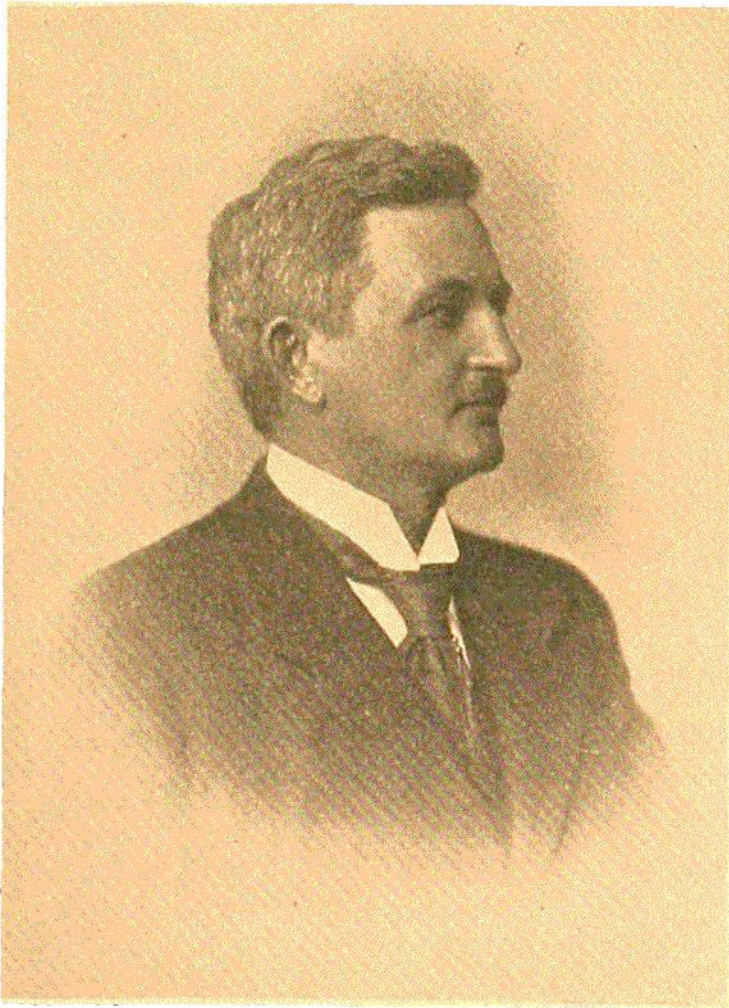


a certain law-bound space of time, which varies in different species. These facts form the basis of an important branch of marine research, which possibly more than any other will help us to understand the life conditions of animals. The foundation of this branch of science is mainly due to C. G. J. Petersen¹ and H. Heincke.

Fish measure-
ments.

In his first investigations Petersen aimed at defining the age of the fish-species occurring in a restricted area, and for this purpose he selected a small Danish fjord, the Holbaek fjord, where he attempted to capture all sizes of the various fishes, and measured the length of each one; he then tabulated these length-measurements for each species in order to study the frequency of the various sizes. Fig. 553 shows the results of his measurements of the common viviparous blenny (*Zoarces viviparus*). The scale is in Danish inches, and each dot denotes a specimen measured; males and females were measured separately, where the sexes could



C. G. J. PETERSEN.

be distinguished. I quote Petersen's description of this graphic representation: "If we now consider the females, we undeniably find remarkably few of a length between 8 and 10 inches; also there is a marked gap between the largest of the fry and the smallest females. Something similar is seen though less plainly in the males. The latter are, however, too few to let the gaps appear quite plainly. Alternating with these gaps certain sizes occur as it were in heaps, where many fish have almost the same length. The blennies may, to put it shortly,

¹ C. G. J. Petersen, *Beretning fra den danske biologiske Station*, No. 1, 1890, Kjøbenhavn, 1892.