

A FURTHER NOTE ON *ILISHA PARTHENOGENETICA* SOUTHWELL AND PRASHAD, 1918, A CESTODE PARASITE OF THE INDIAN SHAD.

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When describing this parasite in 1918 we believed that we were dealing with an adult degenerate Cestode that was peculiar in having a special mode of reproduction, viz., parthenogenetic reproduction. We have recently re-examined the original material and some fresh material and have again fully considered, in view of our further work, whether the conclusions then arrived at were justified.

The method of reproduction exhibited by this worm is very similar to the production of the germ-balls in the sporocysts of Trematodes like *Fasciola hepatica*. The resemblance, however, is purely superficial, for whereas in *I. parthenogenetica* the parthenogenetic development leads directly to the production of forms exactly similar to the parental form, in the Trematode the asexual reproduction results in the formation of rediae, and finally of cercariae, both of which are very different from the sporocyst in which they are produced.

The exact manner in which endogenous embryos arise in larval Cestodes described by Hornell (1901), Willey (1907) and Southwell (1910) is not known, as in all these cases the endogenous larvae were described from fully developed forms and in no case had the intermediate stages been observed. In the parasite of the Indian Shad, however, we were fortunate in being able to study the development of the parthenogenetically developed forms. The method of endogenous reproduction, described by the authors referred to above, does not materially differ from what occurs in *I. parthenogenetica*, and as a result of our recent work, we are of opinion that the parasite of the Indian Shad is not an adult degenerate Cestode but a Plerocercoid larva, the adult of which is unknown.

The larvae described by Hornell, Willey and Southwell were all found in the Pearl Oyster (*Margaritifera margaritifera* Linn.) or the Window-pane Oyster (*Placuna placenta* Linn.) of Ceylon. Haswell and Hill (1894) had previously described a similar worm with an identical mode of reproduction from an Australian earthworm. The only two instances of the occurrence of such asexual modes of reproduction in the Cestode parasites of the Vertebrates are those described by Ijima (1905) and Beddard (1912). The parasite of the Indian Shad provides the first instance of endogenous reproduction taking place in a Plerocercoid form found parasitic in any fish.

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