

Spawning season and fecundity of *Serranus atricauda* (Serranidae) in the eastern central Atlantic (P 116)

García-Díaz M. M.¹, Gonzáles J. A.¹, Lorente M. J.², Tuset V. M.¹ & Santana J. I.¹

¹ Instituto Canario de Ciencias Marinas, P.O.Box 56, 35200 Telde (Las Palmas), Spain.

² Departamento de Biología Animal, Universidad de Valencia, Dr Moliner 50, 46100 Burjasot (Valencia), Spain.

The reproductive biology of the blacktail comber *Serranus atricauda* is described from samples collected in the Canary Islands (Eastern Central Atlantic) between 1992 and 1994. A qualitative method (the histological analysis) indicated the presence of mature individuals in almost all the year round. Two quantitative methods (the gonadosomatic index and the oocyte diameter) suggested that the population spawns mainly between February and July. The hepatosomatic index and the condition factor did not show any correlation with gonads and fish growth. The mean sizes at maturity were found to be 19.3 (first maturity) and 33.1 cm TL (massive maturity). The batch fecundity, estimated from 28 individuals between 22.2 and 39.8 cm TL, was found to range between 21774 and 369578 oocytes. The spawn frequency was estimated in 42 times, with 26.5% (45/170) of individuals spawning every 3.8 days average. The annual fecundity estimate (AFE) ranged from 0.91 to 15.5 millions of oocytes, with an average of 5.1 ± 4.1 millions of oocytes. Regression analysis showed a significant positive linear correlation between AFE and TL, TW and GW, being the fish total weight the best predictor ($AFE = 3.680 TL^{1.120}$; $r^2 = 0.752$; $P < 0.01$).

Common errors in the assignation of maturity stages in teleosts from macroscopical classification (P 117)

García-Díaz M. M.¹, Lorente M. J.², Gonzáles J. A.¹, Tuset V.¹ M. & Santana J. I.¹

¹ Instituto Canario de Ciencias Marinas, P.O.Box 56, 35200 Telde (Las Palmas), Spain.

² Departamento de Biología Animal, Universidad de Valencia, Dr Moliner 50, 46100 Burjasot (Valencia), Spain.

The determination of sex and maturity stages has been found to be necessary to obtain essential information on the reproductive biology of the fish populations. Consequently, these aspects are of very great importance in the evaluation of the stocks of the exploited species. The aims of the present work were to compare the macroscopic classification of maturity stages commonly used in fishery studies with the histological characteristics of the gonads, and then to describe the errors derived from the traditional classification method. For these purposes, gonad samples of three inshore benthic species of the genus *Serranus* (Teleostei, Serranidae) from the Canary Islands (Eastern Central Atlantic) were analysed by means of both macroscopic and histological techniques. Percentages of agreement between the two classification methods were 73.4% (*S. atricauda*), 64.9% (*S. cabrilla*) and 63.3% (*S. scriba*). When examining mature gonads, percentages of agreement increased to 87.7% (*S. atricauda*), 79.6% (*S. cabrilla*) and 80.2% (*S. scriba*). The most common errors in the assignation of maturity stages from macroscopical classification were described (type of error a, b and c) and quantified.