AN INSTANCE OF HERMAPHRODITISM IN THE RIBBON-FISH, *TRICHIURUS LEPTURUS* LINNAEUS

THE rare phenomenon of hermaphroditism in fishes has been recorded only from a few groups as cited by Raju[2] and Kagwade[1]. During the course of work on the biology and fishery of the ribbon-fish, *Trichiurus lepturus* Linnaeus off Mangalore along the west coast of India,

the author came across a hermaphrodite specimen and since this is the first instance in this species, the details are given here. The specimen has been deposited in the Museum of the Fisheries College, Mangalore.

The gonads in this species are elongated and closely approximated to appear as a single unit. The right gonad is larger than the left, the former forming a loop over the latter at the anterior end.

In the hermaphrodite specimen, 215 mm snout-vent length, 616 mm standard length, 144 gm weight collected from trawl fish catch off Mangalore on 2-12-1970, both the gonads were found to be ovo-testes (Fig. 1). The right gonad

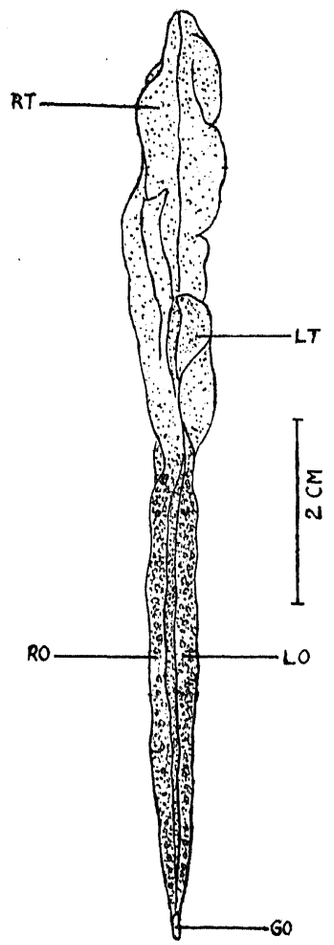

FIG. 1. Hermaphroditic gonads of *Trichiurus lepturus* Linnaeus, (GO: Genital opening; LO, LT: Ovarian and testicular parts of left gonad; RO, RT: Ovarian and testicular parts of right gonad).

was 101 mm long of which the anterior 52 mm was testis and the posterior 49 mm was ovary. The left gonad was 69 mm long consisting of anterior 20 mm testis and posterior 49 mm ovary. The gonads together were 7 mm wide at the anterior end (testicular part) and 4 mm at the posterior end (ovarian part). Microscopic examination revealed presence of ova upto a maximum size of 0·64 mm in the ovarian part and maturing condition of spermatozoa in the testicular part. The ovarian and testicular parts of the ovo-testis could be easily identified macroscopically by their distinctive colouration, the former being light yellow and the latter creamy-white. The specimen did not show any abnormality both in external appearance and general internal anatomy. The other specimens in the sample included both males and females in immature, maturing, mature, ripe, partially spent and spent gonadic condition.

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1. Kagwade, P. V., "Hermaphroditism in *Polydactylus indicus* (Shaw)," *J. Mar. biol. Ass. India*, 1970, **10** (2), 399.
2. Raju, G., "A case of hermaphroditism and some other gonadal abnormalities in the skipjak *Katsuwonus pelamis* (Linnaeus)," *Ibid.*, 1960, **2** (1), 95.