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APPENDIX.

tive position of land and water on the earth's surface. No attempt, that I am aware of, has ever been made to calculate the number of degrees of change possible in consequence of changes of position of land and water; and from some incomplete calculations I have myself made on the subject, I think it highly improbable that such causes could have ever produced a temperature in the sea at 76° north latitude which would allow of the existence of ammonites, especially ammonites so like those that lived at the same time in the tropical warm seas of the south of England and France, at the close of the Liassic, and commencement of the lower Oolitic period.

During the course of the same Arctic expedition in which these organic remains were found, Captain Sir Edward Belcher discovered in some loose rubble, of which a cairn was built on Exmouth Island (lat. 77° 12' N., long. 96° W.), vertebral bones of, apparently, same 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 31*