

From these equations the total numbers of mature ova in relation to each variable were estimated and are summarised in the Table below :

Sr. No.	Relationship	No. of eggs produced	Standard error
1.	(a) Length & fecundity .. ..	700-12,500	226
2.	(b) Weight & fecundity .. ..	700-12,500	227
3.	(c) G. weight & fecundity .. ..	700-12,500	166

The present study therefore brings out that in *T. vagina* there exists a linear relationship between fecundity and the body length as has been noted in many other fishes (Clark 1934 ; Lehman 1953 ; Petersen 1961). A similar relationship between fecundity and gonad weight is also recorded by Prabhu (1963) while working on six marine species at Bombay and by Qasim and Qayyum (1961) while reporting on some fresh-water species.

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#### A NOTE ON THE OCCURRENCE OF *XIPHASIA SETIFER* (SWAINSON) OFF MANGALORE, WEST COAST OF INDIA

During one of our fishing cruises on 21-2-1964, two specimens of *Xiphasia setifer*, belonging to the Family Blennidae, were collected off Mangalore while trawling in depths of 50-54 metres (Lat. 12°45'N. ; Long. 74°35' E.). The occurrence of this species in the west coast of India has not hitherto been recorded.

Day (1885) reported the habitat of this species in the Coromandel coast of India and the figure presented by him is from a drawing in Sir W. Elliot's collection.

Later this species has been recorded from the east coast by Dr. A. K. Nagabhushanam and Dr. E. G. Silas of the Central Marine Fisheries Research Institute (Personal communications). Beaufort and Chapman (1951) and Smith (1961) described the habitat of this species in the Indo-Pacific region.

The specimens (262-329 mm.) recorded by Beaufort and Chapman (*loc. cit.*) had no caudal filaments. But one of the specimens collected by us, of 224 mm. standard length revealed on careful examination the beginning of two central caudal filaments beyond the edge of the caudal fin. The larger one, 356 mm. long, has two central elongated caudal filaments; of the two filaments, the ventral one appears to be broken. The dorsal caudal filament is  $3/4$  length of head.

#### DISTINGUISHING CHARACTERS OF *Xiphasia setifer*

Body elongate and compressed, eel-like, with central caudal filaments; Mouth small with large canines in the lower jaw; Dorsal and anal fins long with more than 120 rays, and both the fins continue with the caudal; Pectoral rounded; Twenty seven brownish black cross bands on the body; In between the 5th and 6th dorsal rays a small black spot and another diffused elongate black patch between 10-15 rays.

The meristic counts and morphometric measurements are given below :

TABLE I

Meristic counts :	SMALL SPECIMEN		LARGE SPECIMEN	
	D 120 ; P 13 ;	A 105 ; V 3	D 123 ; P 13 ;	A 108 ; V 3
<i>Morphometric measurements (mm.)</i>				
Total length .. ..	250		363 (exclusive of caudal filament)	
Standard length .. ..	244		356	
Trunk .. ..	227		332	
Head .. ..	17		24	
Diameter of eye .. ..	5		5	
Length of pectoral .. ..	10		15	
Length of dorsal caudal filament .. ..			16	
Length of ventral caudal filament .. ..			5	

Analysis of the stomach contents is presented in Table II. The specimens (2) have been deposited in the reference collection museum of Central Marine Fisheries Research Institute, Mandapam Camp (No. CMFRI—F116/490).

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TABLE II

Standard length mm.	Sex	Stage of maturity	Volume of stomach contents in cc.	Percentage composition						
				Copepod	Crustacean remains	Foraminifera remains	Polychaete remains	Fish scale	Sand & Mud	Digested matter
244	♀	I	0.2	4.4	18.4	2.2	6.4	8.2	32.4	28.0
356	♂	II	0.4	12.4	14.6	6.4	10.4	2.2	18.0	36.0

NOTES

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**ON A RECORD OF *EPINNULA ORIENTALIS* GILCHRIST & VON BONDE, A BATHYPELAGIC FISH, FROM THE KONKAN COAST**

DURING the fifteenth cruise of *R. V. VARUNA* in August 1962 to the Karwar-Ratnagiri section of the Arabian Sea it was possible to conduct some experimental fishing. In one of the hauls made at a place (14°49'N; 72°50'E.) with the midwater trawl from a depth of 300 meters, one specimen of *Epinnula orientalis* Gilchrist & von Bonde (92 mm. in total length and 73 mm. in standard length) was captured along with several other deep water fishes mostly belonging to the families Myctophidae and Chauliodontidae.

Fishes belonging to the genus *Epinnula* Poey are the smallest among the gempylids; and are little known as they are rarely caught. Therefore, the capture of one specimen of *Epinnula orientalis* Gilchrist & von Bonde from the North Eastern Arabian Sea is of considerable interest.

Of the two known species, *E. magistralis* Poey and *E. orientalis* Gilchrist & von Bonde, the latter is recorded from Natal and Delagoa Bay, South Africa (Gilchrist & von Bonde, 1924; Smith, 1949); from Pacific off Japan (Matsubara and Iwai, 1952); and from Atlantic (Grey, 1953). The present record extends its distribution to the Indian waters. A description of the single specimen (No : CMFRI-F 170/491) collected from the Konkan Coast is given below :

***Epinnula orientalis* Gilchrist & von Bonde**

D<sub>1</sub>. XVI; D<sub>2</sub>. I. 18; A. III. 18; P<sub>1</sub>. 14; P<sub>2</sub>. 1.5; C. 26; GR. 4?+1+6.

Body fairly elongate, compressed, covered with minute cycloid scales. Dorsal profile of body slightly more convex than ventral.

Depth 4.29; head 2.86; snout to origin of first dorsal 3.04; snout to pectoral 2.98; snout to pelvic 2.32; snout to origin of second dorsal 1.33; snout to origin of anal 1.42; length of caudal 4.03 in standard length. Snout 3.15; maxilla 2.43; eye 4.55; interorbital space 6.37; length of pectoral 2.11; length of pelvic 3.64; least height of caudal peduncle 5.42 in head length.

Cleft of mouth oblique; maxilla extends to below middle of eye. Jaws anteriorly set with fang-like teeth; three on the upper and two on the lower; lower canine teeth remain outside mouth when latter is closed. The canines are followed by small sharp teeth of which the ones on the lower jaw slightly longer. About 26 small teeth on the upper jaw and 20 on the lower. Vomer and palatines dentate; two small teeth on vomer and a single row of small fine teeth (6-8) on each palatine.