

coast of North America, by the "Challenger" near Japan, and by the "Valdivia" in the Indian Ocean at the bay of Aden. At this night-station, too, there were black fish in the upper layers, such as *Astronesthes niger* (Fig. 80), a dark *Dactylostomias*, and some black *Cyclothone* at 300 metres. An

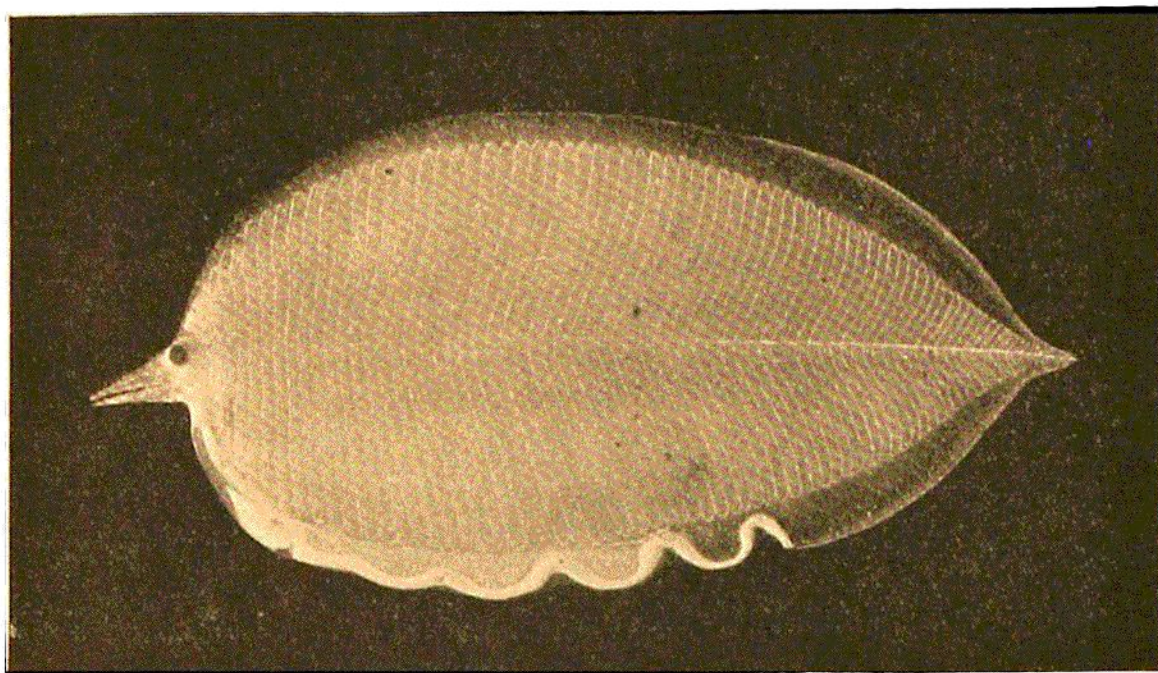


FIG. 79.—NEW SPECIES OF LEPTOCEPHALUS.

interesting cuttle-fish with stalk-eyes was taken at 350 metres, and deeper down we got *Serrivomer*, *Nemichthys scolopaceus*, *Malacosteus niger*, *M. choristodactylus*.

At this station we were able to try an apparatus for

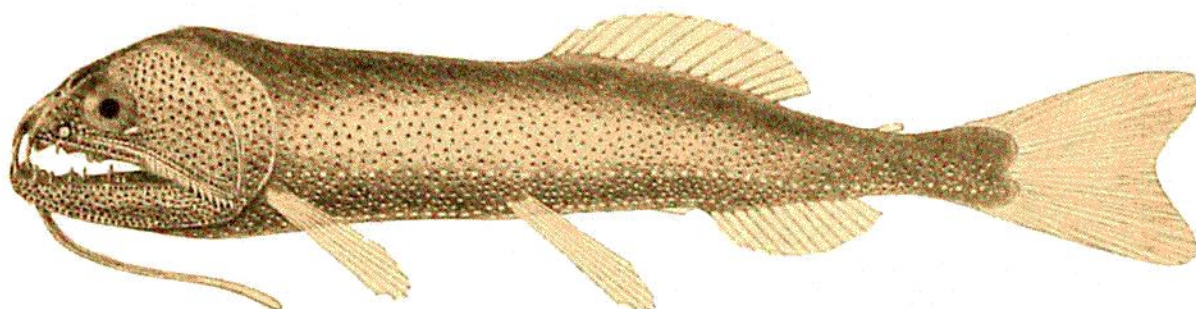


FIG. 80.  
*Astronesthes niger*, Rich. Nat. size, 3.5 cm.

ascertaining the depth to which the rays of light penetrate. It was constructed by Helland-Hansen, and is likely to prove useful in the study of the forms of life in deep water. The apparatus shows the intensity of the light both from above and from the sides. By means of panchromatic plates and colour filters it is possible to tell, not merely whether there is

Helland  
Hansen's  
photometer  
and  
photometric  
experiments.