

CLASS CEPHALOPODA, CUVIER.

Siphonopoda, Lankester.

Order I. DIBRANCHIATA, Owen.

Suborder I. OCTOPODA, Leach.

Division 1. Lioglossa, Lütken.

Family I. PTEROTI, Reinhardt et Prosch.

CIRROTEUTHIDÆ, Keferstein.

*Cirroteuthis*, Eschricht.

*Sciadephorus*, Reinhardt et Prosch.

*Bostrychoteuthis*, Agassiz.

The history of this genus has been rather remarkable. Founded in 1836 by Eschricht for the reception of a single species, it underwent no enlargement for nearly fifty years, until, in fact, the dredgings of the "Talisman" gave Dr. Fischer materials for the description of a second species; whilst during the past year no less than five additional forms have been added, three obtained by the Challenger and two by the U.S. steamer "Albatross."

This sudden increase in our knowledge of the genus is coincident with the extensive prosecution of deep-sea dredging, and, as will be explained in the sequel (p. 231), furnishes one argument for regarding *Cirroteuthis* as an abyssal genus.

It is of course possible that some two or more of these forms may belong to the same species, for at present we have but slender means of ascertaining the amount of variation in this genus. As specific characters I have relied upon the form of the internal cartilage, the presence or absence of an "intermediate web," the position on the arm at which the cirri commence and cease, and the presence or absence of a tubercle or indurated tract at the junction of the web with the arms, which will be described further on.

Desiring to avoid as far as possible the danger of creating unnecessary species, I sent drawings and descriptions of those proposed to Dr. Paul Fischer for comparison with his type specimens, concerning which he writes,—"J'ai comparé avec soin vos figures avec les types de *Cirroteuthis umbellata*, et aucun d'eux ne se rapporte à mon espèce, dont