

Newfoundland to the Azores and Morocco only essentially larger (and older) stages of these species were taken, as shown in the case of the larvæ of the common eel (*Leptocephalus brevirostris*). It has long remained a mystery where the common eel spawns. No sexually mature individual has ever been found among the millions of eels annually captured in the waters of Europe, nor have the eggs or minute larvæ ever been found. The autumnal migration of the eel has, however, been known for ages. During this migration the eels leave the rivers, lakes, and closed waters of the sea and make for open water, and certain naturalists, like C. G. J. Petersen, concluded that the eel was actually an oceanic deep-sea species. This idea seemed all the more obvious as the Italian scientist Grassi had, in the Mediterranean, proved *Leptocephalus brevirostris* to be the larva of the eel. A marked advance in the solution of this mysterious problem was made when Johs. Schmidt<sup>1</sup> succeeded in capturing quantities of leptocephali along the Atlantic slope of the coast banks of western Europe. Schmidt here found the fully developed larvæ, mostly exceeding 6 cm. in length, and all the transition stages before the leptocephali become "glass eels" or elvers, which in spring invade all the coasts of northern Europe, where they are well known.

Larvæ of the common eel.

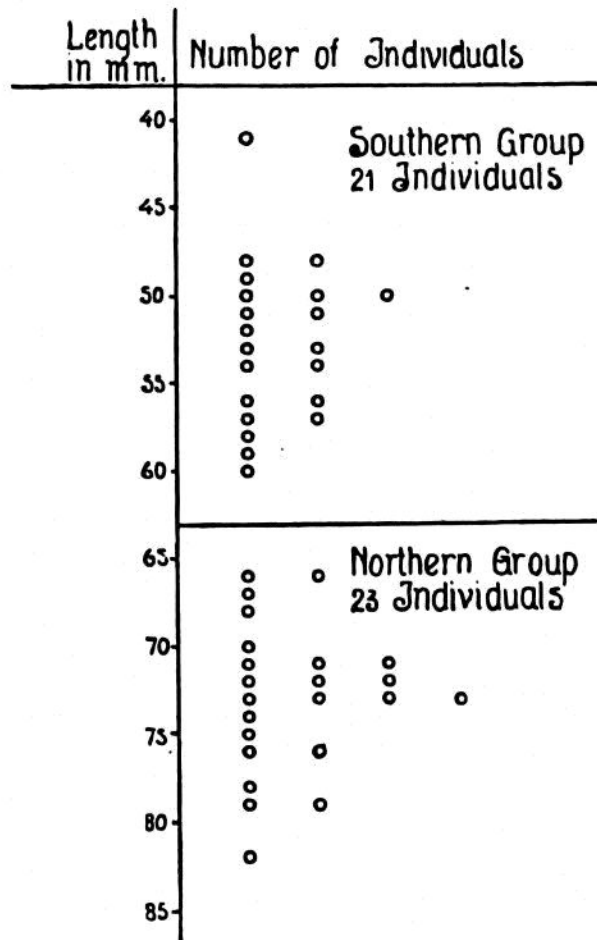


FIG. 551.—MEASUREMENTS OF LARVÆ OF THE COMMON EEL (*ANGUILLA VULGARIS*).

During our cruise we found essentially smaller stages,<sup>2</sup> down to 4 cm. long, and we have thus been able to trace the series shown in Fig. 550. In this figure the five lower stages are taken from Schmidt's excellent account, the upper four stages having been drawn from specimens captured by the "Michael Sars," all magnified 1.4 time. The three upper figures

<sup>1</sup> See Schmidt, "Contributions to the Life-History of the Eel," *Rapports et Procès-verbaux du Conseil international*, vol. v., 1906.

<sup>2</sup> See Hjort, "Eel-larvæ from the Central North Atlantic," *Nature*, vol. lxxxv. p. 104, 1910.