

observations of Sir John Ross in 1818, of Sir James Ross in 1840, and of Mr. Harry Goodsir in 1845. In the year 1844 Professor Lovén contributed a paper, "on the bathymetrical distribution of submarine life on the northern shores of Scandinavia," to the British Association. He says, "With us the region of deep-sea corals is characterized in the south by *Oculina ramea* and *Terebratula*, and in the north by *Astrophyton*, *Cidaris*, *Spatangus purpureus* of an immense size, all living; besides *Gorgonia* and the gigantic *Alcyonium arboreum*, which continues as far down as any fisherman's line can be sunk. As to the point where animal life ceases, it must be somewhere, but with us it is unknown."¹

In 1863 the same naturalist, referring to the result of the Swedish Spitzbergen expedition of 1861, when mollusca, crustacea, and hydrozoa were brought up from a depth of 1,400 fathoms, expresses the remarkable opinion, which later investigations appear generally to support, that at great depths, wherever the bottom is suitable, "a fauna of the same general character extends from pole to pole through all degrees of latitude, some of the species of the fauna being very widely distributed."²

In 1846 Keferstein mentions having seen in Stockholm a whole collection of invertebrate animals—crustacea, phascolosoma, annelids, spatangus, myriotrochus, sponges, bryozoa, rhizopoda, &c.—taken at a depth of 1,400 fathoms during O. Torell's Spitz-

¹ Report of the Fourteenth Meeting of the British Association, held at York in September 1844. (Transactions of the Sections, p. 50.)

² Forh. ved de Skand. Naturforskeres Möde i Stockholm, 1863, p. 384.