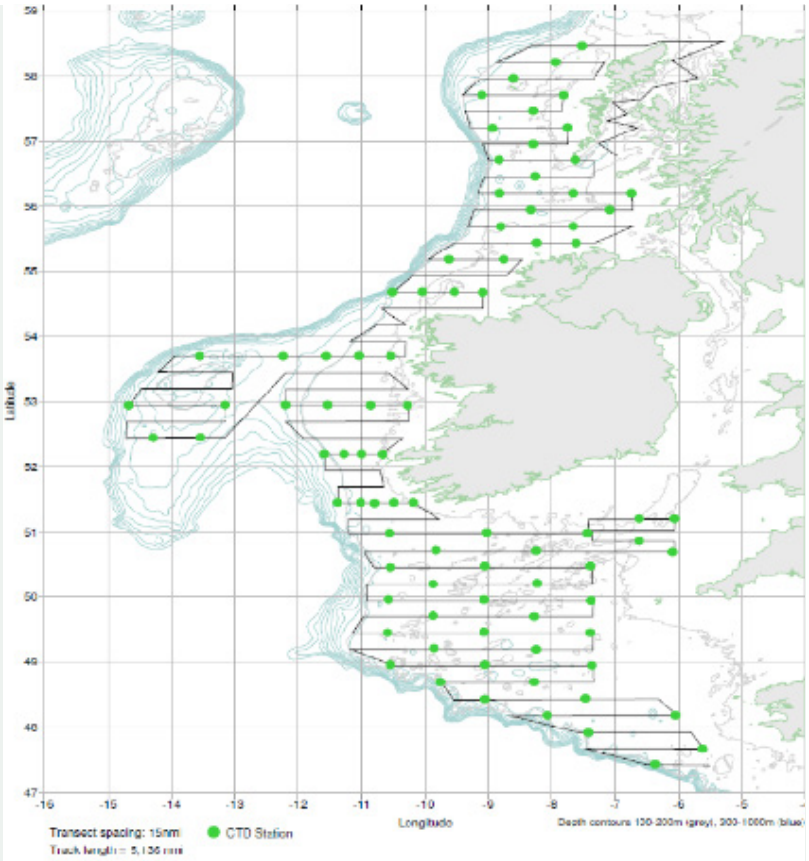
## Project Title

Ecosystem Data Collection on Irish Fisheries Surveys in Support of Biodiversity and MSFD

## Project Description

As part of the data collection framework, the Marine Institute conducts ten annual fisheries research surveys at sea to provide fisheries independent data for stock assessment. To maximize vessel time, these surveys can be used as platforms of opportunities for the collection of additional ecosystem data.




Survey Track of Western European Shelf Pelagic Acoustic Survey (WESPAS) used as a platform to carry out marine mammal observations.

Acoustic and egg and larval surveys are particularly suitable for marine mammal observations. Every year, 6 weeks of marine mammal observer effort will be funded on the Marine Institute Acoustic fisheries surveys, covering all acoustics programmes at least once over the duration of the project. Data collection protocols for marine mammal observations have been optimised to feed into biodiversity reporting. The collected data will supplement requirements for Article 17 reporting under the Habitats Directive, as well as provide data for MSFD and the National Biodiversity Data Centre.

Fisheries surveys can also be used as platforms of opportunities for the collection of benthic and sediment samples in support of other national initiatives such as INFOMAR, the national seabed mapping program. There is an ongoing requirement for substrate maps that accurately depict the sediment properties of the seabed to benefit fisheries resource management, conservation, marine spatial planning, industry and research. Substrate/sediment maps are routinely created by the INFOMAR program and are based on two primary datasets: acoustic data (primarily bathymetry and backscatter derived from multibeam echosounders) and ground truthing data, such as sediment sample and video transects.

With INFOMAR phase 2 (2016-2026) primarily focused on achieving 100% seabed coverage on all remaining coastal and offshore areas, including the Celtic Sea and West coast of Ireland, there is an opportunity to support the creation of high resolution substrate/sediment maps for the entire Irish shelf. The sediment samples collected are critical to verify substrate interpretations and to provide greater confidence in the substrate maps. Most of the sediment samples collection will be achieved opportunistically during fisheries surveys when the vessel is not engaged on core survey targets, and hence acquisition costs will be minimal. Database and GIS management will be managed by INFOMAR. Outsourced sediment particle size analysis will be carried out as part of this project by independent laboratories.

## Partners

The project is carried out in close collaboration with the Marine Institute (Fisheries Ecosystem Advisory Services and Advanced Mapping Services), National Parks and Wildlife Services, and its parent department, Department of Culture, Heritage and the Gaeltacht..

## Duration

The project has a 2 year duration and runs between 2017 and 2018. The project may continue as Phase 2 until 2020 based on satisfactory output in the initial two years.

## Project Outputs

1. Survey reports and distributional data on marine mammals in accordance with enduser reporting requirements.
2. Data obtained from the collection of sediment samples and relative Particle Size Analysis. These data will be integrated and will enhance current sediment properties databases and related GIS-web gis services. By-product will be the improved and more accurate sediment classification maps of the Irish Shelf.

## Expected Benefit

1. Data collection on four acoustic fisheries surveys on the distribution of marine mammals to supplement requirements for Article 17 reporting under the habitats directive,
2. Data provision of the same to MSFD and the National Biodiversity Data Centre.
3. Collection of benthic and sediment samples in support of other national initiatives such as INFOMAR, the national seabed mapping program.
4. Recommendations on the data collection of ecosystem data on Fisheries surveys

Further details available on www.emff.marine.ie

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