

Life cycle of the benthic coastal fish *Diplodus vulgaris* (Sparidae), in the Canarian archipelago

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Diplodus vulgaris was characterized by a rudimentary hermaphroditism with a low proportion of protandric sex reversal. Male:female ratio is slightly unbalanced in favour of females (1:1.17) although no significant difference of the relation 1:1 was found. Both sexes have similar size distributions, with females predominating in larger sizes, and a low proportion of intersexual individuals distributed between the middle sizes. A protracted winter spawning season was identified, from November to March, with a peak in spawning activity in December-January. Size of maturity for males and females was attained at the second year of life. Weight increases isometrically with size ($b=2.974$). Fish age is 1-9 years old. Growth is relatively slow ($k=0.231 \text{ year}^{-1}$), with males and females growing at similar rate. The instantaneous rates of mortality for all fish were: $Z=0.73 \text{ years}^{-1}$, $M=0.36 \text{ years}^{-1}$, and $F=0.37 \text{ years}^{-1}$. The exploitation ratio and the length-at-first capture were, respectively: $E=0.51$ and $LC_{50}=143 \text{ mm}$. An option which may improve the situation for all fish species of the benthic community would be to protect part of the spawning stock and the recruits in marine reserves which encompasses the coastal inshore areas of *Cymodosea nodosa* (seagrass beds), and to establish a minimum fishing depth of 30 m to protect the nursery areas located in shallow waters.