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V. and VI.). The small fishes (Antennarius marmoratus, Monacanthus, Seriola, Syngnathus pelagicus), the crabs (Planes minutus), the prawns (Latreutes ensiferus and Palæmon natator), and also the naked snails, in fact all the animals of the Sargasso Sea, seem in regard to colours, shape (see for instance the remarkable prehensile organs of the pectoral fins of Antennarius), and size, to be intimately adapted to life among the drifting tufts of the Sargasso weed. The idea of the utility of these adaptations is here unavoidable. The occurrence of blue fins appeals to me as most striking, and this feature is specially noticeable in Hippocampus (the sea-horse). The specimen captured by us (see Fig. 71, p. 89) was reddish-brown, only the fins, which have to be freely moved in the blue water, being deep blue. Plate VI. shows five different specimens of the crab Planes minutus, exhibiting all the varieties of colouring presented by the Sargasso weed. This species ought to be a splendid object for experiments in order to test the possible effects of variation in the colour of the surroundings; Antennarius might possibly also be employed for this purpose, but on an expedition like ours the idea of performing such experiments had to be abandoned.

What I have said here refers mainly to the Sargasso Sea, which was examined by us in regard to the light-conditions at different depths, as well as the vertical distribution and the colouring of the animals. As to the animals of the coastal waters and those of the bottom of the ocean I have much less to say. In coastal waters the light-conditions are undoubtedly very different from those in the open ocean. The large amounts of suspended substances reduce the transparency of the water and prevent the light rays penetrating so far as they do in the clear tropical or subtropical ocean. Hermann Fol's interesting experiments at Nice have already been referred to (see p. 252); he went down in a diving dress as far as 30 metres, at which depth red animals appeared black.

Are the red, yellow, and blue colours of the coast-fish (as shown on Plate VII.) to be explained as protective colours? Are they adaptations to the red of certain algæ and other colours of the sea-bottom, like the gaudy paintings of the coral-reef fishes? Or are they to be considered like those adaptations which Darwin has ascribed to sexual selection?

Still more difficult is it to frame any idea as to the laws of colour in the abyssal region. Plate VIII. shows two bottom fishes from deep water, just on the limit where the traces of