

Munro (1955) gives the meristic counts as lateral scales 40-45, ventral scutes 16+ (12-14), Gr. (17-22)+(32-33).

The following food items were seen in the gut contents of *Sardinella clupeioides*: Mysis, *Alima* larva, phyllosoma larva, juvenile *Porcellana* spp., *Themis* early stage, *Accetes*, copepods and semidigested fish tissue. All the specimens observed were immature. *Sardinella clupeioides* is of some importance at Vizhingam as a food fish. At times it occurs along with *S. sirm* and *S. melanura* constituting the main fishery. There appears to be a particular increase in the number of these fish during December. All the three species are locally called by the single name 'Keerimeen.' *S. clupeioides* is easily distinguished from *S. sirm* by its robust body (3.8 to 4.2 versus 4.5 to 5), large eyes (3.2 to 3.6 versus 3.6 to 4.3) and by the absence of intensely blue spots along the body. It can be separated readily from *S. melanura* by the lesser number of gill rakers, i.e. 27 to 30 as against 38 to 44, on the lower limb of the anterior arch.

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#### REFERENCES

- DERANYAGALA, P. E. P. 1933. *Ceylon Jour. Sci.*, (c) 5:  
 ———. 1952. *A coloured atlas of some vertebrates from Ceylon. Vol. I, Fishes.* Colombo.  
 MISRA, K. S. 1947. *Rec. Indian Mus.* 45:  
 MUNRO, IAN S. R. 1955. *The marine and fresh water fishes of Ceylon.* Dept. External Affairs, Canberra.  
 WEBER, M. & BEAUFORT, L. F. DE. 1913. *The fishes of the Indo-Australian Archipelago*, II, Leiden.

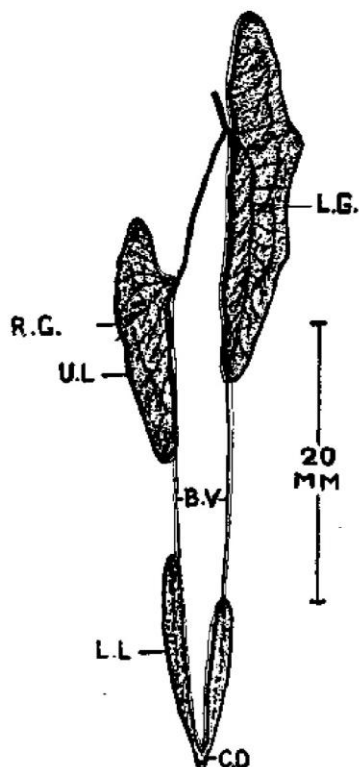
#### ON AN UNUSUAL OVARY OF THE INDIAN OIL SARDINE *SARDINELLA LONGICEPS* VAL.

On 19th April 1962, while examining a sample of oil sardine caught by cast net at Ullal, an unusual development of the ovary was observed in a fish measuring 174 mm (total length). It did not differ either in external features or in internal anatomy from that of a normal one except in the development and disposition of gonads as shown in figure Raju (1960) has described the occurrence of ovary with divided lobes and other gonadial abnormalities in the oceanic skipjack, *Katsuwonus pelamis* (L.) from the Laccadive Sea. An instance of hermaphroditism as an abnormal phenomenon in oil sardine (Antony Raja 1963) and also in other fishes has been recorded (Prabhu and Antony Raja 1959, Nayak 1959, Ramamohana Rao 1962 and Thomas and Raju 1962) from the Indian waters. Bensam (1964) has described a few instances of gonadial abnormalities met with in the oil sardine.

In the present case, the right gonad has two lobes, the upper one being larger than the lower and these are joined together by the connective tissues in which the blood vessel is prominent. The two lobes are attached to the body wall by mesovarium. The left gonad is also similar in appearance. The oviducts from the

two lower lobes unite to form a common duct posteriorly and it opens to the outside. Detailed measurements are given below :

	Right gonad	Left gonad
Length of upper lobe .. .. .	16.0 mm.	25.0 mm.
Breadth of upper lobe .. .. .	4.0 mm.	4.1 mm.
Length of lower lobe .. .. .	14.0 mm.	10.0 mm.
Breadth of lower lobe .. .. .	1.5 mm.	1.5 mm.
Distance between two lobes .. .. .	7.0 mm.	15.0 mm.



Ventral view of the ovary of oil sardine with divided lobes.

B.V. blood vessel, C.D. common duct,  
L.L. lower lobe, L.G. left gonad,  
R.G. right gonad U.L. upper lobe.

The fish was in stage II of maturity. There were no ova measuring more than 0.1 mm. in any of the lobes. There was also no significant difference in the size of ova of the four lobes.

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## REFERENCES

- ANTONY RAJA, B. T. 1963. *J. Mar. biol. Ass. India*, 5(1) : 148-50.  
 BENSAM, P. 1964. *Ibid.*, 6(1) : 135-42.  
 PRABHU, M. S. AND ANTONY RAJA, B. T. 1959. *Curr. Sci.*, 28 : 73-74.  
 NAYAK, P. D. 1959. *J. Mar. biol. Ass. India*, 1(2) : 257-258.  
 RAJU, G. 1960. *Ibid.*, 2(1) : 95-102.  
 RAO, RAMAMOHANA, V. 1962. *Ibid.*, 4(2) : 241-243.  
 THOMAS, P. T. AND RAJU, G. 1962. *Symposium on Scombroid Fishes*, Pt. III. Marine Biological Association of India, Mandapam Camp. (in press)

A NOTE ON THE FECUNDITY OF *TRYPAUCHEN VAGINA* (BL. & SCH.)

The relationship between the reproductive potential or fecundity of a fish with its size and age has been established in a wide variety of fishes. The information gathered on this line has proved very useful in planned fishery exploitations. From Bombay waters quite a good amount of work has been reported in the past (Palekar & Bal. 1961 ; Prabhu 1963 ; Parulekar 1964).

*Trypauchen vagina* (Bl. & Sch.) is found in abundance in Bombay waters during the monsoon months. The present investigation was undertaken with a view to establish the possible relationship between fecundity and the three variables viz. length, body-weight and gonad weight.

Mature specimens of *Trypauchen vagina* landed at Sasoon Dock, Bombay, during the period of May 1963 to November 1963 were examined for the present study. For the ova count, a method suggested by Petersen (1961) was adopted.

Figure 1 shows the length-fecundity relationship of the specimens examined. It is evident that the relationship between log. of fecundity and log. of length is

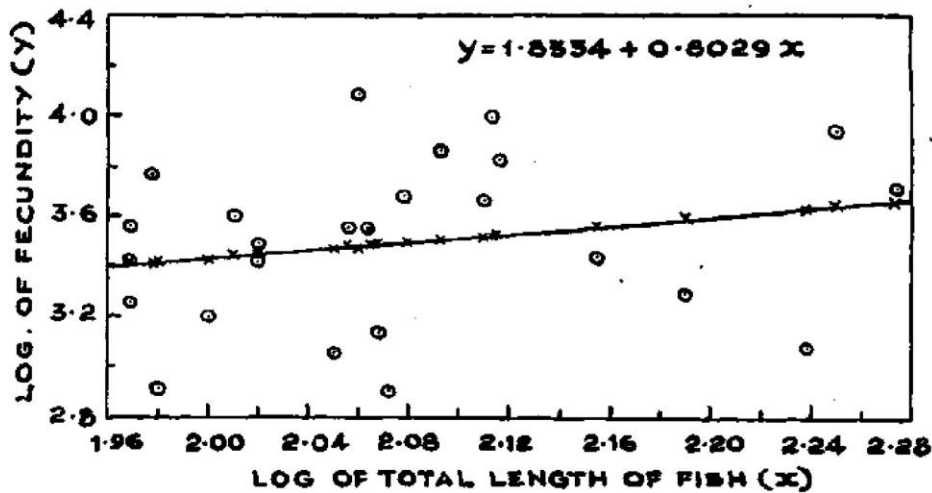


FIG. 1. Length-fecundity relationship in *Trypauchen vagina*.  
 O observed values, X calculated values.