

HALIFAX, N. S.

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## REMARKS ON MR. CARRUTHER'S VIEWS OF PROTOTAXITES.

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In the "Monthly Microscopical Journal" for October, 1872, Mr. Carruthers, of the British Museum, has published a paper in which he endeavours to show that my *Prototaxites Loganii*, from the Devonian of Gaspé, is a gigantic seaweed, for which he proposes the generic name *Nematophycus*. Though I saw this article some time ago, other avocations have prevented me from attending to it until now.

The tone and manner of the article, I may say in passing, are unnecessarily offensive; and the author bolsters up his argument by unfair assumptions that I am ignorant of some of the most familiar facts of structural botany, facts which were well known to me while he was yet a school-boy, and which are stated or implied in many of my papers on fossil plants. Possibly, however, Mr. Carruthers is already aware of his bad taste in this matter, and it will be to me a sufficiently ungracious task to expose, as I must do in the interest of truth, the worthlessness of the explanation which he offers of the nature of Prototaxites. I shall reply to his objections under the following heads:—(1.) The mode of occurrence of Prototaxites. (2.) Its microscopic structure. (3.) Its probable affinities.

1. *Mode of Occurrence*.—This alone should suffice to convince any practical palæontologist that the plant cannot be a sea-weed. Its large dimensions, one specimen found at Gaspé Bay being three feet in diameter; its sending forth strong lateral branches, and gnarled roots; its occurrence with land plants in beds where there are no marine organisms, and which must have been deposited in water too shallow to render possible the existence of the large oceanic Algae to which Mr. Carruthers likens the plant. These are all conditions requiring us to suppose that the plant grew on the land. Further, the trunks are preserved in sand-