Overview of recent progress in fisheries acoustics made by Ifremer with examples from the Bay of Biscay

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This paper provides an overview of the progress Ifremer has made recently in fisheries acoustics and the study of small pelagic fish by: i) pushing observation frontiers using a range of platforms including an autonomous underwater vehicle, AUV, ii) developing measuring instruments and methods and iii) studying fish distributions. Presently, information from several frequencies of single-beam echosounders is routinely collected together with data from the ME70 multibeam echosounder. For onboard data acquisition control the HERMES software was developed. The new MOVIES 3D software includes modules for simultaneous realistic 3D visualisation and post-processing such as bottom detection, school extraction and calculation of descriptors and integration of all acoustic data. Several data analysis methods are being developed and some initial results are presented. Finally, results on the spatial distribution of small pelagic fish schools in the Bay of Biscay illustrate the role that acoustics can play, and are already playing, in the implementation of an ecosystem approach to fisheries.

Palabras clave: Multibeam echosounder, Oceanographic AUV, pelagic fish, Fisheries acoustics

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