SHEFFIELD SCIENTIFIC SCHOOL OF YALE COLLEGE,
New Haven, Connecticut.

Aug. 13. 1875.

My dear Mr. Watt.

Your fossil fern is very interesting to me, as it has better fruit than I have ever seen on such ancient ferns. I do not think it had anything to do with Asplenium, but after a very careful microscopic study of it I am strongly of the opinion that it comes into the order Marattiaceæ, & in the order is nearest to Marattia itself.

A good many false genera have been proposed in this order, but Hooker has reduced the genera to 4, Anpiopteris, Marattia, Danæa, & Kaulfussia. Presl in his "Supplementum Tentaminis Pteridographicæ" proposed these worthless genera, & in the same place he has two or three genera of fossil ferns of the same order. I do not know how good these genera are.

But I saw a copy of Schimper's work on palæophytology some months ago, and I am very sure that I noticed genera very close

to Angiopteris & Danea.
As this order (Marattiaceæ) is one of so few genera, & not many (good) species, & these genera much differentiated, it is reasonable to believe, (if evolution be true) that the order is very ancient, & so it is probable that ferns of this order would sometimes be found in the coal measures.

I enclose some scraps of specimens for Dr. Dawson. The young fruit of Marattia cicutæfolia strongly resembles the fossil specimen, in which by the way the best-preserved

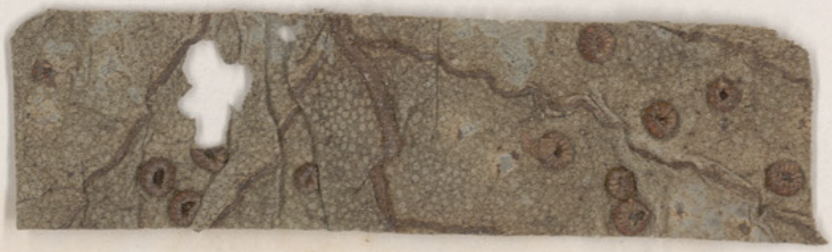
fruit is seen on the side where the white pattern is pasted on - in a little ledge or shelf. I think I can recognise several little hollows radiating from the fruit scar - as if the fruit had been several-celled, & these cells had left slight depressions in the frond.

I return the specimen in the original box -

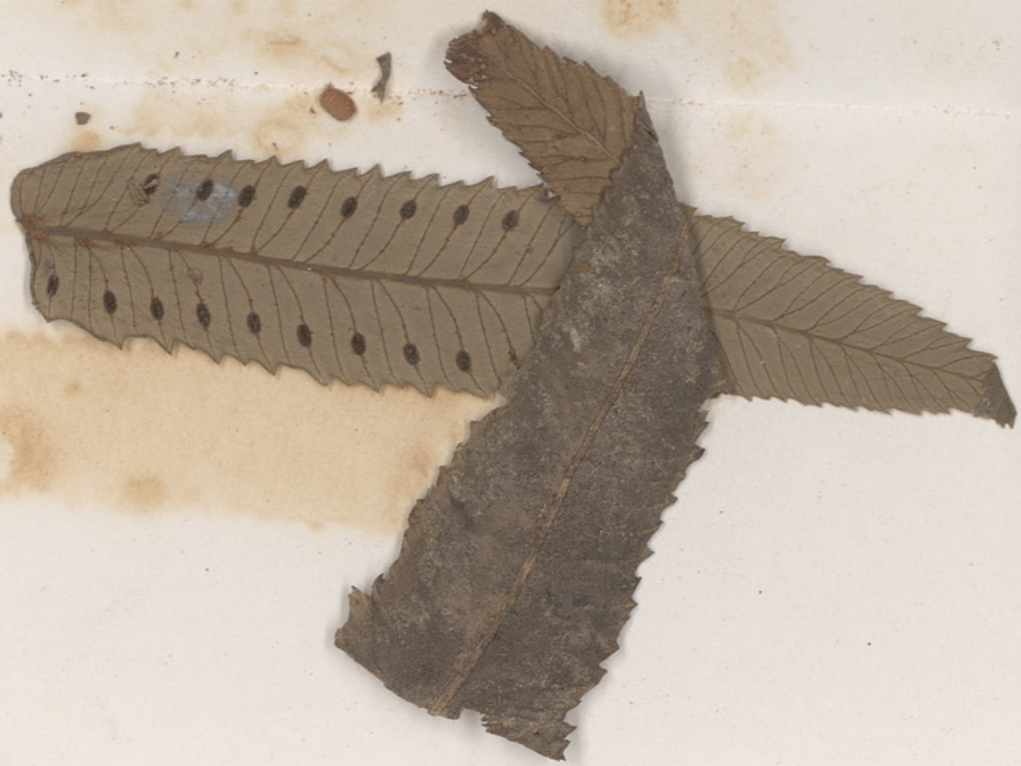
Yours very truly

Daniel C. Eaton.

Kaulfussia Assamica
India Orientalis



Marattia cicutæfolia
Brazil.
Young & mature fruit.



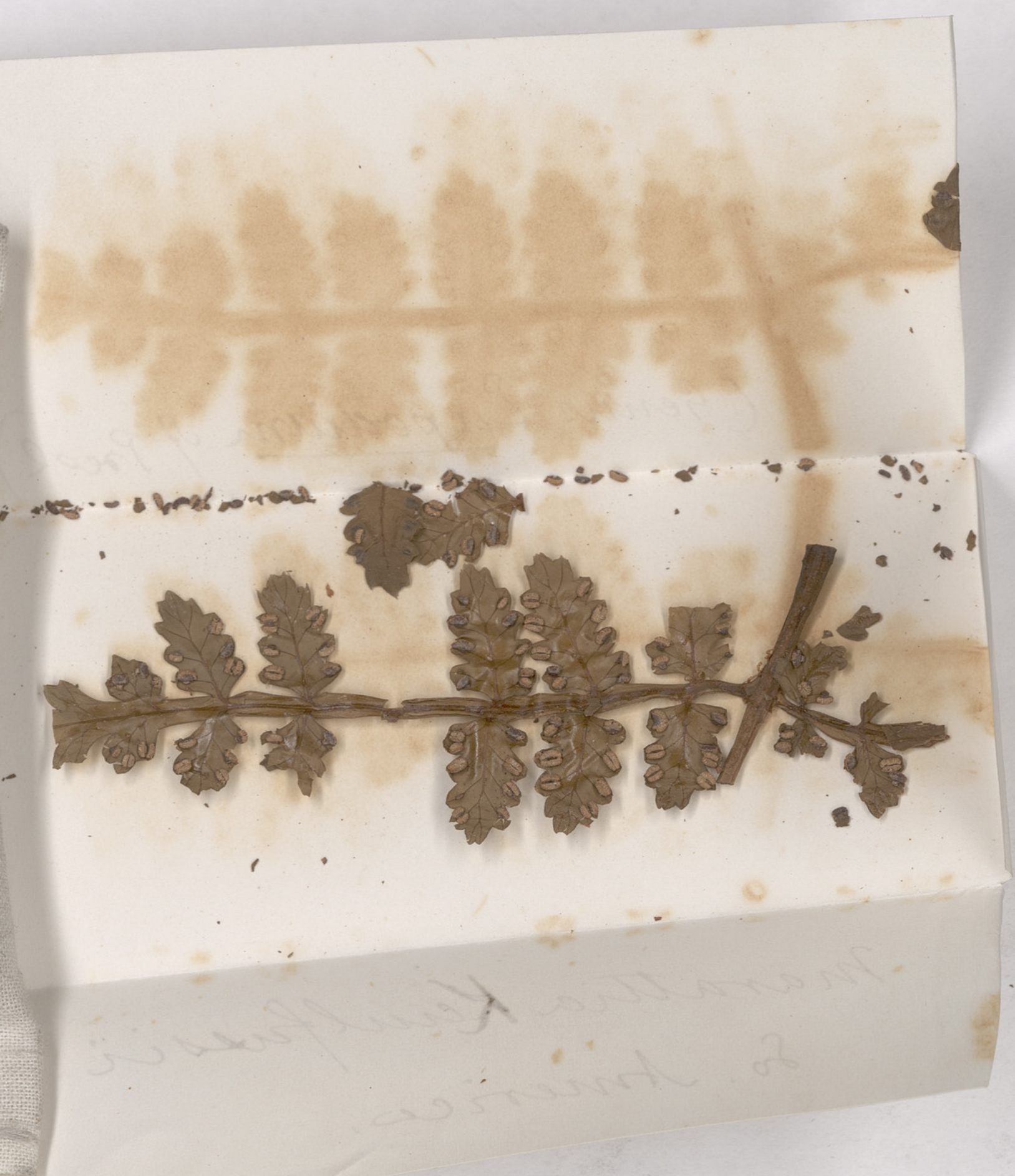
Marattia salicifolia
Natal. So. Africa

Marattia fraxinea
Feejee Islands.

Marattia Kaulfussii

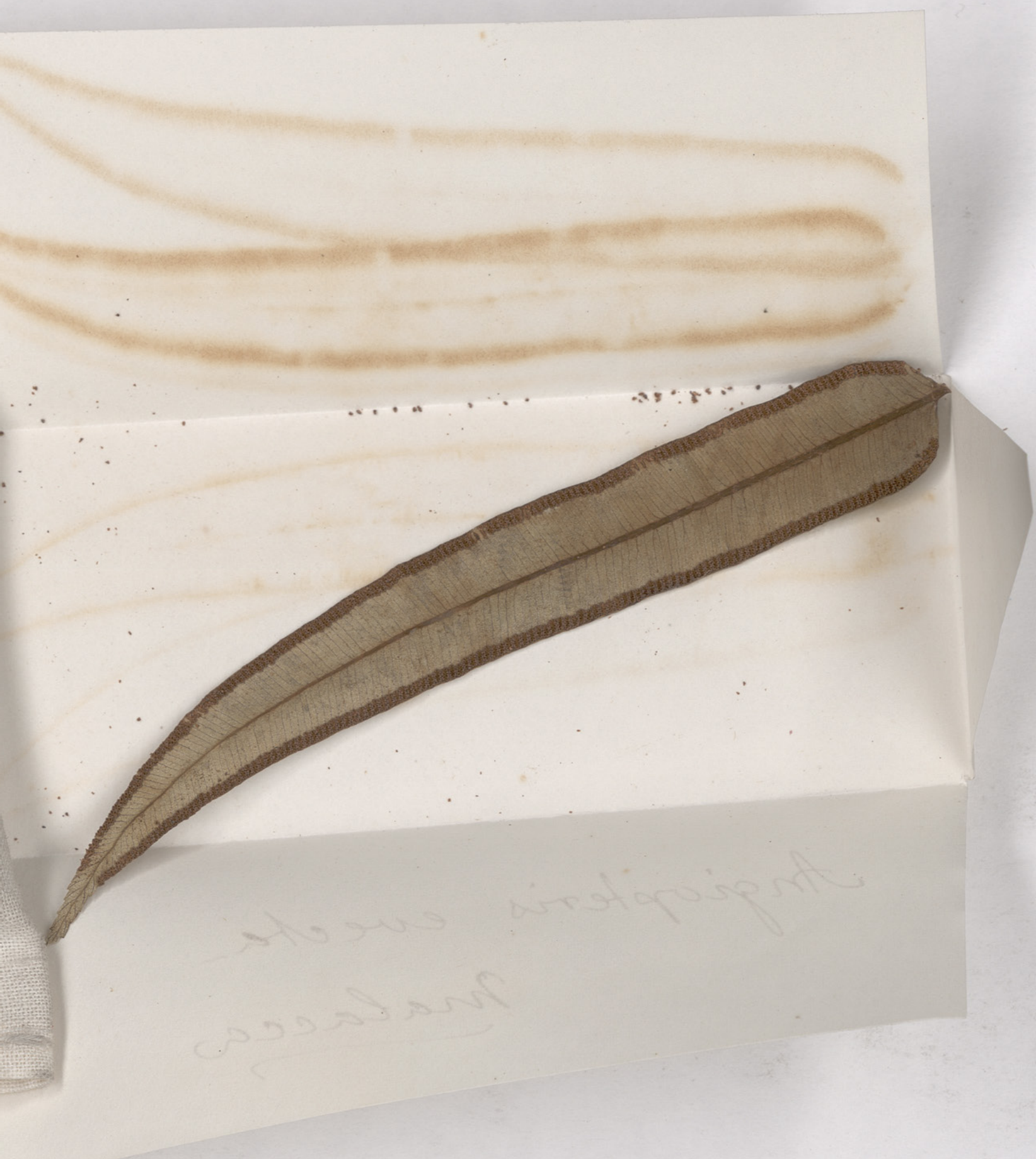
So. America.

(Genus Eupodium of Presl)



Angiopteris evecta –

Malacca



Dioscorea alata,
West Indies