

EMFF Operational Programme 2014-2020

Marine Biodiversity Scheme

Sustainable Development of Fisheries
Fostering the Implementation of the
Integrated Marine Policy

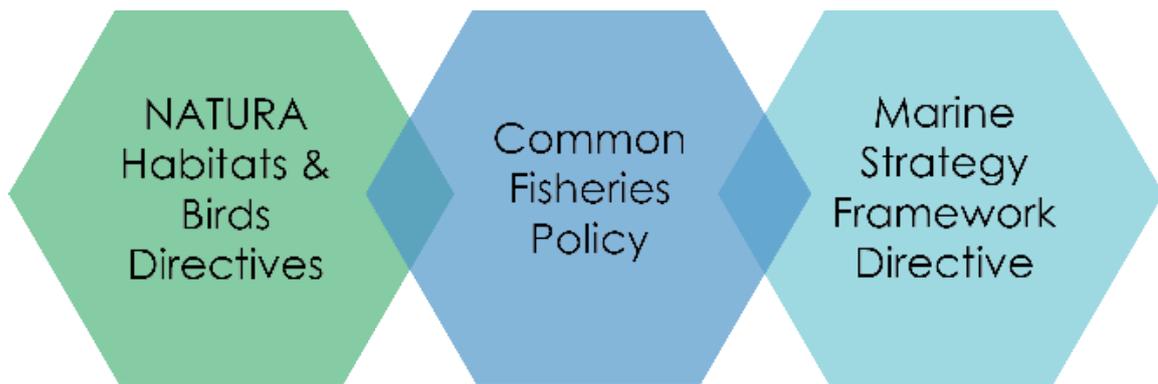


1. Introduction

The Marine Biodiversity Scheme is established under Union Priority 1 (Sustainable Fisheries) and Union Priority 6 (Integrated Maritime Policy) of Ireland's Operational Programme (OP) under the EMFF and is co-funded by the Irish Government and the EU.

2. Objective

The objective of the Marine Biodiversity Scheme, as set out in the EMFF OP is to promote good fisheries and aquaculture management and to protect biodiversity in marine habitats. This will support implementation of the Common Fisheries Policy (CFP) and compliance with the Habitats and Birds Directives (Natura 2000) and the Marine Strategy Framework Directive (MSFD).



The scheme has three specific objectives:

- Reduction of the impact of fisheries and aquaculture on the marine environment, including the avoidance and reduction, as far as possible, of unwanted catch.
- Protection and restoration of aquatic biodiversity and ecosystems.
- Development and implementation of the Integrated Maritime Policy.

3. Implementation

Measures implemented under this scheme are undertaken for the protection and preservation of marine biodiversity and to contribute to the fulfilment of Ireland's obligations under EU Nature Directives. The scheme supports the monitoring and reduction of risks posed by fisheries and aquaculture to biodiversity, the collection of data to assess the impact of fisheries and aquaculture on biodiversity, and measures to restore and manage habitats and species.

Measures under this non-competitive scheme are implemented by the Marine Institute. Approval of projects by the EMFF Managing Authority in DAFM are subject to eligibility criteria as outlined in the Scheme Implementation Plan, having regard for Ireland's prioritised actions of the CFP, Natura 2000 and MSFD as highlighted in Ireland's EMFF Operational Programme.

4. Priority Actions for Natura 2000

Compliance with the Habitats and Birds Directives requires ongoing public investment to identify potential risks from fisheries and aquaculture to designated habitats and species in Natura 2000 sites, to reduce those risks through management or other measures and to monitor and report on these mitigation measures and on the status of protected habitats and species.

"Compliance with the Habitats and Birds Directives is a key policy and regulatory consideration impacting in particular on aquaculture, but increasingly on fisheries, especially but not limited to inshore shellfish fisheries using towed gear. The priorities in this area in relation to marine and coastal habitats and species are detailed in the Prioritised Action Framework for Natura 2000."

Ireland's EMFF Operational Programme

The following priority actions for Natura 2000 have been identified for support under Ireland's EMFF OP and will be implemented through this scheme:

- Supports for appropriate assessment and risk assessment of fisheries and aquaculture activities in protected sites;
- A system for gathering spatial, temporal and catch data for fishing by vessels < 10m;
- Surveys and habitat mapping in protected sites;
- Programmes for monitoring of habitats and species in protected sites;
- Funding awareness raising mechanism for local structures.

5. Priority Actions for MSFD

The impact of fisheries on the seafloor and on species populations through bycatch needs to be fully understood to develop effective mitigation measures under the Marine Strategy Framework Directive (MSFD) programme of measures.

“The MSFD has identified bycatch of vulnerable species of mammals and seabirds by marine fisheries as a pressure which must be monitored and mitigated if necessary. This is in line with the objectives of the newly reformed CFP to ensure that negative impacts of fishing activities on the marine ecosystem are minimised.”

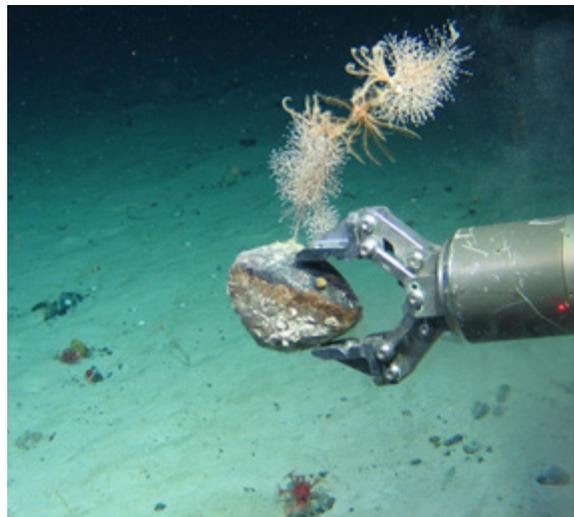
Ireland's EMFF Operational Programme

Catch sampling at sea programmes under the current Data Collection scheme target commercial fish species. Under the Marine Biodiversity Scheme, Ireland will increase sampling effort to collect data on the bycatch of vulnerable species not routinely captured to assess their impact and input to the development of mitigation measures.

Under the Marine Biodiversity Scheme, reference points for sustainable fishing are developed for fish and shellfish stocks that are either particularly vulnerable to overfishing or play a key role in the marine ecosystem. These species are also referred to as key stone species and they are critical to the functioning of marine foodwebs.

The following priority actions for the Marine Strategy Framework Directive (MSFD) have been identified for support under Ireland's EMFF OP:

- Work on MSFD descriptors which can be addressed using data collected under the Data Collection Scheme;
- Evolve fisheries monitoring programmes to collect more data for the MSFD;
- Gear selectivity trials;
- Evaluate fishing mortality biomass against reference points;
- Enhance monitoring and mitigation of fisheries and aquaculture;
- Informatics in support of the CFP and the ecosystem approach to fisheries.



Deepwater Reef Mapping using a remote operated vehicle in the SeaRover Project

6. Providing an Integrated Approach

The Marine Institute uses an integrated approach to the collection of marine knowledge and data under EMFF. The Institute is implementing three schemes: Marine Biodiversity, Data Collection and Blue Growth & Marine Spatial Planning. The collection and use of biological, ecological and socioeconomic data is maximised by integrating across the three schemes, adding value to existing sampling programmes and developing multiple data products for different enduser and policy needs.

7. Outreach and Collaboration with Local Communities

Raising awareness of the need to maintain marine biodiversity is an important aspect of the Marine Biodiversity Scheme. This work is carried out through public outreach, education and collaboration with local groups especially in rural marine communities.

8. Projects Funded under this Scheme

The following table summarises the eligible measures under this scheme:

Measure	Activities funded under the scheme
Appropriate assessment and risk assessment of aquaculture and fisheries	<p>Appropriate assessments</p> <p>Studies to inform the Article 6 assessment processes</p> <p>Acquisition and management of data including spatial data relating to the appropriate assessment and risk assessment process</p>
Monitoring and mitigation of risks posed by fisheries and aquaculture to biodiversity	<p>Studies to inform the design of biodiversity mitigation measures in fisheries and aquaculture</p> <ul style="list-style-type: none"> • Ecological studies • Studies to compare catch composition and by-catch before and after introduction of mitigation measures; <p>Monitoring of mitigation measures.</p>
Improved data provision to assess the impact of fisheries on biodiversity	<p>Studies, surveys and analysis to assess the impact of fishing pressure on habitats and species.</p> <p>Studies, surveys and analysis for mapping of fishing pressures on habitats and species.</p> <p>Integrated systems for acquisition of spatial data and catch and effort data in inshore fisheries.</p>
Restoration and management of habitats and species	<p>Studies to inform methods for restoration of habitats and species.</p> <p>Infrastructure or facilities for restoration of habitats and species.</p> <p>Restoration of specific marine habitats in support of sustainable fish stocks.</p> <p>Evaluation of biomass and fishing mortality against reference points for key stone species and/or species sensitive to the impacts of fishing.</p>

Measure	Activities funded under the scheme
<p>Informatics in support of the CFP and ecosystem based management</p>	<p>Informatics projects to improve management or conservation of marine biological resources.</p>
<p>Collection and analysis of data to support the implementation of the MSFD</p>	<p>Leveraging DCF data to provide indicators for the MSFD.</p> <p>Evolving existing fisheries monitoring programmes to collect additional data in support of MSFD.</p>
<p>Spatial fisheries management measures</p>	<p>Further profiling of the conservation benefits for the Biological Sensitive Area (BSA) working with regional partners.</p> <p>Studies to develop additional spatial measures to support fisheries management and to protect biodiversity.</p>
<p>Dissemination of knowledge</p>	<p>Dissemination of scientific results of the above listed measures and related outreach.</p>

9. 2016 Marine Biodiversity Projects

Programme	Project Title	Project Costs	Annual/ multiannual
Natura Fisheries Interaction	Assessment of the impacts of dredging on seagrass habitats	€72,000	Annual 2016
	Assessment of the impacts of hydraulic dredging on sedimentary habitats in the Irish Sea	€60,000	Annual 2016
	Assessment of species catch composition in the inshore fisheries potting and netting fleets	€25,000	Annual 2016
	Deployment of Vessel Monitoring Systems (iVMS) on inshore fishing vessels using dredges	€30,000	Annual 2016
Natura Aquaculture Interaction	Appropriate assessment reports and advisory services of aquaculture activities in Special Protection Areas (SPA)	€120,000	Annual 2016
	Appropriate assessment reports and advisory services of aquaculture activities in Special Areas of Conservation (SAC)	€15,000	Annual 2016
	Measure the effectiveness of mitigation measures of managed activities (aquaculture) carried out in Natura sites	€26,000	Annual 2016
	Natura site specific surveys and investigations in relation to interactions between bird use and aquaculture practices	€15,000	Annual 2016

Programme	Project Title	Project Cost	Annual/ multiannual
Species and Habitat Restoration	Management and restoration of crayfish stocks	€370,000	Multi-annual 2017-2018
	Management and restoration of endangered skate stocks	€200,000	Multi-annual 2017-2018
Natura Fisheries Interaction	Automating data acquisition for vessels under 12m in length	€270,000	Multi-annual 2017-2018
	Assessment of species catch composition in fisheries posing a risk to biodiversity	€270,000	Multi-annual 2017-2018
	Assessment of fisheries/habitat interaction on offshore reefs	€1,400,000	Multi-annual 2017-2018

Programme	Project Title	Project Cost	Annual/ multiannual
Natura Aquaculture Interaction	Appropriate assessment of aquaculture activities in SPAs	€140,000	Multi-annual 2017-2018
	Appropriate assessment of aquaculture activities in SACs	€45,000	Multi-annual 2017-2018
	Measure the effectiveness of mitigation measures of managed activities (aquaculture) carried out in Natura sites – monitoring and baseline data collection.	€145,000	Multi-annual 2017-2018
Support for MSFD and Biodiversity Support	Ecosystem data collection on Irish fisheries surveys in support of MSFD	€60,000	Multi-annual 2017-2018
	MSY proxies for data-limited stocks for key stone species and species sensitive to the impacts of fishing	€172,500	Multi-annual 2017-2018
	Informatics in support of the Ecosystem Based Fisheries Management, Phase 1	€589,400	Multi-annual 2017-2018

Programme	Project Title	Project Cost	Annual/ multiannual
Species and Habitat Restoration	Restoration of native oysters in Ireland	€350,000	Multi-annual 2018-2020
Natura fisheries interaction/ Natura Aquaculture interaction	Implementation of Natura measures	€30,000	Multi-annual 2018-2020
Natura Fisheries Interaction	Multidisciplinary digital aerial mapping of the marine coastal environment	€600,000	Multi-annual 2018-2020
Support for MSFD and Biodiversity	Nephrops and Microplastics	€200,000	Multi-annual 2018-2020

Programme	Project Title	Project Cost	Annual/ multiannual
Species and Habitat Restoration	Management and restoration of crayfish stocks- Phase 2	€180,000	Multi-annual 2019-2020
	Management and restoration of endangered skate stocks - Phase 2	€142,000	Multi-annual 2019-2020
Natura fisheries interaction/ Natura Aquaculture interaction	Automating data acquisition for vessels under 12m in length- Phase 2	€250,000	Multi-annual 2019-2020
	Assessment of species catch composition in fisheries posing a risk to biodiversity- Phase 2	€500,000	Multi-annual 2019-2020
	Assessment of fisheries/ habitat interaction on offshore reefs - SeaRover Phase 2	€1,000,000	Multi-annual 2019-2020
	Aquaculture and Fisheries Interactions with SCI Bird Species	€175,000	Multi-annual 2019-2020
Natura Aquaculture interaction	Appropriate assessment of aquaculture activities in SPAs	€80,000	Multi-annual 2019-2020
	Appropriate assessment of aquaculture activities in SACs	€50,000	Multi-annual 2019-2020
	Measure the effectiveness of mitigation measures of managed activities (aquaculture) carried out in Natura sites – monitoring and baseline data collection.	€280,000	Multi-annual 2019-2020

Programme	Project Title	Project Cost	Annual/ multiannual
Impact of fisheries on biodiversity / Support for MSFD	Ecosystem data collection on Irish fisheries surveys in support of MSFD, Natura and Habitat mapping- Phase 2	€196,000	Multi-annual 2019-2020
	MSY proxies for data-limited stocks for key stone species and species sensitive to the impacts of fishing - Phase 2 Capacity building	€ 135,065	Multi-annual 2019-2020
	Informatics in support of the Ecosystem Based Fisheries Management, Phase 2	€798,000	Multi-annual 2019-2020
	Monitoring the recovery of over exploited deep-water species	€145,360	Multi-annual 2019-2020
	MSFD Indicator assessment D1 and D4 fish biodiversity	€120,000	Multi-annual 2019-2020
Outreach	Support to Scheme: Dissemination & Outreach - Phase 2	€100,000	Multi-annual 2019-2020

Bycatch Refers to discarded catch plus incidental catch not purposely targeted by the fishermen.

CFP / Common Fisheries Policy The instrument of fisheries management within the European community (see https://ec.europa.eu/fisheries/cfp_en)

MSFD / Marine Strategy Framework Directive This directive aims to achieve Good Environmental Status (GES) of the EU's marine waters by 2020 and to protect the resource base upon which marine-related economic and social activities depend. (See www.ec.europa.eu/environment/marine/good-environmental-status)

MFSD Descriptors MSFD sets out eleven qualitative descriptors which describe what the environment will look like when Good Environmental Status (GES) has been achieved. There are important linkages between the Common Fisheries Policy and the Marine Strategy Framework Directive through "Commercial Fish and Shellfish Stocks" (Descriptor 3), Biodiversity (Descriptor 1), Marine Foodwebs (Descriptor 4) and Seafloor Integrity (Descriptor 6).

MSY Maximum Sustainable Yield. The largest average catch or yield that can continuously be taken from a stock under existing environmental conditions.

Natura 2000 is a network of nature protection areas in the territory of the European Union. It is made up of Special Areas of Conservation and Special Protection Areas designated respectively under the Habitats Directive and Birds Directive.

Further details available on www.emff.marine.ie

Managing Authority EMFF 2014-2020	Specified Public Beneficiary Body
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