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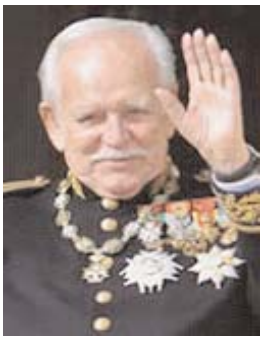
H.S.H. Rainier III of Monaco: His legacy for the protection of the seas



The Principality is usually said to be focussed on the sea. That is true not only geographically but also politically: it has been built up over the years through the vision of its successive ruling Princes.

Inheriting the ideals of His great-great grandfather, Albert I "founder and promulgator of oceanography", H.S.H. Prince Rainier III always showed great concern over the irrational habits of modern civilisation.

Just as His illustrious ancestor, He presided over the International Commission for Scientific Exploration of the Mediterranean Sea (CIESM) from 1956 to 2001. That intergovernmental organisation comprises 23 Member States, representing 20 countries bordering the Mediterranean and the Black Sea, together with three other nations. The Prince Himself defined the Commission as "a multidisciplinary network of institutes and research workers who are able to access the latest technology and high performance instruments for oceanographic exploration. This potential allows for rapid development of initiatives over sensitive issues and mobilisation of complementary scientific disciplines".

During the 36th CIESM Congress, which took place in the Principality from 24 to 28 September 2001, H.S.H. the Hereditary Prince Albert was unanimously elected to the Presidency of the Commission by the Member States.

In 1959, at the Oceanographic Museum, H.S.H. Prince Rainier III organised the First Scientific Conference on the disposal of radioactive waste on land and sea, in the presence of 280 experts from 30 countries and international organisations.

Following that conference, He took a very firm stand in international circles against using the seas and oceans as a dumping ground for waste from terrestrial activities. By declaring: "We consider that it is no longer acceptable to be satisfied with good words and good resolutions, that the time for hope is now past", He invited the international community to take action and pass relevant legislation.

Among other actions, He initiated:

- the creation of the RAMOGE Agreement among France, Italy and Monaco, establishing a pilot zone to combat pollution and protect the marine environment from Marseille to La Spezia;

- the installation in Monaco of the IAEA marine environment laboratories;

- the creation, through the Geographical Society, of the Grand Prix of Oceanography to "stimulate competition among researchers by offering to the best of them official recognition of their work, its dangers, their discoveries at sea and at great depths, where so much is still unknown";

- the creation of marine protected areas in Monaco.

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Throughout all the above, Prince Rainier III showed particular interest in marine mammals. That is why the Principality of Monaco became a Party to the International Whaling Commission on 15 March, 1982. In the 1980s He became concerned with the massive cetacean by-catch in drift-nets. At the time He supported the creation of a marine mammal Sanctuary in the western Mediterranean - in the Ligurian-Provençal basin which includes Monaco. Today this sanctuary has become a reality. Under the name of 'Pelagos', it is the first protected area on the planet to include international waters.

In that context, Monaco hosted, since its creation, the Permanent Secretariat of ACCOBAMS, an intergovernmental cooperative instrument, established to reduce threats to cetaceans in the Mediterranean and Black Seas and to improve knowledge of these mammals.

The impetus given by Prince Albert I, and subsequently enhanced by Prince Rainier III, will certainly leave its mark on future generations. In His speech to the United Nations Rio Conference, Prince Rainier III underlined this: **"Let us be careful of easy words and declarations of principle with no follow-up. Let us find the moral and political strength to apply the prescribed remedies so as to save the essential. It is up to us, Chiefs of State, to seize, together, this chance of long-term revival of our blue planet and so allow our children and future generations to evolve in a healthier and more equitable world."**

Today, these concerns are also those of Prince Albert II who has so often evoked them when speaking within the United Nations system.

Special: Driftnets in the Mediterranean

A challenge to regional fisheries governance and a major threat to marine ecosystems and vulnerable species

by Sergi Tudela & Paolo Guglielmi

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The development of driftnet fishing in the Mediterranean in recent times has mostly been associated to the swordfish fishery. Swordfish is a highly appreciated species in the Mediterranean markets (mainly Italy and Spain) and due to its poorly aggregative behaviour it can only be caught at a commercial scale by using either longlines or large-scale driftnets (that is, gears that extend over a wide range). Besides, driftnets have also been (and still are) used to target other pelagic species such as bluefin tuna, bonito, bullet tuna and several species of pelagic sharks.

Nowadays, light synthetic fibres allow medium-scale and even small-scale fleets worldwide to deploy driftnets many kilometres long. Certainly, driftnets in some regions - including the Mediterranean - may qualify as traditional fishing gears, but technological improvements and a need for high returns have turned these fleets into something completely new. Economically efficient modern driftnet fleets are fully reliant on nets of an unprecedented size. Increasing scientific evidence in the 1980s and 1990s pointing to an intrinsically low selectivity of driftnets in use with respect to vulnerable non-target species crystallized in international binding legislation aiming at totally or partially eradicating these fisheries. Resolutions 44/225 and 46/215 adopted in 1989 and 1991 by the General Assembly of the United Nations recommended a moratorium on all large-scale pelagic driftnet fishing by 30 June 1992. Accordingly, that same year the European Community prohibited driftnet fishing in the Mediterranean with nets longer than 2.5 km (European Regulation EC No 345/92), as did the General Fisheries Commission for the Mediterranean (GFCM) in 1997 under binding Resolution 97/1. This latter was one of the few binding decisions ever laid down by the GFCM. A total ban on driftnet fishing - irrespective of net size - on large pelagic species by the EU fleets within and outside Community waters in the Mediterranean entered into force from 1 January 2002 (European Regulation EC No. 1239/98). This same decision was adopted by the International Commission for the Conservation of Atlantic Tunas (ICCAT) in November 2003 by means of binding Recommendation 03-04. Finally, in February 2005 this latter ICCAT decision was endorsed by the GFCM, it being transposed under a binding procedure. Being driftnets in the Mediterranean exclusively used to target large pelagic fish, this GFCM decision means that from summer 2005 on, when it enters into force, all 2,5 million square kilometres of Mediterranean waters will become, at least from a legal point of view, fully driftnet-free. Under the current legal framework, any driftnetting activity in the Mediterra-

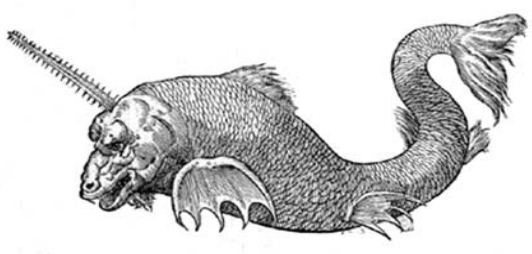
nean would qualify as IUU (Illegal, Unreported and Unregulated) fishing, according to FAO standards (see also the following story by T. Scovazzi).

The legal initiatives summarized above no doubt make the ban on driftnets the strongest fisheries management measure of regional scope ever undertaken in the Mediterranean. Consequently, the success of its effective implementation is a key test on the real prospects for a regional governance of fisheries management and marine biodiversity conservation. It is also crucial for the credibility of the new EU's Common Fisheries Policy in the region, in a moment when a new and more ambitious EC Regulation on the management of Mediterranean fisheries is under way.

Though the ICCAT decision adopted in 2003 to "prohibit the use of driftnets for fisheries of large pelagics in the Mediterranean" is included in a more general recommendation on the management of the Mediterranean swordfish (*Xiphias gladius*) stock, it was adopted on the basis of the results of a scientific study carried out by WWF and AZIR on the by-catch of the Moroccan swordfish fishery in the Mediterranean using driftnets. An advanced version of this study was presented to the delegates to the ICCAT meeting, and was finally published in the scientific journal Biological Conservation in January 2005. The WWF study (Tudela *et al.* 2005) constitutes the first field assessment of the ecosystem impact of the Moroccan large-scale driftnet fleet operating in the Alborán Sea and nearby straits of Gibraltar areas, and is the most comprehensive analysis of the impact of a large-scale driftnet fleet in the Mediterranean since the study by Di Natale *et al.* (1993) on the Italian case. Beyond addressing the proper situation of this illegal fishery in the SW Mediterranean, its results provide solid clues about the real compatibility of driftnet fisheries with large pelagic fish with biodiversity conservation in the Mediterranean region.

Nowadays, Morocco harbours the bulk of the driftnet fleet in the Mediterranean (unless new information on other fleets will emerge). To ascertain its biodiversity impact, 369 fishing operations (worth 4,140 km of driftnets set) made by the driftnet fleet targeting swordfish based in Al Hoceima (Alborán Sea) were monitored by WWF and AZIR between December 2002 and September 2003. Parallel surveys were made in the main Mediterranean ports and in that of Tangiers, in the Gibraltar Straits, to estimate the total fishing effort. Results showed an active driftnet fleet conservatively estimated at 177 units. Estimated average net length ranges from 6.5-7.1 km, depending on the port, though actual figures are suspected to be much higher (gear length typically doubles to 12-14 km during the peak of the fishery). Most boats perform driftnet fishing all year round, resulting in very high annual effort levels. A total of 237 dolphins (short-beaked common dolphin, *Delphinus delphis*, and striped dolphin, *Stenella coeruleoalba*), 498 blue sharks (*Prionace glauca*), 542 shortfin makos (*Isurus oxyrinchus*) and 464 thresher sharks (*Alopias vulpinus*) were killed by the four boats monitored during the sampling period, encompassing the peak of the swordfish fishery, along with 2,990 swordfish. Loggerhead turtles (*Caretta caretta*) were also caught (46 individuals). Estimates for a 12-month period by the whole driftnet fleet yielded 3,110-4,184 dolphins (both species) and 20,262-25,610 pelagic sharks distributed in roughly equal proportions for *P. glauca, I. oxyrinchus* and *A. vulpinus*, in the Alborán Sea alone; a further figure of 11,589-15,127 dolphins and 62,393-92,601 sharks would be killed annually around the Straits of Gibraltar assuming same catch rates for the fleet based in Tangiers. Both dolphin species suffer from annual take rates exceeding 10% of their estimated population sizes in the Alborán Sea; this unsustainable impact is particularly worrying for *D. delphis*, because the species' last remnant healthy population in the Mediterranean occurs in this area. Average catch rate for swordfish, the main target species, amounted to only 0.8 individuals/km net set, which evidences why small-scale driftnets (<2.5 km) are not economically viable. This latter evidence further supports the EU, GFCM and ICCAT policy to totally ban driftnets in the Mediterranean, since allowing small-scale operations meant in fact opening the door to the systematic use of large-scale ones. The study also uncovered that pelagic sharks are actively targeted by part of the fleet.

As a result of the publication of this study, Moroccan authorities openly recognized the problem and announced the launching of a phase-out plan for the fleet, to be completely eradicated in four-years time. Though this commitment was formally reiterated at the plenary session of ICCAT in November last year, concerns remain about the feasibility of this plan without supplementary international funding, as the former Moroccan General Secretary for Fisheries told WWF last year. Indeed, WWF has formally asked the EU to assist with this phase-out



plan, given the Union's responsibility as a major driver for this fishery, Europe being the major market for driftnet-caught Moroccan swordfish. Recently, the Spanish Parliament passed a compulsory request to the Spanish Government to request to the European Commission to make the immediate phase-out of Moroccan driftnets a necessary precondition for the negotiation of a new fishing deal with Morocco.

Driftnet fleets (up to 110 boats) have also been described for Turkey (Aegean Sea coast), whereas unpublished evidences suggest that a very significant driftnet fleet based in Algeria is supplying the European markets with swordfish, very much as the Moroccan case.

A particular case, even more dramatic for the credibility of a regional governance of fisheries in the Mediterranean (including the new EU Common Fisheries Policy for the Mediterranean, with the imminent adoption of a new Mediterranean fisheries management regulation) is the fact that illegal driftnetting still subsists in "wealthier" EU countries, namely France and Italy. This in spite of generous financial resources diverted from 1998 to 2002 for the phasing-out of fleets, to ensure compliance with European Regulation EC No 1239/98 which completely banned driftnetting for large pelagic fish in the region from 1 January 2002. Whilst France openly challenged the EU and the international legislation in force by actively supporting IUU fishing by the thonaille fleet, now renamed "courantille volante", a large-scale driftnet fleet strong of 75-100 units (depending on the source) operating in the Mediterranean High Seas - including within the internationally protected Pelagos Sanctuary - several Italian ports continue to harbour driftnetting fleets. Some of the boats involved in this illegal fishery have even benefited from EU funding to shift to another type of fishing gear (see also the following story by B. Mussi et al.).

Whilst the European Commission has already started the process to take France to the European Court of Justice for the violation of Community law on driftnets, the Italian Government has just been denounced to the Italian justice by WWF for a recent decree which is de facto authorizing again the use of driftnets, following the example of France with the thonaille/courantille gear (see "Latest news" on page 9).

In some cases, "floating anchors" (a paradox in itself) have been added to the driftnets in order to overcome the driftnet ban, by claiming that this improved gear doesn't qualify as driftnet any longer. Obviously, this fraud doesn't change the legal status of the gear. Indeed, in a report to the EU Commission Directorate General on Fisheries, the body of Community inspectors said: "There is no doubt to Commission inspectors that the modified thonaille, even under the name of courantille volante, remains a driftnet gear targeting large pelagic fish, and is, consequently, illegal". To avoid any ambiguity, though, the current draft version of the EU Mediterranean fisheries management regulation clearly states that the use of "anchored floating nets" to catch those species already banned to driftnets is not allowed.

In conclusion, driftnets are still a major threat to certain vulnerable pelagic species in the Mediterranean, as pointed out by the different studies carried out to date on the impact of the Italian, French, Spanish, Turkish and Moroccan fleets (Di Natale *et al.* 1993, Silvani *et al.* 1999, Imbert *et al.* 2001, Akyol *et al.* 2003, Tudela *et al.* 2004). Another lesson learnt after almost two decades of work on the issue in the Mediterranean is that only a total ban on this intrinsically harmful gear applied to the entire Mediterranean basin is likely to put a real end to the problem. Indeed, management measures affecting a single highly migratory fish stock shared by all the concerned regional fleets, which in turn compete for the same end markets, should be indisputably applied throughout the whole region. Any selective derogation benefiting certain countries to the detriment of others, as has happened in the past, would completely hamper regional compliance. In other words, there is no alternative to the strict implementation of the total ban on driftnets currently into force in the Mediterranean. Finally, it must be highlighted that in a moment when regional fisheries governance is being built (with, *inter alia*, a fully fledged General Fisheries Commission for the Mediterranean and a new and more ambitious EU Mediterranean fisheries management regulation), the enforcement of the current driftnet ban is a crucial test to the credibility of a concerted approach to fisheries management in the region.

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Nets and loopholes: the continued use of driftnets by the Italian fleet

by Barbara Mussi, Angelo Miragliuolo & Daniela Silvia Pace

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Background. Several cetaceans and other marine species are known to have been entangled in driftnets, reaching unsustainable bycatch rates. In the Mediterranean Sea, the driftnet fishery is largely diffused in Italy, where both nets and vessels are usually called "spadare". Swordfish (*Xiphias gladius*) and albacore (*Thunnus alalunga*) are the targeted species. The gear is characterized by a large mesh (range: 15-50 cm) with positive buoyancy (floating), a length of about 15 km and a height of 15-30 m. The net is usually set at the sunset in a "S" or zigzag pattern. This peculiar fishing technique is highly dangerous for the pelagic fauna, with an immediate and devastating impact. The spadare's victims include small odontocetes species, large whales such as sperm whales (*Physeter macrocephalus*), and other marine animals such as sunfish (*Mola mola*), mantas (*Mobula mobular*), sharks, sea turtles (*Caretta caretta*) and several species of seabirds.

From 1 January 2002 all driftnet fisheries are banned by the European Union; nevertheless, fishing activities with driftnets persist in some Italian waters as an illegal practice. In order to stop these unlawful actions, the Italian Government started a conversion plan aiming to shift from spadare to trawlers or purse seiners, providing fishermen with indemnity funds (DM 25.7.2002). Nevertheless, a "small" pelagic driftnet (called "ferrettara") with a mesh of 15 cm of side and a length of 2 km was introduced by the Italian legislator (DM 14.10.1998 n. 281) and recently reconsidered by the Italian Fishery Ministry, receiving an ambiguous decree (DM 4.4.2003) that allows fishermen (even those who benefited from the EU conversion plan and received indemnity funds) to embark ferrettare and anchored gillnets of a maximum length of 5 km. Such new licenses produced unrestrained fishing activities since vessels embarked different kinds of nets (not only ferrettare and anchored gillnets).

To control each boat is virtually impossible. Authorities have to verify the type of the net onboard, its length and, potentially, the way in which nets are used at sea. After two years from decree DM 4.4.2003, enforcement is poor and impact data on cetacean species are still unavailable. On 19 April 2005 a new decree of the Italian Ministry of Agriculture was published, allowing fishermen to employ a gear characterized by the following features: net length up to 5 km, height up to 20 metres and mesh size between 20 mm and 180 mm. The fishing area may extend to 12 miles from shore of the small islands and the nets must have a suitable anchoring. The possibility to anchor the gear is definitely not useful for driftnets that require the formation of bends to capture the fish, but represents a realistic expedient to elude controls and loophole EU regulation (see also the following story by T. Scovazzi).

A case study: the situation on the island of Ischia. Since 1995 driftnets have been monitored by us around Ischia, in the southern Tyrrhenian Sea. The area is well known for its high pelagic biodiversity, and appears to be particularly relevant for several cetacean species. It was described as a feeding site for fin whales (*Balaenoptera physalus*), a feeding and breeding ground for striped (*Stenella coeruleoalba*) and Risso's dolphins (*Grampus griseus*), and transiting area for social units of sperm whales. Furthermore, the area was mentioned in the last IUCN Cetacean Action Plan as critical habitat for the endangered common dolphins.

Between 2000 and 2004, data on driftnet fisheries operating around the island were collected through direct observations. During the May-August fishing season, with a total number of 285 observation days, boats carrying driftnets were monitored in the harbour by the means of binoculars and video cameras. Moreover, in the 2004 fishing season, thanks to the support from the Humane Society International and from RSPCA (Royal Society for the Prevention of Cruelty to Animals), eight nights were spent in the field to acoustically monitor the presence of cetaceans on the fishing grounds. Fishing boats were detected by radar. After detection, the boats were approached to visually determine the activities of the fishermen (at sunset) or the lights of the net (during the night).

The driftnet fleet. During 2000 and 2001, 40 different boats (mean length 14 m, range 10-20 m) remained consistently in the area to fish with driftnets in the waters off Ischia. All boats carried driftnets exceeding by at least a factor of four the EU limit of 2.5 km/boat and, in few cases, up to one order of magnitude greater. In 2002, only one boat was observed in the area. In the 2003 and 2004 fishing seasons the number of driftnet boats climbed again up to 38 (mean length 18 m, range 12-30 m) and the nets' length, calculated in 2004, had substantially grown (mean 36 km, range 8-84 km). A total number of 7 boats, corresponding to 16% of the boats monitored after January 2002, had benefited from an economical contribute to stop driftnetting (DM 25.7.02), ranging from 25,273 to 71,736 Euro.

Since 2003, several boats modified the vessels' sides to hide the nets carried on board, making the evaluation of the volume of visible coils on the deck more difficult. It was not possible to closely approach the boats, due to the nervous and aggressive behaviour of the fishermen, who addressed direct threats to our research team.

In the 2004 season, during eight nights at sea, nine driftnet boats were detected by us through radar. Driftnetting occurred well within cetaceans' habitat and the positions of the driftnets principally overlapped with the range of sperm whales and striped dolphins, two highly bycaught species in this gear. Moreover, at least one of the driftnet was located close to a school of common dolphins, highlighting

a clear danger for this threatened species.

In 2004 we were also able to document eight landings, totalling 237 swordfishes and 73 tunas. All these catches (with the use of the nets) are forbidden by Reg. CE 1239/98.

Bycatch events. Fatal bycatch events involving striped dolphins, bottlenose dolphins (*Tursiops truncatus*) and fin whales have been documented in the area since 1996 through the reports of the national stranding network managed by the Centro Studi Cetacei, and by our activities (see "suggested readings"). Animals were found stranded or adrift around Ischia, with body mutilations and lesions indicative of bycatch in driftnets, such as flukes and/or dorsal fin cut off and net marks on the skin.

During 2004 we were able to document two different bycatch events involving sperm whales in our area. On 13 June a dead sub-adult, with clear driftnet marks on its back, was observed adrift five miles SW of Ischia. On 9 August a group of five sperm whales - two adults and three juveniles - was found entangled in a driftnet 50 miles SW off Capo Palinuro. Their tails were tied together by the net, and one animal was completely enmeshed. The group was rescued by the divers' nucleus of the Italian Coast Guard, which played a critical role during the complex operations that lasted two full days. During the first day the divers managed to free two animals (an adult and a juvenile), cutting the polyfilaments with scissors. The juvenile was quite nervous compared to the adult, vigorously moving its tail during the net removal. The untied whales continued to stand by their schoolmates, closely watching the divers' work until evening, touching the entangled tails, and rubbing on the entangled whales' sides with their heads. During the rescue procedures, the behaviour of entangled animals included: roll on side, open the mouth, shake the tail and the pectoral fins, and sound production.

During the night, whales were constantly monitored from the Coast Guard vessel by radar and night-vision equipment. The group kept together throughout the duration of the operations. On the early morning of 10 August the divers started to cut the net again, eventually succeeding in completely freeing the other two juveniles, and finally the remaining adult whale. This last animal remained close to the divers for one hour after having been released, showing slow movements and accepting hand contacts on its side. All the whales had a large number of lesions on their body - in particular the tails appeared to having been strongly damaged - and were clearly stressed. A short movie of this episode can be downloaded from http://www.delphismdc.org/en/video.htm.

Conclusions. Data on the use of driftnets in the waters surrounding Ischia are alarming. While the number of the driftnet boats remained relatively stable throughout our study period, the length of the nets greatly increased since 2001. Moreover, fishermen having other types of fishing licenses (e.g. trawlers or bottom gillnets), who were not using the driftnets at least in the recent past, are now starting to equip their boats with such gear, thus causing an alarming escalation of driftnet usage in the area. This deplorable fact is potentially disruptive, considering that licenses for bottom gillnet are owned by thousands of Italian fishermen.

The observations at sea provided evidence that illegal driftnetting overlaps with cetacean habitat and activities, increasing the risk of bycatch even in an area known as critical habitat for common dolphins. Moreover, the presence of sperm whale groups around Ischia emphasizes the problem since the species is exposed to a high risk of entanglement, as also stressed in a recent review by Notarbartolo di Sciara *et al.* (2004).

In conclusion, urgent management measures are clearly needed to monitor illegal fisheries and to protect cetaceans, as well as other species, from bycatch. In our opinion, these should include:

- the immediate revocation of: (a) the DM 4.4.2003; (b) the recent Decree of the Italian Ministry of Agriculture (DM 19.4.2005); and (c) the ferrettara decree (DM 14.10.1998 n. 281);
- obtaining a better understanding of the networks that organize and manage the activities of the boats equipped with driftnets, and market fish product (swordfish) deriving from these illegal practices;
- the contextual and immediate impoundment of the nets;
- the introduction of effective sanctions for the detention of illegal nets on board, to stop the proliferation of spadare and ferrettare disguised as bottom gillnets.

See a map with the locations mentioned in this article at

http://www.accobams.org/newsletter/index.htm

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A doubtful Italian Decree

by Tullio Scovazzi

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The prohibition of driftnets. A Decree adopted on 19 April 2005 by the Italian Under-Secretary of State for Food and Forestry Policies (Gazzetta Ufficiale della Repubblica Italiana n. 109 of 12.5.2005) has brought once again to the general attention the question of driftnets, or nets having an effect equivalent to driftnets, used by Italian vessels in Mediterranean waters for the fishing of tunas and swordfish.

According to the FAO (Food and Agriculture Organization), "bluefin tuna and swordfish are the most important large pelagic species in the Mediterranean. They represent around 3% of the total reported catches, but their economic importance is far greater. (...) Concern has rightly been expressed about the status of both species. In both cases the (apparently unrestrained) growth of fisheries over the last decade has increased vulnerability of these stocks as has regular fishing by non-coastal States on bluefin stocks. (…) Swordfish is fished with longlines and driftnets. In the case of swordfish, the high exploitation rate is also reflected in progressive decreases in mean size and mean age at capture".

Because of their lack of sufficient selectivity, driftnets are prohibited by Council Regulation (EC) No. 1239/98 of 8 June 1998, under the following terms (Art. 1): "From 1 January 2002 no vessel may keep on board, or use for fishing, one or more drift-nets intended for the capture of species listed in Annex VIII" (i.e., different species of tunas, swordfishes, dolphin-fishes, sharks and other species as well). From the same date, species listed in Annex VIII which have been caught in driftnets cannot be landed in the territory of European Community member States either. It may be incidentally remarked that Reg. 1239/98 prohibits not only the use, but also the mere taking on board, of the nets in question.

Apart from the European Community fishing regime, other instruments applying to Mediterranean waters relate to driftnets as well. In 1997 the General Fisheries Council (now: Commission) for the Mediterranean (GFCM) adopted a binding recommendation which prohibits the keeping on board, or use of, one or more driftnets whose total length is more than 2.5 km (Resolution No. 97/1). By Recommendation 03-04, entered into force on 19 June 2004, the International Commission for the Conservation of Atlantic Tunas (ICCAT) recommended that "Contracting Parties, Cooperating non-Contracting Parties, Entities or Fishing Entities shall prohibit the use of driftnets for fisheries of large pelagics in the Mediterranean". In 2005, the 29th Meeting of the General Fisheries Commission for the Mediterranean adopted, with reference to Article V of the GFCM agreement, the 2004 ICCAT Recommendations. These Recommendations, and notably Recommendation ICCAT 03-04, entered into force on 15 June 2005. Italy, which is a Member State of the European Community, is also a party to both GFCM and ICCAT.

The 2005 Italian Decree. According to the already mentioned Italian Decree of 19 April 2005, in derogation from Annex II (Minimum requirements relating to the characteristics of the main types of fishing gear) to Council Regulation (EC) No. 1629/94 of 27 June 1994 (Official Journal of the European Communities No. L 171 of 6.7.1994), it is allowed to use a net having certain characteristics (inter alia, not exceeding 5 km in length and 20 m in height and being opportunely anchored) in the period between 15 April and 31 July 2005 and in the zone within the 12-mile limit around Italian minor islands.

Do nets such as those allowed under the Italian Decree "resemble", or have an effect equivalent to, driftnets? The author of this note is not acquainted with the technical differences, if any, existing between driftnets, on the one hand, and other similar fishing gear, on the other (such as, for example, the Italian ferrettara or the French thonaille and courantille volante, currently used in the Mediterranean); nor does he know how much "drifting" must a driftnet be in order to qualify as such and whether the addition of some floating anchors is sufficient to change its nature (see the previous stories by Tudela and Guglielmi, and by Mussi *et al.*). He consequently cannot take any position on the question whether the Italian Decree, while stating that is derogates from Reg. 1629/94, is in fact a derogation from Reg. 1239/98. In general, United Nations General Assembly Resolution 44/225 of 1989 describes fishing with large-scale pelagic driftnets as "a method of fishing with a net or combination of nets

intended to be held in a more or less vertical position by floats and weights, the purpose of which is to enmesh fish by drifting on the surface or in the water".

The preamble of the Italian Decree provides for a wide array of justifications. *Inter alia*, it points out that the minor islands (which may easily be interpreted, as far as Italy is concerned, as all the nation's islands except Sicily and Sardinia) represent a valuable resource for cultural, landscape, tourist and economic reasons in Italy and in the whole Mediterranean; that people resident in minor islands live in fragile social and economic conditions, far away from major markets; that their livelihood is dependent on fishing activities; that local inhabitants are engaged in artisanal fishing activities which are rendered more and more difficult by the development of pleasure craft navigation; that it is necessary to protect both endangered marine species and the activities of fishermen. No doubt, these kinds of economic and social concerns do exist. Yet the economic and social concerns seem less stringent in the isolated cases of those owners of Italian fishing vessels who are reported to have been caught fishing with prohibited driftnets after having taken advantage of the measures of conversion of driftnets co-financed by Italy and the European Community (see the special programme in Official Journal of the European Communities, No. L 121 of 13 May 1997).

However, the preamble of the Decree does not explain why the authorization to use the nets in question is in fact granted to every fishing vessels and not only to those belonging to the inhabitants of minor islands.

The preamble of the Decree also refers to Art. 158 of the "Treaty of Amsterdam" (i.e., the treaty establishing the European Community), providing that "the Community shall aim at reducing disparities between the levels of developments of the various regions and the backwardness of the least favoured regions or islands", and to Art. III-220 of the European Constitution, providing that "particular attention shall be paid to (...) regions which suffer from severe and permanent natural or demographic handicaps such as (...) island, cross-border and mountain regions". However, the preamble does not explain what is the precise relationship between these kind of generic provisions (incidentally, the European Constitution is a treaty which has not yet entered into force) and a unilateral authorization by a Member State to use specific fishing nets otherwise prohibited.

Whatever the merit of the Italian explanations may be, it simply seems difficult to understand how the Government of a E.C. member country can set forth a derogation from Annex II to Regulation No. 1626/94, considering that the regulation itself states that "Member States shall fix restrictions involving the technical characteristics of the main types of gear in accordance with the minimum requirements set out in Annex II" (Art. 5) and that Member States can adopt measures supplementary to, or going beyond the minimum requirements of, the system, "provided that such measures are compatible with Community law and in conformity with the common fisheries policy" (Art. 1, para. 2). It may be added that, under Art. 117 of the Italian Constitution (as amended in 2001), the Italian domestic legislation is subject to the obligations arising from European Community law and international law. The Italian Constitutional Court has repeatedly stated that the Italian judge is bound not to apply the provisions of the Italian legislation which are contrary to European Community law. All the more reason with a ministerial decree, which has not the force of a law. If it is contrary to European Community legislation, it may be quashed by the judiciary.

The compatibility of the Italian Decree with the obligations arising from the participation of Italy to the European Community is very doubtful, to say the least. In fact, a recent decision by the Administrative Tribunal of the Region Lazio has provisionally suspended the application of the Italian Decree of 19 April 2005, pending the discussion on the merit of a case brought by a number of non-governmental organizations for the quashing of the decree.

A broader problem. It would be misleading to classify the case of the Italian Decree as a mere instance of occasional unpreparedness to comply with European Community and international obligations. The question is broader and encompasses the problems arising from the present very confused legal condition of Mediterranean waters.

So far, only some Mediterranean States have established fishing zones, namely Tunisia (1951), Malta (1978), Algeria (1994), Spain (1997), Croatia (2003; implementation with regard to member States of the European Union postponed) and Libya (2005), or exclusive economic zones, namely Morocco (1981), Syria (2003) and Cyprus (2004). This means that a large extent of Mediterranean waters beyond the limit of the territorial sea (12 nautical miles in most cases) still has the status of high seas.

The application of the European Community fisheries regime is inevitably limited to the waters falling under the sovereignty or jurisdiction of Member States and to fishing activities pursued on the high seas by vessels flying the flag of Member States. The declaration adopted on 26 November 2003 by the States participating to the Venice Conference for the Sustainable Development of Fisheries in the Mediterranean, convened by the European Community, seems to support the future creation of fisheries protection zones on the basis of a regional and concerted approach:

"*Against the background of closer cooperation between all States benefiting from the biological wealth of the Mediterranean marine environment, we consider that the creation of fisheries protection zones permits the improvement of conservation and control of fisheries and thus contributes to better resource management and to our common commitment to combat IUU (= illegal, unreported and unregulated) fishing.*

We consider that, without prejudice to the sovereign rights of States and in accordance with relevant international law, a more detailed examination should be made of the modalities for the creation of fisheries protection zones taking into account the precedents that exist, with

a view to employing a concerted and regional approach suited to the needs of the fisheries concerned and based on dialogue and coordination" (para. 10).

Going beyond the 12-mile limit, in compliance with the regime set forth by the United Nations Convention on the Law of the Sea for the exclusive economic zone, is the best way to promote the sustainable exploitation of living resources, to ensure the prevention and repression of polluting incidents, to counter activities carried out by ships flying flags of convenience (such as IUU fishing or the dumping or release of polluting substances into marine waters). Only after the creation of exclusive economic zones or fishing zones, that is after the enlargement of coastal State jurisdiction and the elimination of the legal gaps created by the abstract principle of freedom of the sea, can cooperation among the Mediterranean States in the fields of fisheries and prevention of marine pollution be grounded on an effective basis. If such zones are created, the high seas will finally disappear from the Mediterranean. No point in the Mediterranean is located at a distance exceeding 200 nautical miles from the nearest land or island, which is the distance equivalent to the breadth of a full-size exclusive economic zone or fishing zone. Otherwise, as treaties create rights and obligations only for contracting parties, there would be no means of preventing the fisheries conservation measures which are accepted by most interested States from being frustrated by a few third States which could enjoy the benefits of such measures without burdening themselves with the corresponding duties. And there would be no means of ensuring that measures agreed under multilateral treaties for the protection of the marine environment are enforced against the ships flying the flag of States which do not exercise any control over them.

This goes to the heart of the question. The persisting existence of high seas zones in the Mediterranean and the lack of an effective international regime for the management of Mediterranean fisheries on a full regional basis has easily foreseeable consequences. What is the use of assuming conservation burdens and causing domestic social and economic constraints if some foreign fishing vessels cannot be prevented from fishing with driftnets just beyond the 12-mile limit of the Italian territorial sea? What is the benefit for marine mammals and other non-targeted species if they are destined to be entangled in foreign, if not Italian, driftnets anyway?

Suggested readings:

FAO, Review of the State of World Marine Fishery Resources, Rome, 2005, p. 56, 57.

Official Journal of the European Communities No. L 171 of 17 June 1998. The regulation amends Regulation (EC) 894/97 laying down certain technical measures for the conservation of fishery resources (ibidem No. L 132 of 29 April 1997).

Latest news on driftnets in the Mediterranean

In spite of the rule of law, the Mediterranean is far from being a driftnet-free sea

As FINS goes to press, the situation concerning driftnets in the Mediterranean becomes increasingly confused and worrisome. It is now becoming apparent that the use of driftnets is no longer circumscribed to the waters facing the coasts where this type of fishing was mostly known to occur.

1. FINS recently received a report from Anastasia Komnenou (from the Aristotle's University of Thessaloniki and former member of the Scientific Committee of ACCOBAMS), as well as from Argyris Kallianiotis (director of Greece's Fisheries Research Institute in Kavala), that in late May a large piece of driftnet was found floating in the waters of the northern Aegean Greek island of Samothrace with 12 striped dolphins, one Risso's dolphin, and several tunas and sharks entangled in it, all dead. Labels on batteries used to weigh down the floaters pointed to a Turkish origin of the discarded net, as also suspected by the local investigating authorities.

See photographs of the dead dolphins in Samothrace, northern Aegean Sea, at:
http://www.accobams.org/newsletter/index.htm

2. On 23 June, we have been informed by Ricardo Sagarminaga, from the Spanish research organisation *Alnitak*, that on that day two dead cetaceans - a long-finned pilot whale and a Risso's dolphin - were found floating off the coast of Granada (Andalusia, Spain), entangled in a piece of driftnet.

3. Some fishermen have been arguing lately that their activities involving driftnets or driftnet-like nets are legitimate in spite of the wealth of legal provisions against such type of fishing gear. The argumentations have been quite varied, as we have seen in the previous stories. However, at least as far as Members States of the EU are concerned, there is no longer doubt as to the opinion on this matter of the Commission, which has exclusive competence on fisheries in the Union. A question was sent by the European Parliament to the Commission, and the unambiguous answer was provided on 13 June, on behalf of the Commission, by Fisheries Commissioner Joe Borg.

The response of EU Fisheries Commissioner Joe Borg to a question from the European Parliament on the Commission's position on driftnets is available on the website of the European Parliament:
http://www4.europarl.eu.int/registre/recherche/ListeDocuments.cfm (scroll the various pages until you find Ref: P6_RE(2005)1730.

and can also be read on: http://www.tethys.org/internal/docs/driftnets_Borg_reply.htm

Bottom-set gillnet fisheries and harbour porpoises in the Black Sea: high-tech against cetaceans

by Alexei Birkun, Jr.

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Cetacean bycatches take place annually in all Black Sea countries and represent the major threat to local population of harbour porpoises (*Phocoena phocoena*). Most cases of incidental entanglement in fishing nets occur in shallow waters of the continental shelf. Traditional areas of coastal artisanal fishery could be considered as the hotspots of cetacean mortality in fishing gear. Some fishing sites in which bycatch occurrences are frequent were revealed in Bulgaria (inshore waters from Shabla to Balchik and from Bjala to Cape Emine), Georgia (between the mouth of Chorokhi river and the Turkish border), Romania (all waters of the exclusive economic zone), Russia (area from Anapa to Sochi), Turkey (south-western coast of the Black Sea) and Ukraine (waters off the Crimean peninsula near Sevastopol and Feodosia, and between Chernomorskoye and Evpatoria).

Harbour porpoises almost always represent the majority of cetacean by-catches recorded in different places around the Black Sea. However, the absolute numbers of the population losses are not estimated yet for the basin as a whole. Generally, the annual rate of incidentally captured porpoises amounted to 90-100%, while the shares of other cetacean species - common dolphins (*Delphinus delphis*) and bottlenose dolphins (*Tursiops truncatus*) - tended to zero. According to the results of more or less regular studies in different countries, during the previous decade (1990-1999) a total of 448 accidentally entrapped cetaceans were recorded in the Black Sea, including 425 harbour porpoises (95%), 10 common dolphins (2%) and 13 bottlenose dolphins (3%). In other words, out of 20 by-caught cetaceans on record, 19 consisted of porpoises. This estimation strongly suggests that the direct impact of Black Sea fisheries is affecting mainly harbour porpoises, and the intensity of this impact is probably 30-40 times higher compared to the adverse influence of fisheries on the other two species.

Bottom-set gill nets for Black Sea turbot (*Psetta maeotica*), sturgeons (*Acipenser* spp., *Huso huso*) and spiny dogfish (*Squalus acanthias*) cause up to 99-100% of cetacean bycatches. These nets are dangerous for harbour porpoises because of their large mesh size - from 8-11 cm (dogfish nets) to 12-15 cm (sturgeon nets) and 18-22 cm (turbot nets) - provoking easy entanglement. The height of these nets varies between 1.5 and three metres, and their length may reach 70-100 metres. Fishermen usually tie together some tens to 200 nets making a single line. Other fishing gear, including purse seines, trammel, trap and trawl nets, seem to be of secondary importance as far as cetacean bycatch is concerned.

Almost all (99.9%) recorded bycatches were lethal. Annual period from April to June appears the principal season which is particularly hazardous for harbour porpoises, due to extensive fishing on turbot. Such fishing occurs in spite of a temporary specific prohibition by most Black Sea countries in view of turbot spawning time. Turbot fishing in May - June could be defined not only as a significant anthropogenic factor of Black Sea harbour porpoises mortality, but also as a factor limiting their reproductive output. The presence of near-term pregnant, postpartum and lactating females among the bycaught animals indicates that the turbot fishing season coincides with porpoise parturition and nursing period. Furthermore, the state of mature male and female gonads (except pregnant individuals) indicates that the breeding period also occurs in spring and early summer.

Illegal, unreported and unregulated (IUU) exploitation of marine biological resources is one of the major environmental, economic and social problems concerning the entire Black Sea region. The amount of the unauthorized fisheries is not evaluated officially on the national and international levels, but at present it possibly exceeds the combined value of legal coastal fisheries.

As a rule, modern poachers are equipped much better than law-abiding fishermen, fish protection officers and coastal guards. The use of high-tech satellite navigating, radio-locating and echo-sounding devices, disposable monofilament nets and speedy boats with powerful engines enables illegal fishermen to conduct concealed operations in any maritime area, at any time (mainly at night) and under any weather conditions. In that way, cetacean bycatches due to illegal gillnet fishery on Black Sea turbot and sturgeons may have a very considerable magnitude.

Organochlorine pollution in the western Mediterranean declines, but is still a significant threat to cetaceans

by Alex Aguilar & Asunción Borrell

In 1966, Koeman and van Genderen reported for the first time the presence of organochlorine compound residues in the tissues of a wild marine mammal. Since then, these ubiquitous and persistent chemicals have been found in all pinniped and cetacean populations so far investigated, thus arising as the most widely extended group of contaminants worldwide.

Organochlorines are a group of synthetic compounds that have been extensively used in agriculture as pesticides (e.g. DDT, lindane, dieldrin, benzenehexachloride, among others), in industrial processes and in the composition of certain materials (e.g. the polychlorinated biphenyls or PCBs, dioxines and dibenzofuranes, polybrominated biphenyls, among others). Organochlorines were introduced in the environment mostly after World War II. Because of their ample use and the chemical stability and slow biodegradation of many of their forms, these compounds soon became ubiquitous pollutants, particularly in marine environments. Among organochlorines, DDTs and PCBs are the most widespread and those reaching the highest concentrations in biota. Their production peaked in the 1960-1970s and, although they are still used in certain areas for limited applications, overall use has been restricted since the late 1970s-early 1980s.

Substantial evidence points to organochlorine compounds having, at environmental levels, a number of adverse effects on marine mammal populations. These include depression of the immune system and the subsequent triggering of infectious diseases, reproductive impairment, lesions of the adrenal glands and other organs, cancers, and alterations in skeletal growth and ontogenic development as well as the induction of bone lesions. In the particular case of PCBs, which in the Mediterranean are very abundant, it has been suggested that they facilitated the onset and development of the morbillivirus epizootic that in 1990-1992 decimated the Mediterranean striped dolphin population causing thousands of deaths. The triggering effect was apparently produced either by debilitating the immune performance of individuals or by deteriorating their liver function, in both scenarios making them more susceptible to the infectious action of the morbillivirus. Moreover, PCBs and other organochlorine contaminants have been also linked to the occurrence of unusual luteinized cystic structures found in the ovaries of female Mediterranean striped dolphins; it has been claimed that these cysts would impede normal ovulation and, therefore, are likely to impair the reproductive activity of the population.

Marine mammals from the temperate fringe of the northern hemisphere, particularly fish-eating species inhabiting the mid-latitudes of Europe and North America, display the greatest organochlorine loads. However, two specific areas have become noteworthy by their extremely high concentrations of organochlorines: the western Mediterranean Sea and the western coast of the United States, particularly California. DDT and PCB levels in the tissues of dolphins from these two regions are the highest ever recorded worldwide. The coastal fringe of both areas sustains dense human populations as well as intense industrial and agriculture activities. Thus, European countries bordering the western Mediterranean manufactured large quantities of organochlorines; for example, the total production of PCB in France, Italy and Spain alone has been estimated to have been about 300,000 metric tons for the period 1954-1984 and, although the total amount used locally is unknown, it may have approached half this figure. As a consequence, although DDTs and PCBs were banned more than 25 years ago, their residual levels in the region have remained extremely high until present.

In a study recently published, we investigate the trend followed by the main organochlorine compounds in the tissues of western Mediterranean striped dolphins during the 15-year period extending between 1987 and 2002. We found substantial variability within any given year that could be attributed to the specific biological traits of the individuals sampled, particularly age, nutritive condition and sex, factors that are known to significantly affect blubber tissue levels in cetaceans. However, this variability was not large enough to veil the general trend in yearly variation. PCB concentrations significantly declined from 342 mg/kg in 1987 to 76 mg/kg in 2002 (see graph). Similarly, DDT also decreased, although the variation was less marked: from 198 mg/kg at the beginning of the period to about 55 mg/kg at its end. Because the decline in PCB was steeper than that of DDT, the DDT/PCB ratio increased significantly throughout the study period. This is surprising since the use of DDT was discontinued in the region earlier (1975) than that of PCB (mid-1980).

Such declining trend is consistent with the pattern found in other comparable locations. Worldwide, organochlorine pollution first increased around the areas of production and usage, particularly along the temperate fringe of the northern hemisphere. Following discontinuation in the use of organochlorines, concentrations in these areas tended to stabilize or fall off as a consequence of degradation and transfer. This latter occurred mostly by atmospheric transport to the polar regions of both hemispheres. The decline in organochlorine pollution was faster in continental water masses and small enclosed seas than in the open oceans, the later being proposed as a final sink for persistent organochlorines. The different behaviour between small and large water masses is apparently due to the combination of two factors: the existence in oceanic waters of longer and more complex food webs, and the fact that any decline in the environmental input of persistent organochlorines is detected later in organisms situated high in the trophic web than in

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those feeding at low trophic levels.

However, despite the fact that the overall trend in the Mediterranean Sea is declining, and that this decline appears to take place at a faster rate than that occurring in the main oceans, the organochlorine tissue concentration still present in most Mediterranean dolphins is much higher than the threshold levels above which adverse effects have been experimentally observed in mammals. In the Mediterranean basin, bottlenose, common and striped dolphins have undergone severe reductions in their abundance, and even complete extirpation from certain locations. Although the actual contribution of organochlorine pollutants to this process has not been established, given the potential of these chemicals to interfere with critical elements of population dynamics - fertility, embryonic growth, immune competence - the high levels being observed are certainly a source of concern. The long-standing legacy of the negligent use that a quarter of a century ago was made of organochlorines must be a warning signal to the somewhat easygoing attitudes towards environmental alterations today considered as acceptable, but that in the future may become severe threats to marine wildlife.

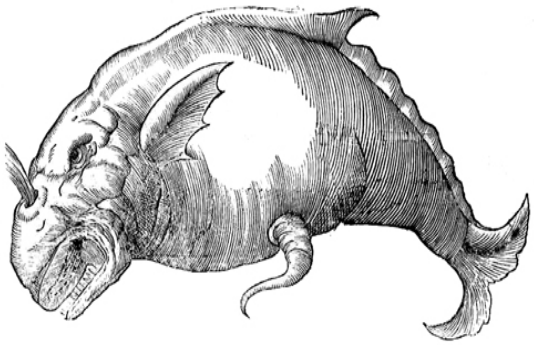
See a diagram of the temporal variation of PCB concetrations in the blubber of wester Mediterranean spinner dolphins in:

http://www.accobams.org/newsletter/index.htm

Suggested reading:

Aguilar A., Borrell A. 2005. DDT and PCB reduction in the western Mediterranean in 1987-2002, as shown by levels in dolphins. Marine Environmental Research, 59(4):391-404.

Reijnders P.J.H., Aguilar A. 2002. Pollution and Marine Mammals. Pp: 948-957 in: W.F. Perrin, B.Würsig and J.G.M. Thewissen (Eds), "Encyclopedia of Marine Mammals". Academic Press, San Diego.



Want to send news and articles to FINS? We welcome contributions in the field of cetacean conservation from all parties. Please send proposals, suggestions and items for the calendar of events to: G. Notarbartolo di Sciara, disciara@tin.it

News from the Secretariat

Memorandum of Collaboration with the RAC/SPA. A 'Memorandum of Collaboration' was signed by the ACCOBAMS Secretariat and the Regional Activity Centre for Specially Protected Areas of the Mediterranean Action Plan (UNEP MAP RAC/SPA), which is the Sub-Regional Co-ordination Unit of ACCOBAMS for the Mediterranean area. The Memorandum defines for the triennium 2005 - 2007, the fields in which the Coordination unit would bring its support: the organization of a survey to gain comprehensive cetacean population estimates and distribution in the ACCOBAMS Area; elaboration and development of databases; the establishment of regional stranding networks; the creation of protected Areas for cetacean conservation and of a Clearing House Mechanism.

Letter of Understanding between UNEP and the ACCOBAMS Permanent Secretariat. In February 2005, a 'Letter of Understanding' between the United Nations Environment Programme and the ACCOBAMS Permanent Secretariat was signed in order to define and extend the terms of their cooperation. It was agreed to closer collaborate in areas like exchange of information, mutual involvement during important meetings, deepened communication between ACCOBAMS and different UNEP organs (CMS, MAP Coordination Unit, Regional Seas Program, Biodiversity Unit of the Division of Environmental Conventions) as well as joint media and press work. Furthermore, the ACCOBAMS Secretariat, in addition to the Agreement's logo, will also use subsidiary the UNEP logo and the UN and UNEP flags.

Grateful acknowledgment. In regard to the passing away of His Sovereign Highness Prince Rainier III, the ACCOBAMS Secretariat would like to express again its deepest gratitude for the sympathy that many countries, organizations and partners stated at the moment of this great loss for the Host Country. His Sovereign Highness Prince Albert II of Monaco forwarded to the Secretariat a message of thanks.

ACCOBAMS in Egypt. The Third Meeting of the Scientific Committee, held in Cairo last May, provided an opportunity to the Secretariat for strengthening the collaboration with Egyptian authorities. Dr. Moustafa Fouda (Director of the Biodiversity Directorate, Egyptian Environmental Affairs Agency), who attended the Meeting on behalf of His Excellency Maged George, Minister of State for Environmental Affairs, gave a remarkable sign of interest toward ACCOBAMS and the commitment of the Egyptian authorities in promoting the accession of Egypt to the Agreement. During the visit in Egypt, the Secretariat could define as well the terms of collaboration with the hosting country with regards to a survey and a training course on cetacean conservation, which will be carried out next October, along the Mediterranean coast. The project will be sponsored by the Italian Ministry of the Environment, active supporter of many research activities.

Current state of signatures and ratifications. In the frame of the accessions to ACCOBAMS, Italy has recently ratified the Agreement, which is currently entering into force for the Country. An updated information on the ratification status of the Agreement can be found on: http://www.accobams.org.

News from the Scientific Committee

The Scientific Committee of ACCOBAMS held its third meeting (SC3) in Cairo from 15 to 17 May 2005. The following were the main highlights of the meeting:

Baseline abundance estimation of cetaceans in the area. Planning for a series of region-wide cetacean surveys was advanced by an ACCOBAMS technical workshop in Valsain, Spain, 17-19 December 2004. Topics addressed included: objectives of the surveys, species to cover, review of current information, initial planning for the surveys, methodology for survey design and preliminary proposal. A further workshop planned for early in 2006 is expected to lead to preparation of a formal proposal for LIFE funding in September 2006. The Committee was advised of a parallel initiative to plan and conduct cetacean surveys in the Black Sea under the Permanent Secretariat of the Black Sea Commission. It is anticipated that the two initiatives will be coordinated closely to ensure comparability in methods and to optimise use of resources. The Committee appointed Birkun, Cañadas and Fortuna to act co-coordinators for the ACCOBAMS Survey Initiative, with Birkun taking a lead role in the Black Sea and Cañadas and Fortuna (each on a halftime basis) in the Mediterranean.

Incidental catches in driftnets. Special attention was given, once again, to the problem of cetacean mortality in driftnets in portions of the Mediterranean. A Resolution of the 2004 Meeting of the Parties had called on Parties to adhere to existing regulations aimed at the mitigation of cetacean bycatch and to report on fishing effort, including pelagic drifting and non-drifting gillnets. The Scientific Committee was informed that illegal driftnetting continues to occur at a substantial level, e.g. in the southern Tyrrhenian Sea, southern

Alborán Sea and Ligurian Sea. Given the prohibition of pelagic driftnetting by various international fora, the Scientific Committee expressed its strong concern about the continuation of this practise, which is of great damage to cetaceans, including threatened populations in the Agreement Area.

Interactions between dolphins and fisheries. The problem of depredation by dolphins on fisheries is severe in many parts of the ACCOBAMS region and therefore it is a priority issue. The Committee received an update from Fortuna and Northridge on the use of acoustic devices to deter dolphins and prevent depredation. Also, the Committee recommended that a questionnaire survey be conducted to assess the interaction problem in the ACCOBAMS area and to help identify hotspots.

Anthropogenic noise. A Resolution of the Meeting of Parties instructed the Committee to identify critical habitat of sensitive species (e.g. Ziphius cavirostris), prepare guidelines and address the issue of permits for research involving the projection of sound. The Committee agreed that habitats would be identified through the ACCOBAMS Survey Initiative and other pertinent studies. The issue of permits was deferred. Concerning guidelines, the Scientific Committee decided to prepare a program of work and ask the Secretariat to contract an expert to prepare draft guidelines for the ACCOBAMS area including relevant justification and rationale. The draft guidelines will be submitted to the next Meeting of the Scientific Committee.

Fin whale conservation. The Committee noted that a long-anticipated workshop on fin whales is planned to take place in Monaco in November 2005.

Vessel collisions. A workshop on how to address the issue of vessel collisions in the ACCOBAMS area will be also organised in Monaco in November 2005, immediately after the fin whale workshop.

Conservation plans. The Committee reviewed progress on the development of a conservation plan for short-beaked common dolphins in the Mediterranean Sea and another for Black Sea cetaceans. It also initiated a strategy for developing a small set of high-priority projects, tasks or management measures to improve the conservation status of bottlenose dolphins in the region that are in line with the needs and the requests of the Parties. A research proposal in the northern Aegean Sea, aimed at assessing the presence of harbour porpoises in that Mediterranean area, was also welcomed by the Committee.

Protected areas. The Committee stressed the importance of elaborating criteria for the selection of new sites and improving the effectiveness of existing protected areas, e.g. by integrating consideration of cetaceans into the management of areas protected for other reasons. It agreed on the importance of monitoring developments and providing expertise to ensure success of the existing Pelagos Sanctuary for Mediterranean Marine Mammals, recognising its potential value for cetacean habitat protection.

Whalewatching. The Agreement has established a web-based database to collect information on whalewatching activities in the ACCOBAMS area.

Live strandings. The Committee encouraged the organization of a small workshop on handling live strandings of cetaceans in the ACCOBAMS area. It recommended that the workshop also address cetacean live entanglement in fishing gear and entrapment in harbours.

Prey depletion. The Committee noted the importance of promoting a better scientific understanding of trophic relationships and the potential effects of fisheries on the availability of prey for cetacean populations. A strategy for addressing this issue will be developed during the intersessional period.

IUCN Red List status of cetaceans of the Mediterranean and Black Seas. The Committee encouraged a proposal to organise a workshop to assess populations of cetaceans in the Mediterranean and Black Seas against the IUCN Red List categories and criteria. This initiative is expected to receive support from the IUCN Centre in Malaga and from the CMS Secretariat.

Proposed amendments to CMS appendices. A number of proposed amendments to CMS appendices, specifically related to Mediterranean small cetaceans, were discussed. These amendments will focus, in particular, on the following species: *Delphinus delphis, Tursiops truncatus, Stenella coeruleoalba.*

The full report of SC3 is available on the ACCOBAMS website. SC4 is expected to take place in Monaco in Autumn 2006. FINS wishes to gratefully acknowledge the contribution from Randall R. Reeves to this news item.

Cetacean wintering habitats in the Black Sea: Bottlenose dolphins spend the cold season separately from harbour porpoises and common dolphins

by Alexei Birkun, Jr.

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Very little is known about cetacean habitats in the Black Sea during the cold season, although a hundred years ago, in 1903, A.A. Silantiev supposed that numerous dolphins and porpoises gather every winter in the south-eastern part of the basin near Caucasian coast, in the area pertinent now to Georgia. Around the mid 20th century, this assumption was supported by empiric data obtained in the course of dolphin fishery operations; in addition, S.E. Kleinenberg also reported winter concentrations of cetaceans close to the southern coast of the Crimean peninsula, in the area currently relating to Ukraine. However, until recently no special research had been carried out to study the winter distribution of Black Sea cetaceans - neither harbour porpoises (*Phocoena phocoena*) nor common dolphins (*Delphinus delphis*) and bottlenose dolphins (*Tursiops truncatus*).

Since February 2004, a regular vessel-based monitoring of the coastal waters between Cape Fiolent and Cape Aya (south-western Crimea, Ukraine) is being conducted by the Brema Laboratory (site 1 in the map). One day every month two researchers accompanied by 2-6 volunteers survey this area of 60 km^2 using line transect methodology (28 km of observation effort along six zigzag tracklines) and photo-identification techniques. According to sighting statistics, bottlenose dolphins spend here the whole cold season, while harbour porpoises accumulate in autumn and spring, and common dolphins visit this site only occasionally. For instance, on 9 January and 21 February 2005, bottlenose dolphins were recorded solely but in sizable numbers: 41 and 34 individuals, respectively. Some animals with distinctive features on their dorsal fin were already recorded about one year before, in the early 2004.

Just between the above dates, from 18-20 January 2005, another shipboard survey was organised in the Georgian territorial waters between Cape Anaklia to the north and the Turkish state border near Sarp to the south (site 2 in the map). A total of 211 km of observation effort along eight tracklines crossed evenly the study area of 2320 km^2. This project was implemented by an international team composed by researchers from the Brema Laboratory (Ukraine), the Marine Ecology and Fisheries Research Institute (Georgia) and the Institute of Ecology and Evolution (Russia). High indices of cetaceans density, estimated for harbour porpoises (1.5 individuals /km^2; CV=26.5%) and common dolphins (4.2 individuals/km^2; CV=31.4%), confirmed that the Georgian portion of the Black Sea is indeed an important wintering area for these two species. At the same time, bottlenose dolphins were not recorded at all, in spite of three additional days of fruitless search over the area.

Further monitoring and special (at least seasonal) protection of these wintering areas in Georgia and Ukraine seem to be essential measures to be undertaken to foster Black Sea cetaceans conservation. It could be expedient also to extend winter surveying to some other parts of the basin, particularly along the southern shores.

See a map of the Black Sea with the locations mentioned in this text at:

http://www.accobams.org/newsletter/index.htm

SPECIAL from TURKEY

Editor's Note: *On this issue of FINS we continue to dedicate a special space to inform on cetacean conservation-related activities in an ACCOBAMS Range State. In the previous issue the space was dedicated to Slovenia; we now present two NGOs from Turkey. With a long, articulated coastline both in the Mediterranean and in the Black Seas, with the Marmara Sea totally included in its internal waters, and with the Turkish Straits System representing important corridors for marine life, cetaceans included, Turkey can play a crucial role in promoting cetacean conservation in the Agreement area. We fully acknowledge the possibility that there are several other scientific and advocacy groups in Turkey committed to cetacean research and conservation, and will be pleased to welcome their contributions on FINS whenever we will be informed about their activities.*

Turkish Marine Research Foundation (TUDAV)

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Turkey is bordered by the Black Sea, the Aegean Sea and the Mediterranean, and contains one inland sea, the Marmara Sea. The Turkish coastline reaches 8,353 km in total. The Turkish people, however, has not appreciated the maximum benefit from the seas. We strongly believe that we must learn more about our seas to protect them as well as to get benefit from them. For this purpose, TUDAV was founded in 1996 by a diverse group of people, including marine scientists, ship owners, sea-lovers, and sailors. Currently it has 15 representatives and about 3,000 members all over Turkey. TUDAV has strived to enhance marine research activities in Tur-

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key, to promote education on marine issues, and to conserve the marine environment.

There are a number of projects that TUDAV has carried out successfully. We have established the first and only (so far) marine park in Turkey at the Gokceada Island in the northern Aegean Sea. The park was selected as the best practice in Tukey at the Summit in South Africa in 2002. During the last two years, TUDAV worked to promote the protection of the Ölüdeniz region, a popular resort on the Mediterranean coast of Turkey. This project was partially supported by the European Commission through a LIFE project.

TUDAV has been carrying out several projects on cetacean research and conservation since its establishment in 1996. One of our main interests is to understand the migration and distribution of the cetaceans through the Turkish Straits System (TSS), which connects the Black Sea to the Aegean Sea. In the TSS three cetacean species are known to occur: *Tursiops truncatus, Delphinus delphis*, and *Phocoena phocoena*. However, we still ignore important aspects of their ecology, such as when do they migrate, where and when they occur, and how far into the Black Sea or the Aegean Sea they migrate. This project covers all three species and focuses mainly on the Istanbul Strait, one of the busiest waterways in the world. There used to be many dolphins commonly seen in the Strait several decades ago, but with the increase of the population of Istanbul as well as the sea traffic and pollution, the chance of seeing these lively animals has been decreasing. Our observations of cetaceans along the Strait are performed both from land and sea, and recently also include a programme of photo-identification. We have determined that bottlenose dolphins are commonly seen in the area, so this work will elucidate their residence in the Istanbul Strait.

Another project of TUDAV concerns the collection of information on cetacean strandings. We are making a special coastal surveying effort along the western coast of the Turkish Black Sea, as it is the area where the bycatch in turbot nets poses the most serious threat to cetaceans, particularly to harbour porpoises. We are collecting baseline data of bycatch in turbot nets. TUDAV has also been trying to establish a national stranding network, which is an important source of information. Through this network, we have collected some samples for the studies of genetics, taxonomy and life history and valuable information on stranded cetaceans. Since the coastline of Turkey is so long, we need to extend our network nationwide, involving more people. Out first standing network meeting was held in 2003.

We also feel that the education for children and local people is very important for the conservation of marine life and habitats. TUDAV has been active in this filed, promoting education on the marine environment and ecosystems. Marine mammals are an important component of marine biodiversity, and we make a special emphasis on their importance. In 2003 and 2004, within the framework of our LIFE-supported project on the Ölüdeniz Lagoon on the Mediterranean coast of Turkey, we lectured to thousands of students in the local schools, using the books and booklets we have published on the marine biodiversity.

TUDAV will continue its effort both in research and education, with the hope that one day all the Turkish people will appreciate how lucky they are to be surrounded by such beautiful water...

Marine Mammal Research Group (DEMAG)

by Harun Güçlüsoy

DEMAG was established in 1995 under the parent organisation the Underwater Research Society (SAD), Ankara. A few months following the establishment of DEMAG, a female sperm whale found imprisoned in the inner part of Izmir Bay, one of the most polluted parts of the Mediterranean Sea in those years, took the attention of the public. During those very same days, a smaller cetacean, which live-stranded and subsequently died in that same area, was wrongly assumed to be the calf of the sperm whale female, which had lost its mother. This animal later turned out to be a false killer whale, a rare cetacean in the Mediterranean. These two independent events took the attention of the public, and testified that whales also exist in the Aegean Sea, however it was not very clear whether the Turkish coastal seas indeed included critical habitat for these species. Therefore in following years, with the limited volunteer members, DEMAG dedicated most of its time to public awareness activities, such as giving seminars on marine mammal conservation mainly in big cities including Istanbul, Ankara and Izmir, and writing popular articles for relevant magazines. During the 1990s, DEMAG also opportunistically collected data on stranded cetaceans, mainly in Izmir Bay where two project offices of SAD were based. In addition, during the early 2000s, a preliminary set of surveys were carried out to determine the distribution of cetaceans within Izmir Bay. These studies showed that bottlenose, striped and short-beaked common dolphins occur in various parts of this bay.

In May 2002, at the official invitation of the Ministry of Environment's Izmir Directorate, SAD participated in a meeting to design an action plan for the protection of marine turtles and monk seals along the Province's coasts. The meeting's primary focus, however, was on the rescue and rehabilitation of stranded animals and necropsy procedures for individuals of these marine species found dead. At the end of the meeting, SAD was mandated to draw up an action plan for the rescue and the rehabilitation of monk seals and other marine mammals. During 2003 and 2004, DEMAG conducted a questionnaire survey to assess marine mammal interactions with fisheries in the eight fishing harbours on the Turkish central Aegean coasts. Although the results of this study have not been formally evaluated yet, an interesting outcome was that fishermen, especially the purse-seiners and coastal fishermen, were found to be largely in favour of culling small cetaceans, due to a percei-

ved increase in their numbers. Unfortunately, we do not know whether this perception by the fishermen is due to a real increase in the cetacean populations, or rather to the dwindling of local fish stocks which may force cetaceans to depredate the nets. This question can only be answered after a nation-wide fish stock survey and cetacean abundance estimate surveys will be conducted. However, the cull of the cetaceans is one of the subjects we were familiar to hear from fishermen and also from the Ministry of Agriculture and Rural Affairs, which is the responsible body for the Aqua Products Circulars. However, the Ministry does not intend to allow any culling.

Since 2005, DEMAG established a Turkish Marine Mammal Conservation and Discussion Group at afalina@yahoogroups.com. Up to this moment, 50 members are receiving news in this field. Among these news, two may be of special interest the readers of FINS. The first concerns a recent incident happened in the northern Aegean Sea (see), in which several cetaceans were entangled in driftnets and killed. This fishing technique targeting swordfish - so detrimental to the marine mega-fauna - although banned in the Turkish waters still continues in the north, and even more in the south of the Turkish Aegean Sea. The enforcement of the legislation is lacking because we believe that the technique is not well known among the enforcers. The second news concerns a recent, interesting research programme, involving an investigation of the fish migration along the Istanbul Strait from mid-March to mid-June. During this study one of the DEMAG members had the opportunity of joining the team, and observing bottlenose dolphins which the local fishermen believe to closely follow the fish migration every Spring and Autumn. Although also harbour porpoises were claimed to follow the fish migration, we have not found any evidence of such occurrence except finding one stranded carcass of this species. We are convinced that this phenomenon is of great ecological interest, and should be considered for future investigations.

See images of cetaceans from Turkish waters, provided by TUDAV and by DEMAG at

http://www.accobams.org/newsletter/index.htm

Short News

First record of a Gervais' beaked whale, *Mesoplodon europaeus* (Gervais, 1855), in the Mediterranean Sea

by Michela Podestà, Luigi Cagnolaro & Bruno Cozzi

On August 9, 2001, a beaked whale, 4.5 meters long, stranded alive along the coasts of Castiglioncello (Livorno), northern Tyrrhenian Sea (Italy). The animal unfortunately died soon afterwards and it was identified by the rescue team as a female Cuvier's beaked whale, *Ziphius cavirostris* (G. Cuvier 1812). The whale carcass was grossly dissected for skeletal preservation and a few days later collected by personnel of the Museum of Natural History of Milan, transported to Milan and frozen. Only few months ago, after the complete cleaning of the skeleton, we found out that the initial identification was wrong.

The examination of the skull and mandible and their comparison with data reported in literature clearly indicated that the specimen was a Gervais' beaked whale, *Mesoplodon europaeus*. The main character that suggested the species identification was a single pair of teeth present in the mandible, approximately 9.5 cm from the tip. The teeth were only partially erupted from the bone alveolus. In order to have full confidence in this identification we sent some pictures of the skull and mandible to Dee Allen and Jim Mead of the Smithsonian Institution, National Museum of Natural History in Washington, D.C. They confirmed the species and transmitted to us some measurements from specimens of the same species maintained in the Smithsonian that resulted to be consistent with our data. All bone sutures appeared fused and ossified, indicating that the specimen described here was well beyond puberty.

Strandings or sightings of Cuvier's beaked whales in Italy and other Mediterranean countries have been described many times. On the contrary the presence of specimens of the genus Mesoplodon in the Mediterranean Sea is quite erratic. A specimen of Blainville's beaked whale (*Mesoplodon densirostris*) stranded along the Spanish coasts in 1980. A (supposedly) Sowerby's beaked whale (*Mesoplodon bidens*) was reported from the Italian Tyrrhenian coasts in 1928. Unfortunately, clear-cut identification of this specimen is missing, since the animal was later destroyed. Two beaked whales belonging to the genus *Mesoplodon* stranded alive

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and were subsequently released along the coasts of the French Riviera in 1996, but no further identification was possible based on the collected evidence. Another beaked whale, supposedly Sowerby's, stranded in the Aegean waters in 1989. Specimens of *Mesoplodon* sp. are stored in several Italian natural history museums, however all these specimens are of exotic origin and were imported in Italy from non-Mediterranean waters for museal purposes in the past.

This is therefore the first record of the presence of a Gervais' beaked whale in the Mediterranean Sea.

The skeleton is presently part of the collections of the Museum of Natural History of Milan and its detailed morphology will be described in a future study. Several viscera belonging to the specimen are maintained at the Mediterranean marine mammal tissue bank of the University of Padua (http://www.sperivet.unipd.it/tissuebank/index.html) and are available to the scientific community for further study.

The description of this first finding is reported in:

Podestà M., Cagnolaro L., Cozzi B. 2005. First record of a stranded Gervais' beaked whale, *Mesoplodon europaeus* (Gervais, 1855), in the Mediterranean waters. *Atti della Società Italiana di Scienze Naturali e del Museo Civico di Storia Naturale di Milano*, 146(1):109-116.

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See a picture of the skull of the specimen of Gervais' beaked whale described in this article at:
http://www.accobams.org/newsletter/index.htm

For more information on Gervais' beaked whales, see:http://www.cms.int/reports/small_cetaceans/data/m_europaeus/m_europaeus.htm

Starving fin whale calf dies in Haifa Port

by Dan Kerem

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Last March the 31st, a baleen whale was sighted by an IMMRAC volunteer at the entrance to Haifa Port. Murky waters and very limited experience with live whale sightings (several of the more experienced IMMRAC team were attending the ECS meeting at La Rochelle) prevented definite identification and from the estimated 8 m size, it was assumed to be an adult minke whale (*Balaenoptera acutorostrata*). The whale seemed to be following a 120 m long Russian freighter and when the latter docked, it was observed swimming back and forth along its port. Its mean dive time was 152 s, mean surface time 46 s, with 2.7 blows/surfacing. With the aid of ECS experts, e-mailed photos and video clips sent to La Rochelle on April 2nd ascertained the suspicions already forming in Haifa that it was a fin whale (*Balaenoptera physalus*) calf. The clips showed the calf to be emaciated, its backbone very distinct along its entire length (see figure). A snorkeler succeeded to scrape off some skin and at that time it was contemplated whether to try and guide it out of the harbor by use of an "acoustic wall", as port authorities could not guarantee its safety vis-à-vis in-port traffic. Most experts at the ECS meeting considered it doomed and suggested not to impose any extra stress.

Meanwhile, the (very cooperative) ship's captain claimed that the whale had followed it all the way from Iskenderun Port in Turkey (backed by video clips he made of it) and that it would probably follow it back out to sea, later on that evening. When next morning the whale was not to be seen, it was assumed that that was what happened. Eight days later, its body floated inside the port, at the place where it was seen swimming. A very limited necropsy revealed a wasted male calf with an empty stomach but some content in the hind gut. Observing the Russian video taken 48 hours prior to arrival at Haifa, the calf already looked very thin. As appreciated from the red track on the map, this calf made it as east as one can get in the Mediterranean and then south along 2/3 of its eastern coast.

The dire scenario of a still lactating (or even recently weaned) calf separating from its food source (or its guide to solid food), hypothetically still around and well (the ship was thoroughly checked for signs of collision) is in itself disturbing. The notion of the consequent "adoption" of a nipple-less, large sailing object for 48 hours or more that steadily draws it away from its mother and causes it to waste energy with no food reward is even more disturbing.

One may make a rough estimate of the energy expenditure and (assumed lipid) weight loss involved in the Iskenderun-Haifa lag, drawing from the cornerstone paper: Sumich, J.L. (1983) Swimming velocities, breathing patterns, and estimated costs of locomotion in migrating gray whales, *Eschrichtius robustus*. Can. J. Zool. 61:647-52. The calculated average velocity of boat and whale, 6.25 knots (300 nautical miles/48h) or 3.2 m/sec is 50% higher than the preferred migration speed of gray whales. Allowing for species differences (rorquals being more hydrodynamic and probably incurring a lower cost of transport than gray whales) and for the fact that the calf may have had an advantage of drafting alongside the boat (when questioned, the captain claimed that for all he could tell it was swimming rather than bow riding or drafting), we may use the conservative assumption that the calf was traveling at optimal (least energy demanding) speed, as do gray whales. Sumich (1983) calculated (and independently measured) a daily weight loss of 30 kg fat for adult migrating gray whales. While adults could sustain such a loss for months of fasting using fat reserves, calves probably have minimal reserves and must suckle until they reach the feeding grounds. A calf losing fat at this rate, should very soon exhaust whatever stored fat it has and its associated (metabolic) water gain and revert to metabolizing its own tissue protein, posing a net osmotic load that would compound the dehydration of milk deprivation.

One may finally ask what were the mother and calf doing there in the first place. The Russian boat sails this line only and although it is possible that the calf reached the Gulf of Iskenderun following another

vessel from the west, such a long separation from its mother seems unlikely. This event contrasts sharply to two instances of minke whale calf entanglements (May 2000 and January 2004) in which the animals seemed well nourished. All accounts of fin whale beachings on the Israeli coast in the last half century (4) were of decomposed or very thin animals. The easternmost Mediterranean is certainly not a feeding ground and is seemingly also out of the breading grounds range of Mediterranean fin whales. Sighting records from the area are rare (Notarbartolo di Sciara *et al.* (2003) The fin whale *Balaenoptera physalus* (L. 1758) in the Mediterranean Sea. Mammal Rev. 33:105-150). Straying into this oligotrophic cul de sac may be a fatal mistake for fin whales of any age. However, the feeling that with all the goodwill and available technology one can only helplessly witness the final outcome of such mistakes is humbling indeed.

Special thanks to Ron Yaffe, Sara-Lee Granit, Oz Goffman, Nir Hadar and Ofir Peck for supplying information, to Israel Shipyards and Israel Electric Co. for providing crane, crew and transportation, to Yo'av Ratner of the Israeli Nature & Parks Authority for the burial site and services and finally, to Giuseppe Notarbartolo di Sciara, whose literary spirit permeates the lines.

See a photograph of the young fin whale in Haifa Harbour and a map at

http://www.accobams.org/newsletter/index.htm

Rough-toothed dolphins "invading" the port of Haifa

by Dan Kerem

IMMRAC volunteers were alerted at dawn of March 22nd to the circulating news of dolphins in Haifa Port. Oz Goffman and Aviad Schienin, early risers and already at work at the Fisheries Department headquarters in nearby Kishon Port were first on the scene, identifying a group of 30 rough-toothed dolphins (*Steno bredanensis*) roaming the still waters of the port. The group in time split into subgroups of 7-10 individuals, moving in high synchrony and very tight formation. All size categories were represented, including small calves.

The group apparently followed in the wake of schooling grey mullet (*Mugil* sp.) which are known to congregate in and around the port at this time of year. Reliable reports claim that a similar-sized group has been spotted at the same time outside the breakwater. Animals were observed chasing fish out of the water and occasionally with fish in their mouths.

Although on several occasions small groups of up to 3 dolphins (always bottlenose dolphins *Tursiops truncatus*) strayed into the port, appearing to have lost their bearings, these animals seemed very business-like. Thus, the rare event realized into an information bonanza, with Port Authorities and Naval Security in a rare show of goodwill issuing a sweeping entry permit to anybody presenting a correspondent's certificate (this to the dismay of some IMMRAC members who had long to beg for entry at the gate). The entire day was spent with animals intermittently engaged in feeding and milling behaviors. By dusk the last of the group have left as suddenly as they appeared, thus ending a truly memorable experience.

The time of year coincides with beaching events of this species in previous years, mainly of young calves (see "Rare occurrences of cetaceans along the Israeli Mediterranean coast" by Scheinin *et al.* FINS 1(1), March 2004), implying that the local coastal visit of this normally pelagic species may be a seasonal annual occurrence. As to its status in the Mediterranean, there may be need for a revision towards permanency when adding this observation to that of Watkins *et al.* (1987) (160 animals with calves in the Sicily Channel) and that of Lacey *et al.* (2005) (group of six animals, with calf, in the Ionian Sea). The origin and relatedness (Atlantic vs. Red Sea) will have to await genetic comparisons.

See photographs of the school of rough-toothed dolphins entered in Haifa Harbour at:
http://www.accobams.org/newsletter/index.htm

Suggested readings:

Watkins W.A., Tyack P., Moore K.E., Notarbartolo di Sciara, G. 1987. *Steno bredanensis* in the Mediterranean Sea. Marine Mammal Science 3:78-82.

Lacey C., Lewis T., Moscrop, A. 2005. Sightings made during surveys of Mediterranean Sea in 2003 and 2004 including an unusual encounter with rough-toothed dolphins (*Steno bredanensis*) in the Ionian Sea. In: 19th Ann. Conf. of ECS, La Rochelle, April 2005. pp. 113, Abs. # SA-13.

A comment on the rescue of live strandlings, and of cetaceans in difficulty in general

by Giuseppe Notarbartolo di Sciara

When humans find a whale, a dolphin or a dolphin school that ran into trouble ashore, either stranded alive or entrapped in a bay or harbour, the temptation to "do something" has always been apparently an irresistible impulse. In the early days of human history such events mostly meant that a windfall of animal protein and fat had become suddenly available, and action usually involved the killing of the animal, or animals, to secure food. This may have led to early whaling enterprises. Today, in most parts of the world and in particular within the ACCOBAMS area, finding cetaceans in difficulty near shore triggers an impulse to save them and put them back to sea. Certainly this change in attitude is welcome, not only because it means that we humans do not have to resort to the foul-tasting cetacean meat to survive, but also because it shows the emergence of a sense of empathy for other animal species that is becoming widespread and cross-cutting among different civilisations. However, these good intentions very often are condemned to remain just that, because "saving" a cetacean in trouble ashore may be a daunting and at times impossible enterprise. In the worse case, poorly planned and inexperienced action may cause more damage than lack of action, in spite of the best of intentions, due to the risk of injury both to the animal(s) and to the people involved; in addition, causing additional stress to animals that are already stressed is a certainty. In many cases the animal or animals ventured deliberately inside a bay or harbour, like in the instance of the school of rough-toothed dolphins in Israel, and the last thing they want or need is to be "saved". In other instances simply we are powerless in the face of the event. Having gone to the moon may give humans a false sense of technological omnipotence: picking up a young fin whale from inside a harbour and managing to have it rejoin its mother, providing that she's still alive somewhere out there beyond the horizon, is probably harder than sending people to the moon. And yet, when these things happen we do need to have some guidance, and it is often the authorities in charge, such as the Coast Guard, that refer to the experts for advice.

With the objective of preparing guidelines to be followed in the case of live stranding events, as well as entrapments in bays or harbours and entanglements in nets, ACCOBAMS will organise soon a workshop in Greece, with the support of WDCS and of Anastasia Komnenou from the Aristotle's University of Thessaloniki.

Conservationists and fishermen work together to protect the deep seas: the Mediterranean is the first regional sea to adopt measures to refrain from deep water fishing

by François Simard & Sergi Tudela

Submarine canyons, cold seeps, brine pools, cold water corals and seamounts are the hidden secrets of Mediterranean deep seas. Deep water ecosystems are highly vulnerable to commercial exploitation due to the low turnover rates of the species adapted to these environments and the lack of adaptation of deep ecosystems to cope with strong external perturbations.

The General Fisheries Commission for the Mediterranean (GFCM) - the regional fisheries management organization for the Mediterranean - last February decided to refrain from expanding deep water fishing operations beyond the limit of 1000 meters based on scientific considerations. The decision was adopted at the 29th session of the GFCM held in Rome from 21-25 February 2005. Unless objections from member countries arise, it will come into force in 4 months time.

This important measure was based on a comprehensive study on the status of deep sea fishing in the Mediterranean developed by the World Conservation Union (IUCN) and WWF in collaboration with the team of researchers of the Marine Sciences Institute of Barcelona. The measure has also been debated in a wide-reaching consultation process with relevant regional specialists, such as the International Commission for the Scientific Exploration of the Sea (CIESM), through several workshops held over the last 18 months.

This important measure, the first of its kind in the world, is a significant step towards a more sustainable fishery in the Mediterranean. Both communities, conservationists and the fishery industry, will benefit from this measure, since prohibiting bottom trawling, the most extended deep water fishing technique, deeper than 1000m will protect juvenile

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shrimps, and therefore shrimp fisheries, as deep waters are one of their vital nursery areas.

GFCM's decision to exclude trawling beyond 1000 meters has moved the Mediterranean considerably towards sustainable fisheries. It also makes the region a leader in fisheries management.

Deep Sea waters ecosystems are poorly known. This general approach of preventing an extension of fishing practices as a precautionary measure is therefore in line with Convention on Biological Diversity (CBD) recommendations. Another measure suggested by IUCN and WWF, in their conservation proposal related to the GFCM's decision, is a site-based approach that aims to create a network of Marine Protected Areas encompassing unique deep water habitats.

Leading scientists rank endangered dolphins, porpoises most in need of immediate action: accidental capture in fishing nets pushes several species to the brink

by WWF-US

Leading marine scientists for the first time have assessed dolphin and porpoise populations around the world which are severely threatened by entanglement in fishing gear and recommended nine urgent priorities for action in a report commissioned by the World Wildlife Fund. These nine projects highlight species threatened by bycatch that are the most likely to benefit from immediate action but are languishing without intervention.

The list of dolphins and porpoises that could recover if changes to fishing methods and other conservation efforts are made includes harbour porpoises in the Black Sea, where thousands of porpoises are thought to be killed each year.

Most of the species on the list are threatened by the widespread use of one type of fishing gear - gillnets. These nets are difficult for dolphins and porpoises to spot visually or detect with their sonar, so they may become tangled in the netting or in the ropes attached to the nets.

"Almost 1,000 whales, dolphins and porpoises die every day in nets and fishing gear. Some species are being pushed to the brink of extinction," said Karen Baragona of WWF's species conservation program. "We developed this ranking to help governments and aid agencies target their investments for the best return."

The report will be submitted to the International Whaling Commission (IWC) at its annual meeting next week in South Korea. The scientific committee of the IWC includes many of the world's leading marine scientists, who last year endorsed the methodology of the WWF report.

The U.S. Commission on Ocean Policy last year noted that bycatch is the greatest threat globally to whales, dolphins and porpoises, known scientifically as cetaceans. Bycatch is the accidental capture in fishing gear of species--including cetaceans--that fishermen do not intend to catch. Because cetaceans need to come to the surface to breathe, if they are trapped underwater in fishing nets, they die. In 2003, researchers estimated that more than 300,000 cetaceans are killed in fishing gear each year in the world's oceans.

"Rather than simply identifying the species or populations at greatest risk or the geographical locations where the bycatch problem is most severe, the group was asked to emphasize opportunities, such as situations where the prospects for successful intervention appeared especially good," said Randall Reeves, lead author of the report, chairman of the IUCN Species Survival Commission's Cetacean Specialist Group, and member of the ACCOBAMS Scientific Committee. "It's crucial to give guidance to agencies and organizations on how they should invest their resources for bycatch mitigation."

Between 1993 and 2003, fisheries in the United States introduced changes that reduced cetacean bycatch to one-third of its previous levels. But so far little of this success has been transferred to other countries, and in much of the rest of the world, progress on bycatch mitigation has been slow or nonexistent.

"These accidental deaths can be significantly reduced, often with very simple, low-cost solutions. The United States and several other countries have significantly reduced bycatch in their waters. Slight modifications in fishing gear can mean the difference between life or death for dolphins," said Baragona. "But for many of these threatened dolphins and porpoises, we need to act now before it's too late."

In April, WWF's International Smart Gear Competition awarded a prize to a promising gillnet design concept using glowing ropes and stiffer nets that may help cetaceans see gillnets in order to avoid them and to escape if they do accidentally swim into the net.

Species and populations designated in the report as among the top priorities for investment of resources are:

- Irrawaddy dolphins in the crab net/trap fishery in Malampaya Sound, Philippines

- Irrawaddy dolphins in gillnets in the Mekong, Mahakam and Ayeyarwady rivers and in Chilka and Songkhla lakes, Southeast Asia

- Indo-Pacific humpback dolphins and Indo-Pacific bottlenose dolphins in drift and bottom-set gillnets on the south coast of Zanzibar (Tanzania)

- Harbor porpoises in coastal gillnets in the Black Sea

- Spinner dolphins and Fraser's dolphins in large-mesh driftnets and purse seines in the Philippines

- Atlantic humpback dolphins in coastal gillnets in

the northern Gulf of Guinea (Ghana, Togo)

- Burmeister's porpoises in artisanal gillnets in Peru

- Franciscana dolphins in coastal gillnets in Argentina, Uruguay, and Brazil

- Commerson's dolphins in coastal gillnets and midwater trawls in Argentina.

The report was co-authored by Reeves; Per Berggren of Stockholm University; Enrique A. Crespo of the Centro Nacional Patagónico, Argentina; Nick Gales of the Australian Antarctic Division, Australia; Simon P. Northridge of the Gatty Marine Laboratory at University of St. Andrews, Scotland; Giuseppe Notarbartolo di Sciara of the Tethys Research Institute, Italy; William F. Perrin of Southwest Fisheries Science Center, California; Andrew J. Read of the Duke University Marine Laboratory; Emer Rogan of University College in Cork, Ireland; Brian D. Smith of the Wildlife Conservation Society, Thailand; and Koen Van Waerebeek of the Museo de los Delfines in Peru.

Please visit:

http://www.wwfus.org/cetaceans/pubs.cfm

for a copy of the report, "Global Priorities for Reduction of Cetacean Bycatch."

Book Review

by Simon Berrow

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Marine protected areas for whales, dolphins and porpoises: a world handbook for cetacean habitat conservation. Erich Hoyt. 2005. Earthscan, London, 512 pp. ISBN 1-84407-064-6

After many years of research, Erich Hoyt has yet again produced a unique and essential book for anybody interested in the conservation and protection of cetaceans. His book on "Marine Protected Areas for Whales, Dolphins and Porpoises" provides an excellent background to the history of whale and dolphin sanctuaries and protected sites as well as listing all current and proposed marine protected areas (MPA) for cetaceans throughout the world.

The book is presented in four main chapters from the history of MPAs to strategies required to protect cetaceans. Chapter 1 covers the history and philosophy behind MPAs, including not only inshore areas, but also the requirement for high seas MPAs. To date there are only five international sanctuaries where agreement has been reached between each state although a further ten are proposed. Included in those designated is the Pelagos Sanctuary in the Mediterranean, which was designated in 1999. Hoyt states that although it took some ten years for the three countries (Italy, France and Monaco) to agree on a sanctuary, they have set an important and exciting precedent. National sanctuaries, which extend to the countries' EEZs have been designated in 16 countries including three within Europe (Ireland, Madeira and the Canary Islands). Local or regional MPAs are much more diverse and widespread, and Hoyt provides a comprehensive list of names and definitions and compares all to the IUCN Protected Areas categories. Hoyt also promotes the advantages of MPA networks, which could offer protection to a range of critical habitats for cetaceans. At the end of the chapter a table describing the legal frameworks under which MPAs for cetaceans have been established is provided with a comprehensive list of websites for further information.

In Chapter 2, the case for using cetaceans to provide protection for marine habitats is made. Although there are only a few endangered or vulnerable cetacean species with restricted ranges, cetaceans can act as a "flagship" species for raising awareness of the role of MPA in marine conservation initiatives.

Creating an MPA is only the start of a process in enhancing the conservation of cetaceans. The design and management of MPAs for cetaceans in restricted in many cases by the lack of basic information on the populations' ecological requirements and critical habitats. In Chapter 3, on the design and management of MPA for cetaceans, Hoyt promotes the ecosystem approach, which is increasingly acknowledged as sensible but also provides an even greater challenge to managers. Hoyt presents 18 steps to creating better MPAs for cetaceans. Some of these are common sense but the last "don't give up and don't stop" should remind all of us that the stakes are high but the rewards are mighty.

A large proportion of the book is dedicated to listing all MPAs by region including target species, management strategies and contacts. In the section on the Mediterranean an interesting background to the establishment of the Pelagos Sanctuary, which is also included as a case study, and the role of ACCOBAMS is presented. ACCOBAMS is described as "pioneering" and "is certain to become a model for marine and other agreements in other marine regions".

I have no doubt this will become the definitive source on MPA for cetaceans for many years to come and will influence the design and management of this important and rapidly developing conservation tool. I strongly recommend it to everybody interested in whale and dolphin conservation.

Calendar of events, *July - December 2005*

27 Jun-1 Jul,
CITES: 53rd Meeting of the Standing Committee,
Geneva, Switzerland

5-7 July,
South Pacific Cetaceans MoU Drafting Group Workshop,
Nadi, Fiji

7-9 July,
"People and the Sea III: New Directions in Coastal and Maritime Studies",
Amsterdam, Netherlands

11-15 July,
CBD: Ad Hoc Technical Expert Group on Marine and Coastal Biodiversity,
Montreal, Canada

18-21 July,
UNEP: Regional Workshop of Experts on the Development of the Marine Mammal Action Plan for Wider Caribbean Region,
Barbados

18-22 July,
IOTC: Working Party on By-Catch (IOSEA related),
Phuket, Thailand

25-29 July,
International Fishers Forum (IFF3) - (IOSEA related),
Japan

1-3 Sept,
International Conference on Environmental Science and Technology,
Rhodes, Greece

12-18 Sept,
Ecological Restoration: A Global Challenge - The World Conference on Ecological Restoration
Zaragoza, Spain

13-16 Sept,
CBD: Ad Hoc Technical Expert group (AHTEG) on Biodiversity and Climate Change,
Helsinki, Finland

19-23 Sept,
OCEANS 2005
Washington DC, USA

23-28 Oct,
IMPAC: First International Marine Protected Areas Congress,
Geelong, Australia

25-29 Oct
Medcoast 2005, The 7th International Conference on the Mediterranean coastal environment
Kusadasi, Turkey

7-20 Nov,
Biodiversity Conservation in Asia: Current Status and Future Perspectives,
Kathmandu, Nepal

15-18 Nov,
European Conference on Coastal Zone Research
Portoroz, Slovenia

16-25 Nov,
CMS: 8th Meeting of the Conference of the Parties (COP), Scientific Council and Standing Committee Meeting,
Nairobi, Kenya

28 Nov-2 Dec,
CBD: Eleventh Meeting of the Subsidiary Body on Scientific, Technical and Technological Advice (SBSTTA),
Montreal, Canada

5-9 Dec,
CBD: Second Meeting of the Ad Hoc Open-ended Working Group on Protected Areas,
Montreal, Canada

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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 on http://www.accobams.org/newsletter/index.htm).

FINS can be found online on the Website of ACCOBAMS: http://www.accobams.org/newsletter/index.htm

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