have a Devonian aspect, and small *Producti* are associated in it with *Atrypa reticularis*, which species is never found in carboniferous rocks.

If this indication be accepted (and I think it a good one), that the Devonian system is here interposed between the Silurian plateau and the Carboniferous rocks, it would be satisfactory; and it is worth while to remember here, that in the easterly trend of these rocks Dr. Sutherland discovered a considerable formation of stratified sandstones along the north-eastern end of Baffin's Bay. I have provisionally given them the same colour. But nothing is known of the intervening ground.

The terminal member of the Palæozoic series, the Permian, is not yet traced in Polar America. But in Spitzbergen it has long been known, and we are indebted to Prof. De Koninck for a valuable list, chiefly European species, from thence. The *Productus horridus* and *P. cancrini*, *Spirifer alatus* and *S. cristatus*, are too well known to need any comment. They were collected at Bell Sound by M. Robert, in a latitude as high as that of Albert Land.

And now we come to the most interesting part of the Geology of the Arctic Basin, for I must be permitted, with the evidences before cited of an ascending section northwards, to call it so.

The reddish limestone forming the cap of Exmouth Island before referred to, is clearly, from its fossils, of carboniferous date. But in building the cairn on the summit, the fragments of limestone were carefully examined, and some of them at least contained bones of Vertebrata, which, under Prof. Owen's examination, have turned out to be *Ichthyosaurus*! Sir Edward Belcher assures me there was no perceptible difference between the fragments with bones and those with the Carboniferous shells above quoted. Yet this similarity of composition need not prevent our inferring that on this summit we have an outlying patch of Oolitic or Liassic rocks brought into close contact with the old limestone.

And as confirming the idea of the fossils being here *in situ*, and not drifted masses, Capt. M'Clintock had the good fortune to discover oolitic or lias fossils, *Ammonites*, *Spirifers*, *Pecten*, &c. in Prince Patrick's Land, lat. 76° 30′, long. 117°. These are quoted in the Royal Dublin Society's Journal for Nov. 1854. By referring to the map, it will be seen that the trend from this point to Exmouth Island follows nearly the direction E. by N. which the Carboniferous formation takes in its range from Melville Island to Albert Land. Science is greatly indebted to both these gallant officers for their exertions.

In the Dublin Journal above quoted are some excellent observations by Dr. Scouler on the Tertiary (miocene probably) flora of W. Greenland; but these do not come within the object of this communication. It is worth while, in conclusion, to observe, that elevation of the land has taken place since the period of the (drift ?), for Arctic shells imbedded in it were found by the former expedition as far as 500 feet above the sea-level, and Capt. Belcher has found bones of large Vertebrata (whales ?) at even greater elevations.