

{rokbox title=|Engraulis encrasicolus :: Imagen: Les poissons. Gervais, H.|
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, D. Roos and V. Valavanis, (2013).

[Characterizing the potential habitat of European anchovy *Engraulis encrasicolus* in the Mediterranean Sea, at different life stages](#)

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Abstract: Identification of the potential habitat of European anchovy (*Engraulis encrasicolus*) at different life stages in relation to environmental conditions is an interesting subject from both ecological and management points of view. For this purpose, acoustic data from different seasons and different parts of the Mediterranean Sea along with satellite environmental and bathymetry data were modelled using generalized additive models. Similarly, egg distribution data from summer ichthyoplankton surveys were used to model potential spawning habitat. Selected models were used to produce maps presenting the probability of anchovy presence (adults, juveniles and eggs) in the entire Mediterranean basin, as a measure of habitat adequacy. Bottom depth and sea surface chlorophyll concentration were the variables found important in all models. Potential anchovy habitats were located over the continental shelf for all life stages examined. An expansion of the potential habitat from the peak spawning (early summer) to the late spawning season (early autumn) was observed. However, the most suitable areas for the presence of anchovy spawners seem to maintain the same size between seasons. Potential juvenile habitats were associated with highly productive inshore waters, being less extended and closer to coast during winter than late autumn. Potential spawning habitat in June and July based on ichthyoplankton surveys overlapped but were wider in extent compared with adult potential habitat from acoustics in the same season. Similarities and dissimilarities between the anchovy habitats as well as comparisons with sardine habitats in the oligotrophic Mediterranean Sea and other ecosystems with higher productivity are discussed.

Keywords: anchovy, anchovy potential nurseries, habitat suitability modelling, Mediterranean Sea, small pelagics