

Subfamily EUSEPII, Steenstrup.

Sepia, Linné.

One of the most marked accessions of new species has been to this already large genus, which has been augmented to the extent of no less than ten new types as the result of the Challenger Expedition. It is noteworthy, moreover, that all these were obtained between Port Jackson, Australia, and Japan, a fact which will be again alluded to when treating of distribution (see p. 222).

The species of this genus being very numerous and differing only in minute, though to all appearance constant characters, it has been necessary to enter into considerable detail in their descriptions, and the more so, inasmuch as the accounts of nearly all the earlier writers have left much to be desired in this respect. This is the case especially with respect to the shell or sepio-staire, regarding the different parts of which no settled terminology seems to have been adopted, even by those writers who have most clearly recognised its systematic importance. I have therefore found it necessary to adopt a series of names for descriptive purposes, and have endeavoured to select those which should be convenient, readily suggestive of the structures to which they refer, and devoid of any abstract morphological significance with regard to their origin or homology. The annexed woodcut shows the names chosen, with respect to one or two of which it may be advisable to make some observations.

The *last loculus* is a term borrowed from d'Orbigny, who adopted it for the most recently deposited calcareous layer; the proportion which it bears to the area of the shell is very characteristic, and appears to be constant within certain limits. Professor Steenstrup informs me that it varies according to the season of the year. This relation is for practical purposes most conveniently expressed by dividing the total length of the shell into one hundred parts, and stating how many of them are occupied by it; this quantity I propose to designate briefly as the "locular index."

The hinder generally hollow ventral surface of the shell I have called the "striated area"; valuable characters are derived from the curvature of the parallel lines formed by the margins of the loculi.

In most shells a thin fillet of calcareous matter runs along either side of this area,

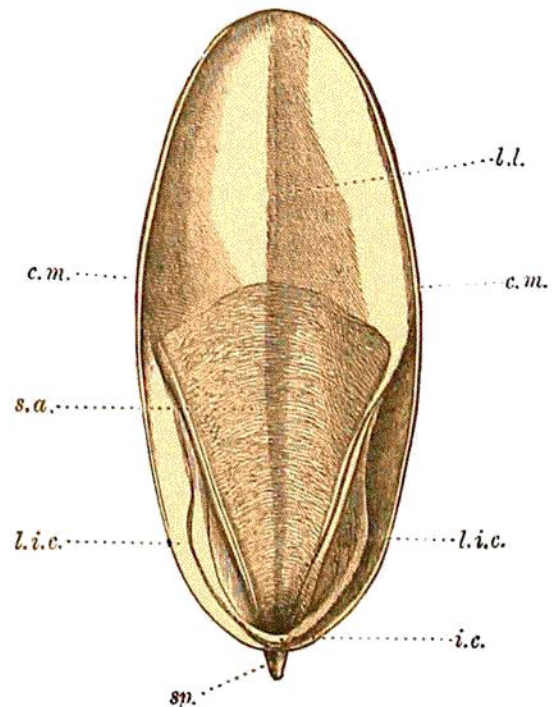


FIG. 4.—Shell of *Sepia mestus*, Gray, showing the terms used in describing different parts of it. *c.m.*, chitinous margin; *i.c.*, inner cone; *l.i.c.*, limbs of the inner cone; *l.l.*, last loculus; *s.a.*, striated area; *sp.*, spine.