Send Pkg

Bain

Sept/82

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R. Hay

North River

Sept. 16th '82

Respected and Dear Sir.—

I must beg you to excuse my not answering your Kind Letter of May 21. till this late date. I did not wish to intrude on your very valuable time with trifling matters.

I now send you some additional drawings of fossil plants from St Peter's Island, and a little map showing the stratagraphical relation of its beds to those of the mainland.— also a section of its rocks.

All these, taken together, I think, show St Peter's Island to be of the same age as Gallas Point— consequently Permo-Carboniferous.

I thank you for the determination of fossils from drawings. Your recognition of the "petiole of Tree fern" was a valuable surprise to me.

When I revisited St Peter's Island, it enabled me to recognise many fragments of this species.

I have labored hard to improve my acquaintance with "Knorria", but with small success. Some sections of noded Knorriæ are composed almost entirely of cellular tissue. Other sections have much woody fibre; but I have never seen medullary rays. I never saw anything like a ramification on either species. In Dadoxylon, knots, originating in the central pith, are quite frequently found.

In your Report on the Island you drew a decided line between Gallas Point rocks and the upper red sandstones. I think that this distinction must be still preserved.

In the field the difference is much more apparent than in the cabinet. Even the fucoids are dissimilar. Calamites are abundant in the lower, but rare in the upper. Dadoxylon trunks form a splendid feature of the lower, but seldom mark the upper sandstones. Walchia is infrequent below, but very abundant above.

Heavy leaves, like Neograthia, are not infrequent above, but not yet seen below. Great course thalusses, and strong, noded stems of large marine algae are the most prominant paleontological feature of the upper rudy sandstones, but I have not yet seen them in the lower rocks. Fern trees are abundant on St Peter's Id and also found above.

You have suggested the division into Lower and Upper Permian. I have already given a partial section of this Upper Permian. Its whole depth must approach 3'000 feet; and it covers considerable surface on the Island.

There is a series of horizontal beds on the north side of the Island, extending through Rustico, Cavendish and New London which may be Triassic. On its western limit Bathygnathus was found. A number of plants occur in it about Cape Turner. They are different from those of the south side of the Island. I will try and send you drawings of some of these.

I thank you for your very kind offer of assistance in publishing. I wish I had anything worth offering to the scientific world. I have been over the reptile ground, but found nothing. It ain't the privilage of a common geologist to shake a dozen scaley monsters out of a hollow stump. It would be difficult to free one of our Dinasaurs like that. I would be only too happy to secure one to grace your beautiful Redpath museum.

Where would I get the best information on the Permian and Triassic plants?

Might we retain the term Permo-Carboniferous for the lower division, and call the upper division Permian?

Yours most truly,

Francis Dean.