

Letter from Prof^r Huxley to C. Lyell

Copy

Nov^r. 27th. 1865

Ever respectfully
Yours
H. Huxley

I returned last night - from a
hasty journey to Ireland. Whether
I took myself on Thursday night -
being attracted outwards - like by the
scent of a quantity of Carboniferous
corpses. The journey was as well
worth the trouble as any I ever un-
-dertook. I turned out ten genera
of vertebrate animals of which five
are certainly new & of these, four
are Sabrinithoides amplified of
new types - These four are baptised
Oplidopteron, Leptopteron, Tethyopte-
-ron, Therapteron. They all have

ossified spinal columns & limbs.
The special interest attaches to the
two first in that they represent a
type of Labyrinthodont hitherto
unknown & corresponding with
Siren & Amphissina. Among
living Amphibia - Ophiderpeton for
example is like an eel about three
feet long with small fore legs &
redundant hind ones.

In the year of grace 1861 there were
three genera of European Carboniferous
Labyrinthodonts known Archegosaurus
Sclerocephalus (?) Parabatrachus -

The vertebral column of Archegosaurus
has alone been known & it is in a re-
= markably imperfect state of ossification.
Since that date by a succession

of odd chances seven hundred genera
have come into my hands, & of these
144 certainly have well ossified &
developed vertebral columns.

I reckon that there are now about
30 genera of Labyrinthodonts known
from all parts of the world & all
deposits - of these eleven have been
established by myself in the course
of the last half dozen years before
remains which have come into my
hands by the merest chance.

Five & twenty years ago all the
world but yourself believed that
a vertebrate animal of higher
organisation than a fish in the
Carboniferous rocks never existed
I think the whole story is not
a bad comment on negative evidence

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My dear Dawson

Lymington 53 Harley Street
Dec 15 1865

The extract from a letter of Prof. Huxley's which I subjoin will interest you greatly. All the specimens come from the bottom of the seam of coal in Kilkenny in a kind of bituminous coaly slate at about the junction with the usual under clay; the amphibia, says Huxley, were the inhabitants of a marsh. He has shown me the specimens so of them nearly entire skeletons but flattened & compressed. The caudal vertebrae of the long snake or eel-shaped species have in some cases swimming processes for attachment of muscles showing great swimming power. Had not the fore limbs an inch & a half long, he a creature which must have been four feet long, happened to be preserved I could hardly have

believed that it was not a fish. Several additional species & one new genus has turned up since Huxley's letter to me was written. He had got all your specimens of *Joggins* reptiles which you returned to the G. S. Museum.

He told me that he found you had done your work very carefully but that his larger experience now enables him to declare that all your air-breathers were of the *Subquithodont* family, a result for which he seems not to have been prepared by what Owen & you had written.

Your paper comes on at the G. S. on Wednesday next Dec 20th & perhaps a fortnight later Prof. King's onslaught upon all who

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believe in Eozoon

I procured for Mr. Gumbel the able chief of the Geol. Survey of Bavaria a specimen of Eozoon from Logan's block & after having compared it with a limestone or calcareous serpentine from the gneiss or Laurentian "gneiss" of Bavaria he sent me specimens which I submitted to Dr. Carpenter & I enclose an extract from his letter to me on the subject.

Did I forget to ask you in my last letter whether you once sent me the casts of the footprints of a reptile from (I presume) Tatmagouche - whereabouts in Nova Scotia is that & in what part of the coal. You only sent me on one occasion any cast & there were two showing the side in relief

& the undecided one: did you afterwards make out
what reptile it was. I have presented the casts to
the Jeramyn street Museum & wish them to
have all the information you can give about
them.

Did I say in my last how much Lady Lyell &
I were interested in the memoir on Kitchcock in
the Canadian naturalist.

I believe in my plan Dawson
can most truly yrs
Chas Lyell

Extract of letter from H. B. Carpenter
to C. Lyell — Dec 9 - '65

I am much obliged to you for
so promptly forwarding to me Dr
Gimbel's specimens. I immediately
placed one of them in dilute acid;
as decalcification affords, to an ex-

=perceived eye, the most ready
means of recognizing the presence
of Lozoon. And I am this morning
able without the least hesitation to pronounce
upon its presence. I have already
found Lozoon in a specimen from the
Opheicalite of Caska Lipa in
Bohemia, procured to me by Dr
Fritsch of Prague, & in another from
the fundamental Gneiss of Moldau
recently sent me by Dr. Hochstetters.
So that its general existence in the
rocks of that age may be safely predicted.

I shall be quite prepared to
do battle with Prof. King whenever
he shows fight - Not that he has
contented himself with simple
negations.

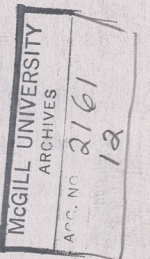
W. B. C.

53. Madley St. London.
Dec 15th 1865.

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Your paper comes on at the G. S. on Wednesday next Dec 20th & perhaps a fortnight later, Prof. King's onslaught upon all who believe in *Sozoön*. I procured for Mr Günbel the able chief of the Geol. Survey of Bavaria, a specimen of *Sozoön* from Logan's block, & after having compared it with a limestone or calcareous serpentine from the gneiss or Laurentian "azoié" of Bavaria, he sent me specimens which I submitted to Dr Carpenter. I enclose an extract from his letter to me on the subject. Did I forget to ask you in my last letter whether you would send me the casts of the footprints of a reptile from (I presume) Tatmagouche - whereabouts in Nova Scotia is that, or in what part of the coal. I have presented the casts to the
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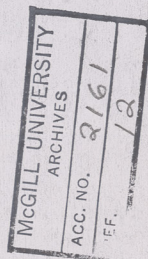
Bellevue by dear Dorra, ever most truly yrs
Chadwell.

Extract of letter from W. B. Carpenter to C. Lyell. - Dec 9th 1865

"I am much obliged to you for so promptly forwarding to me
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1865 Letter from Prof. Huxley to C. Lyell Nov 27 1865

"I returned last night from a hasty journey to
Ireland whither I betook myself on Thursday night,
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of Carboniferous corals. The journey was as well
worth the trouble as any I ever undertook. I turned
out ten genera of vertebrate animals, of which five are
certainly new, & of these four are Labyrinthodont
amphibia of new types. These four are baptised
Ophiderpeton, Lepterpeta, Ichthyerpeta,
Keraterpeta. They all have ossified special
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hitherto unknown & corresponding with Sirenia &
Amphiana



Amphiuma among living Amphibia - Ophiderpeton for example, is like an eel about three feet long with small fore legs & rudimentary hind ones.

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The vertebral column of Archegosaurus ~~was~~ ^{is} alone known & it is in a remarkably imperfect state of ossification. Since that date by a succession of odd chances, seven new genera have come into my hands, & of these, six certainly have well ossified & developed vertebral columns.

I reckon that there are now about 30 genera of Labyrinthodonts known from all parts of the world & all deposits. of these eleven have been established by myself in the course of the last half dozen years upon remains which have come into my hands by the merest chance.

Five & twenty years ago all the world but yourself, believed that a vertebrate animal of higher organization than a fish in the Carboniferous rocks never existed.

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