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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

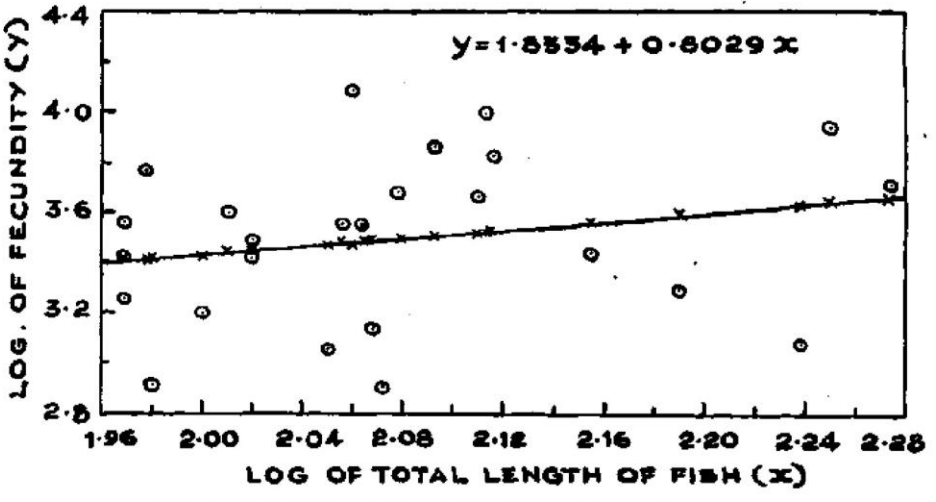

FIG. 1. Length-fecundity relationship in *Trypauchen vagina*.
⊙ observed valves, × calculated valves.

of linear type. Figure 2 illustrates the relationship between body-weight and fecundity. The relationship is of linear type, the rate of increase in fecundity

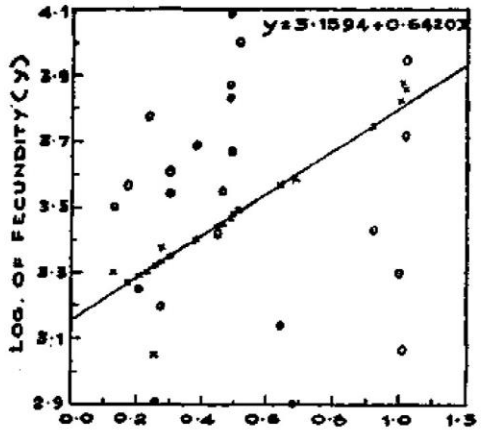

FIG. 2. Body-weight-fecundity relationship in *T. vagina*. Symbols as in Fig. 1.

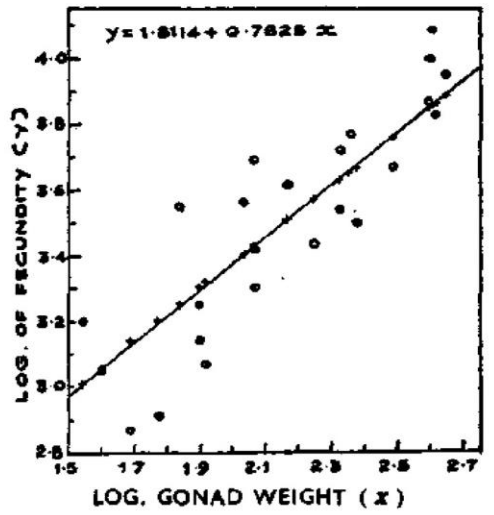

FIG. 3. Gonad weight-fecundity relationship in *T. vagina*. Symbols as in Fig. 1.

being 0.6420 times the bodyweight. Figure 3 brings out the relationship between gonad weight and fecundity which is also found to be of linear type. The fecundity in this case, increases at the rate of 0.7825 times the gonad weight.

The equations for the relationships between three variables under investigation and fecundity estimates are found to be as follows :

(*a*) Length and fecundity	$Y=1.8334+0.8029\ X$
(*b*) Weight and fecundity	$Y=3.1594+0.6420\ X$
(*c*) Gonad weight and fecundity	$Y=1.8114+0.7825\ X$

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.

ACKNOWLEDGEMENTS

I am very much grateful to Dr. D. V. Bal, former Director and Professor of Zoology, Institute of Science, for suggesting the problem, and encouragement throughout the work.

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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.