

**ON CERTAIN ABNORMALITIES IN THE SHORT-JAW ANCHOVY
THRISSINA BAELEMA (FORSKAL) (FAMILY : ENGRAULIDAE)**

AMONG clupeids instances of abnormalities appear to be rather common in the species of *Sardinella*. Gonadal abnormalities in *Sardinella longiceps* have been recorded by Bensam (1964) and Dhulkhed (1965). An instance of hermaphroditism has also been recorded in this species by Antony Raja (1963). Bensam (1965) has noted the regeneration of the caudal fin in *S. longiceps* and more recently Venugopala Pillai (1967) has recorded the complete absence of the anal fin and the absence of the upper caudal lobe in the same species. In *Sardinella sirm* also gonadal abnormality is known to occur (Gnanamekalai, 1962). Apart from these records occurrence of abnormalities in other species of clupeids have not been reported so far.

The present note records two types of abnormalities observed in the engraulid fish, *Thrissina baelama* during the investigation of the various aspects of the biology of this species. In a female specimen measuring 125 mm. in total length obtained from Marine Bay, Port Blair, Andamans on 28-8-68, the complete absence of the ventral fins was noticed (Fig. 1). No sign of injury or scar was noticed at the posi-

tion of the ventral fins in this specimen. Except for the absence of the ventral fins, the abnormal specimen resembled the normal specimen in other respects.

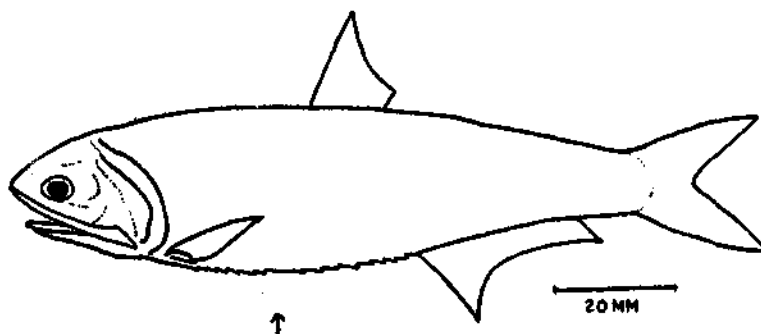


FIG. 1. Abnormal *Thrissina baelama*, 125 mm (TL). Arrow indicates the position of the ventral fin.

In the normal specimen the ventral fin originates just posterior to the longest ray of the pectoral fin. Seven preventral and nine postventral scutes are seen in a normal specimen. In the abnormal specimen a slight gap is noticed posterior to the seven preventral scutes indicating the position of the ventral fin. Since this is the first record of such a type of abnormality in this species some important morphometric measurements and meristic characters of the abnormal as well as a normal specimen of the same length are given below:—

Body measurements	Normal specimen	Abnormal specimen
	(mm.)	
Total length	126	125
Fork length	112	113
Standard length	102	103
Preal length	69	69
Predorsal length	48	50
Preventral length	47	..
Prepectoral length	28	28
Depth of body	24	25
Length of pectoral fin	18	17
Length of ventral fin	13	..
Gill rakers	21	22
Dorsal rays	15	15
Pectoral rays	13	13
Anal rays	29	29
Ventral rays	7	..
Preventral scutes	7	7
Postventral scutes	9	8

In another female specimen measuring 112 mm. in total length, obtained on 7-9-68 from Rangachang, a fishing village 14 km. south of Port Blair, Andamans, right ovary was found in an underdeveloped condition.

The left ovary measuring 28 mm. in length and 7 mm. in breadth has developed normally (Fig. 2). Microscopical examination of the left ovary revealed that the majority of ova measuring 0.50 mm. in diameter were in stage IV of maturity. The right ovary, on the other hand, was found in the form of thin, narrow strip measuring

31 mm. in length and 1 mm. in width. The left and right ovarian arteries are seen branching out from the common ovarian artery and enter the ovary at its anterior region. The left ovary opens to the exterior by a short oviduct. The posterior end of right ovary, however, was seen lying apposed to the posterior region of the left

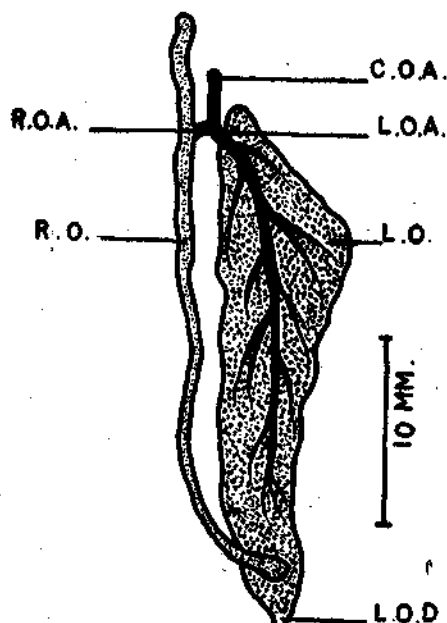


FIG. 2. Abnormal ovary of *Thrissina baelama*. C. O. A.—Common ovarian entry; L. O. A.—Left ovarian artery; R. O. A.—Right ovarian artery; R. O.—Right ovary; L. O.—Left ovary; L. O. D.—Left oviduct.

ovary without any oviduct. All the ova in the right ovary were very small, immature and measured 16.8μ in diameter. The absence of the oviduct and the underdeveloped condition of the right ovary indicate its functionless nature.

The type of abnormality observed in the present case is almost similar to the one noticed in *Sardinella longiceps* by Bensam (1964) except that a thin vestige of the right ovary is present.

The author is grateful to Shri K. Rangarajan, Officer-in-Charge, Central Marine Fisheries Research Unit, Port Blair, for offering suggestions for improvement of the note.

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