

Lirus, Lowe.

Leirus, Lowe, Trans. Phil. Soc. Cambridge, vi., 1836, p. 199.

„ Jordan and Gilbert, Synopsis, 1882, p. 452.

Palinurus, De Kay, N. York Faun. Fish., 1842, p. 118.

Hyperoglyphe, Günth., Fish., i., 1859, p. 337.

„ Lütken, K. dansk. Vidensk. Selsk. Skriv., xii., 1880, pp. 521, 602.

Pammelas, Günth., Fish., ii., 1860, p. 485.

Palinurichthys, Gill, Proc. Acad. Nat. Sci. Philad., 1861, p. 20.

On the British Museum coming into possession of a specimen of the Rudder-fish, *Pammelas perciformis*, I was enabled to recognise the generic identity of that species with the Australian *Hyperoglyphe porosa*. In the meantime Messrs. Jordan and Gilbert pointed out the true relationship of the Rudder-fish, viz., that it was closely allied to *Centrolophus bennettii* from Madeira, for which Lowe had already proposed the generic name of *Leirus*. *Hyperoglyphe* forms merely the extreme link of a chain of modifications of the form and structure of the dorsal fin as observed, in its most generalised form, in *Centrolophus pompilus* or *Schedophilus medusophagus*. In these fishes the dorsal fin is composed of extremely numerous, homogeneous soft rays, of which the anterior only are unarticulated, though flexible.

In other species of the same genera these unarticulated rays become stiffer and more or less spinous, and as they become stronger and more differentiated, the number of soft rays decreases. In *Lirus perciformis* the spinous and soft portions are completely differentiated, although they still form one continuous fin. In *Lirus porosus* (as I now call the Australian species) a separation into two fins is indicated, but not fully accomplished. But all these fishes form one natural group, the members of which possess the complicated pharyngeal dentary apparatus. *Hyperoglyphe*, therefore, should be eliminated from the Perch-like fishes, and placed as a synonym of *Lirus* immediately after *Schedophilus*. Its teeth are minute, in a single series, and not villiform or in a band.

Lirus, like *Schedophilus* and *Centrophilus*, is a truly pelagic form. These fishes follow floating objects or slowly moving animals (Medusæ),¹ either for the purpose of obtaining protection, or for the sake of food, as many small animals, like Crustaceans, are attracted to the same objects. Some, at least, of the species live at considerable depths, as we may gather from the testimony of fishermen, and safely conclude from the softness of their skeletons; and, probably, the young of all live at or near the surface.

¹ The large Medusæ on our coast (*Pilema octopus*) are almost always accompanied by young fishes. On the south coast I found them to be Horse-mackerel, one large Medusa offering a temporary home to more than fifty of these young fishes, which were from 2 to 3 inches long. Only once I found another species of fish among them, viz., a young Whiting.