{rokbox title=|Mean (± standard error) mantle length (ML) by depth strata (A) and by bimonths (B) of females (left) and males (right) of Eledone cirrhosa from the Western Mediterranean Sea :: Image: Authors|
thumb=|images/stories/ieo/imagenespublicaciones/centro-oceanografico-baleares-ieo-csic-life-history-traits-quetglas-2025-thumb-et-al.jpg|}images/stories/ieo/imagenespublicaciones/centro-oceanografico-baleares-ieo-csic-life-history-traits-quetglas-2025-et-al.jpg{/rokbox}

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Life history traits and fishery of the horned octopus (Eledone cirrhosa) in the Western Mediterranean Sea
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Abstract: In the Mediterranean, the horned octopus constitutes one of the most important cephalopod species in the by-catch of the bottom trawl fishery (BTF). Until the early 2000s, it also supported seasonal fisheries targeting the small-sized individuals in some areas. In this work, some life-history traits (e.g., population structure, reproduction, condition, diet), the bathymetric distribution and the fishery of this octopus were analysed using data collected during the last 20 years in the western Mediterranean. The highest species abundance was at 150–450 m depth and females five-folded males at 50–150 m, indicating spatial segregation by sex at certain life stages. Reproduction in the study area takes place during a protracted period, from February to July, but with a clear peak in June-July. The relationships between condition and diet indices suggest that sexual maturity would be reached at the expense of stored energy in the digestive gland in males but from food intake in females. The predominance of individuals above the size at first maturity in waters below 300 m depth would indicate that reproduction occurs on these slope grounds. The most important prey items in the diet were by far crustaceans and fish, followed by secondary prey such as molluscs, echinoderms and annelids. The stock exploited by the BTF from Tarragona (Catalan Sea) was assessed using a surplus production model, which revealed that the stock status has improved rapidly from 2020, most likely due to significant fishing effort reductions within the framework of EU regulations.

Keywords:Bathymetric distribution,Population

structure,Reproduction,Condition,Diet,Exploitation status.