

{rokbox title=|Juvenile octopuses (*Octopus vulgaris*) photographed in sandy bottoms off the Cíes Islands (NW Spain) using bivalve shells as shelters :: Image: Authors| thumb=|images/stories/ieo/imagenespublicaciones/centro-oceanografico-baleares-ieo-csic-bivalve-shell-utilization-juvenile-octopus-sandy-hernandez-et-al-2025-thumb.jpg|}images/stories/ieo/imagenespublicaciones/centro-oceanografico-baleares-ieo-csic-bivalve-shell-utilization-juvenile-octopus-sandy-hernandez-et-al-2025.jpg{/rokbox}

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[Bivalve](#)

[Shell Utilization by Juvenile *Octopus vulgaris* in Sandy Substrates.](#)

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Abstract: The early life stages of *Octopus vulgaris* face significant challenges in sandy environments, where shelter is limited and predation risk is high. This study examines how juvenile octopuses adapt to these conditions, focusing on their use of empty bivalve shells as shelters. Between May 2022 and June 2023, through four SCUBA diving expeditions in the Cíes Islands, NW Spain, nine juvenile octopuses were found inhabiting bivalve shells. The juveniles preferentially selected shells that fit their body size, providing protection and minimizing exposure. They manipulated the shells for security and positioned themselves strategically for optimal visual surveillance. Additionally, they used camouflage techniques, blending with the sandy substrate. When threatened, some octopuses displayed bipedal locomotion to enhance their escape. This study highlights the adaptive flexibility of juvenile *O. vulgaris* in response to predation pressures in sandy habitats, adding to the growing but limited knowledge of habitat-specific behaviors that can help contribute to the conservation strategies of wild populations.

Keywords: bivalve shells, camouflage, juvenile behavior, *Octopus vulgaris*, sandy habitats, shelter use