

found along other continental shores. Here they were red, due, apparently, to the large quantities of ochreous matter carried into the sea by the Brazilian rivers. Usually the colour of deposits along continental shores is blue, with a surface layer of a red or brownish colour. The carbonate of lime in the soundings off this coast varied from 60 to 6 per cent. according to depth, distance from the coast, and whether or not opposite the *embouchures* of rivers. The mineral particles consisted of fragments of quartz, plagioclase, felspars, sometimes kaolinized, epidote, mica, augite, hornblende, fragments of rocks and vitreous particles, the size varying from 0·05 to 1 and 2 mm. in diameter. Radiolarians and Diatoms were nearly, if not quite, absent from these deposits, and when present they, along with siliceous Sponge spicules, did not appear to make up over 0·5 per cent. of the whole deposit. The apparently complete absence of glauconite along this coast was also remarkable.

The various dredgings and trawlings along the coast were very successful, and yielded a large number of new species belonging to nearly all the invertebrate groups. Here the first specimens of a new genus of fish, *Bathypterois*, were procured, of which Dr. A. Günther, F.R.S., remarks :—

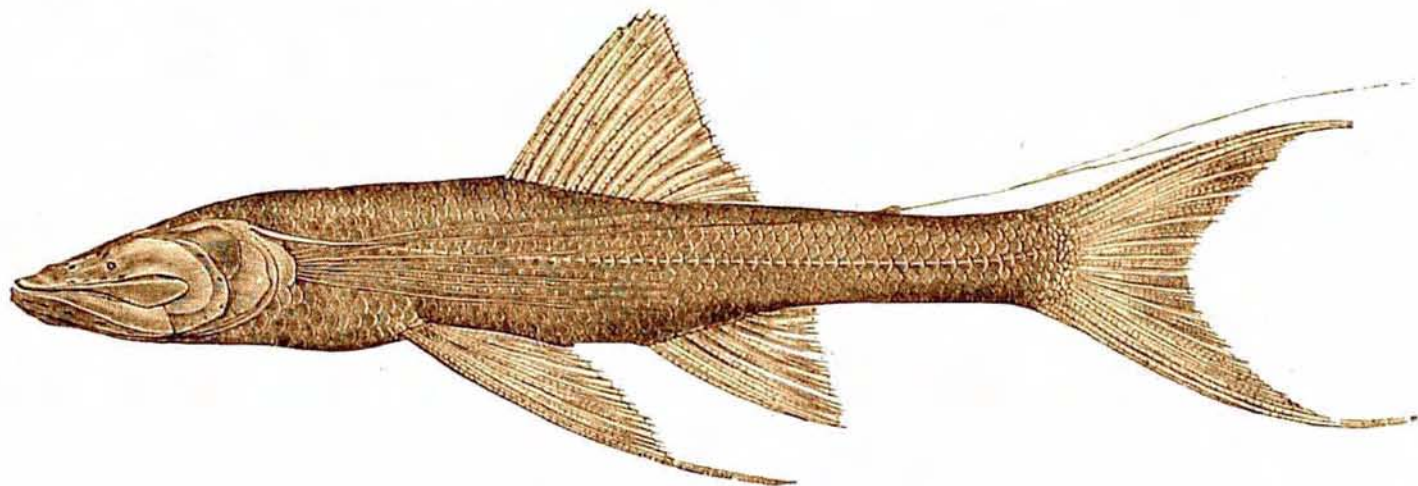


FIG. 88.—*Bathypterois longipes*, Günth.

*Bathypterois*.—“The fishes of this singular Scopeloid genus have retained much of the outward appearance of surface fishes, and without knowing their origin, we might take them as equally well organised for life in some quiet dark water near to the surface. They resemble somewhat a smelt in general contour of the body, which is covered with cycloid scales, more or less firmly adherent and of moderate size. The head is scaleless, ending in a depressed snout, with wide mouth, the lower jaw projecting beyond the upper. The teeth are very small, in villiform beads; the eyes rudimentary.

“Very curious is the modification of the pectoral rays, which are much elongated, some of the upper even being separated from the remainder of the fin, and forming a distinct division. These rays are evidently tactile organs, by means of which the fish can examine and discriminate objects which are hidden in the ooze, and which it could not