh every time it comes up, till 'tis quite fpent. Then " he runs the little lance into it, and kills it outright, but ftops up " the wound directly to preferve the blood; and laftly, he blows " it up, like a bladder, betwixt fkin and flefh, to put it into a " better capacity of fwimming after him; for which purpofe he " faftens it to the left-fide of his kajak, or boat $\dagger$.
"In this exercife the Greenlander is expofed to the moft and "greateft danger of his life; which is probably the reafon that they " call this hunt, or fifhery, kamavock, i. e. the Extinction, viz. of " life. For if the line fhould entangle itfelf, as it eafily may, in its "s fudden and violent motion; or if it fhould catch hold of the " kajak, or fhould wind itfelf round the oar, or the hand, or even " the neck, as it fometimes does in windy weather; or if the Seal
" fhould turn fuddenly to the other fide of the boat; it cannot be "otherwife than that the kajak muft be overturned by the ftring, " and drawn down under water. On fuch defperate occafions the "poor Greenlander ftands in need of all the arts defcribed in the "former Section, to difentangle himfelf from the ftring, and to " raife himfelf up from under the water feveral times fucceffively; " for he wile continually be overturning till he has quite difengaged
" himfelf from the line. Nay, when he imagines himfelf to be ss out of all danger, and comes too near the dying Seal, it may ftill " bite him in the face or hand; and a female Seal that has young, " inftead of flying the field, will fometimes fly at the Greenlander in

- See the Sections referred to, and tab, v.
"the moft vehement rage, and do him a mifchief, or bite a hole in " his kajak that he muft fink.
"In this way, fingly, they can kill none but the carelefs ftupid "Seal, called Attarjoak*. Several in company muft purfue the "cautious Kafigiak $\dagger$ by the clapper-bunt. In the fame manner "they alfo furround and kill the Attarfoit $\ddagger$ in great numbers at " certain feafons of the year ; for in autumn they retire into the " creeks or inlets in ftormy weather, as in the Nepijet found in "Ball's river, between the main land and the ifland Kangek, which " is full two leagues long, but very narrow. There the Green" landers cut off their retreat, and frighten them under water by " fhouting, clapping, and throwing ftones; but, as they muft come "up again continually to draw breath, then they perfecute them " again till they are tired, and at laft are obliged to ftay fo long " above water, that they furround them, and kill them with the " fourth kind of dart, defrribed in the 6th Section. During this " hunt we have a fine opportunity to fee the agility of the Green" landers, or, if I may call it fo, their huffar-like manœeuvres.
" When the Seal rifes out of the water, they all fly upon it, as if "they had wings, with a defperate noife; the poor creature is
" forced to dive again directly, and the moment he does, they dif" perfe again as faft as they came, and every one gives heed to his " poft, to fee where it will ftart up again; which is an uncertain " thing, and is commonly three quarters of a mile from the former " fpot. If a Seal has a good broad water, three or four leagbes "each way, it can keep the fportfmen in play for a couple of " hours, before 'tis fo fpent that they can furround and kill it.
" If the Seal, in its fright, betakes itfelf to the land for a retreat,
" 'tis welcomed with fticks and ftones by the women and children,
- See $\mathrm{N}^{\circ} 77$. of this work, $\quad+\cdot$ Ditto, $\mathrm{N}^{\circ} 72 . \quad \ddagger$ Ditto, a variety
$\mathrm{N}^{\circ} 77$. of $\mathrm{N}^{\circ} 77$.

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s and prefently pierced by the men in the rear. This is a very " lively and a very profitable diverfion for the Grenlanders, for * many times one man will have eight or ten Seals for his fhare.
" The third method of killing Seals upon the ice, is moftly " practifed in Diko, where the bays are frozen over in the winter.
" There are feveral ways of proceeding. The Seals themfelves " make fometimes holes in the ice, where they come and draw " breath; near fuch a hole a Greenlander feats himfelf on a ftool, "putting his feet on a lower one to keep them from the cold. "Now when the Seal comes and puts its nofe to the hole, he " pierces it inftantly with his harpoon; then breaks the hole larger, " and draws it out and kills it quite. Or a Greenlander lays him" felf upon his belly, on a kind of a fledge, near other holes, where " the Seals come out upon the ice to bafk themfelves in the fun. " Near this great hole they make a little one, and another Green" lander puts a harpoon into it with a very long fhaft or pole. He " that lies upon the ice looks into the great hole, till he fees a Seal "coming under the harpoon; then he gives the other the fignal, " who runs the Seal through with all his might.
"If the Greenlander fees a Seal lying near its hole upon the ice, " he fides along upon his belly towards it, wags his head, and " grunts like a Seal; and the poor Seal, thinking 'tis one of its " innocent companions, lets him come near enough to pierce it " with his long dart.
"When the current wears a great hole in the ice in the fpring, " the Greenlanders plant themfelves all round it, till the Seals come " in droves to the brim to fetch breath, and then they kill them " with their harpoons. Many alfo are killed on the ice while they " lie neeping and fnoring in the fun *."

- pp. 153, 4, 5, 6, 7 .

Nature

## COMMON SEAL.

Nature has been fo niggardly in providing variety of provifion for the Greenlanders, that they are necefitated to have recourfe to fuch which is offered to them with a liberal hand. The Kamtfcbatkan nations, which enjoy feveral animals, as well as a great and abundant choice of fifh, are fo enamoured with the tafte of the fat of Seals, that they can make no feaft without making it one of the difhes. Of that both Rufians and Kamtjchatkans make their candles. The latter eat the flefh boiled, or elfe dried in the fun. If they have a great quantity, they preferve it in the following manner:

They dig a pit of a requifite depth, and pave it with ftones; then fill it with wood, and fet it on fire fo as to heat the pit to the warmth of a fove. They then collect all the cinders into a heap. They ftrew the bottom with the green wood of alder, on which they place feparately the flefh and the fat, and put between every layer branches of the fame tree; when the pit is filled they cover it with fods, fo that the vapour cannot efcape. After fome hours they take out both fat and flefh, and keep it for winter's provifions, and they may be preferved a whole year without fpoiling.

The Kamtfcbatkans have a moft fingular ceremony. After they take the flefh from the heads of the Seals, they bring a veffel in form of a canoe, and fling into it all the fculls, crowned with certain herbs, and place them on the ground. A certain perfon enters the habitation with a fack filled with Toncbitche, fweet herbs, and a little of the bark of willow. Two of the natives then roll a great ftone towards the door, and cover it with pebbles; two others take the fweet herbs and difpofe them, tied in little packets. The great ftone is to fignify the fea-fhore, the pebbles the waves, and the packets Seals. They then bring three difhes of a hafh, called Tol- $^{\prime}$ koucba; of this they make little balls, in the middle of which they ftick the packets of herbs: of the willow-bark they make a little

Uses in Kamtschatia.

Superstitious custom.

## COMMONSEAL.

canoe, and fill it with Tolkoucba, and cover it with the fack. After fome time, the two Kamt cchatkans who had put the mimic Seals into the Tolkoucba, take the balls, and a veffel refembling a canoe, and draw it along the fand, as if it was on the fea, to convince the real Seals how agreeable it would be to them to come among the Kamtfchatkans, who have a fea in their very jurts, or dwellings. And this they imagine will induce the Seals to fuffer themfelves to be taken in great numbers. Various other ceremonies, equally ridiculous, are practifed; in one of which they invoke the winds, which drive the Seals on their Ghores, to be propitious*.

Befides the ufes which are made of the flefh and fat of Seals, the fkins of the largeft are cut into foles for fhoes. The women make their fummer boots of the undreffed fkins, and wear them with the hair outmoft. In a country which abounds fo greatly in furs, very little more ufe is made of the fkins of Seals in the article of drefs than what has been mentioned $\dagger$. But the Koriaks, the Oloutores, and $\mathcal{T}^{\prime}$ cbut $\delta c b i$, form with the fkins canoes and veffels of different fizes, fome large enough to carry thirty people.

Seals fwarm on all the coafts of Kamt fcbatka, and will go up the rivers eighty verfts in purfuit of fifh. They couple on the ice in April, and fometimes on the rocks, and even in the fea in calm weather. The Tungufi give the milk of thefe animals to their children inftead of phyfic.
Capture.
The Seals in this country are killed by harpooning, by fhooting, by watching the holes in the ice and knocking them on the head as they rife ; or by placing two or three ftrong nets acrofs one of the rivers which thefe animals frequent: fifty or more people affemble in canoes on each fide of the nets, while others row up and down, and with great cries frighten the Seals into them. As foon as any

[^59]are entangled, the people kill them with pikes or clubs, and drag them on fhore, and divide them equally among the hunters; fometimes a hundred are taken at a time in this manner.

The navigators obferved abundance of Seals about Bering's inland, but that they decreafed in numbers as they advanced towards the ftraits; for where the Walrufes abounded, the Seals grew more and more fcarce.
I did not obferve any Seal-fkin garments among thofe brought over by the navigators, fuch as one might have expected among the Efquimaux of the high latitudes they vifited, and which are fo much in ufe with thofe of Hudjon's Bay and Labrador. That fpecies of drefs doubtlefsly was worn in the earlieft times. There people wanted their hiftorians; but we are affured that the Mafagete* cloathed themfelves in the fkins of Seals. They, according to D'anville, inhabited the country to the eaft of the Cafpian fea, and the lake Aral; both of which waters abound with Seals.
Seals are now become a great article of commerce. The oil from the vaft Whales is no longer equal to the demand for fupplying the magnificent profufion of lamps in and round our capital. The chafe of thefe animals is redoubled for that purpofe; and the fkins, properly tanned, are in confiderable ufe in the manufactory of boots and fhoes.
Five varieties of Seals are found in the Baltic, It is made a doubt whether they are not even diftinct fpecies.
The firft is the Grey Seal, Gra Siäl, which when juft born is wholly yellow: but that color foon grows obfcure, and the fkin becomes varied with fpots or waved lines. This variety is the large of thofe which inhabit the Swedifh feas.

The fecond is the Haut fail. This, when juft dropped, is more

[^60]Massagetse cloathedin SEAL-SKINs.
white, and never changes, unlefs to a tinge of pearl color, when it has ceafed growing. It never attains the fize of the former, lives feparate from it, and is more timid.

Thefe two varieties live on the high feas, and feed on herrings, medufe, and blennies. During winter they retire under the ice, through which they form holes by blowing on it, let the thicknefs be ever fo great. In fummer they mount on the fand-banks to fleep.

The Seal called the Wikare gris, and Wikare noir, are two varieties, which fleep on fhore. The two preceding fometimes neep in the fea, keeping their heads above water; they fleep fo found that the hunters can reach and harpoon them in that fituation. The Wikare feeds chiefly on the gaferofeus aculeatus, Lin. three-fpined ftickleback, Br. Zool. III. No. 129. and becomes fo fat, that when killed it cannot fink to the bottom. The young of the Black Wikare are conftantly black; thofe of the Grey Wikare always grey.

Fifthly. The Morunge is always ftriped (tigré). This fpecies is of late years fo diminifhed, that for ten years paft there has not been feen one in all the $S$ wedifo arcbipelago.

If thefe five are varieties, they are certainly varieties which live always feparated, and never mingle with one another.

The chace of the Seals in the gulph of Bottnia, is as remarkable as that of the Greenlanders. In the fpring, when the rivers of Lapland force with their ftream, into the fea, vaft maffes of ice, the Grey Seals and Houtkalls retire upon them. The hunters never neglect the opportunity of taking them : they find out thefe floating mountains, which, according to Mr. Hjarne, are twelve or fourteen fathoms in thicknefs below water, and of a great extent. The hunters lay in provifions for fix weeks, and a hearth to drefs their meat on. They then moor their boat to one of thefe mountanous
pieces of ice, the hollows of which are filled with Seals. They cloath themfelves in white, to render themfelves lefs fufpected by thofe animals. They alfo whiten their boats with lime; and fleep in them during night, and thus pafs ten or twelve days among the ice, till they difcover the Seals. When they hear a certain crackling, they confider it as a fign that the piece of ice is about to fall to pieces; they guard againft the confequences, and feek another; and fo continue rowing from one piece of ice to another, in fearch of the Seals, till they have exhaufted every object of the chace.

## Hift. Quad. N ${ }^{\circ} 382$.

Phoca Barbata, Faun. Greenl. No 9.-Urkfuk. Greenl. Lakktak, Hift. Kamtjchatka, 420.-Lev. Mus.

SEAL. With long pellucid white whifkers with curled points: back arched: black hairs, very deciduous, and thinly difperfed over a thick fkin, which in fummer is almoft naked: teeth like the common Seal: fore feet like the human hand; middle toe the longeft; thumb fhort: length more than twelve feet.
The Greenlanders cut out of the fkin of this fpecies thongs and lines, a finger thick, for the Seal-fifhery. Its flefh is white as veal, and efteemed the moft delicate of any : has plenty of lard, but does not yield much oil. The fkins of the young are fometimes ufed to lie on.

It inhabits the high fea about Greenland; is a timid fpecies, and ufually refts on the floating ice, and very feldom the fixed. Breeds in the earlieft fpring, or about the month of March, and brings forth a fingle young on the ice, ufually among the inlands; for at that Vol. I.

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GREAT SEAL.

feafon it approaches a little nearer to the land. The great old ones fwim very flowly.
In the feas of the north of Scotland is found a Seal twelve feet long. A gentleman of my acquaintance fhot one of that fize on the coaft of Sutberland; but made no particular remarks on it. A young one, feven feet and half long, was fhewn in London fome years ago, which had not arrived at maturity enough even to have fcarcely any teeth*: yet the common Seals have them complete before they attain the fize of fix feet, their utmoft growth.

A fpecies larger than an Ox , found in the Kamt chatkan feas from 56 to 64 north latitude, called by the natives Lacbtak $\dagger$. They weighed eight hundred pounds : were eaten by Bering's crew ; but their flefh was found to be very loathfome $\ddagger$. The cubs are quite black.

Steller has left behind him accounts of other Seals found in thofe wild feas; but his defcriptions are fo imperfect as to render it impoffible to afcertain the fpecies. He fpeaks in his MSS. of a middle-fized kind, univerfally and moft elegantly fpotted; another, black with brown fpots, and the belly of a yellowifh white, and as large as a yearling Ox; a third fpecies, black, and with a particular formation of the hinder legs; and a fourth, of a yellowifh color, with a great circle on it of the color of cherries $\$$.

* Pb. Tranf. Abr. ix. 74. tab. v. xlvii. 120. + Norv. Com. Petrop. ii. 290. $\ddagger$ Muller's Voy, 60. § Dr. Pallas, and Defrr. Kamtfchatka, 420 .

Hif. Quad. No 383.
Phoca Foetida, Faun. Greenl. No 8.-Neitfeck Greenl. Crantz, i.

SEA L. With a fhort nofe, and fhort round head: teeth like the common Seal : body almoft of an elliptical form, covered with lard almoft to the hind feet : hairs clofely fet together, foft, long, and fomewhat erect, with curled wool intermixed : color dufky, freaked with white; fometimes varies to white, with a dufky dorfal line.

Does not exceed four feet in length.
Never frequents the high feas, but keeps on the fixed ice in the remote bays near the frozen land; and when old never forfakes its haunts. Couples in Fune; brings forth in Fanuary, on the fixed ice, which is its proper element. In that it has a hole for the benefit of fifhing; near that it remains ufually folitary, rarely in pairs. Is very incautious, and often fleeps on the furface of the water, yielding itfelf a prey to the Eagle. Feeds on fmall fifh, fhrimps, and the like. The ufes of the fkin, tendons, and lard, the fame with thofe of other Seals. The flefh is red, and fretid, efpecially that of the males, which is naufeated by even the Greenlanders.

The Seal-hunters in Nerofoundland have a large kind, which they call the Square Pbipper, and fay weighs five hundred pounds. Its coat is like that of a Water-dog; fo that it feems by the length of hair to be allied to this; but the vaft difference in fize forbids us from pronouncing it to be the fame fecies.

## B b 2

Hijt. $2^{\text {uad. }} \mathrm{N}^{\mathrm{N}} 3^{8 \mathrm{r}}$.<br>Phoca Leporina, Lepecbin, Act. Acad. Petrop. pars. i. 264. tab. viii. ix.Hijf. Quad. $\mathrm{N}^{\circ} 38 \mathrm{r}$.

SEAL. With hair of an uniform dirty white color, with a tinge of yellow, but never fpotted; hairs erect, and interwoven; foft as that of a Hare, efpecially the young: head long: upper lip fwelling and thick: whifkers very ftrong and thick, ranged in fifteen rows, covering the whole front of the lip, fo as to make it appear bearded: eyes blue, pupil black: teeth ftrong; four cutting teeth above, the fame below *: fore feet fhort, and ending abrupt : the membranes of the hind feet even, and not waved: tail fhort and thick ; its length four inches two lines.
Length of this fpecies, from nofe to tip of the tail, is fix feet fix ; its greatef circumference five feet two. The cubs are milk white.

This kind inhabits the Wbite Sea during fummer, and afcends and defcends the mouths of rivers $\dagger$ with the tide in queft of prey. It is alfo found on the coafts of Iceland, and within the Polar circle from Spitzbergen to Tcbutki $N o / s$, and from thence fouthward about Kamt cbatka.

Like the others, it is killed for its fat and fkin. The laft is cut into pieces, and ufed for ftraps and reins. The fkins of the young, which are remarkably white, are dyed with black, and ufed to face caps, in imitation of Beavers fkins; but the hairs are much ftiffer, and do not foon drop off:

[^61]
## HOODEDSEAL.

## Hift. 2uad. No 384.

Phoca Leonina, Faun. Greenl. No 5 .

SEAL. With four cutting teeth above, four below : fore feet like the human; the thumb long: the membranes on the hind feet extend beyond the claws: on the forehead of the male is a thick folded fkin, ridged half the way up, which it can inflate and draw down like a cap, to defend its eyes againft ftorms, waves, ftones, and fand. The females and young have only the rudiment of this guard. It has two fpecies of hair; the longeft white, the fhorteft thick, black, and woolly, which gives it a beautiful grey color.

It grows to the length of eight feet. The Greenlanders call it Neitfek-foak*, or the Great Neitjek. It inhabits only the fouthern parts of their country, where it inhabits the high feas; but in April, May, and fune, comes nearer to the land. Is polygamous; copulates with its body erect. Brings forth in April one young upon the ice. Keeps much on the great fragments, where it fleeps in an unguarded way. Bites hard: barks, and whines: grows very fierce on being wounded; but will weep on being furprized by the hunter. Fight among themfelves, and inflict deep wounds. Feed on all kinds of greater fifh. The fkins of the young form the moft elegant dreffes for the women. The men cover their great boats with thofe of the old; they alfo cover their houfes with them, and when they grow old convert them into facks. They ufe the teeth to head hunting-fpears. Of the gullet and inteftines they make the feadreffes. The ftomach is made into a filhing-buoy.

$$
\text { *Crantz, i. } 25
$$

## HARPSEAL.

It is alfo found in Newfoundland. Our Seal-hunters name it the Hooded Seal, and pretend they cannot kill it till they remove that integument. The Germans call it Klap-Mutz, from its covering its face as if with a cap.
The moft dreaded enemy which this fpecies has in Greentand is the Pbyjeter Microps; on the very fight of which it takes to the ice, and quietly expects its fate *. The Greenlanders therefore deteft this fpecies of Whale, not only on account of the havock it makes among the Seals, but becaufe it frightens them away from the bays $t$.

It is entirely different from the Leonine Seal, or from that of the South-fea, called the Bottle-nose.

Hijt. Quad. No $3^{85}$.
Phoca Oceanica, Krylatca Rufis, Lepecbin, Act. Acad. Petrop. pars. i. 259. tab. vi. vii.

Phoca Greenlandica, Faun. Greenl. No 7.-Atak Grecsl. Atarfoak, Crantz, i. 124.

SEAL. With a round head: high forehead : nofe fhort : large black eyes: whifkers difpofed in ten rows of hairs: four cutting teeth in the upper jaw, the two middlemoft the longeft; four alfo in the lower, lefs fharp than the others : two canine teeth in each jaw: fix grinders in each jaw, each three-pointed : hairs fhort : fkin thick and ftrong.

Head, nofe, and chin, of a deep chefnut color, hearly black; reft of the body of a dirty white, or light grey: on the top of the fhoulders is a large mark of the fame color; with the head bifur-

[^62]cated,
cated, each fork extending downwards along the fides half way the length of the body. This mark is always conftant ; but there are befides a few irregular fpots incidental to the old ones.

The female has only two, retractile, teats; and brings only one young at a time. The cub, the firft year, is of a bright ahh-color, whitifh beneath, and marked in all parts with multitudes of fmall black fpots, at which period they are called by the Ruffians White Seals. In the next year they begin to be fpotted; from that period the females continue unchanged in color. The males at full age, which Mr. Crantz fays is their fifth year, attain their diftinguifhing fpot, and are called by the Greenlanders Attarfoak*; by the Rufians, Krylatka, or winged.

This inhabits the fame countries with the Rougb and Leporine Seal; but loves the coldeft parts of the coaft. Continues on the loofe ice of Nova Zembla the whole year; and is feen only in the winter in the Wbite Sea, on the floating ice carried from the northern feas. It brings forth its young about the end of April, and after fuckling it a fufficient time departs with the firft ice into the Frozen Ocean. The young remains behind for fome time, then follows its parent with the ice which is loofed from the fhore $\dagger$.
It abounds in Greenland and about Spitzbergen, efpecially in the bottoms of the deep bays. Migrates in Greenland twice in the year: in March, and returns in May; in Yune, and returns in September. Couples in fuly, and brings forth towards the end of Marcb or beginning of April: has one young, rarely two, which it fuckles on fragments of ice far from land. It never afcends the fixed ice; but lives and feeps on the floating iflands in great herds. Swims in great numbers, having one for a leader, which feems to watch for the fecurity of the whole. Eats its prey with its head above

[^63]
## HARPSEAL.

water. Swims in various ways; on its belly, back, and fide, and often whirls about as if in frolick. Frequently fleeps on the furface of the water. Is very incautious. Has great dread of the Pbyyeter Microps, which forces it towards the fhore. It is often furrounded by troops of hunters, who compel it even to land, where it is eafily killed.
It is found alfo about Kamt $f_{c h a t k a}$, being the third fpecies mentioned by Steller.
$S_{\text {rzz }}$. It grows to the length of nine feet. The meafurements of one defcribed by Mr. Lepecbin are as follow:-The length, from the nofe to the tip of the tail, was fix feet: the length of the tail five inches three lines: the girth of the thickeft part of the body four feet eight.
The fkin is ufed to cover trunks; that of the young, taken in the ine of Solovki, on the weft fide of the Wbite Sea, is made into boots, and is excellent for keeping out water. The Greenlanders, in dreffing the fkins, curry off the hair, and leave fome fat on the infide to render them thicker. With thefe they cover their boats, and with the undreffed fkins their tents; and, when they can get no other, make ufe of them for cloathing.
The oil extracted from the blubber of this Seal is far the moft valuable, being fweet, and fo free from greaves as to yield a greater quantity than any other fpecies. The flefh is black.
The Nerufoundland Seal-hunters call it the Harp, or Heart Seal, and name the marks on the fides the faddle. They fpeak too of a brown fort, which they call Bedlemer, and believe to be the young of the former.

## RUBBON AND URSINE SEAL.



$$
\text { Hij), 2 Yad. No } 3^{80} \text {, fig, at p. } 5^{1} 3 \text {. }
$$

SEAL. With very fhort brifty hair, of an uniform gloffy color, almoft black: the whole back and fides comprehended within a narrow regular ftripe of pale yellow.
It is to Dr. Pallas I owe the knowledge of this fpecies. He received only part of the fkin, which feemed to have been the back and fides. The length was four feet, the breadth two feet three; fo it muft have belonged to a large fpecies. It was taken off the Kuril inands.

$$
\begin{aligned}
& \text { Hift. Quad. } \mathrm{N}^{0} 387 \text {. } \\
& \text { Kot Rufis Gentilibus ad Sinum Penchinicum, Tarlat } f_{c b e g a, ~ N o v . ~ C o m . ~ P e t r o p . ~ i i . ~}^{\text {. }} \\
& 33 \text { I. tab. xv. } \\
& \text { Sea Wolf*, Pernety, Eng1. Tr. 187. tab. xvi,-Ulloa's Voy. i. } 226 \text {. } \\
& \text { Chat Marin, Hift. Kamt/cbatka, } 433 \text {. }
\end{aligned}
$$

SEAL. With a high forehead: nofe projecting like that of a dog: black irides: fmaragdine pupil: whifkers compofed of triangular hairs, thinly fcattered: noftrils oval, divided by a feptum: lips thick; their infide red, and ferrated.

In the upper jaw four bifurcated cutting teeth; on each fide of thefe a very fharp canine tooth bending inwards; beyond thefe another, which, in battle, the animal ftrikes with, as Boars do with

[^64]78. Rubbon.

4593 4201
79. URsine.

Teeth.

Tongue, Ears.

Fore legs.

Hind legs.

Tail.

BODY.

Female.

Color.
their tufks. Inftead of grinders, in each upper jaw are fix fharp teeth refembling canine, and very flightly exerted. In the lower jaw four cutting teeth, and canine like thofe in the upper; and on each fide ten others in the place of grinders. When the mouth is clofed all the teeth lock into each other.

The tongue rough and bifid: the ears fhort, fmall, and fharppointed, hairy on the outfide, fmooth and polifhed within.
. Fore legs two feet long, not immerfed in the body, like thofe of other Seals, but refemble thofe of common quadrupeds. The feet are furnifhed with five toes, with the rudiments of nails; but thefe are fo entirely covered with a naked fkin, as to be as much concealed as a hand is with a mitten. The animal ftands on thefe legs with the utmoft firmnefs; yet the feet feem but a fhapelefs mafs.

The hind legs are twenty-two inches long, and fituated like thofe of Seals; but are capable of being brought forward, fo that the animal makes ufe of them to frratch its head: on each are five toes, connected by a large web; and are a foot broad. The tail is only two inches long.
The body is of a conoid thape. The length of a large one is about eight feet; the circumference near the fhoulders is five feet, near the tail twenty inches. The weight eight hundred pounds.
The female is far inferior in fize to the male : it has two teats, placed far behind.
The whole animal is covered with long and rough hair, of a blackifh color ; that of the old is tipt with grey; and on the neck of the males is a little longer and erect: beneath the hair is a foft fur of a bay color. The females are cinereous. The fkin is thick and ftrong.

## URSINE SEAL.

Thefe animals are found in amazing multitudes on the iflands between Kamtjcbatka and America*; but are fcarcely known to land on the Afatic fhore: nor are they ever taken except in the three Kuritian iflands, and from thence in the Bobrowoie More, or Beaver Sea, as far as the Kronofki headland, off the river Kamtfobatka, which comprehends only from 50 to 56 north latitude. It is obfervable that they never double the fouthern cape of the peninfula, or are found on the weftern fide in the Penfobinjka fea: but their great refort has been obferved to be to Bering's inlands. They are as regularly migratory as birds of paffage. They firft appear off the three Kurili iflands and Kamtfchatka in the earlieft fpring. They arrive exceffively fat ; and there is not one female which does not come pregnant. Such which are then taken are opened, the young taken out and fkinned. They are found in Bering's ifland only on the weftern fhore, being the part oppofite to Afia, where they firft appear on their migration from the fouth. They continue on fhore three months, during which time the females bring forth. Excepting their employ of fuckling their young, they pafs their time in total inactivity. The males fink into the moft profound indolence, and deep fleep; nor are they ever roufed, except by fome great provocation, arifing from an invafion of their place, or a jealoufy of their females. During the whole time they neither eat nor drink. Steller diffected numbers, without finding the left appearance of food in their ftomachs.

They live in families. Every male is furrounded by a feraglio of from eight to fifty miftreffes; thefe he guards with the jealoufy of an eaftern monarch. Each family keeps feparate from the others,

[^65]$$
\mathrm{C} \mathrm{c}_{2} \quad \text { notwithftanding }
$$

Affection TOWARDS THEIR YOUNG.

Conflicts;

CAUSES OF THEM.
notwithftanding they lie by thoufands on the fhore. Every family, with the unmarried and the young, amount to about a hundred and twenty. They alfo fwim in tribes when they take to the fea.
The males fhew great affection towards their young, and equal tyranny towards the females. The former are fierce in the protection of their offspring; and fhould any one attempt to take their cub, will ftand on the defenfive, while the female carries it away in her mouth. Should the happen to drop it, the male inftantly quits its enemy, falls on her, and beats her againft the ftones till he leaves her for dead. As foon as the recovers, the crawls to his feet in the moft fuppliant manner, and wafhes them with her tears; he at the fame time brutally infults her mifery, ftalking about in the moft infolent manner. But if the young is entirely carried off, he melts into the greateft affliction, likewife fheds tears, and fhews every mark of deep forrow. It is probable that as the female brings only one, or at moft two cubs, he feels his misfortune the more fenfibly.

Thofe animals which are deftitute of females, through age or impotence, or are deferted by them, withdraw themfelves from fociety, and grow exceffively fplenetic, peevifh, and quarrelfome; are very furious, and fo attached to their antient ftations, as to prefer death to the lofs of them. They are enormouny fat, and emit a moft naufeous and rank fmell. If they perceive another animal approach its feat, they are inftantly roufed from their indolence, fnap at the encroacher, and give battle. During the fight they infenfibly intrude on the fation of their neighbor. This creates new offence; fo that at length the civil difcord fpreads through the whole fhore, attended with hideous growls, their note of war. They are very tenacious of life, and will live a fortnight after receiving fuch wounds as would foon deftroy any other animal.

The particular caufes of difputes among thefe irafcible beafts are

## URSINE SEAL.

the following:-The firft and greateft is, when an attempt is made to feduce any of their miftreffes, or a young female of the family : a battle is the immediate confequence of the infult. The unhappy vanquifhed inftantly lofes his whole feraglio, who defert him for the victorious hero.

The invafion of the ftation of another, gives rife to frefh conflicts; and the third caufe is the interfering in the difputes of others. The battles they wage are very tremendous; the wounds they inflict very deep, like the cut of a fabre. At the conclufion of an engagement they fling themfelves into the fea to wafh off the blood.

Befides their notes of war, they have feveral others. When they lie on fhore, and are diverting themfelves, they low like a Cow. After victory they chirp like a Cricket. On a defeat, or after receiving a wound, mew like a Cat.

Common Seals, and Sea Otters, ftand in great awe of thefe animals, and fhun their haunts. They again are in equal awe of the Leonine Seals, and do not care to begin a quarrel in their fight, dreading the intervention of fuch formidable arbitrators; who likewife poffefs the firt place on the fhore.

The great and old animals are in no fear of mankind, unlefs they are fuddenly furprized by a loud fhout, when they will hurry by thoufands into the fea, fwim about, and fare at the novelty of their difturbers.
When they come out of the water, they fhake themfelves, and fimooth their hair with their hind feet: apply their lips to thofe of the females, as if they meant to kifs them: lie down and bafk in the fun with their hind legs up, which they wag as a Dog does its tail. Sometimes they lie on their back, fometimes roll themfelves up into a ball, and fall aneep. Their fleep is never fo found but they are awoke by the left alarm; for their fenfe of hearing, and alfo that of fmelling, is moft exquifite.

They

Notes.

## Dread the Lbo-

 nine Seal.Fear not Mankind.

They copulate, more bumano, in fuly, and bring forth in the fune

Gestation.

SWAPT SWIMa AERS .

Capture.

Uses.

Re-migration. following; fo they go with young eleven months. The cubs are as fportive as puppies; have mock fights, and tumble one another on the ground. The male parent looks on with a fort of complacency, parts them, licks and kiffes them, and feems to take a greater affection to the victor than to the others.

They fwim with amazing fwiftnefs and ftrength, even at the rate of feven or eight miles an hour, and often on their back. They dive well, and continue a great while under water. If wounded in that element, they will feize on the boat, carry it with them with great impetuofity, and often will fink it.

When they win to afcend the rocks, they fix their fore feet on them, arch their backs, and then draw themfelves up.

The Kamtfchatkans take them by harpooning, for they never land, on their fhore. To the harpoon is faftened a long line, by which they draw the animal to the boat after it is fpent with fatigue; but in the chafe, the hunters are very fearful of too near an approach, leaft the animal fhould faften on and fink their veffel.

The ufes of them are not great. The flefh of the old males is rank and naufeous; that of the females is faid to refemble lamb; of the young ones roafted, a fucking pig. The fkins of the young, cut out of the bellies of the dams, are efteemed for cloathing, and are fold for about three fhillings and four pence each; thofe of the old for only four fhillings.
Their re-migration is in the month of September, when they depart exceffively lean, and take their young with them. On their return, they again pafs near the fame parts of Kamtjchatka which they did in the fpring. Their winter retreats are quite unknown; it is probable that they are the iflands between the Kurili and Japan, of which we have fome brief accounts, under the name of Compagnie Land, States Land, and Fefo Gafima, which were difcovered by Mar tin

## URSINE SEAL。

tin Uriel in 16 2 $^{*}$. It is certain that by his account the natives employ themfelves in the capture of Seals $\dagger$. Sailors do not give themfelves the trouble of obferving the nice diftinction of fpecific marks, we are therefore at liberty to conjecture thofe which he faw to be our animals, efpecially as we can fix on no more convenient place for their winter quarters. They arrive along the fhores of the Kurili inlands, and part of thofe of Kamtfcbatka, from the fouth. They land and inhabit only the weftern fide of Bering's iffe, which faces Kamt Jcbatka; and when they return in September, their route is due fouth, pointing towards the difcoveries of Uriel. Had they migrated from the fouth-eaft as well as the fouth-weft, every inle, and every fide of every ifle, would have been filled with them; nor fhould we have found (as we do) fuch a conftant and local refidence.
Before I quit this article I muft obferve, that there feems to be in the feas of Fefo $_{0}$ Gafimo another fpecies of Seal, perhaps our Little Seal, No 386. Hijf. Quad. The account indeed is but obfcure, which I muft give as related by Cbarlevoix in his compilations refpecting that inland. "The natives," fays he, " make ufe of an " oil to drink, drawn from a fort of fifh, a fmall hairy creature " with four feet." If this account is true, it ferves to point out the fartheft known refidence of this genus, on this fide of the northern hemifphere.
Finally, the Urifne Seals are found in the fouthern hemifphere, even from under the line, in the ifle of Gallipagos $\ddagger$, to Nerw Georgia §,

* He failed from the eaft fide of Japan in the fhip Caftricom, vifited the ifle of Fefo, and difcovered the iflands which he called States Land and Company Land, the laft not very remote from the moft fouthern Kurili ifland. Recueil de Voy. au Nord, iv. I . $\quad+$ The fame, 12.
$\ddagger$ Woodes Rogers's Voy. 265.-He fays that they are neither fo numerous there, nor is their fur fo fine as thofe on Juan Fernandez, which is faid to be extremely foft and delicate.
§ Cook's Voy, ii, 213.

[^66]in fouth latitude 54. 15. and weft longitude 37. 15. In the intermediate parts, they are met with in Nerw Zeland *, in the ifle of Yuan Fernandez, and its neighbor Mafa Fuera, and probably along the coafts of Cbili to Terra del Fuego, and Staten Land. In Fuan Fernandez, Staten Land, and New Georgia $\dagger$, they fwarm; as they do at the northern extremity of this vaft ocean. Thofe of the fouthern hemifphere have alfo their feafons of migration. Alexander Selkirk, who paffed three lonely years on the ine of Fuan Fernandez, remarks that they come afhore in Fune, and fay till September $\ddagger$. Captain Cook found them again, in their place of re-migration, in equal abundance, on Staten Land and New Georgia, in the months of December and Fanuary §; and Don Pernety $\|$ found them on the Falkland inands, in the month of February.

According to the Greenlanders, this fpecies inhabits the fouthern parts of their country. They call it Auvekajak. That it is very fierce, and tears to pieces whatfoever it meets; that it lives on land as well as in water, fwims moft impetuounly, and is dreaded by the hunters 9 .

> Hif. 2 uad. No 38 .
> Beftia Marina, Kurillis, Kamt fobadalis et Rufis, Kurillico nomine Siroutf fobal dicta. Nor. Com. Petrop. ii. 360 .
> Lion Marin, Hif. Kamtfcbatka, 428 .

S
$\mathbf{S E A L}^{\text {E }}$. With a large head: nofe turning up like that of a pug Dog: eyes large; pupil fmaragdine: the greater angle of each as if ftained with cinnabar color. In the upper jaw four fmall cutting teeth; the exterior on each fide remote, and at fome diftance

[^67]
## LEONINE SEAL.

from thefe are two large canine teeth: in the lower jaw four fmall cutting teeth, and the canine : the grinders fmall and obtufe; four on each fide above, and five below : ears conic and erect : feet exactly like thofe of the Urfine Seal.

Along the neck of the male is a mane of ftiff curled hair; and the whole neck is covered with long waved hairs, fuch as diftinguifh a Lion; the reft of the animal cloathed with fhort reddifh hairs: thofe of the female are of the color of ochre; the young of a much deeper. The old animals grow grey with age.

The weight of a large male beaft is fixteen hundred pounds. Length of the males is fometimes fourteen, or even eighteen feet*. The females are very difproportionably leffer, not exceeding eight feet.

Inhabits the eaftern coafts of Kamtjcbatka, from cape Kronozki as low as cape Lapatka and the Kurili iflands, and even as far as Matfmai, which probably is the fame with Fefo Gafima. Near Matfmai Captain Spanberg obferved a certain ifland of a moft picturefque form, bordered with rocks refembling buildings, and fwarming with thefe animals, to which he gave the name of the Palace of the Sea Lions $\dagger$. Like the Urfine Seals, they are not found on the weftern fide of the peninfula. They abound, in the months of Fune, Fuly, Auguft, and September, on Bering's inland, which they inhabit for the fake of quiet parturition and fuckling their young. Steller alfo faw them in abundance in fuly on the coafts of America.

They do not migrate like the former ; but only change the place of refidence, having winter and fummer ftations $\ddagger$. They live

[^68]chiefly on rocky fhores, or lofty rocks in the fea, which feem to have been torn away from the land by the violence of fome earthquake*. Thefe they climb, and by their dreadful roaring are of ufe in foggy weather to warn navigators to avoid deftruction.

They copulate in the months of Auguft and September; go ten months, and bring only one at a time. The parents fhew them little affection, often tread them to death through careleffnefs, and will fuffer them to be killed before them without concern or refentment. The cubs are not fportive, like other young animals, but are almoft always aneep. Both male and female take them to fea to learn them to fwim; when wearied, they will climb on the back of their dam; but the male often pufhes them off, to habituate them to the exercife. The Ruffians were wont to fling the cubs into the water, and they always fwam back to fhore.

The males treat the females with great refpect, and are very fond of their careffes. They are polygamous, but content themfelves with fewer wives than the former, having only from two to four apiece.
Fearmankind; The males have a terrible afpect, yet they take to flight on the firft appearance of a human creature; and if they are difturbed from their fleep, feem feized with great horrors, figh deeply in their attempts to go away, fall into vaft confufion, tumble down, and tremble in fuch a manner as fcarcely to be able to ufe their limbs. But if they are reduced to a ftrait, fo as not poffibly to effect an efcape, they grow defperate, turn on their enemy with great fury and noife, and even put the moft valiant to flight.
UNLESS HABITUATED.

By ufe they lofe their fear of men. Steller once lived for fix days in a hovel amidft their chief quarters, and found them foon recon-
ciled to the fight of him. They would obferve what he was doing with great calmnefs, lie down oppofite to him, and fuffer him to feize on their cubs. He had an opportunity of feeing their conflicts about their females; and once faw a duel between two males, which lafted three days, and one of them received above a hundred wounds. The Urfine Seals never interfered, but got out of the way as faft as poffible. They even fuffered the cubs of the former to fport with them without offering them the left injury.
This fpecies has many of the fame actions with the former, in fivimming, walking, lying, and fcratching itfelf. The old bellow like Bulls; the young bleat like Sheep. Steller fays, that from their notes he feemed like a ruftic amidit his herds. The males had a ftrong fmell, but were not near fo fetid as the Urfine fort.
Their food is fifh, the leffer Seals, Sea Otters, and other marine animals. During the months of fune and fuly the old males almoft entirely abftain from eating, indulge in indolence and fleep, and become exceffively emaciated.
The voyagers made ufe of them to fubfift on, and thought the flefh of the young very favoury. The feet turned into jelly on being dreffed, and in their fituation were efteemed great delicacies. The fat was not oily; that of the young refembled the fuet of mutton, and was as delicious as marrow. The fkin was ufeful for ftraps, fhoes, and boots.

The Kamtcchatkans efteem the chafe of thefe animals a generous diverfion, and hold the man in higheft honor, in proportion to the number he has killed. Even thefe heroes are very cautious when they attack one of the animals on fhore : they watch an opportunity when they find it afleep, approach it againft the wind, ftrike their harpoon, faftened to a long thong, into its breaft, while their D d 2
comrades

Notes.

Food.

Usss.

Снase.
comrades faften one end to a ftake, and that done, he takes to his heels with the utmoft precipitation. They effect his deftruction at a diftance, by fhooting him with arrows, or flinging their lances into him ; and when exhaufted, they venture to come near enough to knock him on the head with clubs.

When they difcover one on the lonely rocks in the fea, they fhoot it with poifoned arrows: unable to endure the pain of the wound, heightened by the falt-water, which it plunges into on the firft receiving it, it fwims on fhore in the greateft agony. If they find a good opportunity, they transfix it with their weapons; if not, they leave it to die of the poifon, which it infallibly does in twenty-four hours, and in the moft dreadful agony *.

They efteem it a great difgrace to leave any of their game behind: and this point of honor they often obferve, even to their own deftruction ; for it happens that when they go in fearch of thefe animals to the ine of Alait, which lies fome miles fouth-weft of Lapatka promontory, they obferve this principle fo religioufly, as to overload their boats fo much, as to fend them and their booty to the bottom; for they fcorn to fave themfelves, at the expence of throwing overboard any part $\dagger$.

This fpecies has been difcovered very low in the fouthern hemifphere ; but, I believe, not on the weftern fide. Sir Fobn Narborough $\ddagger$ met with them on an illand off Port Defire, in lat. 47. 48. Sir Ricbard Harwkins § found them on Pinguin ifle, within the fecond Narrow of the ftreights of Magellan. They abound in the Falkland IJlands \|; and were again difcovered by Captain Cook on

- Defcr. Kamtfchatka, 377. $\quad+$ Nov. Com. Petrop. ii 302. $\ddagger$ Voy. 31.
\$ Voy. 75 . || Pernety's Voy. 188, tab. xvi.


## LEONINE SEAL.

the New Year's IJands, off the weft coaft of Staten Land *. In thofe fouthern latitudes they bring forth their young in the middle of our winter, the feafon in which our late circumnavigators $\dagger$ vifited thofe diftant parts.

- Cook, ii. 194. 203.-The months in which thefe animals were obferved by the navigators, were $\mathcal{F a n u a r y}$ and February; but by Sir $\mathcal{F}$. Narborough, in the ftreights of Magellan, about the 4th of Marchs O.S.
+ Forfer's Voy. ii. 514. WHALE-TAILED MANATI.


## WHALE-TAILED MANATI.

fcarcely to be cut with an ax ; and when cut, appears in the infide like ebony. From the nape to the tail it is marked with circular wrinkles rifing into knots, and fharp points on the fide. This fkin covers the whole body like a cruft, and is of fingular ufe to the animal during winter, in protecting it againft the ice, under which it often feeds, or againft the fharp-pointed rocks, againft which it is often dafhed by the wintry ftorms. It is alfo an equal guard againft the fummer heats; for this animal does not, like moft other marine creatures, feed at the bottom, but with part of the body expofed, as well to the rays of the fun as to the piercing cold of the froft. In fact, this integument is fo effential to its prefervation, that Steller has obferved feveral dead on the fhore, which he believes were killed by the accidental privation of it. The color of this fkin, when wet, is dufky, when dried, quite black.
The tail is horizontally flat; black, and ending in a ftiff fin, compofed of laminæ like whale-bone, terminating with fibres near nine inches long. It is flightly forked; but both ends are of equal lengths, like the tail of a Whale.

It has two teats placed exactly on the breaft. The milk is thick and fweet, not unlike that of a Ewe. Thefe animals copulate more bumano, and in the feafon of courthip fport long in the fea; the female feigning to fhun the embraces of the male, who purfues her through all the mazes of her flight.

The body, from the fhoulders to the navel, is very thick; from thence to the tail grows gradually more flender. The belly is very large ; and, by reafon of the quantity of entrails, very tumid.

Thefe animals grow to the length of twenty-eight feet. The meafurements of one fomewhat leffer, as given by Mr. Steller, are as follow :

The length, from the nofe to the end of the tail, twenty-four feet and a half: from the nofe to the fhoulders, or fetting-on of the

Tail.

SIzE.
fins, four feet four. The circumference of the head, above the noftrils, two feet feven; above the ears, four feet : at the nape of the neck, near feven feet: at the fhoulders, twelve : about the belly, above twenty: near the tail, only four feet eight : the extent of the tail, from point to point, fix feet and a half.

The weight of a large one is eight thoufand pounds.
Inhabits the fhores of Bering's and the other iflands which intervene between the two continents. They never appear off KamtSchatka, unlefs blown afhore by tempefts, as they fometimes are about the bay of Awat $\delta c h a$. The natives ftyle them Kapufrik, or cabbage-eaters, from their food. This genus has not been difcovered in any other part of the northern hemifphere. That which inhabits the eaftern fide of Soutb America, and fome part of Africa, is of a different fpecies. For the latter I can teftify, from having feen one from Senegal. Its body was quite fmooth; its tail fwelled out in the middle, and floped towards the end, which was rounded *. To fupport my other opinion, I can call in the faithful Dampier; who defcribes the body as perfectly fmooth $\dagger$ : had it that ftriking integument which the fpecies in queftion has, it could not have efcaped his notice. Let me alfo add, that the fize of thofe which that able feaman obferved, did not exceed ten or twelve feet; nor the weight of the largeft reach that of twelve hundred pounds $\ddagger$.

I furpect that this fpecies extends to Mindanao, for one kind is certainly found there §. It is met with much farther fouth; for I difcover, in the collection of Sir Joseph Banks, a fketch of one taken near Diego Rodriguez, vulgarly called Diego Rais, an ifle to the eaft of Mauritius; and it may poffibly have found its way through fome northern inlet to the feas of Greenland; for Mr. Fa-

[^69]
## WHALE-TAILED MANATI.

bricius once difcovered in that country the head of one, half confumed, with teeth exactly agreeing with thofe of this fpecies *.
Thefe animals frequent the fhallow and fandy parts of the fhores, and near the mouths of the fmall rivers of the inland of Bering, feemingly pleafed with the fweet water. They go in herds: the old keep behind and drive their young before them: and fome keep on their fides, by way of protection. On the rifing of the tide they approach the fhores, and are fo tame as to fuffer themfelves to be ftroked: if they are roughly treated, they move towards the fea: but foon forget the injury, and return.

They live in families near one another: each confifts of a male and female, a half-grown young, and a new-born one. The families often unite, fo as to form vaft droves. They are monogamous. They bring forth a fingle young, but have no particular time of parturition; but chiefly, as Steller imagines, about autumn.

They are moft innocent and harmlefs in their manners, and moft ftrongly attached to one another. When one is hooked, the whole herd will attempt its refcue: fome will ftrive to overfet the boat, by going beneath it; others will fling themfelves on the rope of the hook and prefs it down, in order to break it; and others again will make the utmoft efforts to force the inftrument out of its wounded companion.

Their conjugal affection is moft exemplary : a male, after ufing all its endeavours to releafe its mate which had been ftruck, purfued it to the very edge of the water; no blows could force it away. As long as the deceafed female continued in the water, he perfifted in his attendance; and even for three days after the was drawn on fhore, and even cut up and carried away, was obferved to remain, as if in expectation of her return.

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\text { - Faunn. Greenl. p. } 6 .
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## Vol. I.

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They

Manners.

WHALE-TAILED MANATI.
They are moft voracious creatures, and feed with their head under water, quite inattentive of the boats, or any thing that paffes about them; moving and fwimming gently after one another, with much of their back above water. A fpecies of loufe harbours in the roughnefs of their coats, which the Gulls pick out, fitting on them as Crows do on Hogs and Sheep. Every now and then they lift their nofe out of the water to take breath, and make a noife like the fnorting of Horfes. When the tide retires, they fwim away along with it ; but fometimes the young are left afhore till the return of the water : otherwife they never quit that element: fo that in nature, as well as form, they approach the cetaceous animals, and are the link between Seals and them.
Capture.
They were taken on Bering's ine by a great hook faftened to a long rope. Four or five people took it with them in a boat, and rowed amidft a herd. The ftrongeft man took the inftrument, ftruck it into the neareft animal ; which done, thirty people on fhore feized the rope, and with great difficulty drew it on fhore. The poor creature makes the ftrongeft refiftance, affifted by its faithful companions. It will cling with its feet to the rocks till it leaves the fkin behind; and often great fragments of the crufty integument fly off before it can be landed. It is an animal full of blood; fo that it fpouts in amazing quantities from the orifice of the wound.

They have no voice ; only, when wounded, emit a deep figh.
They have the fenfes of fight and hearing very imperfect; or $a \varepsilon$ left neglect the ufe of them.

They are not migratory; for they were feen about Bering's ifland the whole of the fad ten months which Mr. Steller paffed there after his fhipwreck.

In the fummer they were very fat; in the winter fo lean that the ribs might be counted.

## S E A A P E.

The fkin is ufed, by the inhabitants about the promontory Ts buktcbi, to cover their boats. The fat, which covers the whole body like a thick blubber, was thought to be as good and fweet as Maybutter : that of the young, like hogs-lard. The flefh of the old, when well boiled, refembled beef: that of the young, veal. The flefh will not refufe falt. The crew preferved feveral cafks full, which was found of excellent fervice in their efcape from their horrible confinement ${ }^{*}$.

To this article muft be added an imperfeet defcription of a marine animal feen by Mr. Steller on the coaft of America, which he calls a Sea Ape. The head appeared like that of a Dog, with fharp and upright ears, large eyes, and with both lips bearded: the body round and conoid; the thickeft part near the head: the tail forked; the upper lobe the longeft: the body covered with thick hair, grey on the back, reddifh on the belly. It feemed deftitute of feet.

It was extremely wanton, and played a multitude of monkeytricks. It fometimes fwam on one fide, fometimes on the other fide of the fhip, and gazed at it with great admiration. It made fo near an approach to the veffel, as almoft to be touched with a pole; but if any body moved, it inftantly retired. It would often ftand erect for a confiderable fpace, with one-third of its body above water ; then dart beneath the fhip, and appear on the other fide; and repeat the fame thirty times together. It would frequently arife with a fea-plant, not unlike the Bottle-gourd, tofs it up, and catch it in its mouth, playing with it numberlefs fantaftic tricks $\dagger$.
On animals of this fpecies the fable of the Sirens might very well be founded.

[^70]Ee 2
I fhall

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Uses.
Thefat.

Lean.

Sea Ape.

SEA Beluga.

I fhall conclude this article with a recantation of what I fay in the $357^{\text {th }}$ page of my Synopfis, relating to the Beluga; which I now find was collected, by the author I cite, from the reports of Coffacks, and ignorant fifhermen. The animal proves at laft to be one of the cetaceous tribe, of the genus of Dolphin, and of a fpecies called by the Germans Wit-Fijch, and by the Rufians Beluga*; both fignifying White fifh: but to this the laft add Mor/kaia, or of the Jea, by way of diftinguifhing it from a fpecies of Sturgeon fo named. It is common in all the ArEtic feas; and forms an article of commerce, being taken on account of its blubber. They are numerous in the gulph of St. Lazurence; and go with the tide as high as Quebee. There are fifheries for them, and the common Porpeffe, in that river. A confiderable quantity of oil is extracted; and of their fkins is made a fort of Morocco leather, thin, yet ftrong enough to refift a mufquet-ball $\dagger$. They are frequent in the Dwina and the Oby; and go in fmall families from five to ten, and advance pretty far up the rivers in purfuit of fifh. They are ufually caught in nets ; but are fometimes harpooned. They bring only one young at a time, which is dufky; but grow white as they advance in age; the change firt commencing on the belly. They are apt to follow boats, as if they were tamed; and appear extremely beautiful, by reafon of their refplendent whitenefs $\ddagger$.

It being a fpecies very little known, and never well engraven, I fhall give a brief defcription, and adjoin an engraving taken from an excellent drawing communicated to me by Dr. Pallas.

The head is fhort: nofe blunt: fpiracle fmall, of the form of a crefcent: eyes very minute: mouth fmall: in each fide of each jaw are nine teeth, fhort, and rather blunt; thofe of the upper jaw are

- Pallas, Itin. iii. 84. tab. iv.-Grantz Greenl. i. 114.-Purchas's Pilgrims, iii. 549. + Charlevoix, v. 217. $\ddagger$ Faun. Greenl. 51.


## S EA B E L U GA.

bent, and hollowed, fitted to receive the teeth of the lower jaw when the mouth is clofed : pectoral fins nearly of an oval form : beneath the fkin may be felt the bones of five fingers, which terminate at the edge of the fin in five very fenfible projections. This brings it into the next of rank in the order of beings with the Manati. The tail is divided into two lobes, which lie horizontally, but do not fork, except a little at their bafe. The body is oblong, and rather flender, tapering from the back (which is a little elevated) to the tail. It is quite deftitute of the dorfal fin.

Its length is from twelve to eighteen feet. It makes great ufe of its tail in fwimming; for it bends that part under it, as a Lobfter does its tail, and works it with fuch force as to dart along with the rapidity of an arrow.
A full account of the firh of the Whale kind, feen by the Reverend Dr. Borlafe * between the Land's End and the Scilly inands, is a defideratum in the Britifl Natural Hiftory. He defcribes them as being from twelve to fifteen feet long; fome were milk-white, others brown, others fpotted. They are called $\tau b o r n b a c k s$, from a fharp and broad fin on the back. This deftroys my furpicion of their being of the above fpecies.

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\text { - ObF. Scilly Iflands, } 3 \text {. }
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IV. Winged.

HIST. थUAD. Genus XLIV.

Hijt. 2uad. No 403.-Lev. Mus.

BA T. With the head like that of a Moufe: top of the nofe a little bifid: ears broad, fhort, and rounded: in each jaw two canine teeth: no cutting teeth : tail very long, inclofed in the membrane, which is of a triangular form : the wings thin, naked, and dufky: bones of the hind legs very flender.

Head, body, and upper part of the membrane inclofing the tail, covered with very long hair of a bright tawny color, paleft on the head, beginning of the back, and the belly: at the bafe of each wing is a white fpot.

Length from nofe to tail two inches and a half; tail, one inch eight-tenths : extent of the wings, ten inches and a half.

Inhabits the province of New York; and difcovered by Dr. Forfer* in Nerw Zealand, in the Soutb Seas.

Mr. Clayton, in Pb. Tranf. Aibridg. iii. 594.
$\mathrm{B}^{\text {AT. With long ftraggling hairs, and great ears. }}$
The above is all the account we have of this fpecies; which is faid to be an inhabitant of Virginia.

Mr . Lavevon fays, that the common Bat is found in Carolina $\dagger$.

[^71]AT. With the nofe flightly bilobated: ears fmall and rounded: on the chin a fmall wart: body of a cinereous red.
Extent of wings fifteen inches: body between two and three in length : tail, one inch feven-tenths.
Brought from Hudjon's Bay in fpirits. I faw it only in the bottle; but it appeared to be this fpecies.


1. Common Bat, Hif. Quad. $\mathrm{N}^{\circ} 41$ i. -Br. Zool. i. No $\mathrm{N}^{\circ}$ 1.-Lev. Mụs.

THIS fpecies is found in Iceland, as I was informed by the late
Mr. Fleijcber, which is the moft northernly refidence of this genus. In Afa I can trace them no farther eartward than about the river Argun, beyond lake Baikal.

## CLASS II. BIRDS.

CLASS II. BIR D S.
D I V. I. LAND BIRDS.II. WATER BIRDS.
D I V. I. R D ER I. Rapacious.
Genus.I. Tulture.
II. Falcon.III. Owl.
II. $P$ I E S.IV. Shrike.V. Parrot.VI. Crow.* Roller.
VII. Oriole.
VIII. Grakle.
IX. Cuckoo.
Wryneck.
X. Woodpecker.
XI. Kingfisher,
XII. Nuthatch.XIII. Tody.Hoopoe.

- The Genera which have not the number prefixed, are not found in America. XIV. Creeper.

Genus.
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XIV. Creeper.
XV. Honey-Sucker.
III. GALLINACEOUS.
XVI. Turkey.
XVII. Grous.
XVIII. Partridge.
XIX. Bustard.
IV. COLUMBINE.
XX. Pigeon.
V. PASSERRINE.
XXI. Stare.
XXII. Thrush.
XXIII. Chatterer.
XXIV. Grosbeak.
XXV. Bunting.
XXVI. Tanagre.
XXVII. Finch.
XXVIII. Flycatcher.
XXIX. Lark.

Wagtail.
XXX, Warblers.
XXXI. Titmouse.
XXXII. Swallow.
XXXIII. Goatsucker.

D I V. II. W A T E R B I R D S.
VI. CLOVEN-FOOTED.
XXXIV. Spoonbill.

XXXV, Heron.
Ff 2 XXXVI, IBIs.

Genus. XXXVI. Ibis. XXXVII. Curlew. XXXVIII. Snipe. XXXIX. Sandpiper. XL. Plover.<br>XLI. Oyster-Catcher.<br>XLII. Rail.<br>XLIII. Gallinule.<br>VII. PINNATED FEET.<br>xLIV. Phalarope.<br>XLV. Cоot.<br>XLVI. Grebe.<br>VIII. W E B - F O O TED.<br>XLVII. Avoset.<br>XLVIII. Flammant.<br>XLIX. Albatross.<br>L. Auk.<br>LI. Guillemot.<br>LII. Diver.<br>LIII. Skimmer.<br>LIV. Tern.<br>LV. Gull.<br>LVI. Petrel.<br>LVII. Merganser.<br>LVIII. Duck,<br>I.IX. Pelecan.

CLASS

## CLASSII. BIRDS.

## DIV. I. LAND BIRDS.

OR DER I. RAPACIOUS.

## I. V U L T U R E, Gen. Birds I.

Urubu, Aura Tzopilotl, Mexic. Margrave, 207, 208.-Wil. Orn. 68.-Raii Syn. Av. 180.
Carrion Crow, Sloane Gam. ii. 294-Brown Fam. 47 1.
Corvus Sylvaticus, Barrere, 129.
Gallinazo, Ulloa Voy. i. 60. 201.
Turkey Buzzard, Foffelyn.-Lawufon, 138.-Cateßy, i. 6.-Bancroft, 152.-Du Pratz, ii. 77.
Vultur Aura, Lin. Syf. 122.-De Buffon, i. 175.-Pl. Enl. No 187.
Le Vautour du Brafil, Brifon, i. 468.-Latbam, i. 9. No 5.-Lev. Mus s.

WEIGHT four pounds and an half. Head fmall, covered with a naked wrinkled red fkin, befet with black briftles. This gives it fome refemblance to a Turkey; from which it derives one of the names. The noftrils are very large, and pervious : the whole plumage is durky, dafhed with purple and green: legs of a dirty flefh-color : claws black.

Thefe birds are common from Nova Scotia to Terra del Fuego; but fwarm in the hotter parts of America; and are found in the inlands, where they are faid to be far inferior in fize to thofe of North America.

In
 North Amara.
86. Carrion. If

Description.

Place。

In the warm climates they keep in vaft flocks. Perch at night on rocks or trees; fitting with difhevelled wings to purify their bodies, which are moft offenfively fetid. Towards morning they take flight, foaring at a vaft height, with the gentle motion of a kite; expecting notice of their banquet by the tainted effluvia of carrion, excrements, or any filth. They have moft fagacious noftrils, and fmell their prey at a vaft diftance; to which they refort from all quarters, wheeling about, and making a gradual defcent till they reach the ground. They do not confine themfelves to dead animals, but feed on Snakes, and fometimes on Lambs. They are very tame, and, while they are at their meals, will fuffer a very near approach.
In the torrid zone, particularly about Cartbagena, they haunt inhabited places, and are feen in numbers fitting on the roofs of the houfes, or walking along the ftreets with a nuggifh pace. In thofe parts they are ufeful, as the IbIS in Egypt, devouring the noifome fubjects, which would otherwife, by the intolerable ftench, render the climate fill more unwholefome than it is.

When thefe birds find no food in the cities, they are driven by hunger among the cattle of the neighboring paftures. If they fee a beaft with a fore on the back, they inftantly alight on it, and attack the part affected. The poor animal attempts in vain to free itfelf from the devourers, rolling on the ground with hideous cries: but in vain; for the Vultures never quit hold, till they have effected its deffruction. Sometimes an Eagle prefides at the banquet, and keeps thefe cowardly birds at a diftance, until it has finifhed its repaft.

Mifchievous as they are in a few inftances, yet, by the wife and beneficent difpenfations of Providence, they make in the hot climates full recompence, by leffening the number of thofe deftructive animals the Alligators, which would otherwife become intolerable by
their multitudes. During the feafon in which thefe reptiles lay their eggs in the fand, the Vultures will fit hid in the leaves of the trees, watching the coming of the female Alligator to depofit its eggs, who then covers them with fand, to fecure them, as fhe imagines, from all danger: but no fooner does fhe retire into the water, than the birds dart on the fpot, and with claws, wings, and beak, tear away the fand, and devour the whole contents of the depofitory.
No birds of this genus are found in northern regions of Europe or $A f a$, at left in thofe latitudes which might give them a pretence of appearing here. I cannot find them in our quarter of the globe higher than the Grijon Alps *, or Silefia $\dagger$; or at fartheft Kalijh, in Great Poland $\ddagger$. Certainly the Count De Bufon was mifinformed as to the habitation of the fpecies, which he afcribes to Norway \|. In the Rufian dominions, the Bearded Vulture of Mr. Edrwards, iii. tab. 106. breeds on the high rocks of the great Altaic chain, and beyond lake Baikal §; which may give it in Europe a latitude of 52 20. in $A f a a$ of 55 .

- Wil. Orn. $67 . \quad+$ Scbwenchfeldt av. Silffa, $375 . \quad \ddagger$ Rzaczyyfki, Hij. Nat. Polon. 298. $\|$ Hijt D'Oif. i. 164.一Pl. Enl. 449.
§ Dr. Pall ass's Catalogue of the Birds of the Ruffian empire, which he favored me with in MS. my fureft clue to the Arcric birds.
II. F A L C O N, Gen, Birds II.

86. A. SEAEAGLE. Br. Zool. i. No 44 .

Falco Offifragus, Lin. Syf. 124.-Latham, i. 30.-Pl. Enl. 12. 415 .
Grey Eagle, Larwfon, 137.
Land Oern, Leems, 230.
L'Orfraie, De Buffon, i. IIz. pl. 3.-LEv. Mus.
TARIES a little from the Britifh fpecies, and is much fuperior in fize. The length three feet three inches; of wing, twenty-five inches.

Feathers on head, neck, and back, brown, edged with dirty white: chin white: breaft and belly brown, fpotted with white: coverts of wings brown, clouded; primaries black: tail dufky; the middle mottled with white: legs feathered half down.
$P_{\text {lace. }} \quad$ Very common in the northern parts of America, and endures its fevereft winters, even as high as Nerefoundland. Thefe birds prey on fea fowls, as well as land, and on young Seals, which they feize floating, and carry out of the water,

Eagles, and all forts of birds of prey, abound in America, where fuch quantity of game is found. Multitudes are always feen below the falls of Niagara, invited by the carcafes of Deer, Bears, and other animals, which are fo frequently hurried down in attempting to crofs the river above this ftupendous cataract.

This fpecies is very frequent in Kamt chatka; and is found during fummer even on the Arctic coaft : is very common in Rufia and Sibiria; nor is it more rare about the Cafpian fea, where they breed on the loftieft trees.
F. With the forehead brown : crown and hind part of the neck friped with brown, white, and rufty yellow: lower part of the neck, breaft, and belly, of a deep brown : coverts of the wings, back, and fecondaries and fcapulars, of the fame color; the two laft white near the bottoms, mottled with brown; primaries black: middle feathers of the tail brown, croffed with two or three cinereous bands; the exterior, brown blotched with cinereous: legs cloathed to the toes with pale brown feathers : toes yellow. Length, three feet. Br. Mus.
Inhabits Hudjon's Bay, and feems a variety of the Falco Cbryjaetos, Lin. Syff. 125. Faun. Suec. No 54. Le grand Aigle de Bufon, i. 76. Pl. Enl. 410 ; and the Golden Eagle, Br. Zool. i. N ${ }^{\circ} 42$. Latbam, i. 31. The chief difference confifts in the color of the tail, which in the European kind is of a deep brown blotched with obfcure afh.
In Europe it inhabits moft parts, even as high as Norway; is found in Afia, about the fouthern parts of the Urallian mountains, and thofe which border the fouthern part of Sibiria; but grows fcarcer towards the eaft.
Latham, 33. x. No 7. a.-Lev. Mus.
F. With a large bill, of a brownifh yellow color: head, neck, breaft, belly, thighs, and vent, white : back, wings, and tail, deep brown, three inches of the end of the tail excepted, which is white : the legs yellow, and very ftrong. Length, two feet nine inches.

Obferved by Captain Coor, in Kaye ifland, off the coaft of America, lat. 59.49 . north, in company with the White-headed Eagle.
Vol. I.
G g
F. With
86. B. GOLDEN Eagle.

Place.

Place,

## YELLOW-HEADED AND BLACK EAGLES.

86. D. Yellow- With dufky bill, cere, and irides: head and neck of a dirty headed Eagle. F. yellow: back of a deep brown, each feather tipt with dirty yellow.
Appears in Hudjon's Bay, in April : builds its neft in trees, with fticks and grafs : lays only one egg. It preys on the young of Deer, on Rabbets and birds. Retires fouthward in October. Is called by the Indians, Etbenefue mickefue.

The above was defcribed from a feccimen, in very bad condition, fent from Hudjon's Bay. It was an Eagle of the middle fize.
87. Blacr Eagle.

> Br. Zool. i. No 43.
> Falco Fulvus, Lin. Syff. 125.-Latham, i. 32. No 6 . White-tailed Eagle, Edw. i. 1.-Lev. Mus. L'Aigle commun, De Buffon, i. 86.-Pl. Enl. 409 .-Lev. Mus.

THE whole plumage is of a dufky-brown: the breaft marked with triangular fpots of white; in which it varies from the Britifh kind: the tail white, tipt with black; but in young birds dufky, blotched with white: legs covered to the toes with foft ruftcolored feathers: vent feathers of the fame color.

Inhabits Hudjon's Bay, and northern Europe as far as Drontbeim*. Is found on the higheft rocks of the Urallian chain, where it is not covered with wood $\dagger$; but is moft frequent on the Sibirian, where it makes its neft on the loftieft rocks. It is rather inferior in fize to the Sea Eagle; but is a generous, fpirited, and docile bird. The independent Tartars train it for the chace of Hares, Foxes, Antelopes, and even Wolves. The ufe is of confiderable antiquity; for Marco Polo, the great traveller of 1269 , obferved and

[^72]admired the diverfion of the great Cbam of Tartary; who had feveral Eagles, which were applied to the fame purpofes as they are at prefent*. I muft add, that the Tartars efteem the feathers of the tail as the beft they have for pluming their arrows.

The Kalmucs ufe, befides this fpecies of Eagle, that which the French call Jean le Blanc $t$, and alfo the Lanner; all which breed among them : but people of rank, who are curious in their Falcons, procure from the Bajcbkirians the Gyrfalcon and the $\mathrm{Pe}-$ regrine, which inhabit the lofty mountains of the country $\ddagger$.

The Falco Melanceetos, and the F. Fulvus of Linneles, or my Black Eagle, are the fame; the $F$. fulvus being only the young of the firft. It is a fcarce fpecies in Sweden.-Mr. Oedman.
F. With a dufky and blue bill; yellow cere: head, neck, and breaft, of a deep afh-color : each cheek marked with a broad black bar paffing from the corner of the mouth beyond the eyes:
88. Blackchbeked Eagle. \&

Size, and Place.


Falco Leucocephalus, Lin. Syf. $124^{\circ}$
Bald Eagle, Larufon, 137.-Cateßby, i. 1 ©.-Brickell, 173.-Latham, i. 29.Lev. Mus.
Le Pygargue a tête blanche, De Buffon, i. 99.-Pl. Enl. $411 .-L e v$. Mus.

B
ILL, cere, and feet, pale yellow : head, neck, and tail, of a pure white: body and wings of a chocolate-color. It does not acquire its white head till the fecond year.
This Eagle is leffer than the foregoing fpecies, but of great fpirit: preys on Fawns, Pigs, Lambs, and filh : is the terror of the Ofprey, whofe motions it watches. The moment the latter has feized a fifh, the former purfues till the Ofprey drops its prey; which, with amazing dexterity, it catches before it falls to the ground, be the diffance ever fo great. This is matter of great amufement to the inhabitants of North America, who often watch their aerial contefts. This fpecies frequently attends the fportfman, and fnatches up the game he has fhot, before he can reach it.

Thefe birds build in vaft decayed cypreffes $t$, or pines, impending over the fea, or fome great river, in company with Ofpreys, Herons, and other birds: and their nefts are fo numerous, as to refemble a rookery. The nefts are very large, and very fetid by reafon of the reliques of their prey. Larefon fays, they breed very often, laying again under their callow young; whofe warmth hatches the eggs. In Bering's ine they make their nefts on the cliffs, near fix feet wide, and one thick; and lay two eggs in the beginning of fuly.

[^73]TTHIS moft beautiful and fcarce fpecies is entirely white, except the tips of the wings, which are black. We know nothing of this bird, but what is collected from Du Pratz*. The natives of Louijana fet a high value on the feathers, and give a large price for thofe of the wings; with them they adorn the Calumet, or pipe of peace. Different nations make ufe of the wings, or feathers of different birds; but, according to Henneepin, always decorate it with the moft beautiful.

The Calumet is an inftrument of the firft importance among the Americans. It is nothing more than a pipe, whofe bowl is generally made of a foft red marble $\dagger$; the tube of a very long reed, ornamented with the wings and feathers of birds. No affair of confequence is tranfacted without the Calumet. It ever appears in meetings of commerce, or exchanges; in congreffes for determining of peace or war; and even in the very fury of a battle. The acceptance of the Calumet is a mark of concurrence with the terms propofed; as the refufal is a certain mark of rejection. Even in the rage of a conflict this pipe is fometimes offered; and if accepted, the weapons of deftruction inftantly drop from their hands, and a truce enfues. It feems the facrament of the Savages; for no compact is ever violated, which is confirmed by a whiff from this holy reed. The Dance of the Calumet is a folemn rite which always confirms a peace, or precedes a war. It is divided into three parts : the firft, appears an act of devotion, danced in meafured time : the fecond, is a true reprefentation of the Pyrrhic dance $\ddagger$ : the third, is attended with fongs expreffive of the victories they had obtained, the nations they had conquered, and the captives they had made.

[^74]90. White

Eagle.

Calumet.

## WHITE EAGLE.

From the winged ornaments of the Calumet, and its conciliating ufes, writers compare it to the Caduceus of Mercury, which was carried by the Caduceatores, or meffengers of peace, with terms to the hoftile flates. It is fingular, that the moft remote nations, and the moft oppofite in their other cuftoms and manners, fhould in fome things have, as it were, a certain confent of thought. The Greeks and the Americans had the fame idea, in the invention of the Caduceus of the one, and the Calumet of the other. Some authors imagine, that among the Greeks the wings were meant as a fymbol of eloquence. I rather think that the twifted Serpents expreffed that infinuating faculty; and that the emblem was originally taken from the fatal effect the rhetoric of Saton had on our great mother, when he affumed the form of that reptile, which the higheft authority reprefents as more fubtile than any beaft of the feld. On this the heathen mythology formed their tale of Fupiter taking the figure of a Serpent, to infinuate himfelf into the good graces of Olympias; who, like Eve, fell a victim to his perfuafive tongue. As to the wings, it is moft probable that they were to fhew the flight of difcord; which the reconciled parties gave, with all the horrors of war, to the air, and fport of the winds.
The Oole, or Eagle, is a facred bird among the Americans. In cafe of ficknefs, they invoke this bird to defcend from heaven (which in its exalted flight it approaches nearer than any other) and bring down refrefhing things; as it can dart down on its rapid wing quick as a flafh of lightning *.

[^75]\[

$$
\begin{aligned}
& \begin{array}{llllll}
O & S & P & R & E & Y
\end{array} \\
& \text { Fifhing Hawk, Catefoy, i. 2.-Lawfon, 137-Brickell, } 173 . \\
& \text { Ofprey, Toofelyn's Rarities, ii.-Br. Zool. i. No 46.-Latham, i. } 45 \text {. } \\
& \text { Le Balbuzard, De Buffon, i. 103. pl. } 2 . \\
& \text { Falco Haliztus. Blafot. Fik-orn, Faun. Suec. No } 6_{3} \text {. } \\
& \text { Fifk Gjoe, Leems, 234-Pl. Enl. 414.-Lev. Mus. }
\end{aligned}
$$
\]

F. With blue cere, and feet: head, and lower part of the body, white: upper part brown : two middle feathers of the tail plain brown; the reft barred with white and brown.
This, in all refpects, refembles the European kind. Notwithftanding it is fo perfecuted by the Bald Eagle, yet it always keeps near its haunts. It is a fpecies of vaft quicknefs of fight; and will fee a fifh near the furface from a great diftance *: defcend with prodigious rapidity, and carry the prey with an exulting fcream high into the air. The Eagle hears the note, and inftantly attacks the Ofprey; who drops the filh, which the former catches before it can reach the ground, or water. It fometimes happens that the Ofprey perifhes in taking its prey; for if it chances to fix its talons in an over-grown fifh, it is drawn under water before it can difengage itfelf, and is drowned.

It is very frequent in Kamt $f_{\text {chatka }}$; and in fummer, even under the Arctic zone of Europe and Afia. Is very common in Sibiria, and fpreads far north; probably common to the north of America, and Afa. Is rare in Rufia. It is likewife very frequent as low on the Wolga as the tract between Sy fran and Saratoff, where they are faid to be the fupport of the Ern Eagle, as they are of the Whitetailed Eagle in America, each living by the labors of the Ofprey.

[^76]
## G Y R F A L C O N.

The Tartars have a fuperfition, that a wound from its claws is mortal, either to man or fifh, and confequently dread its attack *.

The Ofprey returns into Sweden later than the Kite. Mr. Oedman flings new light on the hiftory of this bird: he fays that it breeds on the tops of the higheft trees, and makes its neft, with wonderful art, of the twigs of the fir-tree, and lines the bottom with polypodies. It lays three eggs, of the fize of thofe of a Hen, marbled with ruft-color. It brings fifh and ferpents to feed its young; and even eels of a vaft fize : this makes its neft very foetid. It does not prey on birds, but on fifh only. It defends its neft with great fpirit.

91*.Gyrfalcon. Br. Zool. No 47. tab. xix.-Latbam, i. 71. No $5^{\circ}$, A. and $\mathrm{N}^{\circ} 50$, B. ift paragr. and 83. $\mathrm{N} \circ 69$.

Falco Iflandus, Faur. Greenl. 58. No 35-Brunnich, Nris 7, 8.-Crantz, i. 78.Egede, 64.-Horreborw, 58.-Lev. Mus.
F. With a yellow cere: bluifh bill, greatly hooked: eye dark blue : the throat of a pure white : the whole body, wings, and tail, of the fame color, moft elegantly marked with dufky bars, lines, or fpots, leaving the white the far prevaling color. There are inftances, but rare, of its being found entirely white. In fome, the whole tail is croffed by remote bars of black or brown; in others, they appear only very faintly on the middle feathers : the feathers of the thighs are very long, and unfpotted : the legs ftrong, and of a light blue.
Its weight forty-five ounces Troy: length near two feet: extent four feet two. Of the fame manners and haunts with the Greenland Falcon. Is very frequent in Iceland; is found in Lapmark $\dagger$, and Norway $\ddagger$;

[^77]
## ROUGH-LEGGED FALCON.

and rarely in the Orknies, and Nortb Britain. In Afa, it dwells in the higheft points of the Urallian and other Sibirian mountains, and dares the coldeft climates throughout the year. It is kept, in the latitude of Peter/burg, uninjured in the open air during the fevereft winters, when the Peregrine Falcon, N ${ }^{\circ}$ 97, lofes its claws by the froft.

Mr. Hutcbins * has often obferved it about Albany fort, where it appears in May, and retires before winter. It feeds on the white, and other Grous.

This fpecies is pre-eminent in courage as well as beauty, and is the terror of other Hawks. It was flown at all kinds of fowl, how great foever they were ; but its chief game ufed to be Herons and Cranes.

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Falco Lagopus, Brumnich, No 15.-Leems Lapm. 236.
Rough-legged Falcon, Br. Zool. ii. App. 529.-Latham, i. 75.-LEv. Mus.
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F. With a yellow cere, and feet : head, neck, and breaft, of a yellowifh white, marked with a few oblong brown fpots : belly of a deep brown: thighs white, ftriped with brown: fcapulars blotched with yellowifh white and brown : coverts of the wings edged with ruft-color ; primaries black : tail, little longer than the wings ; the part next to the rump white ; the end marked with a black bar; the tips white : legs feathered to the toes: feet yellow. Length two feet two inches.

* At the time this fheet was printing, I had the good fortune to meet with Mr. Hutchins, furgeon, a gentleman many years refident in Hudfon's Bay; who, with the utmoft liberality, communicated to me his MS. obfervations, in a large folio volume: in every page of which his extenfive knowledge appears. The benefit which this work will, from the prefent page, receive, is here once for all gratefully acknowleged.
VoL. I.
Hh
Inhabits

Sizb. ST. JOHN'S AND CHOCOLATE FALCON.

Place.
93. St. JOHN's.
-

- 1

Inhabits England, Norway, Lapmark, and North America. Was fhot in Comeecticut.

Latham, i. 77. $\mathrm{N}^{\circ} 5^{8}$.
F. With a fhort dufky bill: head of a deep brown: hind part of the neck, back, fcapulars, and coverts of the tail, marked with bars of black, and dull white, pointing obliquely: coverts of the wings deep brown; the greater fpotted on their inner fides with white ; the primaries dufky, the lower part white, barred with deep afh-color and black: the under fide of the body brown, marked fparingly with white and yellowifh fpots: tail fhorter than the extremity of the wings ; the end white; beneath that is a bar of black, fucceeded by two or three black and cinereous bands; the reft of the tail marked with broad bars of white, and narrower of afh-color: the legs are cloathed with feathers to the toes, which are yellow, and very fhort.
Size. Length, one foot nine inches.
Place。
94. ChocolateCOLORED.

Inhabits Hudfon's Bay and Nerufoundland. Bl. Mus.

Latbam, i. $54, \mathrm{~N}^{\circ} 34 . \mathrm{A}_{3} ; 76$. $\mathrm{N}^{\circ} 57$.
F. With a fhort and black bill, and yellow cere. The whole plumage of a deep bay or chocolate-color, in parts tinged with ferruginous: primaries black; the lower exterior fides of a pure white, forming a confpicuous fpot or fpeculum: the wings reach to the end of the tail: the exterior fides of the five outmoft feathers of the tail dufky, their inner fides blotched with black and white; the two middle, black and cinereous: the legs and toes feathered; the laft remarkably fhort. Length one foot ten inches.

Inhabits



Inhabits Hudfon's Bay and Nerofoundland. Preys much on Ducks. Sits on a rock and watches their rifing, when it inftantly ftrikes at them.

Latbam, i. 79. No 60.
F. With a yellow cere: deep yellow irides:-hind part of the head ferruginous : crown, back, fcapulars, and coverts of wings, brown, edged with a paler color: belly ruft-colored, blotched with deeper fhades: thighs of a mottled afh, marked with round dufky fpots, and on the lower parts with four large dark blotches: the tail croffed by four bars of deeper and lighter brown: legs yellow, ftrong, and feathered half way down. Lenoth twenty inches. The defcription borrowed from Mr . Latbam. Inhabits Nerefoundland.

## Belon, Hif. des Oif. 108.-Buffon, i. 246.

Speckled Partridge Hawk of Hudjon's Bay, Pbil. Tranf. 1xii. 383 .-Latham, i. 78 . $\operatorname{Nos}^{\text {os }} 58,59$.
F. With a dufky bill ; upper mandible toothed: irides yellow: cere and legs bluifh. Head, and upper part of the body, of a dufky brown: hind part of the head mottled with white: whole under fide of the body, from chin to vent, white; the middle of each feather marked with a dufky fpot: wings reach almoft to the end of the tail : coverts, fcapulars, and primaries, of a deep brown, elegantly barred tranfverfely with white : tail brown, marked on each fide with oval tranfverfe fpots of red: feathers on the thighs very long, brown fpotted with white: the fore part of the legs $\mathrm{CO}_{3}$, $\mathrm{Hh}_{2}$
vered

Place.
96. Sacre.

STREAKED AND PEREGRINE FALCON.
vered with feathers almoft to the feet. Length two feet. Weight two pounds and an half.
$P_{\text {LACE }}$.

Streaked Falcon.
97. Peregrine.

Br. Zool. i. No 48.-Latham, i. 68, $\mathrm{N}^{\circ} 49$; 73. No 52.
Spotted Hawk, or Falcon; and Black Falcon, Edw. i. 3, 4.
Le Faucon, De Buffon, i. 249. pl. 16.-Lev. Mus.
F. With a fhort frong bill, toothed on the upper mandible, of a bluifh color: cere yellow: irides hazel: forehead whitifh: crown, and hind part of the head, dufky: the back, fcapulars, and coverts

## GENTIL FALCON.

coverts of wings, elegantly barred with deep blue and black: the primaries dufky, with tranfverfe oval white fpots: the throat, chin, and breaft, of a pure white, the laft marked with a few dufky lines pointing down : the belly white, croffed with numerous dufky bars, pointed in the middle : legs yellow : toes very long.
The American fpecies is larger than the European. They are fubject to vary. The Black Falcon, and the Spotted Falcon of Mr. Edwards, are of this kind; each preferve a fpecific mark, in the black ftroke which drops from beneath the eyes, down towards the neck. The differences in the marks in the tail may poffibly proceed from the different ages of the birds; for few kinds differ fo much in the feveral periods of life as the Rapacious.

Inhabits different parts of Nortb America, from Hudjon's Bay as low as Carolina. In Afia, is found on the higheft parts of the Urallian and Sibirian chain. Wanders in fummer to the very Arctic circle. Is common in Kamt fchatka.

Gentil Falcon, Br. Zool. i. No 50.<br>F. Gentilis. Falk. Faun, Suec. No 58.-Latham, i. 64.-Lev. Mus.

F. With a dufky bill: yellow cere, irides, and legs : head and upper fide of the neck ferruginous, ftreaked with black: under fide, from chin to tail, white, marked with dufky heart-fhaped fpots: back, coverts of wings, and fcapulars, brown, edged with ruft-color: primaries dufky, barred on the exterior fide with black: wings reach only half the length of the tail: tail long, barred with four or five broad bands of black cinereous; each of the firft bounded by a narrow line of dirty white.

Size.
Place,
99. Goshawk.

Place.

A WHITE VAriety.

Excellent for falconry.

## GOSHAWKKALCON.

In fize fuperior to the European kind, being two feet two inches long. Shot in the province of New York. Is found in northern Europe, as far as Finmark *.

Br. Zool. i. $\mathrm{N}^{\circ}{ }_{52}$.
F. Palumbarius, Faun. Suec. No 67.-De Buffon, i. 230-Latham, i. 58:-Lev, Mus.
F. With a bluifh bill, black at the tip: yellowifh green cere: yellow legs: head brown; hind part mottled with white: over each eye extends a long whitifh line: hind part of the neck, back, and wings, of a deep brown color: breaft and belly white, croffed with numerous undulated lines of brown: tail of a cinereous brown, croffed by four or five bars of black: wings fhorter than the tail.

That which I faw in the Leverian Mufeum, was fuperior in fize to the European. Mr. Larejon fays, they abound in Carolina: are fpirited birds, but leffer than thofe of Mufcovy. Is common in that country, and Sibiria. Dr. Pallas adds, that there is a large white variety on the Urallian mountains, mottled with brown and yellow. Thefe are yet more frequent in the eaft part of Sibiria; and in Kamtfchatka they are entirely white. Thefe are the beft of all Hawks for falconry. They extend to the river Amur; and are ufed by the emperor of Cbina in his fporting progreffes t, attended by his grand falconer, and a thoufand of the fubordinate. Every bird has a. filver plate faftened to its foot, with the name of the falconer who had the charge of it; that in cafe it fhould be loft, it might be brought to the proper perfon: but if he could not be found, the

[^78]bird is delivered to another officer, called the Guardian of loft birds; who keeps it till it is demanded by the falconer to whom it belonged. That this great officer may the more readily be found, among the army of hunters, who attend the emperor, he erects a flandard in the moft confpicuous place*.

The emperor often carries a Hawk on his hand, to let fly at any game which prefents itfelf; which are ufually Pheafants, Partridges, Quails, or Cranes. Marco Polo faw this diverfion about the year $1269 \dagger$; a proof of its antiquity in thefe parts, when it formed fo regular and princely an eftablifhment in the ftate of this great eaftern monarch ; the origin of which might. have been in fome long preceding age. The cuftom of carrying a Falcon extended to many countries, and was efteemed a diftinction of a man of rank. The Wellh had a faying, that you may know a gentleman by his Hawk, Horfe, and Grebound. In fact, a perfon of rank feldom went without one on his hand. Harold, afterwards king of England, is painted going on a moft important embaffy, with a Hawk on his hand, and a Dog under his arm $\ddagger$. Henry VI. is reprefented at his nuptials, attended by a nobleman and his Falcon §. Even the ladies were not without them in earlier times; for in an antient fculpture in the church of Milton Abbas, in Dorfetfbire, appears the confort of King Atbelfan with a Falcon on her royal fift \|tearing a bird: and, perhaps to indulge his queen in her paffion for the diverfion, he demanded of my countrymen (befides an immenfe tribute) fome of their moft excellent Hounds, and of their beft Hawks: which proves the high efteem in which our Dogs and Falcons were held in thofe early days $\sqrt{1}$.

[^79]RED-TAILED AND LEVERIAN FALCON.
Fulius Firmicus, a celebrated writer in aftrology, who dedicated his books to Mavortius Lollianus, conful in 354, affirms, that whofoever were born under the influence of Mercury and Virgo, would be ftrong and induftrious, and be well fkilled in breeding fine horfes, and in training Hawks and Falcons, and other birds ufeful in birdcatching, \&cc. By this it appears, that actual falconry was in ufe long before the time I imagined.
100.RED-TAILED.

American Buzzard, Latham, i. 50.-Lev. Mus.
F. With a dulky bill, and yellow cere: head, lower part of the neck, and chin, brown, mixed with white: breaft and belly white, varied with long ftripes of brown, pointing downwards: femoral feathers very long, white, and marked with long dentated ftripes of pale brown: upper part of the neck, and back, of a very deep brown: coverts and tertials brown, barred or edged with white : primaries dufky, barred with cinereous: tail of a pale ruftcolor, marked near the end with a dufky narrow bar: legs yellow. Size of the Gofbawk.
Place. Inhabits North America. Sent from Carolina to Sir Afbton Lever.
201. Leverian.
F. With a dufky bill, greatly hooked: head ftriped with brown and white: upper part of the body and wings of a deep brown; each feather elegantly marked at the end with a large white fpot: the whole under fide of the body white: the outmoft feathers of the tail marked with nine white, and the fame number of dufky bars; middle feathers with durky and cinereous: the wings extend beyond the end of the tail : legs ftrong and yellow.
Place.

Barred-breafted F. Latham, i. $56, \mathrm{~N}^{\circ}{ }_{3} 6$. -Lev. Mus.
102. RedSHOULDERED.
PLAcE,

Afh-colored Buzzard, Edrw. ii. 53.-Latham, i. 55, No 35.48; No 28.-De 103. Buzzard. Buffon, i. 223.
Falco Buteo. Quidfogel, Faun. Suec. No 60.-Br. Zool. i. 54.-Lev. Mus.
F. With a dufky bill, and bluifh yellow cere: head, and hind part of the neck, of a cinereous brown, ftreaked with yellow: back brown; lower part and rump barred with ruft-color, fometimes with white: the coverts of the wings brown; the greater and fcapulars fpotted with white; the three firft quil-feathers black, white at their bafes; the interior webs of the reft blotched with black and white: the throat and breaft yellowin, marked thinly with oblong brown fpots: belly white, varied with great fpots of brown: feathers of the thighs long, white, croffed with fagittal bars

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I i
of
 two feet two inches.
The American varies in fize, and fometimes flightly in color; but in both has fo much the habit of the Englijb Buzzard, as not to merit feparation. It is called in New York, the great Hen Hawk, from its feeding on poultry. It continues there the whole year. Lays in May five eggs: the young fly about the middle of fune. It is alfo an inhabitant of Hudjon's Bay and Newefoundland; and in Europe as high as Sondmor, in Norway; where, from its attacking the Eagle, it is called Orne-Falk. Migrates, before winter, from Sweden. Is farce in Rufia; and very few are found in Sibiria. Is found in winter as low as Woronefcb *.

F With the bill black : head dufky : nape fpotted with white: back, and coverts of wings, and tail, of an uniform deep brown: under fide of the neck, breaft, and belly, and thighs, deep brown, flightly fpotted with white: primaries dufky; inner webs marked with great oval fpots of white, mottled with brown: middle feathers of the tail plain brown; inner webs of the reft mottled with white; exterior webs and ends flightly edged with the fame: legs ftrong: yellow? Wing reaches near the length of the tail. Length, from bill to tail, two foot one.
Inhabits Hudfon's Bay.

[^80]Marfh Hawk, Edw. iv. 291.-Latham, i. g0.-Lev. Mus.-Bl. Mus.
F. With a bluifh bill; orange cere, orbits, and legs: irides hazel : a black line extends from the corner of the bill beyond the eyes; above that is another of white, which encircles the cheeks, and meets in front of the neck: head, throat, and upper part of the breaft, varied with black and ruft-color: back, and coverts of the wings, brown : rump white : breaft and belly, and thighs, of a bright ferruginous: tail dufky brown, croffed by four black bands : legs ftrong, thick, and fhort; which are fpecific diftinctions from the next. Length two feet.

Inhabits Penflyania: frequents, during the fummer, marfhy places; where it feeds on the fmall birds, Frogs, Snakes, and Lizards. At approach of winter quits the country.

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Br. Zool. i. No 59.-Edw. iii. 107.-Latbam, i. Nris 75,75 A, and No 34, is a ro6. Ringtsil. ruft-colored variety.
Falco Pygargus, F. Hudfonius, Lin. Syj. 128.-Muller, No \({ }^{72}\) - Br. Mus. 106. Ringtail.
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F.With a dufky bill and yellow cere: a white line over each eye : head, upper part of the neck, and back, dufky brown: coverts and primaries of the fame color; the inner fides of the laft white : breaft, belly, and thighs, whitifh, marked with ferruginous fpots: vent and rump white, encircling the root of the tail : the middle feathers of the tail dufky; the next of a bluifh afh-color; the outmoft white, all marked tranfverfely with orange bars: legs long, and very flender.

This fpecies is fuperior in fize to the Britifh Ringtail; but, having moft of the characters of that bird, we doubt not but that it is the I i 2
fame.
105. Marsh.

Place.

Stze.
fame. Like the European kind, fkims along the ground in fearch of prey, which is Mice, Frogs, and fmall birds. Builds its neft indifferently on the ground, or on the lower parts of trees. It is fubject to vary to a deep ruft-color; plain, except on the rump and tail.
Size and Place. Inhabits Hudjon's Bay. Weight, in Hudjon's Bay, feventeen ounces and a half. Length twenty-one inches. Extent three feet feven. Is very common in the open and temperate parts of Rufia and Sibiria; and extends as far as lake Baikal *. It is not found far in the north of Europe. Linnous omits it among the birds of his country; but Mr . Brunnick defcribes one, which had been fhot in lat. $5^{8}$, on the little inland of Cbrifianjoe $\dagger$.
107. WInter.
F. With a black bill; yellow cere : head of a deep brown: back the fame, tinged with ruft: hind part of the neck ftreaked with white : the coverts of the wings dufky, edged with dull white ; thofe on the ridge with orange; ends of the primaries dufky; the other parts barred with brown and white: breaft and belly white, marked with heart-fhaped fpots: thighs fulphur-colored, fpeckled with dufky: vent feathers white: tip of the tail white; then fucceeds a broad dufky bar; the remaining part barred with brown, tawny, and black: legs long, and very flender.
Size. Is of an elegant form, and about the fize of the Ringtail. Place. Inhabits the province of New York: appears at approach of winter, and retires in the fpring. Bl. Mus.

Mr. Latbam's Northern Falcon, $\mathrm{N}^{\circ} 6_{2}$, feems to differ from this only in age, or fex.

* Dr. Pallas. $\quad+$ In the Baltic, a little north-eaft of Bornbolm.


Hirundo maxima Peruviana, avis predatoris calcaribus inftructa, Feuillee Voy. Peru, tom. ii. 33.
Herring, or Swallow-tailed Hawk, Larwfon, 138.-Brickell, 175.-Cateby, i. 4. Le Melan de la Caroline, Brifon, i. 418.-De Bufon, i. 221 .
Falco Furcatus, Lin. Syf. 129,-Latham, i. 60.-Lev. Mus.

F.With a black bill, lefs hooked than ufual with rapacious birds; bafe of the bill hid in feathers, and briftly : the eyes large ; irides red : head, neck, breaft, and belly, of a fnowy whitenefs: back, coverts of wings, and fcapulars, black, gloffed with purple and green: inner webs of the primaries and fecondaries white towards their bafe ; the tertials white : tail of the fame color with the back; and moft extremely forked; the outmoft feather above eight inches longer than the middlemoft : the legs yellow.
This moft elegant fpecies inhabits only the fouthern parts of North America; and that only during fummer. Like Swallows, they feed chiefly flying; for they are much on wing, and prey on various forts of infects. They alfo feed on Lizards and Serpents; and will kill the largeft of the regions it frequents with the utmoft eafe. They quit North America before winter. We are not acquainted with their retreat. It probably is in Peru: at left we have the proof of one being taken in the South-fea, off the coaft which lies between $\mathrm{NlO}_{0}$ and Arica, in about the latitude 23 fouth, on September IIth, by the reverend the Father Louis Feuillee*.
F. With dufky bill: head, cheeks, neck, breaft, and belly, white, marked with large brown fpots, more fparingly difperfed over the breaft and belly: leffer coverts brown; the others

[^81]Place。

## 109. BUZZARDETT

colored like the head : primaries dufky : thighs white, with fmall fagittal fpots of brown : tail dufky, barred and tipt with white: legs yellow. Length fifteen inches. It has much the habit of the Buzzard; but the legs in proportion are rather longer.

In the Leverian Mufeum. Except in the almoft uniform color of the tail, Mr. Latbam's fpecies, p. 97, No 83, agrees with this.

Little Hawk, Catefoy, i. 5.-Latham, i. 110. No 94. Emerillon de Cayenne, Bufon, i. 2g1.-Pl. Enl. No 444. Falco Sparverius, Lin. Syjf. 128.-Lev. Mus.-Bl. Mus.

## Male.

F.With bluifh bill, and yellow cere : crown of fine light grey, with a red fpot in the middle; on the hind part a femicircle formed of round black fpots : cheeks white, bounded on each fide with a large black fpot: throat white: breaft of a pale yellow, fpotted with black: back of a brilliant bay, croffed by broad black bars : coverts of the wings of a beautiful grey, thinly fpotted with black; primaries black, fpotted on their inner webs with white: tail long; the middle feathers barred near the end with a black band, and tipt with white; the two exterior feathers white, croffed with three or four black bars: legs yellow.

Length eleven inches and a half. Weight only three ounces and an half. This varies in color from the female, in the fame manner as the European Keftrils.

Thefe birds inhabit America, from Nova Scotia to the Antilles; are active and firited. They prey on fmall birds, Mice, Lizards, and infects. The Female is the following.

Emerillon đe St. Domingue, De Buffon, i. 291.-Pl. Enl. No 465.-Latham, i. 111 .
No 95.-Lev. Mus.-Be. Mus.
F.

With a fhort and very crooked bill : crown of a deep flaty blue, obfcurely fpotted with red: hind part of the neck, back, and tail, of a bright ferruginous color and black, elegantly difpofed in narrow tranfverfe bars : coverts of the wings of the fame colors; primaries black: under fide of the neck, breaft, and belly, of a dirty white, marked with large ferruginous fpots : thighs and vent feathers white : legs long, nender, and orange-colored: tail long, croffed with eleven black, and the fame number of bright ferruginous bars.
The New York Merlin of Mr. Latbam, i. 107. No 94, bears fo great a refemblance to this, that I do not venture to feparate them.

Pigeon Hawk, Cateßy, i. 3.-Pbil. Tranf. 1xii. 382.-Latham, i. 101. Falco Columbarius, Lin. Syjf. 128.-Lev. Mus.-Bl. Mus.
F. With a dufky bill, and yellow cere : crown, back, and coverts of the wings and rump, of a bluifh grey, with the middle of each feather ftreaked with black: the hind part of the head fpotted with reddifh white: cheeks and under fide of the body white, with large oblong fpots of black: primaries and fecondaries dufky; their infides marked with great oval fpots of white: tail long ; black tipt with white, and croffed with four bars of bluilh grey: legs yellow.

Its length is from ten to twelve inches. The weight fix ounces.
It inhabits America, from Hudjon's Bay as low as Soutb Carolina. In the laft it attains to a larger fize. In Hudjon's Bay it appears in


DUBIOUS, AND DUSKY FALCON.
May on the banks of Severn river, breeds, and retires fouth in autumn. It feeds on fmall birds ; and on the approach of any perfon, flies in circles, and makes a great fhrieking. It forms its neft in a rock, or fome hollow tree, with fticks and grafs; and lines it with feathers: and lays from two to four eggs, white, fpotted with red. In Carolina it preys on Pigeons, and young of the wild Turkies.
112. Dupious.

Size.

Place.
113. DUSKy.
F. With a dufky bill: yellow cere and irides: head dufky, ftreaked with ruft-color: back and coverts of wings brown, edged with ruft: the primaries dufky afh-color, barred with black, and the inner webs marked tranfverfely with oval ferruginous fpots: tail long, of a deep cinereous, with four broad bars of black : breaft and belly dirty white, marked with oblong ftreaks of brown: legs yellow.

Length about ten inches. Weight fix ounces. In the marks and colors of the tail it much refembles the Sparrow Hawk: in the fpots on the breaft it agrees with the Engli/h Merlin.

Inhabits New York and Carolina. I have my doubts whether this is any more than a variety of the preceding, efpecially as the Englifh Sparrow Hawk varies with the fame colors.
F. With a bluifh bill; upper mandible armed with a fharp procefs ; yellow cere : head, back, and coverts of the wings, and tail, a dufky brown, nightly edged with ferruginous: hind part of the neck fpotted with white: primaries dufky; inner webs marked with oval fpots of a pale ruft-color: tail Jort, tipped with white, and barred with four broad dufky ftrokes, and the fame number of narrow ones of white: the hind part of the head fpotted

## CINEREOUS EAGLE.

with white : from the chin to the tail whitifh, ftreaked downwards with diftinet lines of black : legs deep yellow.

Inferior in fize to the laft. Inhabits the province of Nere York. Size, and Place. Bl, Mus.

A. Cinereous Eagle, Br. Zool. i. No 45--Latham, i. 33 .

Vultur Albicilla, Lin. Syf. 123.
F. With pale yellow bill, irides, cere, and feet : plumage light cinereous : body and coverts of the wings clouded with darker: primaries dufky: tail white.
In fize equal to the Black Eagle. Inhabits Europe, as high as Sizr, and Place. Iceland and Lapmark *. Is common in Greenland; but does not extend to America: at left, if it does, it varies into the Whiteheaded Eagle, to which it has great affinity, in particular in its feeding much on fifh: the Danes therefore call it Fike-orn $\dagger$. Is common in the fouth of Rufia, and about the Volga, as far as trees will grow. Is very fcarce in Sibiria; but has been obferved in the eaftern parts about Nertcibink. It feems to be the fpecies called by the Tunguf, Elo; which breeds on the banks of the Kharioufowa, a river which falls into the Penfbina fea $\ddagger$.

It inhabits Greenland the whole year, fitting on the rocks with flagging wing, and flies flowly. It makes its neft on the lofty

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& \text { Vol. I. } \\
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$$

cliffs, with twigs, lining the middle with moffes and feathers. Lays two eggs. Sits in the latter end of May, or beginning of June.

Thefe birds prey on young Seals, which they feize as they are floating on the water; but oft-times, by fixing their talons in an old one, they are overmatched, and drawn down to the bottom, fcreaming horribly. They feed alfo on fifh, efpecially the Lumpfifh, and a fort of Trout *; on Ptarmigans, Auks, and Eider Ducks. They fit on the top of rocks, attentive to the motion of the diving birds; and, with quick eyes, obferve their courfe by the bubbles which rife to the furface of the water, and catch the fowls as they rife for breath.

The Greenlanders ufe their fkins for cloathing, next to their bodies. They eat the flefh, and keep the bill and feet for amulets. They kill them with the bow, or take them in nets, placed in the fnow, properly baited; or tempt them by the fat of Seals, which the Eagles eat to an excefs; which occafions fuch a torpidity as to make them an eafy prey.

The Erne, or Cinereous Eagle, the Vultur Albicilla of LinNêus, is the firft year wholly durky, even to the bill, cere, and tail. In the fecond year the cinereous color commences, teffelated with black; the tail becomes white; and the end of its feathers for fome time tipped with black.

It is very eafily made tame: will attach itfelf to its mafter, diftinguifh him from others, and receive him with many marks of endearment. When hungry, repeats the founds, tack tack; and when fatisfied with food expreffes its content, by a repetition of the fame note. Is particularly fond of fifh: is a fluggifh and cowardly. fpecies, and will be put to flight even by the Turkies. - Mr. Oedman.

* Salmo Carpio, Faun. Greenl. 170, No 124.
B. Crying
B. Crying Eagor_Panga et Clanga, Arifoto, Hift. An. lib. ix. Morphnos, Clanga, Anataria, Wil. Orn. 63 - Raii Syn. Av. $7 . \mathrm{N}^{0} \%$ Spotted Eagle, Latham, i. 38. Le Petit Aigle, De Bufon, i. gr.-Br. Mus.
F. With a dufky bill and yellow cere : color of the plumage a ferruginous brown ; the coverts of the wings, and fcapulars, elegantly varied with oval white fpots; on the greater coverts very large: primaries dufky; the ends of the greater white: breaft and belly of a deeper color than the reft of the plumage, ftreaked downwards with dull yellow : tail dark brown, tipt with dirty white: legs feathered to the feet, which are yellow. Length two feet.

Is found in many parts of Europe, but not in Scandinavia: is frequent in Rufia and Sibiria, and extends even to Kamtjchatka. Is lefs generous and fpirited than other Eagles; and is perpetually making a plaintive noife, from which it was fyled by the antients Planga $\S$ Clanga; and Anataria, from its preying on Ducks, which Pliny* defcribes with great elegance. The Arabs ufed to train it for the chace; but its quarry was Cranes, and other birds: the more generous Eagle being flown at Antelopes, and various quadrupeds. This fpecies was even jitelf an object of diverfion; and made the game of even fo fmall a Falcon as the Sparrow Hawk: which would purfue it with great eagernefs, foar above, then fall on the Eagle, and, faftening with its talons, keep beating it about the head with its wings, till they both fell together to the ground. This Sir Fobn Chardin has feen practifed about Tauris.

- Lib. x. c. 3.

Place.


Iceland Falcon, Gent. Mag.1771. p. 297, fig. good.
Falco Iflandus Fufcus, Brumnick, 2. No 9.
Le Gerfault d'Ifland, Brifon, i. 373. tab. xxxi.-Pl. Enl. 210.
Falco Gyrfalco, Lin. Syft. 130.-Faun. Suec. No 64.-Latham, i. 82, No 68 ; and $7 \mathrm{r}_{\text {r }}$ $\mathrm{N}^{\circ} 5^{\circ}$ B. parag. 2 d . -Lev . Mus.
F.

With a ftrong bill, much hooked, and the upper mandible
fharply angulated on the lower edges; cere bluifh: head of a very pale ruft-color, ftreaked downwards with dufky lines: neck, breaft, and belly, white, marked with cordated fpots: thighs white, croffed with fhort bars of deep brown: back and coverts of wings dufky, fpotted and edged with white : the exterior webs of the primaries dufky, mottled with reddifh white; the inner barred with white : the feathers of the tail croffed with fourteen or more narrow bars of dufky and white; the dufky bars regularly oppofing thofe of white : the wings, when clofed, reach almoft to the end of the train: legs ftrong and yellow. The Length of the wing, from the pinion to the tip, fixteen inches.

This fpecies is an inhabitant of Iceland, is the moft efteemed of any for the fport of falconry, and is, with the two following, referved for the kings of Denmark; who fends his falconer, with two attendants, annually into the inland to purchafe them. They are caught by the natives; a certain number of whom in every diftrict are licenfed for that purpofe. They bring all they take, about Midjummer, to Befefted, to meet the royal falconer; and each brings ten or twelve, capped, and perched on a crofs pole, which they carry on horfeback, and reft on the ftirrup. The falconer examines the birds, rejects thofe which are not for his purpofe, and gives the feller a written certificate of the qualities of each, which entitles him to receive from the king's receiver-general feventeen rixdollars for F , or the pureft white Falcon; ten for E, or thofe which

are left white; and feven for this fpecies*. This brings into the ifland between two and three thoufand rixdollars annually $\dagger$.

They are taken in the following manner:-Two pofts are faftened in the ground, not remote from their haunts. To one is tied a Ptarmigan, a Pigeon, a Cock or Hen, faftened to a cord that it may have means of fluttering, and fo attract the attention of the Falcon. On the other poft is placed a net, diftended on a hoop, about fix feet in diameter. Through this poft is introduced a ftring, above a hundred yards long, which is faftened to the net, in order to pull it down ; and another is faftened to the upper part of the hoop, and goes through the poft to which the bait is tied. As foon as the Falcon fees the fowl flutter on the ground, he takes a few circles in the air, to fee if there is any danger, then darts on its prey with fuch violence as to ftrike off the head, as nicely as if it was done with a razor. He then ufually rifes again, and takes another circle, to explore the place a fecond time : after which it makes another ftoop ; when, at the inftant of its defcending, the man pulls the dead bird under the net; and, by means of the other cord, covers the Falcon with the net, at the moment it has feized the prey; the perfon lying concealed behind fome ftones, or elfe lies flat on his belly, to elude the fight of the Falcon $\ddagger$.

As foon as one is caught, it is taken gently out of the net, for fear of breaking any of the feathers of the wings or tail ; and a cap is placed over its eyes. If any of the tail-feathers are injured, the falconers have the art of grafting others §; which fometimes has occafioned a needlefs multiplication of fpecies.

The Iceland Falcons are in the higheft efteem. They will laft ten or twelve years; whereas thofe of Norway, and other countries;

[^82]feldom

ANTIQUITYOF FALCONRY.
feldom are fit for fport after two or three years ufe. Yet the Norwegian Hawks were in old times in great repute in this kingdom, and even thought bribes worthy of a king. Geoffry Le Pierre, chief jufticiary, gave two good Norway Hawks to King Fobn, that Walter Le Madina might have leave to export a hundred weight of cheefe. Fobn, the fon of Ordgar, gave a Norway Hawk to have the king's requeft to the king of Noxway, to let him have his brother's chattels; and Ralf Havoc fined to King Stepben in two Girfals (Gyrfalcons) and two Norway Hawks, that he might have the fame acquittance that his father had*.

Antiquity op Falconry.

## ANTIQUITY OF FALCONRY.

The Poet only defcribes another kind of bird-catching, in the following epigram on the fate of a Hawk :

Predo fuit volucrum, famulus nunc Aucupis, idem Decipit, et captas non fibi, mœeret, aves *.

By the word decipit, it is plain that the Hawk was not trained; but was merely ufed as a ftale, either to entice fmall birds under a net, or to the limed twigs : the laft is a method ftill in ufe in Italy. The Italians call it Uccellare con la Civetta; for intead of a Hawk, they place a fmall fpecies of Owl on a pole, in the middle of a field; and furround it, at various diftances, with lime-twigs. The fmall birds, from their ftrange propenfity to approach rapacious fowls, fly around, perch on the rods, and are taken in great numbers $\dagger$. A Hawk would ferve the purpofe full as well. Pliny mentions the ufe of bird-lime $\ddagger$; and Longus, in his elegant romance of Dapbnis and Cbloe, employs the latter to catch little birds for his beloved §.
Fulius Firmicus, who dedicated his book to Mavortius Lollianus, conful A. D. 354 , proves that falconry was in ufe in his days; for, fays he, Falcons taken when the fun is in Virgo or Mercurii, are far the beft. And we further learn that it was in ufe in France in the reign of Merouée, who began his reign about the year 576 ; and, being in the abby of Tours, was perfuaded to amufe himfelf with Dogs and Hawks II.
I cannot find any certainty of Hawks being trained in our ifland for diverfion before the time of King Etbelbert, the Saxon monarch; who died in the year 760 q . He wrote into Germany for a brace of Falcons, which would fly at Cranes and bring them

[^83]ANTIQUITYOFFALCONRY.
to the ground ${ }^{*}$, as there were very few fuch in Kent. This fhews how erroneous the opinion was, of thofe who place it in the reign of the emperor Frederic Barbaroffa $\dagger$, who was drowned in 118 g . By the application of Etbelbert to Boniface, archbifhop of Mentz, for the brace of Falcons, it is evident, that the diverfion was in perfection in Germany before the year 752 , the time in which that prelate was martyred by the Pagans. It feems to me highly probable, that falconry was invented in Scytbia, and paffed from thence into the northern parts of Europe. Tartary is even at prefent celebrated for its fine breed of Falcons; and the fport is in fuch general efteem, that, according to Olearius, there was no but but what bad its Eagle or Falcon $\ddagger$. The boundlefs plains of that country are as finely adapted to the diverfion, as the wooded or mountanous nature of moft part of Europe is ill calculated for that rapid amufement.
The antiquity of falconry in Tartary is evinced by the exhibition of the fport on the very antient tombs $\S$ found in that country; in which are figured horfemen at full fpeed, with Hawks on their hands : others again, in the fame attitude, difcharging their arrows at their game, in the very manner of the antient Scytbians.
From Germany, falconry got footing in England; and became fo favored a diverfion, that even fanguinary laws were enacted for the prefervation of rapacious fowls. Edward III. made it death for the ftealing of a Hawk : and to take its eggs, even in a perfon's own ground, was punifhable with a fine at the king's pleafure, and imprifonment for a year and a day. In the reign of fames I. the amufement was carried to fuch an extravagant pitch, that Sir Thomas Monfon is faid to have given a thoufand pounds for a caft of Hawks.

* Quoted by Mr. Wbitaker in Hif. Manchefer, from Max. Bibliotheca Patrum, xiii. p. 85 . ep. 40 .
$\dagger$ Spelman's Glof. $\ddagger$ Olearius's Travels, 177. § Strablenberg, tab. A. B.
D. Greenland。
D. Greenla

Dusky. Falco Fufcus, Faun. Groen. $56, \mathrm{~N}^{\circ} 34, \mathrm{~b}$.
Grey Falcon, Crantz, i. 78.-Egede, 64.
F. With dufky irides: lead-colored cere and feet: brown crown, marked with irregular oblong white fpots: forehead whitifh : cheeks blackifh: hind part of the head and throat white: breaft and belly of a yellowifh white, ftriped downwards with dufky ftreaks: the back dufky, tinged with blue, the ends of the feathers lighteft, and fprinkled over with a few white fpots, efpecially towards the rump: wings of the fame colors, variegated beneath with white and black: the upper part of the tail dufky, croffed very faintly with paler bars; the under fide whitifh.
Leffer than the Collared Falcon.
Inhabits all parts of Greenland, from the remoteft hills to thofe which impend over the fea. They are even feen on the inlands of ice remote from fhore, They retire in the breeding-feafon to the fartheft part of the country, and return in autumn with their young. They breed in the fame manner as the Cinereous Eagle, but in more diftant places; and lay from three to five eggs. The tail of the young is black, with great brown fpots on the exterior webs.
They prey on Ptarmigans, Auks, and all the fmall birds of the country ; have frequent difputes with the Raven, but feldom come off victors; for the Raven will, on being attacked, fling itfelf on its back; and, either by defending itfelf with its claws, or by calling, with its croaking, numbers of others to its help, oblige the Falcon to retire. The Greenlanders ufe the fkin, among many others, for their inner garments ; the wings for brumes; the feet for amulets: but feldom eat the flefh, unlefs compelled by hunger.

It is alfo a native of Iceland.
You, I.
1.1
E. Collared.

> Size. PLACE.
E. Collared. Falco Rufticolus, Lin. Syf. 125.-Faun. Suec. $\mathrm{N}^{\circ} 5^{66}$ - Faun. Groent. $\mathrm{N}^{\circ}$ 34.-Latham, i. ${ }_{5} 6$.
F. With a lead-colored bill, tipt with black: head broad and flat, ftreaked lengthways with black and white; on the cheeks the white predominates : the throat, under fide of the neck, and breaft, are of a pure white; that on the neck almoft furrounds it, forming a fpecies of collar: the belly is of the fame color, marked with a few dufky cordated fpots: the back is waved with afh-color and white; the tip of each feather white: the coverts of the wings of the fame colors, but more obfcure: the exterior webs of the primaries dufky : the tail rounded, croffed with twelve or thirteen whitifh and durky bars: the legs yellow. Size of a Hen.

Place.
Is rarely found in the remoteft parts of Greenland. Inhabits alfo Sweden; and extends eaftward as far as Simbir $R$, lat. $54 \frac{1}{2}$, in the government of Cafan *.
F. KITE, Br. Zool. i. $\mathrm{N}^{0}$ 53.-Latham, i. 61. $\mathrm{N}^{\circ} 43$.

Falco Milvus Glada, Faun. Suec. $\mathrm{N}^{0} 57-$
Le Milan Royal, De Buffon, i. 197.-Pl. Enl. 422.-Lev. Mus.
F. With yellow bill and cere: white head, ftreaked with black: body ferruginous, with a few dufky fpots: tail much forked and ferruginous.
Size. Weight forty-four ounces. Length twenty-feven inches: extent five feet one.
Prace. Inhabits the north of Europe, as high as Farljberg, in the very fouth of Norway $\dagger$; but does not extend farther. This fpecies, the

- Extracts, i. $315 . \quad+$ Hammer, Faun. Norway.

Sea

## KITE FALCON.

Sea Eagle, Lanner, Buzzard, and Kefril, quit Sweden, in flocks, at approach of winter, and return in fpring *. Of thefe, the Buzzard and Keftril winter at Woronefch, in Rufia, in lat. $52 \dagger$; and, together with the Lanner and Kite, about Afrakan $\ddagger$, in lat. 46. 30; but the far greater part of the Kites are fuppofed to retire into Egypt, being feen in September paffing by Confantinople $\S$, in their way from the north; and again in April returning to Europe II, to fhun the great heats of the eaft. They are obferved in vaft numbers about Cairo, where they are extremely tame, and feed even on dates, I fuppofe for want of other food $\boldsymbol{\pi}$. They alfo breed there; fo that, contrary to the nature of other rapacious birds, they increafe and multiply twice in the year ; once in the mild winters of Egypt, and a fecond time in the fummers of the north. It makes its appearance in Greece in the fpring; and in the early ages, fays Arifopbanes **, "it governed " that country: and men fell on their knees when they were firft " bleffed with the fight of it, becaufe it pronounced the flight of " winter, and told them to begin to fheer their vernal fleeces. The "Crane likewife, by its autumnal departure, warns the mariner to " hang up his rudder, and take his reft, and every prudent man to " provide their winter garments : and the Swallow again informed " them when they were to put on thofe of fummer. Thus, adds the "chorus of birds, are we to you as Ammon, Dodena, Apollo:" meaning, in thofe early days, that man confulted only thefe natural calendars, and needed no other than what they took from the flight of birds $t t$, or the flowering of plants,

They inhabit England in all feafons. I have feen their young taken, the laft week in May, or firft in fone, in the great woods be-

[^84]$$
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$$
longing
longing to Sir Fofeph Banks, in Lincolhfike ; and have often obferved them in various places in the depth of winter.
G. Honey Buzzard, Br. Zcol. i. No ${ }^{56}$. Latham, i. 52 . ${ }^{\circ} 33$. Falco Apivorus Slaghok, Faun. Suec. No 65.-Lev. Mus.
F. With an afh-colored head; dark brown above; below white, fpotted or barred with rufty brown : tail brown, barred with two dufky bars, remote from each other: legs ftrong and yellow : bill and cere black. Length twenty-three inches. Weight thirty ounces.
Place.
Inhabits as far north as the diftriet of Sondmor, in Norway*. Is found in plenty in the open parts of Rufia and Sibiria, near woods; and preys much upon Lizards.
H. LanNer, Br. Zool. i. $\mathrm{N}^{\circ}$ 5 1.-Latham, i. 86.

Falco Lannarius, Faur. Suec. No 62.-De Buffon, i. 243.
F. With a white line over each eye: cere and legs bluifh : breaft white, tinged with yellow, and marked with brown fpots: primaries and tail dufky; the firf marked with oval ruft-colored fpots on the inner webs ; the laft, on both.
PLact. Inhabits Iceland, the Feroe ines, and Sweden; the Tartarian deferts and the Baraba. Breeds on very low trees. None in the north or eaft of Sibiria. Much efteemed for falconry.
-Strom. 235.
I. Moos
I. Moor Buzzard, Br. Zool. No 57.-Latham, i. 53 .

Falco Eruginofus, Faun. Suec. No 66.
Hons-tjuf, Le Bufard, De Buffon, i. 218. pl. x.-Pl. Enl. 424 .
F.

Entirely of a chocolate brown, tinged with ruft: on the hind part of the head a light clay-colored fpot: fender long yellow legs : cere black.

Weight twenty ounces. Length twenty-one inches.
Found in the Tranfoltic countries, as far north as Sondmor*. Common in the fouth of Rufia: not in Sibiria. It continues the whole year in Sweden.
K. Kestril, Br. Zool. i. No 60.-Latham, i. 94.

Falco Tinnunculus, Kirko-Falk, Faun. Suec. No $61 .-M u l l e r, N^{\circ} 650$
La Crefferelle, De Bufon, i. 280. pl. xviii.-Pl. Enl. 401, 471.
Male. F. With the crown and tail of a fine light grey, the laft marked with a black bar near the end: back and wings of a purplifh red, fpotted with black.-Female. Head reddifh ; crown ftreaked with black: back, tail, and coverts of wings, dull rult-color, barred with black: legs yellow. Weichi of Male fix ounces and a half: of Female eleven.
Frequent in the deferts of Tartary and Sibiria, in the open countries, where fmall trees are found for it to breed in. Migrates into Sweden, at the time in which the White Wagtail returns, and the Saffron, Snowdrop, and bulbous Violet, bloffom. Each of thefe birds quit the country about the fame day, in September $t$. Not found farther north ?

- Strom, 235 .
+ Calendar of Flora, and Migr. Av. in Amaen. Acad. v. 397.382.-Is found as far fouth as the Holy Land.-Hafelquif Itin. 291.

Size. Place.

Place.
L. Sparrow Hawk, Br. Zool. i. No 62.-Latham, i. 99.

Sparfhok, Faun. Suec. No 68.-Muller, No 71.-Strom. $235^{\circ}$
L'Epervier, De Buffon, i. 225. pl, xi.-PPl, Enl. $412,467$.
F. With head, back, and coverts of wings and tail, (in fome)
of a deep bluifh grey; in others, of a deep brown, edged with ruft-color: breaft and belly of a whitifh yellow, with waved bars of deep brown or dull orange: tail cinereous, with five broad black bars; the tips white.

Weight of the male five ounces: female nine.
Plack.
Found as high as Sondmor, and in the Feroe inlands; in the fouth of Ruffia; but none in Sibiria.
M. Hoвву, Br. Zool. i, No 61.-Latham, i. 103.

Falco Subluteo, Faun. Suec. $\mathrm{N}^{\circ} 59$
I. With crown, back, and coverts of a bluifh black: from the crown a black ftroke points down the cheeks, which are white : breaft white, with oblong black fpots: thighs and vent pale orange: inner webs of primaries marked with oval reddifh fpots: two middle feathers of the tail plain dove-color; the inner webs of the others marked like the primaries: legs yellow. Weight of the male feven ounces.

Scbonen, the moft fouthern province of Sweden *, and, I believe, does not extend farther north. This fpecies winters about Woronefch and Aftrakant; and frequents the fame places in Sibiria with the Kestril.

[^85]* EARED OWLS.

Great Horned Owl, Edw. 60.-Latham, i. 119.<br>Great Grey Owl, Jofelyn, 96.-Lawwon, 145 .<br>Jacurutu, Margrave, 199.<br>Stria Bubo Uf, Faun. Suec. No 69.

O.With a dufky bill: yellow irides: horns fhorter than the - European Eagle Owl; thofe, with the head, black, marked with tawny: circle round the eyes cinereous, edged with black : on the throat a large cruciform mark of a pure white, reaching to the beginning of the breaft: upper part of the breaft dufky and tawny; the lower part thickly barred with black afh-color, mixed with yellow : coverts of wings, fcapulars, and back, elegantly painted with zigzag lines, cinereous, black, and orange; the fcapulars alfo marked with a few great white fpots: primaries broadly barred with black and ferruginous: tail of a deep brown, croffed with brown dufky bars, and marked with numerous tranfverfe cinereous lines: legs and feet covered with foft light brown feathers to the very claws, which are very ftrong and hooked.

This fpecies is inferior in fize to the Eagle Owl, Br, Zool. i, $\mathrm{N}^{\circ} 64$; but feems only a variety.

It is common to Soutb and North America, as high as HudJon's Bay. Makes, during night, a moft hideous noife in the woods,
114. EAGLE.

Size。

Place,
not unlike the hollowing of a man; fo that paffengers, beguiled by it, often lofe their way.

The favages have their birds of ill omen, as well as the Romans. They have a moft fuperfitious terror of the Owl ; which they carry fo far as to be highly difpleafed at any one who mimics its hooting *.

This fpecies is common in Kamitcchatke, and even extends to the Arctic regions; in the firft of which it very often inclines to white. It is found as low as Afrakan.
115. Longbarbd.

Br. Zool. i. No 65 .-Moyen Duc ou Hibou, Hijf. d'Oif, i. 342. Strix Otus, Faun. Suec, No 71-Latham, i. 121.
O. With very long ears, of fix feathers each, yellow and black: irides yellow: back and coverts of wings deep brown, grey, and yellowifh ruft-color: primaries barred with dufky and ferruginious : breaft and belly pale yellow, with nender brown ftrokes, pointing downwards: tail barred with cinereous and dufky; the bars of the middle feathers bound above and below with white: feet feathered to the claws. Length fourteen inches: extent of the Englijb fpecimens three feet four $\dagger$. Weight ten ounces,
Obferved by Mr, Hutcbins about Severn fettlement in Hudfon's Bay, where it lives in the woods, far from the fea: at night fallies in fearch of prey. Approaches the tents of the inhabitants, and is very clamorous. Builds its neft in trees, and lays four white eggs in April. Never migrates,

[^86]
## SHORT-EARED OWL.

Inhabits Sweden, and the northern and fouthern parts of the Rufian dominions, and the eaftern parts of Sibiria. Is found as far fouth as Afrakan, and even in the hot climate of Egypt *.

Shart-eared Owl, Br. Zool. i. No 66.-Pbil. Tranf. 1xii. 384.-Latbam, i. 124. Moyen Duc, ou Hibou, Pl. Enl. 29.-Bl. Mus.-Lev. Mus.

OWith a leffer head in proportion than the former: bill dufky: irides yellow : head, back, and coverts of the wings, pale brown, edged with dull yellow : breaft and belly yellowifh white, marked with a few dufky ftreaks pointing downwards : thighs, legs, and toes, warmly covered with plain yellow feathers: tail dufky brown, marked on each fide of the middle feathers with a large yellow circle, with a brown fpot in the middle. In the others, the feathers are yellowifh, obliquely barred with black. The horns, or ears, confift of only a fingle feather, which it can raife or deprefs at pleafure. The wings reach beyond the end of the tail, Iength fourteen inches. Weight fourteen ounces.

Found in plenty in the woods near Cbateau Bay, on the Labrador coaft. It is alfo an inhabitant of the Falkland Iflands; fo probably is common to Nortb and South America. In Hudjon's Bay it is called the Moufe Harwk. It never flies, like other Owls, in fearch of prey; but fits quiet on a ftump of a tree, watching, like a Cat, the appearance of Mice. It breeds near the coaft; makes its neft with dry grafs upon the ground; and migrates fouthwards in autumn. Father Feuillée fpeaks of an Owl he found in Peru that has fome refemblance to this, particularly in the Hawk-like fhape of the bill. He fays

- HzJelquift, Itin. 233.

ToL, I.
M m
116. Short EARED.

## SHORT-EARED OWL.

it burrows under ground to a great depth, like a Rabbet; for which reafon he names it Ulula Cunicularia*. It is very common in the northern and woody parts of Sibiria. Comes boldly to the night fires, and affaults men, when it is often killed with fticks.

In Europe it is found in Great Britain, and reaches to the Orkney ifles. Does not perch, but fits on the ground, on which it lays it eggs amidft the heath. Appears and difappears in Lincolufloire with the Woodcock. Perhaps migrates to Sweden or Norway, where it is alfo found, and even as high as Iceland $\dagger$. Flies and preys by day, in dark and cloudy weather. Friendly to the farmer, by being an excellent moufer. Does not fly far; but if difturbed, foon alights, and fits looking about; at which times its horns are very confpicuous. This circumftance hitherto unattended to; fo that it has been ranked among the Earlefs Owls.

The Short-eared Owl appears to me to be La Cbouette of the Comte de Buffon, and his Moyen Duc, ou Hibou, tab. 29. of the Pl. Enlum. In p. 102. of my indexes to his Ornitbologie, and the Pl. Enl. I have endeavoured to clear up the confufion, which the illuftrious writer has introduced on the fubject.

[^87]With yellow irides: horns, head, back, and wings, of a pleafant tawny red, ftreaked with black: the fcapulars marked with large white fpots: primaries barred with black, red, and white: breaft pale tawny, marked with oblong black fpots: tail red, barred with dufky: feet covered with feathers to the claws. Length ten inches and a half.

Inhabits Nerw York, and as low as the Carolinas. Lives in the woods near the coaft.

Latham, i. 126.-BL. MUs.-Lev. Mus.
0. With the face white, fpotted with brown: head, wings, and upper part of the body, mottled with afh-color and pale red: the fcapulars marked with great white fpots; as are the coverts of the wings: the primaries with black and pale ferruginous : breaft and belly whitifh, varied with dufky ragged ftripes, pointing downwards: toes feathered to the claws. Length eleven inches.

Inhabits the province of New York. Breeds in May, and continues in the country the whole year.
117. RED.

Place.
118. Mottled.

Plact.

## ** WITHOUT EARS.

119. Wapacu- O. With gloffy black bill, and claws much incurvated: bafe thu.
120. Sооту. Cinereous Owl, Latham, i. 134, No 19.-Br. Mus.

O.With a whitifh bill: bright yellow irides: circlets confift of elegant alternate lines of black and pale afh-color: head, hind part of the neck, and coverts of wings, footy, marked with narrow bars of dirty white: primaries deep brown, with broad

[^88]
## SOOTY, AND SNOWY OWL.

bars, compofed of leffer of dufky and pale cinereous : tail moft irregularly marked with oblique ftrokes of brown and dirty white : the breaft and belly whitifh, greatly covered with large oblong blotches of dufky brown: as a fingular mark, from the chin to the vent is a fpace, about an inch in breadth, entirely naked: legs feathered to the feet. Weighs three pounds: length two feet: extent four.

Inhabits Hudjon's Bay the whole year. Flies in pairs. Feeds on Mice and Hares. Flies very low; yet feizes its prey with fuch force, that, in winter, it will fink into the fnow a foot deep; and, with great eafe, will fly away with the American Hare, $\mathrm{N}^{\circ} 38$, alive in its talons. It makes its neft in a pine-tree, in the middle of May, with a few fticks lined with feathers; and lays two eggs, fpotted with a darkifh color. The young take wing in the end of fuly.

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Great White Owl, Edw. 61.-Ellis's Voy. 40.-Du Pratz, ii., 91.-Clayton's Vir- ginia.-Pb. Tranf. iii. 589.
Great Speckled Owl, EEgede, Greenland; 64 .
Strix Nyctea, Harfang, Faun. Suec. No 76.-Bufön, i. 387.-Latbam, i. 132, No 17.-Bl. Mus.-Lev. Mus.
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0.With a head lefs in proportion than other Owls: irides yellow: whole plumage of a fnowy whitenefs, fometimes pure, oftener marked with dufky fpots: the legs and feet covered warmly to the very claws with long fnowy feathers of the moft delicate and elegant texture: the claws are of a fine contrafting blacknefs, very large and very crooked. Its length two feet; but it varies greatly in weight, from three pounds to one and a half.

It inhabits the coldeft parts of America, even as high as the remote mountains in the icy centre of Greenland; from which, in in-
tenfe cold, it migrates to the fhores. It adds horror even to that country, by its hideous cries, refembling thofe of a man in deep diftrefs.

It is rare in the temperate parts of America, and feldom ftrays as low as Penfyluania or Louifiana, yet has been frequently feen by Doctor Garden, in the fultry climate of Soutb Carolina, among the groves of Palmetto trees, or the Cbamerops bumilis *, which line the thores from the Capes of Florida quite to Cbarleftown. There they lurk during day, and fally out in queft of prey during night. Is very common in Hudjon's Bay, in Norrway, and Lapland. It fears not the rigor of the feafon, but bears the cold of the northern regions the whole year. It flies by day, and is fcarcely to be diftinguifhed from the fnow: it flies pretty fwiftly, and falls perpendicularly on its prey. Feeds on the White Grous, and probably on the Hares ; for to the laft circumftance it owes its Sceedif name, Harfang. It preys alfo on Mice, and Carrion; and in Hudjon's Bay is almoft domeftic, harbouring in places near the tents of the Indians.

- Is fcarce in Ruffia; grows more common on the Uralian mountains, and all over the north and eaft of Sibiria, and in its Afatic empire, even in the hot latitude of Afrakan $\dagger$; are very numerous in Kamt Jchatka,
* Lin. Sp. Pl. 14. 1657.-See alfo Bartram²s Journal 1765, p. 13.
+ Extracts, i. 91. ii. $14^{2}$.



With a pale yellow bill, befet with ftrong briftles: irides yellow : circlets whitifh, barred with dufky lines: head, back, coverts of the wings, and the breaft, barred with dark brown, and white tinged with yellow; the primaries with black and white: the belly white, marked downwards with long ftripes of deep brown: tail barred with broad bands of black, and narrower of white: wings reach only half the length of the tail : feet feathered to the claws.

A large fpecies, two feet long; the extent four. Weight three pounds.

Inhabits Hudjon's Bay, and New York. Preys on Hares, Grous, Mice, \&cc.

Little Hawk Owl, Edw. 62.-Latham, i. 142, $\mathrm{N}^{\circ} 29$; 143, $\mathrm{N}^{\circ} 30$; 147, $\mathrm{N}^{\circ} 36$; 148, ${ }^{\circ}$ 37.-Pbil. Tranf. Ixi. 385.
Le Chat-huant de Canada, Brifon, i. 518,-De Buffon, i. 391.
Chouette a longue queue de Sibirie, Pl. Enl. 463 .-Lev. Mus.

O.
With yellow irides: head finely fpotted with dufky and pure white: back brown, with a few large white fpots : primaries of a deep brown, regularly fpotted with white on each web: upper part of the breaft white; lower part and belly barred with brown: tail very long, and cuneiform, marked with broad bars of brown, and narrow of white: feet protected with feathers to the claws.

Length feventeen inches. Weight twelve ounces. Never hatches above two young at a time; which, for fome months after flight, retain a rufty brown plumage.


Size.

Place.
123. Hawk, The Savages who come down to Hudjon's Bay, call it Cabetitutch. It flies high, like a Hawk, and preys by day on the White Grous. Like the Short-eared Owl, will hover over the nocturnal fires. Is a bold bird ; will attend the fowler, and often feal the game he has fhot, before he can pick it up. Was feen by the navigators near Sandwich found, in lat. 61 north.

This bird is very frequent in all Sibiria, and on the weft fide of the Uralian chain, as far as Cafan and the Volga: not in Rufja.
124. Whyte, 0 Wi Tuidara, Margrave, 205.

Barn Owl, Clayton's Virginia.-Pbil. Trans. iii. 589.
White Owl, Br. Zool. i. N 0 67.-Latbam, i. 138.
Strix Flammea, Faun. Suec. No 73.
L'Effraie, ou L'Effrafaie, De Buffon, i. 366. p1. xxvi.-Pl. Enl. 440.-Leve Mus, -Bl. Mus,
O. With a white bill : dufky irides: head, back, and coverts of wings, of a pale beautiful yellow, with two grey and two white fpots placed alternately on each fide of the fhafts: breaft and belly wholly white: interior fides of the feathers of the tail white; exterior marked with obfcure dufky bars: legs feathered: feet covered with fhort hairs. Length fourteen inches. Weight eleven ounces.
QLace, This bird is common to North and South America, and to Europe. Was found by the navigators near Sandwich found, lat. 6I north. Is rare in Sweden, and, I believe, not found farther north. Inhabits Tartary. The Mongol and Kalmuc Tartars almoft pay it divine honors; becaufe they attribute to this fpecies the prefervation of the founder of their empire, Cingis Kban. That prince with his fmall army
army happened to be furprized and put to flight by his enemies, and forced to conceal himfelf in a little coppice : an Owl fettled on the bufh under which he was hid, and induced his purfuers not to fearch there, as they thought it impoffible any man could be concealed in a place where that bird would perch. From thenceforth they held it to be facred, and every one wore a plume of the feathers of this fpecies on his head. To this day the Kalmucs continue the cuftom, on all great feftivals; and fome tribes have an idol in form of an Owl, to which they farten the real legs of one*.

Brown Owl, Br. Zool, i. No 69.-Latham, i. 140.-De Bufon, i. 372.-Pl. Enl. 438.


0With dark hazel irides: head, wings, and back, of a deep brown fpotted with black: coverts of the wings and fcapulars varied with white fpots : breaft of a pale afh-color, marked with dufky jagged ftrokes pointing downwards: feet feathered to the claws. Length about fourteen inches. Weight nineteen ounces.
Inhabits Newfoundland: rare in Ruflia: unknown in Sibiria: found in Sweden and Norway t.

* Extracts. $\ddagger$ Brunnich, $\mathrm{N}^{\circ} 19$.


125. BROWN.

Place.

Little Owl, Br. Zool. i. No 70.-De Bufon, i. 377.
Strix Pafferina, Faun. Suec. $\mathrm{N}^{\circ} 79 .-L a t b a m$, i. $149, \mathrm{~N}^{\circ} 38, \mathrm{~N}^{\circ} 39 ; 150, \mathrm{~N}^{\circ} 40$. -Bl. Mus.-Lev. Mus.
O. With pale yellow irides: bill whitifh brown: head light brown fpeckled with white: back, and coverts of the wings, and fcapulars, of the fame color, marked in parts with white fpots: the breaft whitifh, varied with ruft-color: tail barred with white, and marked regularly on each web with circular white fpots: feet feathered to the claws. It varies in length, from eight to feven inches. The fmalleft I have feen is from Nova Scotia; which has white circlets about the eyes, and fewer white fpots on its plumage.
Place, Inhabits from Hudfon's Bay to New York. Called by the natives of the firf, Sbipmofpifb. Lives in all feafons among the pines: builds its neft half way up the tree: lays two eggs. Are moft folitary birds. Keep clofe in their retreat the whole day ; but are moft active moufers during night. Frequent in Rufia; lefs fo in Sibiria.

The Little Owl appears in Sweden with the firft rays of the fun: its voice is a moft acute whiftle, by the imitation of which, fmall birds are readily collected together.


* E A R E D,
A. Scandinavian Eared Owl, Strix Scandiaca, Faur. Suec. No 70 -Latham i. 120 .
O. With the plumage entirely white, fprinkled with black fpots.

Size of a Turky: in all refpects like the Snowy OwI, except the ears.

Inhabits the Lapland alps, Mentioned by Linnous; who feems to take his defcription from a painting of Rudbeck's ; but its exiftence is confirmed by Mr. Tonning of Drontbeim *,
** E A R L ES S。
B. TAWNY OWl, Br. Zool. i. No 68.-Latham, i. 139.

Strix Stridula, Skrik Uggla, Faun. Suec. No 77.-Pl. Enl. 437.-LEv. Mus,
O. With a plain head: dufky irides: plumage of the head, and the whole upper part of the body, tawny, fpotted and powdered with dufky fpots; breaft and belly yellowifh, mixed with white, marked downward with dufky ftreaks: tail blotched, barred, and fpotted with pale ruft-color and black : toes feathered to the claws. Weight nineteen ounces.

* Rariora Norvegia, in Amaen. Acad. vii. 479.
$\mathrm{Nn}_{2}$
Inhabits

Inhabits Europe, as far as Sweden. Frequent in the fouth of Rufia, and deferts of Tartary; and breeds in the nefts of Rooks. None in Sibiria: a fufpicion that it is found in Hudjon's Bay?
C. SWEDISH.

THE Strix Aluco of Linneus; La Hulote, de Buffon, i. 358; Pl. Enl. 44 r , is a bird of Sweden. I never met with it, therefore borrow the defcription from Mr. Latham's Ornithology.

The head is large : irides dufky: circle of feathers round the eyes greyifh: upper part of the body deep iron grey, fpotted with black and white: breaft and belly white, ftriped down with ragged black ftrokes: legs and feet covered with feathers, white, with numerous black fpecks: tail barred with reddifh afh and black: the firft feather of the wings exceeds the reft by two or three inches: the wings reach beyond the end of the tail.

This fpecies lays, in April, from three to five eggs, of a fnowy whitenefs : the young are blind to the tenth day, and are covered with filthy red warts. The female parent feeds them with mice. They fly towards the end of Fuly. The note of the young is like the noife of granfhing one's teeth. The old fly in the moft quiet manner, and make no fort of noife: they feed on fmall birds, but vetches have been found in their ftomach. In the fummer they live in the woods; towards winter return to the neighborhood of houfes. It refufes to eat in captivity, and lofes its life with its liberty. If one of its young is taken away, it removes the reft to another place.
D. Spotted.

DOCTOR Tengmalm, an able ornithologift, refident near Stockbolm, lately difcovered a new fpecies of Owl, of the fize of a Blackbird. The bill dufky, tipped with white: from its corners, to each eye, is a line of black: the irides yellow: the circlet of feathers round the eyes is white, mixed with dufky: head grey, ftriped with white, and furrounded with a dulky circle fpotted with white and dufky: primaries dufky, barred with white: breaft and belly white, varied irregularly with dulky marks: tail above, of a dufky grey, ftriped with white: toes feathered to the claws; grey, with pea-fhaped fpots of white.

GREATSHRXKE。

ORDER II. PIES.
IV. S HRIK E. Gen. Birds IV.
127. Grbat.

Great Shrike, Br, Zool, i. N ${ }^{\circ} 7$ I.
Lanius Excubitor, Warfogel, Faun. Suec. No 80.-Latbans, i. 160.
White Whiky John, Pbil, Tranf. Ixii. 386.
La Pie-grieche Grife, De Buffon, i. 2g6. pl. xx.-Pl. Enl. 445.-Lev. Mus.
C With a black bill and legs: cinereous crown, hind part of D. the neck, and back : cheeks white, croffed from the bill with a bar of black: under fide, from chin to tail, white, marked with femicircular lines of a pale brown : leffer coverts black; thofe on the joints of the wings afh-color: primaries black, marked with a fingle band of black ; fecondaries tipt with white : the tail cuneiform ; the two middle feathers black, the tips of the next on each fide white; on the reft the white prevales, till the exterior, when the black almoft entirely vanifhes: beyond each eye of the female is a brown bar.
Place.
Inhabits Nortb America, from Hudjon's Bay to Louifiana. In Hudfon's Bay, lives in the woods remote from fhores, and is the firft bird there which brings out its young in the fpring. Makes its neft with dry grafs or bents, and lines it thickly with feathers: lays feven eggs, of a pale blue color, blotched with brown.

Is frequent in Rulia, but does not extend to Sibiria; yet one was taken by our navigators within Bering's ftraits, in lat. 66, on the Afatic fide of the Frozen Sea. Has the fame manner of transfixing and tearing its prey as the Englifh kind.
S. With the bill, legs, crown, and fides of the head, back, and coverts of wings, black : primaries black, marked with a fmall fpot of white, and another on the ridge of the wing: throat, cheeks, and vent, pure white : breaft and belly tinged with afh-color: tail long; middle feathers black; the reft marked at their ends with white, which increafes to the exterior ; in which the black almoft vanifhes. Rather inferior in fize to the laft.

Inhabits North America. Seems to be La Pie Griefche de la Louifrane, Brifon, ii. 162 ; Latham, i. 162.

Lanius Canadenfis, Lin. Syf. 134.—De Bufon, i. 316,-Pl. Enl. 479. fig. 2.Latham, i. 182.
La Pie Griefche de Canada, Brifon, ii. 171.-Lev. Mus.
S. With black bill and legs: head adorned with a reddifh creft: cheeks dufky, fpotted with white : hind part of neck and back brown, inclining to red: throat and breaft of a yellowifh red: belly and vent of a fine afh-color: coverts of the wings black, edged with white ; primaries with white on their exterior fides: tail black, bordered on each fide, and tipt wish white. Length fix inches and a half: Extent about eleven.
Inhabits Canada.
S. With the bill nightly incurvated at the end, black, except the upper half of the lower mandible : crown, lower part of the upper fide of the neck, and the back, black : over each eye is a white line, extending to the very nape; beneath that one of black: from chin to vent is wholly white : a narrow white circle quite encompaffes
128. BLACKCROWNED.

Place.
compaffes the neck: leffer coverts of the wings black; greater white, more or lefs dafhed down the fhafts with black: primaries dufky, fringed with yellowifh brown; fecondaries black, edged and tipped with white; tail black, a little rounded; the four outmoft feathers tipped with white: rump cinereous, the edges of the feathers grey: legs black. Length feven inches one-fourth.
Place.
131. RED BACKED.

Br. Zool. i. No 72.-Latham, i. 167.
Lanius Collurio, Faun. Suec. No 81.
Pie-grieche de la Louifiane, De Buffon, i. 307.-Pl. Enl. 397.-Lev. Mus.
S. With grey crown and rump: ferruginous back and coverts of wings : black line acrofs the eyes: breaft and belly rofeate: tail black; exterior feathers edged with white: head and upper part of the Female dirty ruft-color; line over the eyes the fame color: breaft and belly dirty white, marked with dufky femicircular lines. Length feven inches and a half.
Place, Inhabits Ruffia; not Sibiria. Is found in Sweden and Cbriftianjoe. The Count De Buffon fays, he received one from Louifana. I imagine, that, as the Norwegians give the Great Shrike and this a name, that they may be found in their country. The firft they call Klavert, the laft Hanvark. Mr. Ekmark has obferved both of them, only during fummer, in Eaft Gotbland; but is not certain whether they winter. Each fpecies appears in Italy in the fpring; retires in autumn,

The Red-backed Shrike returns to Sweden the latter end of April: makes its neft in low bufhes, in form of a cup, near a quarter of a yard in diameter, of wool, foft dry grafs, \&c. with amazing art. The

The young are long before they fly: the tafk of feeding the young refts chiefly on the female; and principally the food confifts of infects of the bymenoptera order. Their food is not confined to thofe, for Mr. Oedman has feen about the nefts the exuvix of thoufands of hornets. The female defends its neft ftoutly, yet at other times is very timid: the male with great affection feeds its mate, when the latter is on the duty of incubation; and during that time is rarely feen at home. When the female has quitted the neft, the male undertakes the care of the young; fitting for their protection in the top of fome neighboring tree: the female fits in fearful filence: its mate elevates its voice. This fpecies feeds chiefly on infects, feldom on fmall birds. -Mr . Oedman.

A. Grey, Lanius Nengeta, Lin. Syf. 135.-Latham, it 183. Grey Pye of Brafll, Edw. 318 ,
S. With the crown, hind part of the neck, back, and coverts of the wings, deep cinereous: a black line paffes from the bill through the eyes to the hind part of the head : greater coverts and fecondaries black, tipt with dirty white ; primaries black ; breaft and belly light afh-color: tail black; ends of the outmoft feathers white. Much larger than $\mathrm{N}^{\circ} 127$, the common Great Shrike; and differs fpecifically.
Vol. I.Inhabits

Placr. Inhabits Rufia, but is more frequent in Sibiria; where it lives in the forefts the whole winter. Taken and tamed by the fowlers; and kept by the Rufiens for the diverfion it affords in the manner of killing its prey. They ftick a rod with a fharp point into the wall of a room, on which the Shrike perches. They turn loofe a fmall bird, which the former inftantly feizes by the throat, ftrangles, and then fpits it on the point of the ftick, drawing it on with its claws and bill. Thus it ferves as many as are turned to it, and afterwards eats them, thus fufpended, at its leifure *. The Germans ftyle it Wurchangel, or the Suffocating-angel. The old Englifh, Wariangel, which fignifies a bird of fome very mifchievous qualities; as is evident from Cbaucer.

This Sompnour, which that was as ful of jangles, As ful of venime ben thife Wariangles $\dagger$.
B. Lesser Grey, Pie Grieche d'Italie, De Buffon, i. 298.-Pl. Enl. 32 .
S. With the forehead black: a black line croffes the eyes, like as in the former : head, hind part and fides of the neck, back, and coverts of wings, cinereous, paleft on the rump: ridge of the wing white: primaries black, with a white fpot near the bafe; fecondaries black, tipt with white: throat white: breaft and belly tinged with rofe-color : tail marked like the preceding.

Inhabits Rufra, but not Sibiria. Found in Italy and Spain.

[^89]V. PARROT.

V. P A R R O T. Gen. Birds V.

Parrokeeto, Lawfon, 142.-Latham, i. 227.-Lev. Mus.
83. Carolina.

P.With the forehead, ridge of the wings, and feathers round - the knees, orange : head and neck yellow: back, body, and coverts of wings and tail, green: primaries dufky, mixed with blue and green; the upper exterior fides edged with yellow: tail very long and cuneiform: legs white. Length thirteen inches. Weight three ounces and a half.

Inhabits the fouthern parts of North America, but never appears higher than Virginia. It is in general a migratory bird, even in Ca rolina; arriving at the feafon when mulberries are ripe, which they are very fond of, and which are the earlieft fruits of the country, except ftrawberries. They infeft, in autumn, the apple-orchards in vaft flocks, and make great havock by fplitting the fruit for the fake of the kernels only, being very greedy of them, and the feeds of cyprefs, and other trees. They devour too the buds of the birch.

Few of thefe tender birds continue in Carolina during the whole year. They breed in hollow trees, in low fwampy grounds. When taken, they eafily grow tame, but do not fpeak. Their inteftines are faid to be a fpeedy poifon to Cats,

The


## ILLINOIS PARROT.

The eggs of Parrots are roundifh, and generally of a pure white; thofe of the Maccaws fpotted, like the eggs of a Partridge. The number ufually two ; yet the Count De Buffon gives an inftance of a Perroquet, in a ftate of confinement, which laid four eggs every fpring, during five or fix years: one of the eggs was addle; the others productive *.
133. Illinois.

Place.

Latitudes of Parrots.

> Tui-apeta-jube, Margrave, 206, No 2.-Wil. Orn. 116.-Raii. Syn. Av. 34.De Buffon, vi. 269.-Pl. Enl. 528.-Latham, i. 228.
> Pfittacus Pertinax, Lin. Syff. 142.
> La Perruche Illinoife, Brifon, iv. 353.
> Yellow-faced Parrot, Edrw. 234 .
P. With a cinereous bill : orange-colored irides: forehead, cheeks, and fometimes the hind part of the head, of a rich orange : crown, upper part of the body, tail, and coverts of the wings, of a fine green: primaries green, edged externally with blue : breaft and belly of a yellowifh green: vent yellow : tail very long and cuneiform. Of the fame fize with the former.

Inhabits the interior parts of North America, in the country of the Illinois, fouth of lake Micbigam: it is alfo met with in the Brazils. Is a lively bird; but its voice not very articulate. Father Cbarlevoix met with fome on the banks of the Theatiki, a river that rifes a little fouth of lake Micbigam, and runs into the Mijffipi. He fays, that thofe he faw were only ftragglers, which migrated before winter; but that the main body paffed the whole year on the borders of the Miljfipi $\dagger$.

The Count De Buffon confines the whole genus of Parrots to exactly twenty-five degrees on each fide of the Equator $\ddagger$. It always

[^90]gives me pain to differ in opinion with fo illuftrious a character; but I muft produce my authorities of their being common at far greater diftances. On the continent of America, two fpecies have been obferved by the Spaniards about Trinity Harbour, in the South Seas, in north lat. 41. $7^{*}$. Dr. Forfter faw, in the raw, rainy latitude of Dufky Bay, in Nerv Zealand, 46 fouth, two kinds. In the neighborhood of Botany Bay, in New Holland, in fouth lat. 34, five fpecies were difcovered; among which, the greater variety of the fulphur-crefted Cockatoo appeared in amazing multitudes. But what is moft wonderful, a fmall fpecies of this tender genus is to be met with as low as Port Famine, in the ftreights of Magellan, in fouth lat. 53. $44 t$, in flocks innumerable. They inhabited the valt forefts of the country. Their food muft be confined to buds and berries; for no fort of fruit-trees have been obferved there. The forefts likewife were frequently bounded by mountains, probably cloathed with eternal fnow.

[^91]VI. $\mathrm{C} R \mathrm{O}$ W.
VI. C R O W. Gen. Birds XII.
134. Raven.

Br. Zool. i. N ${ }^{\circ} 74$.
Corvus Corax, Lin. Syjf. $155^{\circ}$
Korp, Faun. Suec. No 85.-Leems, 240-Faun. Groenl. p. 62.-Latbam, i. 367. -De Buffon, iii. 13.-Lev. Mus.

F With the point of the bill a little incurvated, with a fmall varies to white, and to pied. In the Feroe ifles is a breed which are black and white, and are faid to keep in a place feparate from the common kind *.
Size. The largeft of the genus. Weighs three pounds. Length two feet two inches.
Place.
Very numerous as far north as Finmark, Iceland, and Greenland, where it frequents the huts of the natives, and feeds on the offals of the Seals $\dagger$. Preys in concert with the White Bear, Arctic Fox, and Eagle. Devours the eggs of birds, efpecially the Ptarmigan: eats fhore-fifh, and fhell-fifh : drops the laft from on high to break them, and get at the contents. Turns round in the air, and is dexterous; changes its prey from its bill to its feet, or from its feet to its bill, by way of eafe. Eats alfo berries, and, when almoft famifhed, dried fkins and excrements. Neftles on high rocks, which overhang and afford a canopy. Couples in March; lays in April. Each preferves a diftrict to itfelf. The male fits in the day; the female in the night: the former fleeps clofe by its mate. Have
ftrong affection to their young brood. Hearing its croaking echoed, repeats it; as if admiring its own note. At approach of ftorms, collects under fhelter of rocks.
Caught by the natives. Its flefh is eaten. The flins reckoned the beft for cloathing : the wings ufed for brufhes : the quils fplit, are made into firhing-lines. They alfo inhabit Nerefoundland, and now and then appear as low as Virginia and Carolina ${ }^{*}$.
This bird is, among the American favages, an emblem of return of health. Their phyficians, or rather magicians, when they vifit a fick perfon, invoke the Raven, and mimic his croaking voice $\dagger$. The northern Indians, on the contrary, deteft this and all the Crow kind $\ddagger$. It inhabits Kamtccbatka and Sibiria; but not within the Afatic Arctic regions.

The Raven in winter lives in Sweden, in flocks, near the fhores of the fea, to fupport itfelf on whatfoever the waves fling up. The ruftics efteem it a bird of ill omen, efpecially when it is heard croaking near the houfes of the fick. They fear fhooting this bird, under a notion that it will fpoil their gun.-Mr. Oedman.

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Br. Zool. i, No 75 ?-Latbam, i. 370.
Blaae Raage, Brunnick, No }29
Corvus Corone, Faun. Suec. No }86
La Corbine, ou l'Corneille, De Bufon, iii. 45.-Pl. Enl. 483.-Levv. Mus.
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C. With the plumage wholly black, gloffed with violet : bill ftrong, thick, and arched : noftrils covered with ftrong black briftles: ends of the feathers of the tail fightly pointed. Length eighteen inches and a half. Weight from twenty to twenty-two ounces $\S$.

[^92]Inhabits the province of New York, and the inland parts of Hudfon's Bay. Mr. Blackburn obferved, that it retains there the fame manners as the European fpecies; and never migrates from New York. Mr. Kalm fays, that they fly in great numbers, and have a cry much refembling the Rook *. By his account, they appear of a mixed nature, feeding not only on grain, but on carrion; and are alfo very pernicious to young poultry. Like Rooks, they pull up the corn of the country, the new-fown maize; and, when it ripens, pick a hole in the leaves which furround the ears, expofing it to corruption, by letting in the rain. The inhabitants of Penfylvania and New Ferfey were wont to profcribe them, fetting three pence or four pence on the head of each Crow; but the law was foon repealed, becaufe of the great expence it brought on the public ftock $\dagger$. Mr. Kalm alfo remarks this agreement with the Rook fpecies, that they fettle much on trees, both in February and the fpring.

Thefe birds are fo rare in Sweden, that Linneus gives only one inftance of its being killed in his country, Yet it is found in the diocefe of Drontheim, and in the Feroe iflands. They are fcarce in Ruflia; and only in the north, Grow more common in Sibiria, and are found plentifully beyond the Lena, where the Hooded Crow ceafes. Was obferved about Botany Bay, in New Holland; and is met with in the Pbilippine inles $\ddagger$,

The Carrion Crow is never feen farther north than Norcopin, lat. 58. 45.-Mr. Oedman.

[^93]Br. Zool. i. No 78.-Latbam, i. 392.-De Bufon, iii. 85.
Corvus Pica, Skata, Skiura, Skara, Fann. Suec. No g2.-Lev. Mus.
C. Variegated with black and white, the black moft beautifully
gloffed with green and purple : the tail very long, cuneiform, black, refplendent with the fame rich colors as the body. Length eighteen inches: weight nine ounces.

Vifits Hudfon's Bay, where the natives call it Oue ta-kee Afke, or the Heart-bird. It migrates, and but feldom appears there *.
Is found in Europe, as high as Wardbuys, in lat. $71 \frac{x}{2}$. It is efteemed there an augural bird. If it perches on the church, it is fuppofed to portend the death or removal of the minifter: if on the caftle, that of the governor $\dagger$. The Magpies fwarm in the temperate parts of Ruffia. Common in Sibiria, and even as far as Kamtfobatka, and the ifles.

Corvus Canadenfis, Lin. Syf.158.-Latham, i. 389 .
Le Geay Brun de Canada, Brifon, ii. 54.-De Buffon, iii. 117.-Lev. Mus,

C.
With a black bill, ftrong, ftrait, notched near the end of the upper mandible : noftrils covered with a tuft of whitifh feathers reflected downwards : the forehead, cheeks, and under part of the body, of a dirty reddifh white: the feathers on the crown long and black, forming a fpecies of creft, like that of the Engliß Jay: the plumage on the back brown, filky, loofe, and unwebbed, like that of the Jay: wings black: tail long, cuneiform, black; the three outmoft feathers tipt with dirty white: legs black. Length near eleven inches: extent fifteen. Weight two ounces and a half.

- Pbil. Tranf. 1xii. 387.

Vol. I.
P p

+ Leems, 241.
Inhabits

136. Magrie.

Place.
137. Cinereous.

138. Blue.

Inhabits Hudjon's Bay, Nerwfoundland, and Canada, and the woods on the weftern coafts of America. Thefe birds breed early in fpring: their nefts are made of flicks and grafs, and built in pinetrees. They have two, rarely three, young ones at a time. Their eggs are blue. The young are quite black, and continue fo for fome time. They fly in pairs. The male and female are perfectly alike. They feed on black mofs, worms, and even flefh: When near habitations or tents, they are apt to pilfer every thing they can come at, even falt meat. They are bold, and come into the tents to eat victuals out of the difhes, notwithftanding they have their hoard of berries lodged in the hollows of trees. They watch perfons baiting the traps for Martins, and devour the bait as foon as they turn their backs. Thefe birds lay up fores for the winter; and are feldom feen in famuary, unlefs near habitations: they are a kind of mock-bird. When caught, they pine away, and die, tho' their appetite never fails them *. Detefted by the natives of Hudjon's Bay.

Jay, Clayton's Virginia.-Pbil. Tranf. iii. 590:-Larwfon, 141.
Blue Jay, Cate $\beta y$, i. 15.-Edw. 239.-Latbam, i. 386.
Corvus Crittatus, Lin. Syf. 157.
Le Geay Bleu de Canada, Brifon, ii. 55.-De Buffon, iii. 120.-BL. Muse -Lev. Mus.
C. With a ftrong thick bill: head adorned with a rich blue creft : a ftripe of black from the bill extending beyond the eyes : throat and cheeks white : neck furrounded with a black collar: breaft of a pale vinaceous red: belly white: back of a pale purple: coverts of the wings and fecondaries, of a rich blue,

## STELLER'S CROW.

beautifully barred with black; the fecondaries, and one order of the coverts, tipt with white : tail long and cuneiform, barred with blue and black; the tips of all white, excepting thofe of the two middlemoft: legs black. Length twelve inches.

Inhabits Nerefoundland, Conada, and as far fouth as Carolina. Has the fame actions and jetting motion as the Englifb Jay, but its cry is lefs harfh. It feeds on fruits and berries, and commonly fooils more than it eats. It is particularly fond of the berries of the bayleaved Smilax. Refides in the country all the year. Lays in May five or fix eggs, of a dull olive with rufty fpots.
C. With a crefted head: bill, neck, and back, black : leffer coverts of the wings dufky; the others of a rich refplendent blue: exterior webs of the primaries of the fame color; the inner dufky ; the fecondaries of a beautiful rich blue, croffed with narrow black bars, remote from each other : the rump, belly, and breaft, of a dull blue: tail very long, cuneiform, and of a fine gloffy blue; the middle feathers nightly barred. Size of an Englijh Jay.
Inhabits the woods about Nootka or George found, in North America. It had been before difcovered by Steller, when he landed on the fame fide of that continent. Defcribed from a fpecimen in the collection of Sir Joseph Banks.
P p 2
A. Rook,

Place.

A. Rook, Br. Zool. i. No $7^{6}$.-Latbam, i. 372. Corvus Frugilegus, Roka, Faun. Suec. No 87.-De Buifon, iii. 55-
C. Black, gloffed with purple: a tinge of dull green over part of the tail : the ends of the feathers of the tail broad, and rounded; thofe of the Crow, acute : the bill ftraiter, flenderer, and weaker, than that of the Carrion Crow: the length two inches and a half; that of the latter only two inches and a quarter. The bill of the Crow is of a more intenfe black. The noftrils and bafe of the bill of the Rook naked, and whitifh, occafioned by being often thruft under ground in fearch of food. The weigut of both nearly the fame, about twenty-one ounces: the length about eighteen inches: the extent of wings in the Rook three feet one inch and a half; of the Crow, two inches and a half lefs *.
The Rook has not been obferved in Sweden, except in the fouthern province of Scamia, and the ine of Oland. It breeds there ; but is driven away by the feverity of the winter. No mention is made of it in the Danifh or Norrwegian Faunx. Is common in Ruffia, and the weft of Sibiria; but there are none in the eaft. They migrate in the beginning of Marcb to the environs of Woronefch, and mingle with the common Crows $\dagger$.

- I once had the curiofity to compare the meafurements of thefe common birds, and found them as above; but they are often inferior in fizes to the fubjects I examined.
+ Extracts, i. 103.
B. Hooded,
H O O D E D C R O W.
B. Hooded Cr. Br. Zool. i. N0 77.-Latham, i. 374.

Corvus Cornix, Kraka, Faun. Suec. No 88.
Krage, Leems, 239.-De Buffon, iii. 61.

C.With black head, wings, and tail; afh-colored body. Inhabits Europe, as high as the Feroe iflands and Lapmark, Place. where it continues the whole year; but in the northern countries often retires to the fhores, where it lives on fhell-fifh. Is very common in all Ruflia and Sibiria: none beyond the Lena. Migrates to Woronejch, and paffes the winter there. Grows very large beyond the $O b$, and often varies to entire blacknefs. This bird, - and the Raven, in O\&tober quit the Jub-alpine woods, where they breed; and fpread all over the plains of Italy. This fpecies extends to Syria, as do the Raven, Crow, Jackdaw, and Magpie *.

It is very fingular, that the Hooded Crow, when it migrates, at the approach of winter, out of Smoland, retires into Upland, a province three degrees to the north of the former: there it lives during winter, near the fhores, in the manner of the Raven. It is a bird detefted by the natives. Feeds on the eggs of the wild Geefe and Ducks. Is driven away from the inles by the Black-backed Gull.-Mr. Oedman.

This fpecies, the Raven, Crow, Jackdaw, Pie, and Jay, pals their winter at Woronefch $\dagger$, removing probably from hotter as well as colder climates; for three of the above can endure the fevereft cold.

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- Ruflel's Aleppo, 69. + Extracts, i. 100.
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C. Jackdaw,
C. Jackdaw, Br. Zool. i. No 81.-Latbam, i. 378.

Kaia, Faun. Suec. No 89.-De Bufon, iii. 69.
C. With white irides: hind part of the head light grey: breaft and belly dufky afh: reft of the bird black. Length thirteen inches.
Place. Inhabits as far north as Sondmor: is fometimes feen in the Feroe ifles. Migrates from Smoland and Eaft Gotbland the moment that harvelt ends; and returns in the fpring, attendant on the Stares. Winters about Upfal, and paffes the night in vaft flocks in ruined towers, efpecially thofe of antient Upfal. Is feldom met with beyond Heljingeland, a province lying between lat. 61. and 62. 33. Inhabits towers, but often ufes the deferted nefts of Woodpeckers. Common over all Ruffa and the weft of Sibiria. A few are feen beyond lake Baikal. Are migratory, unlefs in the fouth of Ruflia.
D. Nutcrackek, Br. Zool. ii. App. p. 625.-Latbam, i. 400.-De Bufon, iii. 122. Merula Saxatilis, Aldr. Av. ii. 284.
Corvus Caryocatactes, Notwecka, Notkraka, Faun. Suec. No 91.
C. With primaries and tail black, the laft tipt with white : vent white: reft of the plumage of a rufty brown: crown, and coverts of the tail, plain; every other part marked with white triangular fpots. Size of a Jackdaw.
Place. Is found as high as Sondmor. Common in the pine-forefts of Rufia and Sibiria, and even in Kamtjcbatka. Lives on nuts and acorns,
acorns, and on the kernels of pine-cones. Neftles in the bodies of trees, which it perforates like the Woodpecker.

The Nutbreaker comes very late into Sweden; and ftays there till the nuts are gathered. Is not to be feen beyond Upland. Hazel nuts rarely are to be met beyond Geffe, lat. 60.45 : they have indeed been planted, by Mr. Hog from, at Skellefa, near the arctic circle : they endured the winter, but did not bear fruit. The nuts of Oland are greatly fought after in Sweeden, and thought there as fweet as almonds. -Mr . Oedman.
E. JAY, Br. Zool. i. No 79.-Latham, i. 384.-De Buffon, iii. 107. Corvus Glandarius, Allonfkrika, Kornfkrika, Faun. Suec. $\mathrm{N}^{\circ} 90$.
C. With a black fpot on each fide of the mouth: very long feathers on the head: body purplifh afh: greater coverts of wings beautifully barred with rich blue, black, and white. Length thirteen inches.
Is met with as high north as Sondmor. Not migratory. Common in the woods of Rufia and Sibiria; but none beyond the Lena. It is met with again in Cbina.
The JAY is eaten in Sweden; and taken in fpringes, baited with the berries of the mountain afh, or forbus aucuparia. -Mr . Oediman.

C $\mathrm{R} O \mathrm{~W}$,
F. Rock, Greater Reditart, Wil. Orn. 197.

La Paiffe Solitaire, Belon Oyf. 322.
Codiroffo Maggiore, Olina, 47.-Latham, i. 176.-DéBufon, iii. 354.-Aldr. Avv, ii. 282.

Stein-Rotela, Gefn. Av. 732.
C. With crown, and neck above, and coverts of wings, brown and dirty white. In the males, the middle of the back marked with a fpot, confifting of a bar of blue, black, and ruft-colored: throat, breaft, and belly, orange, fpotted with white, and a few dufky fpots: two middle feathers of the tail dufky; the reft ferruginous: has the fame loofe filky texture of feathers as the Jay. Size of a Stare.
Place. Found as high as the forefts of Lapland. Is called by the Sroodes, Lappfkata and Olyckfugl; by the Norvegians, Gertrudsfogel; alfo Ulyksfuegl, from its being fuppofed to forebode ill-luck. Linneus, for the fame reafon, ftyles it Lanius Infaufus; and in his Fauna, Corvus $\ln f a u f$ tus *. It is common in the woods of the north of Ruffa and Sibiria. Is a moft audacious bird. Linnous relates, that in dining amidft the Lapland forefts, it would often fnatch away the meat before him. Breeds in crevices of rocks. Feeds on worms and infects. Sings finely, and is often preferved in cages for its fong.

* Syjf. 138.-Faun. Suec. No 93.


## R O L L ER. Gen. Birds, XIII.

G. Garrvlous, Br. Zool. ii. App. p. 530 quarto, 624 octavo.-Latham, i, 406.-De Bufon, iii. 133.-Aldr. i. 395.
Coracias Garrula, Spanfk-kraka, Bla-kraka, Faun. Suec. N® $94 \cdot$
R. With a naked fpot beyond each ear: head, neck, back, breaft, belly, and greater coverts of the wings, of a light bluifh green: back ferruginous: coverts of the tail, leffer coverts of the wings, and lower parts of the fecondaries, of a rich blue; primaries black above, blue beneath : middle feathers of the tail dirty green; the reft of a light blue: the exterior feathers on each fide much longer than the reft, and tipt with black : legs yellowifh. Size of a Jay.
This elegant bird is found not fpread, but as if it were in a ftream, from the fouthern parts of Norway to Barbary and Senegal: from the fouth of Rufia to the neighborhood of the Irtijh, only, in that empire ; and foutherly, to Syria*. In Srweden, it arrives with the Cuckoo; retires at the conclufion of the harveft $\dagger$. It makes its neft in the birch, preferably to all other trees $\ddagger$; and in places where trees are wanting, fuch as Malta and Barbary, it forms its neft in clayey banks. Zinanni fays it lays five eggs, of clear green, fprinkled with innumerable dark fpecks §. It feeds on fruits, acorns,

[^94]VoL. I.
Qq and

Place.

GARRULOUS ROLLER.
and infects. Is a fhy bird; but, at times, is feen in company with Crows and Pies on the plough lands, picking up worms, and grains of corn. Scbreenckfelt fays, that in autumn it grows very fat, and is efteemed as a delicacy*. It is remarkably clamorous. Is migratory. M. Adanjon obferved them in Senegal, in flocks, in the month of September, and fuppofes they winter there $\dagger$.

- Av. Silefira, 244. + Voy. Senegat, Engl. ed. 25. 10\%.


















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VII. O R I O L E. Gen. Birds XIV

$$
\begin{aligned}
& \text { Acolchichi, Fernand, Nov. Hi/p. p. 14.-Wil. Orn. 395--Raii Syn. Av. 166.- } \\
& \quad \text { Latham, i. } 428 \text {. } \\
& \text { Black Bird (2d fp.) Larwon, 139. } \\
& \text { Red-winged Starling, Catefoy, i. 13.-Du Pratz, ii. 91. } \\
& \text { Le Troupiale a Aifles Rouges, Brifon, ii. } 97 \text {. } \\
& \text { Le Commandeur, De Bufoon, iii. 214--Pl. Enl. } 40 \text { 2. } \\
& \text { Oriolus Pheniceus, Lin. Syf. 161. }
\end{aligned}
$$

O.With black bill and legs: plumage of a fine jetty blacknefs, except the leffer coverts of the wings, which are of a bright fcarlet, with the loweft row white. Length ten inches. The Females are of a dufky color.

Inhabit from the province of Nero Kork to the kingdom of Mexico. In North America they are called Red-winged Starlings, and Swamp Black-birds; in Mexico, Commendadores, from their red fhoulders, refembling a badge worn by the commanders of a certain Spanifb order, That kingdom feems to be their moft fouthern refidence. They appear in New Nork in April, and leave the country in OEFober. They probably continue the whole year in the fouthern parts, at left Catefly and Lawjon make no mention of their departure. They are feen in flocks innumerable, obfcuring at times the very fky with their multitudes. They were efteemed the peft of the colonies, making moft dreadful havock among the maize and other grain, both when new fown, and when ripe. They are very bold, and not to be terrified with a gun; for, notwithftand-

Place.

Manners.

ing the fportfman makes flaughter in a flock, the remainder will take a fhort flight, and fettle again in the fame field. The farmers fometimes attempt their deftruction, by fteeping the maize in a decoction of white hellebore before they plant it. The birds which eat this prepared corn are feized with a vertigo, and fall down; which fometimes drives the reft away. This potion is particularly aimed againft the Purple Grakles, or Purple Jackdaw, which conforts in myriads with this fpecies, as if in confpiracy againft the labors of the hufbandman. The fowler feldom fhoots among the flocks, but fome of each kind fall. They appear in greateft numbers in autumn, when they receive additions from the retired parts of the country, in order to prey on the ripened maize.

Some of the colonies have eftablifhed a reward of three pence a dozen for the extirpation of the Jackdaws: and in New England, the intent was almoft effected, to the coft of the inhabitants; who the reeds, in retired fwamps, in the form of a hang-neft; leaving it fufpended at fo judicious a height, and by fo wondrous an inftinct, that the higheft floods never reach to deftroy it. The neft is ftrong, made externally with broad grafs, a little plaftered; thickly lined

[^95]with bent or withered grafs. The eggs are white, thinly and irregularly ftreaked with black.

Fernandez fays, that in Mexico they build in trees near towns; and both he and Catefby agree, that they fing as well in a flate of confinement as of nature ; and that they may be taught to fpeak. I agree with $M$. de Buffon, that, in cafe the manner of their nidification is as Fernandez afferts, the difagreement in the different countries is very wonderful.
In Louifiana they appear only in winter, and are taken in a clapnet, placed on each fide of a beaten path made on purpofe, and ftrewed over with rice. As foon as the birds alight, the fowler draws the net, and fometimes takes three hundred at a haul. They are alfo eaten in the Englijh colonies. Fernandez does not commend their flefh, which, he fays, is unpalatable and unwholefome.
Du Pratz fpeaks of two kinds: this, and another which is grey and black, with a red fhoulder, like the fpecies in queftion. I fufpect he forms out of the young birds, not yet arrived at full color, a new kind; or perhaps a female bird; for I have received from Dr. Garden one under that title, which agrees with the defrription given by M. Du Pratz. Thefe are ftreaked with pale rufty brown: cheeks black: over each eye a white line: breaft and belly black, fpotted with pale brown: leffer coverts of the wings rich orange.

White-backed Maize Thieves, Kalm, ii. 274.

A Species mentioned barely as above by Mr. Kalm, with the addition of their being lefs than the laft: that they fing finely, and appeared flying now and then among the bufhes near Saratoga; but

Young, or
Females?

14I. White-
BACKED,
but that he faw them for the firft time near New York. As Mr, Kalm feems not to have had a diftinct fight of thefe birds, it is poffible that they are the White-winged Orioles of Mr. Latbam, ii , 440: the coverts of whofe wings are white; the reft of the plumage entirely black. His fpecies came from Cayenne.

Male.

Female.
$P_{\text {LACE }}$.

0.With the head, throat, neck, and upper part of the back, black: leffer coverts of the wings orange; the greater black tipt with white : breaft, belly, lower part of the back, and coverts of the tail, of a bright orange: primaries dufky, edged with white: two middle feathers of the tail black; the lower part of the reft of the fame color, the remaining part orange : legs black.

Head and back of the female olive, edged with pale brown: coverts of the wings of the fame color, marked with a fingle bar of white: under fide of the body, and coverts of the tail, yellow: tail dufky, edged with yellow. Length of this fpecies feven inches.

Inhabits from Carolina* to Canada $\dagger$. Sufpends its neft to the horizontal forks of the Tulip or Poplar trees, formed of the filaments of fome tough plants, curioufly woven, mixed with wool, and lined with hairs. It is of a pear fhape, open at top, with a hole on the fide, through which the young difcharge their excre-

$$
\text { - Larwfon, } 145^{\circ} \quad+\text { De Bufforn }
$$


ments, and are fed. In fome parts of North America, this fpecies, from its brilliant color, is called the Fiery Hang-neft. It is called the Baltimore bird, from its colors refembling thofe in the arms of that nobleman.

It quits North America before winter, and probably retires to Mexico, the Xocbitototl of Fernandez * feeming to be the fame fpecies.

## Baftard Baltimore, Cate $\beta$ by, i. 49.-Latham, i. 433.

Le Baltimore Batard, Brifon, ii. 111.-De Buffon, iii. 233.-Pl. Enl. 506.
Oriolus Spurius, Lin. Syjf. 162.-BL. Mus.-Lev. Mus.

O.With the head, neck, and upper part of the back, of a full gloffy black: breaft and belly of a fine orange bay: lower part of the back, and coverts of the tail, of the fame color: the leffer coverts of the wings light bay; the greater black, edged with dirty white : the quil feathers dunky, edged with white : tail cuneiform and black.
The head of the female, and hind part of the neck, deep olive : throat black: coverts of wings durky edged with white; primaries and fecondaries of the fame colors: under fide of the body of a greenifh yellow : tail dufky, edged with yellow.
Inhabits North America. Arrives in New York in May. Lays five eggs; and ufually hangs its neft in an apple-tree.

- Av. Now. Hijp. 3.9.

143. Bastard.

PLACE.



Le Troupiale Noir, Brifon, ii. 103. tab. x.-De Bufon, iii. 320.-Pl. Enl. 534. -Br. Mus.
O. With a black bill, an inch long: legs of the fame color: whole plumage black and gloffy. Length near ten inches. Extent one foot. Weight two ounces and a quarter.
Female. With head, breaft, and belly, dufky, tinged with cinereous; the reft of the plumage of a greenifh brown.

Inhabits North America, even as far as Hudjon's Bay. Arrives there in the beginning of fune, as foon as the ground is thawed fufficiently for them to get food, which is Worms and Maggots. They fing with a fine note till the time of incubation, when they defirt, and only make a chucking noife till the young take their flight; when they refume their fong. They build their nefts in trees, about eight feet from the ground; and form them with mofs and grafs. Lay five eggs, of a dark color, fpotted with black. Gather in great flocks, and retire foutherly in September. A bird, which I apprehend to be only a leffer variety, is defcribed by the Comte de Buffon, iii. 221, Pl. Enl. 606, Latham, ii. 446.
145. BROWNheADED.
O. With the head of a rufty brown : the body and wings black, gloffed with green: the tail of a dufky color, SIzE of a common Blackbird.-Br. Mus. Lev. Mus.
Inhabits New York, and appears there in fmall flocks during fummer. Perhaps migrates to St. Domingo, where it is alfo found, and is called there, according to Mr. Kucban's account, Siffleur, or Whifter; but differs from that defcribed by M. De Bufon, iii. 230, which is entirely yellow beneath.

O.With dufky bill and legs : head, and hind part of the neck, of a blackih purplifh hue, with the edges of the feathers ruftcolored: from the bill, over and beneath the eyes, extends a black fpace, reaching to the hind part of the head : throat, under fide of the neck, the breaft, and back, black, edged with pale ruft: belly dufky: wings and tail black, gloffed with green. Length between feven and eight inches.
Appears in Nerw York in the latter end of OEtober, and makes a very fhort ftay there : it probably is on its way foutherly from Hudfon's Bay, where it is alfo found.

Le Caffique de la Louifiane, De Buffon, iii. 242.-Pl. Enl. 646.

о.With the head, neck, belly, and rump, white : the reft of the plumage changeable violet, bordered with white, or in fome parts intermixed. Lengith ten inches Frencb.

Inhabits Louijana.

O. With a dufky bill: head and throat pure white: ridge of the wing, fome of the under coverts, firft primary, and thighs, of the fame color: all the reft of the bird dufky, in parts gloffed with green: on the breaft a few oblong ftrokes of white: legs dufky. Length eight inches and a half. Extent thirteen and a half. Weight an ounce and three quarters.
Inhabits Hudfon's Bay. A very rare fpecies. Quere, if.only differing in fex from the laft.-Lev. Mus.
148. Hudsonian

White-headed.

Place.
place. Inhabits Louifiana.
149. Olive.
3.37
150. YELLOW-

THROATED.
151. UNALASCHXA。
Place.
$\qquad$

3
Si

OLIVE, YELLOW-THROATED, \&c. ORIOLE,

Le Carouge Olive de la Louifiane, De Buffon, iii. 251. -Pl. Enl. $60 \%$.With the head olive, tinged with grey: hind part of the neck, the back, wings, and tail, of the fame color, tinged with brown, brighteft on the rump and the beginning of the tail: the fides alfo olive, dafhed with yellow; the fame color edges the greater coverts and primaries: the throat is orange-colored: the under fide of the body yellow: legs a brownifh afh-color. Length fix or feven inches French. Extent from ten to twelve,
O.

With a bright yellow ftroke over each eye: cheeks and throat of the fame color: all the reft of the plumage tinged with green, only fome of the coverts of the wings are tipt with white: bill and legs dufky. Length nine inches. Extent fifteen and a half.

Was fhot in Hudjon's Bay.

Latham, ii, 447, No 40 。
O.

With a brown bill; between its bafe and the cyes a white mark: plumage above, brown; the middle of each feather clouded: chin white, bounded on each fide by a dark diverging line: fore part of the neck and breaft of a rufty brown: coverts of the wings, the fecondaries, and tail, brown, edged with ruft: primaries and belly plain: fides dufky: legs brown. Length eight inches.
Placa. Brought by the late navigators from Unalajchka.

Latham, i. 448 .
O. With the crown brown and cinereous: cheeks brown, furrounded by a border of light clay-color, commenced at the bafe of each mandible of the bill : throat white: breaft, fides, and vent, of a dull pale yellow, fpotted with brown: belly white: back varied with afh-color, black, and white : greater and leffer coverts of the wings dufky, deeply hordered with ruft-color; primaries black, nightly edged with ruft : the feathers of the tail lope off on each fide to a point, not unlike thofe of a Woodpecker; are of a dufky color, and obfcurely barred: the legs of a pale brown. Size of a Lark.

Inhabits the province of New York.-From Mrs. Blackburn's collection.
152. SHARP-
TAILED.

Place,
VIII. G R A K L E. Gen. Birds, XV.
153. Purple.

Tequixquiacatzanatl *, Fernandez Mex. 21.
La Pie de la Jamaique, Brifon, ii. 41.-De Buffon, iii. 97.-Pl.Enl. 538.
Merops Niger iride fub-argentea, Brown's Jamaica, 476.
Purple Jackdaw, Catefoy, i. 12.-Latbam, i. 462.
Black-bird, Lawfon, fp. zd, 139.-Sloane Famaica, ii. 299.
Gracula Quifcula, Lin. Syft. 165.-BL. Mus.-Lev. Mus.
(With a black bill : filvery irides: head and neck black, oppofed to the light: back and belly, with green and copper-color, growing more dufky towards the vent: tail long, and cuneiform: legs black: wings and tail rich purple. Female entirely dufky ; darkeft on the back, wings, and tail.
Length of the male thirteen inches and a half: the Weight about fix ounces. Length of the female eleven inches and a half.

Thefe birds inhabit the fame countries as the Red-wing Orioles, and generally mingle with them. They fometimes keep feparate; but ufually combine in their ravages among the plantations of maize. After that grain is carried in, they feed on the feeds of the Water Tare Grafs, or Zizania aquatica. Their good qualities, in clearing the country from noxious infects, have been recited before, in page 300 , mixed with the hiftory of their congenial companions.

* i. e. The Salt Starling, becaufe in Mexico it frequents the falt lakes.


They appear in Nerw York and Pbiladelpbia in February, of the beginning of March; and fit perched on trees near the farms, and give a tolerably agreeable note. They alfo build in trees, ufually in retired places, making their nefts externally with coarfe falks, internally with bents and fibres, with plaifter at the bottom. They lay five or fix eggs, of a pale plue color, thinly fpotted and ft-iped with black. After the breeding-feafon, they return. with their young from their moft diftant quarters, in flights continuing for miles in length, blackening the very fky , in order to make their depredations on the ripening maize. It is unfortunate that they increafe in proportion as the country is more cultivated; following the maize, in places they were before unknown, wherefoever that grain is introduced.
They migrate from the northern colonies at approach of winter; but continue in Carolina the whole year, feeding about the barndoor. Their flefh is rank, and unpalatable ; and is only the food of birds of prey. The fmall Hawks dafh among the flocks, and catch them in the air.

They are alfo found in Mexico, and in the ifland of Famaica. They are fometimes eaten; but their flefh is hard, rank, and of bad nourifhment.

Gracula Barrita, Lin. Syjf. 165.-LatBam, i. 460 .
Le Troupiale Noir, Ieterus Niger, Brifon, ii. 105.-De Buffon, iii. 220.-Pl: Enl. 534 .
Monedula tota nigra, Sloane, 299.-Raii Syn. Av. 185.-Lev. Mus.
G. With the bill an inch and a half long, fharp, and black: plumage black, gloffed with purple: tail cuneiform, expanded when walking; in flight, or on the perch, folded, fo as
to form an oblong cavity in its upper part. Length about thirteen inches.
Place. Inhabits not only the greater Antilles, but the warmer parts of North America; conforting with the Purple Grakles, and Redwinged Orioles. Feeds on maize and infects; in the inands on Bananas.

IX. C U C K O O. Gen, Birds XIX.

Cuckoo of Carolina, Catefy, i. 9.-Lawfon, 143.
155. Carolina.

Le Coucou de la Caroline, Brifon, iv. 112.
Cuculus Americanus, Lin, Syff. 170.-Latbam, i. 537 .-Lev. Mus.-BL. Mus.

C.With the upper mandible of the bill black, the lower yellow : head, and whole upper part of the body, and coverts of the wings, cinereous; under fide entirely white: primaries brown on their exterior, orange on their interior fides : tail long; two middle feathers entirely cinereous, the others tipt with white : legs dufky. Length twelve inches.

Inhabits Nortb America. Arrives in New York in May. Makes its neft in fune, ufually in apple-trees; and lays four eggs, of a bluinh white color. The neft is made of fmall fticks and roots, and refembles greatly that of the Englijb Jay; but is fmaller. It retires from Nortb America in autumn.

This bird, as well as all the foreign Cuckoos, have only the generical character of the well-known European fpecies. They differ in their œconomy, nor have the opprobrious notes of that bird.
A. Europeah

A. European Cuckoo, Br. Zool. i. No 82. tab. xxxvi. fem.-Latbam, i. 509 : Cuculus Canorus, Gjok, Faun. Suec. No 96. Le Coucou, De Buffon, vi. 305.-Lev. Mus.

C.With dove-colored head, hind part of the neck, back, rump, and coverts: throat, and under fide of the neck, of a pale grey: breaft and belly white, barred with black: primaries dufky; inner webs marked with white oval fpots: tail cuneiform; middle feathers black, tipped with white ; the ref marked with white fpots on each web.-Female. Neck of a brownifh red: tail barred with ruft-color and black, and fpotted with white.
Inhabits all parts of Europe, as high as Saltens Fogderie, in Nor-way *, within the Arctic circle; and even at Loppen, in Finmark $\dagger$. It is found equally high in Afa; and extends as far eaft as Kamtfobatka. In all places it retains its fingular note, and its more fingular nature of laying its eggs in the nefts of fmall birds, and totally deferting them $\ddagger$. Of the above circumftance I beg leave to add a proof, which fell under my own notice in Yune 1778 ; when I faw a young Cuckoo, almoft full grown (when I firf difcovered it) in the neft of a white Wagtail, beneath fome logs in a field adjacent to my houfe. The Wagtail was as folicitous to feed it, as if it had been its own offspring; for, many days after the Cuckoo

[^96]$\mathrm{fled}_{2}$
W R Y N E C K.
fled, it was feen often perched on the adjacent walls, ftill attended and fed by the Wagtail.
It arrives in the northern and eaftern parts of $A f a$, about the tenth of Fune.

W R Y N E C K. Gen. Birds XX.

B. Wryneck, Br. Zool. i. No 83.-Latham, i. 548.

Jynx Torquilla Gjoktyta, Faun. Suec. № 97.
Le Torcol, De Buffon, vii. 84.-Pl. Enl. 698.-Lev. Mus.
W. With a black and colored lift dividing lengthways the crown and back : upper part of the body elegantly pencilled with grey, black, white, and ferruginous: tail confifts of ten. feathers, grey, fpeckled with black, and marked equidiftant with four broad black bars.
Extends over all Ruflia and Sibiria, and even to Kamtycbatka. Found in Sweden, and as high as Drontheim, in Norway; and probably migrates as far as the Cuckoo. The Swedes call this bird Gjoktyta, or the bird which explains the Cuckoo: probably for the fame reafon as the Welfa and Englijh flyle it the Cuckoo's Man, as it. feems its attendant, and to point out its arrival.
Voz. I.
S f
X. W O O D-

X. W OODPECKER. Gen. Birds XXI.

Quatotomomi, Fernand. Mex. 50.-Wil. Orn. 390.
Ipecu, Marcgrave, 207.-Wil. Orn. 138.-Raii Syn. 2uad. 43.-Latbam, ii. 553. Picus principalis, Lin. Syf. 173 .
Largeft White-bill Woodpecker, Catefoy, i. 16.-Lawfon, 142.-Barrere Fr. Equin. 143.-Kaln, ii. 85. Grand Pic noir à bec blanc, De Buffon, vii. 46.-Pl. Enl. 690.
W. With a bill of ivory whitenefs; great ftrength; three - inches long: irides yellow : a conic creft, of a rich fcarlet color, on the hind part of the head: head, throat, neck, breaft, and belly, black: beneath each eye is a narrow ftripe of white, crooked at its beginning, running afterwards ftrait down the fides of the neck: upper part of the back, primary feathers, and coverts of the wings, black; lower part of the back, and the fecondaries, white: tail black.

This is a gigantic fpecies, weighing twenty ounces; and in bulk equal to a Crow.

Inhabits the country from New Ferjey to the Brafils. Is in Nortb America a fcarce bird; in South America more common. It breeds in the kingdom of Mexico in the rainy feafon; for which reafon Nieremberg ftyles it Picus Imbrifatus*. The Spaniards call them Carpenteros, Carpenters, on account of the multitude of chips which they hew out of the trees, either in forming their nefts, or in fearch of food, infects, and worms, which lurk beneath the bark. They are very deftructive to trees; for they have been known to cut out a


## PILEATED WOODPECKER.

meafure of chips in an hour's time *. Inftinct directs them to form their holes in a winding form, in order the better to protect their nefts from the injury of the weather $\dagger$.

Canada is deftitute of thefe birds. The Indians of that fevere climate purchafe the bills from the favages of the more fouthern parts, at the rate of two or three Buck fkins apiece, in order to form the coronets $\ddagger$ of their fachems and warriors. Thefe coronets were made with feveral materials. Gay plumes formed the rays; the beaks of birds, claws of rare animals, and the little horns of their Roes, were the other ornaments. They were never worn but on high folemnities ; either when a warrior fung the fong of war, or was fetting forward on his march to meet the enemy. He went forth like a Spartan hero, dancing, and crowned \|.

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Larger Red-crefted Woodpecker, Catefby, i. 17.
Le Pic noir hupe de Virginie, Brifon, iv. 29.
Picus Pileatus, Lin. Syf. 173.-Latbam, i. 554.
Le Pic noir à huppe rouge, De Bufon, vii. 48.-Pl. Enl. 718.-Lev. Mus.-
    Bl. Mus.
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W. With a bill two inches long, of a dufky color on the upper, and whitifh on the lower mandible : irides of a gold-color: a tuft of light brown feathers refected over the noftrils: the crown adorned with a rich fcarlet creft, bounded by a narrow buff-colored line; beneath that is a broad band of black, reaching from the eyes to the hind part of the head; under this is another line of buff-color, commencing at the bill, and dropping down on each fide of the neck to the pinions of the wings : from the lower man-

[^97]dible

GOLDEN-WINGWOODPECKER.

Place.
58. Golden= WING.

Golden-winged Woodpecker, Catefoy, i. 18.
Le Pic Rayè de Canada, Brifon, iv. 70.
Picus Auratus, Lin. Syff. 174.-Latbam, i. 597.
Le Pic aux ailes dorees, De Buffon, vii. 39.-Pl. Enl. 693.-Lev. Mus.-BL. Mus.
W. With a black bill, bending like that of a Cuckoo: crown cinereous; on the hind part a fcarlet fpot: cheeks and under fide of the neck of a pale red: from each corner of the mouth a black line extends along the cheeks : the upper part of the breaft is marked with a black crefcent; the remainder and the belly whitifh fpotted with black: back and coverts of wings of a fine pale brown, barred with black: the primaries cinereous; their Thafts of a moft elegant gold-color; the under fide of the webs of a

* Kalm.

gloffy yellow : rump white, fpotted with black : tail black, edged with white ; the fhafts of all the feathers gold-colored, except thofe of the two middle feathers: legs dufky. Length twelve inches. Weight five ounces. The Female wants the black on each fide of the throat.

Inhabits from Hudjon's Bay to Carolina, and again on the weftern fide of North America. In the firft is migratory, appearing in April, and leaving the country in September. All the American Woodpeckers agree with thofe of Europe in building in hollow trees, and in laying fix white eggs. The natives of Hudfon's Bay call this fpecies, Ou-thee-quan-nor-ow, from the golden color of the fhafts and under fide of the wing feathers *.

The Swedifh Americans call it Hittock, and Piut $\dagger$; words formed from its notes. It is almoft continually on the ground; and never picks its food out of the fides of trees, like others of the genus: neither does it climb, but fits perched like the Cuckoo ; to which it has fome refemblance in manners, as well as form. It feeds on infects. Grows very fat, and is reckoned very palatable. It inhabits the Ferfies, and other provinces to the fouth, the whole year.

Latban, i. 592.
Le Pic Mordorè, De Buffon, vii. 34--Pl. Enl. 524,

W.With a dunky bill: the crown and pendent creft of a pale yellow : a crimfon bar extends from the mouth along the lower part of the cheek : the cheeks, back, and coverts of the wings, of a deep ferruginous color: lower part of the back of a pale yellow : primaries ferruginous, barred on their inner webs with black. Size of the Green Woodpecker.

[^98]159. FerrugiNOUS.

## RED-HEADED WOODPECKER.

This new fpecies was fent to me by Dr. Garden, of Cbarleforon, Soutb Carolina.

Red-headed Woodpecker, Cate/by, i. 20.-Lawwon, 3d f. 143.-Du Pratz, 92.Latham, i. $5^{61}$.
Picus Erythrocephalus, Lin. Syft. 174 .
Le Pic a tefte rouge, de la Virginie, Brifon, iv. 53-PPl. Enl. 117.
Le Pic noir a domino rouge, De Bufoon, vii. 55.-Pl. Enl. 117.-Lev. Mus.Bl. Mus.
W. With a lead-colored bill: head and neck of the moft deep and rich fcarlet: back, coverts of wings, primaries, and tail, of a gloffy blacknefs : the fecondaries white, marked with two black bars: breaft and belly white: legs black. The head of the Female is brown. Length nine inches and a half. Weight two ounces.

Inhabits Penfylvania, and the neighboring provinces. Feeds on maize and apples ; and is a moft deftructive fpecies. They pick out all the pulp, and leave nothing but the mere rind. They feed alfo on acorns. They were formerly profcribed; a reward of two pence was put on their heads: but the law was repealed. They migrate fouthward at approach of winter. When they are obferved to linger in numbers in the woods, in the beginning of winter, the inhabitants reckon it a fign of a mild feafon *.

This fpecies extends acrofs the continent to the weftern coaft of America.

[^99]Red-bellied Woodpecker, Cate/by, i. 19.
Picus Carolinus, Lin. Syft. 174.-Latham, i. 570.
Le Pic varié de la Jamaique, Brifon, iv. 59.-De Bufon, vii. 72.
Woodpecker of Jamaica, Edw. 244.-BL. Mus.
W.

With the forehead, crown, and hind part of the head, of an orange red; under fide of a light afh-color, tinged with yellow: the vent fpotted with black: the back and wings clofely barred with black and white: middle feathers of the tail black, the outmoft barred with black and white. The crown of the female is light grey: hind part of the head red. Length eleven inches. Weight two ounces eleven penny-weights.
Inhabits Nortb America, and the greater Antilles.

> Great Spotted Woodpecker ? Br. Zool. i. No 85.-Lathann, i. 564 .
> Le Pic varie, Brijon, iv. 34 - De Buffon, vii. 57 - Pl. Enl. 1966.595 . Picus Major, Faun. Suec. No 100.-Lev. Mus.-BL. Mus.

W.
With buff forehead; black crown, bounded behind with a crimfon band: vent feathers crimfon: back black: fcapulars white: wings and tail barred with black and white: breaft and belly white, tinged with yellow. Length nine inches. Extent fixteen. Weight two ounces three quarters. Female wants the crimfon marks.

Sent to Mrs. Blackburn from New York. Inhabits Europe, as high as Lapmark. Extends to the moft eaftern part of Sibiria.
161. Carolina.

Place.
162. Spotted.

Place.

Place.
164. Hatrx.

L' Epeiche de Canada, De Bufoon, vii. 69.-Pl. Enl. 347.-Brifon, iv, 45.
W. With white forehead, throat, breaft, and belly: crown black; beneath is a band of white, encircling the head; from each eye another of black, uniting behind, and running down the hind part of the neck; each fide of this bounded by white; that again bounded by black, commencing at the bafe of the bill, and uniting with the fcapulars: the back black; fcapulars of the fame color, mixed with a few white feathers: wings fpotted with black and white: middle feathers of the tail black; the outmoft black and white. Size of the laft.

Inhabits Canada.

Hairy Woodpecker, Catefy, i. 19.-Latham, i. 572.
Picus Villofus, Lin. Syff. 175.
Le Pic varié de la Virginie, BriJon, iv. 48 .
L'Epeiche ou Pic Chevelù de Virginie, De Bufôn, vii. 75.-Lev. Mus.-BL. Mus.
W. With the crown black : the hind part of the head marked with a crimfon fpot; the cheeks with two lines of white and two of black: whole under fide of the body white: back black, divided in the middle lengthways with a line of white unconnected feathers, refembling hairs: the wings black, fpotted in rows with white: two middle feathers of the tail black; the two outmoft entirely white ; the reft black, marked croffways with white. The female wants the red fpot on the head. Length nine inches. Weight two ounces.

Inhabits

## DOWNY WOODPECKER.

Inhabits from Hudfon's Bay* to Carolina. In the laft very de- Place, ftructive to apple-trees.

Smalleft Spotted Woodpecker, Cate/by, i. 21.
Picus Pubefcens, Lin. Syf. 175.-Latham, i. 573
Le Petit Pic varié de la Virginie, Brifon, iv. 50 ,
Fourth Woodpecker, Lawfon, 143 .
L'Epeiche ou Petit Pic varie de Virginie, De Bufon, vii. 76,-Lev. Mus. BL. Mus.
W. Of the fize of a Sparrow. In all refpects refembles the laft, except in fize ; and in having the outmoft feather of the tail marked with a fingle white bar.
Inhabits Penfylvania and Carolina, and is very numerous. It is alfo found, but more rarely, near Albany fort, in Hudjon's Bay. The Woodpecker tribe is the moft pernicious of all the birds of America, except the Purple Grakle; but this little fpecies is the moft deftructive of its whole genus, becaufe it is the moft daring. It is the peft of the orchards, alighting on the apple-trees, running round the boughs or bodies, and picking round them a circle of equiditant holes. It is very common to fee trees encircled with numbers of thefe rings, at fcarcely an inch's diftance from each other; fo that the tree dries and perifhes.

- Pbil. Tranf. Ixii. 388.

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T
165. Doway.

Place.

YELLOW-BELLIED, \&c. WOODPECKER

Yellow-bellied Woodpecker, Catefby, i. 21.
Picus Varius, Lin. Syft. 176.—Latham, i. 574. Le Pic Varie, Brifon, iv. 62.
Le Pic Variè de Carolina, De Buffon, vii, 77.-Lev. Mus.-BL. Mus.
W. With a crimfon crown, furrounded by a line of black: cheeks white, with two lines of black: chin crimfon: breaft and belly light yellow; the firft fpotted with black: coverts black, croffed by two bars of white: primaries fpotted with black and white : tail black; interior webs of the two middle feathers barred with white; the two outmoft feathers edged with the fame color. The Female wants the red on the crown. Length nine inches. Weight one ounce thirteen pennyweights.

Inhabits the fame country with the former. Is very numerous, and very deftructive to the fruits.
167. YeLLOWLEGGED.

THIS is inferted on the fufpicious authority of Albin *. He fays, that it is of the fize of the Little Englijh Spotted Wood- pecker; that the hind part of the head is black; the ridges of the wings, and the lower part of the belly, white; the reft of the plumage, and the tail, black; the legs yellow.

[^100]

Three-toed Woodpecker, Edw. 114.-Pbil.Tranf. 1xii. 388.-Latham, i.600. 601. Picus Tridactylus, Lin. Syf. 177.-Faun. Suec, No 103.
Le Pic variè de la Cayenne, Brifor, iv. $55-$ Lev. Mus.
W. With black feathers reflected over the noftrils : crown of a bright gold color: irides blue : cheeks marked lengthways with three black and two white lines: hind part of the neck and back black; the laft fpotted on the upper part with white: coverts of the wings black; primaries black, fpotted with white: all the under fide of the body white; the fides barred with black: the middle feathers of the tail black; the outmoft fpotted with white: legs dufky : toes, two before, only one behind; which forms the character of this fpecies. Lenath eight inches. Extent thirteen. Weight two ounces.
Inhabits Hudjon's Bay, and Norton Sound, lat. 64. Is frequent in Sibiria, and common as far as Mofoow, in the alps of Dalecarlia in Sweden, and in thofe of Switzerland *.

* M. Sprunglin's collection at Stettlin, near Bern, who told me it was common among the Alps.

168. Three-

TOED.

Place.
$T \in 2$
A. BLACK

A. Black W. Picus Martius, Lin. Syf. 173.

Spillkraka, Tillkraka, Faun. Surc. No 93.-De Bufon, vii. 41.-Wil. Orn. 135Latham, i. 552.-Lev. Mus.

W.With the crown of the head of a rich crimfon: the reft of the plumage of a full black : the head of the female marked with red only behind. Length eighteen inches. Extent twentynine. Weight near eleven ounces.

Inhabits the forefts of Germany, Switzerland, and the north, from Peterbourg to Ocbotk, on the eaftern ocean, eaftward, and to Lapmark weftward. It migrates to Woronefch, about the third of March, and continues coming in greateft numbers in April. Is called there The Fufilier; and is the moft cunning, and difficult to be fhot, of all the tribe.
Manners. It does vaft damage to trees, by making holes of a great depth in the bodies to neftle in. A bufhel of duft and chips, a proof of its labors, are often found at the foot of the tree. Makes as much noife in the operation, as a woodman does with an axe. Rattles with its bill againft the fides of the orifice, till the woods refound. Its note very loud. Lays two or three white femi-tranfparent eggs. Feeds on caterpillars and infects, efpecially Ants.
B. Grein,

B. Green, Br. Zool. i. No 84.-Latbam, i. 577 .

Picus Viridis, Wedknar, Gronfpik, Grongjoling, Faun. Suec. N ${ }^{\circ} 99 .-D e$ Buffon, vii. 7.-Lev. Mus,

With crimfon crown : green body; lighteft below. Length thirteen inches.
Inhabits Europe, as high north as Lapmark, where it is called Zbiaine*. Is found in Rufia; but difappears towards Sibiria. It inhabits the wooden fteeples of Sweden, as well as trees.
C. Grey-headed, Edw. 65 .-Latham, i. 583 .
W. With a grey head, and neck of a bluifh grey: noftrils covered with harfh black feathers, extending in a line to the eyes: a black line, beginning at the bafe of the lower mandible, points beneath the cheeks towards the hind part of the neck: under fide of the body of the color of the head, dafhed with green: all other parts fo exactly like the laft, that I fhould fuppofe it to have been a variety, had not my very fcientific friend, Pallas, affured me that it was a diftinet fpecies, and inferior in fize to the common Green.
It is found in Norway, and among the alps of Switzerland $\dagger$; and common in the north of Rufia, and ftill more in Sibiria. The Tunguff, of Nijmaia Tungoufka, roaft this fpecies, bruife the flefh, and mix it with any greafe, except that of the Bear, which diffolves

[^101]Place.

Place.

MIDDLE, AND LEST SPOTTED WOODPECKER.
too readily. They anoint their arrows with it, and pretend, that the animals, which are ftruck with them, inftantly fall *.
D. Middle Spotted W. Br. Zool. i. No 86.-Latham, i. 565. Picus Medius, Faun. Suec. No 101.-Brifon, iv. 38.
W. With a crimfon crown and vent: in all other refpects like the Great Spotted, $\mathrm{N}^{\circ} 162$, except in fize, being rather lefs.
E. Lest Spotted W. Br. Zool. i. No 87.

Picus Minor, Faun. Suec. No 102.
Le Petit Epeiche, De Buffon, vii. 62.-Pl. Enl. 598.-Brifon, iv. 41.-Lev. Mus.
W. With a crimfon crown : the reft of the head, breaft, and belly, like thofe of the former : back barred with black and white: the white on the wings diffufed in broad beds. Weight under an ounce. Lengte fix inches. Extent eleven.
Place. The Middle only is found in Rufia. This, and the Great Sported, extend to the eaftmoft parts of Sibiria; but all three are found as high as Lapmark $\dagger$, the extremity of northern Europe, far within the polar circle; a country which is one vaft foreft of pines, firs, and birch $\ddagger$. Innumerable infects, or their larve, lurk in all feafons in the bark of the trees; fo that this tribe of birds is never compelled, for want of food, to fhun even the moft rigorouis winters of that fevere climate. It alfo bears the heats of the torrid zone; for I difcovered it among the drawings in the collection of Governor Loten, made in the inand of Ceylon.
*Gmelin. Voy. Sibirie, ii. 113.

+ Leems, 292.
\# Flora Lapp. Proleg. 23.


## XI. K I N G FISHER. Gen. Birds XXIII.

Kingifiner, Catefyy, i. 69. American Kingfifher, Edw. 115 .<br>Le Martin pefcheur hupè de la Caroline, Brijon, iv. 512. \& de St. Donningue, 515.<br>Alcedo Alcyon, Lirn. Syff. 180.-Latham, i. 637.<br>Le Jaguacati, De Buffon, vii., 210.-Lev. Mus.

K.With a black bill, two inches and a half long: head crefted - with long bluifh grey feathers: above the upper mandible of the bill, on each fide, is a white fpot; beneath each eye is another : chin and throat white: the upper part of the breaft croffed by a broad grey belt; the lower part, and belly, white: the fides of a vermilion color; in fome croffing the breaft: upper part of the neck, the back, and coverts of the wings, of a pleafant bluifh grey: the fecondaries of the fame color; their ends, and thofe of the lower order of coverts, tipt with white : primaries black, barred with white: tail grey; the two middle feathers plain; the reft barred with white: the legs orange. Length thirteen inches. Weight three ounces and a half.

Inhabits Hudjon's Bay, Norton Sound, and other parts of Nortb America. The Acbalalacti, i. e. the Devourer of fifh, of the Mexicans *, feems to be the fame bird. It has the fame cry, manners, and folitary difpofition, with the European fpecies; and feeds not only on fifh, but Lizards. It makes its neft in the face of high

* Feraandez, Nov. Hi/p. 13.

169. Belted.

## Place.

banks, penetrating deep into them in an horizontal direction. Lays four white eggs, which difcharge the young in Fune. It migrates in Mexico; is there eaten, but is obferved to have the fame ranknefs as other pifcivorous birds.

A. European Kingfisher, Br. Zool. i. No 88.-Latham, i. 626. Le Martin-Pecheur, Buffon, vii. 164.-Pl. Enl. 77. Alcedo Ifpida, Lin. Syy. I 79.-Lev. Mus.
$\mathbf{K}$. With the crown, and coverts of the wings, of a deep green, fpotted with cærulean: fcapulars and back bright cærulean: tail rich deep blue: breaft and belly orange red.

Said by Du Pratz to be found in Nortb America; but, as I never faw it in any collection, doubt the fact. Inhabits the temperate parts of Rufia and Sibiria, and is frequent about the Fenefei, but not farther eaft. It does not extend to Sweden, and it even feems a rarity in Denmark *.

The Tartars and Ofiaks ufe the feathers of this bird as a lovecharm. They fling them on water, and preferve thofe which fwim; believing, that the woman, whom they touch with one of thefe feathers, will immediately become enamoured with them. The Oftiaks preferve the bill, feet, and fkin, in a purfe, and imagine them to be prefervatives againft all forts of misfortunes $\dagger$.

[^102]
## EUROPEAN KINGFISHER.

The moft fingular northern philtre, is a fort of mufhroom, worn by the youth of Lapland in a purfe, ante pubem pendulo. Linn/eus's apoftrophe is very diverting.
"O ridicula Venus, tibi, quæ in exteris regionibus uteris caffea et cloco-
" lata, conditis et faccharatis, vinis et bellariis, gemmis et margaritis, auro
" et argento, ferico et cofmetico, faltationibus et conventiculis, mufica et
"comoediis, tibi fufficit hic folus exfuccus fungus." Flora Lappon. 368.
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U u
XII. N U T-

## XII. N U T HA T C H. Gen. Birds XXIV.

170. Canada.

Place.
171. BlackHEADED.

Nuthatch, Br. Zool. i. No 89 ? - Latham, i. 648.651. Le Torchepot de Canada, Brifon, iii. 592. Sitta Europea Notwacka, Faun. Suec. No 104. La Sittelle, De Bufon, v. 460.-Lev. Mus.

N.With the crown, hind part of the neck, and fhoulders, - black: back and rump of a light blue grey: over each eye a white line: cheeks white: primaries dufky, edged with grey: breaft and belly of a pure white: two middle feathers of the tail grey; the others black, with a white fpot at the end: vent ruftcolored. Size of the European; of which it feems a mere variety.

Inhabits Canada, and as far fouth as New York; and extends to the weftern fide of America, Kamtfcbatka*, Sibiria, and Rufia; Sweden, and Sondmor $\dagger$ in Norway: and does not migrate.

Nuthatch, Cateßby, i. 22, lower figure.-Latham, i. 650. B.
Le Torchepot de la Caroline, Brifon, iii. 22.
N. With the bill, head, and hind part of the neck, black : over each eye is a white line : back of a fine grey: wings dufky, edged with grey: breaft and belly, and vent feathers, red: two middle feathers of the tail grey; the reft black, marked with a white fpot. Lefs than the European.

Inhabits the temperate parts of America.

[^103]Small Nuthatch, Cate/by, i. 22.-Brifon, iii. 958.-Latham, i. 65 1. C.
La Petite Sittelle à tête Brune, De Bufon, v, 474.
N. With a brown head, marked behind with a white fpot: back grey: wings of a deep brown: under fide of the body of a dirty white: two middle feathers of the tail grey; the others black.
Inhabits Carolina, and other parts of North America.
172. Lest.

Place。

## XIII. T O D Y. Gen. Birds XXV.

173. Duskyo

Todi Sp. quarta, Pallas Spicil. vi. 17.-Latbam, ii. 661, $\mathrm{N}^{\circ} 9 .-$ Br. Mus.

TWith a bill half an inch long, broad at the bafe, flightly indented above the noftrils, and a little bent near the point; bafe befet with briftles; upper mandible brown, lower white : colors above dufky; below yellowifh white: primaries and tail of the fame color with the back, edged with dirty white: legs dark. Size of a Hedge Sparrow.
Place. Inhabits Rbode Ifand. Has the actions of a Flycatcher. Frequents decayed trees, and feeds on infects. Has a brief agreeable note, which it repeats twice or thrice. -Br . Mus.


H O O P O E. Gen. Birds XXVII.
A. Hoopoe, Br. Zool. i. ${ }^{\circ}$ go.-Latham, i. 687.-De Buffon, vi. 439. Upupa Epops, Harfogel, Popp, Faun. Suec. No ro5.-Lev. Mus.
H. With a high creft, of pale orange tipt with black : back and wings barred with black and white: neck reddifh brown: breaft and belly white : only ten feathers in the tail; black, with a white
white crefcent* acrofs the middle: legs black. Length twelve inches.

Inhabits Europe, as far as Sweden, where it is called Harfogel, or Place. Soldier-bird, not only on account of its plumed head, but becaufe the common people believe its appearance to be an omen of war.

The Hoopoe is called the Harfogel, or Soldier-bird, not from its creft but its note, uttering, as it runs on the ground, the note $O p p$, $o p p, o p p$, thrice repeating it, then haftens moft fwiftly to another fpot, and repeats the fame. $O_{p p}$, in the $S$ weedijb language, fignifies the fame as To Arms! hence this bird has been ftyled the omen of war. The Norwegians ftyle it Erfugl; it is therefore likely that it may fometimes vifit their country. It is properly a fouthern bird, and extends even to Egypt and India. Is common in the fouthern deferts of Rufia and Tartary; grows fcarcer beyond the Ob ; yet fome are feen beyond lake Baikal. Dr. Pallas confirms to me its filthy manners $\dagger$. He affures, that it breeds, in preference, in putrid carcafes; and that he had feen the neft of one in the privy of an uninhabited houfe, in the fuburbs of $\tau$ zaritfyn. Lays from two to feven cinereous eggs. Ufually has no neft of its own. Breeds fometimes in hollow trees, holes in walls, or on the ground. Migratory.

* Correct the defcription of this part in the Britijh Zoology.
+ See Br. Zool, i, 258.-Is rarely feen in Britain.

XIV. CREEPER.

XIV. C R E E P ER. Gen. Birds XXVIII.

$$
\begin{array}{ll}
\text { 174. European. } & \text { Br. Zool. i. No gr.-Cateßy, App. xxxvi. } \\
\text { Certhiu Familiaris Krypare, Faun. Suec. No 106.-Latbam, i. } 701 . \\
& \text { Le Grimpereau, De Bufon, v. 481.-Lev. Mus. }
\end{array}
$$

C.With head and neck brown, ftreaked with black: rump tawny : coverts of wings varied with brown and black : primaries dufky, edged with white, and edged and barred with ferruginous marks: breaft and belly filvery : tail very long, confifting of twelve fharp-pointed feathers of a tawny hue.

Inhabits North America. Is found, but very rarely, in Rufia and Sibiria. Found in Sweden, and never quits the country; and extends as far north as Sondmor *.

Bahama Titmoufe, Catefby, i. 59. Yellow-bellied Creeper, Edw. 362 . Certhia Flaveola, Lin. Syf. 187.-Latbam, i. 737.
Le Grimpereau de Martinique, ou le Sucrier, Brifon, iii. 6ı1. Le Sucrier, De Buffon, v. 542.
C. With a dufky bill, head, and back: cheeks black: above each eye is a yellow line: rump yellow: wings dufky; the primaries croffed with a bar of white: neck, breaft, and belly, yellow: tail black; the exterior feathers tipt with white.

The female hath the fame marks, but the colors are more obfcure.

$$
\text { * Strom, } 244
$$

Inhabits

Inhabits the Babama Iflands, and the Antilles; in the laft it lives among the fugar-canes, and fucks the fweet juice which exudes from them *.

L'Oifeau pourpre à bec de grimpereau, De Buffon, v. 526.-Latham, ii. 723.
C. Wholly of a purple color. Length four inches and a half. According to Seba, it inhabits Virginia; and is faid to fing well.

Place 175. A.
PURPLE Cremper.

XV. HONEYSUCKER. Gen. Birds XXIX*.

Paffer Mufcatus, Gefner, Av. $655^{-}$ Ouriffia five Tomineio, Cluf. Exot. 96.<br>Guainumbi Prima, (foem.) Marcgrave, 196.<br>Colibry, Viamelin, or Rifing Bird, Fofelyn's Voy. 100.-Rarities, 6.-Lev. Mus. Trochilus Colubris, Lin. Syf. 191.-Latham, i. 769. L'Oyfeau Mouche a rouge gorge, Brifon, iii. 716.<br>Humming Bird, Cate/by, i. 65.-Larwfon, 146.-Edw. 38.<br>Le Rubis, De Bufon, vi. 13.

H.With a black bill, three quarters of an inch long: crown, upper part of the neck, back, and coverts of the wings, of a moft refplendent variable green and gold : chin and throat of a fhining rich fcarlet, changing, as oppofed to the light, from gold to a full black; thefe feathers lie nearly as compactly as fcales: breaft and belly white; the fides green: middle feathers of the tail green; the exterior purple.

The chin, throat, and whole under fide, of the female, is white: the exterior feathers of the tail tipt with white.

This bird, fo admirable for its minutenefs, vaft fwiftnefs of flight, food, and elegance of form and colors, gave rife to numbers of romantic tales. They were not the Europeans alone, who were ftruck with its great beauty; the natives of America, to whom it was fo familiar, were affected with its gemmeous appearance, and beftowed on it titles expreffive of its refplendent colors. Some nations called

* This genus may be divided into thofe with ftrait and thofe with incurvated bills; but, there being none of the laft in North America, the diftinction is omitted.



## RED-THROATED HONEYSUCKER.

it: Ourifia, and Guaracyaba, or the Sun-beam; others, Guaraeygaba, or Hairs of the Sun ; others again named it Huitzitzil, or Vicililin, or the Regenerated; becaufe they believed it died annually, and was re-animated at the return of the flowers it fed on : that it fluck its bill into the trunk of a tree, and remained lifelefs for fix months; when the vital powers re-migrated, and reftored to nature one of its moft brilliant wonders.

It flies with a fwiftnefs which the eye is incapable of following. The motion of the wings is fo rapid as to be imperceptible to the niceft obferver. Lightning is fcarcely more tranfient than its flight, nor the glare more bright than its colors. It never feeds but upon wing, fufpended over the flower it extracts nourifhment from; for its only food is the honied juice lodged in the nectarium, which it fucks through the tubes of its curious tongue. Like the Bee, having exhaufted the honey of one flower, it wanders to the next, in fearch of new fweets. It admires moft thofe flowers which have the deepert tubes. Thus the female Balfamine, and the Scarlet Moniarda, are particular favorites. Whofoever fets thofe plants before the window is fure to be vifited by multitudes of thefe diminutive birds. It is a moft entertaining fight to fee them fwarming around the flowers, and trying every tube of verticillated plants, by putting their bills into every one which encircles the ftalk. If they find that their brethren have been beforehand, and robbed the flower of the honey, they will, in rage, pluck off, and throw it on the ground.

The moft violent paffions animate at times their little bodies. They have often dreadful contefts, when numbers happen to difpute poffeffion of the fame flower. They will tilt againft one another with fuch fury, as if they meant to transfix their antagonifts with their long bills. During the fight, they frequently purfue the conquered into the apartments of thofe houfes whofe windows are left Vol. I.

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\mathrm{Xx}
$$

open,

Food.

## Rage.

open, take a turn round the room, as Flies do in England, and then fuddenly regain the open air. They are fearlefs of mankind; and in feeding will fuffer people to come within two yards of them; but on a nearer approach, dart away with admirable fwiftnefs.

Fernandez Oriedo, an author of great repute, fpeaks from his own knowlege of the fpirited inftinct, even of this diminutive bird, in defence of its young: "So that when they fee a man clime $y^{\circ}$ tree " where they have their nefts, they flee at his face, and ftryke hym " in the eyes, commyng, goying, and returnyng, with fuch fwyft" nefs, that no man woulde lyghtly beleeve it, that hath not feene " it *,"
Father Cbarlevoix gives a more apocryphal inftance of the courage of this bird, in its attack on its difproportioned enemy the Raven. As foon as the laft appears, the Honeyfucker flies up like lightning, beds itfelf beneath the Raven's wing, and, piercing him with his needle-like bill, till the bird is heard to croak with agony, at length tumbles to the ground dead, either from the fall or the wound. This relation feems of a piece with the combat of the Wren with the Eagle, mentioned by Arifotle $\dagger$ : but, to do juftice both to the Frencb voyager and Grecian philofopher, I muft add, that each of them delivered their reports from oral evidence.

Many fables have been related of the melody of the fong of thefe birds. In fact, their only note is Screep, foreep, foreep; but the noife which they make with their wings, efpecially in the morning, when numbers are in motion, is a fort of buzz or found refembling that of a fpinning-wheel. Their note is chiefly emitted when they happen to ftrike againft each other in their flight.
Nests. Their nefts are found with great difficulty, being built in the

[^104]branch of a tree, amidft the thick foliage. It is of elegance fuitable to the architects; formed on the outfide with mofs; in the infide lined with the down or goffamer collected from the Great Mullein, or Verbafoum T'bapjus; but it is alfo fometimes made of flax, hemp, hair, and other foft materials. It is of an hemifpherical fhape. Its inner diameter an inch : its depth half an inch. The female is faid to be the builder; the male fupplying her with materials. Each affifts in the labor of incubation, which continues during twelve days. They lay only two eggs, white, and as fmall as peafe. The firft is very fingular, and contrary to the general rule of nature; which makes, in all other inftances, the fmalleft and moft defencelefs birds the moft prolific. The reafons of the exception in this cafe are double. The fmallnefs of their bodies caufes them commonly to efcape the eyes of birds of prey; or if feen, their rapid flight eludes purfuit : fo that the fpecies is preferved as fully as if they had been the moft numerous breeders.

The Indians of Mexico, Peru, and Maynas, make moft exquifite pictures of the feathers of birds; but thofe of the Honeyfuckers form the moft brilliant part. Some ufe them as ornaments, and hang them as pendants in their ears, which give a blaze emulous of the Ruby and Emerald. In order to compofe pictures, the Indians draw off the feathers with fmall pincers, and with fine pafte moft artfully join them together. They difpofe them with fuch fkill, as to give the true lights and fhade to the performance, and imitate nature with the greateft fidelity. Thefe were meant to decorate the idols and temples; for, before the depreffion of the $I_{n}$ dian fpirit by the tyranny of the Spaniards, religion was highly cultivated among the Mexicans and Peruvians; and, notwithftanding it was cruel, was attended with great fplendor.

The generical name (in the Brafilian tongue) of thefe birds, is Guianumbi. There are feveral fpecies, but only one which is found
Place. in Nortb America. This kind is found from Conada, through that great continent, as low as Louifana, and from thence to the Brafils.

Migrates.
177. Rupred.

Frmale. It breeds even in the northern climate of Canada; but retires not only from thence, but even from the warm provinces of Carolina, at approach of winter. In Hijpaniola, the mountains of Famaica, and the. Brafils, countries where there are a perpetual fucceffion of flowers, they refide throughout the year.

## Latham, i. 785

H. With long ftrait flender bill : head of a rich variable green and gold : the feathers on the neck long, and difpofed on each fide in form of a ruff, and of a moft brilliant crimfon and copper color: back, and coverts of the tail, ruft-colored: breaft and belly white, the laft dafhed with red: feathers of the tail pointed; the ends brown, bottoms ferruginous : coverts of wings green : primaries deep blue.
Crown, upper part of the neck, back, and coverts of wings and tail, green and gold : throat white, fpotted with brown and variable copper: belly white, dafhed with ruft : primaries deep blue: middle feathers of the tail green; thofe on the fide ferruginous at their bottoms, black in the middle, and tipped with white.
Place, Inhabit in great numbers the neighborhood of Nootka Sound. The Indians brought them to our navigators alive, with a long hair fartened to one of their legs.

ORDER III.

XVI. T U R K E Y. Gen. Birds XXXI.

Turkey, Fojelyn's Voy. 99.-Rarities, 8.-Clayton's Virgin.-Pb. Tr. Abridg. iii. 590.-Larwfon, 149.-Catefby, App. xliv.

Le Coc d'Inde, Belon, 248.
Gallo-pavus, Gefner, Av. $4^{81}$.-Icon. 56.
Gallo-pavo, Aldrov. Av. ii. 18.
Gallo-pavo, the Turkey, A. 3.
Gallo-pavo Sylveftris Nove Anglice, a New England Wild Turkey, Raii Syn. Av. ${ }^{1}$.
Meleagris Gallo-pavo, M. capite caruncula frontali gularique, maris pectore barbato, Lin. Syjt. 268.
Le Dindon, De Bufon, ii. 132.-Brifon, i. 158. tab. xvi.-Pl. Enl. 97.

T.With the characters defcribed in the definition of the genus. Color of the plumage dark, gloffed with variable copper color and green : coverts of the wings, and the quil-feathers, barred with black and white. Tail confifts of two orders; the upper, or

Description. Tail. fhorter, very elegant ; the ground color a bright bay; the middle feathers marked with numerous bars of fhining black and green; the greateft part of the exterior feathers of the fame ground with the others, marked with only three broad bands of mallard green, placed remote from each other; the two next are colored like thofe of the middle; but the end is plain, and croffed with a fingle bar, like the exterior.

The

The longer, or lower order, were of a rufty white color, mottled with black, and croffed with numerous narrow waved lines of the fame color, and near the end with a broad band.

Wild Turkies preferve a famenefs of coloring. The tame, as ufual with domeftic animals, vary. It is needlefs to point out the differences, in fo well-known a bird. The black approach neareft to the original ftock. This variety I have feen nearly in a ftate of nature, in Richmond and other parks. A moft beautiful kind has

White variety.

Size.

Manners. of late been introduced into England, of a fnowy whitenefs, finely contrafting with its red head, and black pectoral tuft. Thefe, I think, came out of Holland, probably bred from an accidental white pair; and from them preferved pure from any dark or variegated birds.

The fizes of the wild Turkies have been differently reprefented. Some writers affert, that there have been inftances of their weighing fixty pounds; but I find none who, fpeaking from their own knowlege, can prove their weight to be above forty. Foffelyn fays, that he has eaten part of a Cock, which, after it was plucked, and the entrails taken out, weighed thirty *. Larefon, whofe authority is unqueftionable, faw half a Turkey ferve eight hungry men for two meals $\dagger$; and fays, that he had feen others, which, he believed, weighed forty pounds. Catefly tells us, that out of the many hundreds which he had handled $\ddagger$, very few exceeded thirty pounds. Each of thefe fpeak of their being double that fize, merely from the reports of others.

The manners of thefe birds are as fingular as their figure. Their attitudes in the feafon of courthip are very friking. The males fling their heads and neck backwards, briftle up their feathers,

[^105]drop their wings to the ground, ftrut and pace moft ridiculoufly; wheel round the females, with their wings ruftling along the earth, at the fame time emitting a ftrange found through their noftrils, not unlike the grurr of a great finning-wheel. On being interrupted, fly into great rages, and change their note into a loud and guttural gobble; and then return to dalliance.

The found of the females is plaintive and melancholy.
The paffions of the males are very ftrongly expreffed by the change of colors in the flefhy fubftance of the head and neck, which alters to red, white, blue, and yellowifh, as they happen to be affected. The fight of any thing red excites their choler greatly.

They are polygamous, one cock ferving or hens. They lay in the fpring; and will lay a great number of eggs. They will perfift in laying for a great while. They retire to fome obfcure place to fit, the cock, through rage at lofs of its mate, being very apt to break the eggs. The females are very affectionate to the young, and make great moan on the lofs of them. They fit on their eggs with fuch perfeverance, that, if they are not taken away when addle, the hens will almoft perifh with hunger before they will quit the neft.

Turkies greatly delight in the feeds of nettles; but thofe of the purple Fox-glove prove fatal to them *.

They are very ftupid birds; quarrelfome, and cowardly. It is diverting to fee a whole flock attack the common Cock; who will for a long time keep a great number at bay.

They are very fwift runners, in the tame as well as the wild ftate. They are but indifferent flyers. They love to perch on trees; and gain the height they wifh, by rifing from bough to bough. In a wild ftate, they get to the very fummit of the loftieft trees, even fo high as to be beyond the reach of the mufquet $t$.

$$
\text { De Bufon. } \quad+\text { Larwfon, 45 }
$$

Gregarious.

Haunts.

In the ftate of rature they go in flocks even of five hundred *. Feed much on the fmall red acorns; and grow fo fat in March, that they cannot fly more than three or four hundred yards, and are then foon run down by a horfeman. In the unfrequented parts bordering on the $M i f j / i p i$, they are fo tame as to be fhot with even a piftol $\dagger$.

They frequent the great fwamps $\ddagger$ of their native country; and leave them at fun-rifing to repair to the dry woods, in fearch of acorns, and various berries; and before fun-fet retire to the fwamps to rooft.
The flefh of the wild Turkey is faid to be fuperior in goodnefs to the tame, but redder. Eggs of the former have been taken from the neft, and hatched under tame Turkies; the young will ftill prove wild, perch feparate, yet mix and breed together in the feafon. The Indians fometimes ufe the breed produced from the wild, as decoy-birds, to feduce thofe in a ftate of nature within their reach§.

Wild Turkies are now grown moft exceffively rare in the inhabited parts of America, and are only found in numbers in the diftant and moft unfrequented fpots.

The Indians make a moft elegant cloathing of the feathers. They twift the inner webs into a ftrong double thread of hemp, or inner bark of the mulberry-tree, and work it like matting. It appears very rich and gloffy, and as fine as a filk fhag \|. They alfo make fans of the tail; and the French of Louifana were wont to make umbrellas by the junction of four of the tails $\mathbb{T}$.

[^106]
## W I L D T U R K E Y.

When difturbed, they do not take to wing, but run out of fight. It is ufual to chafe them with dogs; when they will fly, and perch on the next tree. They are fo ftupid, or fo infenfible of danger, as not to fly on being fhot at ; but the furvivors remain unmoved at the death of their companions*.

Turkies are natives only of America, or the New World; and of courfe unknown to the antients. Since both thefe pofitions have been denied by fome of the moft eminent naturalifts of the fixteenth century, I beg leave to lay open, in as few words as poffible, the caufe of their error.

Belon $\dagger$, the earlieft of thofe writers who are of opinion that thefe birds were natives of the old world, founds his notion on the defcription of the Guinea Fowl, the Meleagrides of Strabo, Atbenous, Pliny, and others of the antients. I reft the refutation on the excellent account given by Atbenous, taken from Clytus Milefius, a difciple of Arifootle, which can fuit no other than that fowl. "They "want," fays he, " natural affection towards their young. Their " head is naked, and on the top is a hard round body, like a peg " or nail : from their cheeks hangs a red piece of flefh, like a " beard: it has no wattles, like the common poultry : the feathers " are black, fpotted with white: they have no fpurs: and both "fexes are fo like, as not to be diftinguifhed by the fight." Varro $\ddagger$ and Pliny § take notice of the fpotted plumage, and the gibbous fubftance on the head. Atbencus is more minute, and contradicts every character of the Turkey: whofe females are remarkable for their natural affection; which differ materially in form from the males; whofe heads are deftitute of the callous fubftance; and whofe heels (in the male) are armed with fpurs.

* Du Pratz, 224.
+248. Hift. des Oij.
$\ddagger$ Lib. iii. c. g.
§ Lib. x. c. 26. .
Vol. I.
Y y
Aldrovandus,

Place.

Mistaken by Belon.

Aldrovandus,
and Gesner.

## W I L D T U R K E Y.

Aldrovandus, who died in 1605 , draws his arguments from the fame fource as Belon; I therefore pafs him by, and take notice of the greateft of our naturalifts, GESNER * ; who falls into a miftake of another kind, and wifhes the Turkey to be thought a native of India. He quotes AElian for that purpofe; who tells us, " that in "India are very large poultry, not with combs, but with various"colored crefts, interwoven like flowers : with broad tails, neither " bending, nor difplayed in a circular form, which they draw along " the ground, as Peacocks do when they do not erect them: and " that the feathers are partly of a gold color, partly blue, and of "s an emerald color $\dagger$.

This, in all probability, was the fame bird with the Peacock Pheafant of Mr. Edroards, Le Paon de Tibet of M. Briffon, and the Pavo Bicalcaratus of Limncus. I have feen this bird living. It has a creft, but not fo confpicuous as that defcribed by Alian; but it has thofe ftriking colors in form of eyes : neither does it erect its tail like the Peacock $\ddagger$. The Catreus of Strabo § feems to be the fame bird. He defcribes it as uncommonly beautiful, and fpotted; and very like a Peacock. The former author $\|$ gives a more minute account of this fpecies, and under the fame name. He borrows it from Clitarcbus, an attendant of Alexander the Great in all his conquefts. It is evident from his defcription, that it was of this kind; and it is likewife probable, that it was the fame with his large Indian poultry before cited. He celebrates it alfo for its fine note; but allowance muft be made for the credulity of Etion. The Catreus, or Peacock Pheafant, is a native of Tibet, and in all probability of the north of India, where Clitarcous might have obferved it ; for the march of Alexander was through that part of In-

[^107]dia which borders on Tibet, and now known by the name of Penj-ab, or Five Rivers.
I fhall now collect from authors the feveral parts of the world where Turkies are unknown in the fate of nature. Europe has no fhare in the queftion, it being generally agreed, that they are exotic in refpect to our continent.

Neither are they found in any part of Afia Minor, or the Afiatic Turkey, notwithftanding ignorance of their true origin firft caufed them to be named from that empire, About Aleppo, capital of Syria, they are only met with domefticated, like other poultry *. In Armenia they are unknown, as well as in Perfa, having been brought from Venice by fome Armenian merchants into that empire $\dagger$; where they are ftill fo fcarce, as to be preferved among other rare fowls in the Royal menagery $\ddagger$.
In India they are kept for ufe in our fettlements, and imported from Europe, as I have been more than once informed by gentlemen long refident in that country.

Du Halde acquaints us, that they are not natives of Cbina; but were introduced there from other countries. He errs, from mifinformation, in faying that they are common in India.
I will not quote Gemelli Careri, to prove that they are not found in the Pbilippine inlands, becaufe that gentleman, with his pen, travelled round the world in his eafy chair, during a very long indifpofition and confinement §.
But Dampier bears witnefs that none are found in Mindanao 』.
The hot climate of Africa barely fuffers thefe birds to exift in that vaft continent, except under the care of mankind. Very few are found in Guinea, except in the hands of the Europeans: the ne-

* Rufell, 63. + Tavernier, $146 . \quad \ddagger$ Bell's Travels, i. 128. § Sir Fames Porter's Obf. Turkey, i. 1. II I. 32 I.

$$
\text { Y y } 2
$$

groes

## W I L D T U R K E Y.

groes declining to breed any, on account of their great tendernefs *.

Profper Alpinus fatisfies us that they are not found either in Nubia or in Egypt. He defcribes the Meleagrides of the antients; and only proves that the Guinea-hens were brought out of Nubia, and fold at a great price at Cairot, but is totally filent about the Turkey of the moderns.

Let me in this place obferve, that the Guinea-hens have long been imported into Britain. They were cultivated in our farmyards: for I difcover, in 1277, in the grainge of Clifton, in the parifh of Ambrofden, in Buckingbambire, among other articles, vi. mutilones, and Sex Africanef femine $\ddagger$; for this fowl was familiarly known by the names of Afra Avis, and Gallina Africana \& Numida. It was introduced into Italy from Africa, and from Rome into our country. They were neglected here by reafon of their tendernefs and difficulty of rearing. We do not find them in the bills of fare of our antient feafts $\S$ : neither do we find the Turkey: which laft argument amounts to almoft a certainty, that fuch a hardy and princely bird had not found its way to us. The other likewife was then known here by its claffical name; for that judicious writer, Dr. Caius $\|$, defcribes, in the beginning of the reign of Elizabeth, the Guinea fowl, for the benefit of his friend Gefner, under the name of Meleagris, beftowed on it by Arifotle $\mathbb{q}$.

Having denied, on the very beft authorities, that the Turkey ever exifted as a native of the old world, I muft now bring my proofs

[^108]§ Neither in that of George Nevil, archbifiop of York, in 1466, nor among the delicacies mentioned in the Northumberland Houfhold Book, in the beginning of the reign of Henry VIII.
\|I Caii Opufc. 93. If Hijt. An, lib, vi. c. 2.
of its being only a native of the new ; and of the period in which it firf made its appearance in Europe.

The firft precife defcription of thefe birds is given by Oviedo; who in 1525 drew up a fummary of his greater work, the Hiffory of the Indies, for the ufe of his monarch Cbarles V. This learned man had vifited the Weft Indies and its iflands in perfon, and payed particular regard to the natural hiftory. It appears from him, that the Turkey was in his days an inhabitant of the greater iflands, and of the main land. He fpeaks of them as Peacocks; for, being a new bird to him, he adopts that name, from the refemblance he thought they bore to the former: "But (fays he) the neck is bare " of feathers, but covered with a fkin which they change after their " phantafie into divers colours. They have a horn as it were on " their front, and Hatres on the breaft *." He defcribes other birds, which he alfo calls Peacocks. They are of the gallinaceous genus, and known by the name of Curaffao birds; the male of which is black, the female ferruginous.

The next who fpeaks of them as natives of the main land of the warmer parts of America, is Francijco Fernandez, fent there by Pbilip II. to whom he was phyfician. This naturalift obferved them in Mexico. We find by him, that the Indian name of the male was Huexoloff, of the female Cibuatotolin: he gives them the title of Gallus Indicus, and Gallo-Pavo. As the Indians as well as Spaniards domefticated thefe ufeful birds, he fpeaks of the fize by comparifon, faying that the wild were twice the magnitude of the tame; and that they were fhot with arrows or guns $\dagger$. I cannot learn the time when Fernandez wrote. It muft be between the years 1555 and 1598 , the period of Pbilip's reign.

Pedro de Ciefa mentions Turkies on the Ithmus of Darien $\ddagger$.

Mexaco.

## Darien.

* In Purchas, iii. 995. +Hif.Av. Nov.Hip. 27. + Serventeen
rears $T$ ravels, 20.

Yucatan.
N. America.

WHENFIRST INTRODUCED INTO Europe。

Lery, a Portuguefe author, afferts that they are found in Brafil, and gives them an Indian name *; but fince I can difcover no traces of them in that diligent and excellent naturalift Marcgrave, who refided long in that country, I muft deny my affent. But the former is confirmed by that able and honeft navigator Dampier, who faw them frequently, as well wild as tame, in the province of rucatan $\dagger$, now reckoned part of the kingdom of Mexico.
In North America they were obferved by the very firft difcoverers. When Renè de Laudonniere, patronized by Admiral Coligini, attempted to form a fettlement near the place where Cbarleftown now ftands, he met with them on his firft landing, in 1564, and by his hiftorian, has reprefented them with great fidelity in the Vth plate of the recital of his voyage $\ddagger$. From his time, the witneffes to their being natives of this continent are innumerable. They have been feen in flocks of hundreds in all parts, from Louifiana even to Canada: but at this time are extremely rare in a wild ftate, except in the more diftant parts, where they are ftill found in vaft abundance.

It was from Mexico or Yucatan that they were firft introduced into Europe; for it is certain that they were imported into England as early as the year 1524, the 15th of Henry VHI §. We probably received them from Spain, with which we had great intercourfe till about that time. They were moft fuccefsfully cultivated in our kingdom from that period; infomuch that they grew common in every farm-yard, and became even a difh in our rural feafts by

* In De Laet's Defcr. des Indes, 491. + Voy ges, vol. ii. part. 2d, p. 65 , 85, 114. $\ddagger$ De Bry.
§ Baker's Cbr. - Anderfon's Dic. Com. i. 354.-Hackluyt, ii. 165, makes their introduction about the year 1532. Barnaby Googe, one of our early writers on hafbandry, fays they were not feen here before 1530 . He highly commends a Lady Hales, of Kent, for her excellent management of thefe fowl. p. 166 .
the year 1585 ; for we may certainly depend on the word of old Tuffer, in his account of the Cbriftmas hufbandlie fare *.

> Beefe, mutton, and porke, fhred pies of the beft,
> Pig, veale, goofe and capon, and $T_{\text {urkie }}$ well dreft :
> Cheefe, apples, and nuts, jolie carols to heare,
> As then in the countrie, is counted good cheare.

But at this very time they were fo rare in France, that we are told that the very firf which was eaten in that kingdom appeared at the nuptial feaft of Cbarles IX. in 1570 †.

They are now very common in all parts of Rulia, but will not thrive in Sibiria. Are cultivated in Sweden and even in Norway, where they degenerate in fize $\ddagger$.

[^109]
## XVII. G R O U S.

179. Rupfed.

XVII. G R O U S. Gen. Birds XXXVI.

Ruffed Heathcock, or Grous, Edw. 248.-Latham.
Morehen, La Hontan, i. 69.
Pheafant, Larwon, 139.
Tetrao umbellus, Lin. Syf. 275.-Tetrao togatus, ibid.
La gelinote hupèe de Penfylvanie, Brifon, i. 214.-and, La groffe gelinote de Canada-207.
Le Coq de Bruyere a fraife, De Buffon, Oif, ii. 281.-Pl. Enl. 104.-Lev. Mus.-Bl. Mus.

ER. With a great ruff on the hind part of the neck, to be raifed or depreffed at pleafure : the head crefted: that, hind part of the neck, the ruff, back, and coverts of the wings, prettily varied with brown, ferruginous, and black: the black on the ruff difpofed in broad black bars: the coverts of the tail marked with heart-fhaped fpots of white : chin white: fore part of the neck yellowifh: breaft and belly dirty white, barred with cinereous brown : primaries barred on their outmoft fides with black and ruftcolor.

Tail large, expanfible like a fan; in fome of a cinereous colour, in others orange, moft elegantly barred with narrow undulated lines of black; near the end with a broad band of afh-color, another of black, and tipped with white.

Legs feathered to the feet: toes naked and pectinated.
Female wants both creft and ruff. Crown dufky: back mixed

tail fhort, brown, tipt with white ; two middle feathers mottled with red.

In fize thefe birds obferve a medium between a Pheafant and a Partridge. Length I foot 5 inches.

They inhabit North America, from Hudfon's Bay* to the Carolinas, and probably to Louifiana $\dagger$.

The hiftory of this fpecies is very curious: all which I beg leave to tranfribe from Mr . Edrwards, according to the accounts given him by Mr. Bartram and Mr. Brooke, who had frequent opportunity of obferving its manners; to which I fhall add another, borrowed from the Travels of the Baron La Hontan.
" He is (fays Mr. Bartram) a fine bird when his gaiety is dif" played; that is, when he fpreads his tail like that of a Turkey" cock, and erects a circle of feathers round his neck like a ruff, " walking very ftately with an even pace, and making a noife fome" thing like a Turkey; at which time the hunter muft fire immedi" ately at him, or he flies away directly two or three hundred yards, " before he fettles on the ground. There is fomething very remark" able in what we call their thumping; which they do with their " wings, by clapping them againft their fides, as the hunters fay. " They ftand upon an old fallen tree, that has lain many years on " the ground, where they begin their ftrokes gradually, at about " two feconds of time diftant from one another, and repeat them " quicker and quicker, until they make a noife like thunder at a " diftance; which continues, from the beginning, about a minute; " then ceafeth for about fix or eight minutes before it begins again. " The found is heard near half a mile, by which means they are dif-

## * Pbil. Tranf. 1xii. 393.

$\dagger$ The accounts given by Bofu, Engl. ed. i. 95. and by Du Pratz, ii. are too flight for us to determine the fpecies they mean. Cbarlevoix, in his account of Canada, vol. v. deferibes it very well.

## Vol, I.

Z z
" covered

Size.

Place.

Manners.

From Mr. Bar=
tram.
" covered by the hunters, and many of them killed. I have fhot " many of them in this pofition; but never faw them thump, they " moftly feeing me firt, and fo left off. They commonly exercife " in thumping fpring and fall, at about nine or ten in the morning, " and four or five in the afternoon. Their food is chiefly ber" ries and feeds of the country : their flefh is white, and choice " food. I believe they breed but once a year, in the fpring, and " hatch twelve or fourteen at a brood; which keep in a company " till the following fpring. Many have attempted to raife the young " ones, and to tame them ; but to no purpofe. When hatched
" under a hen, they efcape into the woods foon after they are
" hatched, where they either find means to fubfift, or perifh."
Mr. Brooke. The hiftory of this bird is thus further illuftrated by Mr. Brooke of Maryland, in Nortb America: " The ruffed Grous, or Pheafant, " breeds in all parts of Maryland, fome countries on the Eaftern " fhore excepted. They lay their eggs in nefts they make in the " leaves, either by the fide of fallen trees, or the roots of ftanding " ones. They lay from twelve to fixteen eggs : the time of incu" bation is in the fpring; but how long their eggs are hatching " I cannot fay; but probably it is three weeks, the time that a " Dunghill Hen fits. I have found their nefts when a boy, and " have endeavoured to take the old Pheafant, but never could fuc" ceed : fhe would almoft let me put my hand upon her before fhe " would quit her neft; then by artifice fhe would draw me off " from her eggs, by fluttering juft before me for a hundred paces " or more; fo that I have been in conftant hopes of taking her.
" They leave their nefts as foon as they are hatched; and I believe
" they live at firft on ants, fmall worms, \&c. When they are a
" few days old, they hide themfelves fo artfully among the leaves,
"that it is difficult to find them: as they grow up, they feed on
" various berries, fruits, and grain of the country : grapes they

## R U F F E D

" likewife are fond of in the feafon; but the Pheafant is more par" ticularly fond of the ivy-berry. I do not know any other animal
" that feeds on this berry: I know it is poifon to many. Though
" the Pheafant hatches many young at a time, and often fits twice
" a year, the great number and variety of Hawks in Maryland
" feeding on them, prevents their increafing faft. The beating of
" the Pheafant, as we term it, is a noife chielly made in the fpring
" of the year by the cock-bird; it may be diftinctly heard a mile in a
" calm day; they fwell their breafts like the Powting Pigeon, and
" beat with their wings, which make a noife not unlike a drum in
" found; but the Pheafant fhortens each founding note, till they
" run one into another undiftinguifhably, like ftriking two empty
" bottles together."
In order to perfect, as far as I am able, the hiftory of this bird, I fhall give a quotation from Baron La Hontan's Voyages to North America, publifhed in Englijh, (vol. i. p. 67.) where he fpeaks of a bird found near the lakes of Canada, which, I think, can be no other than the above-defrribed, though the names given them difagree.

La Hontan fays, "I went in company with fome Canadefe on "purpofe to fee that fowl flap with its wings: believe me, this " fight is one of the greateft curiofities in the world; for their flap" ping makes a noife much like a drum, for about the face of a " minute; then the noife ceafes for half a quarter of an hour; " after which it begins again. By this noife we were directed to " the place where the unfortunate More-hen fat, and found them " upon rotten moffy trees. By flapping one wing againft the " other they mean to call their mates; and the humming noife that " enfues thereupon may be heard half a quarter of a league. This " they do in the months of April, May, September, and Oifober; " and, which is very remarkable, the More-hen never flaps in this
" manner but upon one tree. It begins at break of day, and gives " over at nine o'clock in the morning, till about an hour before fun"fet, then it flutters again, and continues fo to do till night."

To thefe accounts I beg leave to add the following, out of the Pbilofopbical Tranfactions; which informs us, that this fpecies of Grous bears the Indian name of Pufkee, or Pufpufkee, at Hudjon's Bay, on account of the leannefs and drynefs of their flefh, which is extremely white, and of a very clofe texture ; but when well prepared, is excellent eating. They are pretty common at Moofe Fort and Henly Houfe; but are feldom feen at Albany Fort, or to the northward of the above places. In winter they feed upon juniper-tops, in fummer on goofeberries, rafpberries, currants, cranberries, $\mathcal{E}^{2} c$. They are not migratory ; ftaying all the year at Moofe Fort: they build their neft on dry ground, hatch nine young at a time, to which the mother clucks as our common hens do ; and, on the left appearance of danger, or in order to enjoy an agreeable degree of warmth, the young ones retire under the wings of their parent.
180. PinNated.

Urogallus minor fufcus cervice plumis alas imitantibus donata, Cate $\int b y, A p p$. tab. i . Tetrao Cupido, Lin. Syj. 274-Latham.
La Gelinote hupèe d'Amerique, Brifon, i. 212.-Lev. Mus.-Bl. Mus.

GR. With head, cheeks, and neck of a reddifh brown, marked with dufky lines: chin and throat of a pale rufty brown: on the head is a fmall creft : on each fide of the neck a moft fingular tuft (five feathers in each) gradually lengthening to the fifth, which is about three inches long: the upper feathers ferruginous and white; the lower black: back and fcapulars black and pale ruft-colour; the former fpotted with white: breaft and belly barred with white and pale brown: tail barred with pale brown and black.

Legs

Legs covered with foft brown feathers: toes naked and pectinated.

Size of a Pheafant. A peculiar fpecies, not to be confounded with the preceding*. Defcribed from the real bird by Mr. Catefby; and by myfelf from the fpecimens in Mrs. Blackburn's cabinet, which were fent from the province of Conneiticut. Is frequent about a hundred miles up Albany river, in Hudjon's Bay.

The tufts, which diftinguifh this fpecies from all others, are rooted high on the neck, not far from the hind part of the head. The bird has the power of erecting or dropping them at pleafure. When difturbed, it would fpread them horizontally, like little wings; at other times let them fall on the fides of the neck $\dagger$. It is probable, that they affirt in running or flying, or perhaps both, as the real wings are very fhort, in proportion to the weight of the body. Thefe appendages are peculiar to the cock, and almoft the only difference between it and the hen.

Long-tailed Grous, Edw. 118.-Pb. Tr. lxii.
Tetrao Phafianellus, Lin. Syf. 273.-Latham.
Le Coq de Bruyeres à longue queue, de la Baye de Hudfon, Brifon, App. 9.-De Bufon, ii, 286.

GR. With the head, cheeks, and hind part of the neck, varied with reddifh brown and black: the back and coverts of the tail of the fame color: the fcapulars and great coverts of the wings ferruginous, fpotted wi h black, and great fpots of white : primaries black, fpotted with white: breaft and fides white, elegantly marked with fagittal fpots of black: belly white : tail fhort and


Size.

Plack.

Place. Inhabits Hudfon's Bay; and, according to Dr. Mitchel, the unfre-
cuneiform; the two middle feathers two inches longer than the others: the tail is of the fame color with the back, only the exterior feathers are fpotted with white: the legs are covered with foft and long feathers, extending over the pectinated toes, which would be otherwife naked.
The Length of this fecies is feventeen inches: the Extent of wings twenty-four: Weight two pounds. quented parts of Virginia; but none have been brought over to England from any other place than the Bay.

Linnceus confounds this with the Wood Grous, or Cock of the Wood *. Comparifon will fhew with how little reafon the Comte De Buffon $\dagger$ makes it to be the female of the next fpecies, our Spotted Grous. If the female of that was not afcertained, the difference in the form of the tail would be fufficient to eftablifh a diftinction; by which it approaches neareft to the European Pheafant of any bird in North America.

The Indians about Hudfon's Bay call this fpecies the Au Kukow. It continues there the whole year; lives among the fmall larch bufhes, and feeds, during winter, on the buds of that plant and the birch; in the fummer, on all forts of berries. The females lay from nine to thirteen eggs. The young, like others of this genus, run as foon as hatched, and make a puling noife like a chicken. They differ chiefly from the cock, in having lefs of the red naked fkin over the eyes. The cock has a fhrill crowing note, but not very loud. When difturbed, or while flying, it makes a repeated noife of Cuck, cuck; and makes a noife with the feathers of its tail like the cracking of a fan. The flefh of thefe birds is of a light brown color, plump, and very juicy.

* Br. Zool. i. No g2. tab. xl.

$$
+\mathrm{Oif}_{\mathrm{ij}} 279
$$

> Black and Spotted Heathoock (male) Edw. 118. Brown and Spotted Heathcock (female) Edw. 7 1. Tetrao Canadenfis (male) Lin. Syff. 274. Tetrao Canace (female) Lin. Syff. 275.-Latbam. La Gelinote de la Baye de Hudfon, Brifon, i. 201. and the fame, App. 10. (male.) La Gelinote de Canada, Brifon, i. 203. tab. xx. fig. 1. 2. (m. and fem.)-De Buffon, ii. 279.-Pl. Enl. 131, 132.

GR. With a white fpot before and behind each eye: head, neck, back, and coverts of the wings and tail, dufky brown, croffed with black: throat of a gloffy black, bounded by a white line, commencing at the external corner of each eye: breaft of the former color: belly white, marked with great black fpots : tail black, external feathers tipt with orange: legs feathered: toes naked and pectinated.

The Female is of a reddifh brown, barred and fpotted with black: belly of a dirty white, fpotted with black : tail of a deep brown, barred with mottled bands of black; the tips of the exterior feathers orange.

The Weight is twenty-three ounces: Length fifteen inches: Extent near two feet.

Inhabits Hudjon's Bay, Nerefoundland, and Canada. Is called by the Englifh of Hudjon's Bay, the Wood Partridge, from its living in pine woods. Thefe birds are very ftupid; fo that they are often knocked down with a ftick; and are ufually caught by the natives with a noofe faftened to a ftake. In fummer they are very palatable; for in that feafon they feed on berries. In winter they live on the fhoots of the fpruce-fir, which infects the flefh with a very difagreeable tafte. If it is true, that this fpecies lays but five eggs ${ }^{*}$, it is a ftrange exception to the prolific nature of the genus.


Female.

Size.

Place。
182. SpOTTED.

the argtic circle, and as high as lat. 72 , in the countries round Hudfon's Bay, and as low as Nerwfoundland; in Norway ; perhaps in the N. of the Rufian dominions in Europe *, and certainly in Afia all over Sibiria, as far as Kamt $\int c b a t k a$, and in the iflands which lie between that country and America. Finally, they abound in Lapland and Iceland; and I repeat, with certainty, that Norway has fupplied me with this fpecies, which was fent to me by the late Mr. Fleijcber, of Copenbagen, along with the leffer kind, which proved to be the fame with the White Grous of the Alps, and the Ptarmigan of the Highlands of Scotland. Each of the varieties of the Norvegian birds were in their fummer drefs; and differed moft materially in fize as well as color, the one being in all refpects like the American kind: the leffer agreed in every point with that which I defcribe, No 95, vol. i. of my Briti/b Zoology.

The natives diftinguifh the kinds. The larger, which inhabits forefts, is fyled by them Skorv Rype, or the Wood Grous; the leffer, which lives in the mountains, is called Field Rype, or the Mountain Grous $\dagger$. They all burrow under the fnow; and form extenfive walks beneath. . There they feed, efpecially in Lapland, on the feeds of the dwarf birch $\ddagger$, and in the feafon on variety of berries of mountain plants. During winter they are taken and brought to Bergen by thoufands; are half roafted, and put into firkins, and tranfported to other countries §.

The leffer variety is not unknown in America. The fort here

[^110]Norway.
defcribed is found in amazing quantities, efpecially about Hudjon's Bay, where they breed in all parts along the coafts, make their nefts on dry ridges on the ground, and lay from nine to eleven eggs, powdered with black.

This is the only fpecies of Grous in North America to which Providence hath given that warm protection to its feet, evidently to fecure them againft the cold of their winter lodgings : and, as they are greatly fought after by Eagles, Owls, and other birds of prey, a fine provifion is made for their fafety, by the change of color, which renders them not to be diftinguifhed from the fnow they lie on.

Every morning they take a flight into the air directly upwards, to fhake the fnow from their wings and bodies. They feed in the mornings and evenings, and in the middle of the day bafk in the fun. In the morning they call to one another with a loud note, interrupted; feeding in the intervals, and calling again.

In the beginning of OEtober, they affemble in flocks of two hundred, and live much among the willows, the tops of which they eat; whence they are called Willow Partridges. About the beginning of December they appear in lefs plenty, retiring from the flats about the fettlements on Hudfon's Bay to the mountains, where in that month the fnow is lefs deep than in the lowlands, to feed on cranberries and other berries *. In Greenland they refort in fummer to the mountains for the fake of the crowberries $t$, which they eat even with the leaves of the plant. In winter they defcend to the fhores, where the winds fweep the fnow off the rocks, and enable them to pick up a fuftenance.

They are an excellent food, and much fearched after by the Europeans in Hudfon's Bay. They are generally as tame as chickens,

[^111]efpecially
efpecially in a mild day : fometimes they are rather wild; but by being driven about, or fhot at with powder, they grow fo weary, by the fhort flights they take, as foon to become very tame again. Sometimes the hunters, when they fee the birds likely to take a long flight, imitate the crying of a Hawk, which intimidates them fo much, that they inftantly fettle. When the female is killed, the male can fcarcely be forced from the body of its mate *.

The ufual method of taking them is in nets made of twine, twenty feet fquare, faftened to four poles, and fupported in front in a perpendicular direction with fticks. A long line is faftened to thefe props, the end of which is held by a perfon who lies concealed at a diftance. Several people are then employed to drive the birds within reach of the net, which is then pulled down, and often covers at one haul fifty or feventy. At this time they are fo plentiful, that ten thoufand are taken for the ufe of the fettlement from November to the end of April. In former days, they muft have been infinitely more numerous; for Sir $\mathcal{T}$ homas Button relates, that when he wintered there in 1612 , he took eighteen hundred dozens of thefe and other fowl $\dagger$ : but this is a trifle to the fuccefs of M . $\mathcal{F e}_{e}$ remie, who afferts, that there were eaten in one winter, between himfelf and feventy-nine others, ninety thoufand Grous, and twentyfive thoufand Rabbets $\ddagger$.

The Laplanders take them by forming a hedge with the boughs of birch-trees; leaving fmall openings at certain intervals, and hang in each a frare. The birds are tempted to come and feed on the buds or catkins of the birch; and whenever they endeavour to pafs through the openings they are inftantly caught.

[^112]R OCK Gr. With a black line from the bill to the eye. In all other parts of the plumage of the fame colors with the White, $\mathrm{N}^{\circ} 183$; but inferior in fize by one third.

Differs in nature. Feeds on the tops of fmall birch. Frequents only the dry rocky grounds, and the larch plains. Makes a fingular fnoring noife, with its neck ftreched out, and feemingly with difficulty. Is very numerous in the northern parts of Hudjon's Bay and never vifits the fouthern end, except in very hard weather Never takes fhelter in the woods, but fits on the rocks, or burrows in the fnow. Is inferior in goodnefs to the preceding.

A. Great Grous, Br. Zool. i. No gz.

Tetraonis alterum Genus, Pliniz, lib. x. c. 22.
Tetrao urogallus Kjader, Faun. Suec. No 200.-Latham.
La Tetras, ou le grand Coq de Bruyere, De Bufon, ii. 191. tab. v.-Pl. Enl. 73, 74
Male, GR. With head, neck, and back croffed with flender lines of black and grey: upper part of the breaft gloffy green: tail black; the feathers on each fide fpotted with white: legs feathered:
Size. toes naked and pectinated. Length two feet eight: Weight fometimes fourteen pounds.

Length of the female only two feet two : color ferruginous and black, difpofed generally in bars.

Notwith -

## GREAT GROUS.

Notwithftanding the opinions of Limnous and the Count De Bufon, this fpecies is unknown in North America. Its moft foutherly habitation, as far as I can difcover, is the Archipelago, it being found in the inlands of Crete and of Milo. One was fhot in the laft, perched on a palm-tree, on whofe fruit it probably fed. I furpect that it does not extend into Afia Minor ; for Doctor Rufell does not enumerate it among the Syrian birds. As the Tetrao, which Atbencus * calls a fort of Pheafant, was found in the antient Media, it may ftill be met with in the northern part of Perfia. If Arifotle intends this fpecies by the words Tetrix and Ourax $\dagger$, it was likewife found in Greece; but he applies thofe names only to a bird which lays its eggs on the graffy ground, and fays no more.

Pliny gives a far clearer defcription of the Tetraones of Italy. Decet Tetraonas fuus nitor, abjolutaque nigritia, in Juperciliis cocci rubor. This certainly means only the cock of the Black Grous; which is diftinguifhed by the intenfe blacknefs and the brilliant glofs of its plumage, as well as by its fcarlet eyebrows, which is common to it and the Wood Grous; which laft is the fpecies defcribed by the ancient naturalift; truly in fome refpects, hyperbolically in others. He fays it is of the fize of a Vulture, and not unlike it in color $\ddagger$. Both thefe affertions approach the truth; for the upper part of the body has a dufky or footy look, not unlike that of the Vulture of the Alps. But when he fpeaks of its being the heavieft bird next to the Oftrich, we fee plainly he goes beyond all bounds.

It is a fpecies found in moft parts of the wooded and mountanous countries of Europe, and extends even to the arctic Lapmark §: is common in Rufia and Sibiria; in the laft are found greater and leffer varieties. It is found even as far as KamtJchatka.

[^113]
## SPURIO US GROUS.

The Great Grous is very eafily tamed, if taken young, and is fed with corn. The males, in a domeftic ftate, emit the fame note all the year, which in a wild ftate they only ufe in the feafon of love. When a cock of this fpecies is fhot in the woods, its widows are heard to utter a note inexpreffibly miferable at their lofs. In the love feafon the females have been found fo greatly overpowered with the all-ruling paffion, as to lay themfelves on the ground, foliciting the company of the males, with their ufual note; and fo intent on the expected joys, as to neglect their own fafety fo much, that the peafants have actually taken them up in their hands.Mr. Oedman.
B. Spurious Gr. Tetrao Hybridus. Racklehane. Roflagis Roflare, Faun. Suec. $\mathrm{N}^{2} 201$.

GR. With a footted breaft and forked tail. In fize equal to the hen of the preceding. Is much fcarcer, more timid, and its note very different.

The Spurious Grous, or Racklebanen of the Swedes, is a breed between the cock of the Black Grous, and a female of the Great Grous; its note partakes of both fpecies. It is reftlefs, conftantly moving from tree to tree; is therefore hated by fportfmen, as it gives other birds notice of their approach. This variety is well figured by Doctor Sparman, in his Mufeum Carlonianum, tab. xv.-P.

The cock of the Black Game has been known in Sweden to cover the common domeftic $\mathrm{Hen}_{3}$ which did produce a barren fpurious breed.

## BLACK GROUS.

C. Black Grous, Br, Zool. i. No 93 .

Tetrao i ${ }^{\mathrm{us}}$, Plinii.
Tetrao Tetrix, Orre, Faun. Suec. $\mathrm{N}^{\circ} 202$.
Le Petit Tetras, ou Coq de Bruyere a queue forchue, De Bufon, ii. 210.-Pl. Ent. 172, 173.

GR. With a white fpot on the fhoulders, and white vent feathers : reft of the plumage of a full black, gloffed with blue: tail much forked, exterior feathers curling outwards. Weight near four pounds. Length one foot ten inches.

Female weighs but two pounds. The tail is flightly forked and fhort : the colors ruft, black, and cinereous.

Inhabits Europe, as high as Lapland: extends over Rufia and Sibiria, as far as birch-trees grow, of the catkins and buds of which it is very fond. Feeds much on the populus baljamifera*, which gives its flefh a fine flavor. In northern Europe, this and the laft fpecies live during fummer on whortle-berries, and feed their young with gnats.

The Black Grous in the winter-time fills its craw with the catkins of the birch, before it retires under the fnow; and by this means can fuftain life feven days without any other food. -Mr . Oedman.

In fummer the males perch on trees, and animate the forefts with their crowing. In winter they lie on the ground, become buried in the fnows, and form walks beneath, in which they often continue forty days $t$. They are at prefent taken in fnares; but in Lapland were formerly fhot with arrows $\ddagger$.

* The Taccamabacca of Nortb America.-Cate/by, i. 34. + Amcen. Acad.

[^114]$\ddagger$ Olaus Gent. Septr, lib, xix. c. 13.
During

Place.

## PTARMIGAN GROUS.

During winter, there is at prefent a very fingular way of taking the Black Grous in Sibiria. In the open forefts of birch, a certain number of poles are placed horizontally on forked fticks : by way of allurement, fmall bundles of corn are placed on them; and not remote, are fet certain tall bafkets of a conic fhape, with the broadeft part uppermoft: within the mouth is placed a fmall wheel, through which paffes an axis fixed fo nicely as to admit it to play very readily, and permit one fide or the other, on the leaft touch, to drop down, and again recover its fituation. The Black Grous are foon attracted by the corn on the horizontal poles; firft alight on them, and after a fhort repaft fly to the bafkets, attempt to fettle on their tops, when the wheel drops fideways, and they fall headlong into the trap, which is fometimes found half full.
D. Ptarmigan, Br. Zool. i. N ${ }^{\circ} 95$.

Tetrao Lagopus. Suecis Snoripa. Lappis Cheruna, Faun. Suec. No 203. Le Lagopede, De Buffon, ii. 264. tab. ix.

$\mathrm{G}^{\text {R }}$
R. With the head, neck, back, fcapulars, and fome of the coverts of the wings, marked with narrow lines of black, afhcolor, and ruft, intermixed with fome white: wings and belly white : outmoft feathers of the tail black; thofe of the middle cinereous, mottled with black, and tipt with white. The male has a black fpot between the bill and the eye; which in the female is fcarcely vifible. One which I weighed in Scotland was nineteen ounces. Another weighed by Mr. Ray, in the Grifons country, only fourteen. It regularly changes its colors at approach of winter.

## REHUSAK GROUS.

Inhabits Greenland, Iceland, Lapland, all Scandinavia, and Rufia; but I believe does not extend to Sibiria or Kamt $f_{c b a t k a . ~ T h i s, ~}^{\text {S }}$ from its haunts, is called by the Norwegians, Fialde Rype, or Mountain Grous. But in Ruffia it inhabits indifferently woods, mountains, plains, and marfhes. Its feathers were formerly an article of commerce. It is taken among the Laplanders, by the fame ftratagem as the White Grous, $\mathrm{N}^{\circ} 183$.

The Greenlanders catch it in noofes hung to a long line, drawn between two men, dropping them over the neck of this filly bird. They fometimes kill it with ftones; but of late oftener by fhooting. It is faid, that when the female is killed the male unwillingly deferts the body *.

The Greenlanders eat it either dreffed, or half rotten, or raw, with feals lard. The inteftines, efpecially thofe next to the rump, and frefh drawn, are reckoned great delicacies. They alfo mix the contents with frefh train-oil and berries; a luxury frequent among thefe people. The fkins make a warm and comfortable fhirt, with the feathers placed next to the body. The women formerly ufed the black feathers of the tail as ornaments to their headdreffes.
E. Rehusak. Montin, in Az. Pbyfogr. Lund. i. 150.

GR. With neck ruft-colored, fpotted with black: back and coverts of tail black, varied with rufty ftreaks: breaft divided from the lower part of the neck by a dark fhade: reft of the breaft and vent white; the hen fpotted with yellow : primaries white: tail black; end whitih : thighs white, with fome rulty fpots: legs

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\text { - Faun. Groenl. p. } 117 .
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feathered
HAZEL GROUS.
fportfmen, who lie concealed in a hovel*. Is excellent meat, infomuch that the Hungarians call it Tjcbafarmadar, or the bird of Cafar, as if it was only fit for the table of the Emperor. Is found in moft parts of the Rufian dominions with the Ptarmigan, but grows fcarcer towards the eaft of Sibiria.

XVII. PARTRIDGE. Gen. Birds, XXXVII.

185. Maryland. American Partridge, Clayton, Ph. Tr. abridg, iii. 590.-Lawjon, 140.-Catefoy, App. plate xii.-Du Pratz, ii. 86.
Tetrao Virginianus, Lin. Syft. 277.
Le Perdrix d'Amerique, Brifon, i. 231.-Et de la Nouvelle Angleterre, 229.-De Bufon, ii. 447.

P.With white cheeks and throat, bounded by a line of black on all fides, and marked with another paffing beneath each eye : breaft whitifh, prettily marked with femicircular fpots of black: upper part of the breaft, coverts of wings, fcapulars, and coverts of tail, bright bay, edged with fmall black and white fpots : fcapulars ftriped with yellowifh white: primaries and tail of a light afh-color.

The head of the female agrees in the white marks of the male, but the boundaries are ferruginous. There is alfo more red on the breaft. In other refpects the colors nearly correfpond. In Size, above half as big again as the Englifh Quail.

## Place.

Frequent from Canada to the moft fouthern parts of Nortb America, perhaps to Mexico. Are great breeders, and are feen in covies of four or five and twenty. Breed the latter end of April, or beginning of May. Collect, towards the beginning of Fune, in great flocks, and take to the orchards, where they perch when difturbed. Feed much on buck-wheat ; grow fat, and are excellent meat. Migrate from Nova Scotia, at approach of winter, to the fouthern provinces; but numbers refide in the latter the whole year. The males have a note twice repeated, which they emit, while the females are

## COMMON PARTRIDGE.

fitting, ufually perched on a rail or gate. Make a vaft noife with the wings when they arife.

Of late they have been introduced into famaica; are naturalized to the climate, and increafe greatly in a wild ftate; and, as I am informed, breed in that warm climate twice in the year.

A. Common Partridge. Tetrao Perdix. Rapphona. Faun. Suec. No 205. La Perdrix Grife, De Buffon, ii. 401.-Pl. Enl. 27.

I
NHABITS as high as Sweden; but has not yet reached Norway ${ }^{*}$. Found in the weft, and all the temperate parts of Rufia and Sibiria, and even beyond lake Baikal, where it winters about fteep rocky mountains expofed to the fun, and where the fnow lies left.

During winter, in Sweden it burrows beneath the fnow; and the whole covey retires there, leaving a fpiracle at each end of their lodge.

[^115]B. Quall,
B. Quail, Br. Zool. i. No 97.-Wachtel, Faun. Suec. No 206.-Lev. Mus.-Bl. Mus.

IS found no further north than Sweden. It appears there in the beginning of the leafing month (May); and is neither heard or feen there in autumn or winter, unlefs it fhould, as Linneus fuppofes, migrate to the fouthern province, or Scbonen, or retire to the Ukraine, Wallacbia, \&cc*.

Quails fwarm fo greatly, at the time of their migration, about the Dniper, and in the fouth of Rufia, that they are caught by thoufands, and fent to Mofcow and Peterfourgh in cafks. They are common in all parts of Great Tartary; but in Sibiria only in the fouth, as their paffage is hindered by the lofty fnowy mountains. It is faid they winter beneath the fnow; and in great frofts, to be found torpid in the Ant-bills. Beyond lake Baikal, the quails exactly refemble thofe of Europe, but are quite mute. Thefe are ufed by the Cbinefe in fighting, as we do Cocks.

* Aman. Acad, iv. 592.
XVIII. B U S-

XVIII. B U S TAR D. Gen. Birds, XXXIX.

IAm forry that I have it not in my power to do more than afcertain that a bird of the Bustard genus is found in Nortb America. Captain King was fo obliging as to inform me, that he faw on the plains near Norton Sound, N. lat. $64 \frac{1}{2}$, great flocks of a large kind. They were very fhy ; ran very faft, and for a confiderable way before they took wing; fo that he never could get one fhot.

I often meet with the word Outarde, or Buftard, among the French voyagers in North America; but believe it to be always applied to a fpecies of Goofe.

The Great Buftard, Br. Zool. i. $\mathrm{N}^{\circ} 98$, is frequent over all the defert of Tartary, and beyond lake Baikal. Is a folitary bird; but collects into fmall flocks at the time of its fouthern migration, and winters about Aftracan *.

A. Lesser Bustard, Br. Zool. i. No 99.

Tetrao Tetrax, Faun. Suec. No 196.
La Petite Outarde, ou la Cane-petiere, De Bufon, ii. 40.-Pl. Enl. 10. 25.-Lev. Mus.
B. With crown, back, fcapulars, and coverts of the wings, ferruginous and black; primaries black at their ends, white at their bottoms; the fecondaries quite white: neck black, marked
186. NORTON Sound.
near the top and bottom with a white circle: breaft and belly white: middle feathers of the tail croffed with ruft and black, the reft white. Female entirely ferruginous and black, except wings and belly. Size of a Pheafant.
Place.
Appears in Sweden rarely in the fpring: not traced further north. Very frequent in the fouthern and fouth-weft plains of Rufia, and in fmall flocks when it migrates. Continues a good way into the deferts of Tartary; but is never feen in Sibiria.
$5449$






[^0]:    * Arijfot. Hift. An. lib. ii. c. 1.-Caefar Bell. Gall. lib. vi,-Plinii Hift. Nat. lib, xv. c. 15.-Oppian Cyneg. ii, Lin. 160.
    + Br. Zool. i. No 3.-Voy. Hebrides, 124.-Tour Scotl. 1772, Part ii. p. 285.
    $\ddagger$ There is a very fine figure of the European Bijon in Mr, Ridinger's Fagbere Thiere.

[^1]:    * Nov. Com. Petrop. xvii. 460. tab. xi. xii.- I am forry to diffent from my efteemed friend Doctor Pallas, who thinks them to be the horns of Buffaloes; which are longer, ftraiter, and angular.
    $\dagger$ Purchas, iv. $1560,1566 . \ddagger$ Fernandez, Nov. Hijp. x. c. 30.-Hernandez, 58.

[^2]:    - Du Pratz, ii. 50. i. 116. 286.
    $\ddagger$ Charlevoix, N. France, v. 192.

[^3]:    * Cbarlevoix, v. 192.
    + Adair, 38 .
    $\ddagger$ Purchas, iv. 1550 .
    || Du Pratz.

[^4]:    - Topog. Defr. N. Am. 8. $\quad+$ Du Pratz, i. $228 . \quad \ddagger$ Kalm, i. 207.

[^5]:    * M. Teremie, in Voyages au Nord. iii. 315 . + Drage's Voy. ii. 260. $\ddagger$ Ellis's Voy. 232.

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    half

[^6]:    - The gentleman who undertook, in 1770, 1771, 1772, the arduous journey to the Icy Sea, from Prince of Wales's Fort, Hudfon's Bay. To him, through Mr. Wegg's intereft, I am indebted for the fikin and this information.
    + Drage's Voy. ii. 260.
    $\ddagger$ Mr. Grabam's MS.
    $\$$ Dobbs's Hudjon's Bay, 19, 25.
    || Purchas, iv. 1561. v. $854^{\circ}$

[^7]:    - Pallas, in Nov, Com. Petrop, xvii, 601. tab. xvii.
    + Faun. Groenl. 28.

[^8]:    - Faun. Groenl. p. 29.
    || Troil's Voy. 138.
    + Smellie, vi. 207, 219.
    $\ddagger$ Horreborw, 46.
    § Leems, 228.

[^9]:    *Smellie, vi. 363.

    + Faun. Groenl. p. 29. $\ddagger$ De Bufon, ix. 71.

[^10]:    - Du Pratz, i. 301.

[^11]:    * Le Hontan, i. 59 .

[^12]:    * Cbarlevoix, v. $188 .+$ Charlevoix, and Le Hontan, i. 65.

[^13]:    * Wright's Loutbiana, book iii. 20. tab. xxii. + Hif, 2uad. 45.

[^14]:    * V. 191. + Egede, 59. Crantz, i. 70. - The Canadiams call it Le Caribou.

[^15]:    * Marten's Spitzbergen, 99. Pbipps's voy. 185. + Dobbs's Hudfon's Bay, 19.
    $\ddagger$ Muller's voyages from Afia te Anerica, Preface xxv. § Barentz voy.

[^16]:    * Hijt. Kamtccbatka, 226, 227.-The Koreki exchange their Deer with the neighboring nations for rich furs. $\quad+$ Muller's Summary, छ'c. xviii. $\ddagger$ Faun. Groenl. p. 28.
    § Drage's Voy. i. 25.

[^17]:    * Crantz, i. 71. + Dobbs, 19, 22.

[^18]:    *Kalm, i, 338. $\quad+$ Hernandez, Norv. Hifp. 325. $\ddagger$ In the fale

[^19]:    * Hij. Kamt/cbatka, 107. 197. + The fame, 107.
    $\ddagger$ The fame. There is a variety of black wolves in the Vekroturian mountains. The fhe-wolves have been fuccefffully coupled with dogs in fome noblemen's parks about $M o$ forw.

[^20]:    * In Bergeron, 160. fame, Drage, i. $2 \times 6$.
    + Hif. Kamtjchatka, 231.-The Aimericans do the $\ddagger$ Hif. Kamtfch. 226.—Drage, ii. 41.

[^21]:    * Of which I apprehend there are two fpecies-the Lapland, Hift. 2uad. N0 317, and the Mus Migratorius of Pallas, or Yaik Rat, Hift. Quad. N0 326. which inhabits the country near the Yaik.

[^22]:    y Brant.

[^23]:    * Larufon, 125.
    + Cateffy, ii. 78.-Fofelyn, 82.
    $\ddagger$ Kalm, i. 28 z。 § Du Pratz, ii. 64.-Charlevoix, v. 196.

[^24]:    * Charlevoix, v. 189, who by miftake calls it Carcajou, and Kincajou; two very different animals.
    + Charlevoix, v. 195.
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    ## 1

    fixing

[^25]:    * Supplem. iii. 227. + Hijf. Carolina, 119 .
    $\ddagger$ ii. 64.-I wifh to fupprefs the fynonym of Cat-a-mount, as applied to the Cayount Cat, as it feems applicable to a much larger fpecies.
    § Hift. de le Nourv. France, vi. 158.

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    foure

[^26]:    $\ddagger$ The Honorable Confantine Fobn Phipps, now Lord Mulgrave.

[^27]:    * Pbil. Tranf. Ixiv. 377
    $\dagger$ Muller, Pref. xxv.
    $\ddagger$ Purchas's Pilgrims, iii. 805 .

[^28]:    *Heem/kirk's Voy. 14. + The fame, $18 . \quad \ddagger$ Marten's Spitzb. 102.
    \$ Faun. Groenl. p. 23. II Egede, 83. II The fame, 60. ** Faun. Groenl. p. 23. $\dagger \dagger$ Heem/kirk, 5 1.

[^29]:    * Heem/kirk, 45. + Marten's Spitzb. 102.
    $\ddagger$ Egede, 60.-Martens fays, that the fat is ufed in pains of the limbs, and that it affifts parturition.
    § Heemkirk's Voy. in Purcbas, iii. 500, 501. || The fame, 499.

[^30]:    * Journal of his travels into Eaft Florida, 26.
    + Hift. Kamt chb. iii. $^{287}$.
    I Voy. au Nord. iv. 5,
    § Hif. Japan, i. 126.
    || $D_{u}$ Pratz, ii. $5^{\circ}$
    |f Adair, 360.

[^31]:    - Du Pratz, ii. 60 .
    + Lawwon, 117.-Cateffy, App. xxvi,
    $\ddagger$ Fofelyn's Voy. 91.

[^32]:    - Bartram's Gourn. E. Florida, 26. $\quad$ Lawfon, $116 . \quad \ddagger D_{u}$ Pratz,
    ii, 62. § Lawfon, 117.

[^33]:    * Leems Lapmark, Suppl. 64. + The fame, 502. $\ddagger$ The fame, Suppl.

[^34]:    - Bartram's Fournal E. Florida; 30. \$ The fame, 66 .

[^35]:    - Larworn, 120. $+D_{u}$ Pratz, ii. 66.

[^36]:    * Cbarlevoix, v. 197.
    + Hif. Kamtfobatka, 99.
    $\ddagger$ Bell's Travels, i. 199. § Pontoppidan, ii, 25. \#Gmelin Ruff Samlung, 516. बI Now. Sp. an. 188.

[^37]:    - Cbarlervoix, v. 197.

[^38]:    * Doctor Pallas. $\quad+$ Defor, Kamtfchatka, 275.
    $\ddagger$ Voyages de Pallas, ii. 319. tab. viii.-Decouvertes dans le Rufé, E'6, iv. 237. tab. vi. vii.

[^39]:    *Strabo, Lib. xvii. p. $1184^{\circ}$
    $+E_{p j \text { j }}$. Ep. xc.

[^40]:    * Fornandes de Rebus Geticis. $\ddagger 160,16 \mathrm{I}, 162$. § Leges Wallica.
    + In Bergeron's Goll. 70.-Purchas, iii. 86.
    || Barrington on the Statutes, 4 th ed. 243.

[^41]:    * Kalm, i. 275.
    + The fame, 277.
    $\ddagger$ Lawfon, 119.-Kalm, i. 278 .

[^42]:    *Kalm. i. 278. $\quad+$ Cateßby, ii. tab. 62. $\ddagger$ Kalm, i. 274. § Sent from thence by Mr. Grabam. || Feuillée Obfo Peru, 1714, p. 272. If Hernandez, Mex. 38 z.

[^43]:    *Kalm, ii. 62. $\quad+$ Letter from Mr. Peter Collinfon. $\ddagger$ Kalm, ii. 62.
    

[^44]:    * Voyages au Nord, iii. 344 .
    + Drage, i, 176.
    + $\mathrm{Kalm}_{3}$, ii. $4^{6}$. § Lawfon 12.2.

[^45]:    * Doctor Garden.

[^46]:    - Cbarlevoix, v. 140.
    + Larwor. $\ddagger$ Du Pratz, ii. 6g. || Dobbs, 35.
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    § Account
    of Eaff Florida, 50.
    ing

[^47]:    * Clerk, i. 142.

[^48]:    - x. 12. + Lawfon, 120 . $\ddagger$ The fame.

[^49]:    *Cbarlewoix, v. 158 . $\quad+$ Kalm, ii, 56, and Cbarleroix. $\ddagger$ Kalm, ii. 58. \$ v .158.

[^50]:    - Catefly Carol. iii, 79.-App. xxviii. $\quad+$ Hij. Birds, iii. 104.

    Yol, I.
    S 45. Black

[^51]:    * Voyage on Sibirie, i. 378.

[^52]:    * Nor. Sp. Quad. 373.
    + Now. Sp. an. 188.
    $\ddagger$ Mem. Ruff. Afat. vii. 124 .

[^53]:    *Kalm, i. 322. $325 . \quad \dagger$ Hijf. 2uad. No $324 . \quad \ddagger$ Pallas, Nov. Sp. an.
    379.-Voy. de Pallas, ii. 292.
    § Diz Pratz, ii. 68.

[^54]:    - Garcikafo de la Vega, 384.

[^55]:    - Hift. Kamt cbatka, 120. + Pb. Tranf. Lxiv. 378. $\ddagger$ Ellis's Voy. 80.
    § Martens Spitzberg. 182.
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    If

[^56]:    - Nov. Com. Petrop. ii. 291. $\quad+$ Faun. Greenl. 4 .
    § Martens, 109. || The fame, iro.

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    Z_{2}
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    $\ddagger$ Barentz, 4 .
    A wounded

[^57]:    * Pbil. Tranf. 1xv. part i. 249.-The French call them Vaches Marines. Charlevoix, v. 216. That voyager fays, that the Englifh had once a fifhery of thefe animals on the IJle de Sable, a fmall ifland fouth of Cape Breton; but it turned out to no advantage.
    + This word is derived from Echouer, to land, or run on fhore.

[^58]:    - Steller, in Nov. Com. Petrop, ii. 290.

[^59]:    - Defor. Kamtfcbatka, $425 . \quad+$ The fame, 41, 42, 424 .

[^60]:    - Strabo, lib. xi. 78\%.

[^61]:    * Mr. Lepechin compares the number of the teech to that of another kind (our Harp Seal) which, he fays, has only four teeth in the lower jaw.
    + The fame.

[^62]:    * Faun. Greenl. p. 9. $\quad+$ The fame, p. 45 .

[^63]:    * Crantz, i, 124. + Ač, Acad. Petrop. pars 263.

[^64]:    - The French generic name for the Seal is Loup Marin, and the Spanifo, Lobo Marino.
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    their

[^65]:    * They fay that the Sea-Cat, or Sizuutcha, is found in thofe iflands; but Sirwutcha is the name given by the Kamtfchatkans and Kurilians to the Leonine Seal only. Northern Archipelago, Scc. by Von Stablen. Printed for Heddinger, 1774, p. 34.

[^66]:    Ursine Seal
    IN THE SOUTHERN HEMISPHERE.

[^67]:    *Cook, i. 72. 86.-Forfer's Obf. 189 . Anfon's Voy. 122.-Cook, ii. 194. 213. $\ddagger$ Selkikk's account in W.Rogers's Voy. $136 . \quad$ § ii. 194. 213.
    $\|$ His voyage, Eng. Tr. 187. TI Faun. Greenl. p. 6.

[^68]:    *Narborough, 31.-Penrofe Falkland IJles, 28.-Pernetti, Voy. Malouines, 240.-By his confounding the names of this and the Bottle-nofe Seal, $\mathrm{N}^{\circ}$ 288. Hiff. Quad. he led me into a miftake about the length of this.
    $+D_{e f r r . ~ K a m t ~ c h a t k a, ~} 433$.
    $\ddagger$ Nov. Com. Petrop. ii. 365 .
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    chiefly

[^69]:    * A figure of this fpecies is given in De Bufor, xii. tab. lvii. and in Scbreber, ii. tab. lxxx.

    $$
    \ddagger V_{o y . \text { i. } 33 .}^{\ddagger \text { Ibid. }} \quad \text { \$ Dampier, i. } 32 \mathrm{I} .
    $$

[^70]:    * Muller's Voy. 62.-Nov. Com. Petrop, ii. 329.
    + Hij. Kamt cbatka. ${ }_{3}$ 6.

[^71]:    - Obfervations, گ゙c. 189 . $\dagger$ Hijf. Carolina. 125.

[^72]:    * Efpecially in the winter, Leems, 233.

[^73]:    - Le Pygargue a tête blanche, De Buffon, i. 99.-Pl. Enl. 411 . + Cate/by.

[^74]:    - Du Pratz, ii. 75.-Latham, i. ${ }^{66 .}$
    $+D_{u} P_{r a t z, ~ i . ~ 298 .-K a l m, ~ i i i . ~ 230 . ~}^{2}$ $\ddagger$ Strabo, lib. x. p. 736. edit. Amfiel. 1707. From

[^75]:    - Adair's Hijt. An. Indians, 179.

[^76]:    - That agreeable traveller, the Reverend Dr. Burnaby, adds, that it is often feen refting on the wing for fome minutes, without any vifible change of place, before it defcends. Travels in America, 2d ed. p. 48.

[^77]:    - Extracts, i. 479.
    + Leems, 235.
    $\ddagger$ Strom.

[^78]:    - Leems, 337.-Strom. 224. $\quad+$ Bell. ii. 87.

[^79]:    * Bergeron, 75, 76. $\quad$ The fame. $\ddagger$ Monumens de la Monarchie Francoije,
    i. 372. §Mr. Walpole's Anecdotes of Painting, i. 33. \|H Hutchins's Dorfetfoirrs
    ii. 443 . IT Malmßury, lib. ii. c. 6.

[^80]:    * In Rufia, lat. $5_{2}$ north.

[^81]:    * Fournal des Obferv. ©̛c. vol. ii. 33 .

[^82]:    * Brunnick, p. 2.
    + Olafen, i. 32.
    $\ddagger$ Horrebow, 59, 60.
    ( Brunnick, p. 3.-Horrebow, 58.

[^83]:    * Lib. xiv. ep. 216. $\quad+$ Olina, 65. $\ddagger$ Hijt. Nat. lib. xvi. c. 44 . § Fr. ed. octavo, 82. \| La Fauconnerie de Ch. d'Arcafia, p. 443.
    II Saxon Cbr. 60.

[^84]:    * Amcen. Acad, iv, + Extraets, i. 100 . $\ddagger$ Vol. ii. $142 . \quad$ Forkabl, Defcr.Arab. 7. \|Wil, Orn, 75, \|ा Belon Obf. xxxvi, p. 107. b, ** Aves,
    it See this fubject moft ingenioufly handled in Mr. Stillingfleet's' Effays, in the Calendar of Flora.

[^85]:    - Faun. Suec. $\quad+$ Extracts, ii. 142.

[^86]:    - Colcen's Six Indian Nations, i, 17.
    + If no miftake is made in Mr, Hutchins's MS, the extent is lefs by far than that of the Englijß kind,

[^87]:    * Voy. Peru, ii. 562.
    + See Strix Funerea, Faun. Suec. No $75 .-$ Pontop. Atlas Danica, tab. 25.-Olafen's Iceland, ii. tab. 46 .

[^88]:    bars,

[^89]:    * Edwards, Gl. p. 233.
    $\dagger$ The Freres tale. - Ful of venime, becaufe it was believed, that the thorn on which it fuck its prey was venomous.

[^90]:    * Oif, vi 115.
    + Tournal Hijforique, vi. 124.
    $\ddagger$ Oif. vi. 8 .

[^91]:    * Barrington's Mijcellanies, 489.491.
    + See Spilbergen's Voy. in Purchas, i. 80; Wood's, in Dampier's Voy. iv. 112 ; and Byron's, in Hawkefworth's Coll. i. 38. Befides thefe authorities, Lieut. Gore (fince Captain) and Mr. Edrwards, now furgeon at Caernarvon, who failed with Mr. Byron confirmed to me the exiftence of thefe birds in the ftreights of Magellan.

[^92]:    * Larwfon, 139 .
    + Adair's Hif. Am. 173.
    $\ddagger$ Mr. Hutchins.
    § Voyage, i. 121.

[^93]:    - See article Rook, p. 292, A. where a comparifon is made of the differences between thefe two birds.

    $$
    \ddagger \text { Voyage, ii. } 65 . \quad \ddagger \text { De Buffon, iii. } 66 .
    $$

[^94]:    * Ruflel's Aleppo, 69. + Amcen. Acad. iv. 583.
    $\ddagger$ De Buffone iii. 139: from this circumftance, one of its German names is Birckbeber, or the Birch Fay.
    § Ziranni delle Nova, छ'c. p. 68. tab. x. fig. 29.

[^95]:    * The Caterpillar of the Bruchus Pijz, or Peafe Beetle, in particular. See Kalm, i. 173. 176.

[^96]:    * Pontof. ii. 75.
    + Leems, 291.
    $\ddagger$ Dr. Pallas.

[^97]:    * Catefby. + Barrere. $\ddagger$ Catefby. || Lafitau Mcours de Sauvage, ii. 60.

[^98]:    * Pbil. Tr. lxii. $387 . \quad+$ Kalm, ii. 36.

[^99]:    * Kaln, ii. 87.

[^100]:    * Vol. iii, 9.-Brifon, iv. 24, who follows Albin, calls it, Le Pic noir de la Nouvelle Angleterre.

[^101]:    * Leems, 292.
    + Catalogue of Swifs birds in M. Sprunglin's cabinet, which that gentleman favored me with. This fpecies was not unnoticed by the great Gesner, See his Hijf. Av. ed. p. 710 , line 20.

[^102]:    - Muller, Prod. Zool. Dan. 13. + Gmelin, Voy. ii. 112.

[^103]:    * Among a fmall collection of drawings made in that country by one of our voyagers.
    + Strom, 247.

[^104]:    * Hijt. of Wef Indies, tranflated by Richard Eden, p. 199.
    $\dagger$ Hijf. Ah. lib. ix. c. 11. vel. i. 931 .-Charlkevix, v. 232 .

[^105]:    * New England Ravitios, 8. $\quad+$ Hij. Carolina, 149 and 27.
    $\ddagger$ App. xliv. - The greateft certain weight is given by Mr. Clayton, who faw one that reached $38 \mathrm{lb},-P b$. Tranf.

[^106]:    * Larwon, $149 . \quad+$ Adair's Amer. 360 .
    $\ddagger$ It is in the fwamps that the loftief and moft bulky trees grow: the wet, with which they are environed, makes them a moft fecure retreat.
    § Larwfon, 149. \|L Larufon, 18.-Adair, 423 . IU Dratz, ii. 85.

[^107]:    * Av. $4^{81} . \quad+$ De Anim. lib. xvi. c. 2.
    i. $291 .-L i n$. Syf. $268 . \quad$ § Lib. xv. p. 1046. c. 23 .

    I Edw. ii. 67.-Brifon,
    \|| De Anim. lib. xvii.

[^108]:    *Barbot, in Cburchill's Coll. v. 29.-Bofman, 229. +Hif. Nat. Egypti, i. 201. $\ddagger$ Kennet's Parocbial Antiq. 287.

[^109]:    * Five bundred pointes of good bufbandrie, p. 57.
    + Anderfon's Dicf. Comm. i. 410 , $\ddagger$ Pontopp. 78 .

[^110]:    * The feathers of the Ruffian kind, whichfoever it was, in early times, about Pechora, were an article of commerce, and were fold for two pence of their money per Pood, or 38 lb . Purchas, ii. 536 .
    † The Ruffan White Grous inhabits indifferently woods, mountains, plains, and marfhes. The Britij/ fpecies or variety is in Rufia about half the fize of the Sibirian kind.
    $\ddagger$ Fl. Lap. $268 . \quad$ \& Pontoppidan, ii. 92.
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[^111]:    - Drage's Vay. i. $1^{7} 4^{\circ}$
    + Emperrum Nigrum,-See Crantz, Greenl. i. $64,75$.

[^112]:    * Faun. Groenl. p. 117. + Quoted in North-weft Fox, 228.
    + Recueil de Voy. au Nord. iii. 344.

[^113]:    * Lib. xiv. p. 654 .
    $+H_{i j}$. An. lib. vi, c. s.
    $\ddagger$ Hijf. Nat. lib, x.
    c. 22. § Leems, 241 .

[^114]:    iv. 59 I.

[^115]:    - Brunnich, $\mathrm{N}^{0} 201$.

