

this may probably depend upon some error in the determination. In general, the descriptions of Lesson are very defective, but even he mentions the small tube-like tubercles on the dorsal surface, observed by myself in the Challenger specimens.

As a rule, the species of the genus *Chirodota* are very difficult to distinguish from each other. The one form passes imperceptibly into the other in such a manner that no special specific characteristics can be drawn up. The representatives of this genus are, as it were, in a state of evolution, only few species having been hitherto differentiated. However, our present knowledge is too unsatisfactory to decide on the validity of several so-called specific characters. The number of tentacles and digits as well as the colour, the arrangement of the wheel-papillæ, &c., seem to be subject to great variation. If this be so, it may follow, for instance, that *Chirodota purpurea* is the Antarctic form of the Arctic *Chirodota pellucida*, and that *Chirodota rotifera* of Pourtalès unites these two extremes.

### III. Tentacles fifteen to twenty.

*Chirodota discolor*, Eschscholtz, 1829; Grube, 1850 and 1851; Ludwig, 1881.  
*Liosoma sitchaense*, Brandt, 1835 (according to Ludwig).

Tentacles twelve (seldom eleven or fifteen), each with twelve to fourteen digits. A row of white papillæ along three of the interambulacra.

*Habitat*.—Sitka (Brandt and Eschscholtz), Sea of Okotsk (Grube).

*Chirodota incongrua*, Semper, 1868.

Tentacles sixteen, each with eighteen to twenty digits. Wheel-papillæ in five not very crowded interambulacral rows. Six larger and two smaller Polian vesicles.

*Habitat*.—Camiguin in Philippine Islands (Semper).

*Chirodota variabilis*, Semper, 1868; Ludwig, 1881. *Chirodota refuscens*, Brandt, 1835 (according to Ludwig<sup>1</sup>).

Tentacles seventeen to eighteen, each with twenty-two to twenty-four digits. Wheel-papillæ equally distributed all over the body. Six to twelve Polian vesicles. Besides the wheels, slightly curved ribs or rods are present, with the serrate ends slightly enlarged.

*Habitat*.—Mariveles, Philippine Islands, and Cape York (Semper), Bonin Island (Brandt), Sunda Strait (Sluiter), Hong Kong (Ludwig), Japan, Timor, and Batavia (Ludwig).

The specimen obtained from Australia differs slightly with regard to its tentacles and deposits, whence Semper considers it as a variety.

(Mus. Holm.) One individual with seventeen tentacles, dredged at Singapore.

<sup>1</sup> According to Ludwig, *Aspidochir mertensii* of Brandt is either a *Synapta* or a *Chirodota*. It is captured at Sitcha.