Plates I.-VI. show certain forms found in the Sargasso Sea, representing a small selection from the numerous coloured drawings by Rasmussen. Plate I. shows the black *Cyclothone microdon* from deep water and the light coloured *C. signata*, which has its lower limit just at the upper limit of the black fish. Other black fish and some red prawns from depths beyond 500 metres are represented in Plates II. and III. The black and red colours are easily seen in strong sunlight. The theory of protective colours must therefore assume that these colours only appear in dark surroundings. In this connection it is very interesting to note that the upper limit to the occurrence of these black and red deep-water animals, which according to latitude varies between 500 and 750 metres, is also the limit within which most of the sun's rays are absorbed, and it is important also to note that the red rays belong to that part of the spectrum which is most rapidly absorbed by the water.

In connection with the question of the colouring of these bathypelagic forms we may refer to some observations made during the cruise regarding the vertical migrations of such dark-coloured forms, as shown in Fig. 490. Three species, *Gastrostomus bairdii*, *Cyema atrum*, and *Gonostoma grande* have been taken only at 750 metres or deeper, while two species, *Gonostoma rhodadenia*[1] and *Photostomias guernei*, have been taken also at lesser depths, even at 150 metres. I have already mentioned several instances (see p. 93) where forms like *Astronesthes* and *Idiacanthus* have been taken at the surface, but only at night. In the case of *Photostomias* and *Gonostoma rhodadenia* I have denoted the night-captures with a dark disc, while a ring denotes day-captures. These catches seem explicable only by supposing vertical migrations to take place, and as these occur in the darker part of the twenty-four hours they probably coincide so precisely with the disappearance and reappearance of daylight that the dark colouring may be of no danger to the animals in their nightly migrations towards the surface of the sea.

Vertical migration of animals.

The occurrence of dark colours thus coincides with the region where the intensity of the sunlight is greatly diminished. Another circumstance seems to confirm this, viz. that in different waters the upper limit to the black fish and the red crustaceans seems to coincide with the same low intensity of light.

[1] The specimens which in Fig. 490 are referred to *Gonostoma elongatum* have, on closer investigation, proved to be the closely allied *Gonostoma rhodadenia*.