

The paper presents the data on some biological parameters of striped sea bream in winter and summer season from two habitats on the eastern Adriatic coast : estuary of the Mirna River-Tar Estuary (western Istrian coast) and Kastela Bay (middle Adriatic). Material was collected in November 1989 and in July, August, and December 1990, and December 1991. A total of 330 specimens were analyzed, of which 197 originated from Tar Estuary.

Length-weight relationship ( $W=a \times L^b$ ), condition factor (PAULY, 1984) and length frequency distribution after Bhattacharya's method (SPARE *et al.*, 1989) were calculated. Length-weight relationship (Fig. 1) shows positive allometric growth of striped sea bream in winter (Tar Estuary) and the negative one for fish collected in summer (Kastala Bay).

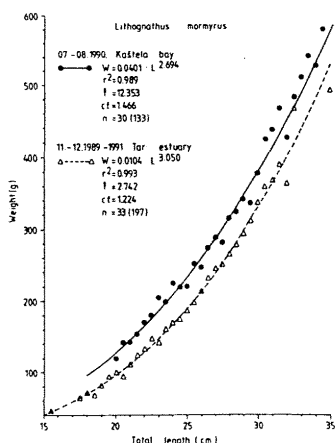


Fig. 1.- Length-weight relationship for the striped sea bream (*Lithognathus mormyrus* L.) in summer (Kastela Bay) and winter (Tar Estuary) season.

The value of b (Fig. 1) calculated for fish collected in November and December in Tar Estuary (3.050) does not significantly ( $p < 0.01$ ) differ from 3, and that for fishes collected in July and August in Kastela Bay (2.694) is significantly different from 3.

Condition factor of striped sea bream in summer (c.f.=1.466) fish in winter time (c.f.=1.224). Since striped sea bream mature between the end of July and mid August the condition factor is higher and the value of b is significantly different from 3 in summer. Method for separating length frequency distribution gave better age structure for fishes collected in November and December in Tar Estuary (Chi-square value = 14.492;  $\chi^2 = 14.067$ ) than for striped sea bream collected in summer from Kastela Bay (Chi-square value = 9.865;  $\chi^2_{0.05(1)} = 3.841$ ).

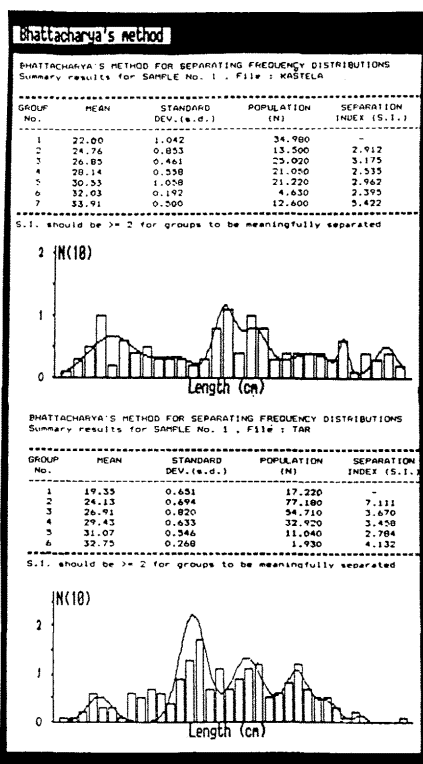


Fig. 2.- Total length frequency distribution (0.5 cm) with calculated of striped sea bream (*Lithognathus mormyrus* L.) age groups from the Kastela Bay (summer season) and Tar Estuary (winter season)

At 95% level of confidence, the expected distribution is significantly different from the observed distribution for both seasons, presumably due to small number of young fishes (1°, 2° and 3°).

Therefore, these studies should be continued.

REFERENCES

PAULY D., 1984. - Fish population dynamics in tropical waters : a manual for use with programmable calculators. *ICLARM Stud. Rev.*, (8): 325p.  
SPARRE P., URSIN E. & VENEMA S.C., 1989. - Introduction to tropical fish stock assessment. *Part 1-Manual*. FAO, *Fish Tech Paper*, 1306/1: 84-122.