

SURVEY OF THE GENERA AND SPECIES, HITHERTO KNOWN,
BELONGING TO THE ASPIDOCHIROTÆ.

Family V. ASPIDOCHIROTÆ.

Body with mouth and anus at opposite poles. Tentacles peltate, twenty to thirty, seldom eighteen. Ambulacral appendages—pedicels alone, or pedicels together with papillæ, or papillæ alone; the papillæ often situated on the top of warts or more or less prominent processes. Retractors absent. Calcareous ring of ten pieces, regularly devoid of posterior prolongations; the radial pieces incised anteriorly, but not pierced. The left respiratory-tree generally in communication with the pseudhæmal vessels.

Genus 1. *Labidodemas*, Selenka, 1867.

Tentacles twenty. Ambulacral appendages—pedicels alone (?), arranged in double rows along each ambulacrum. Interambulacra naked. The single genital bundle situated on the left side of the dorsal mesentery. Anus devoid of teeth. C-shaped deposits present or absent.

Not having had the opportunity of examining any representative of this genus, I am by no means sure of the exactness of the above diagnosis. Both Selenka and Semper speak of pedicels, and do not mention anything about papillæ. The reason I have some doubts on the nature of the ambulacral appendages, is that Selenka points out that the ventral pedicels alone are provided with terminal plates, and, above all, because Ludwig speaks of dorsal "papillæ." So far as I can see, the only character distinguishing the genus *Labidodemas* from the genus *Holothuria* is to be found in the arrangement of the pedicels, and it may be questionable whether this is satisfactory.

Labidodemas semperianum, Selenka, 1867.

Deposits—tables with the spire formed by five rods and terminating in ten teeth; smooth buttons; and numerous rods or C-shaped bodies.

Habitat.—Sandwich Islands (Selenka).

Labidodemas selenkianum, Semper, 1868.

Habitat.—Fiji Islands (Semper).

On comparing the descriptions of Semper and Selenka, it is nearly impossible to discover any differences between this species and the preceding. The