

XVI. — FOUR SPECIMENS OF *PTEROEIDES STEENSTRUPII*
KÖLLIKER COLLECTED BY P. BUITENDIJK, TANDJONG PRIOK 1907.
BY Prof. Dr. S. J. HICKSON.

There are 4 specimens with the following measurements in length:

specimen A. 280 mm. specimen C. 100 mm.

 " B. 150 " " D. 90 "

The largest of these has fully developed leaves with a marginal length of about 40 mm.

In specimen B the leaves are represented by broad triangular lobes having a maximum marginal length of 5 mm.

In specimen C the leaves are also remarkably small but larger than in specimen B.

In specimen D, the smallest of the series, the leaves are still larger having a maximum marginal length of 10 mm.

It is evident, I think, that of these four specimens only one (specimen A) is normal. The others have either been injured or have undergone some pathological change.

It is difficult to understand what kind of injury the specimens could have undergone which destroyed all the leaves and left the rachis intact unless they were attacked by some carnivorous fish that had a partiality for the leaves. It is however extremely improbable that *Pteroeides* is preyed upon by any carnivorous animal. I have examined a very large number of specimens of the genus from different parts of the world and have never seen any injury to the leaves that could be attributed to fish bites. The only Pennatulacean that has been found in the stomach of fish is *Virgularia*, a genus which has no spicules in any part of the leaves or rachis; and there is no evidence that any other genus of *Pennatulacea* is attacked by fish or any other carnivorous animals. The condition of the three specimens therefore is not in my opinion due to injury.

A microscopical examination of the leaves of the specimen B, does not afford any evidence of active regeneration of the tissues. The superficial epithelium is missing and endoderm cells of the zooids and canals are apparently free or coagulated into lumps. The appearance in the section is that of a tissue that is either very badly preserved or moribund. The conclusion therefore is that the three specimens B, C and D were moribund when captured and that their leaves have been almost completely macerated and lost.
