

Agreement on the Conservation of Cetaceans
of the Black Sea, Mediterranean Sea and Contiguous Atlantic Area
(ACCOBAMS)

and

the Commission on the Protection of the Black Sea Against Pollution
(the Black Sea Commission)



Compiled by Alexei Birkun, Jr. (Brema Laboratory)

in consultation with

Ana Cañadas, Greg Donovan, Drasko Holcer, Giancarlo Lauriano,
Giuseppe Notarbartolo di Sciara, Simone Panigada,
Gheorghe Radu and Marie-Christine van Klaveren

November 2006

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Correct citation of this document:

Birkun A., Jr., Cañadas A., Donovan G., Holcer D., Lauriano G., Notarbartolo di Sciarra G., Panigada S., Radu G., and van Klaveren M.-C. 2006. Conservation Plan for Black Sea Cetaceans. ACCOBAMS, Agreement on the Conservation of Cetaceans of the Black Sea, Mediterranean Sea and Contiguous Atlantic Area. 50 pp.

Expertise:

The Conservation Plan was considered at the 3rd Meeting of the ACCOBAMS Scientific Committee (Cairo, Egypt, May 2005) and the *ad hoc* Round Table on the Conservation of Black Sea Cetaceans (Istanbul, Turkey, May 2006). The improved plan was adopted and commended by the 4th Meeting of the ACCOBAMS Scientific Committee (Monaco, November 2006).

I. INTRODUCTION

First attempts

At the 1st Session of the Meeting of the Parties to ACCOBAMS (Monaco, February–March 2002), a series of analytical reviews has been presented [1-6, 11]¹ addressing main gaps in conservation and research of Black Sea cetaceans. Besides, regional conservation needs and strategies were considered in general [12], and a number of actions have been proposed as ACCOBAMS International Implementation Priorities for 2002-2006 [10]. Among those 18 priorities, adopted by the Parties in Resolution 1.9, most actions (##2–5 and 11–18) concern Black Sea cetaceans to a greater or lesser extent, but one action (#6) is specifically dedicated to preparation of the Conservation Plan for Cetaceans in the Black Sea.

According to above priority #6 (see Annex 1), a comprehensive conservation plan should be developed as a result of a certain Black Sea region-wide project prepared in co-operation between the ACCOBAMS and the Black Sea Commission and (hypothetically) funded by the Global Environmental Facility (GEF). A draft concept paper for the initial project proposal [8] was presented at the same meeting in Monaco and countenanced by the Parties. Soon afterwards, the concept was supported in the documents related to the 9th Ministerial Meeting of the Black Sea Commission (Sofia, June 2002), particularly, in recommendations included in the Report on the implementation of the Strategic Action Plan for the Rehabilitation and Protection of the Black Sea [16]. The project's concept was also supported by the 1st Meeting of the ACCOBAMS Scientific Committee (Tunis, October 2002) and by the meeting of the Black Sea Commission's Advisory Group on the Conservation of Biological Diversity (Istanbul, November 2002).

Since then, the concept paper underwent considerable modification aimed to improve it in conformity with suggestions offered from UNEP, potential implementing agency regarding this project. A new version of the project's concept [9] has been approved by the 2nd Meeting of the Scientific Committee of ACCOBAMS (Istanbul, November, 2003). The Recommendation 2.4, addressed to the Black Sea countries, was adopted to support as a matter of high urgency the GEF project with human and financial resources (see Annex 2). In spite of negotiation efforts, undertaken by the ACCOBAMS Permanent Secretariat, no noticeable progress in the development of the GEF project was achieved in 2004 and later on. Thus, this way towards the preparation of the *Conservation Plan for Black Sea Cetaceans* reached a deadlock.

Realizable alternative

In 2002-2006, several events potentially important for the development of the *Conservation Plan for Black Sea Cetaceans* have occurred on international and national level. In particular, the 2000-2010 Conservation Action Plan for the World's Cetaceans was published by IUCN [15]. Three specific initiatives concerning Black

¹ Figures in square brackets correspond with numbers of references placed at the end of this plan, (see Section V before annexes).

Sea populations of dolphins and porpoises are identified and described in this document for the promotion of conservation-related research and education:

46. Assess abundance and threats to survival of harbour porpoises in the Black Sea and surrounding waters;
47. Investigate the distribution, abundance, population structure, and factors threatening the conservation of short-beaked common dolphins in the Mediterranean and Black Seas;
48. Investigate the distribution and abundance of bottlenose dolphins in the Mediterranean and Black Seas, and evaluate threats to their survival.

Furthermore, the status of small cetaceans in the Black Sea has been reviewed in detail by the Scientific Committee of the International Whaling Commission, IWC (Berlin, May–June 2003), and by the IUCN/ACCOBAMS Workshop on the Red List Assessment of Cetaceans in the ACCOBAMS Area (Monaco, March 2006). Clear recommendations have been issued in respect of conservation-oriented research activities required to gain more knowledge on Black Sea cetaceans abundance, distribution, migrations, population structure, life history, ecology, habitat, and anthropogenic threats [17].

In addition, some projects, implemented in the Black Sea countries in 2002-2005 (see examples in Annex 3), contributed to better understanding what should be done in the near future for the conservation of cetaceans. Helpful suggestions applicable to the *Conservation Plan for Black Sea Cetaceans* were offered via the Black Sea Commission for the enforcement of international and national legislation, monitoring, assessment and management of human-cetacean interactions as well as for capacity building, training and public awareness [16]. National action plans for the conservation of Black Sea dolphins and porpoises have been developed in Ukraine (2001) and Romania (2004).

One more strategic document [7], aimed to move the preparation of the *Conservation Plan for Black Sea Cetaceans* out the dead point, was compiled during the first ACCOBAMS training course on cetacean photo-identification (Kalamos, Greece, July 2003). That meeting provided opportunities for the trainees from three Black Sea countries (Ukraine, Russia and Georgia) and their trainers from Italy to discuss the most appropriate actions and prioritize them in order of four categories: management, capacity building, education and awareness, and research and monitoring. The conclusive paper was encouraged at the 2nd Meeting of the ACCOBAMS Scientific Committee (Istanbul, November 2003) and supplemented with additional suggestion offered by Turkish researchers [13].

Insistent need in the *Conservation Plan for Black Sea Cetaceans* was emphasized again at the 2nd Meeting of the Parties to ACCOBAMS (Palma de Mallorca, November 2004). It was repeatedly stressed that this plan should be based on research and monitoring actions which can fill gaps in the knowledge on present abundance and distribution of Black Sea cetaceans as well as on human-induced threats facing them. The lack of reliable scientific information causes detriment to correct planning of conservation and management activities. The plan presented here has been developed following a request from the ACCOBAMS Permanent Secretariat in accordance with various ideas and suggestions arose from above events and contained in above sources.

II. CONSERVATION STATUS OF BLACK SEA CETACEANS

It is generally recognized that all three Black Sea cetacean species – the harbour porpoise (*Phocoena phocoena*), short-beaked common dolphin (*Delphinus delphis*) and common bottlenose dolphin (*Tursiops truncatus*) – experienced a dramatic decline in abundance in the 20th century as a result of large directed catches. Commercial hunting of Black Sea cetaceans was banned in 1966 in the former USSR (present Georgia, Russia and Ukraine), Bulgaria and Romania, and in 1983 in Turkey. However, current fisheries bycatches, extensive habitat degradation and some other anthropogenic impacts pose permanent threats to the continued existence of cetaceans in the Black Sea and contiguous waters represented by the Sea of Azov, Kerch Strait and Turkish Straits System (including the Bosphorus Strait, Marmara Sea and Dardanelles Straits).

The riparian states assumed international obligations to protect Black Sea cetaceans as contracting parties of the Convention on Biological Diversity (CBD), Convention on the Conservation of Migratory Species of Wild Animals (CMS), Convention on the Conservation of European Wildlife and Natural Habitats (Berne Convention), Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES), Convention on the Protection of the Black Sea Against Pollution (Bucharest Convention), and ACCOBAMS. These instruments should contribute to Black Sea cetacean conservation, especially, the ACCOBAMS and Bucharest Convention. All three Black Sea cetacean species are included in the Indicative list of cetaceans to which ACCOBAMS applies (2002) and in the Provisional List of Species of the Black Sea Importance (2002) annexed to the Black Sea Biodiversity and Landscape Conservation Protocol of the Bucharest Convention. The Strategic Action Plan for the Rehabilitation and Protection of the Black Sea (1996) envisages some cetaceans-oriented conservation and research actions in its Paragraph 62 [18]. The harbour porpoise and bottlenose dolphin are listed in Annex II and the common dolphin is mentioned in Annex IV of the EC Directive No. 92/43/EEC on the conservation of natural habitats of wild fauna and flora.

The Berne Convention's Recommendation No.86 (2001) and Resolution 1.12, adopted by the 1st Meeting of the Parties of ACCOBAMS (2002), are intended to strengthen prohibition measures for deliberate catch, keeping and trade of Black Sea bottlenose dolphins. At the 12th Conference of the Parties to CITES (Santiago, November 2002), a quota of zero for mercantile export of live bottlenose dolphins wild-captured in the Black Sea has been secured. This measure prohibits transboundary transport of captive Black Sea bottlenose dolphins for 'primarily commercial purposes'.

Particular concern was expressed by the 1st Meeting of the ACCOBAMS Scientific Committee (Tunis, October 2002; Recommendation 1.2) in view of large and potentially unsustainable bycatches of harbour porpoises in bottom-set gillnet fisheries throughout the Black Sea shelf area. It was concluded that the conservation status of these animals would be greatly improved if existing fisheries regulations restricting fishing effort and the use of certain gear types are enforced.

The IWC Sub-Committee on Small Cetaceans (2003) [17] reviewed the status of Black Sea cetaceans in details and concluded that these populations of harbour porpoises, common dolphins and bottlenose dolphins, which are almost completely isolated from their conspecifics in the northeastern Atlantic and Mediterranean Sea, should be considered as the separate and discrete units for conservation purposes. At the same time, it turned out impossible to evaluate fully the status of Black Sea cetaceans due to a lack of basic information. In this respect, the Sub-Committee strongly recommended to improve the conservation-related cetacean research in the region by means of developing the region-wide (a) line-transect surveys, (b) photo-identification programme, (c) genetic analyses of population structure, (d) studies on cetacean life history, (e) comprehensive assessments of man-made threats including the incidental captures in fishing activities, disturbance caused by marine traffic, and past cetacean losses due to the directed catches.

The IUCN status

In 1996, Black Sea population of the harbour porpoise was inserted as Vulnerable (VU) in the IUCN Red List of Threatened Animals. The conservation status of Black Sea common dolphins and bottlenose dolphins is not evaluated by IUCN until now, although global status, assigned to *D. delphis* and *T. truncatus*, is Least Concern (LC) and Data Deficient (DD), correspondingly.² However, all three Black Sea cetacean populations are supported by the IUCN 2002-2010 Conservation Action Plan for the World's Cetaceans [15].

In May 2005, the 3rd Meeting of the ACCOBAMS Scientific Committee encouraged the initiative proposed by the Cetacean Specialist Group of the IUCN Species Survival Commission (IUCN/SSC/CSG) concerning the development of the IUCN Red List of Mediterranean and Black Sea cetaceans. As a result, the IUCN/ACCOBAMS Workshop on the Red List Assessment of Cetaceans in the ACCOBAMS Area (Monaco, March 2006) assessed the conservation status of Black Sea populations of the harbour porpoise, common dolphin and bottlenose dolphin as Endangered (EN) and confirmed their belonging to the Black Sea subspecies *Phocoena phocoena relicta* Abel, 1905; *Delphinus delphis ponticus* Barabasch-Nikiforov, 1935; and *Tursiops truncatus ponticus* Barabasch, 1940.

The excerpts from the Checklists for Red List Assessments containing the justification summaries of the status of Black Sea cetacean subspecies/populations are enclosed as Annex 4 to this Conservation Plan. The summaries represent a quintessence of thorough expert evaluation of current knowledge regarding Black Sea cetaceans and major threats affecting them, and thus, would help to put the Conservation Plan into context of available scientific data making more intelligible the need of different actions proposed. According to the IUCN Red List procedure, these assessments should be further reviewed by independent evaluators from IUCN/SSC/CSG and then submitted to IUCN/SSC for final consideration. It may be expected that this process will take about one year or somewhat more, so, hopefully, the new IUCN status of Black Sea cetaceans will be established before the end of 2007.

² Since 2003, the neighbouring population of common dolphins in the Mediterranean Sea is included as Endangered (EN) in the IUCN Red List of Threatened Animals.

III. GENERAL APPROACH, GOALS AND OBJECTIVES

The *Conservation Plan for Black Sea Cetaceans*

- is created based on a strategy designed by ACCOBAMS and reflected in its Annex 2, the Conservation Plan;
- is intended to complement the existing ACCOBAMS Implementation Priorities for 2002-2006, and Priority #6 in the first place, addressing cetacean conservation, management and research in the Black Sea. It is fully corresponds to the ACCOBAMS Working Programme 2005-2007, Resolutions of the 1st and 2nd Meetings of the Parties to ACCOBAMS, Recommendations and decisions of the 1st, 2nd and 3rd Meetings of the ACCOBAMS Scientific Committee;
- is aimed to facilitate the co-operation among Black Sea riparian states and enhance their abilities essential for the conservation of cetaceans and their habitats;
- envisages common mechanisms aimed to promote cetacean conservation and research actions, as well as capacity building, education and public awareness in the Black Sea subregion under the co-ordination role of ACCOBAMS institutions including the Meeting of the Parties, Permanent Secretariat, Bureau, Scientific Committee and, last but not least, Black Sea Co-ordination Unit represented by the Commission on the Protection of the Black Sea Against Pollution (the Black Sea Commission);
- expects that it will be adopted and promoted by all Black Sea countries, including those which are still not the Parties of ACCOBAMS, regardless of existing national differences in the available expertise, level of organization, scientific backgrounds and logistical constraints among areas;
- expects also that its implementation will derive adequate support from national, regional, European and global agencies, intended for nature protection and sustainable development, and thus, will be provided with various sources to fund collaborative projects focused on the Black Sea cetaceans conservation.

The principal goals of this plan are to provide a framework and priority actions whereby the Black Sea Community (scientists, fishermen, industry, NGOs, local and national governments, and appropriate intergovernmental organisations) can in the short-term (2006-2010) begin to practically improve the conservation status of Black Sea cetaceans, and in particular obtain the necessary scientific information to allow a full long-term conservation plan to be developed at the end of the period and effective management decisions to be made.

The actions presented below are grouped into six sections in accordance with basic **objectives** wholly correspondent with appropriate items of the ACCOBAMS Conservation Plan:

- Consolidation of international and national legal system
- Assessment and management of human-cetacean interactions
- Habitat protection
- Research and monitoring
- Capacity building, collection and dissemination of information, training and education
- Responses to emergency situations

IV. ACTIONS

All 18 actions proposed (their descriptions are presented on pp. 11-34) are important for the conservation of Black Sea cetaceans. The order of the actions follows above objectives (i.e. corresponds to a format of the ACCOBAMS Conservation Plan) and their numbering does not indicate priorities. These actions consist of 57 smaller actions or sub-actions (activities) which were prioritized according their significance (primary and secondary) in the relation to each other (some actions are clearly more urgent or definitely propaedeutic to others). The priority scores are included in separate cell of the descriptions. Besides, some actions are already on the way of their implementation and that is also underlined in the descriptions.

Special attention to the prioritization of the actions was devoted at the Round Table on the Conservation of Black Sea Cetaceans (Istanbul, Turkey, May 2006; see the minutes in Annex 5). The actions and sub-actions of primary priority are listed in Table 1.

It should also note the interactive nature between the various categories of actions and the actions within categories. In particular, the Research and Monitoring section is absolutely crucial to provide the necessary background to almost all of the other groups of actions (particularly to the Assessment and Management of Human-Cetacean Interactions). In its turn, the Basic Cetacean Surveys action is the most important within the Research and Monitoring category. Synoptic Table 2 listing the main 18 actions (see next page) helps to understand the synergies of different actions and functional links between them.

The implementation of the *Conservation Plan for Black Sea Cetaceans* is estimated for a five-year period (2007-2011; see Recommendation of the ACCOBAMS Scientific Committee in Annex 6). This term seems to be realistic under the stipulation that proper planning, coordination and monitoring of the actions proposed is established and adequate methodological, financial and logistical support is provided. This can be ensured under auspices of the ACCOBAMS, Black Sea Commission and their institutions. The establishing a position of this plan coordinator could be helpful.

Table 1. Conservation Plan for Black Sea Cetaceans: Actions and activities of high priority**URG** – activities addressed as a matter of urgency (Istanbul Round Table, May 2006)

Actions	Activities (sub-actions)
1 Broadening the ACCOBAMS scope	(a) promotion of accession of the Russian Federation and Turkey to ACCOBAMS
2 Proper conservation status of cetacean populations	(a) proper listing Black Sea cetaceans in the IUCN Red List of Threatened Animals (b) providing correct references to the IUCN status of Black Sea cetaceans in relevant international instruments
3 Cetacean conservation approach in fishery regulations	(a) adopting the Black Sea legally binding document for fisheries and conservation of marine living resources
4 Improvement and harmonization of national legislation	(a) improvement of national legislation in respect of international requirements on the conservation of cetaceans
6 Strategy for reducing cetacean bycatches	(a) establishment of a regional bycatch network URG (b) estimation of bycatch levels and temporal and geographical distribution of bycatches (c) evaluation of sustainable bycatch levels for each cetacean species (d) investigation of effects causing by mitigation measures including pingers and acoustically reflective nets (f) developing management objectives for reducing bycatches in the Black Sea region
8 Elimination of live capture of Black Sea cetaceans	(a) improvement of control assigned to eliminate live capture of cetaceans (b) preparation and adoption of national legal acts banning any intentional capture of Black Sea cetaceans
11 Network of existing protected areas eligible for cetaceans	(a) assessment of existing protected areas with regard to their relevance to cetacean conservation (b) developing the regional network of eligible protected areas URG (c) preparation of the network's cetaceans-oriented strategy, action plan and guidelines (d) protected areas involved in the network should restrain human activities potentially harmful for cetaceans
12 Special marine protected areas for cetacean conservation	(a) developing management plans and creating <i>ad hoc</i> marine protection areas in the defined localities
13 Basic cetacean surveys	(a) carrying out region-wide survey and assessment of cetacean abundance, distribution and hot spots URG (b) carrying out cetacean survey in the Turkish Straits System
15 Regional cetacean stranding network	(a) developing the existing national CSNs with their functional fusion into the basin-wide network URG (b) developing a Black Sea regional database of cetacean strandings (c) establishing cetacean tissue bank(s) accumulating samples from stranded and bycaught cetaceans (d) multidisciplinary study of samples collected from stranded and bycaught animals
18 Measures for responding to emergency situations	(a) assessment of emergency situations demanding special response (e.g. rescue-and-release operations) (b) developing guidelines on how to respond to emergency situations affecting Black Sea cetaceans (c) developing regional strategy (contingency plan) and national teams for responding to emergency situations

Table 2. Conservation Plan for Black Sea Cetaceans: Links between actions proposed

Actions	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
	Broadening the ACCOBAMS scope	Proper conservation status of cetacean populations	Cetacean conservation approach in fishery regulations	Improvement and harmonization of national legislation	Retrospective analysis of human-induced cetacean mortality	Strategy for reducing cetacean bycatches	Mitigation of conflicts between cetaceans and fishery	Elimination of live capture of Black Sea cetaceans	Mitigation of disturbance caused by shipping	Management of threats from gas-and-oil producing industry	Network of existing protected areas eligible for cetaceans	Special marine protected areas for cetacean conservation	Basic cetacean surveys	Cetacean photo-identification programme	Regional cetacean stranding network	Strategies for capacity building and raising awareness	Access to information and cetacean libraries	Measures for responding to emergency situations
1 Broadening the ACCOBAMS scope		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
2 Proper conservation status of cetacean populations	X		X	X	X	X		X	X	X			X	X	X	X	X	X
3 Cetacean conservation approach in fishery regulations	X	X		X	X	X	X	X								X	X	X
4 Improvement and harmonization of national legislation	X	X	X		X	X	X	X	X	X	X	X	X	X	X	X	X	X
5 Retrospective analysis of human-induced cetacean mortality	X	X	X	X		X	X	X		X			X		X	X	X	
6 Strategy for reducing cetacean bycatches	X	X	X	X	X		X					X	X		X	X	X	X
7 Mitigation of conflicts between cetaceans and fishery	X		X	X	X	X							X			X	X	X
8 Elimination of live capture of Black Sea cetaceans	X	X	X	X	X								X			X	X	
9 Mitigation of disturbance caused by shipping	X	X		X								X	X	X		X	X	X
10 Management of threats from gas-and-oil producing industry	X	X		X	X							X	X	X		X	X	X
11 Network of existing protected areas eligible for cetaceans	X			X								X	X	X	X	X	X	X
12 Special marine protected areas for cetacean conservation	X			X		X			X	X	X		X	X	X	X	X	X
13 Basic cetacean surveys	X	X		X	X	X	X	X	X	X	X	X		X	X	X	X	X
14 Cetacean photo-identification programme	X	X		X					X	X	X	X			X	X	X	
15 Regional cetacean stranding network	X	X		X	X	X					X	X	X	X		X	X	X
16 Strategies for capacity building and raising awareness	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X
17 Access to information and cetacean libraries	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X
18 Measures for responding to emergency situations	X	X	X	X		X	X		X	X	X	X	X		X	X	X	

**CONSOLIDATION OF REGIONAL AND NATIONAL
LEGAL SYSTEM
(Actions 1 – 4)**

ACTION 1: Broadening the ACCOBAMS scope				
Aim	Targets	Recommended actions	Priority	Responsible actors
<p>Achieve that all six Black Sea riparian states are the Contracting Parties to ACCOBAMS; disseminate the ACCOBAMS process in the countries which have indirect outlet to the Black Sea through the rivers and exert their influence on the Black Sea environment and biota (including cetaceans) by means of fluvial discharges and marine-riverine traffic.</p>	<p>Accession of the Russian Federation and Turkey to ACCOBAMS.</p>	<p>(a) Promote accession of the Russian Federation and Turkey to ACCOBAMS. This action should have positive influence on the concerted region-wide implementation of all other activities proposed in this plan (links to Actions 2–18).</p>	<p>Primary</p>	<p>ACCOBAMS Secretariat and Secretariat of the Black Sea Commission (Black Sea SRCU of ACCOBAMS)</p>
	<p>States of the Black Sea basin, which have no direct outlet to the Black Sea, are involved in negotiations concerning their possible participation in ACCOBAMS.</p>	<p>(b) Initiate the ACCOBAMS awareness process in those European states which are connected with the Black Sea via rivers.</p> <p>Note: States where the Danube is flowing through (most of which are EU Member States) should be made aware of the effects on Black Sea cetaceans and their habitat of discharging certain substances in the river. It could be helpful if the Black Sea Commission is involved in promoting such awareness in cooperation with the European Commission.</p>	<p>Secondary</p>	
Rationale / Background	<p>Up to date, four Black Sea coastal states ratified the ACCOBAMS. They are Bulgaria, Georgia, Romania and Ukraine. The rest two riparian countries, Russia and Turkey, are not the Contracting Parties yet. The both states did not sign the Final Act of the Negotiation Meeting to adopt the ACCOBAMS. Nevertheless, they show willingness to protect Black Sea cetaceans by means of national legislation and in the framework of the Bucharest Convention and some other relevant multilateral treaties. Thus, those states should be considered as potential partners within the ACCOBAMS process. A total of 22 countries belong to the Black Sea drainage basin. Except above six riparian states, most of them (e.g. Austria, Czechia, Germany, Hungary, Switzerland, etc.) are connected with the Black Sea via Danube and Dnieper rivers. It could be envisaged, that these European countries are able, in theory, to affect the Black Sea ecosystem and cetaceans as its hierarchs (top predators) due to river-borne pollution and disturbance caused by the navigation between the sea and rivers. Thus, the involvement of such states in the ACCOBAMS seems to be reasonable.</p>			

ACTION 2: Proper conservation status of cetacean populations				
Aim	Target	Recommended actions	Priority	Responsible actors
Ensure that Black Sea cetacean species – the harbour porpoise, the short-beaked common dolphin and the common bottlenose dolphin – are properly classified in the international documents aimed to protect the Black Sea environment, ecosystems, living resources and biodiversity.	Correct evaluation and application of the IUCN conservation status of Black Sea cetacean populations.	(a) The evaluation of the IUCN conservation status of Black Sea cetacean subspecies/populations should be finalized and proper listing assured in the IUCN Red List of Threatened Animals.	Primary	ACCOBAMS Scientific Committee, IUCN/SSC Cetacean Specialist Group, IUCN Species Survival Commission, Secretariat of the Black Sea Commission, ACCOBAMS Secretariat
		(b) Correct references to the IUCN status of Black Sea cetaceans should be provided in relevant documents of international and Black Sea regional significance.	Secondary	
Rationale / Background	<p>Since 1996, the Black Sea population of harbour porpoises is inserted as Vulnerable (VU) in the IUCN Red List of Threatened Animals, while the conservation status of Black Sea common dolphins and bottlenose dolphins was not assessed by IUCN till recently, and globally these two species – <i>Delphinus delphis</i> and <i>Tursiops truncatus</i> – are listed by IUCN, correspondingly, as Least Concern (LC) and Data Deficient (DD). Nevertheless, all three Black Sea cetacean species/populations are listed as DD in the regional Black Sea Red Data Book (1999) and, at the same time, as Endangered (EN) in the Provisional List of Species of the Black Sea Importance – the document constituting integral part (Annex 2) of the Black Sea Biodiversity and Landscape Conservation Protocol (2002) to the Bucharest Convention. The both latter appraisals were not examined by international cetacean experts. In May 2005, the 3rd Meeting of the ACCOBAMS Scientific Committee encouraged the initiative proposed by the Cetacean Specialist Group of the IUCN Species Survival Commission (IUCN/SSC/CSG) concerning the development of the IUCN Red List of Mediterranean and Black Sea cetaceans. As a result, the IUCN/ACCOBAMS Workshop on the Red List Assessment of Cetaceans in the ACCOBAMS Area (Monaco, March 2006) assessed the status of Black Sea populations of the harbour porpoise, common dolphin and bottlenose dolphin as EN and confirmed their belonging to the Black Sea subspecies of small cetaceans (<i>Phocoena phocoena relicta</i>, <i>Delphinus delphis ponticus</i> and <i>Tursiops truncatus ponticus</i>). According to the IUCN Red List procedure, these assessments should be further reviewed by two independent CSG evaluators and then submitted to IUCN/SSC for final consideration.</p>			

ACTION 3: Cetacean conservation approach in fishery regulations				
Aim	Target	Recommended actions	Priority	Responsible actors
Ensure that Black Sea intergovernmental agreements and national regulations, purposed to manage Black Sea living resources and their exploitation, include items concerned in the conservation of cetaceans.	Regional and national instruments regulating fisheries are in full correspondence with a goal to protect Black Sea cetacean populations.	(a) The Legally Binding Document (LBD) for Fisheries and Conservation of Living Resources should be adopted by the Black Sea states.	Primary	Black Sea Commission and Black Sea Range States represented by appropriate authorities (including ACCOBAMS national focal points)
		(b) The riparian countries should ensure compliance of their national fisheries regulations with above document stating the necessity of prohibition of any harvesting of marine mammals; reduction of incidental catches of cetaceans at least to sustainable level; and tight cooperation with ACCOBAMS. Links to Actions 1, 2, 4–8, 16 and 17 could be helpful.	Secondary	
Rationale / Background	Black Sea international and national legislation on the management and use of marine living resources is not adequately developed yet. The overfishing and devastating illegal fishing became common region-wide problems causing mass accidental mortality of harbour porpoises in fishing gear and depletion of cetaceans forage sources. In order to rehabilitate the Black Sea ecosystem and achieve sustainable fisheries in the Black Sea, the fisheries management policies need to be improved. The Strategic Action Plan for the Rehabilitation and Protection of the Black Sea [18] envisages that the Black Sea coastal states should expedite the development of the Fisheries Convention and improve their national regulations on fisheries. On the way towards the Black Sea Fisheries Convention, the intermediate Legally Binding Document (LBD) for Fisheries and Conservation of Living Resources of the Black Sea has been drafted by the Black Sea Commission (2002). This draft document includes some meaningful items devoted to the conservation of cetaceans.			

ACTION 4: Improvement and harmonization of national legislation				
Aim	Target	Recommended actions	Priority	Responsible actors
<p>Ensure that in the Black Sea states their laws intended to regulate conservation activities, sustainable use and management of marine environment and resources are brought in accordance with international legislation standards related to cetacean conservation.</p>	<p>National legislative acts are in compliance with international treaties protecting Black Sea cetaceans and their habitats.</p>	<p>(a) National legislation should be improved paying due respect to international requirements concerning the conservation of cetaceans.</p>	Primary	<p>Black Sea Range States represented by appropriate authorities, ACCOBAMS focal points and experts. The co-ordination role of the Secretariat of the Black Sea Commission is expected</p>
		<p>(b) All species/populations of Black Sea cetaceans should be properly classified in national instruments bearing on the management and conservation of marine organisms and their habitats. Appropriate research data should provide solid base for the (re-)assessment of national conservation status of Black Sea cetaceans in all six riparian countries.</p> <p>Note: Links to Actions 1–3, 5–11, and 13–18 will be useful. In particular, see Action 2 as a pattern of similar activity on the regional level. It is envisaged that national conservation status of cetacean species may be diverse in different countries and may differ from the regional one.</p>	Secondary	
Rationale / Background	<p>In the Black Sea countries cetaceans are protected by national laws and appropriate subordinate acts. For instance, in Ukraine these species are protected by the Animal World Law and the Law on the Red Data Book of Ukraine. At the same time, all riparian states are contracting parties to the Convention on the Conservation of Biological Diversity (CBD), Bucharest Convention and CITES. Some Black Sea states are parties to the ACCOBAMS, Bonn Convention (CMS), Berne Convention and Whaling Convention managed by the International Whaling Commission (IWC). In accordance with their specific goals, the above multilateral instruments protect cetaceans and cetacean habitats and should strengthen the conservation status of dolphins and porpoises in the Black Sea states. Meanwhile, at present there is no comprehensive assessment of the conservation status of any Black Sea cetacean species in any riparian state. National laws are in need to be brought in full correspondence with international obligations of the Black Sea countries.</p>			

**ASSESSMENT AND MANAGEMENT OF
HUMAN-CETACEAN INTERACTIONS
(Actions 5 – 10)**

ACTION 5: Retrospective analysis of human-induced cetacean mortality				
Aim	Target	Recommended actions	Priority	Responsible actors
Investigate the feasibility of obtaining meaningful estimates of human-induced cetacean mortality over the 20th century with the view of historical reconstruction of the 'initial' population sizes and, thereby, more clear evaluation of present status and trends of Black Sea cetacean populations.	Adjusted understanding of population dynamics in the past and at present.	<p>(a) Preliminary study should be carried out to check up potential realizability of detailed assessment of human-induced cetacean mortality in bygone years.</p> <p>(b) If the revealed archival datasets appear to be accessible and suitable for such examination, the assessment should be performed and then the acquired information on cetacean removals will serve the reconstruction of past population sizes via modelling.</p> <p>(c) Assessment of historical data with their reference to the current status of the three Black Sea cetacean species would provide better understanding of population dynamics.</p> <p>Note: These activities are linked to Actions 1–4, 6–8, 13 and 15–17. In case of direct kills, above approach will require estimation of species ratios, product conversion factors and methods to account for hunting loss, so that aggregate data on total cetaceans landed by weight can be converted to removals by species, area and year.</p>	Secondary	Cetacean experts and relevant national authorities (including ACCOBAMS focal points) in co-operation with the Secretariat of the Black Sea Commission (Black Sea SRCU of ACCOBAMS)
Rationale / Background	Uncontrolled directed takes were the major threat to cetaceans in the Black Sea until a total ban on this harvest was imposed in 1983. All three species were harvested for oil, meal and other products from the 1830s (as minimum) throughout most of the 20th century. As many as four to five million individuals may have been removed during this time. Besides, other sources of human-induced mortality (mainly bycatch in fishing gear, but also accidents at sea and fatal live-capture operations) contributed to cetacean losses.			

ACTION 6: Strategy for reducing cetacean bycatches

Aim	Target	Recommended actions	Priority	Responsible actors
Develop a system of concordant measures able to decrease cetacean mortality in fishing gear at least to sustainable levels, with ultimate long-term goal of reducing it to zero if possible.	Regional strategy for reducing bycatches adopted by Black Sea countries on the base of valid scientific reasoning and clarification dialog with fishing 'steakholders'.	<p>(a) Establishment of a regional bycatch network.</p> <p>(b) Estimation of bycatch levels (by fishing gear type and cetacean species) and the temporal and geographical distribution of bycatches (and fishing effort by gear type) for legal fisheries and for illegal, unreported or unregulated (IUU) fishing, and for ghost fishing by abandoned nets.</p> <p>(c) Evaluation of sustainable bycatch levels for each cetacean species with regard to their present distribution and abundance (link to Action 13) and past human-induced removals (link to Action 5) analysed, in particular, by means of population modelling.</p> <p>(d) Investigation of potential mitigation measures from scientific and socio-economic perspective, including practicality and implications of using pingers and acoustically reflective nets and their possible effects on other components of the ecosystem.</p> <p>(f) Developing agreed management objectives for reducing bycatches in the Black Sea region, with a focussing on co-operation with fishing community.</p> <p>Notes: These activities should be implemented in accordance with ACCOBAMS BYCAMS project. On application of the activities, the first priority should be given to harbour porpoise bycatches caused by bottom-set gillnet fisheries. Actions (a), (d) and (f) could be implemented by respective workshop(s). Among other management objectives, the time/area closure option and development of marine protection areas (link to Action 12) should be considered. Cetacean carcasses found in fishing gear should be available for postmortem examination and sampling; links to cetacean stranding networks and tissue banks (Action 15) as well as to cetacean rescue teams (Action 18) are recommended. The connection with Actions 1–4, 7, 16 and 17 is also envisaged.</p>	Primary	Cetacean experts and relevant national authorities in co-operation with the Secretariat of the Black Sea Commission and its Advisory Group on the Environmental Aspects of Management of Fisheries and Other Living Resources, and ACCOBAMS Scientific Committee
Rationale / Background	<p>Bycatches are the major source of human-induced mortality of Black Sea cetaceans. All three species are known to be taken as bycatch, although incidental takes of harbour porpoises evoke the greatest concern. Porpoises are caught in a variety of fisheries, but for all that the bottom-set gillnets for turbot, spiny dogfish and sturgeon pose particular threat to their population. Such bycatches occur in the Azov Sea and Kerch Strait and throughout shelf area of the Black Sea including territorial waters of all six riparian countries. Preliminary indications suggest that annual rate of harbour porpoise bycatches can be numbered in thousands, with a peak in April–June during the turbot fishing season. It is known that illegal, unreported or unregulated (IUU) fishing is widespread in the Black Sea suggesting that significant part of bycatches takes place due to this kind of human activity. So far, no special attempts have been made to mitigate cetacean bycatches in the Black Sea region. The acoustic deterrent devices (pingers) and acoustically reflective fishing gear were never used here.</p>			

ACTION 7: Mitigation of conflicts between cetaceans and fishery				
Aim	Target	Recommended actions	Priority	Responsible actors
Address the problem of adverse cetacean/fisheries interactions (other than bycatches) and develop measures for this problem solution.	Regional approach to the mitigation and prevention of conflict interactions between fishery and cetaceans including dolphin depredation and prejudicial actions of fishermen.	<p>(a) Evaluation of the magnitude, temporal and geographical scope of adverse cetacean/fisheries interactions (by fishing categories and cetacean species), including clarification of roles of the involved parties in:</p> <ul style="list-style-type: none"> - prey competition and depletion of fish resources; - deterioration of fishing grounds/cetacean foraging areas; - confinement of fishing operational capabilities and living conditions of cetaceans; - so-called dolphin depredation and retaliatory measures from fishermen. <p>(b) Socio-economic study and modelling of adverse cetacean/fisheries interactions on the base of above action and results of basin-wide cetacean survey (link to Action 13).</p> <p>(c) Developing strategies for mitigating conflict interactions in collaboration with fishery specialists. Link to Action 6 may be particularly helpful, although links to Actions 1, 3–5, 16 and 17 are also reasonable.</p> <p>Note: These actions should be implemented in accordance with ACCOBAMS BYCAMS project. Recommendations of the ACCOBAMS Workshop on Interactions between Dolphins and Fisheries in the Mediterranean: Evaluation of Mitigation Alternatives [14] should be taken into consideration.</p>	Secondary	Cetacean experts and relevant national authorities in co-operation with the Secretariat of the Black Sea Commission and its Advisory Group on the Environmental Aspects of Management of Fisheries and Other Living Resources, and ACCOBAMS Scientific Committee
Rationale / Background	Anecdotal notes of beneficial cooperation between Black Sea fishermen and cetaceans are quite dubious, whereas conflicts between them, causing troubles to the both sides, appear to be a real problem. Along with bycatches (see Action 6), fisheries provoke a number of other effects on bottlenose dolphins, common dolphins and harbour porpoises including: changes (diminution or increase) of their foraging potentiality; modification of feeding strategy and behaviour; deterioration of habitats; alteration of distribution pattern and migration ability. These impacts are poorly studied and understood. No reliable data have been presented to refute or support speculations on suspected prey competition between dolphins and humans, although some cases are known when bottlenose dolphins raised trouble to fishermen by damaging their nets or catch, or stealing caught fish from the nets. No statistics are available on such conflicts and respective financial losses, and no appropriate compensation is stipulated for fishermen from their governments. In the Black Sea region there is no management procedure or even approach to address and mitigate dolphin depredation as well as eliminate cruel retaliatory actions resulting sometimes in dolphin deaths.			

ACTION 8: Elimination of live capture of Black Sea cetaceans				
Aim	Target	Recommended actions	Priority	Responsible actors
Restrain intentional removal of live cetaceans from the wild.	Complete ban on live captures for commercial, military and other purposes except urgent needs concerned with the conservation of cetaceans according to ACCOBAMS objectives. ³	(a) Improve the control to eliminate any live capture of cetaceans in the Black Sea and contiguous maritime areas. (b) Prepare and adopt relevant national legislative acts (or make appropriate amendments to existing laws) banning any intentional capture of Black Sea cetaceans.	Primary	Cetacean experts and relevant national authorities in co-operation with the Secretariat of the Black Sea Commission, ACCOBAMS Secretariat and CITES Secretariat
		(c) Evaluate the level, time/location characteristics, legality and biological features (sex, age, etc.) of bottlenose dolphin removals in the past. (d) Evaluate the impact of past removals on Black Sea bottlenose dolphin population in general and on local communities of this species which were the objects of capture operations. Links to Actions 1–5, 13, 16 and 17 could be helpful.	Secondary	
Rationale / Background	Directed lethal takes of Black Sea cetaceans are banned in the entire region, and cetacean live captures are prohibited (or can not be permitted) in the countries-parties of ACCOBAMS (Bulgaria, Georgia, Romania and Ukraine) in concordance with Article II.1 of the Agreement. However, the live captures still may take place in other two Black Sea states which are not contracting parties to ACCOBAMS. At present (2001-2005), only Russia uses this opportunity issuing permits for the catching live bottlenose dolphins in its internal waters. There have been a number of initiatives to eliminate such practice, including the Berne Convention's Recommendation No.86 (2001) and Resolution 1.12 adopted by the 1st Meeting of the Parties of ACCOBAMS (2002). In 2002, CITES set a zero annual export quota for live specimens of Black Sea bottlenose dolphins removed from the wild and traded for primarily commercial purposes, and the Black Sea Commission adopted the Biodiversity and Landscape Conservation Protocol as an annex to the Bucharest Convention. Both last instruments do not address directly the issue of cetacean live capture, however, they create the necessary prerequisites for respective improvement of national legislation.			

³ As consistent with Article II.2 of the ACCOBAMS, any Party may grant an exception to the prohibition of deliberate taking of cetaceans **only in emergency situations** (major pollution events, important strandings or epizootics) as provided for paragraph 6 (Responses to Emergency Situations) of the ACCOBAMS Conservation Plan (Annex 2 to the Agreement), **or, after having obtained the advice of the ACCOBAMS Scientific Committee, for the purpose of non-lethal *in situ* research aimed at maintaining a favourable conservation status for cetaceans**; the Party concerned shall immediately inform the ACCOBAMS Bureau and Scientific Committee, through the Agreement Secretariat, of any such exception that has been granted; the Secretariat shall inform all Parties of the exception without delay by the most appropriate means.

ACTION 9: Mitigation of disturbance caused by shipping

Aim	Target	Recommended actions	Priority	Responsible actors
<p>Address the problem of adverse impact of heavy marine traffic on Black Sea cetacean populations and develop appropriate conservation/management measures.</p>	<p>Regional strategy for reducing negative effects of shipping/cetacean interactions.</p>	<p>(a) Evaluation of the magnitude, temporal and spatial characteristics of marine traffic levels by shipping categories and integrally in comparison with past and present data on cetacean distribution, migrations and abundance. Links to the results of basin-wide cetacean survey (Action 13) and photo-identification programme (Action 14) would be particularly helpful for this analysis.</p> <p>(b) Assessment of shipping/cetacean interactions (including direct collisions and disturbance caused by vessel noise) in the areas representing important cetacean habitats affected by intense marine traffic. Research schemes should be designed in collaboration with specialists experienced in hydro- and bioacoustics, and cetaceans behaviour.</p> <p>(c) Developing management strategies for reducing adverse impact of the marine traffic on Black Sea cetaceans, with strong emphasis on co-operation with Black Sea shipping companies and other 'stakeholders'. Links to Actions 1, 2, 4, 12, and 16–18 could be helpful.</p> <p>(d) As long as above strategies are completed, in order to start the mitigation of cetacean disturbance as early as possible, certain guidelines should be prepared and disseminated among shipping companies, vessel crews, harbor authorities and other identified audiences (link to Action 16).</p>	<p>Secondary</p>	<p>Institutions involved in cetacean research and conservation in co-operation with agencies and services protecting the Black Sea and managing the navigation</p>
<p>Rationale / Background</p>	<p>The intensity of navigation increased dramatically in recent decades throughout the Black Sea, but mainly – in coastal waters representing primary habitat of harbour porpoises and bottlenose dolphins. In general, the marine traffic has a strong tendency to increase along the predetermined shipping lanes and in the areas surrounding big harbors; it shows annual trend to rise during warm season with a summer peak due to the growth of tourist activities. Marine traffic in the Turkish Straits System is particularly heavy with an obvious hot spot in the Bosphorus Strait. The Kerch Strait is another area where impacts of vessel traffic on cetaceans may be especially acute. It could be suspected that the shipping is important source of cetacean disturbance causing a series of negative effects such as possible extrusion of dolphins and porpoises from preferable habitats, alteration of their migration ways and modification of their behaviour resulting ultimately on population level in the reducing of foraging and reproductive success. However, to date there was no any study of adverse impact of the shipping on Black Sea cetaceans and no special measures have been proposed to mitigate this potential threat. The Bosphorus and Kerch Strait seem to be preferable pilot areas where this conservation problem could be addressed.</p>			

ACTION 10: Management of threats from gas-and-oil producing industry

Aim	Target	Recommended actions	Priority	Responsible actors
Address the problem of potential threats to cetaceans from gas and oil industry operating at sea, and develop pertinent management measures.	Regional strategy for restraining negative influence on cetacean populations of the offshore gas and oil exploring, extraction and transportation.	<p>(a) Evaluation of maritime areas inhabited by cetaceans and, at the same time, exploited or projected for exploitation by gas and oil industry including its exploring, extractive and transporting components. The analysis should be supported by basic data on cetacean distribution, migrations and abundance (links to Actions 13 and 14) and provided with a list of potential specific threats to cetaceans in each area.</p> <p>(b) Assessment of the impact of gas and oil industry on cetaceans in the areas of their seasonal aggregation or preferential occurrence. The research schemes should envisage visual and acoustic observations gaining the knowledge on effects of seismic exploration, boring, gas/oil extraction and transport, etc. on cetacean distribution, abundance, behaviour, health status and food accessibility.</p> <p>(c) Developing measures for the controlling and mitigation of adverse influences of the offshore gas and oil industry on cetacean populations (including the improvement of national legislation regulating this sphere of human activity). Links to Actions 1, 2, 4, 5, 12 and 16–18 seem to be useful.</p> <p>Note: Successful implementation of these actions to a considerable degree depends on close and transparent collaboration with gas and oil companies operating in the Black Sea region.</p>	Secondary	Institutions involved in cetacean research and conservation in co-operation with agencies protecting the Black Sea, and companies managing gas and oil producing industry in the region
Rationale / Background	<p>Certain areas of the Black and Azov Seas are subjected to gas and oil industry, and its rapid growth is expected in the near future in all six riparian countries. This kind of human activity can disturb cetaceans during different stages of its technological chain, starting with geological/ geophysical reconnaissance of deposits by means of trial boring and undersea bursts and ending with transportation of extracted gas and oil by bottom pipelines and tankers. Drilling and seismic exploration is widely spread on the Black Sea shelf. Bulgaria, Romania and Ukraine started commercial gas and oil extraction from the sea bottom some tens years ago. Major centres of this industry, which could be considered as areas of permanent risk for the marine environment, are situated in the northwestern Black Sea (Bulgaria, Romania and Ukraine) and in the northwestern corner of the Sea of Azov (Ukraine). Those waters are known as important breeding, calving and feeding grounds for Black Sea cetaceans during warm season. Last decades Ukraine exploited seven gas and gas condense deposits in the Black Sea and three gas deposits in the Azov Sea; in August 1982, the explosion of drilling platform in the Azov Sea caused death of over 2,000 harbour porpoises. It was announced that 150 other sites across the Ukrainian shelf are on offer for further exploitation. Georgia and Turkey recently commenced on gas exploring in the southeastern Black Sea, important wintering area of harbour porpoises and common dolphins. At the same time Russia develops tanker loading terminals on the Caucasian coast and pipelines for subsea gas transit to Turkey. So far the impact of gas and oil industry on Black Sea cetaceans was not studied at all, and no specific conservation and management measures were implemented or even suggested.</p>			

HABITAT PROTECTION
(Actions 11 and 12)

ACTION 11: Network of existing protected areas eligible for cetaceans conservation

Aim	Target	Recommended actions	Priority	Responsible actors
Develop regional network of already operating protected areas containing cetacean habitats within their boundaries, taking into account the ACCOBAMS 2010 targets and the ACCOBAMS Criteria for Protected Areas of Importance for Cetacean Conservation.	Existing coastal and marine protected areas, consolidated as a network, are focused on, prepared for and involved in the conservation and monitoring of Black Sea cetaceans.	<p>(a) Regional assessment of existing coastal and marine protected areas with regard to the presence of cetacean habitats within their boundaries and their relevance to cetacean conservation. Basic data on the distribution and abundance of dolphins and porpoises (links to Actions 13 and 14) could be helpful for evaluation of those protected areas which are fit for setting into cetacean monitoring activities.</p> <p>(b) Developing the regional network of eligible protected areas represented mainly by biosphere reserves, nature reserves and national parks. It is essential to ensure that sufficient awareness exists among the operating staff concerning cetacean monitoring and conservation. The relationship with existing cetacean stranding networks (Action 15) and rescue teams (Action 18) could be helpful.</p> <p>(c) Preparation of the network's cetaceans-oriented strategy and action plan as well as guidelines on cetacean monitoring, conservation and management procedures. The documents should be agreed by members of the network and secured on proper provisions for their implementation. Training of specialists, unconstrained exchange of information and competent co-ordination of the network should be envisaged. Links to Actions 1, 4, 12, 16 and 17 are envisaged.</p> <p>(d) Marine protected areas involved in the network should restrain within their boundaries any human activities potentially harmful for cetaceans.</p>	Primary	Coastal and marine protected areas, cetacean experts, Secretariat of the Black Sea Commission, ACCOBAMS Secretariat
Rationale / Background	Coastal and marine protected areas are generally recognised as a primary tool for conservation of the marine environment and biodiversity. At present, over 60 protected areas and sites are established along the coastline of the Black and Azov Seas by riparian states, and additional 40 areas are suggested for further development [12]. Some of them contain cetacean habitats within their boundaries, and could thus serve for cetacean monitoring and conservation, if appropriate management objectives are set, and the personnel is specifically trained. In this context, the most promising protected areas are represented by existent biosphere reserves, nature reserves and national parks which have relatively well-developed infrastructure and research capabilities. The Romanian Danube Delta Biosphere Reserve and 'Vama-Veche – 2 Mai' Marine Reserve are involved in cetacean research and conservation in Romania. In 2003-2005, nine coastal protected areas joined the Ukrainian National Network for Cetaceans Conservation co-ordinated by the Brema Laboratory (Simferopol). They are (from west to east): the Dunaisky (Danube) Biosphere Reserve, Chernomorsky (Black Sea) Biosphere Reserve, Swan Islands Branch of the Crimean Nature Reserve, Cape Martyan Nature Reserve, Karadag Nature Reserve, Opuk Nature Reserve, Kazantip Nature Reserve, Azov and Sivash National Park, and Meotida Landscape Park. The inventory of cetacean habitats has been completed and common methodology for cetacean monitoring was introduced in these protected areas. Other Black Sea countries so far do not follow this initiative supported in 2005 by the UK Department of Environment, Food and Rural Affairs and British Council-Ukraine (NNCC-project).			

ACTION 12: Special marine protected areas dedicated to cetacean conservation

Aim	Target	Recommended actions	Priority	Responsible actors
Set up particular cetacean protection modes in well- defined key areas containing cetacean habitats which are vitally important, first of all, for harbour porpoises and bottlenose dolphins, taking into account the ACCOBAMS 2010 targets and the ACCOBAMS Criteria for Protected Areas of Importance for Cetacean Conservation.	Marine protected areas specialized in cetacean conservation are established protecting the recognized cetacean critical habitats.	(a) Developing management plans and creating <i>ad hoc</i> marine protection areas for the conservation of already defined cetacean critical habitats in the Ukrainian (off the south-western Crimea) and Georgian (off the Adjara Autonomy) territorial sea, with regard to their preferential use during cold season by accumulations of bottlenose dolphins (Crimea), common dolphins (Adjara) and harbour porpoises (Crimea and Adjara).	Primary	Cetacean experts, relevant national authorities (including ACCOBAMS focal points), Secretariat of the Black Sea Commission in co-operation with public administrations and other relevant 'stakeholders', ACCOBAMS Secretariat
		(b) Evaluation of other critical habitats, used by cetaceans for resident habitation, reproduction, feeding and migrations, for the purpose of making up a comprehensive list of areas which are eligible for the creation of new marine protected areas (including transboundary ones), introduction of time/area fishing closures, etc. The list should be accompanied with the systematized information on specific threats identified in those areas. Links to Actions 1, 4, 6, 9–11, and 13–18 must be taken into consideration. (c) Preparation of proposals and pushing them forward to establish special protection modes in the areas recognized as expedient for cetacean habitats conservation in accordance with above action. Notes: Management plans should include the monitoring of cetacean communities, targeted research, regulation of impacting human activities, education efforts directed at the fishermen and recreational users, and promotion of more compatible, alternative activities (e.g., dolphin watching) and resource uses. Time/area fishing closures could be envisaged where bycatch is the greatest concern, and where the problem is highly localised and predictable in time and space.	Secondary	
Rationale / Background	According to the ACCOBAMS Implementation Priorities for 2002-2006 [10], particular concern exists for the future of two Black Sea cetacean species, the harbour porpoise and bottlenose dolphin. Both species are listed in Annex II of the EC Directive No.92/43/EEC, implying that special protected areas have to be created for the conservation of these animals. The Action #4 of above Priorities envisages selection of one proper area in the Black Sea (namely, the coastal area of southern Crimea, Ukraine, comprised between Cape Sarych and Cape Khersones) in which a pilot conservation and management project “be developed and implemented immediately”. Bottlenose dolphins and harbour porpoises annually aggregate during the fall, winter and spring in this relatively small area. The 1st Meeting of the ACCOBAMS Scientific Committee (Tunis, October 2002) recommended that more areas be investigated for identification of critical habitats. In 2005, another cetacean wintering area, including important feeding grounds of harbour porpoises and common dolphins, was identified in the Georgian Black Sea.			

RESEARCH AND MONITORING
(Actions 13 – 15)

ACTION 13: Basic cetacean surveys				
Aim	Target	Recommended actions	Priority	Responsible actors
Obtain and periodically refresh reliable basin-wide information on cetacean abundance and distribution.	Population sizes and distribution patterns of Black Sea harbour porpoises, bottlenose dolphins and common dolphins are known and their temporal and spatial population trends are monitored.	(a) Carrying out basic region-wide survey with subsequent synoptic assessment of cetacean abundance and distribution, and identification of potential hot spots. The Black Sea proper, Azov Sea and Kerch Strait should be included in the survey scope and adequate methodology, agreed with international experts, should be applied for data recording and analysis. This study must also focus on spatial modelling and on the recognition of critical habitats. The results will contribute to the implementation of Actions 1, 2, 4–12 and 14–18.	Primary	Joint research team, represented by specialists from all Black Sea countries, in co-operation with international experts and under the auspices of the Black Sea Commission, ACCOBAMS and national authorities. In the Turkish Straits System the responsibility lies mainly or exclusively with Turkish researchers and government
		(b) Carrying out similar survey using the same methods in the Turkish Straits System (including the Bosphorus Strait, Marmara Sea and Dardanelles) to complete cetacean assessment in the area connecting the Black and Mediterranean Seas.	Secondary	
Rationale / Background	No credible information exists on the abundance and distribution of cetaceans in the Black Sea in whole, although massive directed killing which continued to the early 1980s is believed to have considerably reduced the populations sizes. Such baseline research data, gained primarily and then monitored on regular base, are indispensable for all key sectors of cetacean management. A few line-transect cetacean surveys implemented recently in some Black Sea areas could be considered in this context as important introductory initiatives. In particular, aerial surveys were conducted in the Azov Sea, Kerch Strait and northeastern shelf area of the Black Sea (July 2001, August 2002); vessel-based surveys were performed in the Turkish Straits System (October 1997, August 1998), Kerch Strait (August 2003), entire 12-miles-wide zone of the Ukrainian and Russian Black Sea (September-October 2003), offshore waters of the northwestern shelf area (September 2004), Georgian territorial sea (January, May, August and November 2005), and central part of the Black Sea (September–October 2005). Thus, at present certain abundance estimates and cetacean distribution data are available for relatively small portions of the basin. The necessity of multi-national synoptic basin-wide assessment of cetacean populations was enunciated in the Strategic Action Plan for the Rehabilitation and Protection of the Black Sea [18] and reiterated in subsequent documents produced by the Black Sea Commission and adopted by Black Sea states [e.g., 16]. This idea was supported in the IUCN Conservation Action Plan for the World's Cetaceans [15] and by the IWC Scientific Committee [17]. Besides, it fully conforms to Resolution 2.19 adopted by the 2nd Meeting of the Parties to ACCOBAMS (2004). A series of competent meetings considered methodological and logistical aspects of the basin-wide cetacean survey making it more intelligible: the 3rd and 4th Joint Meetings of the CBD and FOMRL Advisory Groups of the Black Sea Commission (Istanbul, September 2004 and April 2005), Workshop on obtaining baseline cetacean abundance information for the ACCOBAMS area (Valsain, December 2004), 3rd Meeting of the ACCOBAMS Scientific Committee (Cairo, May 2005), Meeting on methodology for surveying the Black Sea (St. Andrews, September 2005), and Workshop on cetaceans surveying in the Black Sea (Istanbul, October 2005). The project proposal has been drafted with a budget between 210.000 and 250.000€.			

ACTION 14: Cetacean photo-identification programme

Aim	Target	Recommended actions	Priority	Responsible actors
Consolidation of cetacean photo-identification studies in order to provide information on population structure, seasonal movements and ranging patterns of Black Sea cetaceans, mostly, bottlenose dolphins and common dolphins.	Basic knowledge on population structure, migration regularity and accumulation features of Black Sea dolphins is gained owing to non-invasive research techniques incorporated in cetacean monitoring schemes.	<p>(a) Developing long-term photo-identification programme that could be similar to and joined with the EUROPHLUKES project. The collecting of cetacean (mainly bottlenose dolphin and common dolphin) images should be standardized, carried out on year-round basis and applied to the whole area of Black Sea cetaceans occurrence. This programme should be concordant with the basic cetacean surveys (link to Action 13) and accompanied with appropriate training and other capacity building activities (link to Action 16).</p> <p>(b) The photo-identification datasets established earlier (2003-2005) and arranged as initial “Black Sea Fins” cetacean identification catalogue should be replenished with new data/images, gained within above basin-wide activities, and then analysed in the aggregate for the entire Black Sea and adjacent waters including the Turkish Straits System and northern Aegean Sea of the Mediterranean. This analysis along with results of genetic study (link to Action 15) should provide new knowledge on population structure, migrations and aggregations (including seasonal accumulations) of Black Sea cetaceans.</p> <p>(c) The photo-identification constituent should be incorporated in subsequent monitoring schemes covering the entire range of Black Sea cetaceans (link to Action 13 and 15). The access to Black Sea photo-identification datasets and catalogues of identified individuals can be secured by means of periodical publishing of relevant data on CD-ROM as well as online on a specially dedicated web site (link to Action 17).</p> <p>Note: Above activities are linked also to Actions 1, 2, 4 and 9–12.</p>	Secondary	Black Sea specialists and research groups/ institutions interested in and prepared for photo-identification studies
Rationale / Background	Photo-identification approach and methodology, which are indispensable for studying cetacean population structure, migrations/ residency and habitat use, were not developed in the Black Sea region up to 2003. A training course on cetacean photo-identification was organized by the ACCOBAMS Secretariat and carried out by Tethys Research Institute, Italy, in July 2003 (Kalamos, Greece) and October 2003 (Balaklava, Ukraine) for six Black Sea researchers from Ukraine, Russia and Georgia. Each national team was also provided with proper camera and lenses. That course was complemented with a follow-up in the Kerch Strait (August 2003, June 2004) and territorial waters of Ukraine (September 2003 – October 2004) and Russia (October 2003, June 2004). In co-operation with the EUROPHLUKES project, a catalogue of peculiar dorsal fins have been instituted for Black Sea bottlenose dolphins and common dolphins. This initial “Black Sea Fins” catalogue is available as a CD-ROM published in Ukraine (2004) and on-line (www.dolphin.com.ua/Base/fins/titul_fins.html). In 2005, the collection of Black Sea cetacean images has been replenished with photographs from the Georgian and central Black Sea (including pictures of harbour porpoises in the both areas) as well as with new samples obtained in the Kerch Strait and within inshore waters off the Russian Caucasus and southwestern Crimea, Ukraine. Besides, a corresponding study of bottlenose dolphins has started in Turkey in the Bosphorus Strait; and one trained researcher is available in Romania. However, current, even pooled photo-identification effort is still meagre and the results are not enough yet for comprehensive scientific conclusions regarding the discreteness of Black Sea cetacean populations, patterns of cetacean migrations and seasonal accumulations.			

ACTION 15: Regional cetacean stranding network (CSN)

Aim	Target	Recommended actions	Priority	Responsible actors
<p>Basin-wide systematic study of cetacean strandings in order to monitor mortality levels in cetacean populations, and to provide samples for research of cetacean genetics, life history, ecology, pathology, parasitology, ecotoxicology, etc.</p>	<p>National CSNs co-operate on equal terms as partners constituting regional CSN, providing actual information on cetacean stranding rates, causes and trends of cetacean mortality, and promoting the specialized studies with samples collected from stranded dolphins and porpoises.</p>	<p>(a) Developing the existing national CSNs and their functional fusion into the basin-wide network. A standardised methodology of data collecting and sampling should be set up supported by training of CSN members and providing them with appropriate literature (links to Actions 16 and 17). The regional CSN should operate permanently providing reliable information on dynamics of strandings recorded for each Black Sea cetacean species. Besides, in order to determine causes of death, the investigation of stranded animals should be carried out along with morphometric study of cetacean carcasses and samples collecting for further multidisciplinary laboratory analyses.</p> <p>(b) Developing a Black Sea regional Database of Cetacean Strandings which should be compatible with relevant Mediterranean database (MEDACES) and available online for corporative use of CSN members in all Black Sea countries.</p> <p>(c) Establishing Black Sea cetacean tissue bank(s) accumulating samples from stranded and bycaught (link to Action 6) cetaceans. The samples should be collected, fixed, transported and stored according common guidelines prepared in co-operation with already existing Mediterranean cetacean tissue banks.</p> <p>(d) The data and samples collected by the regional CSN should be used to gain new knowledge on cetaceans mortality, population structure and genetics (link to Action 14), life history, ecology, pathology, parasitology, ecotoxicology (persistent organic pollutants and trace elements), etc. These studies will contribute to monitoring schemes (links to Actions 13 and 14) and periodical assessment of the status of Black Sea cetacean populations (link to Action 2).</p> <p>Notes: The functioning of national and regional CSNs should include their tight interaction with a network of the protected areas eligible for cetaceans conservation (Actions 11 and 12) and structures involved in cetacean rescue activities (Action 18).</p>	<p>Primary</p>	<p>Research groups/ institutions, NGOs and specialists involved in the studies of Black Sea cetacean strandings</p>
<p>Rationale / Background</p>	<p>CSNs were organized in all Black Sea countries, but some of them do not work at present, although trained specialists still exist in Bulgaria, Georgia and Russia. Vigorous CSNs are functioning in Romania and Turkey. The most branched CSN operates in Ukraine since 1989; in 2005, it consisted of 19 operational units dispersed along coasts of the Black and Azov Seas. Researchers from the Black Sea region participated in the ACCOBAMS Training course on cetacean monitoring (Constantza, Romania, 2001) and Training course on cetacean strandings and tissue banks (Tajura, Libya, 2004). Over 20 trainees from Ukraine and Russia participated in the Training course on the development of a network for Black Sea cetaceans monitoring and conservation (Koktebel, Ukraine, 2005) supported by the British Government; the participants were provided with common research methodology and unified field equipment for data recording and sampling. The Guidelines for the Development of National Networks of Cetacean Strandings Monitoring (2004) were produced by UNEP/MAP RAC/SPA and ACCOBAMS experts. The Ukrainian network possesses its own database on cetacean strandings, bycatches and sightings (www.dolphin.com.ua/Base/discovery/db_index.php). National CSNs already helped to recognize several mass mortality events among Black Sea cetaceans including the morbillivirus epizootic affected common dolphins in 1994.</p>			

**CAPACITY BUILDING,
COLLECTION AND DISSEMINATION OF INFORMATION,
TRAINING AND EDUCATION
(Actions 16 and 17)**

ACTION 16: Strategies for capacity building and raising awareness

Aim	Target	Recommended actions	Priority	Responsible actors
<p>Develop long-term capacity building and public awareness strategies in order to provide explicit improvement of cetacean research, conservation and management in the Black Sea region on basis of consolidated educational activities.</p>	<p>Levels of professional education and public awareness in the Black Sea countries are sufficient to achieve sustainable progress in the conservation of all three cetacean populations.</p>	<p>(a) Establishing regular training courses on research methodology, conservation and management of Black Sea cetaceans for different categories of interested and professionally involved people including: university students and lecturers; operating personnel of coastal and marine protected areas; officers of governmental agencies responsible for the protection and exploitation of the sea and marine resources (e.g., national fish protection services and environmental inspectorates); participants of cetacean stranding networks and representatives of environmental NGOs.</p> <p>(b) Developing a grant mechanism providing Black Sea students and young scientists with access to European system of education and making available their participation in international trainings on cetacean research and conservation, such as: the Course on Marine Mammals at the University of Valencia (Spain), annual Distance Sampling Workshops at the University of St. Andrews (Scotland), and the Field Courses on Cetacean Research Techniques organized by the Tethys Research Institute (Italy).</p> <p>(c) Developing a regional public awareness strategy dedicated to cetacean conservation and linked with all other actions listed in this conservation plan. The strategy should stipulate the concerted activities of research and educational institutions, authorities, NGOs and media, providing awareness-raising campaigns, relevant educational tools and guidelines focused on different target audiences.</p> <p>Notes: The Black Sea cetaceans-related courses, mentioned in (a), may be organized at a few national universities, with competent assistance from research institutions experienced in cetacean problems. These courses along with trainings, mentioned in (b), would provide trainees with a possibility to get expert advise and supervision of their research effort. In particular, lecturers involved in the courses (including international cetacean experts) could supervise students carrying out their master's and PhD theses on Black Sea cetaceans.</p>	<p>Secondary</p>	<p>Universities, research institutions, national authorities responsible for public education and nature conservation, environmental NGOs and mass media, with organizational support from the Secretariats of ACCOBAMS and Black Sea Commission</p>
<p>Rationale / Background</p>	<p>Very few young scientists and students are involved in cetacean research and conservation activities in the Black Sea countries. No special course (or any other particular form of education) on cetacean research, conservation and management exists in national universities or other educational institutions. At the same time there are some research organisations and specialists which can provide interested young people with basic knowledge on cetology and practical skills on field and laboratory works with Black Sea dolphins and porpoises. Besides, some researchers and postgraduate students already accumulated sizeable datasets containing valuable scientific information on Black Sea cetaceans. Those data are in need of adequate treatment and analysis including modern approaches in applied mathematics and mathematical modelling which are still not available in the Black Sea region. Special strategies of training on cetaceans-related matters should be developed for members of cetacean stranding networks and staff of coastal/marine protected areas as well as for numerous authorities engaged in the protection, management and exploitation of the Black Sea wild life, environment and marine resources. The enhancement of public awareness in cetacean problems should be guaranteed among different social and professional groups of the Black Sea human population and tourists, with the help of environmental NGOs and mass media.</p>			

ACTION 17: Access to information and cetacean libraries

Aim	Target	Recommended actions	Priority	Responsible actors
Provide unimpeded access to the results of cetacean research and conservation activities implemented in the Black Sea region and beyond; accumulate, systematize, store and make available relevant published information by means of proper data carriers.	Provision of appropriate information to Black Sea researchers, governmental bodies, NGOs and general public particularly as far as access to scientific literature and other publications on cetaceans is concerned.	<p>(a) Developing web sites dedicated to Black Sea cetaceans and relevant research and conservation activities in every Black Sea country. These web sites should be bilingual, using national and English languages, and linked with each other and with the ACCOBAMS and Black Sea Commission web sites.</p> <p>(b) Developing links between world's collections of marine mammal literature and Black Sea scientific libraries. The exchange of literature should be facilitated by all means in order to provide Black Sea libraries (at least one in each country) with necessary support to operate as a source of continuously updated information for Black Sea researchers and students.</p> <p>(c) Compiling comprehensive bibliography on Black Sea cetaceans supplied with annotations and search/ select options via key words, author and subject indices. This bibliography should be available online and continuously replenished with new references.</p> <p>(d) Further development of the Digital Library on Black Sea Cetaceans based on previous experience (see Rationale/ Background) and supported by activities (a), (b) and (c). This library placed on a web site may solve forever an acute problem of prompt accessibility to scientific publications on Black Sea dolphins and porpoises.</p> <p>(e) Information aids (booklets, posters, stickers, etc.) supporting public awareness activities should be designed and published in six Black Sea languages (and in English) and distributed widely along the Black Sea coasts.</p> <p>Note: Above actions are interconnected with all other actions listed in this conservation plan.</p>	Secondary	Libraries, institutions and researchers involved in collection and dissemination of scientific information on Black Sea cetaceans
Rationale / Background	<p>Cetacean research and conservation activities are on the rise in some Black Sea countries, and several useful projects have been implemented during last years (Annex 3). However, basic information about those initiatives as well as on the present state of Black Sea cetacean populations is accessible for narrow circle of specialists, leaving aside many other concerned people. In addition, Black Sea scientists complain that their access to the cetaceans-related literature is straitened because of almost entire lack of requisite publications in the national libraries. This prevents to obtain necessary documentation, learn from the work done by others and publish own results in key scientific journals. With due regard to this problem, Ukrainian researchers try to facilitate professional and public access to the information by means of: (1) specialized web site (www.dolphin.com.ua) operating since 2003 and hosting the Black Sea cetacean photo-identification catalogue and Ukrainian database on cetacean strandings, bycatches and sightings; (2) continued series of CD-ROM issues under the "Black Sea Dolphins" generic heading (five issues were released between 2002 and 2006); (3) "Digital Library on Cetaceans of the Black and Azov Seas" (this CD contains 109 scientific articles and books published between 1903 and 2004); and (4) series of seven educational posters aimed to enhance public awareness (in particular, three posters – "How to behave in the presence of a stranded cetacean", "How to behave in the vicinity of dolphins at sea" and "Make an effort – don't cause harm to cetaceans" – were published and distributed in Ukraine in 2005). However, all above information tools are available for Russian-speaking users mainly. A bilingual (Romanian and English) web site on cetaceans operates in Romania (www.delfini.cier.ro).</p>			

**RESPONSES TO EMERGENCY
SITUATIONS
(Action 18)**

ACTION 18: Measures for responding to emergency situations

Aim	Target	Recommended actions	Priority	Responsible actors
Develop regional strategy, guidelines and operational network able to provide urgent and competent assistance to Black Sea cetaceans involved in emergencies.	A network for responding to cetacean emergency situations, based on appropriate strategy and guidelines and represented by skilled and equipped rescue teams, is functioning in the Black Sea region.	<p>(a) Regional assessment of emergency situations demanding special response, particularly, by means of rescue-and-release operations. The existent data on such situations, including cetacean live strandings and live bycatches, and on the applied rescue activities and their efficacy should be accumulated, analysed and reported in order to address this problem.</p> <p>(b) Developing guidelines and/or code of conduct aimed to specify adequate options and methodology of humane response to the live strandings, live bycatches and other possible emergency situations that may affect Black Sea dolphins and porpoises. The document(s), prepared on basis of above assessment and in terms of appropriate world experience, should be reviewed by international experts and agreed with governmental officials before the implementation.</p> <p>(c) Developing Black Sea regional strategy (contingency plan) including conjectural schemes for responding to emergency situations with regard to the existing and prospective cetacean rescue teams, their location, professional capacity, mobility and their possession of essential needs including communication facilities, field equipment and means for veterinary assistance. The strategy should envisage the functioning of at least one cetacean rescue team in each Black Sea country. It is recommended that rescue teams, co-operating with each other, are incorporated in national and regional cetacean stranding networks (link to Action 15) and involved in the activities designed to reduce cetacean bycatches (link to Action 6). Links to Actions 1–4, 7, 9–13, 16 and 17 could be helpful too.</p> <p>Notes: Consultations are recommended with disaster management, veterinary and public health (sanitary) authorities. Substantial progress in the realization of above actions is expected at the ACCOBAMS Live Stranding and Cetacean Rescue Workshop (Monaco, November 2006).</p>	Primary	Research institutions, NGOs and specialists, including members of cetacean rescue teams and cetacean stranding networks, as far as they are concerned about emergency situations affecting Black Sea cetaceans; ACCOBAMS Emergency Task Force
Rationale / Background	The necessity of adequate responses to cetacean emergency situations is outlined in the ACCOBAMS Conservation Plan. Further development of this task has been achieved in the documents adopted by the 1st (2002) and 2nd (2004) Meetings of the Parties to the Agreement. In particular, a series of specific actions, including the creation of an Emergency Task Force, was agreed within the ACCOBAMS Work Programme for 2005-2007. Cetacean rescue teams operate in Crimea, Ukraine, since 1993. They were created on a voluntary basis by commercial dolphinaria (RDD-project, 1993-1999; MORECET-project, 2002-2006), with managerial control of their activities by the Ukrainian Ministry of Environment and methodological and informational support from the Ukrainian cetacean monitoring and conservation network. Few cetacean rescue operations are known also in the Russian Black Sea. The Dolphin Hotline aimed to collect messages on cetacean emergencies is announced on the web site maintained by the Secretariat of the Black Sea Commission (www.blacksea-commission.org).			

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Annex 1

Excerpt from the ACCOBAMS International Implementation Priorities for 2002-2006 [10]

Action n°	Cons.Plan Art. n°	Budget item n°	Title:
6	4	941	Conservation plan for cetaceans in the Black Sea
<p>This project envisages the co-operation between ACCOBAMS and the Black Sea Commission to prepare a proposal to be submitted to the GEF, concerning a comprehensive conservation and management plan for Black Sea cetaceans. The plan should include efforts to fill the existing knowledge gaps concerning the distribution, abundance, population structure, and factors threatening the conservation of the three species involved, as well as management measures such as the establishment of specially protected areas, the development and implementation of regulations to increase sustainability of human activities in the subregion, and the organisation of training, education and awareness initiatives.</p>			
Activities:		consultations, proposal writing and submission	
Possible synergies:		3, 4, 5, 12, 13, 15	
Duration:		1 year	
Indicative budget:		–	

Annex 2

Excerpt from the Report of the 2nd Meeting of the ACCOBAMS Scientific Committee (Istanbul, 20-22 November 2003)

Recommendation 2.4: The Conservation Plan for Cetaceans in the Black Sea

The preparation of a Conservation Plan for cetaceans in the Black Sea is one of the priorities (Action 6) adopted by the ACCOBAMS First Meeting of the Parties. A draft concept paper for the initial project proposal, formulated as a “GEF medium-sized” project in close cooperation with all the Black Sea States, was supported by the ACCOBAMS First Meeting of the Parties (Monaco, 2002), by the ACCOBAMS First Meeting of the Scientific Committee (Tunis, 2002), and by the meeting of the Black Sea Commission’s Advisory Group on the Conservation of Biological Diversity (Istanbul, 2002).

Therefore, a final project proposal is in the process of being submitted to the GEF operational focal points.

In consideration of the increasing urgency that a Conservation Plan for cetaceans in the Black Sea be finalised and implemented, particularly due to concern for the deteriorating conservation status of Black Sea harbour porpoises, the Scientific Committee **strongly recommends**:

- that the ACCOBAMS Parties invite all Black Sea States to endorse the proposal, provide to it all necessary support, and seek the assistance of the Black Sea Commission in the negotiation process with GEF;
- that other possible funding sources be explored as a matter of urgency to increase the chances that activities can be implemented in useful time.

Annex 3

Examples of cetacean research and conservation projects implemented in the Black Sea region in 2002–2006

Program / Initiative	Project (title)	Implementing organizations	Year
Programme for Research, Conservation and Restoration of Marine Mammals in the Black and Azov Seas ('Delfin'-program approved by the Ministry of Ecology and Natural Resources of Ukraine in August 1999)	Pathological conditions of Black Sea common dolphins	Brema Laboratory (Ukraine)	2001-2002
	Infectious diseases in captive Black Sea bottlenose dolphins	Brema Laboratory (Ukraine)	2001-2002
	Workshop on conservation problems of Black Sea cetacean populations (Koktebel, 23-24 October 2002)	Brema Laboratory in co-operation with Crimean dolphinarium (Ukraine)	2002
	Preparation of three issues of the 'Black Sea Cetaceans' Information Base (CD-ROM)	Brema Laboratory (Ukraine)	2002, 2003, 2004
	Bacteriological aspect of Black Sea bottlenose dolphins adaptation to captivity	Brema Laboratory (Ukraine)	2002
	Feeding objects of Black Sea cetaceans and state of their forage reserves	Brema Laboratory (Ukraine)	2002
	Development of national network for the monitoring of Black Sea cetacean strandings and bycatches, formation of a system aimed to render assistance to sick and traumatized cetaceans in Ukraine, conversion of dolphinarium into centres for rescue and rehabilitation of marine mammals (MORECET)	Brema Laboratory, Biological Station PE, Livadia Dolphinarium JE, Karadag Nature Reserve and Nazareth Ltd (Ukraine)	2002-2006
	Pathological conditions of wild Black Sea harbour porpoises	Brema Laboratory (Ukraine)	2003
	Preparation of draft regulations on conservation-related activities of dolphinarium	Brema Laboratory (Ukraine)	2003

Program / Initiative	Project (title)	Implementing organizations	Year
	Assessment of the state of Black/Azov Sea marine mammal populations listed in the Red Data Book	Brema Laboratory in co-operation with the Ukrainian Danube Delta Biosphere Reserve, Odessa Center of the Southern Research Institute of Marine Fisheries and Oceanography, Odessa Branch of the Institute of Biology of Southern Seas, Chornomorsky [Black Sea] Biosphere Reserve, Lebedyni Ostrovy [Swan Islands] Branch of the Crimean Nature Reserve, Cape Martyan Nature Reserve, Karadag Nature Reserve, Opuk Nature Reserve and Kazantip Nature Reserve (Ukraine).	2003
	Workshop on conservation problems of Black Sea cetacean populations (Kiev, 25 May 2004)	Ministry of Environment of Ukraine in co-operation with members of national network for monitoring of cetaceans (Ukraine)	2004
EU LIFE-NATURE Program	Conservation of the dolphins from the Romanian Black Sea waters	Grigore Antipa National Institute for Marine Research and Development, Mare Nostrum NGO, Museum Complex for Nature Sciences in Constantza (Romania)	2001-2004
Joint initiative supported by the ACCOBAMS Secretariat	Genetic study of Black Sea bottlenose dolphins	University of Durham (UK) in co-operation with Brema Laboratory (Ukraine)	2002
Joint initiatives supported by the Ministry of Environmental Protection of Ukraine and Russian Academy of Science	Aerial survey of distribution, abundance and species composition of cetaceans in the Azov Sea (Azovka-2001).	Brema Laboratory (Ukraine) and Institute of Ecology and Evolution (Russia)	2001-2002
	Aerial survey of distribution, abundance and species composition of cetaceans in the Russian and Ukrainian waters of the Black and Azov Seas (Azovka-2002)	Brema Laboratory (Ukraine) and Institute of Ecology and Evolution (Russia)	2002-2003

Program / Initiative	Project (title)	Implementing organizations	Year
	Study of accumulations, migrations and habitats of the Black Sea bottlenose dolphin in coastal waters of Russia and Ukraine (Afalina-2003)	Institute of Ecology and Evolution (Russia), Brema Laboratory and Karadag Nature Reserve (Ukraine)	2003-2004
	Distribution, abundance and photo-identification of cetaceans in the northwestern shelf waters of the Black Sea (Afalina-2004)	Institute of Ecology and Evolution (Russia), Brema Laboratory and Karadag Nature Reserve (Ukraine)	2004-2005
	Distribution and abundance of cetaceans in offshore waters of the central Black Sea (Belobochka-2005)	Brema Laboratory (Ukraine) and Institute of Ecology and Evolution (Russia)	2005
Joint Georgian, Ukrainian and Russian initiative	Assessment of cetacean distribution and abundance in coastal waters of the southeastern Black Sea (Afalina-2005)	Brema Laboratory (Ukraine), Marine Ecology and Fisheries Research Institute (Georgia) and Institute of Ecology and Evolution (Russia)	2005
EUROPHLUKES	Photo-identification of Black Sea cetaceans (Black Sea Fins)	Brema Laboratory (Ukraine) and Institute of Ecology and Evolution (Russia) with initiating support derived from the Permanent Secretariat of ACCOBAMS, and the training provided by Tethys Research Institute (Italy)	2003-2004
Small Environmental Projects Scheme (SEPS II) supported by the UK's Department for Environment, Food and Rural Affairs and managed by the British Council–Ukraine	Improvement of the Ukrainian National Network for Cetaceans Monitoring and Conservation (NNCC-project)	Brema Laboratory in partnership with the Ukrainian Danube Delta Biosphere Reserve, Odessa Center of the Southern Research Institute of Marine Fisheries and Oceanography, Odessa Branch of the Institute of Biology of Southern Seas, Chornomorsky [Black Sea] Biosphere Reserve, 'Oasis' NGO, Cape Martyan Nature Reserve, and Karadag Nature Reserve (Ukraine)	2004-2005

Annex 4

Excerpts from the Checklists for Red List Assessment of Black Sea cetaceans

*IUCN/ACCOBAMS Workshop on the Red List Assessment of Cetaceans in the ACCOBAMS Area
(Monaco, March 2006)*

1. Black Sea harbour porpoises

Name of Unit Assessed:

Harbour porpoise (*Phocoena phocoena relicta*): Black Sea subspecies

Taxonomy:

Family: Phocoenidae Gray, 1825
Genus: *Phocoena* G. Cuvier, 1817
Species: *Phocoena phocoena* (Linnaeus, 1758)
Subspecies: *Phocoena phocoena relicta* Abel, 1905

Assessment Information:

EN A1d+4c,d,e

Year Assessed: 2006

Assessor(s): Alexei Birkun, Jr. and Alexandros Frantzis

Evaluator(s): IUCN/ACCOBAMS Workshop on the Red List Assessment of Cetaceans in the ACCOBAMS Area
(Monaco, 5-7 March 2006)

Justification:

The Black Sea harbour porpoise, *P. p. relicta*, is Endangered (EN) based on criteria A1d and A4c,d,e. This is based on inference and suspicion as summarised below.

The estimated generation time is around 9-10 years, thus three generations for the Black Sea harbour porpoises would be about 27-30 years.

There are no estimates of unexploited or present total population size, although the available information suggests that the present abundance is probably at least several thousands.

The following information from the last three decades is relevant to the proposed classification. However, it is important to note that very high levels of direct and incidental mortality occurred for a long period prior to that (from the 1830s and throughout the 20th century) and this undoubtedly would have dramatically reduced the population (IWC, 2004).

(1) Large directed takes occurred during the years 1976-1983 before the ban on small cetacean hunting was declared in Turkey in 1983. Within that period, the total number of harbour porpoises killed was at least 163,000-211,000. Illegal direct killing of unknown numbers continued in some parts of the Black Sea until 1991.

(2) Regionally extensive incidental mortality of porpoises in bottom-set gillnets is roughly estimated to be in the thousands over this period. The scale of this mortality almost certainly increased in the 1990s-2000s owing to the rapid expansion of illegal, unreported and unregulated (IUU) fishing in the Black Sea region.

(3) A major accidental mass stranding/mortality event occurred in the Azov Sea in August 1982 as a result of an explosion of a gas-extraction platform. More than 2,000 porpoises were found on ashore following this event.

(4) Two other mass stranding/mortality events occurred in 1989 and 1990, caused by the combined effects of parasitic and bacterial infections. Although difficult to quantify, mortality of porpoises is believed to have been in the thousands.

(5) Periodically (most recently in November 1993), natural mass mortality events occur as a result of ice entrapment in the Azov Sea. Although no direct estimates are available, these can result in the deaths of several tens or more animals.

(6) There has been ongoing general degradation of the Black Sea environment (including harbour porpoise habitat) and biodiversity during the 1970s-2000s, with perhaps the most serious period in the late 1980s-early 1990s due to a combination of overfishing, water pollution, eutrophication, demersal fish die-offs caused by hypoxia and the population explosion of harmful alien species. This will almost certainly have resulted in a decline in the abundance and quality of harbour porpoise prey.

(7) The species was considered extinct in the Mediterranean Sea until 1997, when a specimen stranded alive in the northern Aegean Sea; a few further strandings and sightings have occurred in that limited area subsequently.

A1d: EN. A reduction in population size of $\geq 70\%$ is inferred based on paragraphs (1) and (3) above, i.e. the directed takes and, to a lesser degree, the accident (considered 'actual exploitation' in the context of IUCN criteria). These causes were clearly reversible and understood and they have ceased. Despite the absence of abundance estimates for the initial part of the 30-year period, the suspected decline of $\geq 70\%$ is based on inferences from a crude extrapolation based on the annual removal levels in the Turkish fishery: reduction to $\geq 70\%$ implies that the population in 1976 must have been at least 233,000-302,000, whereas a reduction of $\geq 50\%$ (criterion for Vulnerable) would require a population size of at least 326,000-422,000. The latter seems unrealistic given the length and intensity of past exploitation.

A4c,d,e: EN. A reduction in population size of $> 50\%$ over the 30 year period is inferred based on above paragraphs except (1) and (3). During this period, although direct killing has ceased, the other known or suspected causes of a decline (bycatch, habitat degradation, prey depletion, epizootics and adverse climatic circumstances) have not ceased.

2. Black Sea short-beaked common dolphins

Name of Unit Assessed:

Short-beaked common dolphin: Black Sea subspecies (*Delphinus delphis ponticus*)

Taxonomy:

Family: Delphinidae Gray, 1821
 Genus: *Delphinus* Linnaeus, 1758
 Species: *Delphinus delphis* Linnaeus, 1758
 Subspecies: *Delphinus delphis ponticus* Barabasch-Nikiforov, 1935

Assessment Information:

EN A1d

Year Assessed: 2006

Assessor(s): Alexei Birkun, Jr.

Evaluator(s): IUCN/ACCOBAMS Workshop on the Red List Assessment of Cetaceans in the ACCOBAMS Area (Monaco, 5-7 March 2006)

Justification:

The Black Sea short-beaked common dolphin, *D. d. ponticus*, is assessed for listing as Endangered based on criteria A1d.

There is no estimate of overall population size. However, preliminary data acquired for some parts of the basin suggest that current population size is at least several 10,000s, and possibly 100,000 or more.

The past 60-year period (three generations) includes circumstances that are relevant to Criterion A, as follows:

(1) Very large directed takes occurred during the years 1946-1983 before the ban on small cetacean hunting was declared in Turkey in 1983. Within that 38-year period the total number of common dolphins killed was at least 840,000 but certainly much more because this value is based on incomplete data (see "Threats") which do not include catch statistics from Romania (whole period), Turkey (before 1976 and after 1981) and Bulgaria (before 1958);

(2) A mass stranding/mortality event caused by morbillivirus infection occurred in 1994. Although difficult to quantify, mortality of common dolphins is believed to have been at least in the 100s;

(3) A mass stranding/mortality event of unknown origin occurred in 1990. Stranding statistics suggest that the mortality was not less than some 100s;

(4) There has been ongoing degradation of the Black Sea environment (including common dolphin habitat) and biodiversity (including common dolphin prey) during the 1970s-2000s, with a peak of the devastation caused by overfishing and habitat worsening (including water pollution, its consequences, and a population explosion of a harmful invader) in the late 1980s-early 1990s. These processes, taken together, have led to severe declines in the abundance of common dolphin prey.

A reduction in population size of $\geq 70\%$ (Criterion A1d) is inferred supported by a simple simulation in which the population was assumed to increase at a constant 4% per year and in which documented direct takes (as indicated in paragraph (1) above) were removed, which showed that a decline of greater than 70% in the last three generations would be required to achieve a current population size of 150,000 animals.

Directed killing ceased in 1983 but degradation of habitats, prey depletion and epizootics continued and are inadequately understood.

3. Black Sea common bottlenose dolphins

Name of Unit Assessed:

Common bottlenose dolphin: Black Sea subspecies (*Tursiops truncatus ponticus*)

Taxonomy:

Family: Delphinidae Gray, 1821

Genus: *Tursiops* Gervais, 1855

Species: *Tursiops truncatus* (Montagu, 1821)

Subspecies: *Tursiops truncatus ponticus* Barabasch, 1940

Assessment Information:

EN A2c,d,e

Year Assessed: 2006

Assessor(s): Alexei Birkun, Jr.

Evaluator(s): IUCN/ACCOBAMS Workshop on the Red List Assessment of Cetaceans in the ACCOBAMS Area (Monaco, 5-7 March 2006)

Justification:

The Black Sea bottlenose dolphin, *T. t. ponticus*, is assessed for listing as Endangered based on criteria A2c,d,e.

There is no estimate of total population size but information from incomplete surveys suggests that the current population size is not less than several 1000s animals.

The past 60-year period (1946-2005; three generations) includes events, circumstances and trends that are relevant to Criterion A, as follows:

(1) Large directed takes occurred before the ban on small cetacean hunting was declared in Turkey in 1983. Within that 38-year period (1946-1983) the total number of bottlenose dolphins killed was at least 24-28,000 but certainly much more (probably by tens of thousands) because this figure is based on vastly incomplete and underestimated data (see "Threats") which do not include any catch statistics from Romania, nor from Turkey before 1976 and after 1981, and from Bulgaria before 1958. Intentional killing and harassment of unknown, probably low, magnitude has been indicated recently in Ukraine;

(2) Regionally dispersed incidental mortality in bottom-set gillnets is roughly estimated at some 100s per year. The scale of this mortality almost certainly increased in the 1990s-2000s owing to the rapid expansion of illegal, unreported and unregulated (IUU) fishing in the Black Sea region;

(3) Live-capture of bottlenose dolphins for their maintenance in captivity along with attendant mortality caused by imperfect capture operations is roughly estimated at 1,000-2,000 since the early 1960s. This practice continues in the Russian Federation, with 10-20 animals taken annually from a small area;

(4) A mass stranding/mortality event of unknown origin occurred in 1990. Although difficult to quantify, mortality of bottlenose dolphins is believed to have been at least in the 100s;

(5) There has been ongoing degradation of the Black Sea environment (including bottlenose dolphin habitat) and biodiversity (including bottlenose dolphin prey) during the 1970s-2000s, with a peak of devastation by overfishing and habitat deterioration in the late 1980s-early 1990s. These processes, taken together, have undoubtedly led to a decline in the abundance of bottlenose dolphin indigenous prey species.

A reduction in population size of $\geq 50\%$ is inferred supported by a simple simulation in which the population was assumed to increase at a constant 4% per year and in which realistic estimates of the direct and incidental takes (as indicated by paragraphs (1), (2) and (3) above) were removed, which showed that a decline of greater than 50% in the last three generations would be required to achieve a current population size of 15,000 animals.

Annex 5

1st Biannual Scientific Conference: Black Sea Ecosystem 2005 and Beyond

Round table on the Conservation of Black Sea Cetaceans Istanbul, 9 May 2006

Minutes of Meeting

The meeting was chaired by Giuseppe Notarbartolo di Sciara, Chair of the ACCOBAMS Scientific Committee.

Irakli Goradze kindly agreed to act as rapporteur.

Participants:

- Alexei Birkun, Jr., Black Sea Council for Marine Mammals, Simferopol, Ukraine.
- Alexander Boltachev, Institute of Biology of Southern Seas. Sevastopol, Ukraine
- A. Cemal Dinçer, Black Sea Technical University, Faculty of Marine Sciences, Trabzon, Turkey
- Irakli Goradze, Department of Environment and Natural Resources of Ajara A.R. Georgia
- Ahmet Kidey, ISPA, Turkey
- Katerina Kosova, Taurida National University, Simferopol, Ukraine
- Sergey Krivokhizhin, Brema Laboratory, Ukraine
- Valodea Maximov, National Institute for Marine Research and Development. Constanta, Romania
- Simeon Nicolaev, National Institute for Marine Research and Development. Constanta, Romania
- Giuseppe Notarbartolo di Sciara, ACCOBAMS Scientific Committee
- Bayram Ozturk, Istanbul University, Faculty of Fisheries, Istanbul, Turkey
- Marina Panayotova, Institute of Oceanology, Varna, Bulgaria
- Gheorghe Radu, National Institute for Marine Research and Development. Constanta, Romania
- Violin Stoyanov Raykov, Institute of Fisheries and Aquaculture. Varna, Bulgaria
- Ahmet Sahin, Black Sea Technical University, Faculty of Marine Sciences, Trabzon, Turkey
- Sembnem Sahin, Black Sea Technical University, Trabzon, Turkey
- Vladislav Shlyakhov, Southern Institute of Fishery and Oceanography (YUGNIRO), Kerch, Ukraine
- Ionel Staicu, National Institute for Marine Research and Development, Constanta, Romania
- Arda Tonay, TUDAV, Istanbul University, Faculty of Fisheries, Istanbul, Turkey

Opening and introductory remarks

The agenda of the meeting was adopted as proposed originally.

The chair reminded the participants that the main purpose of the meeting is to set priorities (concrete actions) among the actions proposed in the draft Conservation Plan for Black Sea

Cetaceans prepared by Birkun and co-authors⁴. An introductory note about ACCOBAMS Agreement was made, with an indication about the current status of membership of the Black Sea countries. It was noted with regret that Russia and Turkey had not yet ratified the Agreement. Examples of the few other non-member countries from the Mediterranean region were also presented.

In the Black Sea the situation was significantly improved since the harvesting of cetaceans was prohibited officially. However, the status of conservation of all three Black Sea subspecies is still not favourable, and was proposed as **endangered** at a recent joint IUCN/ACCOBAMS meeting (Monaco, 5-7 March 2006).

Presentation by Alexei Birkun, Jr.

The floor was given to Birkun, who presented the 2nd draft of a document titled "*Conservation Plan for Black Sea Cetaceans: General approach, goals, objectives and aims of the actions proposed*".

After providing background info about the plan, the six objectives were presented:

1. Consolidation of the international and national legal system.
2. Assessment of human/cetacean interactions.
3. Habitat protection.
4. Research and Monitoring.
5. Capacity building, information collection and dissemination.
6. Response to emergency situations.

Eighteen actions are proposed to meet these objectives, with 57 sub-actions. The proposed time span for implementation is 2006-2010. The necessity of nominating a coordinator of the action plan implementation was emphasized.

In the course of the presentation the chair proposed that the overview of each objective and prioritization of the actions within each objective would make it more efficient for the follow-up discussions.

Birkun described the various actions under each category (= objective) and proposed a ranking, as detailed in the document presented. The following actions were proposed as primary: 1a (Broadening the ACCOBAMS scope: promote accession of Russian Federation and Turkey); 2a (Proper conservation status of cetacean populations: assure listing of species in IUCN Red List); 3a (Cetacean conservation approach in fishery regulations: adopt Legally Binding Document for Fisheries and Conservation of Living Resources); 4a (Improvement and harmonization of national legislation); 6 (Strategy for reducing bycatches); 8 (Elimination of live captures); 12a (Special marine protected areas dedicated to cetacean conservation); 13 (Basic cetacean surveys); 18 (Measures for responding to emergency situations).

Participants were then invited to propose additions to the high priority activities.

⁴ Birkun A., Jr., Cañadas A., Donovan G., Holcer D., Lauriano G., Notarbartolo di Sciara G., Panigada S., Radu G., and van Klaveren M.-C. 2006. Conservation Plan for Black Sea Cetaceans. ACCOBAMS, Agreement on the Conservation of Cetaceans of the Black Sea, Mediterranean Sea and Contiguous Atlantic Area.

Nicolaev stated that Romania has a national plan for the conservation of dolphins. The Black Sea Conservation Plan is not an international but regional plan. He agreed with the proposal about the responsibilities of implementation of the plan in the Black Sea - to clearly define the responsible people. Better relations are needed between actors and ACCOBAMS.

Round Table Discussion

The chair thanked Birkun for his hard and important work, and proposed to continue the discussion of the plan, by examining each action and soliciting comments from participants from each country.

Action 1 (Broadening the ACCOBAMS scope). Russian representatives were missing from the meeting. Concerning Turkey, the following comments were made by Ozturk on behalf of TUDAV (NGO): Turkish fishermen cooperatives have a strong lobby in Parliament and Government. He thought that Turkey is reluctant to join ACCOBAMS for this reason. In his perspective Turkey will not join ACCOBAMS at least for the next few years. The fishermen are traditionally doing turbot fishing (2 months a year). Stocks are depleted. Turbot fishing is main problem for cetacean by-catch and therefore joining of ACCOBAMS may result in banning of turbot fishing. However, cooperation with scientists is possible. One way is to lobby the government through the scientific community, and another is to elaborate fisheries regulations.

Action 3 (Cetacean conservation approach in fishery regulations)

The current status of Fisheries convention was queried. Nicolaev explained that the Advisory Group on Fisheries and Other Living Resources to the Black Sea Commission has elaborated a technical document. The overall recommendation was to stop the process as two countries are soon entering EU and it makes sense to discuss this issue after the joining of Romania and Bulgaria to the EU.

The general conclusion was to strengthen the scientific cooperation and support the process given that the scientific community is not necessarily dependent on governmental positions. Such cooperation is already underway.

Goradze commented that the recent changes in Georgian legislation ensure better protection and conservation of cetaceans if duly followed and enforced. All three species are listed in the National Red List and new fishing rules provide good opportunity for prevention and avoidance of cetaceans by-catch.

Action 6 (Strategy for reducing cetacean bycatches)

The need was recognized to establish cooperation among all Black Sea countries to organise a regional database on by-catch. Ukrainian participants have commented that it is feasible with little financial effort. Romanian by-catch statistics are more difficult to provide than stranding statistics. The quality of information can be a problem. A regional scheme should be based on national structures. Cooperation to exchange the views is necessary. Volunteers were invited to make plan on the creation of a monitoring scheme and prepare a proposal.

Recommendations: (a) Proceed ASAP to create regional (based on national) database that will include by-catch information; (b) need to establish a link between the regional Black Sea effort and the wider ACCOBAMS effort called BYCBAMS.

Action 8 (Elimination of live capture of Black Sea cetaceans)

Live captures only occur in Russia. Romania said that dolphinariums need live dolphins but ministry does not allow captures. Some countries try to obtain dolphins from Russia, but the latter refuses. Probably the Black Sea Commission could act to resolve this problem, as the exploited bottlenose dolphin community in the Russian Kerch Strait is small and the live capture is obviously unsustainable.

Action 10 (Management of threats from oil & gas producing industry)

The impact of sound generated by oil & gas exploration was discussed. It was advised to take special focus on the impact of oil-gas exploration activities on the cetacean populations. Information about the influence of military sonars on the cetaceans is not available and was not considered as important impacting factor in the Black Sea.

Actions 11-12 (Marine protected areas)

The chair stated that the establishment of protected areas must be considered when they may clearly solve specific conservation problems deriving to cetacean populations from specific human activities. The following procedure was proposed: (a) identify the areas that contain cetacean critical habitat; (b) assess the presence of specific threats to those habitats, and whether the establishment of an MPA could address such threats effectively; (c) designate the area and include specific mitigation activities in management plan. It was agreed that in the imminence of performing a basin-wide cetacean survey (see Action 13, below), it would be sensible to wait for the results of the survey before a comprehensive set of proposals for MPAs could be made.

In the mean time, it was agreed that criteria should be elaborated for the establishment of protected areas for cetaceans.

Goradze presented a comment/example on harbour porpoises. Often the solution lays in following and /or enforcing existing regulations. In some cases problems can be solved through the establishment of certain rules or restrictions of human activities in the areas where no protected status can be established.

Summary: Results of survey will recommend the possibilities and feasibility of establishment of MPAs in different countries. It seems reasonable to develop regional network of existing PAs eligible for cetacean monitoring and conservation.

Action 13 (Basic cetacean surveys)

There was no doubt among participants that research and monitoring activities that will provide essential information about the numbers and distribution of cetaceans in the Black Sea are of highest priority. Such activities will also provide a good opportunity for non member countries to be involved in regional processes. Everybody agreed on the ranking of this action as high priority.

Action 14 (Photo-identification programmes)

Participants agreed that this was of secondary priority although this would not necessarily mean that it be postponed. If the means and good will are available, photo-id programmes are a good source of relevant information on cetacean ecology and behaviour.

Action 15 (Regional stranding network)

It was proposed by the meeting to give high priority to this action and to link it to by-catch. It was also recommended that the network should have a regional nature. The issue of tissue banks was also linked to strandings because these help to a better understanding of the causes

of cetacean mortality. The recommendation was made to draft a proposal similar to that on regional by-catches.

Actions 16-17 (Capacity building and access to information)

This effort is ongoing and considered a very important issue, as many problems can be avoided if proper capacity building and awareness rising strategy and activities conducted.

Action 18 (Response to emergency situations)

It is advisable to have a contingency plan ready in case of epizootic outbreaks. The plan should define the measures for responding the such emergency situation. Protocols for other specific emergency situations should be elaborated as well. The region's countries should follow the general lines of ACCOBAMS and then develop emergency plans tailored to the Black Sea specificities.

Recommendations

In conclusion the meeting agreed that the Plan proposed by Birkun and co-authors was a very good plan, and that all the actions proposed should be pursued. Many such actions, which can be undertaken at the level of single institutions, organizations and even single individuals, should be implemented as soon as possible whenever the appropriate resources are located and conditions exist.

However, other actions requiring coordinated effort among nations and full institutional support (i.e., the ACCOBAMS Secretariat, the Black Sea Commission and the concerned individual Governments) should be addressed as a matter of urgency, and completed within the next five years.

These actions include:

- **Completion of a basin-wide survey (possibly before the end of 2007);**
- **Establishment of a regional bycatch network, in tight connection with the;**
- **Establishment of a regional stranding network;**
- **Establishment of a marine protected areas network.**

Annex 6

Recommendation of the 4th Meeting of the ACCOBAMS Scientific Committee (Monaco, 5-8 November 2006)

RECOMMENDATION ON THE CONSERVATION PLAN FOR BLACK SEA CETACEANS

The preparation of a Conservation Plan for Black Sea Cetaceans was one of the priorities assigned at the 1st Meeting of the Parties (Monaco, 2002; Resolution 1.9, Action 6). The 1st draft of the Plan was considered at the 3rd Meeting of the Scientific Committee (Cairo, 2005) while a further draft was discussed and supported in general and in most details by participants of the Round Table on the Conservation of Black Sea Cetaceans (Istanbul, May 2006).

At its 4th meeting in Monaco, the Scientific Committee adopts and commends the 3rd, substantially improved, version of the Plan, prepared under the auspices of the ACCOBAMS Permanent Secretariat and the Permanent Secretariat of the Black Sea Commission.

Consequently, the Scientific Committee **recommends** that the ACCOBAMS Parties and the Parties to the Bucharest Convention (through the Black Sea Commission) endorse its views of the Plan and :

- (1) agree that it should form an integral component of discussions of the Black Sea regional and national strategies, plans, programmes and projects concerned with the protection, exploration and management of the Black Sea environment, biodiversity, living resources, marine mammals, and cetaceans, in particular; and
- (2) facilitate the implementation of all actions proposed in the Plan such that they are completed as soon as possible and preferably within the next five years;

In particular, it **urges** that those actions which require coordinated effort and full institutional support from the ACCOBAMS Secretariat, the Black Sea Commission and the concerned individual Governments are addressed as a matter of urgency. These are:

- (1) completion of the basin-wide survey;
- (2) establishment of a regional bycatch network integrated with a regional stranding network; and
- (3) continue to work towards the establishment of a marine protected areas network.