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Use of 'n' Value of the Length-weight Relationship in the Determination of Spawning Seasons in *Selaroides leptolepis* Cuv. & Val.

To find out if the 'n' value of the length-weight relationship of different months can be made use of to find out the spawning seasons in *Selaroides leptolepis*, a common carangid in the Palk Bay and Gulf of Manner in the vicinity of Mandapam, a systematic study was carried out at the Central Marine Fisheries Research Station, Mandapam Camp during a detailed investigation on the biology of the fish.[3],[4]

The length-weight relationship was determined by the general parabolic formula $W = a L^n$ and in these studies, W represents the weight of the fish in gm., L the length in cm., and a a constant and n, an exponent expressing the relationship between W and L. The superiority of the use of general parabolic equation over the cubic equation has been shown by Le Cren.[2]

Table I gives the values of 'n' for males and females separately and after pooling the data from May 1957 to October 1957 and April 1958 for Thangachimadam, and May 1957 to March 1958 for Pudumadam.

TABLE I

Values of 'n' for Thangachimadam (Bag-net catches).

Months	Males	Females	Pooled data
May 1957	3.71	3.74	3.73
June	3.76	3.44	3.46
July	3.86	3.16	3.04
August	3.07	3.48	3.31
September	3.99	2.96	2.99
October	3.19	2.84	3.10
November 1957 to March 1958	No data		
April	3.21	3.49	3.36

TABLE 1 (*Contd.*)

Values of 'n' for Pudumadam (Shore-seine catches)

Months	Males	Females	Pooled data
May 1957	3.87	3.52	3.66
June	—	3.62	—
July	—	—	—
August	3.37	3.81	3.55
September	—	—	—
October	2.70	2.78	2.88
November	3.32	3.53	3.40
December	3.24	3.58	3.43
January	—	—	—
February	2.97	2.96	3.02
March 1958	2.26	2.09	2.18

In the light of Hickling's[1] observations on herrings it may be said that least values of 'n' can be made use of to find out the spawning season or more precisely the advanced state of maturity of the fish, which according to Table I, will be September–October and February–March.

The biannual spawning of the fish has also been confirmed by the direct observations of mature individuals during these months and also by the length frequency studies.[5],[6]

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