

built on Exmouth Island (lat. $77^{\circ} 12' N.$, lon. $96^{\circ} W.$), vertebral bones of, apparently, some liassic enaliosaurian. All doubt as to the reality of this discovery, and all idea of accounting for the occurrence of such remains by drift, must be abandoned, as the fossils found by M'Clintock were unquestionably *in situ*, and it is impossible to evade the consequences that follow to geological theory from their discovery.

Captain Sherard Osborn, also, found broken vertebræ of an ichthyosaurus, 150 feet up Rendezvous Hill, the north-west extreme of Bathurst Island: of these specimens, one lay among a mass of stone that had slipped from the N. W. face of the hill; the other was by the side of a ravine or deep watercourse on the southern face of the same elevation. I have no doubt but that they were *in situ*.

I am well aware that the question of light in the Arctic seas will be disposed of by some geologists, who will remind us that the saurians, and probably the ammonites, were endowed with a complicated optical apparatus, rendering them capable of using their eyes, not only for the distinct vision of objects differing greatly in distance, but also of using them, under widely differing conditions of light and darkness; and I readily admit the force of such observations.

But what are we to say as to the question of temperature? It was certainly necessary for an ammonite to have a sea free from ice, on which to float and bask in the pale rays of the Arctic sun; and therefore I claim a temperature for those seas, at least similar to that which now prevails in the British Islands: and I may add that the ammonite, from its habits, was essentially dependent on the temperature of the air, as well as on that of the water.

There is at present a difference of $49^{\circ} 5 F.$ between the mean annual temperature of Point Wilkie and Dublin; and if this change of temperature be supposed to be caused by a change of the relative positions of land and water, the

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