

brought home. As regards our own expedition we have as yet been able to accomplish only a small part of this work, and at present I am unable to pass a definite opinion on our material as a whole, nor to say what this material does not contain.

Spawning
seasons.

Do our collections of fish eggs and fry from the Atlantic indicate any definite spawning seasons in the Atlantic, as there are in the Norwegian Sea? It is generally known that in the tropics many animals propagate at all times of the year. Thus Carl Semper writes as follows: "During my stay in the Philippines nothing struck me as being more peculiar than the

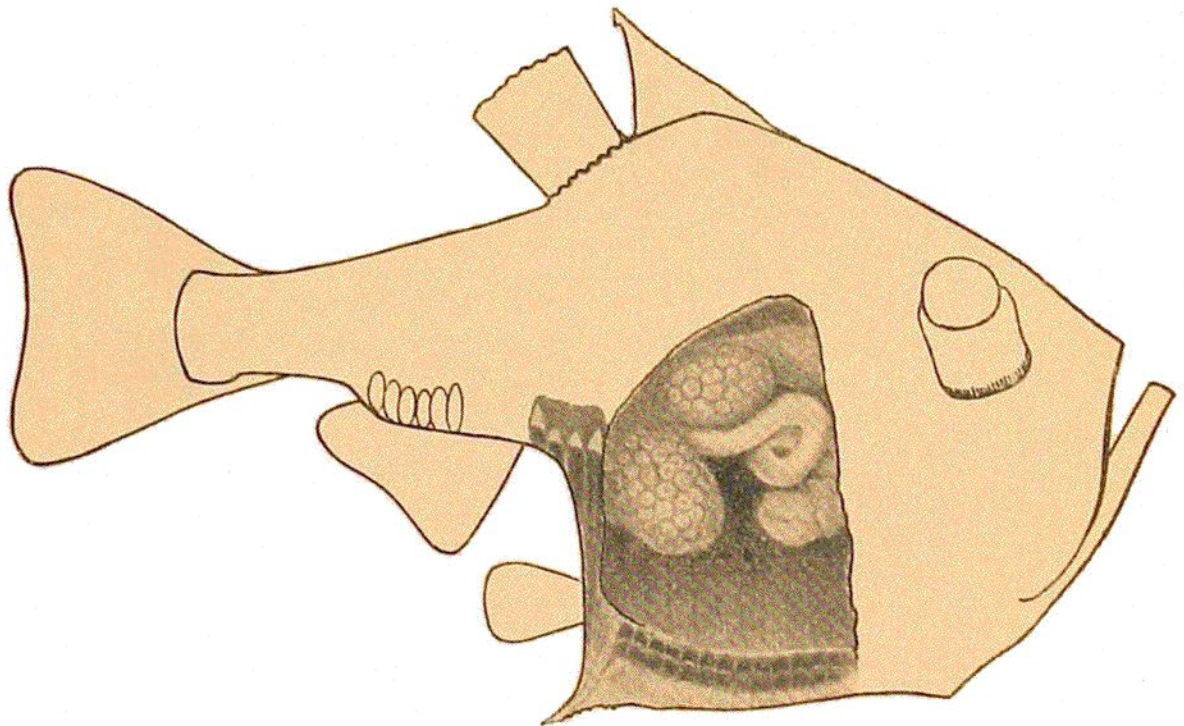


FIG. 526.

Argyropelecus hemigymnus, Cocco. Nat. size, 3.4 cm.

evident lack of periodicity in the life of the animals, peculiar even to insects, land mollusca, and other terrestrial animals. I could always find eggs, larvæ, and adult individuals of a species at the same time, during winter as well as in summer." It is quite evident that a short voyage in a steamer, passing over enormous stretches of ocean in the course of a few days, offers no opportunity of studying the conditions of propagation all the year round. I can only point out how desirable it is that the Atlantic should be examined at all seasons of the year, for only by this means can the conditions be fully understood.

Although we could effect no reliable quantitative analysis, it struck me on our cruise that the number of fish larvæ and fry