

The spawning spatial structure of two co-occurring small pelagic fish off central southern Chile in 2005



Anchovy and common sardine co-occur in the same reproductive and feeding habitat off central southern Chile (33°00'–41°20'S), and have a similar reproductive strategy. Egg-survey data from one survey carried out during the austral winter in 2005 were used to analyze the spawning spatial structure of anchovy (*Engraulis ringens*) and common sardine (*Strangomera bentincki*) through geostatistical techniques and generalized additive models. The spawning spatial structure of both species was characterized by a spatial autocorrelation intensity varying similarly with distance in all directions, ranging between 27.2 and 32.6 km for anchovy and common sardine, respectively. In average, egg density of anchovy was higher than egg density of common sardine, with the bulk of the spawning for both species located in the southern sector of the study area (38°S–40°S). In this sector, both species showed an overlapped distribution, and egg densities were mainly associated to shallow and coastal zones, suggesting that coastal shape and bottom depth are important factors for the spawning of both species. In the south sector, the egg density of both

species was positively correlated, indicating that spatial structure of the spawning is not explained by a different strategy of space occupation among anchovy and common sardine.

Auteurs du document : Claudio Castillo-Jordán, Luis A. Cubillos, Jorge Paramo

Obtenir le document : EDP Sciences

Mots clés : Spatial structure, Geostatistics, GAM modeling, Spawning areas, Pelagic fish eggs, Anchovy, Sardine

Thème (issu du Text Mining) : MILIEU NATUREL

Date : 2007-5-17

Format : text/xml

Source : <https://doi.org/10.1051/alr:2007018>

Langue : Anglais

Télécharger les documents : <https://www.alr-journal.org/10.1051/alr:2007018/pdf>

Permalien : <https://www.documentation.eauetbiodiversite.fr/notice/the-spawning-spatial-structure-of-two-co-occurring-small-pelagic-fish-off-central-southern-chile-in-0>

Evaluer cette notice: