

RESOLUTION 4.8**CONTRIBUTION FROM ACCOBAMS TO THE IMPLEMENTATION OF THE MARINE STRATEGY FRAMEWORK DIRECTIVE**

The Meeting of the Parties to the Agreement on the Conservation of Cetaceans of the Black Sea, Mediterranean Sea and contiguous Atlantic area:

Considering the European Union Marine Strategy Framework Directive (2008/56/EC) a crucial policy regarding the protection of the marine environment, particularly for Contracting Parties that are EU Member States,

Recognising the important role that the implementation of the Marine Strategy Framework Directive will play in all aspects related to the protection of European Seas, including their cetacean species,

Considering the descriptors of good environmental status of the Marine Strategy Framework Directive 1 (biodiversity), 4 (food webs), 7 (hydrographical conditions), 8 (contaminants), 10 (marine litter) and 11 (energy) as particularly relevant to cetacean conservation,

Taking note of the recently published *Commission Decision on criteria and methodological standards on good environmental status of marine waters*, which among others includes some indicators applicable to cetacean conservation,

Taking note of the ongoing work within the Common Implementation Strategy of the Marine Strategy Framework Directive, which includes a working group on Good Environmental Status and technical subgroups on marine litter and noise, which are relevant to cetacean conservation,

Recalling that Contracting Parties that are EU Member States are under the obligation to prepare marine strategies, including an initial assessment, the determination of good environmental status, the identification of environmental targets, the establishment of monitoring programmes and the implementation of programmes of measures, and in doing so must provide for regional coordination,

Recognising that assessment, monitoring and management of cetacean species will be part of these marine strategies,

Considering that ACCOBAMS, in coordination with the relevant Regional Seas Conventions, should play an important role in the regional coordination of all aspects of marine strategies related to cetacean conservation,

Considering the request from the Bureau of ACCOBAMS to the Scientific Committee in order to explore what could be the potential contribution of ACCOBAMS to the implementation of the Marine Strategy Framework Directive, as far as the conservation of cetaceans is concerned,

1. *Takes note* of the study on the “Potential contribution by ACCOBAMS to the identification of qualitative descriptors for determining good environmental *status sensu* the E.U. Marine Strategy Framework Directive” prepared by the Chair of the Scientific Committee;
2. *Requests* that the Secretariat with the support of the Scientific Committee of ACCOBAMS, contributes, providing regional information, to the implementation of the Marine Strategy Framework Directive, particularly by participating in working groups and technical subgroups of the Marine Strategy Framework Directive Common Implementation Strategy relevant to cetacean conservation;
3. *Requests* to the Contracting Parties that are EU Member States to support ACCOBAMS in the regional coordination of aspects of their marine strategies relevant to cetacean conservation;

4. *Invites* the Scientific Committee to analyse the *Commission Decision on criteria and methodological standards on good environmental status of marine waters* and identify those indicators related to cetacean conservation, and to provide guidance to Contracting Parties that are EU Member States on how to implement these indicators regarding the assessment of cetacean populations, and how to quantify Good Environmental Status in relation to cetacean conservation and to inform Member States of the results of this analysis;
5. *Proposes* that the Scientific Committee of ACCOBAMS starts a process for identifying environmental targets and measures for cetacean conservation that should be incorporated in the marine strategies in the ACCOBAMS area, including the identification of thresholds for pressures and impacts of certain human activities, as well as providing information for abundances and dynamic populations;
6. *Invites* Parties to ACCOBAMS to share their experiences in the assessments, monitoring and measures that, within the framework of the European Union Marine Strategy Framework Directive, take into account the need for the conservation of cetaceans.

ANNEX

Potential contribution by ACCOBAMS to the identification of qualitative descriptors for determining good environmental status *sensu* the E.U. Marine Strategy Framework Directive

Introduction

A process is ongoing concerning the implementation of the E.U. Marine Strategy Framework Directive (MSFD). This includes the identification of qualitative descriptors for determining good environmental status in the marine environment.

There was a request from the Bureau of ACCOBAMS during its last meeting to explore what could be the potential contribution of ACCOBAMS to the identification of such descriptors, as far as the conservation of cetaceans is concerned.

This brief report begins to address such request by the Bureau, first by providing some relevant background on the MSFD, and second by suggesting ways in which the work of ACCOBAMS could support the identification of qualitative descriptors, within the frame of the Agreement's expertise and concerns. It should be circulated within the Scientific Committee to solicit comments and suggestions from Committee members, to produce a final report in time for the 4th Meeting of the ACCOBAMS Parties.

Good Environmental Status (GES)

This is the status that the MSFD intends to enable Europe to reach, as far as its marine environment is concerned. It is defined in the Directive as follows (Art. 3(5)):

- “ ‘good environmental status’ means the environmental status of marine waters where these provide ecologically diverse and dynamic oceans and seas which are clean, healthy and productive within their intrinsic conditions, and the use of the marine environment is at a level that is sustainable, thus safeguarding the potential for uses and activities by current and future generations, i.e.:
 - “(a) the structure, functions and processes of the constituent marine ecosystems, together with the associated physiographic, geographic, geological and climatic factors, allow those ecosystems to function fully and to maintain their resilience to human-induced environmental change. Marine species and habitats are protected, human-induced decline of biodiversity is prevented and diverse biological components function in balance;
 - “(b) hydro-morphological, physical and chemical properties of the ecosystems, including those properties which result from human activities in the area concerned, support the ecosystems as described above. Anthropogenic inputs of substances and energy, including noise, into the marine environment do not cause pollution effects;
- “Good environmental status shall be determined at the level of the marine region or subregion as referred to in Article 4, on the basis of the qualitative descriptors in Annex I. Adaptive management on the basis of the ecosystem approach shall be applied with the aim of attaining good environmental status.”

The geographic attributes of the MSFD referred to in Article 4, relevant to ACCOBAMS, include (from West to East):

- in the North-east Atlantic Ocean, part of the subregion denominated “the Bay of Biscay and the Iberian Coast”;
- the Mediterranean Sea region;
- the Black Sea region.

Qualitative descriptors for determining good environmental status

Annex I to the MSFD lists the following 11 qualitative descriptors to support the determination of good environmental status at sea (which are also referred to in Articles 3(5), 9(1), 9(3) and 24):

- (1) Biological diversity is maintained. The quality and occurrence of habitats and the distribution and abundance of species are in line with prevailing physiographic, geographic and climatic conditions.
- (2) Non-indigenous species introduced by human activities are at levels that do not adversely alter the ecosystems.
- (3) Populations of all commercially exploited fish and shellfish are within safe biological limits, exhibiting a population age and size distribution that is indicative of a healthy stock.
- (4) All elements of the marine food webs, to the extent that they are known, occur at normal abundance and diversity and levels capable of ensuring the long-term abundance of the species and the retention of their full reproductive capacity.
- (5) Human-induced eutrophication is minimised, especially adverse effects thereof, such as losses in biodiversity, ecosystem degradation, harmful algae blooms and oxygen deficiency in bottom waters.
- (6) Sea-floor integrity is at a level that ensures that the structure and functions of the ecosystems are safeguarded and benthic ecosystems, in particular, are not adversely affected.
- (7) Permanent alteration of hydrographical conditions does not adversely affect marine ecosystems.
- (8) Concentrations of contaminants are at levels not giving rise to pollution effects.
- (9) Contaminants in fish and other seafood for human consumption do not exceed levels established by Community legislation or other relevant standards.
- (10) Properties and quantities of marine litter do not cause harm to the coastal and marine environment.
- (11) Introduction of energy, including underwater noise, is at levels that do not adversely affect the marine environment.

Descriptors having relevance to the ACCOBAMS goals

In its Annex I, the MSFD states that “To determine the characteristics of good environmental status in a marine region or subregion as provided for in Article 9(1), Member States shall consider each of the qualitative descriptors listed in this Annex in order to identify those descriptors which are to be used to determine good environmental status for that marine region or subregion.”

Considering the specialised expertise on cetacean conservation which is contained within ACCOBAMS, coupled with the Agreement’s mandate to conserve cetacean populations in its area (which is vastly overlapping with the MSFD area), there is ample scope for ACCOBAMS to contribute to the MSFD effort through ensuring that the cetacean component is adequately considered when determining and defining descriptors. This is not only because cetaceans are concerned by the statement that “marine species and habitats are protected, human-induced decline of biodiversity is prevented and diverse biological components function in balance” (Art. 3(5a)), but also because their conservation presents special - and sometimes unique – concerns due to their special ecological and physiological characteristics of marine mammals.

The descriptors which are particularly relevant to cetacean conservation are n. 1, 4, 7, 8, 10 and 11.

Potential contribution by ACCOBAMS to the definition of descriptors, with reference to the 2010-2013 Work programme:

Descriptor n°	Item	Relevant Items of the Work Programme		
		Code	Title	Priority
1	<i>Biological diversity is maintained.</i>	RMTM 1	The Survey Initiative	Very High
		RMTM 2	Population Structure	High
		RMTM 3	Species conservation plans: Mediterranean common dolphin	High
		RMTM 4	Species conservation plans: Black Sea cetaceans	High
		RMTM 5	Species Conservation plans: Mediterranean bottlenose dolphin	Medium
		RMTM 6	Species Conservation Plans: Fin whales	Medium
		RMTM 7	Species Conservation Plans: Cuvier's beaked whales	High
		RMTM 8	Species Conservation Plans: Sperm whales	Medium
		RMTM 9	Species Conservation Plans: Other species and populations	Low
		RMTM 15	Marine Protected Areas	High

Cetaceans are a component of marine biodiversity in their own right, as clearly defined in Annex III (table 1) to the MSFD, which lists amongst the characteristics to be taken into account “a description of the population dynamics, natural and actual range and status of species of marine mammals and reptiles occurring in the marine region or subregion”. Updated knowledge of cetacean populations existing in the considered area, including considerations about their role in the ecosystem, their status and known trends could be contributed by ACCOBAMS. The presence within Task Group 1 of a member of the ACCOBAMS Scientific Committee will significantly facilitate the flow of information between ACCOBAMS and the MSFD effort.

Descriptor n°	Item	Relevant Items of the Work Programme		
		Code	Title	Priority
4	<i>All elements of the marine food webs, to the extent that they are known, occur at normal abundance and diversity and levels capable of ensuring the long-term abundance of the species and the retention of their full reproductive capacity.</i>	RMTM 10	Bycatch and interactions with fisheries	Very High

This descriptor is relevant to cetacean conservation in many ways: a) cases are known in which prey depletion by fisheries have negatively affected cetacean populations in the ACCOBAMS area (e.g., Bearzi et al. 2008¹), demanding management intervention to maintain marine food web integrity, at the same time maintaining populations of commercially exploited fishes within safe biological limits (a clear connection with descriptor n. 3); b) marine food webs (particularly in the pelagic domain) may be disrupted by climate change (e.g., Gambaiani et al. 2009²), and cetacean populations concerned are likely to be dramatically affected if that happens; this not only has conservation relevance, but also makes cetaceans an easy feature of the ecosystem to monitor; and c) as top predators, cetaceans

¹ Bearzi G., Agazzi S., Gonzalvo J., Costa M., Bonizzoni S., Politi E., Piroddi C., Reeves R.R. 2008. Overfishing and the disappearance of short-beaked common dolphins from western Greece. *Endangered Species Research* 5:1-12. doi: 10.3354/esr00103.

² Gambaiani D.D., Mayol P., Isaac S.J., Simmonds M.P. 2009. Potential impacts of climate change and greenhouse gas emissions on Mediterranean marine ecosystems and cetaceans. *Journal of the Marine Biological Association of the United Kingdom* 89(1):179-201.

contribute to the stability of ecological communities they are part of, and thus their presence has a role in the maintenance of biodiversity (Bascompte et al. 2005³).

Descriptor n°	Item	Relevant Items of the Work Programme		
		Code	Title	Priority
7	<i>Permanent alteration of hydrographical conditions does not adversely affect marine ecosystems.</i>	RMTM 17	Climate change	High

This descriptor is closely linked to point b) above.

Descriptor n°	Item	Relevant Items of the Work Programme		
		Code	Title	Priority
8	<i>Concentrations of contaminants are at levels not giving rise to pollution effects.</i>	RMTM 14	Responses to emergency situations	High
		RMTM 16	Chemical Pollution	Medium

As long-lived apex predators, cetaceans are strongly affected by bioaccumulation and biomagnification phenomena involving a number of xenobiotic compounds that are known to be highly toxic, and to impair reproductive and immune function in mammals.

Descriptor n°	Item	Relevant Items of the Work Programme		
		Code	Title	Priority
10	<i>Properties and quantities of marine litter do not cause harm to the coastal and marine environment.</i>	CB 2	Monitoring of cetacean stranding	High

Cetaceans are known to be affected by marine litter through ingestion and entanglement; the phenomenon is well-known in the ACCOBAMS area, and substantive information exists from the monitoring of strandings in the Mediterranean and the Black Seas. The presence within Task Group 10 of a member of the ACCOBAMS Scientific Committee (Alexei Birkun) will significantly facilitate the flow of information between ACCOBAMS and the MSFD effort.

Descriptor n°	Item	Relevant Items of the Work Programme		
		Code	Title	Priority
11	<i>Introduction of energy, including underwater noise, is at levels that do not adversely affect the marine environment.</i>	RMTM 11	Anthropogenic Noise	High

Noise is known to be a significant hazard for cetaceans in the ACCOBAMS area, and a correspondence working group was established by the last Meeting of Parties to address the important conservation implications of this pressure factor.

³ Bascompte J., Melian C.J., Sala E. 2005. Interaction strength combinations and the overfishing of a marine food web. PNAS 102(15):5443–5447.

Mode of contribution

The Scientific Committee should be requested to contribute to the effort of defining and determining relevant descriptors of good environmental status on the basis of modalities and procedures indicated by the Parties.