FINS

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Agreement on the Conservation of Cetaceans of the Black Sea, Mediterranean Sea and Contiguous Atlantic Area - Vol. 4, N. 1, 2008

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**FINS**

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on the move to 2010

## *Why are you smiling, common dolphin?*

There is not much to rejoice for Mediterranean common dolphins, so why do they look like smiling? In fact, dolphins never smile: it's just the way their heads are shaped, that freezes them in what looks to us a merry appearance even when they are in excruciating pain; even when they are dead. Mediterranean common dolphins have very solid reasons for not being in a celebrative mood, CMS' "Year of the Dolphin" notwithstanding. Acknowledged in 2003 as "Endangered" in IUCN's Red List, their decline has continued since, unrestrained. The common dolphins disappearance from the Ionian Sea – in particular from their former stronghold in the coastal waters of western Greece – is now nearly completed.

*Short-beaked common dolphins swimming fast alongside the research vessel Toftevaag in the northern Alboran Sea. Around 19,000 animals of this species inhabit this area, often forming groups of several hundreds of individuals. No negative trends have been observed there during the last 15 years, giving hope for their conservation. However important threats such as by-catch and prey depletion due to overfishing exist (photograph taken on 26 September 2006 by Ana Cañadas / Alnitak).*

Isolated pockets of them remain in the Aegean Sea, in the Levant basin, along the North African coasts, in the Strait of Sicily and the Tyrrhenian Sea, but no information is being collected on population sizes, conditions and trends. In the Alborán Sea, the last major remaining reservoir for the species in the Mediterranean, illegal driftnets are still in full swing, and although updated bycatch data are not forthcoming from Morocco, there is no reason to suspect that the extraordinary mortality levels reported a few years ago have now abated.

In November 2004 the Scientific Committee of ACCOBAMS submitted to the Parties a detailed conservation plan for Mediterranean common dolphins (available on the Agreement's website), however not a single action recommended in that document has been implemented to this date. In October 2007 the Parties to ACCOBAMS adopted a Resolution (3.17) by which, rather than identify clear management and legal measures to be implemented immediately, they choose to simply urge themselves to act. On a different front, Mediterranean common dolphins were inexplicably ignored in the EU "Habitats" Directive, which instead lists in its Annex II the other two cetacean species regularly found in European coastal waters – harbour porpoises and common bottlenose dolphins – which certainly do not deserve greater conservation attention.

Mediterranean common dolphin conservation is now out of the hands of the Scientific Committee, because the decline of the common dolphins in the region is no longer a scientific issue. Asking for more data, more surveys, more action plans won't do much good anymore. The ailment is well understood, and the medicines are all there. All we need to do is administer them, or let the Mediterranean common

## *Table of contents*

dolphin die.

2007 has marked the beginning of a new era in the history of marine conservation: the era of cetacean extinctions. While there have been no extinctions of cetacean species in historical times, last year the baiji, a river dolphin endemic to the lower tract of the Yangtze River, was declared "Possibly Extinct", its habitat having become degraded by human activities to the point of being incompatible with the existence of a large vertebrate. The next species in line for extinction is the vaquita, a small porpoise confined to the upper portion of the Gulf of California, in Mexico. The vaquita is severely impacted by illegal fishing, and by now has been reduced in the low hundreds. Mediterranean common dolphins may soon follow suit. Although common dolphins in the Mediterranean are a geographic population rather than a species in its own right, their disappearance will bring about an irreplaceable genetic loss, and signficantly impoverish Mediterranean biodiversity.

"So what?" may ask some; cetaceans are not commodities. For what we know, eco-tourists in the Mediterranean may one day enjoy watching dolphin-shaped robots riding their vessel's bow wave. Others will disagree, and these include the representatives of those nations that have decided to join ACCOBAMS.

The main difference between the plight of the baiji and the vaquita on the one hand, and that of the common dolphin on the other, is that, unlike in China and Mexico, if common dolphins will be extirpated from the Mediterranean, we are afforded the option of pointing the finger at each other. However, the names of the nations that in 2003 were "range states" of Mediterranean common dolphins are all there, on www.redlist.org, for everybody to read. After the last common dolphin will have disappeared from the Mediterranean, our children will need to look no further to understand where responsibilities rest; and knowing that we all are in good company will be of little solace to the sadness for the incurred loss.

# *The endangered Mediterranean common dolphins: is there anyone interested in their conservation?*

*by Giovanni Bearzi*

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Once one of the most common cetacean species in the Mediterranean, short-beaked common dolphins Delphinus delphis have declined throughout the region during the last 30-40 years.

Conservation problems for the species have been recognised since the 1970s. The UNEP Mediterranean Action Plan (Barcelona, 1975) recommended strong conservation measures to protect the species but without specifying what these should be. Determining the conservation status of Mediterranean common dolphins was cited as a priority in past cetacean action plans of the IUCN Species Survival Commission.

The 2000-2010 IUCN Action Plan for the world's cetaceans noted that common dolphins had declined dramatically in the central and eastern Mediterranean and stressed that conservation action was urgently needed to prevent extirpation in this portion of the species' range.

In 2003 the Mediterranean population of common dolphins was classified as Endangered in the IUCN Red List of Threatened Animals (www.iucnredlist.org).

In 2004, ACCOBAMS presented a comprehensive 90-page Conservation Plan for Mediterranean common dolphins, that was "welcomed" at the 2nd Meeting of the Parties to the Agreement.

In 2005, the Mediterranean population of common dolphins was included in Appendix I of the Convention on the Conservation of Migratory Species (Bonn Convention - CMS). The population was also already included in Appendix II but the listing - formerly limited to a "western Mediterranean population" - was extended to the whole Mediterranean population of common dolphins.

Despite all the expressions of concern, recommendations, strategic planning and scientific background produced, no relevant action has been taken so far that may result in common dolphin recovery in the region. On the contrary, the threats which are thought to be causing decline (primarily bycatch in fishing gear and prey depletion caused by overfishing) are continuing to jeopardise the survival of relict groups and the Mediterranean population at large.

The dramatic situation of Mediterranean common dolphins, their continued decline and the fact that since the 2nd Meeting of the Parties to ACCOBAMS (November 2004) no action was taken to counter this trend, prompted the ACCOBAMS Scientific Committee to adopt a different strategy.

In light of the lack of action by the Parties, at its last meeting in November 2006 the Scientific Committee of ACCOBAMS reluctantly recognized that the Conservation Plan, while including the necessary protection measures, was somewhat ambitious and probably contained elements that did not match the political agenda. Therefore, it was recommended to provide – as a minimum - immediate financial and institutional support to small-scale projects for common dolphin conservation.

A set of priority actions that should be taken immediately to prevent further decline and contribute to common dolphin conservation in the region were defined in November 2006 to overcome inaction and single out measures that can be taken by some of the Parties to ACCOBAMS, consistently with their commitment to preserve cetaceans in the Agreement range.

High-priority actions were centred around the following three elements: 1) stop driftnet fishing, known to cause high and unsustainable mortality of common dolphins and other endangered species, 2) adopt fishery management measures intended to reduce overfishing, particularly of epipelagics, and manage the current fishing effort so that marine biodiversity can be preserved, and 3) create and manage a network of Marine Protected Areas in common dolphin critical habitat, based on the extensive information that has been produced so far.

The rationale behind these priority actions

**For more information on Mediterranean common dolphins and the threats affecting them:**

Bearzi G., Notarbartolo di Sciara G., Reeves R.R., Canadas A., Frantzis A. 2004. Conservation Plan for short-beaked common dolphins in the Mediterranean Sea. ACCOBAMS, Agreement on the Conservation of Cetaceans of the Black Sea, Mediterranean Sea and Contiguous Atlantic Area. 90 pp.

Bearzi G., Politi E., Agazzi S., Azzellino A. 2006. Prey depletion caused by overfishing and the decline of marine megafauna in eastern Ionian Sea coastal waters (central Mediterranean). Biological Conservation 127(4):373-382.

Bearzi G., Reeves R.R., Notarbartolo di Sciara G., Politi E., Canadas A., Frantzis A., Mussi B. 2003. Ecology, status and conservation of short-beaked common dolphins (*Delphinus delphis*) in the Mediterranean Sea. Mammal Review 33(3):224-252.

Cañadas A. 2006. Towards conservation of dolphins in the Alborán Sea. Ph.D. dissertation, Universidad Autónoma de Madrid. 295 pp.

Tudela S., Kai Kai A., Maynou F., El Andalosi M., Guglielmi P. 2004. Driftnet fishing and biodiversity conservation: the case study of the large-scale Moroccan driftnet fleet operating in the Alborán Sea (SW Mediterranean). Biological Conservation 121:65-78.

is contained in the common dolphin Conservation Plan and is worth being restated here:

> *The fate of Mediterranean common dolphins depends on range States having the political will to take precautionary action to mitigate known anthropogenic threats. Management measures that could benefit common dolphins, involving sustainable fishing, curbing marine pollution and protecting biodiversity, are already embedded in a large number of existing legislation and treaties. If all such measures, invoked by existing international, regional and national legal instruments for the wise management of human activities in the Mediterranean, were to be fully implemented and enforced, and the range States were doing everything to which they were committed based on multiple obligations under agreements that are already in force, with regard to fishing (e.g. modern fisheries management based on stock assessments, responsible and sustainable fishing), pollution, and other forms of habitat degradation, many of the problems preventing the common dolphins from having a favourable conservation status would be addressed, and the recovery of the population would become possible.*
>
> *The complete ban of driftnets (whatever they might be called: spadare, ferrettare, alalungare, thonaille, melveras, etc. and whatever expedient might be devised to get around bans) from the Mediterranean, which was vigorously advocated by a number of international and regional institutions such as the United Nations, the European Union, ICCAT and the General Fisheries Council for the Mediterranean, is a conspicuous example of the concept expressed above. Such political will has been clearly expressed for decades, yet driftnets still plague the Mediterranean and threaten its biodiversity, including common dolphins.*

The ACCOBAMS Conservation Plan strongly emphasized that "simply fulfilling the existing obligations represents the single most effective conservation action to stop the decline of common dolphins in the Mediterranean", and advocated that such obligations be respected and implemented without any further delay.

At present, however, not only the Conservation Plan was ignored, but even the elementary subsequent calls by the Scientific Committee have failed to produce meaningful action. While enjoying full theoretical protection - but only 'on paper' - today's common dolphins do not have better chances of recovering than they had before ACCOBAMS entered into force, and there is still nothing that can stop their decline in the region.

# *The decline of common dolphins around the island of Kalamos, Greece*

*by Giovanni Bearzi*

Seeing common dolphins bowriding and surrounding our research boat from all sides was a frequent event around the island of Kalamos. When I first moved to study dolphins in western Greece, back in 1996, these magnificent marine mammals were so abundant that one could frequently spot them from the coast, or even from the patio of our field station.

Tuna and swordfish were equally abundant, and from a distance it was sometimes difficult to tell a school of foraging tuna from a group of foraging common dolphins, as both animals performed a similar behaviour when catching anchovies and sardines near the surface. The sea was full of life, and navigating those waters was an endless source of wonder and excitement for pleasure boaters and researchers alike. The situation was so special that the area, which also contains bottlenose dolphin habitat, was declared a EC Site of Community Importance. This designation was expected to result in a commitment to protect the local resources and prevent habitat degradation.

However, only a few years later common dolphins around Kalamos had become a rare sight. Tuna and swordfish have also vanished. What caused such a quick decline of high-order marine predators in this portion of the eastern Ionian Sea? Was it pollution? Collisions with speedboats? Intentional killings? Pathogens?

More than 15 years of research by the Tethys Research Institute suggest that the main cause of common dolphin decline is overfishing of their prey. Purse seine nets, in particular, seem to be responsible for the local overexploitation and depletion of epipelagic stocks of sardines, anchovies and other fish that make the daily diet of common dolphins, tuna and swordfish. Prey depletion has been so intensive and continuous that large marine predators such as common dolphins can no longer find easy prey. Local artisanal fishermen strongly agree with these views, and support the findings of Tethys researchers by repeatedly stating that purse seining is the most serious problem in the area.

A short-beaked common dolphin photographed near the island of Kalamos (photo Stefano Agazzi / Tethys Research Institute)

To face scarcity of food, common dolphins started dispersing and roving. Their formerly large groups broke up into smaller units, which became increasingly sparse. Between 1995-2007, common dolphin declined from about 150 to only 15 animals, possibly as a result of reduced reproductive success and increased mortality in an area that - as far as prey availability was concerned - had turned from paradise to hell.

Problems caused by prey scarcity summed up to entanglement and mortality in fishing gear, as documented by dead dolphins found stranded or adrift and showing amputations. Today, only a few common dolphins can still be found in the area, and this brings a feeling of sadness to those who have seen them thriving until only a few years ago.

Despite all the expressions of concern, recommendations, strategic planning and scientific background produced, no relevant action has been taken that may result in common dolphin recovery.

A documentary video has been recently produced by earthOCEAN, featuring the decline of common dolphins around Kalamos and the reasons thereof.

The video (about 17 min) can be watched online at:

http://www.earthocean.tv/series/whalesmed_part4.html

# *Gazing into a crystal ball at the largest comprehensive cetacean conservation agreement in the world: An important sister agreement to ACCOBAMS is fast developing in the Pacific Islands Region*

*by Margi Prideaux*

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On the 15th September 2006 Samoa, Cook Islands, Federated States of Micronesia, Fiji, Niue, Vanuatu, New Zealand, Australia and France on behalf of their Pacific Territories French Polynesia, New Caledonia and Wallis and Futuna signed an important new regional agreement to protect and conserve cetaceans in the Pacific Islands Region – the Memorandum of Understanding for the Conservation of Cetaceans and their Habitats in the Pacific Islands Region (Pacific Cetaceans MoU). Less than one year later these initial counties have been joined by Papua New Guinea and the Solomon Islands, bringing the total number of signatories to 11.

The Pacific Cetaceans MoU, negotiated under the Convention on the Conservation of Migratory Species of Wild Animals (CMS), covers a vast region spanning between the Tropic of Cancer and 60 degrees south and between the Pitcairn Islands in the east and Australia and Papua New Guinea in the west. It covers all cetaceans within the region and addresses all threats that they face, making it the largest (by area) comprehensive cetacean conservation agreement in the world.

To be fair, it is still very early days and a penetrating analysis of the conservation impact of the Pacific Cetaceans MoU is hard to do. This article will attempt to look into a crystal ball and ask if the Pacific Cetaceans MoU will make a difference to cetaceans in the Pacific Islands Region.

The preamble of the agreement sets the tone: "Concerned that the conservation status of cetacean populations that frequent the waters of the Pacific Islands Region, particularly those that have been severely depleted, can be affected by factors such as directed take and by-catch, degradation and disturbance of their habitats, chemical and noise pollution, decline in food availability, use and abandonment of fishing gear, ship-strikes, climate change, and ozone depletion."

The signatories have agreed to address threat reduction, habitat protection including migratory corridors, the development of research and monitoring programmes and the development of responses to stranding and entanglement events; they will establish education and public awareness programmes and ensure information exchange; they will seek to build regional capacity and develop and manage sustainable and responsible cetacean-based tourism; and finally they will enhance international cooperation.

The Pacific Cetaceans MoU draws from the example set by its sister Agreement on the Conservation of Cetaceans of the Black Sea, Mediterranean Sea and Contiguous Atlantic Area (ACCOBAMS) in conserving all cetacean species known to occur within the region. At present count it is likely that this agreement applies to some 27 species.

The action plan, which is also shared with the Pacific Regional Environment Programme (SPREP), and has therefore been endorsed by all 24 States and Territories within the Pacific Islands Region, is comprehensive and deep, addressing each of the areas identified by the Pacific Cetaceans MoU and setting out a work programme over five years to achieve measurable and tangible targets

Another notable element of the Pacific Cetaceans MoU is the agreements relationship with civil society. In a progressive and important step, the Pacific Cetaceans MoU has invited non-Governmental organisations that have an existing track-record of working collaboratively on the agreement to sign as 'Collaborating Organisations' and contribute actively in the implementation of the action plan. At this stage, signatory non-Governmental organisations include the Whale and Dolphin Conservation Society (WDCS), the International Fund for Animal Welfare (IFAW) and the World Wide Fund for Nature (WWF). It is worth noting that the SPREP Secretariat has remained

deeply involved throughout the entire negotiation process, and plays an important ongoing role in the implementation of the Pacific Cetaceans MoU as an inter-Governmental Collaborating Organisation.

Negotiating any international political agreement is challenging under the most harmonious circumstances, but the development of agreements concerning cetaceans has the additional burden of often poorly developed local political and scientific awareness about regional conservation needs and priorities, with a correspondingly well developed political awareness about global whaling and the divisive debates within the International Whaling Commission (IWC). Government officials are often appropriately concerned about the negative influence the whaling debate will have on their deliberations. This was certainly true during the negotiation process within the Pacific Islands Region. However, the region has drawn a clear 'line in the sand' and decided not to allow such divisive debates to mar their progress.

While all the early indications point to the region's willingness to engage in comprehensive conservation activities, what remains to be seen is if the region's capacity can stretch sufficiently to really see tangible progress made. Even without a crystal ball it is already clear that significant responsibility for moving things forward will necessarily fall to civil society in a support role to the signatories of the Pacific Cetaceans MoU.

Giuseppe Notarbartolo Di Sciara raised a pertinent issue in the previous issues of FINS when he asked the question if cetaceans in the ACCOBAMS region had noticed a difference – had ACCOBAMS achieved what it was mandated to do? Such challenges should be applied across all areas of cetacean conservation and it is worth querying if the animals that are the focus of this effort in the Pacific Islands Region will be better off for the political work that has been achieved to date. A crystal ball would of course be useful, but in the absence of such foresight we can only look to early indications.

The agreement is not driven by legally binding provisions, however, it is underpinned by a comprehensive action plan that has been developed with deep and wide consultation, and is very much a product of Government wishes in the region. It is hoped that this may provide the impetus for greater commitment to conservation work, rather than trying to force progress through resolutions and recommendations of Meetings of the Signatories.

Noting that the majority of States and Territories of this region are developing countries their willingness demonstrate global leadership in this important area of cetacean conservation and to stand with a solid voice against threats to cetaceans beyond their territory is also worthy of note. The major economic contributors to the region – fisheries and tourism – import significant pressures from elsewhere in the world. Minimising the impact to migrating populations of cetaceans from Southern Ocean whaling is also a significant concern. Such pressures will need to be managed by small and often under-resourced populations of people. Clearly the challenges are immense, but that the region is undaunted by them and that it has been prepared to conclude this agreement is an important positive indication.

Will the animals of the Pacific Cetaceans MoU region notice the difference 10 years from today? Only time will tell, but the early indications are hopeful, and the leadership being show by this region is certainly worthy of note.

# Forum

*Opinions and letters are welcome and should be addressed to the Editor at giuseppe@disciara.net*

## Dolphin captures in the Agreement area

Article II of the ACCOBAMS Agreement text requires Parties to "prohibit and take all necessary measures to eliminate, where this is not already done, any deliberate taking of cetaceans." Concerns about the capture of cetaceans from the wild are mirrored by the IUCN's Cetacean Specialist Group, which notes in its current Conservation Action Plan for the World's Cetaceans that "Removal of live cetaceans from the wild, for captive display and/or research, is equivalent to incidental or deliberate killing, as the animals brought into captivity (or killed during capture operations) are no longer available to help maintain their populations. When unmanaged and undertaken without a rigorous program of research and monitoring, live-capture can become a serious threat to local cetacean populations." Furthermore, dolphin captures have been shown to result in a six-fold increase in mortality risk during and immediately after capture. And yet, in spite of the knowledge about their impact on cetacean populations and individuals, such captures continue in places around the world. This includes the ACCOBAMS Agreement area, where the Government of Turkey has recently approved the capture of 30 bottlenose dolphins in Turkish waters of the Mediterranean, Black, Aegean and Marmara Seas for Turkey's growing number of facilities offering dolphin assisted therapy to members of the public.

The ACCOBAMS Scientific Committee has raised concerns about dolphin assisted therapy in at least two of its meetings, noting the "increasing interest in the Agreement area… to the extent that such operations are likely to cause increasing conservation problems to wild cetacean populations through illegal takes and reintroductions". Facilities displaying captive cetaceans in the Agreement area have recently included sea pens in the Mediterranean holding Arctic belugas, including in Turkey. This must be considered as highly inappropriate for both welfare and conservation reasons. In 2005, a beluga escaped from a sea pen facility in Budva, Montenegro during a storm and was not recovered. Its fate is unknown.

Turkey is a Party to the Bern Convention, which prohibits "all forms of deliberate capture and keeping" of bottlenose dolphins, a species listed on its appendix of strictly protected species. Turkey is not a Party to ACCOBAMS and is therefore not bound by the Agreement text, but Parties should be very concerned about the impact on the bottlenose dolphins in the Agreement area as a result of captures there.

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## The name of the sperm whale

In the scientific literature the sperm whale is sometimes called *Physeter macrocephalus*, sometimes *Physeter catodon*. Which is the correct name? Or are there two species?

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*It is commonly accepted that there is only one extant species of sperm whale in the world. Unfortunately, considerable confusion surrounds the scientific name of the species, as correctly noted by our reader Gul Moran. The problem originates from the unfortunate decision by Carl von Linné of having listed not one but four species in the genus* Physeter *in his "Systema Naturae":* P. catodon, P. macrocephalus, P. microps *and* P. tursio *(1758, 10th edition, pages 76-77). Of these, luckily the last two soon faded into oblivion, clearing the scene for the other two to compete, with alternating fortunes, for denominating the sperm whale. This competition, unfortunately, is still ongoing 2.5 centuries later. Clearly, there is no doubt in anyone's mind that both names refer to the same critter, so the logic would dictate that cetacean zoologists should not lend themselves to*

International Commission on Zoological Nomenclature: http://www.iczn.org/

Schevill W.E. 1986. The International Code of Zoological Nomenclature and a paradigm: the name *Physeter catodon* Linnaeus 1758. Marine Mammal Science 2(2):153-157.

*be unduly distracted from more serious business by their obsession for bibliographic archaeology, as wittingly argued by the late Bill Schevill back in 1986. However, the zoologists' failure of agreeing on the name of the planet's largest predator since the dinosaurs have disappeared is a visible embarrassment, and justifies doubts on the ability of the category to be authoritative on more complex taxonomic issues. True, arguments in favour and against either name have appeared often on zoological journals, and Schevill's article mentioned above is one of the many. Some have looked for clues in the words that von Linné used to characterise* catodon *or* macrocephalus*, which however can be made to point one way or the other (indeed, the sperm whale does have the teeth in the lower jaw, but, indeed, it also has a large head); others have resorted to provisions from the International Code of Zoological Nomenclature, such as the "principle of first reviser", or considerations of "line priority". Admittedly, argumentations from both sides are scholarly and equally compelling, so it is hard to imagine how the matter might be put to rest on such bases. A decision from the International Commission on Zoological Nomenclature would indeed settle the discussion once and for all, and one wonders what is holding back cetacean taxonomists from submitting an application to this effect. Until that happens, to support nomenclatural stability, the use of the name that is currently most frequently used, i.e.* P. macrocephalus*, should be strongly encouraged. On this point, at least, there is no controversy. A quick search through the article titles in the 23 volumes of "Marine Mammal Science", just to get a sense of the situation, provided 95 hits for* macrocephalus *and 28 for* catodon*. A wider test over the entire Google database yielded twice as many "*Physeter macrocephalus*" as there were "*Physeter catodon*". In conclusion, FINS' long answer to a very short – but valid – question is: there is only one species of sperm whale, and it should be called* Physeter macrocephalus*.*

**Cuvier's beaked whale strandings in the Mediterranean – what have we learned?**

The ACCOBAMs area has been important in the study of 'military assisted' beaked whale strandings. Indeed, it was a cetacean scientist from the Mediterranean, Alexandros Frantzis, who coined the phrase 'atypical', now associated worldwide with stranding events linked with naval activities. Almería recently witnessed an 'atypical' mass stranding event. Four healthy Cuvier's beaked whales, *Ziphius cavirostris*, had been feeding and were in good body condition before ending up scattered along the beaches of the beautiful coastline of Andalucia in southern Spain during a NATO exercise in the Cartagena exercise Area in January 2006 (see FINS 2(2):17-18).

What have we learned from this, the latest in a succession of similar events to occur throughout Europe and the world? Contrary to the 2004 Resolution on the environmental effects of high-intensity active naval sonar from the European Parliament, we are not aware of any attempts to undertake a full and transparent investigation of the events surrounding, and leading up to, the Almería stranding. Such information is critical for us to learn from this event, and to be able to better inform future procedures during similar exercises.

Numerous NATO and other naval exercises take place within the Mediterranean, and globally, each year. How confident can we be that the incident in Almería will not be repeated? Not confident at all it would seem. Indeed, we are aware of 'atypical' mass strandings of Cuvier's beaked whales in both Sicily in April 2006 and in Algeria in March 2007, with little associated information. Whilst ACCOBAMs is implementing Noise Guidelines for the protection of cetaceans in the region, these can only be successful if utilised to determine appropriate precautionary management and mitigation measures. This begins with a full and transparent investigation of events surrounding the Almería stranding, and all 'atypical' mass strandings, and such an investigation is now overdue.

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*The U.S. Navy has recently acknowledged that a NATO Response Force was conducting active sonar training within 50 nautical miles of the stranding site, on the days of the Almeria event.*

# News from the Secretariat

## *Third Meeting of the Contracting Parties, Dubrovnik, Croatia, October 2007*

*by Marie-Christine Grillo*

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The Third Meeting of the Contracting Parties took place from the 22nd to the 25th of October in Dubrovnik, Croatia.

More than 80 participants represented the ACCOBAMS Contracting Parties, NGOs, scientific bodies and intergovernmental organisations. Unfortunately, some of the Contracting Parties were not present (Albania, Georgia, Greece, Libya, Portugal and Romania) and did not take the chance to participate in the process of decision-making. Some Non-Party Riparian States did not participate ether (Bosnia and Herzegovina, Egypt, Israel, Russia, Turkey and the United Kingdom). The Secretariat is hoping that these absences don't imply a lack of interest in the conservation of cetaceans living in their waters and elsewhere.

Ms Ana Strbenac of Croatia's National Institute for Nature Protection, who chaired the meeting, said: "Marine protected areas are indispensable tools in the struggle to protect the habitats of cetaceans. As a preventive measure, Croatia has designated Cres-Losinj as a protected area. The local authorities and communities are collaborating on the project."

Twenty-five Scientific Resolutions were adopted during the Meeting. Among the most sensitive matters, including:

- The Conservation Plan for the Black Sea cetaceans, which was integrated into the Strategic Action Programme (SAP) of the Bucharest Convention, and which will be presented at the next Ministerial Meeting of the Black Sea Countries (Kiev, Ukraine 2008).
- The question addressing the impact of anthropogenic noise on marine mammals in the ACCOBAMS Area, for which it was decided to establish a Correspondence Working Group (CWG) by the Secretariat. The CWG will associate Parties, Governments and Scientists in order to define appropriate measures that will diminish the risk incurred by cetaceans when sources of anthropogenic noises are present and derived from activities such as seismic surveys and airgun uses, coastal and offshore construction works, whale watching, underwater acoustic devices, military sonar and so on.

Several guidelines were adopted; they addressed issues regarding:

- The establishment of a system of Tissue Banks within the ACCOBAMS Area and the Ethical Code;
- The release of cetaceans into the wild; and
- The coordinated response for cetacean stranding.

Finally, for the first time, the Annex 2 to the Agreement on the Conservation of Cetaceans of the Black Sea, Mediterranean Sea and contiguous Atlantic Area related to the use of drift nets was amended. The use of drift nets is now totally forbidden and the 2.5km limits were suppressed.

Among the important projects to develop, the comprehensive cetacean populations estimate and distribution in the ACCOBAMS Area was the object of a discussion and the Contracting Parties reaffirmed their earlier commitment to assist in the process and to consider providing financial or in-kind (e.g. vessels, aircraft, personnel) support for the survey in order to determine appropriate mitigation measures and the associated priority actions depending on the sub-region.

An extensive Work Programme for 2008-2010 was adopted. The Parties will have to carry it out with the help of the Scientific Committee which new Members were elected during the Third Meeting of the Contracting Parties.

The conservation of biodiversity concerns everyone. We can make progress only by strengthening collaboration among governments and by transforming the results of

scientific studies into conservation measures in the field.

The Phoenicians said that the Mediterranean looks like an eye where the two eyelids join. I would like to use this metaphor for our Agreement, which for the first time brings together two regions, the Mediterranean and the Black Sea, with this noble aim of protecting whales and dolphins, and which illustrates the spirit of exchange.

This statement was presented at the conclusion of the Thrird Meeting of the ACCOBAMS Contracting Parties in Dubrovnik by a number of NGOs, including many Partners of ACCOBAMS

**Marine Conservation on Paper?**
**An Urgent Call for Action to Protect Cetaceans**

We, the undersigned institutions and non-governmental organisations (NGOs), note that despite the positive intent of the Agreement on the Conservation of Cetaceans of the Black Sea, Mediterranean Sea and Contiguous Atlantic Area (ACCOBAMS) and the commitment of ACCOBAMS Parties demonstrated through many Resolutions, Recommendations at previous and in particular at this 3rd Meeting of the Parties, an equivalent degree of essential, tangible conservation activity has not yet taken place.

We are conscious and appreciative of the significant depth of work that has been developed for the Parties by the Scientific Committee of ACCOBAMS in order for them to mitigate threats to cetaceans. We also recognise that several Parties have made progress in implementing Resolutions and some ambitious decisions have been made and Resolutions adopted at this MOP3. However, although recognizing the overall will by Parties to improve the protection and conservation status of cetaceans in the Agreement area, we wish to express a strong call for action, recognizing that a slow response in implementing decisions and conservation measures would mean the objectives of the Agreement will not be reached.

We note in particular the following concerns:

1. the critically endangered, endangered, or vulnerable status of most cetacean populations in the Mediterranean and Black Seas (as recognized in Resolution 3.9)

2. the continued use of driftnets in part of the Agreement area, causing an unacceptable level of cetacean bycatch and a destructive impact on marine ecosystems in general, including in the PELAGOS Sanctuary

3.the continuation of the employment of non-selective fishing methods, the growing intensity of fishing, and the widespread impact of over-fishing leading to ecosystem damage and depletion of cetacean prey

4. the continued lack of implementation of appropriate mitigation measures to reduce underwater noise

We therefore urge all Parties to take immediate and concrete action to fully meet their commitments under ACCOBAMS and thereby ensure the survival of cetacean populations within the Agreement area.

Signed on 9th November 2007 by:

WDCS, the Whale and Dolphin Conservation Society, International
International Fund for Animal Welfare (IFAW)
Ocean Care, Switzerland
Delphis, Italy
Oceana Europe
Morigenos – Marine Mammal Research and Conservation Society, Slovenia
Animal Friends, Croatia
Blue World Marine Institute for Research and Conservation, Croatia
Natural Resources Defense Council (NRDC)
WWF Mediterranean Programme Office, Rome, Italy

# *From the Black Sea Commission*

## *The Black Sea Commission and its role in support to the activities of ACCOBAMS in the Black Sea*

*by Violeta Velikova*

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The Commission on the Protection of the Black Sea Against Pollution (in short the Black Sea Commission or BSC, Istanbul Commission) via its Permanent Secretariat (established in 2001) and Advisory Groups, is the intergovernmental body responsible for the implementation of the Bucharest Convention (1992) and its Protocols and the Strategic Action Plan for the Rehabilitation and Protection of the Black Sea. Priority policy actions that have full national commitments include biodiversity conservation and marine living resources management, eutrophication and pollution reduction, and sustainable human development through integrated coastal zone management.

Protecting the Environment and enhancing Cooperation in the Black Sea region is the major objective in the work of the BSC through attracting international and national donors, capacity building, active involvement of governmental and non-governmental organizations, public and private sector, and stimulating good political will in the Black Sea Region. In protection of the marine living resources and coastal/marine ecosystems/habitats the BSC continuously works for halting the decline of Black Sea biodiversity, overcoming the common dilemma of overuse and mismanagement.

BSC possesses co-operation links and options for consultative interactions with other intergovernmental organizations involved in marine pollution prevention and management and conservation of Nature at the global and regional level, including the United Nations Environment Program (UNEP), International Maritime Organization (IMO), World Health Organization (WHO), UN Food and Agriculture Organization (FAO), Intergovernmental Oceanographic Commission (IOC) of UNESCO, Mediterranean Science Commission (CIESM), Group of Experts on the Scientific Aspects of Marine Environmental Protection (GESAMP), SIDA, IAEA, private sector (e.g. OSPRI) and different institutions of the European Union (EU) – especially EEA/EMMA, EMSA, JRC, Environmental Topic Center on Biodiversity, and others. The BSC Secretariat has also relations or MoUs with the secretariats of the CBD, Bern Convention, HELCOM, MEDPOL, OSPAR, ICPDR, CMS, BSEC, ESPOO, and ACCOBAMS. For ACCOBAMS the BSC acts as sub regional coordination unit for implementation of actions for the conservation of Cetaceans in the Black Sea (Memorandum of Cooperation in 2004-2007).

Through legislative and policy documents development, projects and public outreach campaigns, workshops, round-table discussions during Conferences/regular Advisory Groups Meetings and non-governmental organizations involvement, the BSC supports enthusiastically the activities of ACCOBAMS in the Black Sea region. The Black Sea Biodiversity Protocol (signed by all Black Sea states) is annexed with a Provisional List of Species of Black Sea Importance, priority in the region for conservation. All three species of Black Sea cetaceans – the harbour porpoise (*Phocoena phocoena relicta*), the short-beaked common dolphin (*Delphinus delphis ponticus*) and the common bottlenose dolphin (*Tursiops truncatus ponticus*) – are included in this list as Endangered species.

The BSC Strategic Action Plan (SAP2007) is in process of revision. Among other things the revised document anticipates a series of activities aimed to improve the cooperation with ACCOBAMS. The adoption of the Conservation Plan for Black Sea cetaceans (developed and presented to the Commission during the 15th Regular Meeting) by the six Black Sea countries and the development of national action plans are specifically emphasized in the SAP2007 through:

1. Fundraising for the assessment of abundance and distribution of Black Sea cetaceans;
2. Development of a basin-wide stranding network;

3. Development of a basin-wide by- catch network; and
4. Network of MPAs eligible for cetaceans conservation.

The Black Sea conservation plan for cetaceans is based on the following major objectives:

1. Consolidation of the international and national legal systems.
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.

A comprehensive overview of studies of Black Sea cetacean taxonomy and population structure, range and primary habitats, population estimates, threats and IUCN status are reflected in the State of the Environment Report of the BSC (in press). Recommendations on the development of relevant conservation measures are included in the report as a special part of the chapter.

On 14-15 Dec. 2006 a Workshop on the Black Sea Protected Areas eligible for conservation and monitoring of marine mammals was held with the following main objectives:

1. Inventory of existing protected areas and list of Black Sea coastal and marine protected areas for cetaceans eligible for designation;
2. Development of Black Sea marine mammal database as part of the Black Sea Information System (BSIS) with a special format for annual national reporting on sighted, stranded and by-caught animals.

As a workshop follow-up the BSC took the responsibility to distribute the list of eligible PAs for conservation of mammals to the relevant National Authorities in the region to initiate the process of MPAs designation. The workshop participants also prepared a valuable overview based on the draft

A Black Sea common dolphin, *Delphinus delphis ponticus* (photograph by Sergey Krivokhizhin /BREMA Lab)

Conservation Plan for Black Sea Cetaceans: Role of marine and coastal protected areas in the conservation of Black Sea marine mammals. The participants considered and recommended a common methodological approach to the monitoring of Black Sea cetaceans and set up a working group for drafting the network's strategy and guidelines.

The BSIS (see www.blacksea-commission.org) is maintained by the BSC Permanent Secretariat and includes a dataset on marine mammals – cetaceans and the Mediterranean monk seal, which has not been very well sustained before. The idea of this dataset is to collect annual data from each Black Sea country on cetacean sightings, bycatches, strandings, abundance and also national information on strategies/action plans/programmes, research and conservation projects, relevant governmental bodies and institutions, public awareness and educational campaigns, and bibliography on marine mammals. The BSC Secretariat recognizes the need to develop permanently the BSIS and to improve the reporting methodology for regular and standardized replenishment of the database. A new format of the annual national report on sighted, stranded and bycaught animals was elaborated and presented during the workshop mentioned above (December, 2006). Thus, the Black Sea marine mammals database aims at becoming an integral part of the Black Sea Information System, well sustained and nourished with comparable data from all Black Sea states, which will give us the opportunity to always precisely assess the state of the cetaceans populations in the Black Sea and update the conservation measures in the region.

A recent broadcast by BBC World on the Black Sea, entitled: "The Sea that Nearly Died", told the story of a sea, the Black Sea, which shows signs of considerable improvement and recovery during the last ten years. When Mark Twain heard that the rumors of his death were spreading around, he said: 'I am afraid these rumors are a bit exaggerated'. The Black Sea could say something like that. We see today the Black Sea more often in blue-silver color, with sunbeams teasing colorful fish schools, gentle creatures creeping on the rocks, diverse algae and fungi, tranquil jellyfish (hopefully not too many), and dolphins playing cheerfully with the waves. We hope to have the Black Sea always in this state of balance aiming at full harmony and diversity of life in it.

# *Trends in transboundary protection of Black Sea dolphins and porpoises: 2006 and 2007 were years of basic talks and papers*

*by Alexei Birkun, Jr.*

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In 2006, there were several international events aimed at improving the conservation of Black Sea cetaceans. Some of these events seem to be of particular importance, and are presented below in chronological order.

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, short-beaked common dolphin and common 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 summaries of expert evaluation of current knowledge regarding Black Sea cetaceans and major threats affecting them are available in the report of the workshop (Reeves and Notarbartolo di Sciara, 2006). According to the IUCN Red List procedure, these assessments will be further reviewed by independent evaluators from IUCN Species Survival Commission's Cetacean Specialist Group and then submitted to the Red List Authority (Cambridge) for final consideration. It may be expected that the new IUCN status of Black Sea cetaceans will be established before the end of 2008.

The Round Table on the Conservation of Black Sea Cetaceans, supported by the ACCOBAMS Secretariat, took place within the framework of the First Biannual Scientific Conference of the Commission for the Protection of the Black Sea Against Pollution (Black Sea Commission; Istanbul, Turkey, May 2006). Participants to this meeting approved and encouraged the draft Conservation Plan for Black Sea Cetaceans (CPBSC). The meeting agreed that all 18 actions proposed (which consist of 57 sub-actions) should be implemented. It was suggested that some actions requiring coordinated effort amongst Black Sea states should be addressed as a matter of urgency. These actions include: completion of a Black Sea basin-wide cetacean survey; establishment of a regional by-catch network; establishment of a regional stranding network; and development of a network of marine protected areas.

At the 58th Annual Meeting of the IWC Scientific Committee (St. Kitts, May 2006) the ACCOBAMS Survey Initiative, including its Black Sea component, was endorsed by the Sub-Committee on In-Depth Assessments and the Sub-Committee on Small Cetaceans. The latter sub-committee encouraged regional states to support the project and recommended that it be implemented as soon as possible.

The 4th Meeting of the ACCOBAMS Scientific Committee (Monaco, November 2006) adopted the 3rd, substantially improved, version of CPBSC (Birkun et al., 2006). It was recommended that the ACCOBAMS Parties and the Parties to the Bucharest Convention (through the Black Sea Commission) endorse this plan and:

- 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
- facilitate the implementation of all actions proposed in the CPBSC so that they are completed as soon as possible and preferably within the next five years.

The same meeting reviewed the present state of development of the Black Sea basin-wide cetacean survey initiative supervised by the Permanent Secretariat of the Black Sea Commission in collaboration with ACCOBAMS. The meeting endorsed the most recent version of the project proposal and emphasized the essential nature of international co-operation between Black Sea researchers and those involved in the major survey initiative for the Mediterra-

nean Sea and ACCOBAMS area as a whole. The Scientific Committee also devoted special consideration to the ACCOBAMS Work Programme on Marine Protected Areas (MPAs). In particular, it was reminded that the 1st Meeting of the Parties to ACCOBAMS (Monaco, February-March 2002) proposed four pilot MPAs for the development, and one of them (the inshore area between Cape Sarych and Cape Khersones, southwestern Crimea, Ukraine) should be created in the Black Sea. In addition to this area the Scientific Committee recommended that Parties give priority to assessing the value of creating MPAs for the following additional three areas in the Black Sea and adjacent waters:

- the maritime area from Cape Anaklia to Sarp (Georgia), representing a winter habitat for harbour porpoises and common dolphins; in particular, there is a local problem with pelagic trawling for anchovy, which causes dolphin bycatch;
- the Kerch Strait (Ukraine and Russia), used by semi-resident Black Sea bottlenose dolphins and as a migration corridor for several thousand harbour porpoises moving to and from the Azov Sea; there is intensive marine traffic and coastal fisheries with bycatch in gillnets and live captures of bottlenose dolphins; and
- the Turkish Strait System, used by all Black Sea cetacean species, including harbour porpoises which are present also in the Northern Aegean Sea.

The 15th Ordinary Meeting of the Black Sea Commission (Istanbul, Turkey, November 2006) approved the information concerning CPBSC and recommended that this plan be taken into consideration in the new edition of the Strategic Action Plan for the Rehabilitation and Protection of the Black Sea, a document which will be prepared in 2007 and then adopted by the ministers of environment of all six Black Sea countries. Meantime, the meeting endorsed the Workplan of the Black Sea Commission's Secretariat for the year 2006/2007. Among other things this document anticipates a series of activities aimed to improve cooperation with ACCOBAMS and to develop the conservation of cetaceans by means of (a) existing protected areas; (b) fundraising for the assessment of abundance and distribution of Black Sea cetaceans; and (c) strengthening the cetaceans stranding networks.

The Workshop on Protected Areas Eligible for the Conservation and Monitoring of Black Sea Cetaceans (Istanbul, Turkey, December 2006), organized by the Secretariat of the Black Sea Commission and supported by the the UNEP Regional Seas Coordinating Office, has produced a list of protected areas which seem to be the most appropriate to implement relevant activities and can constitute a frame for development of the respective Black Sea network. The participants considered and recommended a common methodological approach to the monitoring of Black Sea cetaceans and to set up a working group for drafting the network's strategy and guidelines.

Four Black Sea states (Bulgaria, Georgia, Romania and Ukraine), being the contracting parties to ACCOBAMS, are already on the way to put into practice the CPBSC owing to the fact that it was approved recently by the 3rd Meeting of the Parties to ACCOBAMS (Dubrovnik, Croatia, October 2007). Two other Black Sea countries (the Russian Federation and Turkey) have now the opportunity to join the implementation of the plan in 2008 by signing the Strategic Action Programme on the Protection and Rehabilitation of the Black Sea. This new instrument of Black Sea regional importance, drafted by the Black Sea Commission, envisages the *ad hoc* management target of the adoption of the Conservation Plan for Black Sea Cetaceans by the six Black Sea countries, without exception.

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Reeves R., Notarbartolo di Sciara G. (compilers and editors). 2006. The status and distribution of cetaceans in the Black Sea and Mediterranean Sea. IUCN Centre for Mediterranean Cooperation, Malaga, Spain. 137 pp. (also avalaible on www.accobams.org).

# *Workshops held to discuss how noise might act as a stressor for marine mammals and also exploring options to mitigate this and other impacts of noise*

*by Andrew J. Wright and Sarah Dolman*

Sound travels much further than light in the marine environment. This simple physical fact explains why marine creatures rely heavily on sound for communication – including for breeding, navigation, foraging and avoiding becoming food for others. This is especially true for cetaceans, with their echolocation and/or low frequency calls that can be heard across ocean basins. Consequently, they may be some of the most susceptible to the effects of marine noise pollution. Noise, as energy, is implicitly classified as a pollutant by the United Nations Convention on the Law of the Sea (UNCLOS). However it is not subject to the same level of regulation as other pollutants.

Sound can impact cetaceans (and other marine life) in a number of ways. Animals may suffer from masking, or the 'party room' effect, where they have difficulty hearing each other as well as their prey and predators. Although they may be able to 'raise their voice' (known as the Lombard Effect) over the noise to some extent, there are obvious consequences for reproduction, social structure, foraging capabilities and survival arising from masking. Behavioural responses can include avoidance of the noise source, changes in activity (e.g., from foraging or breeding to travelling), or even panic. Longer or louder exposures can lead to physical damage, including temporary or permanent loss of hearing, and even death.

The consequences of the more extreme impacts of noise exposure are obvious and usually taken into at least some consideration in management of human activities that may affect cetaceans. However, the more subtle effects (such as masking and changes in behaviour) can be very difficult to detect. Their consequences are often dismissed as having little or no real impact on a species or population as they present no immediate or apparent threat to survival. Despite this, these subtle effects may be 'biologically significant' over the long-term. Cumulative and synergistic combination of various noise exposures, either alone or in further combination with other threats, also tends to be dismissed out of hand. This is because there is very little known about how the various impacts might interact, making such combinations extremely difficult to identify. However, disregard for these more subtle effects on such grounds is not justified given the available literature on the various non-lethal effects of chronic noise exposure at low levels in humans and other terrestrial species.

To begin to address these issues, Doku-

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**Referencing the information contained in FINS**

FINS is a newsletter, not a peer-reviewed journal, and for this reason citing uncritically articles appeared on FINS may be discouraged by the editors of scientific journals. However, to cite factual information reported on FINS, which has not appeared elsewhere (e.g., documented strandings or sightings of unusual species), it may be useful, sometimes, to make reference to a news item appeared on FINS. In such cases the following format, which is applied for exemplification purposes to an article from a previous issue, may be adopted:

de Stephanis R. 2004. Interactions between killer whales and the bluefin tuna fishery in the Strait of Gibraltar. FINS, the Newsletter of ACCOBAMS 1(2):6-7.

(available from http://www.accobams.org/2006.php/newsletter/all).

The report of the Workshop on Spatio-Temporal Restrictions of Marine Noise Pollution is available on

http://www.sound-in-the-sea.org/download/str2007_en.pdf

The discussions at the Noise-Related Stress Workshop will be published as a series of papers in a special issue of the International Journal of Comparative Psychology later this year

mente des Meeres, as part of the organisation's current project on the issue of noise and marine mammals, sponsored two workshops in Lanzarote in June 2007. The first was a multi-disciplinary workshop to discuss the effects of noise-related stress on marine mammals. Experts from around the world in the fields of human and animal noise-related conditions, animal psychology, stress response physiology, mathematical ecology, and behavioural ecology were brought together with a number of marine mammal scientists to consider the issue.

The discussions that followed were highly productive and enlightening. Most importantly, it was determined that it is reasonable to assume that at least some acoustic sources may act as stressors (stimuli leading to a stress response) for marine mammals, as the stress response is highly conserved across the range of animals studied to date and noise has been shown to initiate these responses in some of those species. Furthermore, the physiological and/or energetic costs to the individual of no or apparently minor behavioural responses to disturbance was determined to be potentially damaging, but very hard to identify. For example, an animal fleeing early from a disturbance might be responding to a large perceived threat, or it simply may not need to remain in the area at the time. Alternatively, non-response may either mean that the animal isn't effected by the source of the disturbance much at all, or that it has some real need to remain in the area (for access to a patchy food source, for example) despite the disturbance, whatever the physiological cost placed upon it in terms of a stress response. Although there are additional contextual factors that further complicate the situation, the potential for the latter is the most worrying to for those attempting to conserve marine mammals.


Another important discussion was over the ultimate consequences of masking. It was determined that a reduction in signal clarity could be itself a stressor, which can add to the other effects of noise exposure. Similarly, animals that are already psychologically compromised in some way, perhaps through the annoyance that is seen in humans in response to noise or through a chronic stress response to one or more stressors, may process incomplete information from masked signals in sub-optimal ways.

It is obvious, even from the brief summary above, that noise may not only act insidiously to the detriment of an individual and ultimately a species, but also that the context in which an animal is exposed is perhaps more important than previously thought. Context would, of course, include exposure to other threats (e.g., contaminants), thus cumulative and synergistic impacts are likely and potentially deleterious. All of which with little or no obvious response from the animals exposed to a source of noise. The possible ways to incorporate all uncertainty surrounding all these possibilities was also discussed.

Dokumente des Meeres also sponsored a workshop on spatio-temporal management of marine noise pollution on a regional scale. Participants included a number of marine mammal scientists, specialists in

marine protected areas and mathematical ecologists. Presentations and discussions examined spatio-temporal restrictions, including marine protected areas (MPAs), as a tool to effectively protect cetaceans and their habitat from the impacts of noise, either alone or cumulatively and synergistically in combination with other anthropogenic stressors.

Very few MPAs are currently large enough to reduce exposure of cetaceans to anthropogenic noise. The participants therefore outlined an effective framework for identifying key cetacean habitat on a regional scale for management of noise pollution through spatio-temporal measures. This framework, based on methodology used in terrestrial management efforts, transparently considers the value of the different areas and habitats for the protection of each species, susceptibility of the various species in question, socio-economic value and available resources. It also outlines the various options for incorporating data uncertainties transparently and appropriately.

It was noted that the framework was very similar to the process undertaken when identifying the most appropriate buffer zone around the Abrolhos Bank Marine Park in Brazil, put in place to protect marine species, including breeding humpback whales, from exposure to seismic surveys and other possible consequences of oil and gas activities. Workshop participant conceptually applied the framework methodology to two very different pilot areas, the Pelagos Sanctuary comprised within the ACCOBAMS region of the Mediterranean and South and East Asia, by way of example. A series of key recommendations were made in the workshop report.

It is hoped, by all involved, that the products of these workshops will further the efforts to reduce the impacts of noise from human activities on marine mammals and, by association, other marine fauna. It is also hoped that they will serve to showcase the productivity of the multi-disciplinary discussions in marine mammal science and conservation.

**Dokumente des Meeres** is an affiliate of **Okeanos - Stiftung für das Meer**. Underwater filmmaker Dieter Paulmann created the foundation, which is dedicated to the protection of the ocean and marine life. One major focus for the foundation will be "noise in the sea" as it is a recently identified concern with many implications that are little understood by both scientists and the public.

**Okeanos – Stiftung für das Meer** will continue to focus on this topic by organizing additional scientific meetings, releasing papers and preparing film projects for the public. For more information please visit the foundations website at www.okeanos-stiftung.org, which will be available soon.

# Short news

## *Hurricane, oil spill and cetaceans in the Kerch Strait*

*by Alexei Birkun, Jr. and Sergey Krivokhizhin*

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On November 11, an extraordinarily strong storm befell the northeastern Black Sea, Kerch Strait and Sea of Azov. Southwest wind of over 30 m/sec and up to 5m high waves caused at least 12 shipwrecks. About ten ships, mainly time-worn tankers and dry cargo bulk carriers, sank or ran aground; 20 sailors were missed; a total of 1,200 to 2,000 tons of fuel oil (mazut) and more than 4,000 tons of sulfur granules got into water just between Russia and Ukraine – in the Kerch Strait. Since then the oil spill spread along the Russian and Ukrainian coasts of the strait to adjacent areas of the Black and Azov Seas.

Marine and coastal wildlife of the Kerch Strait and neighbouring Taman and Dinskoy Gulfs faced serious damage from oil and some potentially unpredictable impact could be expected from sulfur. According to preliminary estimates, published by Russian media, from 15,000 to 30,000 sea birds were lost due to oil contamination during first 4-5 days of the disaster. Overall detriment to the fish stocks and benthic communities is not assessed yet but seems to be huge. Different specialists call this event as ecological catastrophe of regional importance.

The cetacean fauna of the Kerch Strait is limited to the Black Sea subspecies of the bottlenose dolphin (*Tursiops truncatus ponticus*) and harbour porpoise (*Phocoena phocoena relicta*). Bottlenose dolphins form local aggregations of 80-130 individuals which leave the strait area for the Black Sea in winter. Harbour porpoises (about 3,000 individuals) undertake annual migrations, leaving the Azov Sea through the strait in autumn and returning in spring. These movements concur with seasonal migrations of the anchovy, one of preferred preys for both porpoises and dolphins.

It is very likely that marine mammals in the Kerch Strait have been affected directly by the disaster to less extent than some other creatures (e.g., sea birds). Regardless of some hasty (and thus erroneous) judgements in the press, no mass cetacean strandings (mass mortality) nor live strandings were observed during and after the event, while groups of foraging cetaceas were sighted by observers.

No cetacean strandings were recorded along the Ukrainian coast of the Kerch Strait during ten days, from 11-20 November (V. Shlyakhov, pers. comm.). At the same time, two dead animals – a bottlenose dolphin and an unidentified small cetacean, suspected to be a harbour porpoise – were found by a cleanup crew on Choushka Spit, Russia, on 13 November (M. Sergeyeva, pers. comm. and http://www.strana.ru/). However, both carcasses, which, unfortunately, where not examined and sampled, could have washed ashore before the event. Cetacean strandings are not rare in that area, and most of them usually occur as a result of bycatch in fishing gear. Therefore, there is no other evidence, except the locality of those two strandings in zone of the oil spill, that cetaceans have deceased due to the spill and during the period of the disaster.

Minimum immediate detriment to Kerch Strait cetaceans does not mean that the deferred effects of the ecological catastrophe will not arise in the future. The ecosystem is seriously damaged and its top predators like dolphins and porpoises may remain for indefinably long period as a vulnerable component of the violated trophic web and as a target for chronic pollution.

At present, Russian and Ukrainian environmental NGOs work together to prepare a letter of concern (statement on the Kerch Strait's event) that should be directed to Mr. Putin, the President of the Russian Federation, and Mr. Yushchenko, the President of Ukraine. The Black Sea Council for

Marine Mammals (BSCMM) and the Brema Laboratory presented their joint contribution to the statement in form of insistent request to both national leaders:

> *"On bilateral Russian and Ukrainian basis, to declare the Kerch Strait area (including the Kerch Strait proper, Taman and Dinskoy Gulfs, contiguous waters of the Azov and Black Seas) as a transboundary marine protected area of international importance, with allocation of proper zones in this area in correspondence with existing order of nature management in biosphere reserves."*

This request is formulated in compliance with:

- Action 12 - Special marine protected areas dedicated to cetacean conservation of the Conservation Plan for Black Sea Cetaceans adopted by Resolution 3.11 of the ACCOBAMS MoP3 (Dubrovnik, Croatia, 22-25 October 2007);
- List of Areas of Special Importance for Black Sea Cetaceans adopted by Resolution 3.22 of the same meeting. The first point in this list is "The Kerch Strait for the bottlenose dolphin and the harbour porpoise (Russian Federation, Ukraine)";
- Resolution 3.19 "IUCN Red List of Cetaceans" (the conservation status of all three subspecies/populations of Black Sea cetaceans is "Endangered");
- recommendations on the development of MPAs in the Kerch Strait provided by two meetings organized by the BSC Permanent Secretariat:

  • the Round Table on the Conservation of Black Sea Cetaceans (Istanbul, 9 May 2006) and
  • the Workshop on Black Sea Protected Areas Eligible for the Conservation and Monitoring of Marine Mammals (Istanbul, 14-15 December 2006).

An exceptional storm batters the Sevastopol coastline, 11 Nov. 2007 (photograph taken by Grigory Radygin /BREMA Lab)

# *Book review*

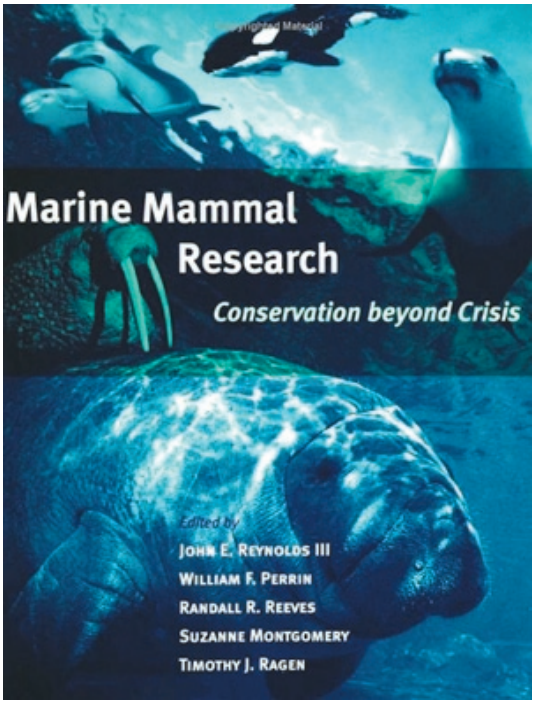
*by Giuseppe Notarbartolo di Sciara*

**Marine Mammal Research: Conservation beyond Crisis**. Editors: John E. Reynolds III, William F. Perrin, Randall R. Reeves, Suzanne Montgomery, and Timothy J. Ragen. The Johns Hopkins University Press, Baltimore, USA. 2005. ISBN 0-8018-8255-9. 223 pp.

Research on marine mammals has made major progresses in recent years, under the impulse of a rapidly growing scientific community engaged in investigations on cetaceans and pinnipeds all over the world. In parallel, demand for updated scientific knowledge of various aspects of marine mammal ecology, population science, feeding habits, mortality levels, sensory physiology and pathology has soared due to the growing requirements by managers and decision makers, who need to be informed by sound science when confronted with the challenge of ensuring that marine mammals are protected. Keeping abreast of scientific progress is no small feat for anyone who is not a specialist in any of the above disciplines – which is the case, normally, of managers and decision makers. This consideration makes of "Marine mammal research: conservation beyond crisis" a most valuable and updated information and reference tool.

This is a book with a noticeable North American emphasis, and so it is important for the reader to know about its genesis. "Marine mammal research" is the outcome of a meeting of experts convened in 2003 by the U.S. Marine Mammal Commission to discuss threats to marine mammals and offer guidance for research designed to address such threats. Despite its regional imprinting, however, the relevance of the book reaches well beyond North America, and so the book is certainly worth reviewing and recommending to the readers of FINS. Most of the principal marine mammal conservation issues are covered in the various chapters with accurate, updated reviews of methods and literature, and clear indications for progress. The intent of the book is to "look beyond the current crises ..." – hence the subtitle – "... to present a compelling argument about how science, if conducted properly, can provide insights that minimize crisis management and implements more anticipatory action".

Of the 12 chapters of which the book consists, seven address specific threats. Andrew Read (a former member of the Scientific Committee of ACCOBAMS) describes operational interactions between marine mammals and fisheries (i.e., bycatch and depredation), whereas Éva Plagányi and Doug Butterworth address the problems deriving from ecological (i.e., mostly feeding-related) interactions between marine mammals and fisheries. Frances Gulland and Ailsa Hall deal with the role of infectious disease in influencing marine mammal status and trends; Todd O'Hara and Thomas O'Shea write on assessing impacts of environmental contaminants; Frances Dolah deals with the effects of harmful algal blooms; John Hildebrand describes the impacts on marine mammals of anthropogenic sound; Sue Moore suggests possible effects of long-term environmental change. Unfortunately, there is no mention of other increasingly concerning threats such as that of cetaceans being struck by vessels,



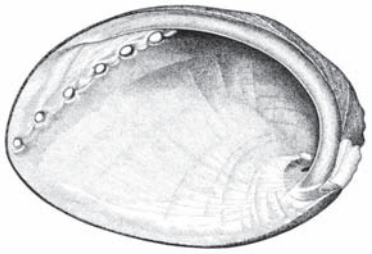

The Marine Mammal Commission is mandated to provide independent oversight and advice concerning the marine mammal conservation policies and programmes being carried out by U.S. federal agencies.

http://www.mmc.gov

or the effect of growing tourism on the habitats of marine mammals.

The remaining chapters are no less relevant to the challenge of conserving marine mammals. John Reynolds sets the stage for the book with an inspired introduction in which he argues for greater political foresightedness - which today can rest on sound science – to forestall marine mammal conservation problems before they become crises, and to look beyond U.S.-centric attitudes with global efforts and solutions. In his discussion of assessing and managing marine mammal habitat in the U.S., Tim Ragen provides a widely exportable reasoning on this crucial conservation process. Barbara Taylor illustrates the need of clearly identifying which are the most appropriate taxonomic units to be made targets of conservation efforts. Daniel Goodman argues for management and regulatory action to be adaptive and anticipatory in the face of changing environmental conditions. All these essays, perhaps with the exception of the last chapter (in which Tim Ragen, Randall Reeves - a current member of the Scientific Committee of ACCOBAMS - John Reynolds and Bill Perrin present a mostly U.S.-centric outlook on marine mammal conservation priorities and recommendations), are of considerable methodological depth and quite relevant to the wider marine conservation debate.

In conclusion, this book is a very valuable compendium of state-of-the-art scientific knowledge of most of the major modern-day threats to marine mammals, assembled and digested by experts who have been in this trade for several decades. A must in the bibliographic luggage of anyone concerned with marine mammal conservation, regardless of nationality or region of concern.



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