Nordic Co-operation

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The role of institutions in monitoring, assessment and management of Marine Mammals in the North-Atlantic






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International, national and intergovernmental institutions

- There are institutions tasked with monitoring, assessing and providing recommendations on marine mammal protection and management
  - They do for the most parts only have an advisory role
  - The authority for planning and setting quotas, as well as enforcement is decided on elsewhere

International and intergovernmental institutions



- Established 1946
  - ✓ Global forum for whale conservation and management
  - ✓ Conservation of whales and regulation of whaling
  - ✓ Scientific Committee and international cooperation
  - ✓ Global intergovernmental framework for whale conservation and whaling management
  - ✓ Moratorium provides precautionary protection
  - ○ Polarized positions have impeded consensus

How should precaution, scientific evidence, sustainable use and ecosystem considerations be balanced?

International and intergovernmental institutions



- Established 1992
  - ✓ Faroe Islands, Greenland, Iceland and Norway
  - ✓ Scientific advice on conservation and sustainable use
  - ✓ Regional expertise and coordinated population surveys
  - ✓ Work on hunting welfare, methods and observation
  - ○ Only four members; limited geographic representation
  - ○ Sustainable-use approach contested by some NGOs
  - ○ Data gaps and cross-border stocks complicate advice

How can regional scientific advice, animal welfare and conservation be reconciled with sustainable use?

International and intergovernmental institutions

ICES International Council for the Exploration of the Sea
CIEM Conseil International pour l'Exploration de la Mer

- Established 1902
  - ✓ Intergovernmental marine science organization
  - ✓ Scientific advice, not regulatory authority
  - ✓ Provides independent, peer-reviewed scientific advice
  - ✓ Expert groups assess abundance, distribution and threats
  - ✓ Bycatch assessments support mitigation decisions
  - ✓ Links marine mammals, fisheries and ecosystem science
    - Ecosystem-approach to fisheries management
    - Ecosystem overviews
  - ✓ Scientific advice on conservation and sustainable use
  - ○ No authority to set or enforce management measures
  - ○ Limited direct advice on sustainable marine mammal harvests
  - ○ Ecosystem interactions remain difficult to quantify

How can ICES better integrate marine mammal ecology and fisheries interactions into ecosystem-based advice?

International and intergovernmental institutions

NORTH-EAST ATLANTIC FISHERIES COMMISSION
Managing Fisheries in the North-East Atlantic

- Established 1959
  - ✓ International framework for fisheries conservation and control
  - ✓ Ecosystem approach and protection of vulnerable marine ecosystems
  - ✓ ICES-based scientific advice and monitoring, control and enforcement
  - ✓ Potential to address fisheries interactions with cetaceans and other species
  - ○ Not a dedicated marine mammal assessment or harvest-management body
  - ○ Cetacean bycatch receives less attention than target stocks and benthic habitats
  - ○ Decisions depend on agreement and implementation by contracting parties
  - ○ Persistent disagreements over shared pelagic stocks complicate ecosystem-based management

NEAFC can reduce fisheries-related pressures on marine mammals, but does not provide comprehensive population management

International and intergovernmental institutions

- Established 1979
  - ✓ Long-established regional science and fisheries management framework
  - ✓ Ecosystem approach embedded in modernised convention
  - ✓ Bycatch provisions, monitoring and conservation measures
  - ✓ Protection of vulnerable marine ecosystems and scientific cooperation
  - ○ Whales are **explicitly excluded** from NAFO fisheries-management remit
  - ○ Limited direct assessment of marine mammal populations or trophic impacts
  - ○ Implementation and compliance depend on contracting parties

NAFO can address fisheries impacts on ecosystems, but marine mammal population management lies elsewhere

International and intergovernmental institutions

Core scientific responsibilities

- Population surveys, abundance estimates and trends
- Stock structure, reproduction, mortality and ecology
- Diet, prey consumption and interactions with fisheries
- Bycatch, entanglement, noise and other pressures

From evidence to advice

- Assess sustainability, conservation status and uncertainty
- Provide advice to national authorities
- Contribute experts and data to ICES, NAMMCO and IWC
- Coordinate transboundary surveys and research

Strengths / contributions

- Long-term monitoring and locally grounded expertise
- Scientific basis for conservation and sustainable use
- Direct links to fisheries, ecosystems and stakeholders
- Regional collaboration and international assessments

Limitations /challenges

- Funding and survey coverage vary among countries
- Uncertainty in abundance, diet and ecosystem effects
- Advice may not be fully adopted by policymakers
- National mandates can complicate shared-stock coordination

How can institutes jointly quantify marine mammal–fishery interactions and communicate uncertainty?

Icelandic Waters Ecoregion – Ecosystem Overview

ICES International Council for the Exploration of the Sea
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Changing ecosystem

1975–2025 warming: +1.51°C near surface; +1.15°C near bottom

Capelin feeding distribution has shifted toward East Greenland

Changes in prey affect fish, seabirds and whales

Marine mammal dynamics

Estimated cetacean prey consumption: **6.5** million tonnes/year

Minke and fin whale trends differ; 2024 estimates are preliminary

Harbour seal abundance is below its management target

Human interactions

Gillnets: important source of porpoise and seal bycatch

~25% of studied humpbacks show gear-entanglement scars

Vessel noise may affect whale communication

Prey consumption is not equivalent to lost fishery catch: effects depend on food-web pathways, species and spatial overlap

Need to integrate surveys, diet studies, bycatch monitoring and ecosystem models for better understanding of marine mammal and human interactions

Where are the gaps? | Questions for discussion

DATA

Are population estimates, trends and removals sufficiently current?

CAUSALITY

Can we distinguish prey consumption from impacts on fish stocks and catches?

TRADE-OFFS

How should conservation, livelihoods, welfare and ecosystem outcomes be evaluated?

COORDINATION

Are science requests, review cycles and data-sharing aligned?

Better decisions require transparent science, clear mandates, cross-border cooperation and constructive stakeholder engagement