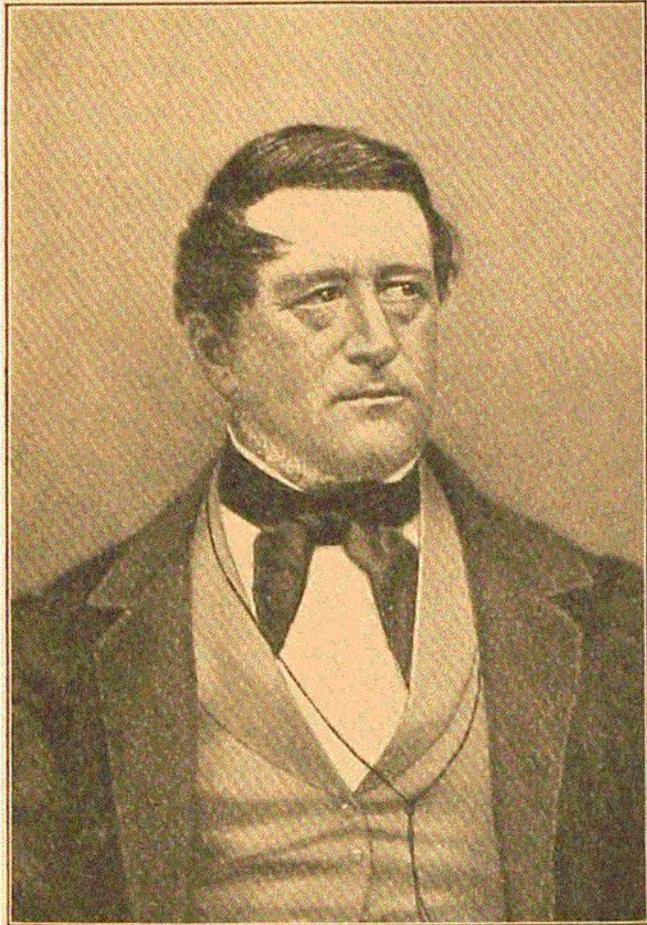


taking a great many dredgings at different depths, and came to the conclusion that marine animals were distributed in zones of depth, each characterised by a special assemblage of species. He divided the area occupied by marine animals into eight zones, in which animal life gradually diminished with increase of depth, until a zero was reached at about 300 fathoms. He supposed that plants, like animals, disappeared at a certain depth, the zero of vegetable life being at a less depth than that of animal life. In his Report on the Investigation of British

Forbes' observations in Ægean Sea. Marine animals distributed in zones of depth.

Zero of life in the sea.

Marine Zoology by means of the Dredge (1850), Forbes suggested that dredgings off the Hebrides and the Shetlands, and between the Shetland and Faroe Islands, would throw much light on marine zoology, thus pointing to the scene of the subsequent important work carried on by Carpenter and Wyville Thomson, and Murray and Tizard.



PROFESSOR MICHAEL SARS.

In 1844 Lovén carried on researches on the distribution of marine organisms along the Scandinavian coasts, confirming and extending the observations recorded by Forbes, and in 1845 Johannes Müller commenced to study the pelagic life of the sea by examining samples of sea-water and by

Lovén.

means of the tow-net, thus giving a great impetus to the study of marine biology.

In 1845 Sir John Franklin set sail on his ill-fated North Polar Expedition, accompanied by Harry Goodsir, who recorded the results of dredging in depths of 300 fathoms.

John Franklin and Goodsir.

In 1846 Spratt took dredgings in the Mediterranean down to a depth of 310 fathoms; he afterwards brought up shell-fragments from a depth of 1620 fathoms in the Mediterranean.

Spratt.

In 1850 Michael Sars published the results of his dredgings off the coast of Norway, giving a list of 19 species living at

Michael Sars and G. O. Sars.