

Colourings of animals really adaptations to environment.

especially conspicuous in the case of the minute young of *Scombresox* living at the very surface, the sides of which are mirror-like, while the back is not black, but intensely blue. This seems to correspond well to the fact that the uppermost layers of the ocean, viewed from above, appear blue. A similar arrangement of colour is met with in boreal waters, for instance in the colouring of the surface fish, the mackerel. The colours seem so intimately adapted to certain conditions, and the advantages they offer for the purpose of eluding observation are so obvious, that we can hardly avoid the conclusion that these colours must be considered as the result of adaptation to surroundings.

In the surface layers most animals are colourless. The eel larvæ (leptocephali) are specially interesting, being indeed so

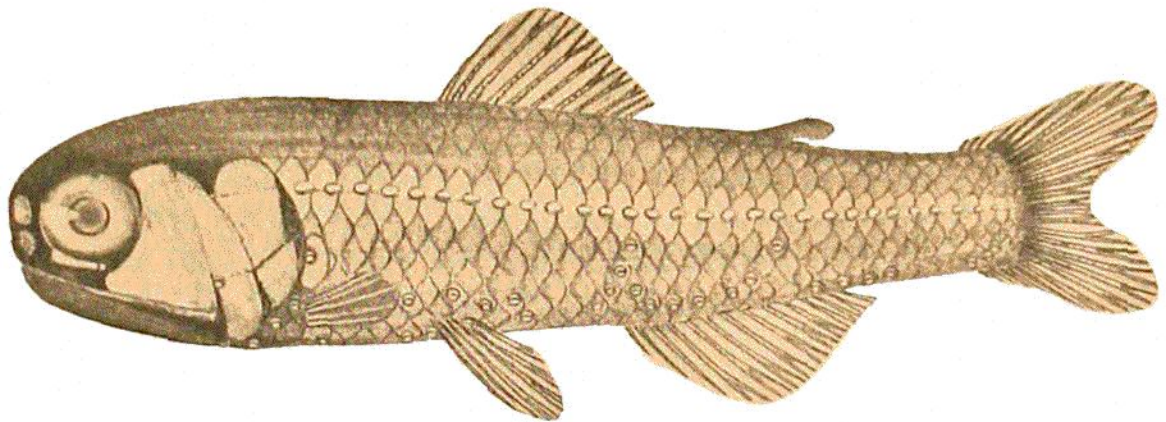


FIG. 491.

*Myctophum (Diaphus) rafinesquei*, Cocco. Nat. size, 7 cm.

transparent that when sorting them out of the living material captured, one can only see their small black eyes; even their blood is transparent and perfectly devoid of hæmoglobin.

The surface fishes are so well known that I may merely refer the reader to Plates IV. and V. One group containing sea-blue forms is represented by the flying-fish. The pilot-fish are also blue, but with some darker transverse bars. Is this because biologically it approaches another group of surface-forms, which live in the immediate vicinity of drifting or floating objects? To this group belong the wreck-fish (*Lirus, Polyprion*). We captured such fishes swimming around a log covered with barnacles, and the similarity between the colours of the fish and those of the log and its inhabitants was marvellous. The most intimate adaptations to life among drifting objects are met with among the animals of the Sargasso Sea (see Plates