



OSPAR, the OSPAR Quality Status Report and cetacean assessments

ACOBANS CDG4

09 January 2024

Debbie Hembury

OSPAR Deputy Secretary - Biodiversity



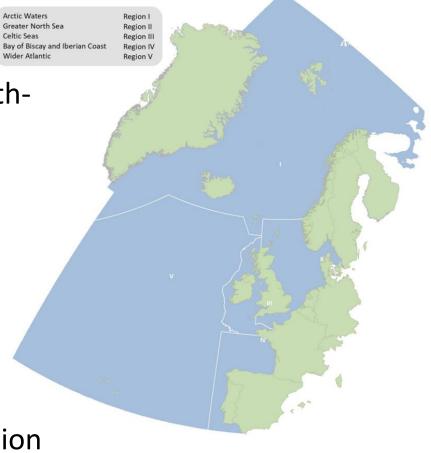
What is OSPAR?

Regional Sea Convention for the North-East Atlantic

16 Contracting Parties, approx. 65 observer organisations

Mandate to protect and conserve while using resources sustainably

Promote collaboration and coordination































OSPAR's vision

A clean, healthy and biologically diverse North-East Atlantic Ocean, which is productive, used sustainably and resilient to climate change and ocean acidification





OSPAR's Strategy

To achieve biologically diverse and healthy seas we will:

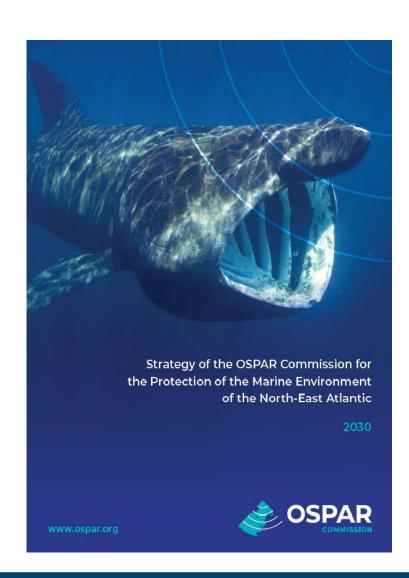
Strategic objective 5:

Protect and conserve marine biodiversity, ecosystems and their services to achieve good status of species and habitats, and thereby maintain and strengthen ecosystem resilience

To achieve productive and sustainably used seas we will:

Strategic objective 7:

Ensure that uses of the marine environment are sustainable, through the integrated management of current and emerging human activities, including addressing their cumulative impacts





OSPAR's Strategy: Operational Objectives

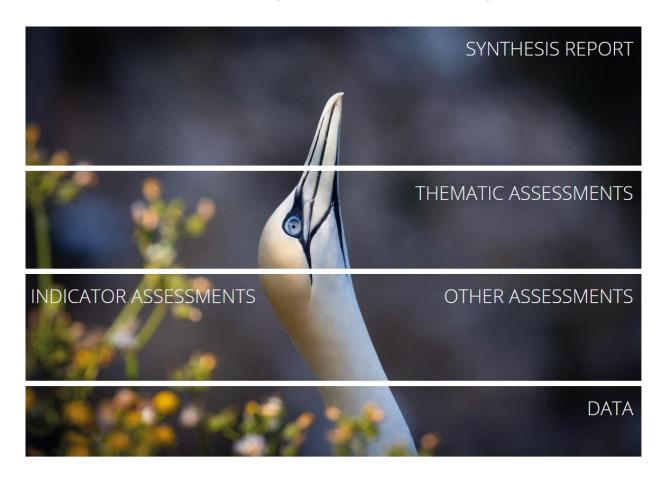
<u>S5.05:</u> by 2025 OSPAR will have implemented all agreed measures to enable **the recovery of OSPAR Listed threatened and/or declining species** and habitats and will take **additional measures** as needed.

<u>S7.O1:</u> by 2028 OSPAR will further develop methods for the analysis of **cumulative effects** in the marine ecosystems of the North-East Atlantic, taking into account relevant spatial and temporal information on human activities, pressures, **sensitive receptors** and habitats, and use the results to inform the establishment of **measures and actions** to prevent or otherwise manage impacts.

<u>S7.06</u>: OSPAR will work with relevant competent authorities and other stakeholders to minimise, and where possible eliminate, **incidental by-catch of marine mammals**, birds, turtle and fish so that it **does not represent a threat** to the protection and conservation of these species and will work towards strengthening the evidence base concerning incidental by-catch by 2025.



OSPAR Quality Status Report 2023

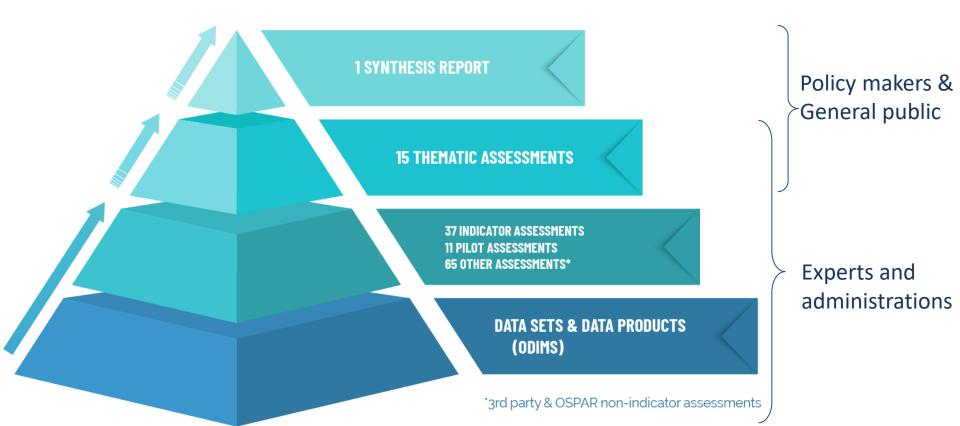


Health check for the marine environment of North-East Atlantic and the human activities that effect it



QSR 2023 Structure & Components

Target audience



Nearly 130 assessments



Marine Mammal Common Indicators

- Abundance and Distribution of Cetaceans (OSPAR M4, <u>Agreement 2018-09</u>, MSFD D1C2 and D1C4)
- Seal Abundance and Distribution (OSPAR M3, <u>Agreement 2016-11</u>, MSFD D1C2 and D1C4)
- Marine Mammal By-catch (OSPAR M6, <u>Agreement 2022-03</u>, MSFD D1C1)
- Grey Seal Pup Production (*OSPAR M5, Agreement 2016-12, MSFD D1C3*)

Marine Mammal Candidate Indicators

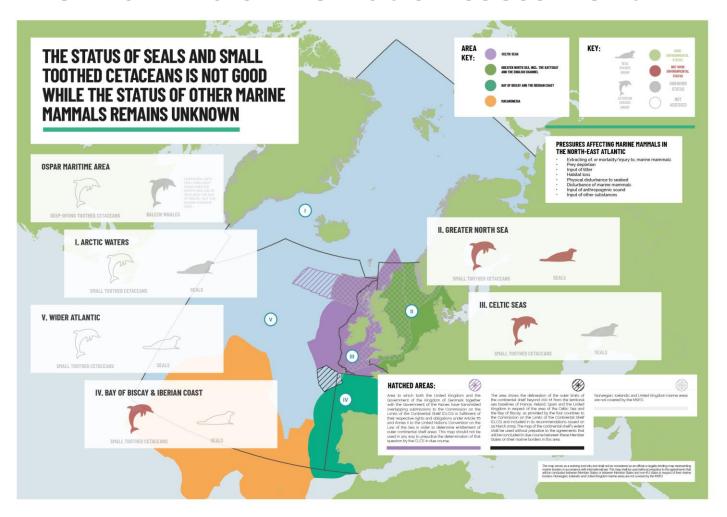
- <u>Pilot Assessment of Marine Mammal By-catch in Arctic Waters</u>
- <u>Pilot Assessment of Status and Trends of Persistent Chemicals in Marine Mammals</u>

Marine Mammal 'other assessments'

Status Assessments for OSPAR Listed marine mammals (e.g. harbour porpoise)



Marine Mammals Thematic Assessment





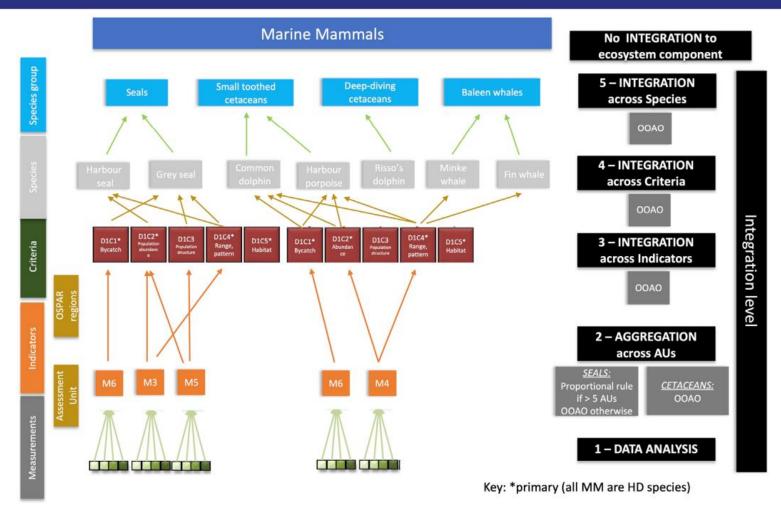


Figure 1: Levels and methods of integration for marine mammals (MM). Examples of species are presented. OOAO=One out all out, HD=Habitats Directive.



Thematic Assessment: Integration

- The integration methods are described in the <u>Common</u> <u>Environmental Monitoring Programme (CEMP) Guidelines</u>
- Challenges for integration include:
 - Different scales of species-specific assessment units (different rules required for seals and cetaceans)
 - Challenge associated with low number of species with adequate data to be integrated
- It was deemed premature to integrate from functional group to ecosystem component (and isn't required for the MSFD)



Future assessments

- Next OSPAR Assessment planned for 2028/2029, scope and content TBC
- OSPAR Marine Mammal Expert Group priorities include:
 - Improving current and develop further indicators
 - Promote candidate indicator on persistent chemicals to common indicator
 - Expanding the bycatch indicator (M6) to the Arctic Region (I)
 - Exploring data availability in the Wider Atlantic Region (V)
 - Develop a new indicator for the assessment of D1C4, likely in combination with habitat (D1C5)
 - Considering an alternative integration approach to the one out all out approach



Potential collaboration with other areas of OSPAR's work

- OSPAR Noise Regional Action Plan aim to adopt in 2025, some actions of relevance to ASCOBANS, e.g.
 - Integration of noise measures within MSP and MPAs
 - Targets and thresholds
 - Promotion of best practice standards
 - Shipping measures (promoted through IMO as appropriate)
 - Improving knowledge on impacts/harm
- Work on developing spatial approaches to cumulative impacts.



Thank you

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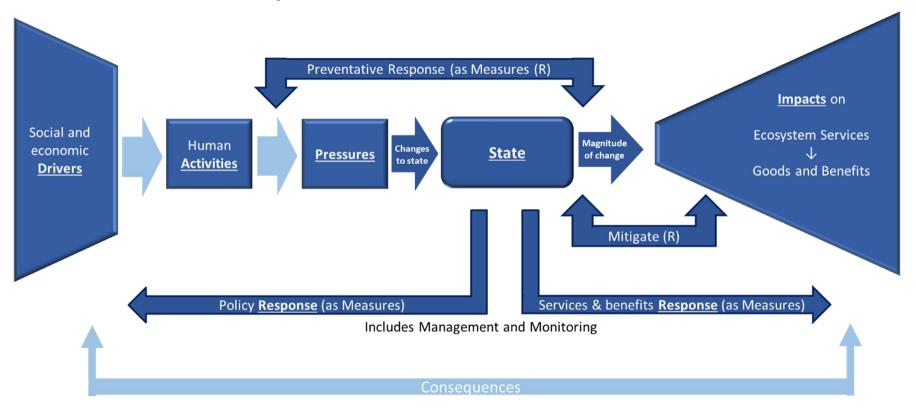
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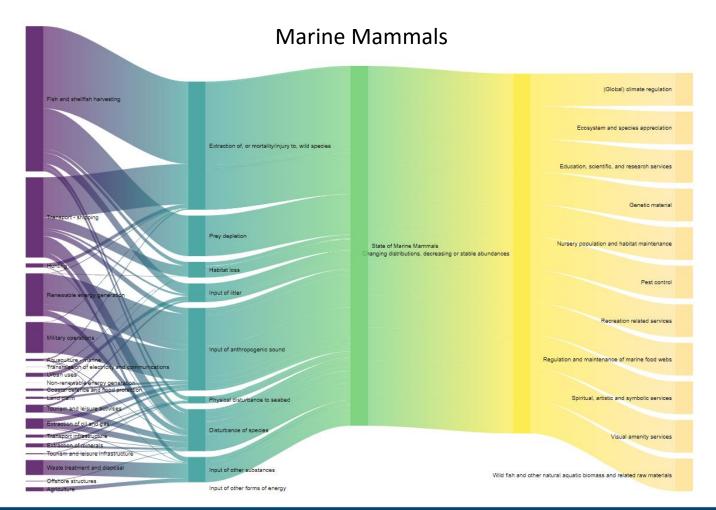
Cumulative Impacts in the QSR



Judd, A. and Lonsdale, J-A. (2021) Applying systems thinking: The Ecosystem Approach and Natural Capital Approach – Convergent or divergent concepts in marine management? Marine Policy 129 (2021) 104517. - adapted from Elliott, M., Burden, D., Atkins, J.P/, Borja, A., Cormier, R., de Jonge, V.N. and Turner, R.K. (2017) "And DPSIR begat DAPSI(W)R(M)!" - A unifying framework for marine environmental management. Marine Pollution Bulletin Volume 118, Issues 1–2, 15 May 2017, Pages 27-40



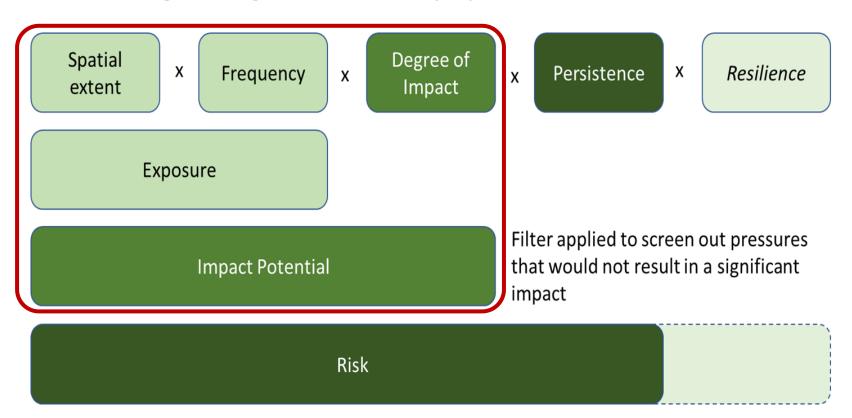
Cumulative Effects Assessment



Credit: A. Judd



CEA weightings – activity/pressure/state



Credit: A. Judd

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Devel

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Weigh

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Group

Weigh

Pressu

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Mami



Weightings method

	requency - how often a pressure type and ecological characteristic interaction cours measured in months per year	
Persistent	Where a pressure is introduced throughout the year, i.e., 12 months	
Common	Where a pressure is introduced up to 8 months of the year	
Occasional	Where a pressure is introduced up to 4 months of the year	
Rare	Where a pressure is introduced up to 1 month of the year	

Persistence - the period over which the pressure continues to cause impact following cessation of the activity introducing that pressure	
Continuous	The pressure continues to impact the ecosystem for at least 100 years
High	The pressure continues to impact the ecosystem for between 10 and 100 years
Moderate	The pressure continues to impact the ecosystem for between 2 and 10 years
Low	The pressure continues to impact the ecosystem for between 0 and 2 years

Knights, A. M., Piet, G. J., Jongbloed, R. H., Tamis, J. E., White, L., Akoglu, E., Boicenco, L., et al. 2015. An exposure-effect approach for evaluating ecosystem-wide risks from human activities. ICES Journal of Marine Science, 72: 1105–1115. and Knights, A. M., Piet, G. J., Jongbloed, R. H., Tamis, J. E., White, L., Akoglu, E., Boicenco, L., et al. 2015. An exposure-effect approach for evaluating ecosystem-wide risks from human activities. ICES Journal of Marine Science, 72: 1105–1115.

Spatial extent of overlap between a pressures type and ecological component		
Widespread	Where a sector overlaps with an ecological component by 50% or more (max is 100%)	
Local	Where a sector overlaps with an ecological component by >5% but <50%	
Site	Where a sector overlaps with an ecological component by >0% but <5%	

Degree of Impact		
Acute	Severe effects after a single interaction, which kills a large proportion of individuals and causes an immediate change in the characteristic feature	
Chronic	Severe effects occurring at a frequency that could have detrimental consequences, if often enough and/ or at high enough levels	
Low	Severe effect not expected - interaction never causes high levels of mortality, loss of habitat, or change in the typical species or functioning irrespective of the frequency and extent of the event(s)	

Resilience — time taken for the ecological characteristic to return to prempact conditions.		
None	The population/stock has no ability to recover and is expected to go "locally" extinct. The recovery in years is predicted to take 100+ years	
Low	The population will take between 10 and 100 years to recover	
Moderate	The population will take between 2 and 10 years to recover	
High	The population will take between 0 and 2 years to recover	

Credit: A. Judd



CEA Weightings – State/Impact

High (H)	Changes in the state of the marine environment severely impact the provision of the considered ecosystem service
Medium (M)	Changes in the state of the marine environment impact the provision of the considered ecosystem services at an intermediate level .
Low (L)	Changes in the state of the marine environment have a little or no impact on the provision of the considered ecosystem service
Unknown (?)	Level of impact unknow
Not applicable	Delete arrow

State Changes/Environmental impacts Impact on ES Biomass and raw materials from insitu aquaculture Wild fish and other biomass and related raw materials н Regulation and maintenance of marine food webs (Global) climate Widespread changes in regulation and Phytoplankton Zooplankton. In many cases, Nursery population and habitat the reasons of these changes are uncertain. In some cases, these changes are related to anthropogenic factors and regulation climate change. Nevertheless, in no case a positive outcome Recreation related seen/expected. Visual amenity services Sediment quality regulation Ecosystem and species appreciation scientific, and research services Mediation of waste, toxics, and other nuisances by nonliving processes

Cornacchia, F. (2022) Impacts on ecosystem services due to changes in the state of the environment in the North-East Atlantic Ocean - Rijkswaterstaat Publication Platform