

Estimation of Fecundity and Gonadosomatic Index of Terapon jarbua from Pondicherry Coast, India

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Abstract : In the present study fecundity of Terapon jarbua was estimated for 41 matured females from the Bay of Bengal, Pondicherry. The fecundity (F) was found to range from 13,475 to 115,920 in fishes between 173-278mm Total length (TL) and 65- 298 gm weight respectively. The co-efficient of correlation for F/TL ($\log F = -4.821 + 4.146 \log TL$), F/SL ($\log F = -3.936 + 3.867 \log SL$), F/WF ($\log F = 1.229 + 0.730 \log TW$) and F/GW ($\log F = 0.724 + 1.113 \log GW$) were obtained as 0.474, 0.537, 0.641 and 0.908 respectively. The regression line for the TL, SL, WF and GW of the fishes were found to be linear when they were plotted against their fecundity on logarithmic scales. Highly significant ($P < 0.01$) relationship was obtained for all the variables. Hence Total Length, Standard Length, Weight of Fish and Gonad Weight were found to be the best indicators of the fecundity of Terapon jarbua. Gonadosomatic indices of Terapon jarbua showed that the spawning took place in February to July. The overall sex ratio of male to female is 1.28:1 with chi-square value 5.719, significant at 5% level.

Keywords : Fecundity, Gonadosomatic index, Reproductive biology, spawning, Terapon jarbua.

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