

integument of the skin by lying over them, and then carry them about until hatched.

But in most fishes which take care of their young the filial duties, strange to say, devolve upon the males. A very singular instance of this is some of the Pipe-fishes, upon the males of which devolves the duty of caring for the young. On the ventral side of the male is a long groove: the opening of a pouch which is suspended from the fish, and in which the eggs and hatched-out young ones are carried about; whereas the female does not possess any such pouch, and after depositing the eggs she takes no further care of them.

Again, the male Stickleback constructs a little nest of weeds or other material, which has an entrance at one side. According to Costa, who made a close study of the habits of sticklebacks, and upon whose observations these remarks are in measure based, he then goes in search of a female, whom he conducts to the nest where she lays some eggs. Then she makes her exit by the opposite side of the nest, so that it now has two openings. Next day or so he goes again in search of a female finding perhaps, the same one, or perhaps another, who a second time is escorted to the nest; and each day this is repeated until the nest contains a goodly number of eggs. Then he assiduously guards them from intruders, including the very female sticklebacks. Nor do his duties cease until the eggs are hatched and the young are able to look out for themselves.

The males of the cat-fishes of the genus *Arius* have another way of taking care of the eggs. The eggs of these fishes are proportionately very large, so that the females lay only a comparatively few. These the male of some, if not all, of the species, carries about in his mouth, or rather in his capacious pharynx; until hatched.

#### HOW THE KNOTTY QUESTION AS TO THE PROPAGATION OF THE EEL WAS SOLVED.

Since Aristotle's time the mode of propagation of the eel has been one of the most knotty questions which has engaged the attention of ichthyologists. Aristotle himself gave the subject con