

ON THE PROBABLE NATURE OF THE SUPPOSED FOSSIL TRACKS

KNOWN AS PROTICHNITES AND CLIMACTICHNITES.

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The Potsdam sandstone of Beauharnois and Vaudreuil (near the junction of the St. Lawrence and Ottawa rivers), and the same formation in the vicinity of Perth in Eastern Ontario, is well known to exhibit in places some remarkable track-like impressions, commonly known as "Protichnites tracks." These were at first supposed by Professor Owen to have been made by a tortoise, but were afterwards regarded as the tracks of several species of some unknown crustacean, "wholly distinct from anything presented by the crustacean forms of later geological periods or of the present day." They may be described generally as presenting in some cases a continuous—and in others an interrupted—central furrow, with a series of small pit-marks or indentations, at a distance of two or three inches on each side, along the entire length of the impression. The central furrow, or line of broken furrows, is regarded, by those who assume these impressions to be of animal origin, as having been formed by a ridge on the plastron of the crustacean, or perhaps by a styliform appendage attached, as in the *limulus*, to the abdomen of the animal, whilst the creature propelled itself by its numerous feet in shallow depths of water, or dragged itself along the exposed sea shore. In at least one of the discovered impressions, however, the lateral indentations are absent, and the impression consists simply of a strongly-marked central furrow, with a few parallel grooves on each side, the outermost of these being at a distance of a couple of inches or thereabouts from the median furrow. The absence of lateral pit-marks in this case, and the occurrence in their place of narrow grooves, was occasioned, it has been suggested, "by the limbs of the animal having been dragged along while the body was afloat." The impressions are