

AN INSTANCE OF HERMAPHRODITISM
IN THE INDIAN MACKEREL
RASTRELLIGER CANAGURTA
(CUVIER)*

WHILE instances of hermaphroditism are known to occur in the European mackerel (*Scomber scombrus* L.),¹⁻² no such cases are on record for the Indian mackerel, *Rastrelliger canagurta*. It is interesting to report, therefore, the occurrence of a single hermaphrodite specimen of *R. canagurta* in a sample taken from the fish market at Karwar and reported to have been caught at Majali, seven miles north of Karwar on 25th March 1958. Both in external appearance and in the other features of the internal anatomy, no abnormalities were noticed in the specimen. It measured 21.4 cm. in total length.

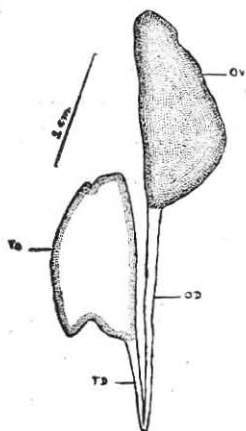


FIG. 1. Showing the relative position, shape and size of the gonads. OV : Ovary; OD : Duct of the ovary; TS : Testis; TD : Duct of the testis.

The left gonad, situated slightly anterior to the right one, was yellowish red in colour and showed the characters of an ovary in stage III of maturity. While the ovary, attached to the wall of the body cavity by a thin mesovarium

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was 1.7 cm. in length and 0.7 cm. in breadth, the oviduct commencing from the posterior end of the ovary measured 1.9 cm. in length. Microscopical examination of the ovary revealed the presence of yellowish yolky eggs ranging in size from 0.15 mm. to 0.31 mm. mixed with a large number of transparent immature eggs. The absence of larger eggs and the compactness of the ovary indicated that this fish was probably attaining maturity for the first time. The right gonad, connected to the dorsal wall of the body cavity by a thin mesorchium, was milk-white in colour in clear contrast to the left gonad and measured 1.4 cm. in length and 0.7 cm. in width with the duct running 0.8 cm. Microscopic examination of this gonad revealed the absence of eggs and the presence of cells similar to that of a normal testis. The genital ducts, lying parallel to each other very closely, appear to open outside through a common aperture. The relative position, shape and size of the two gonads and their ducts are shown in Fig. 1.

The hermaphrodite mackerel has been carefully preserved for further examination.

Central Marine Fisheries M. S. PRABHU.

Research Unit, B. T. ANTONY RAJA.
Karwar, May 16, 1958.

1. Dean, B., *Bibliography of Fishes*, 1923, 3, 564.

2. Kyle, H. M., *Biology of Fishes*, 1926, 44.
