

to enable us to find all degrees of light-intensity, at all events during summer. *Paraliparis bathybi*, the large black bathypelagic fish found by us in the Norwegian Sea (see Fig. 107, p. 127), possesses well-developed eyes, although it lives in deep water and undoubtedly in surroundings just as devoid of daylight as does *Cyclothone microdon*. The same remark applies to *Rhodichthys regina*.

Is it the rich phosphorescent pelagic fauna peculiar to the coast waters and the boreal area which renders light-organs useless and eyes useful to the fishes of these regions? Is it the case that the peculiar light-organs and the wonderful eyes can develop only in warm oceanic waters of low specific gravity? Are all these features only special adaptations to special and definite conditions, like the splendid colours of animals in tropical lands? Are the small light-organs and the minute organs of vision peculiar to the deep, dark, and cold oceanic waters only rudimentary organs, which are no longer of vital importance to the fishes? Are they to be considered as evidence that these fishes are descended from ancestors living under entirely different conditions in lesser depths?

FLOATING AND ORGANS OF FLOATING

If organisms did not possess the power of floating, thus preventing them from sinking into deep water, the ocean would become a lifeless desert, because in the surface layers of the ocean live the minute plants which form the source of nourishment for all animals in the various depths of the ocean.

In order to understand the faculty of floating possessed by



FIG. 502.
Benthosaurus gallator, G. and B. Nat. size of fish without the prolonged fin-rays, 32 cm. Station 53.