

Strategic Research Theme : Natural Resources and Sustainability

Research Project undertaken within the **Centre for Marine and Freshwater Research**

Project Title: Spatio-temporal scales of variability in the early life history of plaice.

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Funding Body: Department of Education & Science - TSR Strand 1

Project Summary

The plaice fishery is commercially important to the Irish economy. Sustainable management of this natural resource requires detailed knowledge of the ecology of the species at all stages in its life history. Ecological understanding of the larval and early bottom-living stages is poor. Otoliths, which are bones in the fish ear, can provide data on hatching dates, larval duration, larval growth rate, date on which the fish arrives on its sandy beach nursery ground and juvenile growth rate. Otoliths can easily be stored for long time periods. Archived and newly collected otoliths will be used in this study to fill an important information gap in the knowledge of plaice ecology. Samples will be obtained in the field and along with archived samples from the Marine Institute and GMIT will be used to determine how the early plaice life history varies through time and space. Data on the early life history will be obtained for the past ten years on local, regional and national scales. Variations will be examined in relation to oceanographic data and stock assessments. The proposed project is a logical and essential development of research carried out at GMIT over the past four years.

