are very small (according to Gill and Ryder 0.7 mm. in diameter).

An important question is: Where does the spawning take place? I do not believe in any general vertical spawning migration among deep-sea pelagic animals, even if the eggs develop in the upper strata of the ocean; the eggs themselves must rise to the surface. If this were not so, we

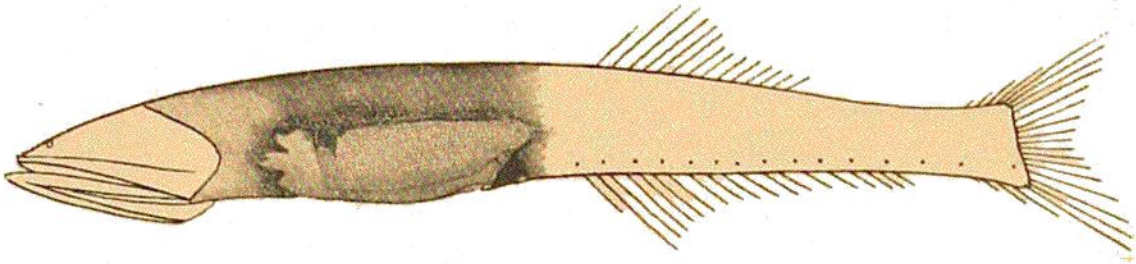

FIG. 528.
Cyclothone microdon, Günth. Nat. size, 6.3 cm.

should undoubtedly have taken, in the upper layers, many more of the pelagic fishes peculiar to deep water, whereas we took them with ripe eggs in deep water. The eggs captured and examined by us vary greatly in size and appearance; Fig. 530 shows the relative size of some of them. A is a small egg a little more than $\frac{1}{3}$ mm. in

Size of fish eggs.

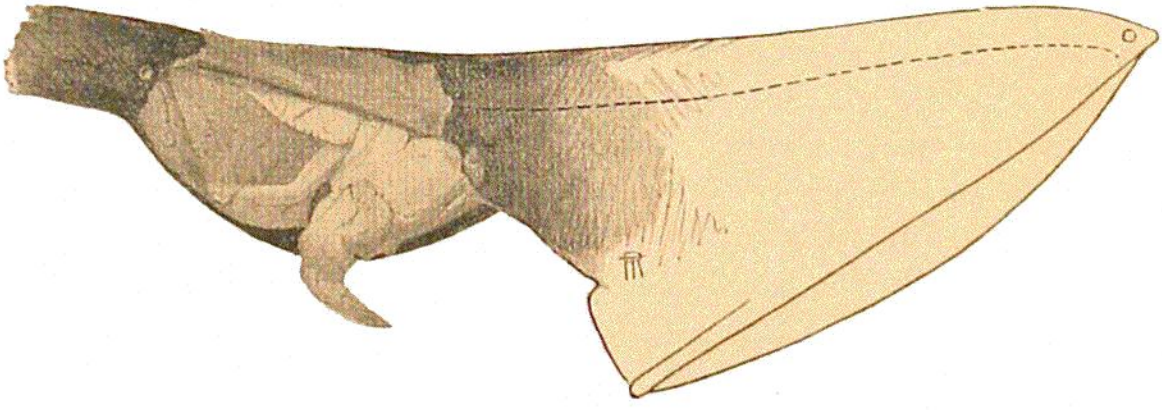

FIG. 529.
Gastrostomus bairdii, Gill and Ryder. Nat. size, 76 cm.

diameter, taken between the Canaries and the Azores; B and C are nearly ripe eggs from *Cyclothone signata* and *C. microdon* (0.46 and 0.56 mm. in diameter); D is the egg of *Gastrostomus bairdii*. It is interesting to compare these with the cod egg (E), especially when we consider the number of eggs produced by this fish. *Cyclothone signata*, the eggs of which are perhaps only one-tenth of the volume of the cod eggs, has only 1000 eggs compared with the five million eggs of the cod.