

Special mention must be made of specimens of our common sea-urchin *Echinus esculentus* from two stations in the North Sea: two specimens from 77 metres, temperature  $7.1^{\circ}$  C., and eight specimens from 96 metres, temperature  $6.15^{\circ}$  C. The species generally varies very little, and individuals from our littoral zone scarcely differ at all. Normally the shell is high and of a reddish colour, while the spines are violet. The ten specimens from the North Sea, however, all differed from the typical form, having a flattened shape and varying considerably in colour. The shell itself shows variations from the typical red hue to a chocolate brown, and the spines assume every intermediate shade from the most beautiful vermilion (like what we find in *E. elegans*) to pure green. Many specimens have in consequence an outward resemblance to *Strongylocentrotus* or *Echinus miliaris*. Mortensen has described from the North Sea (40 fathoms) two specimens of flattened shape with unusually long bright red spines (like those of *E. elegans*). Norman tells of a variety from deep water near the Shetlands that had very fine spines and an exceptionally high shell, and Sars has described a similar variety from the Great Edge.

These facts appear to justify the conclusion that, whereas in shallow water and along the coasts the species is of a fairly constant type as regards both shape and colour, it has a marked tendency to variation at greater depths, although the normal, or almost normal, form is to be found also in deeper water, as on the Faroe banks. The deeper portions of the North Sea in particular appear to produce very striking variations.

Of shell-bearing snails there are two forms which characterise the area investigated, namely *Neptunea antiqua* and *Sipho gracilis*, both species being met with everywhere from Denmark to the Scottish coast, and sometimes in great numbers.<sup>1</sup> Judging by our investigations *Neptunea* extends into shallower water than *Sipho*, though both species exist plentifully side by side at considerable depths. One biological peculiarity worth recording was that every individual of *Sipho* in the haul referred to had a sea-anemone (*Chondractinia digitata*) on its shell, and at other stations, too, they were found living together in symbiosis. These sea-anemones were likewise found on the

Norwegian depression, from the Danish coast, and east of Aberdeen in 62 metres), *Echinaster sanguinolentus*, *Strongylocentrotus dröbachiensis* (only from the Danish coast, one specimen with *Stylifer turtoni* on its shell), *Echinus esculentus* var., *Echinocyamus pusillus* (only east of Aberdeen in 62 metres), *Cucumaria lactea*.

<sup>1</sup> We secured 130 specimens of *Neptunea* and 375 of *Sipho* at one haul from a depth of 96 metres (temperature  $6.15^{\circ}$  C.).