Identifying blue whiting (Micromesistius poutassou) stock structure in the Northeast Atlantic by otolith shape analysis

Information on stock identification and spatial stock structure provide a basis for understanding fish population dynamics and improving fisheries management. In this study, otolith shape analysis was used to study the stock structure of blue whiting (Micromesistius poutassou) in the northeast Atlantic using 1693 samples from mature fish collected between 37°N and 75°N and 20°W and 25°E. The results indicated two stocks located north and south of ICES Divisions VIa and VIb (54°5N to 60°5N, 4°W to 11°W). The central area corresponds to the spawning area west of Scotland. Sampling year effects and misclassification in the linear discriminant analysis suggested exchanges between the northern and southern stocks. The results corroborate previous studies indicating a structuring of the blue whiting stock into two stocks, with some degree of mixing in the central overlap area.

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The scientific sandeel dredge survey is carried out each year in November/December and it covers the most important sandeel fishing banks in the North Sea.

The aim is to collect the sandeels when they are buried in the seabed and compare the catches (number and age composition) with the previous year's collections. The specific year class strength of sand eels is assessed for the different areas adopted by ICES in 2009.

Data from the dredge survey is the basis for calculating an index, which is used in the stock assessment.

This project is coordinated by DTU Aqua.
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