

Where have all the females gone? Analyses of skewed sex proportions in herring catches in the North Sea

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Introduction

Quality managers of pelagic fishing companies have notices for many years already that there are large differences in sex proportions of herring in the catches. These differences apply to the summer and winter fishery but also to the different areas where herring are caught. In the summer many more female herring are caught than in the winter, even though in both seasons there is a spawning time for herring. These observations from the fishermen has so far not been researched. Detailed catch compositions and quality records of commercial trawlers can be used to map the relative distributions of the sexes in the catches.



Research questions

- Does a difference in sex ratio for herring occur in the different fisheries and is this a consistent pattern over years
- How can the commercial catch records and quality records be used for analysis of biological properties of herring
- How can the observations of the commercial fishermen be compared to the results of scientific surveys
- What potential hypotheses could explain a differential availability of the two sexes to the fishery.

Type of student work: MSc thesis

Required background: fisheries science

Period: 5-6 months. Starting any time.

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Organization: The Pelagic Freezer-trawler Association represents the interests of 9 European pelagic freezer-trawler companies. PFA members are responsible, family-run companies, mostly going back to the late 19th century, who benefit from several generations of fishing experience, and operate a combined fleet of 19 vessels. They are vertically integrated companies involved in the catching, processing, distribution and export of pelagic fish. The association currently has members in France, Germany, Lithuania, the Netherlands and the UK.

