

#### BENTHIS in a nutshell

**Acronym**: BENTHIS

**Title:** Benthic Ecosystem Fisheries

Impact Studies

**Instrument**: Collaborative project

**Grant Nr** 312088

**Total cost**: 7.78 million Euros **EU contribution**: 5.99 million Euros

**Duration**: 60 months **Start date**: 1 October 2012

Consortium: 33 partners from 12 countries
Coordinator: IMARES Wageningen UR

**Key words:** Trawling impact, benthic ecosystem, discards, innovations, fishing gear, management, socio economy, industry–science collaboration, Baltic, North Sea, Bay of Biscay, Mediterranean, Black Sea



## Research partners

Netherlands | IMARES Wageningen UR (IJmuiden) LEI Wageningen UR (The Hague)

Belgium | ILVO (Oostende)

**United Kingdom** (England, Wales, Scotland) | CEFAS (Lowestoft) | Bangor University (Bangor) | University of Aberdeen (Aberdeen) | Marine Scotland (Aberdeen)

France | IFREMER (Nantes)

Ireland | Marine Institute

**Denmark** | DTU-Aqua (Copenhagen) | AU-Bioscience - Aarhus University | University of Copenhagen

**Sweden** | SLU - Institute of Marine Research (Lysekil)

**Norway** | IMR - Institute for Marine Research (Bergen)

Italy | CNR - Consiglio Nazionale delle Ricerche

**Greece** | HCMR - Hellenic Centre for Marine Research (Crete)

**Turkey** | CFRI - Ministry of Agriculture and Rural Affairs (Trabzon) | OMU - Ondokuz Mayıs University (Samson)

## Industry partners

**Netherlands** | Anton Dekker Beheer BV | C.W. Nagel | Vof. Pesce 43

Faroe Islands | SP/F Syntesa

France | Copropriété TREGUIER | Didelot Yann

**Italy** | Technopesca | Officina Meccanica Grilli di Grilli Roberto & C. s.a.s. | Mori Carlo s.r.l.

Sweden | VG86 Atlas | Marine Monitoring vid Kristineberg AB

**Denmark** | Hans Jørgen Hansen & Dan Hansen | Wiitrup Seafood A/S | Gi-Bri A/S

**Turkey** | Kemal Malkoc (Samsun) | Mustafa Sadiklar (Samsun)





## Impact of fisheries

The sea bed provides a place to live for a wide diversity of plants and animals, but is also the source of an important economic activity: fishery. The impact of bottom trawl fisheries on marine life in and on the seabed is the subject of much debate, both in academia and among environmental NGOs, regulators, policymakers and fishermen. Fisheries may negatively affect benthic ecosystems, for instance by reducing biodiversity and sea bed

BENTHIS is an EU-FP7 project on the integration of marine benthic ecosystems in fisheries management (2012-2017)

integrity, but it has also been argued that bottom trawl fisheries enhances the food availability and growth of fish.

# Integrated approach

The European Union has funded the BENTHIS project to provide the urgently needed knowledge to support an integrated approach to the management of human activities in the marine environment, in particular fishing. BENTHIS will study the vulnerability of different benthic ecosystems in European waters and analyse the physical impact of the current fishing practices on benthic organisms and geo-chemical processes.

### **Innovations**

In addition, in close collaboration with the fishing industry, BENTHIS will study and promote technological innovations to mitigate the impact. The project integrates ecological, socio-economic as well as fishing gear research, and is conducted by a consortium of research institutes, fishing companies and fishing gear manufacturers from all over Europe. Specific case studies will be conducted in the major European seas (Baltic, North Sea, Bay of Biscay, Mediterranean Sea and Black Sea).

## New management

BENTHIS focuses on flatfish and shrimp fisheries with beam trawls, nephrops and roundfish fisheries with otter trawls, and shellfish fisheries with dredges. New management approaches will be developed in direct collaboration with the fishing industry and other stakeholders and their effects on the ecosystem and the socio-economic consequences will be tested. BENTHIS will inform managers about the benthic habitats that are impacted most and about the fishing gears that have the biggest impact and provide information on options to mitigate these impacts.

#### Stakeholder events

BENTHIS will organize regional stakeholder events with representatives of the fishing industry, NGO's, policy and research to advice on priority research questions, provide feed-back on the results and enhance the dissemination of the results.

## **BENTHIS** objectives

- Assess the status of different types of marine benthic ecosystems in European waters on a regional basis and support indicators of Good Environmental Status (GES), in particular on Seafloor Integrity.
- Develop tools to assess effects of bottom trawling on the structure and functioning of EU benthic ecosystems.
- Develop and test, in close collaboration with the fishing industry, innovative technologies that reduce the impact of trawl fisheries on the benthic ecosystem (Baltic, North Sea, western waters, Mediterranean and Black Sea).
- Develop sustainable management plans that reduce the impact of fishing and quantify its ecological and socio-economic consequences, together with the fishing industry and other stakeholders on a regional scale.

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