The Monachus Guardian
monachus / schauinslandi / tropicalis

Vol. 9 / No. 1 | Published by Friends of the Monk Seal | June 2006

Cover Story: The Balearic Islands – preparing for a return home.

Mauritania: Bringing marine conservation into the schools of Nouadhibou.

Turkey: Will a downgrading of protected areas hurt the monk seal?

The Monachus Guardian
monachus / schauinslandi / tropicalis

International News

Vol. 9 (1): June 2006

The funding crunch

Despite generous spin-doctoring to the contrary, there is little tangible evidence that any international conservation organisation is taking monk seal conservation seriously – at least at the present time.

Like most monk seal conservation efforts, The Monachus Guardian has also relied on NGO financial support to operate. Unfortunately, cutbacks striking projects across the range of the species have also obstructed publication of the journal for the last 3 years.

Regular readers will note the absence of key departments of the journal – Guest Editorial, In Focus, Perspectives, Monachus Science and the Letters to the Editor. We hope that these sections will be restored should adequate funding be obtained in the months ahead.

By acting as a forum for international debate and information exchange between geographically divided groups, www.monachus-guardian.org fulfils long-established recommendations of conservation action plans for the species.

Any leads on possible funding avenues that might keep The Monachus Guardian alive and kicking would, of course, be gratefully received. A document detailing sponsorship opportunities and benefits is available to potential supporters – for further information please contact the Editor.

Due in no small part to the network of correspondents who have submitted news, opinion, articles and scientific papers over the years, The Monachus Guardian has built up a real readership base of at least 30,000 people – among them, students, teachers, researchers and journalists. Realising the significance of this collective achievement, we are doing whatever we can to continue publishing, and we take this opportunity of thanking all of you who have contributed to or voiced support for the project. – William M. Johnson.

The Balearic Islands sponsors The Monachus Guardian

The Monachus Guardian welcomes The Balearic Islands government as an official sponsor of the journal. This modest but important grant helps us to continue reporting news and opinion about monk seal and marine conservation issues from across the current and former range of the species.

In an effort to expand circulation among Spanish readers, the Balearic Islands government is preparing a Spanish-language version of this issue of TMG, which will be made available in due course. An appropriate link will be posted on the current Contents page.

Anyone wishing to discuss the possibilities of arranging or funding translations into other languages (for instance, Arabic, Greek, Turkish) is kindly requested to contact the Editor.

Mediterranean governments vow protection for the Mediterranean monk seal

– Success or failure of efforts to be a "defining moment" for the future of the Mediterranean Action Plan

The fate of the Mediterranean monk seal and the Mediterranean Action Plan may yet be inextricably intertwined.

The Mediterranean monk seal featured high on the agenda of the 14th Ordinary Meeting of the Contracting Parties to the Barcelona Convention for the Protection of the Marine Environment and the Coastal Region of the Mediterranean, which took place between 8-11 November 2005 in Portoroz, Slovenia and was attended by environment ministers and high-ranking officials from Mediterranean governments [see UN meetings in Athens and Slovenia hear of the monk seal's imminent extinction, TMG 8 (2): December 2005].

The Coordinator of the Mediterranean Action Plan, Mr. P. Mifsud, gave a presentation on the status of monk seal species in the world, the reasons for their disappearance and the possibilities for recovery of the species in the Mediterranean. According to his words, the estimated remaining number of individual monk seals in the Mediterranean is less than 350. The animals are being killed either deliberately, or by becoming entangled in static nets. Legislation governing protection of the species exists, but is poorly enforced.

The habitat of the creatures is being destroyed in various ways, including by the development of tourism. The Regional Activity Centre for Specially Protected Areas (RAC/SPA) and many individual countries are active in efforts to save the species but, although sufficient technical knowledge exists, funding is scarce. He therefore invited the meeting to suggest ways of stopping the deliberate killing of the animals, protecting critical habitats, and promoting the conservation of this important species.

The meeting agreed that saving the monk seal from extinction was imperative. The countries, whether or not they hosted monk seal populations, pledged to work together to fight the disappearance of the animal. Not that the protection of the monk seal had lacked political attention. The 13th Meeting of Contracting Parties had put the issue high on the political agenda, attracting significant financing in the region. Unfortunately, despite those efforts, little progress was being seen and the species was still critically endangered. Nevertheless, it was deemed possible to save the seal, as long as MAP was able to reproduce the positive results that had been experienced by certain projects in the region, such as those in Alonissos, Greece, and Foça, Turkey.

In broad terms, the meeting identified two approaches that were necessary. First, the killings had to be stopped. To achieve this, awareness-raising among fishermen and local authorities was required, and favourable conditions had to be created within their communities to remove the incentive to kill the animals. Second, more marine protected areas needed to be created and further research was required to ascertain to which areas monk seals were migrating. INFO/RAC and RAC/SPA would be instrumental in these efforts. Several countries and NGOs outlined the steps that they were taking for the protection of this and other species from extinction, including scientific research, the creation of species inventories, training and the provision of funding for project activities. It was recalled in this respect that the Bonn Convention on Migratory Species had signed a memorandum of understanding regarding the Atlantic population of the monk seal and it was time for MAP to take similar action for the Mediterranean. It was also recalled that 2010 was a target year with respect to reducing the degradation of biodiversity worldwide. It was suggested that the monk seal could become the symbol of cooperation for achieving this goal. The success or failure of efforts to save the species would be a defining moment for the future of MAP.

The meeting then discussed in detail the work programme and the recommendations for the 2006-2007 biennium. An assessment of the state of conservation of the monk seal, reviewed by the Seventh Meeting of SPA Focal Points (Seville, 31 May - 3 June 2005), as well as previous studies, concluded that this species will shortly become extinct in the Mediterranean unless urgent and strong measures are taken to protect it. The draft declaration on the conservation of the monk

seal was submitted as document UNEP(DEC)MED WG270/17. RAC/SPA, taking into account the threat of deliberate killing of seals by fishermen, has been invited to support the Contracting Parties in their efforts by giving priority to a socioeconomic approach on the basis of previous successful initiatives. Moreover, since the second main cause of extinction was identified as destruction of habitats, the Contracting Parties asked the Secretariat to pursue work on their identification of habitats so that adequate protection measures can be taken.

Specifically, over the next biennium, Mediterranean governments are asked:

1. To adopt the draft Declaration on the conservation of the monk seal.
2. To address the problem of the deliberate killing of monk seals combined with habitat loss existing in areas of major importance for the species, targeting fishermen and other stakeholders, taking into account the most serious threat to the survival of this species, as noted in the assessment of the implementation of the action plan (UNEP(OCA)/MED WG.146/5, Arta 1998).
3. To make the best possible use of the positive experiences in Alonissos (Greece) and Foça (Turkey) to extend protection and conservation actions to all the other known Mediterranean areas with critical habitats of monk seals.
4. To ensure that management plans for protected areas containing critical monk seal habitats, as well as legislative measures relevant to the conservation of monk seals, are developed and implemented.
5. To identify existing or potential critical habitats of monk seals.

Along the same lines, the Secretariat (RAC/SPA) is requested

1. To assist countries in the implementation of the Action Plan for the Management of the Mediterranean monk seal through management plans, operational tools and capacity building; to this end, to make use of the report UNEP(DEC)/MED WG 232/Inf.6 of the group of experts convened by RAC/SPA in 2002, as already recommended by the Contracting Parties in 2003.
2. To support countries in the identification of existing or potential critical habitats of monk seals.
3. To assist countries in organizing awareness campaigns for target groups, with a view to ensuring their participation in efforts to reduce hostility and increase consensus for the implementation of conservation actions.
4. To strengthen collaboration with relevant bodies, in particular the Food and Agriculture Organization's General Fisheries Commission for the Mediterranean (FAO/GFCM) in order to address effectively the problem of the interaction of fisheries with monk seals.

The Meeting adopted the **Portoroz Declaration**, in which, with regard to the conservation of the monk seal, the Mediterranean governments committed to the following:

1. To take as quickly as possible all necessary measures for the implementation of the Action Plan for the Mediterranean Monk Seal *(Monachus Monachus)* and to strengthen their cooperation to reverse the decline of the species.
2. To seriously address the problem of deliberate monk seal killing, combined with habitat loss, through action tailored to local communities and involving fishermen and other stakeholders.
3. To promote information on relevant success stories regarding the protection of the monk seal and exchange experience with all concerned parties and partners.
4. To further develop, implement and enforce legislative measures relevant to the conservation of the monk seal, including incentive and regulatory measures, together with adequate operational management plans for targeted human activities.
5. To contribute to the implementation of relevant activities by concerned countries, RAC/SPA and its partners through bilateral cooperation and voluntary contributions.

It is worth mentioning here that the majority of these recommendations and commitments have already been included in previous initiatives within the MAP framework, such as the Action Plan for the Management of the Mediterranean Monk Seal, adopted by Mediterranean governments in Barcelona way back in 1987. Despite frequent repetition, however, little has been done during

these 19 years by governments whose territorial waters hold the last surviving monk seal populations. The few success stories, such as those cited in Alonissos, Greece and Foça, Turkey, are very much due to the efforts of dedicated NGOs working closely with the local communities, and even they have faced chronic funding and bureaucratic problems.

In the case of Alonissos in particular, while the Greek State has created the institutional framework for the protection of the Mediterranean monk seal and NGOs like MOm have done much to gain the support of the local community for conservation efforts, the inability of the government to provide effective support through vital funding and administrative mechanisms has repeatedly brought these efforts to the brink of collapse. Unfortunately, a similar state of affairs is also evident in Foça, Turkey. One may therefore be tempted to wonder what exactly has changed now that will ensure a real commitment of the involved Mediterranean governments to the protection of the Mediterranean monk seal?

Another question that arises is whether making the monk seal a symbol of cooperation among Mediterranean states and connecting the survival of the species with the future of MAP would actually be doing the species a favour given the institution's dubious track record. The question becomes even more pertinent in light of a recent sobering external evaluation report of MAP coinciding with its 30th anniversary, which characterises the Barcelona Convention as "dusty", as having lost its focus and of being in need of a new vision and a new image. The report also states that the term "MAP" has lost its true value and "for many important actors in the Mediterranean it has come to be synonymous of dispersed and weak action". Indeed, it could be argued that the inability of Mediterranean governments to take effective action to protect the Mediterranean monk seal over the past couple of decades constitutes a prime example of the latter charge. The report concludes that there is a need for significant changes in order for MAP to reinforce its political clout.

Some believe that this extra political drive may be provided by the much-acclaimed new initiative of the European Commission to de-pollute the Mediterranean by 2020. Termed "Horizon 2020", this ambitious initiative was officially announced by the European Commissioner for the Environment in November 2005 in Barcelona within the framework of the Euro-Mediterranean Partnership (EMP). Amid concerns that the EU initiative may lead to a costly overlap in time and effort, Commission officials have reaffirmed that it will build on what has been achieved in the region using as its main tool the recently adopted Mediterranean Strategy for Sustainable Development. More importantly, the "Horizon 2020" initiative has the political backing of Heads of Mediterranean States and their Ministries of Foreign Affairs, and its roadmap is currently under development following consultation with all EMP stakeholders. Under agreement is also the new European Neighbourhood Instrument (ENI), which is anticipated to provide the main financial tool for reaching this goal and is expected to use a "carrot and stick" approach in order to encourage Mediterranean governments step up the pace in implementing their legal commitments. – Kostas Triantafillou.

Further information

RAC/SPA. 2005. Progress report of the activities of RAC/SPA. Seventh Meeting of National Focal Points for SPAs, Seville, 31 May - 3 June 2005. UNEP/MAP, UNEP(DEC)/MED WG.268/4: 1-37. [PDF 449 KB]

RAC/SPA. 2005. Information report on the status of the monk seal in the Mediterranean. Seventh Meeting of National Focal Points for SPAs, Seville, 31 May - 3 June 2005. UNEP/MAP, UNEP(DEC)/MED WG.268/Inf.3: 1-45. [PDF 1019 KB]

RAC/SPA. 2005. Declaration on the monk seal risk of extinction in the Mediterranean. Meeting of MAP Focal Points, Athens (Greece), 21-24 September 2005. UNEP/MAP, UNEP(DEC)/MED WG.270/17: 1-3. [PDF 77KB]

UNEP/MAP. 1987. Action plan for the management of the Mediterranean monk seal (Monachus monachus). United Nations Environment Programme, Mediterranean Action Plan (UNEP/MAP). Regional Activity Centre for Specially Protected Areas, Tunis, Tunis & Athens. [PDF 18KB]

Online credit card donations discontinued

With only limited support received through the secure donation portal, Kagi, The Monachus Guardian has decided to discontinue this facility for the time being. If you wish to support the site and/or journal financially, please contact the Editor.

EndQuote

Dead in the Water

The sea's fauna is equally threatened. The Mediterranean monk seal, one of the world's 12 most threatened species, is being driven to extinction. There were almost 1,000 monk seals in the Mediterranean in 1980, but their ranks have been decimated by hunters and fishermen, and only between 70 and 80 are left today… [sic]

To deal with this alarming situation, in 1975 the Mediterranean Action Plan (MAP) was adopted under the auspices of UNEP…

Actions, however, have not adequately matched words. By the early 1990's, the MAP was close to collapse, as major contributor nations failed to pay their dues. According to authorities of the plan, not one of its objectives is known to have been achieved. Reporting on the willingness of the Mediterranean nations to take improvement measures, Ljubomir Jeftic, deputy coordinator of the MAP, warned: "Don't be too optimistic." Even if these countries can agree to act, the harm already done might take decades to repair. Observes New Scientist magazine: "Right now, like much of the Mediterranean's wildlife, the MAP looks dead in the water."

What, then, is the future of the Mediterranean? Will it become a dead sea full of stinking, muddy algae? If its future depends only on man, perhaps.

However, the Creator of this planet, Jehovah God, has concern for "the sea, which he himself made." (Psalm 95:5) He has promised that soon he will "bring to ruin those ruining the earth." (Revelation 11:18) After this necessary removal of irresponsible humans who pollute, among other things, the seas, God will restore ecological balance and appropriate biodiversity on our globe. Then "the seas and everything moving about in them" will "praise him" with their pristine, unsullied condition. – Psalm 69:34.

Source: The Mediterranean – A Closed Sea With Open Wounds. Awake! Jehovah's Witnesses Official Web Site. 2005.
http://www.watchtower.org/library/g/1999/1/8/article_02.htm

The Monachus Guardian
monachus / schauinslandi / tropicalis

Hawaiian News

Vol. 9 (1): June 2006

The twists and turns of monk seal science

Our Hawaiian monk seal feature article is by Paul Koberstein, Editor of the Cascadia Times.

The article, published in the Spring issue of the magazine, relates how political and economic decisions that kept open a lobster fishery against scientific advice, might have condemned Hawaiian monk seal pups to starvation, and the species to an irreversible decline.

“The Western Pacific Regional Fishery Management Council apparently feels it is under no obligation to tell the truth. At least, not in January 2005, when this organization, known as Wespac, trotted out an obscure study to make a case for lobster fishing in the proposed Northwestern Hawaiian Islands National Marine Sanctuary. [more…]

The Monachus Guardian
monachus / schauinslandi / tropicalis

Mediterranean News

Vol. 9 (1): June 2006

Croatia

Statue commemorates seal at Zaton, Sibenik

Under a perhaps suitably titled section, "Curiosities", the promotional website for the coastal resort town of Zaton, near Sibenik, announces that a "big statue" of the Mediterranean monk seal (*Monachus albiventer* – sic) now graces its shoreline.

Commemorating the Games. Courtesy: Zaton Online.

The sculpture was created in 1979, when the species was actually chosen as a mascot of the Mediterranean Games, in which Zaton hosted the rowing and kayak events. The honour, unfortunately, did little to stem the monk seal's precipitous decline in Croatia, where it is currently considered extinct, despite some tantalising recent sightings [see Back from the dead? TMG 8 (2): December 2005].

Zaton Online also provides further clues about the seal's role in the folklore of the region. The species, also known as the Sea Devil or Merman in ancient times, was reputed to be capable of dragging young children and women to their doom. The myth persisted up until the 1930s, reports the site, with children being warned not to venture too far from shore in case they're taken by a marauding seal.

The site also reports the frustration of local fishermen with the seal in seeing dwindling catches and torn nets. In a reaction that was to become increasingly common in the region, some fishermen found it more profitable to catch seals instead of fish, putting the animals on show and carting them from town to town. The Zaton site mentions the fishing brothers Vice and Mile Mrsa, who in 1907-1908 toured with a large seal (allegedly 2 meters and 180 kg) through towns all the way up to Vienna. When the seal died, as they habitually tended to do in the appalling conditions in which they were kept, the brothers reputedly used their profits to enter the wine and catering industry.

For more information on the monk seal's role in European folklore during this period:

Johnson, William M. 2004. Monk seals in post-classical history. The role of the Mediterranean monk seal *(Monachus monachus*) in European history and culture, from the fall of Rome to the 20th century. Mededelingen 39. Netherlands Commission for International Nature Protection, Leiden: 1-91, 31 figs. [Online abstract]

Cyprus

Commemoration in Cyprus

It may be the habit of human beings to commemorate what is now no more or nearly so, but in the case of the monk seal, another such offering was produced by the island of Cyprus in 2005.

Commemorating the seal. Courtesy: Eurocollections.

Eurocollections.com notes that the coin, in the denomination of 1 Cypriot pound, depicts an endangered Mediterranean monk seal on its reverse and the Cypriot coat of arms on its face. The site emphasises the monk seal's connection with ancient Greece, and recalls that one of the first coins, minted around 500 BC, bore the head of the seal.

"The ancient Greeks held this mammal in high esteem, noting that it greatly enjoyed both the sun and the sea," says the site, a sentiment that, though oft-repeated, is unfortunately not entirely supported by the evidence available.

The 4000 example limited edition silver coin is being sold at $59.50 apiece. There is no evidence that profits generated will benefit monk seals on the island of Cyprus, whose population is already on the verge of extinction.

For more information on the monk seal's role in ancient Greece and Rome:

Johnson, W.M. and D.M. Lavigne. 1999. Monk seals in antiquity. The Mediterranean monk seal (*Monachus monachus*) in ancient history and literature. Mededelingen 35: 1-101. The Netherlands Commission for International Nature Protection. [Online abstract]

Greece

Rehabilitation workshop

The results of a technical workshop on monk seal rehabilitation, organised by MOm in Athens in July 2005, have now been published and are available for download (see below).

The workshop, "Increasing the Survival Rate for Mediterranean Monk Seal Pups Under Treatment", drew upon the expertise of biologists, veterinarians and marine mammalogists in several countries, including those with long-term experience in treating Hawaiian and Mediterranean monk seals in captivity.

MOm currently operates the only monk seal rehabilitation station in the Mediterranean, based on Alonissos in the Northern Sporades National Marine Park.

Specialists on marine mammals from the Veterinary School of Thessaloniki, The Marine Mammal Centre of California, The Hawaiian Monk Seal Rehabilitation Program, the RSPCA of Norfolk (UK), and the Seal Rehabilitation and Research Centre (SRRC, the Netherlands), attended the workshop, presenting relevant case studies or participating in post-presentation debates.

Since 1987, 16 orphaned monk seals originating from Greece have undergone rehabilitation (3 at the SRRC in Pieterburen). Of these, 7 have been released into the protected waters of the Northern Sporades Marine Park and 9 have perished.

Though the mortality rate appears high at first sight, pups are generally discovered when they are weakest and most vulnerable to disease. Further research, however, might lead to new or improved methods that increase survival rates.

Among the conclusions on rehab methods that could be drawn from the meeting, says MOm, several had already been implemented by its staff in a bid to improve techniques. The suggestion that new rehabilitation facilities be constructed, replacing the current prefabricated unit on Alonissos, was also endorsed by the participants.

Workshop facilities were kindly provided by Divani Palace Acropolis Hotel.

The report is available for download from the Monk Seal Library:

Mom. 2005. Increasing the survival rate for Mediterranean monk seal pups under treatment. Technical workshop, organised by MOm, the Hellenic Society for the Study & Protection of the Monk Seal, Athens, Greece, 9 July 2005: 1-16. [PDF 113 KB]

1990-2004: 15 years of monk seal rehabilitation

MOm has published an illustrated, 31-page report detailing its 15-year efforts in monk seal rescue, rehabilitation and release. Rescue cases are detailed on an individual basis, with dates of discovery and release, diagnosis, medical problems encountered, veterinary treatment and, where pertinent, necropsy results.

The report also provides an overview of the operation of the monk seal rescue station on Alonissos in the Northern Sporades Marine Park, and analyses both the ecological and public awareness benefits of the monk seal rescue and rehabilitation programme.

The report is available for download from the Monk Seal Library:

MOm. 2005. Mediterranean monk seal rehabilitation in Greece 1990-2004: 15 years of action, MOm, Athens: 1-31. [PDF 1.4 MB]

Monk seal diet study announced

MOm has announced a wide-ranging study into the diet and food preferences of the Mediterranean monk seal, a little known aspect of the biology of the species despite countless anecdotal reports by fishermen and others. The study, which began in January, is being conducted in association with the Zoology Department of the University of Aberdeen in Scotland, as part of MOm's recently announced Monk Seal and Fisheries Project (MOFI), which has been granted EU LIFE-NATURE funding [see Understanding fisheries: a new conservation initiative for the monk seal in Greece, TMG 8 (2): December 2005].

Previous research suggests that *Monachus monachus* has a preference for bone fishes, such as mullet, sea bream and bogue. The seal's varied diet, however, also includes such diverse menu items as cephalopods (octopus, squid, cuttlefish), lobsters and seaweed.

In contrast to previous studies that either relied on limited stomach samples or were confined to anecdotal reports, the new MOm and Aberdeen University study will rely on stomach contents collected from a total of 18 dead monk seals over the past 15 years.

By shedding further light on monk seal food preferences and diet, it is hoped that the study will also prove useful in reducing seal-fisheries interactions. Direct killing is still regarded as the most serious mortality factor affecting the species in the eastern Mediterranean, with seals blamed by fishermen for tearing their nets and "stealing" their catch (see publication below). Fishermen often claim that the fish species commanding the highest prices in the marketplace, are also those most preferred by the seals.

Further information:

Androukaki E., Chatzispyrou, A., Adamantopolou, S., Dendrinos, P., Kommenou, A., Kuiken, T., Tounta, E. and Kotomatas, S. 2006. (Poster presentation). Investigating the causes of the death in monk seals, stranded in

coastal Greece. 20th Annual Conference of the European Cetacean Society, 2-7 April 2006, Gdynia, Poland. [PDF 1.1 MB]

Salman, A., M. Bilecenoglu and H. Güçlüsoy. 2001. Stomach contents of two Mediterranean monk seals (*Monachus monachus*) from the Aegean Sea, Turkey. Journal of the Marine Biological Association of the United Kingdom, 81 (4): 719 - 720.

Three monk seals found dead

Since July 2005, MOm's rescue team has responded to three cases of dead Mediterranean monk seals. Subsequent necropsies showed that one of the three seals died due to natural causes related to premature birth. Unfortunately, the degree of decomposition of the other two bodies was such that no clear cause of death could be established, although in one of the bodies a large number of shotgun pellets was found.

The Monachus Guardian
monachus / schauinslandi / tropicalis

Mediterranean News

Vol. 9 (1): June 2006

Madeira

Pup tally 2005

Three monk seal births were detected in November/December 2005 at the Desertas Islands Nature Reserve. The pups were sighted at Tabaqueiro beach; this and other evidence suggesting that the seals are again using this beach to raise their offspring. This area was monitored regularly by the PNMS staff, who identified the reproducing females (Birisca, Desertinha and Risca Grande) and also the gender of the new pups (two males and one female). For the first time at the Desertas, 9 individuals were observed all together, some resting on land and others in the sea.

Mothers and pups on Tabaqueiro beach.

Monitoring the area is also one way of avoiding possible accidents to pups once the females leave the beach to feed.

PNMS staff also confirmed that seals have alternated the use of this area with others, namely, one at the north of Tabaqueiro, Furadinho, that has not been in use since 1989.

Around the main island of Madeira, meanwhile, sightings of monk seals continue, and it has been confirmed that two resident seals are using one cave located on the south coast (information presented at the 20th Conference of the European Cetacean Society in Poland – see Recent Publications, this issue).

Lectures on “How to behave in the presence of a monk seal” are planned for all Madeira city councils. – Rosa Pires, Parque Natural da Madeira.

Mauritania & Western Sahara

From Mecca to Nouadhibou: a monk seal pilgrimage

During the last 4 months, about 1,500 primary school students have been the focus of an awareness campaign carried out by the Fundación CBD-Hábitat in the city of Nouadhibou.

The campaign consisted of a specially designed story book, a presentation about the Cabo Blanco monk seal colony, and several environmental education games.

Schools programme in Nouadhibou.

The book tells the story of a pilgrimage by an Arabic traveller along the Mediterranean and Atlantic coast from Mecca (Saudi Arabia) to Nouadhibou (Mauritania), and his search for a legendary and mysterious animal that he has heard used to exist along this entire coast but that has today almost disappeared. During his journey he collects the stories of fishermen about this animal, and the problems affecting the marine environment that brought about the seal's disappearance (hunting, overfishing, coastal destruction, pollution, etc.). The tale ends as the pilgrim arrives in Nouadhibou and discovers the great Cabo Blanco colony, and asks the children to help in the protection of the animal. – Ana Maroto and Moulaye O. Haye, CBD-Habitat.

Sustainable fisheries in Mauritania

CBD-Habitat's activities along the Mauritanian and south Moroccan coasts not only have the conservation of the endangered monk seal as their aim, but also an improvement in the life and working conditions of the impoverished artisanal fishermen of the area.

As such, many development actions are keyed into the Foundation's conservation programme, such as courses on safety-at-sea and repair and maintenance of outboard engines; the construction of a fish market in the city, and similar initiatives [see Conservation actions on the Cabo Blanco Peninsula - a new approach, TMG 5 (2): November 2002].

Seminar on sustainable fisheries.

In a continuation of these activities, a sustainable fisheries seminar was organised in May this year in Mamghar, one of the largest villages of the Banc D'Arguin National Park. Also, a booklet on sustainable fisheries, adapted to the needs and experiences of local artisanal fishermen, was published by CBD-Habitat Foundation in French and Arabic.

A lack of knowledge among most of these artisanal fishermen leads to fishing practises that damage the sustainability of the resources they exploit, thereby jeopardising their own future livelihoods. The seminar and other related activities aims to bring the negative consequences of these activities to their attention, whilst also proposing alternatives that favour a continued and sustainable use of the marine environment. – Hamdi M'Barek, Michel Cedenilla and Pablo Fernández de Larrinoa, CBD-Habitat.

Further information:

CBD-Habitat. 2006. Pêcher de façon responsible. Textes: Pablo Fdez. de Larrinoa y Miguel A. Cedenilla. Fundación CBD-Habitat, Madrid: 1-16. [PDF 9.7 MB]

Spanish industrial fleet collaborates in monk seal conservation

Under an agreement between the Mauritanian government and the European Commission, the Spanish industrial fleet fishing in Mauritanian waters will take part in a monk seal sightings network created by CBD-Habitat and the Spanish Ministry of Agriculture and Fisheries, with the financial support of the Biodiversity Foundation.

This initiative, that allows the fishermen to easily report monk seal sightings in the area, seeks to make up for a current lack of knowledge about monk seal feeding grounds in Mauritania, and the presence of the species far from shore.

REDFOM logo.

Awareness material, specifically designed for the purpose, will be distributed among the industrial fishing fleet. Talks will also be organised in the various Spanish fishing harbours in order to explain to fishermen the means by which a monk seal sighting should be communicated to the network.

Artisanal fishermen along the Cabo Blanco-Cabo Barbas coastline have been providing monk seal sightings since 2001. – Pablo Fernández de Larrinoa and Mercedes Muñoz, CBD-Habitat.

Spain

Translocation: back on the agenda

Monk seal translocation – capturing animals in one place with the intention of repopulating another – has long been a controversial issue.

Besides the highly complex practical problems involved – ranging from risks to candidate animals during the capture procedure to the suitability of the translocation site – there are also fundamental questions involving population biology and management philosophy. These, in turn, pose numerous and complex questions of their own. Do mathematical models, for example, indicate a heightened risk of decline or even of extinction to the donor population by removal of the candidate animals? At the chosen recipient site, have factors that caused the disappearance of the original monk seal population – such as killing by fishermen, overfishing or destruction of habitat – been adequately addressed? And if translocated animals have to remain semi-captive in order to ensure they do not leave the translocation area – how will that affect the overall viability and value of the plan?

Differing philosophical approaches to conservation may also prove contentious, pitting those favouring *in situ* efforts – such as the establishment and operation of marine protected areas – against those advocating *ex situ* approaches, such as translocation or captive breeding.

Opposition is likely to be that much more intense if it is perceived that translocation is proceeding to the detriment of *in situ* conservation efforts. That, unfortunately, would be the case at the present time, with key monk seal conservation projects around the Mediterranean languishing because of inadequate funding.

Convincing the sceptics that translocation makes sense would also run against the argument that – where adequately protected – monk seal populations previously on the brink of extinction have shown promising signs of recovery (as in the case of Madeira).

Apparently in recognition of the scientific and political hurdles involved, two recently announced Spanish translocation initiatives are taking a longer term view in their aim of seeing monk seals back in Spanish waters — apparently in the belief that sceptics can be won over both by debate and action on the ground.

The first project, supported by the Balearic Islands government, eventually aims to reintroduce monk seals to one of the species' former haunts in the archipelago, the island of Cabrera, now a protected area. Supporters of the project emphasise that the first priority is not translocation per se, but ensuring that various habitat, management and social issues have been adequately addressed that would make the area hospitable to the species. According to Joan Mayol, Head of the Service of Species Protection of the Balearic Islands Government, "we want to recover the Balearics for the monk seal and be ready when monk seals are recovered and ready for the Balearics."

By taking this approach, the Balearic Islands is also broadly complying with UNEP/MAP recommendations that seek to ensure that historical monk seal habitat is sufficiently protected and restored so as to encourage any possible natural recolonisation by the species.

The second project aims to bring monk seals to Cap de Creus, with recent press coverage in Spain and on the Internet indicating a target date of 2014. The project is being fronted by the Fundación Territorio y Paisaje, the foundation of a Catalan savings bank, the Caixa de Cataluny.

According to press reports, it would foresee 15 monk seals being taken from the Cap Blanc colony in Mauritania/Western Sahara and reintroduced to Cala Jugadora, Cadaqués, in the Costa Brava, due north of the Balearics. Other potential translocation sites that have been mentioned in the press include the Canary Islands and Cabo de Gata, east of Almería. Together with Cabrera, it is speculated that this south-north running chain would create "several stable populations", encouraging individuals to travel between the colonies, thus reinforcing them.

Apparently recognising that there could be local hostility among fishermen to the plan, the director of the Fundación Territorio y Paisaje, Jordi Sargatal, suggested that "reconciliation projects" could now be created in fishing communities to mitigate any such enmity towards the return of the seals.

Should translocation ever move to the planning stage, the perceived status of the donor population in Mauritania/Western Sahara is likely to become a serious focus of debate. This, the world's largest surviving monk seal colony, was reduced by two thirds in 1997 in a mass die-off variously attributed to a toxic algal bloom and a morbillivirus. Currently estimated to number 150 individuals, the population is still only at half strength compared to pre- die-off figures.

Translocation plans are also likely to face criticism, as well as uncompromising scrutiny, from a number of sources. Ironically, the most vociferous of these may be Spanish in origin.

In Madrid, the Spanish Ministry of Environment – which has played a key leadership role in advancing the CMS Monk Seal Recovery Plan in the Eastern Atlantic [see Third Monk Seal Recovery Plan meeting held in Dakhla, TMG 7 (2): November 2004], as well as in promoting conservation of the species *in situ* in Mauritania/Western Sahara — would be required to give its official blessing to the reintroduction.

The Madrid-based Fundación CBD-Hábitat, which leads *in situ* conservation efforts in the area, has expressed reservations about the viability of the draft plans, at least as they currently stand.

Another, and perhaps more vocal, critic is Alex Aguilar of the University of Barcelona, who, prior to the 1997 mass die-off, led an EU-LIFE funded project to assess the viability of a similar translocation initiative involving Isla de Lobos in the Canary Islands.

Aguilar cites several objections to the Cap de Crues and Cabrera projects, among them:

1. That "the Cap Blanc population cannot supply the individuals needed for reintroduction, estimated at a minimum of 50 by the Steering Committee of our LIFE project."
2. That "the two receiving areas have stronger fishing pressures now than when the species was eradicated by fishing interactions. In other words, if the animals were set free, they would face a serious, possibly lethal, threat from fishermen."
3. "Availability of fish and cephalopods in both areas is extremely low because of over-fishing. Because of this, they plan to hand-feed the 'reintroduced' monk seals."
4. "The marine protection area of the parks is negligible: 1 nautical mile in Cabrera and 0.24 miles at the Cap de Creus. They would not offer protection to monk seals, which routinely move over 40 km."

5. “Both programs ignore the profound genetic differences occurring between the Mediterranean subpopulation and the one at Cap Blanc.”
6. “In the Cap de Creus project at least, the intention is not a genuine reintroduction but, rather, to keep a few animals (2-5) in an enclosure, with no short term plans for their release.”

Aguilar argues that it is at Cap Blanc in Mauritania/Western Sahara that the monk seal needs and deserves protection. A previous and much-contested plan to “rescue” pups pre-emptively in an effort to reduce a high mortality caused by winter storm surges into the Cap Blanc breeding caves may have been used previously as an added justification for translocation. In this scenario, pups that would otherwise be fated to drown would instead be rescued and used to supply translocation needs. Criticism of the plan – not least of all, the impossibility of predicting which pups would have been killed by a storm surge and which would have survived – has seen it fade from view of late. In addition, an earlier than normal pupping season during the years 2004 and 2005 led to a drop in pup mortality from 40-50% to 30% [see Pupping season on the “Coast of the Seals” 8 (2): December 2005].

The debate between the two sides, one favouring further examination of translocation as a valid conservation tool, and the other objecting on a variety of scientific and technical grounds, looks all set to continue in the months and years ahead.

In keeping with its tradition of fostering free and open debate within the monk seal conservation community, TMG intends to continue presenting these and other wide-ranging views in future editions.

If you wish to comment on this story, or on our Cover Story from the Balearic Islands [The Government of the Balearic Islands – Working towards the recovery of the Mediterranean monk seal], please contact the Editor.

Further information

Press coverage

La foca monje volverá a Cadaqués. El País, 02-01-2006.
http://www.elpais.es/articulo/elpepiautcat/20060102elpcat_8/Tes/foca/monje/volver%E1/Cadaqu%E9s

Pretenden reintroducir focas en el Cap de Creus en 2014. 2006. Wanadoo ES.
http://actualidad.wanadoo.es/carticulos/112555.html.

La Fundación Territorio y Paisaje proyecta reintroducir focas monje en el cabo de Creus en el año 2014. 2005. Consumer.es, 28 de diciembre de 2005.
http://www.consumer.es/web/es/medio_ambiente/2005/12/28/148149.php

Les foques de la discòrdia. 2006. El Temps, Número 1132, 21 febrer 2006.
http://www.eltemps.net/art2.php?num_id=31

Wildtalk Spain # 88: Return of the Mediterranean monk seal. 9 January 2006.
http://www.wild-spain.com/wsbriefs.php and http://archive.mail-list.com/wildtalk/msg00088.html

On monk seal translocation

González, L.M., B. Heredia, A. Araujo, I. Robinson, J. Worms, P.S. Miller and U. Seal (eds.). 2002. Population and Habitat Viability Assessment for the Mediterranean Monk Seal (*Monachus monachus*) in the Eastern Atlantic. Workshop Report. Apple Valley, MN: IUCN/SSC Conservation Breeding Specialist Group: 1-126. [PDF 1.4MB]

Johnson, W.M. and D.M. Lavigne. 1998. The Mediterranean Monk Seal. Conservation Guidelines. Multilingual Edition. International Marine Mammal Association Inc., Guelph, Ontario, Canada: 1-152. [PDF 955 KB]

TMG. 2003. Mystery at RAC/SPA Time for pup-catching, says its anonymous expert(s). The Monachus Guardian 6 (2): December 2003.

The Monachus Guardian
monachus / schauinslandi / tropicalis

Mediterranean News

Vol. 9 (1): June 2006

Turkey

NGOs unite against downgrading of protected areas

The Alacati coastal area, located between the towns of Cesme and Kusadasi on the Turkish Aegean, is considered one of the country's Important Monk Seal Sites by SAD-AFAG; its protection has been promoted by us within the National Monk Seal Committee (NMSC) since 1998. The coasts of Alacati and neighbouring Sigacik, Mersin bay, Kokar and Kotan were declared Ministry of Culture SIT protection areas some time ago, thanks mainly to their natural beauty and their untouched and undisturbed rocky shores.

However, on 18 February 2006, the Izmir 1st Cultural Assets Protection Council reached a conclusion to change the SIT degrees of some of the coasts in this area (mainly in the vicinity of Alacati and Cesme) from 1st to 2nd or 3rd degree status, which permits coastal construction based on certain land use ratios. It is very well known that coastal construction and development results in deterioration of natural coastal habitats. Therefore, SAD-AFAG immediately took action to challenge the decision and proposed joint legal action with Doga Dernegi (DD, Nature Society), Ege Doga Dernegi (Aegean Nature Society) and Greenpeace Mediterranean, a proposal that was readily agreed by all these NGOs within a very short time. Lawyers Gokhan Candogan and Noyan Ozkan have offered pro bono legal services in monitoring court proceedings and filing injunctions – a contribution greatly appreciated by the NGO coalition.

The lawyers subsequently applied to the High Court in Ankara on 19 April 2006, claiming that the change of SIT degree status at Alacati and some areas of Cesme is not compatible with Turkey's obligations under international conventions. The importance of these areas to the monk seal – as confirmed by Environment & Forest Minister Osman Pepe in a joint press conference with SAD-AFAG in May 2004 in the Ciragan Palace in Istanbul – was also emphasised. Evidence of the coasts providing important habitat for marine birds and some birds of prey was also presented.

The result of the legal action may have a significant impact on other protected areas. If the Ministry of Culture and Tourism wins the case, other 1st degree SIT protected areas would be in danger of similar downgrading.

The Alacati coasts are the only ones not "furnished with concrete" between highly developed Cesme and Kusadasi, and these coasts also act as a last refuge of endangered monk seals in the area. The appeal made to the High Court will be reinforced by further evidence and expert reports in the near future; the proceedings will be closely monitored. – Cem Orkun Kiraç, SAD-AFAG.

Coast Act to be modified; good or bad for nature?

Although the existing Coast Act was thought to be inadequate in terms of conservation of natural habitats, and biological diversity and enforcement very weak, a proposal to "modify" this statute has raised alarm among NGOs and conservationists nationwide.

Initial reports were seen in newspapers in early April, written by a few famous journalists in the most prominent Turkish dailies. SAD and other NGOs followed up with enquiries of their own, and quickly learned that the draft act presented a greater threat to the environment than had initially been thought.

Coasts are to be open for virtually all kinds of coastal development, including mass transportation and infrastructural constructions by means of a single permit from the Ministry of Development. Further, absolute protection restrictions currently placed on a 50m wide coastal band are to be rescinded, with construction to become permissible.

Also, previously built illegal constructions are to receive an amnesty – somehow, but not stated openly – in accordance with the proposed draft act.

While studies on the proposal advanced, SAD (Underwater Research Society), DD (Nature Society) and Greenpeace Mediterranean in Turkey published a joint press release on 17 April 2006 nationwide. In it, the NGOs presented their objections to the draft, arguing that it will cause inevitable deterioration of natural coastal habitats in Turkey, and a decline or even extinction of endangered coastal and marine species.

The NGOs also reasoned that tourism in Turkey might also be badly affected, since the act would undermine the unspoilt natural beauties of the coast that attract holidaymakers in the first place.

Finally, the press release also emphasised that such an act, if approved, would also act counter to the Bern, Barcelona and Biological Diversity Conventions to which Turkey is party, and under whose terms endangered species and their habitats should be protected by ratifying states. It seems likely that the draft proposal will continue to spark strong debate in the near future. NGOs, considering the proposal a likely nail in the coffin for such critically endangered species as *Caretta caretta, Chelonia mydas, Lutra lutra* and *Monachus monachus*, as well as migratory and some sea bird species, will vigorously challenge the act. – Cem Orkun Kiraç, SAD-AFAG.

Observation on diving behaviour continues

Observations on diving behaviour of free-ranging Mediterranean monk seals along Turkish coasts have been conducted over a considerable period by SAD-AFAG researchers; results were last published in The Monachus Guardian in May 2002 [see Monachus Science, TMG 5 (1): May 2002].

Cem Orkun Kiraç of SAD-AFAG and Fatih Mert, a volunteer from Izmir, continued the programme with a 2-day expedition to the northwestern Karaburun Peninsula on 15 and 16 December 2005. The principal aim was to attempt a sighting of the resident male monk seal, code named “Koca Yusuf”, which was first discovered by AFAG’s N. Ozan Veryeri in 2003.

Luckily, Koca Yusuf was located very quickly along the shores of an off-lying island. The observation on 15.12.2005 lasted almost 5 hours, during which 44 diving sessions were carefully recorded. The mean dive duration was a little greater than 5 minutes – lower than that presented in the aforementioned Monachus Science article. The dive pattern was typical, consisting of continuous “spot diving” made within a 30-40m diameter area near the rocky shore. Koca Yusuf was observed and photographed from distances ranging between 100 to 15m; the seal did not display any reaction of fear or anxiety towards its observers.

Koca Yusuf along the NW coasts of the Karaburun Peninsula.

Onsite observations, coupled with a later study of the photographic record, revealed that the animal appears to be blind in the left eye, and that the right eye could only be partially opened.

Otherwise, Koca Yusuf seemed healthy, the injury having no discernable impact on his diving and foraging. The seal is the only known resident adult male monk seal in the Karaburun area, making his survival all the more important for a possible recovery of the species in the area. – Cem Orkun Kirac, SAD-AFAG.

Eco-fish: A project to facilitate peaceful co-existence between seals and fishermen

There have been a number of conservation efforts to protect the Mediterranean monk seal on the Turkish coasts. All these efforts, in one way or another, brought new regulations restricting human activities. In some cases, these regulations were requested by the local people themselves. For instance, in the case of the Cilician colony, the coastal fishermen who slaughtered at least 6 monk seals in 1994 demanded a ban on trawling in the area to stop the killing. The trawler owners subsequently agreed to the ban, provided that the coastal 3-mile trawl exclusion zone was reduced to 2 miles in the rest of the fishing ground. That was a regulation proposed and set forth by the involvement of the local fisheries community. With this agreement, small-scale fishermen received a greater share of the trawl-free coastal fish stocks; the large-scale trawlers expanded their legal fishing grounds and the monk seals were saved from slaughter.

The regulations are published in the Fisheries Circulars but there, the history behind a decree is naturally disregarded. When a fisherman outside that fishing area reads the fisheries circular, he just sees the line declaring that “area X is banned for trawling because of the monk seal”. For the majority of the fishermen, monk seal conservation equals limitations on their fishing activities, and is hence something to resist.

The Middle East Technical University Institute of Marine Sciences has carried out research on an almost unknown colony of monk seals in the Gulf of Iskenderun. As a part of the research, the fishermen of the area were asked to report seals sighted around the gulf. At first, the fishermen of the area were reluctant to talk about seals. Later, it became evident that they did not want to lose their fishing rights because of the seal’s presence. Their fear was seeded by the reason given above: a huge area in the neighbouring Cilician coast is closed to fishing in order to protect the seals.

It is evident that any seal conservation attempt on the Mediterranean coast disregarding the attitude of the local fishermen is predisposed to failure. Going on this premise, we believe that there is an urgent need for a model facilitating mutually beneficial coexistence between seal and fisherman. With this aim in mind, the Levant Nature Conservation Society launched a project called ECO-FISH, supported by the Small Investments Fund Project, a collaborative effort between the BTC pipeline company and UNDP (United Nations Development Programme). The project has two main objectives. The first, which is already accomplished, is to unify small-scale fishermen living close to the seal habitats and practicing non-detrimental fishing. Following a series of meetings and lobbying activities, the Meydan fisheries cooperative has been launched in Samandag, located next to the Syrian border. The members of the cooperative have signed a memorandum of understanding that membership is valid only as long as they use non-detrimental fishing techniques.

Meydan fisheries cooperative and members.

Marketing the catch is listed as the main problem affecting the fishery by targeted fishermen. Factors such as remoteness of the site to the main fish market, involvement of middle-men and fish mongers in marketing, costs of transportation, etc. significantly lowers the price of the fish at the landing site. The second objective of the Eco-fish project is to create an Internet based market for the products of the cooperative. In an attempt to increase the unit price of the fish and secure the quality of the product during transportation, the landings of the cooperative will first be processed in a workshop run by the local women. The fish, prepared according to traditional recipes and with additional local produce, will be sent straight to consumers.

Buying fish from Meydan fisheries cooperative, consumers will know that:

i. the fish they buy is caught by a non-detrimental fishing techniques without inflicting any additional harm upon the marine ecosystem.

ii. they contribute to the conservation of a precious marine mammal, the Mediterranean monk seal.

iii. they support a community depending on and responsible for conservation of the marine ecosystem.

Being a member of the cooperative, the fishermen will know that:

iv. the fish he catches will have a higher commercial value as long as he practices non-detrimental fishing techniques.

v. his wife and family will also benefit from the fishery.

vi. in the longer run, the fishing ground will become more fertile as practices hampering recovery of stocks diminishes.

Finally, being around, the seal will be better treated and appreciated. – Ali Cemal Gucu, Levant Nature Conservation Society.

Monk seal cave closed to land access

Terrestrial access to a frequently used monk seal cave in the Cilician region has been blocked to stop human disturbance. This activity was organised by the Levant Nature Conservation Society in July 2005, with the help of volunteers. The cave had two outer openings. An iron railing was used to close up one opening so as to preserve wave dynamics inside the cave, while the other was sealed by a stone wall compatible with natural surroundings.

Location of the seal colonies and the cave.

The cave is located on a midpoint between the Gulf of Iskenderun and the Cilician region. This potential bridge between two isolated sub-populations is necessary for the small colony in the Gulf of Iskenderun to survive [see Is the broken link between two isolated colonies in the northeastern Mediterranean re-establishing? TMG 7 (2): November 2004]. The Middle East Technical University – Institute of Marine Science (METU – IMS), which carried out research and conservation efforts in the region up until 2005, initially registered this cave as abandoned in its cave inventory, with evidence suggesting that it had not been used by seals in 10 years. Since a first surprise sighting in October 2004, however, a young female had been regularly observed. Because her movements were unusually slow and her belly swollen, we believed that she might be pregnant. She did not, however, give birth in the cave.

Building the wall.

The female seal entering the cave.

Regular checks also showed us that the cave was frequently visited by human intruders, a severe threat for any monk seal that might use the cave for resting or breeding purposes. The presence

of intruders also hinders the installation of expensive monitoring equipment because of the risk that it might be stolen or damaged.

So as to eliminate this risk, the Levant Nature Conservation Society sealed the land openings of the cave with the permission of the Ministry of Environment and Forestry.

Further information and photographs about the Society's work can be obtained from the Society's web site: http://www.ecocilicia.org/. – Serdar Sakinan, Levant Nature Conservation Society.

A young NGO is sprouting in the Levant

Levant Nature Conservation Society, based in Mersin, is a newly established NGO targeting conservation of both terrestrial and marine ecosystems in the eastern Mediterranean. The founders of the society mainly consist of the members of the monk seal research team of the Middle East Technical University – Institute of Marine Sciences (METU-IMS). Programmes carried out by the Institute necessarily had research as their first priority and therefore were often not eligible for funding under educational or social improvement grant mechanisms. Recognizing the necessity of public outreach, the METU-IMS team subsequently decided to establish an NGO to further this mission to implement a conservation science that is of benefit to local people.

The first project carried out by the society in 2005 was the closure of the land openings of a Cilician monk seal cave in Mersin [see preceding story].

The next and still-ongoing project is the "Antakya Samandag Meydan Village Sea Friendly Fisheries project," funded by UNDP-SGP [see Eco-fish, above].

To help or join the society, please visit the webpage www.ecocilicia.org and/or write to us at contact@ecocilicia.org. – Billur Çelebi, president of management board, Levant Nature Conservation Society.

Rehabilitation links

In order to enhance the capacity and capability of SAD-AFAG to rescue and rehabilitate endangered Mediterranean monk seals in Turkish coastal waters, SAD-AFAG and the Seal Rehabilitation and Research Centre (SRRC) in Pieterburen, the Netherlands, have reached an agreement in principle on operations in Turkey.

According to the agreement, SRRC will provide, wherever possible, practical training on first aid, rescue and rehabilitation and pathology (veterinary aspects), either in Turkey, in the Netherlands or, where appropriate, in a third country. SRRC will assist SAD in setting up a mobile rehabilitation unit by providing the required know-how to build one in Turkey. – Harun Güçlüsoy, SAD-AFAG.

EndQuote

Phocaea Islands and the Siren Rocks

The islands nearby the ancient city of Phocaea (modern day Foça), attract tourists from all over the world to watch its marvelous sunsets over the Siren Rocks against the backdrop of the beautiful Aegean Sea. Playing on the rocks are the Mediterranean monk seals (*Monachus monachus*), whose population in the world has decreased to 400. Conservation efforts to preserve and enhance the population of this threatened species are ongoing.

Source: Universiade Izmir. 2006. Website promoting the city of Izmir and surroundings to foreign tourists and business visitors.

The Monachus Guardian
monachus / schauinslandi / tropicalis

Cover Story

Vol. 9 (1): June 2006

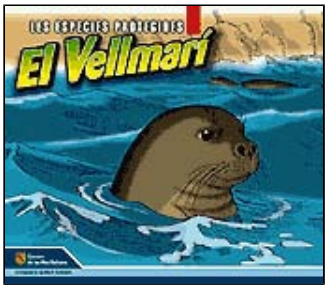
The Government of the Balearic Islands, Working Towards the Recovery of the Mediterranean Monk Seal

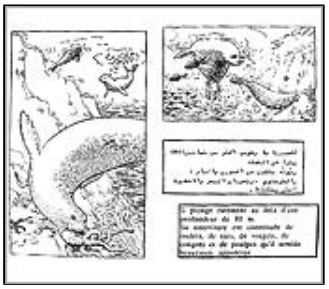
Joan Mayol [1]

Head of the Service of Species Protection, Balearic Islands Government, Spain

In recent months, the environment department of the Balearic Islands (Western Mediterranean, Spain) has begun a series of initiatives designed to contribute to international efforts for the conservation of the Mediterranean monk seal. During the first half of the 20th century, in a cultural and socioeconomic situation very different from today, Balearic society contributed to the local extinction and global decline of this species. In view of this, it is reasonable that we should now assume our share of responsibility in international efforts aimed at the recovery of monk seals, which are listed as one of the ten most endangered species on the planet.

The Balearic Islands nature conservation department has been working steadily towards these aims at a local level. In 1991 we produced an educational cartoon series to teach young people about monk seals. These materials were also shared with other countries and adapted into German, French and Arabic. A documentary has also been produced about the causes and consequences of the extinction of the local monk seal population. And most recently, in 1998, a feasibility study[2] has been conducted to assess the potential for recovery of the Mediterranean monk seal population in the Balearic Islands.



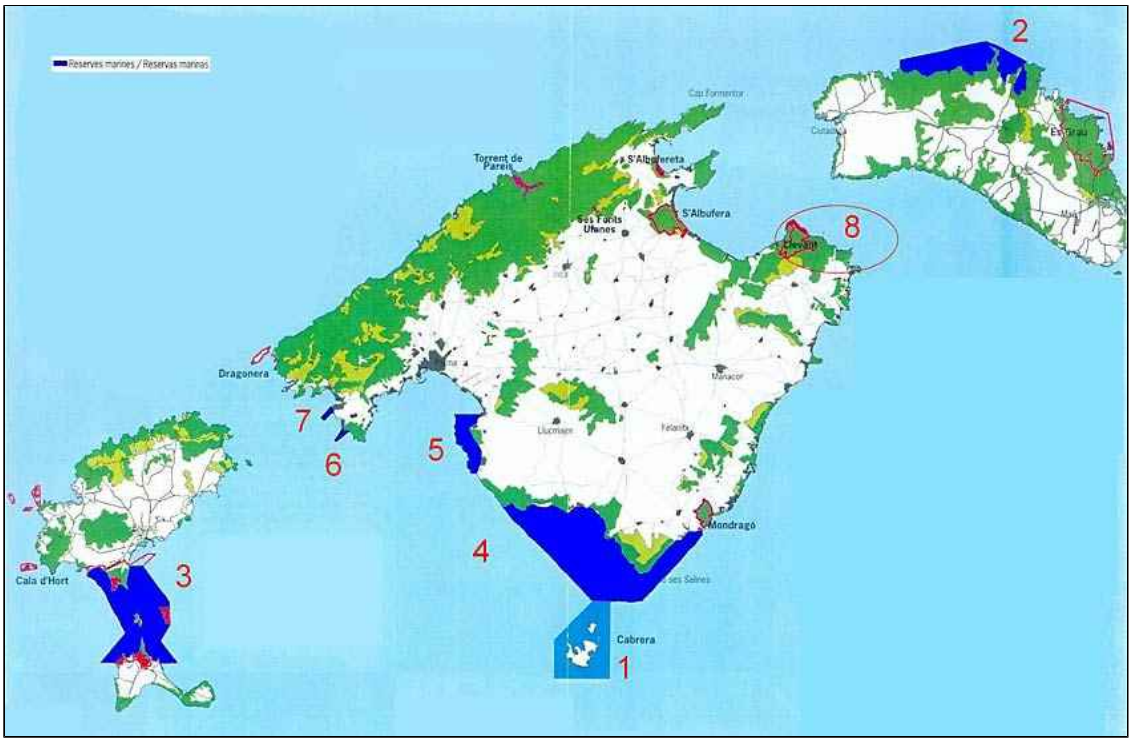


The texts and drawings of this educational cartoon series, created in the Balearics, have been shared with the European Natural Heritage Fund (to be translated into German), with the Parc National de Port Cros (French) and the Institut Scientifique des Pêches Maritimes of Morocco (Arabic).

In addition to these specific initiatives, there is also good news regarding protection of Balearic coastal marine habitat, a vital component of any future efforts toward monk seal reintroduction. Various initiatives from both the environment and fisheries departments of the Spanish state, as well as the Balearic Islands government have produced a wide range of marine protected areas (MPAs). Cabrera National Park, Ses Salines Natural Park and an integrated network of marine reserves[3] that are oriented toward sustainable management of fisheries now cover more than 52000 ha, and in the coming months a new marine reserve of 30000 ha will be declared. When this occurs, all three of the areas identified in the feasibility study (cited above) as suitable for the monk seal reintroduction will have effective management structures in place. This will include patrol boats and wardens for the enforcement of restrictions on intensive fishing practices, implemented after consultation and agreement with both the recreational and professional fishermen.

Southern coast of Cabrera archipelago National Park, one of the Balearic Islands' protected areas where appropriate fisheries and boating management and staff structures are in place.

Except in the specific 'no take' sanctuaries, these areas are not totally forbidden to fishing but are subject to complex and detailed regulations; intensive fishing techniques are not permitted and a new fisheries management culture has been established, open to public participation through a consultative board, where management objectives are revised thanks to scientific studies carried out in the reserves. That framework can hopefully make things easier when the time comes for reviewing the management parameters in the reserves, in order to achieve the necessary conditions for a harmonic cohabitation between humans and monk seals.



8 MPAs (1 National Park, 1 Natural Park and 6 Marine reserves) have been established or declared all around the coast of the Balearic Islands. 1 Parc Nacional de Cabrera; 2 Reserva Nord de Menorca; 3 Els Freus d'Eivissa; 4 Migjorn de Mallorca; 5 Badia de Palma; 6 El Toro; 7 Malgrats; 8 Peninsula de Llevant (to be declared soon).

The creation of new coastal MPAs as tools for conservation purposes and/or sustainable fisheries management in the Mediterranean is a growing trend that will ultimately make it difficult – fortunately – to keep track of the growing surface that is protected by all the existing and approved initiatives. As a result, we dare say that the Balearic Islands is leading this process in Spain and probably in the western Mediterranean as a whole. We will soon account for more than 50% of the total Spanish marine protected surface reported in 2004.[4]

Monk seals are back on the Balearic Islands conservation agenda because the local government environment minister has become interested in pursuing the restoration of local populations, even

if the steps and timeframe have yet to be established. This has resulted in the establishment of a working group mandated to draft a document blueprint to provide a basis for future projects. To facilitate this effort, a poll has been conducted among relevant resource specialists in our area. Recently the people responsible for the monk seal initiative visited the Desertas Islands Nature Reserve, to learn firsthand how a successful monk seal recovery project is being conducted in the Madeira archipelago. As a result, new contacts and exchanges are planned, based on the recognition that monk seal recovery will require the active collaboration of each and every stakeholder, and that the flow of knowledge between all participants benefits everyone.

At present, we have an initial “roadmap” structured around three initiatives:

First, our sincere offer to contribute to ongoing conservation initiatives for monk seals, wherever they occur. The Balearic Islands Government will offer cooperation on projects that aim to conserve and improve the status of local populations, as well as those designed to expand our knowledge and management experience in the locations where monk seals still exist. These projects should always be framed within the existing international plans for protection and recovery of Mediterranean and Atlantic monk seal populations. A modest sponsorship contribution towards The Monachus Guardian and producing a Spanish language translation during 2006 (and hopefully in the coming years) shows our interest in keeping the best channel of communication open, loud and clear, among all the international community. We also believe that this fully conforms with the spirit of the recently approved ‘Portoroz Declaration’[5].

Secondly, we will work hard to change the perception in our society that the monk seal is a long and forever gone part of the archipelago’s fauna. Widespread public information and environmental education programmes will increase the awareness of local people. By highlighting the causes of the local extinction, and providing details of what’s needed to improve the habitat to make it suitable for the monk seal, we hope to forge the conviction that monk seals are an intertwined part of our Mediterranean natural heritage that we can’t allow to be lost. To do so, an agreement has been reached with the Fundació Territori i Paisatge[6] to jointly develop a travelling educational exhibition to promote public awareness about monk seal issues. The elements developed for that exhibition will be offered to the wider international community to be translated and adapted lo local realities.

Finally, we are keeping our efforts focused on strengthening and completing existing plans (and where possible, writing new ones) for coastal MPAs and marine ZECs[7] that were established by the Natura 2000 system in our archipelago.

None of these initiatives include, in the short or medium term, the capture or translocation of monk seal individuals.

Rosa Pires of the Parque Natural da Madeira (second from left), kindly shared with us details of the successful monk seal recovery programme in the Desertas Islands.

In the mid- and long term, our main goal is to ensure that the Balearics habitat and management structure are prepared to receive reintroduced monk seals as soon as it is beneficial for the maintenance and recovery of existing populations. In other words, we want to recover the Balearics for the monk seal and be ready when monk seals are recovered and ready for the Balearics. This is not a superficial local approach of having nice flowers and a few fish in our backyard. We are actively setting up the necessary conditions in the local marine habitat where a viable population can begin to recover in a strategic Western Mediterranean location that is central to the two main remaining populations. Fortunately, several pinniped species around the world, including the Hawaiian monk seal, have shown that it is possible for marine mammals to coexist with modern human societies. We believe that harmonic cohabitation of humans and Mediterranean monk seals is possible if we carefully prepare both species to exist together. The key condition is social acceptance of the species, that will avoid the direct killing of seals – the decisive factor in their local extinction throughout their historical range.

Though we face undeniable problems in achieving this goal, the determination to resolve them is a road that must be explored. Only time will give us the final answer, but the tenacity of both humans and seals will have a key influence!

Footnotes

1 email: jmayol(at)dgcapea.caib.es

2 The study, made by Manu Sanfelix in 1998, divided in 3 parts, can be downloaded from the Balearic islands government website:
http://dgcapea.caib.es/pe/documents_pe/public_pe/tecnics/foca01.pdf
http://dgcapea.caib.es/pe/documents_pe/public_pe/tecnics/foca02.pdf
http://dgcapea.caib.es/pe/documents_pe/public_pe/tecnics/foca03.pdf

3 http://dgpesca.caib.es/user/reserva/reservas.es.htm

4 http://www.faocopemed.org/en/activ/research/mpas.htm#part5
ftp://ftp.fao.org/docrep/fao/007/ae360s/ae360s00.pdf

5 http://www.rac-spa.org/telechargement/Divers/Portoroz%20declaration.pdf

6 http://obrasocial.caixacatalunya.es/osocial/main.html?idioma=3

7 Special areas of conservation as defined in the Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora
http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:31992L0043:EN:HTML

The Monachus Guardian
monachus / schauinslandi / tropicalis

Feature

Vol. 9 (1): June 2006

The twists and turns of monk seal science

How it became the most endangered pinniped in the Pacific

By Paul Koberstein

Editor, Cascadia Times

The Western Pacific Regional Fishery Management Council apparently feels it is under no obligation to tell the truth. At least, not in January 2005, when this organization, known as Wespac, trotted out an obscure study to make a case for lobster fishing in the proposed Northwestern Hawaiian Islands National Marine Sanctuary.

Wespac said the study is proof that lobster fishing won't take food away from the highly endangered Hawaiian monk seal, which lives in the islands almost exclusively. The seal has suffered a steep decline and an alarming rate of starvation in recent years.

At a packed public meeting in January 2005 in Honolulu, Wespac stated that "conclusive evidence the fishery indirectly effects (sic) monk seal foraging is unfounded." For this, it cited a 1998 study by a University of Hawai`i researcher named Gwen Goodmanlowe, who had published a paper, Diet of the Hawaiian monk seal, in the journal Marine Biology.

In a report, Wespac claimed her results showed lobster and bottomfish "do not constitute a significant component of the natural diet of Hawaiian monk seals."

Goodmanlowe says she did not say that.

Cascadia Times interviewed Goodmanlowe, now at the California State University, Long Beach, by email. She says Wespac's interpretation of her study is wrong.

The study did not say monk seals don't eat lobster. The way her study was designed, it was not even possible to reach any kind of conclusion about lobster in monk seal diets.

The study did say blubber studies are needed "so that the occurrence of lobsters in the (monk seal) diet can be accurately identified."

In 1999, Goodmanlowe wrote another paper that further examined monk seal nutrition. In this paper, she found that seals she examined may be lacking essential amino acids that are commonly found at relatively high levels in lobster. Seals that lack the amino acid can have problems with brain functions. She said this finding indicated that lobsters "may be more beneficial nutritionally" to monk seals than other prey.

By then, NOAA Fisheries had already hired a Canadian researcher from Nova Scotia to do the blubber studies that Goodmanlowe recommended.

The scientist, Dr. Sara Iverson, said other studies did not accurately measure lobster in monk seal diets because the animal spits out the shells or so thoroughly digests them that they are impossible to find in scat.

She said the best place to find clues to what's in a monk seal's diet is to analyze what's in the blubber.

She went public with her preliminary data at least three times. At the end of 1998, Iverson presented preliminary findings to the Hawaiian monk seal recovery team showing that the seals do, in all probability, eat lobster.

“Although this is preliminary (how many times can I say that word?), lobster has definitely come through and sometimes quite largely (especially at French Frigate Shoals),” she wrote in a Nov. 13, 1999 email to NOAA Fisheries scientists.

She presented a similar oral report at a December 1999 meeting of the Hawaiian monk seal recovery team where she said lobster may represent 20 to 25 percent of the prey consumed by sub-adult seals of both sexes, and by adult females.

This was too much for Wespac to swallow. On March 6, 2000, Simonds wrote a letter to a top NOAA official complaining that Wespac’s science advisors did not see any conclusive evidence “of food limitation” in monk seals, despite compelling field reports detailing case after case of monk seal starvation.

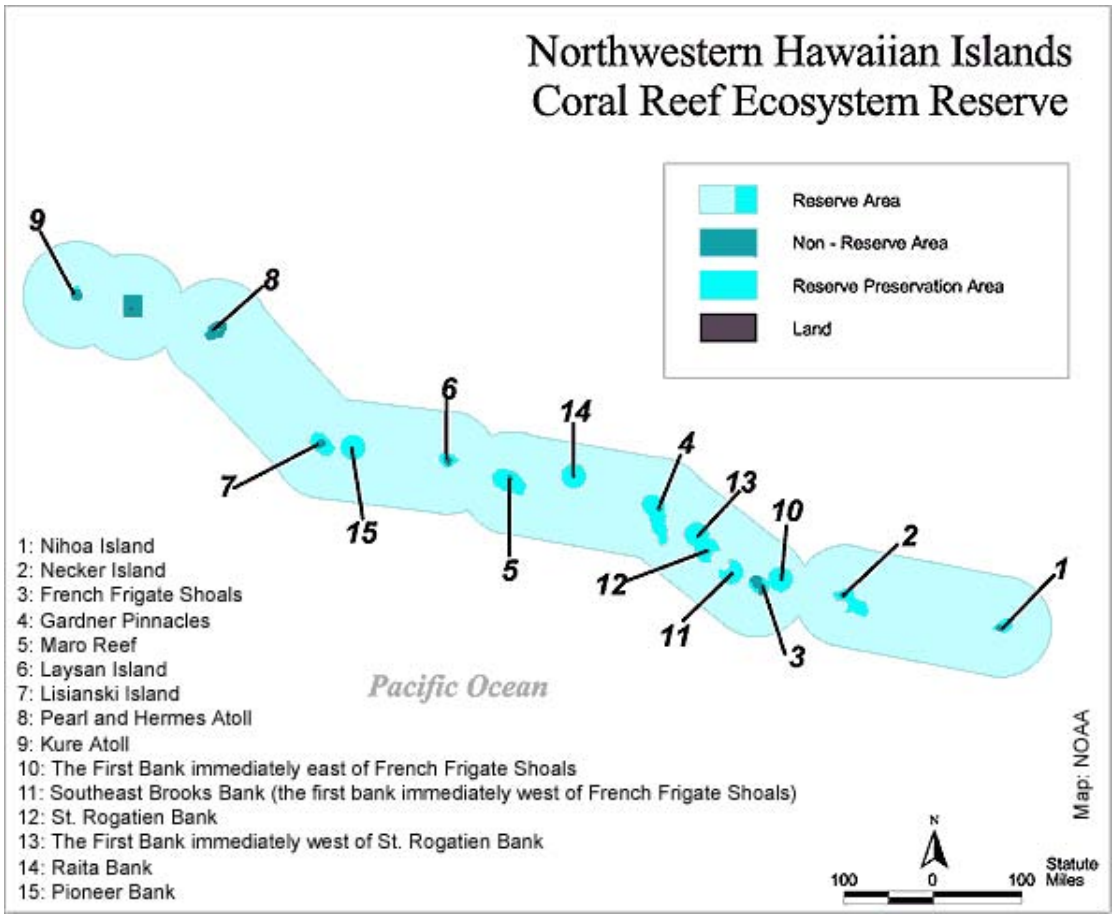
Simonds’ letter also protested “the misrepresentation of results from fatty acid signature studies of monk seal tissue that prematurely suggest a proportionally high level of lobster in their diet.”

Since then, the public has heard little from Iverson about monk seals. She did give a declaration in the lobster lawsuit before Federal Judge Samuel King. In it, she cautioned that her results were preliminary, and not to be used to make policy decisions regarding the seal.

She declined an interview about her data, and NOAA Fisheries rejected Cascadia Times’ petition under the Freedom of Information Act to see her results.

Back to the beginning

One might think the Hawaiian monk seal enjoys a cushy lifestyle. After all, the seal gets to hang out on the beautiful reefs and sandy beaches of the Northwestern Hawaiian Islands.



But that doesn't mean survival is easy. The waters around its haulouts are full of dangerous predators, including the large and powerful Galapagos and tiger sharks. Smaller monk seals also need to watch out for big male seals who on occasion beat up and kill the weaker animals.

But the most worrisome threat may be starvation, which has plagued the Hawaiian monk seal continually since 1988. That year, researchers began noticing large numbers of dead, emaciated young seals on the beaches of the main pupping grounds on French Frigate Shoals, according to field reports written at the time.

In 1990 and 1991, as the downward trend continued, NOAA scientists wrote in a report, "This population clearly is declining after 30 years of increase."

They were right. During the 1990s, the monk seal population at French Frigate Shoals declined by 55 percent.

Today, the starvation continues, and the aging population is failing to replace itself. As the older females die off, and with the population declining 5 to 6 percent a year, the species appears to be on track for a sudden and tragic collapse.

There are only 1,600 monk seals in the world, counting the 300 of the even more highly endangered cousin, the Mediterranean monk seal. A third group, the Caribbean monk seal, hasn't been seen since 1932. On Earth, no other pinniped, a group of marine mammals that includes seals and sea lions, is so close to extinction.

It may be a coincidence, but the monk seal's decline paralleled the crash of one of its prey: the lobster. The main difference is that the lobster dropped much faster than the monk seal, at least so far.

You can't say Wespac wasn't warned.

As long ago as 1980, the U.S. Army Corps of Engineers expressed the same concern and urged Wespac to be careful.

During the 1990s, the U.S. Marine Mammal Commission wrote at least a dozen letters to NOAA and Wespac warning that lobster fishing might be taking food away from starving monk seals, and to take precautions.

In 2005, the commission found itself still fighting Wespac and its proposed lobster fishing.

In comments on that plan, it noted that lobster fishing in the northwestern islands showed "classic signs of overfishing and stock depletion."

Catch levels in 1999, when the fishery had to be closed, were just 10 percent of levels taken in the mid-1980s.

"It is uncertain to what extent the depletion of the lobster stock has contributed to the decline of the monk seal population at French Frigate Shoals or to the species' lack of recovery at other locations. This clearly reflects a case in which precautionary management requires that the fishery remain closed until unambiguous data indicate otherwise," the commission wrote.

As always, Wespac dismissed the commission's recommendation.

Ignoring the data

Throughout the decline of the lobster and the monk seal, Wespac demonstrated a lack of commitment to caution and conservation, a stubborn refusal to listen to outside experts, a strong reliance on old-fashioned denial and a close allegiance to the lobster fishing industry.

Wespac was not alone in its failure to protect theses species. NOAA played a major role by failing to recognize and act on danger signs. But the record also shows that some scientists at NOAA were deeply troubled by the lobster fishery and its effects on the monk seal. According to emails contained in federal court records, these officials were overruled by their superiors, perhaps testimony to Wespac's political clout.

U.S. ocean policies have also failed in the northwestern islands and with marine mammals in particular. The Marine Mammal Protection Act, a weak law approved by Congress in 1972, created the Marine Mammal Commission, a toothless but diligent federal agency whose only means of protecting the animals rests with its power to persuade other government entities to do the right thing.

Wespac has shown that the commission is easily ignored even in the most dire circumstances, like those facing the monk seal. Wespac's neighboring fishing council, the North Pacific Fishery Management Council in Alaska, has similarly dismissed the mammal commission's pleas to slow down fishing in areas where northern fur seals and Steller sea lions are in serious decline.

A review of federal documents by Environmental Defense reveals that Wespac at numerous points in its history allowed fishers to catch amounts of lobster far in excess of quotas, easily ignoring the Marine Mammal Commission even in the most dire circumstances. The fishery was not run with an eye for ecological sustainability; Wespac instead was obsessed with the personal profits of a few individuals.

Lobster fishing couldn't have been better during the late 1980s. With a high price for lobster tail, fishers reported hauling 2.5 million lobsters on board in 1986, worth $6 million. From 1985 to 1990, they caught more than 11 million.

Every year during the 1980s, Wespac set quotas that were exceeded by as much as 500 percent. In 1989, Wespac decided that it would be safe to catch 1 million lobsters a year. But that year, boat captains worried that the boom was going to bust. Of 16 boats, only three were clearly profitable, economists said at the time.

They were right to worry. In 1990, almost half the catch was comprised of illegal undersized lobster females with eggs, meaning the fishers, in theory, had to throw back about 50 percent of the haul.

By 1992, fishers were catching far more illegal lobsters than legal ones. That year, Jim Cook, who went on to be Wespac's Chairman, and Ed Timoney, husband of an ex-Wespac council member, was fined $40,000 and negotiated to pay a reduced fine of $29,500 for keeping illegal undersized and female lobsters with eggs. Lobster fishing was closed in 1993.

By 1994, cost and revenue analyses indicated that, on average, lobster vessels showed losses of $40,000 to $55,000 per vessel per year.

In 1995, the fishery remained closed but one vessel was allowed to fish under an "experimental fishing permit" to assess stock conditions.

In 1995, Wespac decided that the solution to this problem was to allow fishers keep all the lobsters. Everything was now legal, as far as Wespac was concerned. But under state law, retaining undersized and berried female lobsters was illegal.

Emails passed among senior NOAA officials at the time indicate they held strong doubts about letting fishers keep the young and the female lobsters. The impacts on monk seals was chief of their concerns.

Even the guy at the top, William Fox, the agency's director, was worried. In November 1995, he said in an email:

"As I pointed out… the potential effects on monk seals were inadequately addressed in the (Wespac) biological assessment."

Fox was particularly concerned that lobster fishermen would engage in "high grading," the practice of throwing away small lobsters without counting them against the quota.

Fox "said the literature (research) indicates that monk seals feed predominantly on sublegal lobsters, therefore a decline in these would be more of a problem than a decline in the overall stock," according to an email by Sven Fougner, another NOAA Fisheries official and the first executive director of Wespac.

Fox also believed that the seals moved around to areas with healthier lobster populations.

The lobster fishery wasn't being closely watched. Wespac never required independent observers to be on board any of the boats.

"We have stated that the relationship between lobsters as prey and seals is not well understood, but that lack of understanding should not be used to state that we do not know the impact and act as if there may not be one," said Michael Payne, a NOAA Fisheries official, in another November 1995 email. "Rather, it should prompt a conservative approach to re-opening this fishery until monk seal predatory habits and lobster are better understood.

"This is such an endangered species, with a trend that continues to decline, that to be anything other than very cautious is not prudent. … It is not apparent to me why this fishery should be allowed unless monitored by observers, and a buffer is established that will protect a foraging area for seals.

"I am really concerned about this. We spend an incredible amount of money each year, the seal still continues to decline, and we are considering allowing a fishery to develop and increase around one of the few haulouts that is increasing. I think we are shooting ourselves in the foot."

NOAA Fisheries issued a biological opinion in 1996 that found a "continuing decline in pup production, and total seal counts over the past years, (which) is cause for significant concern." The agency attributed the decline to three factors, including the lobster fishery.

And yet, in the end NOAA Fisheries let Wespac reopen its lobster fishery in 1996 with new rules and created a "retain all" fishery allowing the capture of female lobsters with eggs and undersized juveniles, practices banned in the Main Hawaiian Islands. Female lobsters can take 8 years to reach reproductive maturity and their capture is banned in waters throughout the United States. This fragile fishery may be the only place in the country where their harvest has been legal.

The lobster fishery has historically been a spiny lobster fishery. The low-value slipper lobsters were never prized by the fishing industry. In the 1980s, the spinys were more plentiful. But as the spiny population was fished down, in 1998, fishers, for the first time, caught more slippers than spinys.

On October 16, 1998, the 87-foot Paradise Queen II, a lobster and longlining vessel, was fishing for lobster at Kure Atoll when it went aground on the seaward side of the fringing reef crest, southeast of Green Island.

According to a joint state and federal government inquiry, at the time of the grounding, the vessel carried 11,000 gallons of diesel fuel and a combined volume of 500 gallons of hydraulic fluids and oil.

The vessel was also carrying about 3,000 pounds of frozen lobster tails, 4,000 pounds of bait, 1,040 plastic lobster traps and 11 miles of lobster pot mainline.

The boat was not pulled off the reef because the ship's owner did not allow government responders to remove the ship immediately after it ran aground. Once the ship broke apart, removal became impossible.

Two years later, researchers found broken coral, uprooted coralline algae structures, the bodies of two monk seals among piles of nets surrounding the decaying wheel house, some 600 lobster traps and hundreds if not thousands of lead fishing weights and fishing line.

The fishery staggered along until February 2000, when NOAA Fisheries officials had finally had enough. Environmentalists had filed a lawsuit accusing the agency of violating its duties under the Endangered Species Act to protect the monk seal. Despite the apparent low abundance of spiny lobster at many banks in the northwestern islands, the commercial fishery was continuing to target spiny lobsters.

NOAA declared that any spiny lobster-directed commercial fishing effort may be excessive.

Wespac responded with a letter stating that it "strongly opposes" the closure. "The Council requests that (NOAA Fisheries) immediately withdraw its proposal and allow the fishery to operate with a harvest guideline of no more than 130,000 lobsters," Simonds wrote in a letter.

For once, Simonds didn't get her way.

NOAA announced the closure would take effect on July 1. And on November 15, Federal Judge Samuel King ordered NOAA to keep it closed.

Who speaks for the monk seal?

The Marine Mammal Commission began warning NOAA and Wespac of its concerns about the lobster fishery as early as 1981.

It said Wespac's lobster fishing regulations "must include provisions for preventing adverse impacts on the Hawaiian monk seal and other endangered or threatened species, as well as provisions for preventing overfishing of the lobster stocks."

But Wespac NOAA preferred to listen to their own experts, and they allowed the fishery to keep chugging along.

In 1991, the commission noted that in 1990 the lobster stock had been reduced to 22 percent of its pre-fishery level in the late 1970s. "We are concerned, however, that the current definition of overfishing in this Plan may be lower than it should be, given recent trends in Hawaiian monk seal population levels and ecological relationships between lobsters and seals," the commission said.

In 1991, NOAA responded to the commission by noting that the lobster fishery, when compared with other lobster predators like sharks, andenvironmental stresses on the stocks, "is only a small component affecting the availability of lobster to the monk seal."

In 1994, the commission asked NOAA to close fishing near French Frigate Shoals. "Pups born at this atoll have been smaller at weaning than pups born at other islands and have suffered very high mortality in their first year of life. Also, survivorship rates for pups and juveniles have declined substantially over the last five years," the commission's director, John Twist, wrote.

But Wespac was not persuaded. Neither was its Science and Statistical Advisory Committee. The committee claimed that there was "insufficient information at this time to support the concerns raised by the (Marine Mammal) Commission regarding the decline of the monk seal population at French Frigate and the lobster fishery; there should be no prohibition of lobster fishing around French Frigate."

The letters continued to come from the Commission; they made no discernible impression on NOAA or Wespac. In 1999, Simonds sent this message to the Commission's Twist:

"The basic assumption underlying your letter, as in your previous letters on this subject, continues to be that lobster fishing is adversely affecting monk seals due to competition for prey, either primary catch or bycatch. We are aware of no new information that suggests lobsters are important components of the diet of monk seals, and therefore continue to believe that the small (northwestern islands) lobster fishery does not have any significant impact on seals."

In a response dated May 1999, Twist admonished Simonds for failing to exercise due caution:

"When dealing with an endangered species and such uncertainty, we believe it is important for resource managers to adopt precautionary measures pending resolution of the uncertainties. In this regard, it stands to reason that fishing immediately adjacent to major monk seal colonies where juvenile seals first learn to feed would like have the most significant impact.

"We believe that precautionary steps to suspend lobster fishing around all atolls supporting major monk seal colonies are both prudent and warranted until such time as reliable information is available on the diets… of monk seals."

In January 2000, Wespac argued back through a press release with this headline:"Don't blame fisheries for monk seal decline."

Later that month, James Cook, Wespac's chairman, wrote to Penelope Dalton, NOAA Assistant Administrator of Fisheries, to complain about the criticism coming from the Marine Mammal Commission:

"Predictably, the small highly regulated and limited fisheries in the NWHI are demonized once again as a major source of danger to this seal population."

The day after Cook wrote the letter, NOAA announced its intent to close the fishery.

Cook, who nine years earlier had been caught and fined $29,500 for poaching lobster, soon left the council because he had reached his term limit. He remained involved in Wespac's operations, however, as chair of Wespac's advisory panel, In 2003, his business partner Sean Martin joined the council. Interestingly, in 2004 Martin paid a $7,000 fine for violating federal fishing laws.

Reprinted with permission from the Spring 2006 issue of Cascadia Times.

The Monachus Guardian
monachus / schauinslandi / tropicalis

Recent Publications

Vol. 9 (1): June 2006

In Print

- **Aldridge, Brian M., Lizabeth Bowen, Brett R. Smith, George A. Antonelis, Frances Gulland and Jeffrey L. Stott.** 2006. Paucity of class I MHC gene heterogeneity between individuals in the endangered Hawaiian monk seal population. Immunogenetics 58(2-3): 203-215.
- **Baker, Jason D., Charles L. Littnan, David W. Johnston.** 2006. Potential effects of sea level rise on the terrestrial habitats of endangered and endemic megafauna in the Northwestern Hawaiian Islands. Endangered Species Research 4: 1-10.
- **Bertilsson-friedman, Petra.** 2006. Distribution and frequencies of shark-inflicted injuries to the Endangered Hawaiian monk seal (*Monachus schauinslandi*). Journal of Zoology (London) 268(4): 361-368.
- **Gazo, M., C. Lydersen and A. Aguilar.** 2006. Diving behaviour of Mediterranean monk seal pups during lactation and post weaning. Marine Ecology Progress Series 308: 303–309.
- **Goldstein, T., F.M.D. Gulland, R.C. Braun, G.A. Antonelis, L. Kashinsky, T.K. Rowles, J.A.K. Mazet, L.M. Dalton, B.M. Aldridge and J.L. Stoot.** 2006. Molecular identification of a novel gamma herpesvirus in the endangered Hawaiian monk seal (*Monachus schauinslandi*). Marine Mammal Science 22 (2): 465-71.
- **McFadden, K.W., G.A.J. Worthy and T.E. Lacher.** 2006. Photogrammetric estimates of size and mass in Hawaiian monk seals (*Monachus schauinslandi*). Aquatic Mammals 32(1): 31-40.

The 16th Biennial Conference on the Biology of Marine Mammals, 12-16 December 2005, San Diego, California

- **Antonelis, G.A. Harting, A.L., Becker, B.L., Canja, S.M., Luers, D.F., Dietrich, A.** 2005. (Abstract). Galapagos sharks and Hawaiian monk seals: A conservation conundrum. Society for Marine Mammalogy. 16th Biennial Conference on the Biology of Marine Mammals, 12-16 December 2005, San Diego, California: 16.
- **Baker, J.D., Polovina, J.J., Howel, E.A.** 2005. (Abstract). Apparent link between survival of juvenile Hawaiian monk seals and ocean productivity. Society for Marine Mammalogy. 16th Biennial Conference on the Biology of Marine Mammals, 12-16 December 2005, San Diego, California: 22-23.
- **Dietrich, A., Luers, D.F., Braun, R., C., Gulland, F.** 2005. (Abstract). Photographic assement of trends in body condition of juvenile Hawaiian monk seals. Society for Marine Mammalogy. 16th Biennial Conference on the Biology of Marine Mammals, 12-16 December 2005, San Diego, California: 75.
- **Iverson, S.J., Stewart, B.S., Yochem, P.K., Littnan, C.L., Antonellis, G.A.** 2005. (Abstract). Calibration of fatty acid signatures as indicators of diet in captive monk seals (*Monachus schauinslandi*) and application to free-ranging individuals. Society for Marine Mammalogy. 16th Biennial Conference on the Biology of Marine Mammals, 12-16 December 2005, San Diego, California: 137-138.
- **Johanos, T.C., Harting, A.L., Baker, J.D.** 2005. (Abstract). Fecundity patterns and reproductive senescence in the Hawaiian monk seal (*Monachus schauinslandi*). Society for Marine Mammalogy. 16th Biennial Conference on the Biology of Marine Mammals, 12-16 December 2005, San Diego, California: 143.

- **Johnston, D.W., Baker, J.D., Littnan, C.L.** 2005. (Abstract). Modeling the effects of predicted sea level rise on the terrestrial habitat of Hawaiian monk seals (*Monachus schauinslandi*) and other wildlife in the Northwestern Hawaiian Islands. Society for Marine Mammalogy. 16th Biennial Conference on the Biology of Marine Mammals, 12-16 December 2005, San Diego, California: 144.
- **Stewart, B.S., Littnan, C.L.** 2005. (Abstract). Foraging habitats and behaviour and population vitality of Hawaiian monk seals. Society for Marine Mammalogy. 16th Biennial Conference on the Biology of Marine Mammals, 12-16 December 2005, San Diego, California: 269.

20th Conference of the European Cetacean Society, 2-7 April 2006, Gdynia, Poland. The conference abstract book is available at: http://www.ecs2006gdynia.univ.gda.pl/abstract.html

- **Aguilar, A.** 2006. (Abstract). Managing pre-extinction: The case of the Mediterranean monk seal. In: I. Kuklik (Ed.), Conference Guide and abstract book. 20th Annual Conference of the European Cetacean Society, 2-7 April 2006, Gdynia, Poland: ii-iii.
- **Androukaki E., Chatzispyrou, A., Adamantopolou, S., Dendrinos, P., Kommenou, A., Kuiken, T., Tounta, E. and Kotomatas, S.** 2006. (Abstract). Investigating the causes of the death in monk seals, stranded in coastal Greece. In: I. Kuklik (Ed.), Conference Guide and abstract book. 20th Annual Conference of the European Cetacean Society, 2-7 April 2006, Gdynia, Poland: 112.
- **Brito, C., Carvalho, V.H., and Pimentel, M.** 2006. (Abstract). Historical and current populations' trends of Mediterranean monk sealsin Madeira, Archipelago (Portugal), and Rio Do Ouro (West Africa). In: I. Kuklik (Ed.), Conference Guide and abstract book. 20th Annual Conference of the European Cetacean Society, 2-7 April 2006, Gdynia, Poland: 184.
- **Dendrinos, P., Tounta, E. and Karamanlidis, A.A.** 2006. (Abstract). Mediterranean monk seal and fishery interactions in the National Marine Park of Alonissos, Northern Sporades. In: I. Kuklik (Ed.), Conference Guide and abstract book. 20th Annual Conference of the European Cetacean Society, 2-7 April 2006, Gdynia, Poland: 117.
- **Güçlüsoy, H.** 2006. (Abstract). Has the link between monk seal populations of the Aegean Sea and the Black Sea Broken? In: I.Kuklik (Ed.), Conference Guide and abstract book. 2-7 April 2006, Gdynia, Poland: 135-136.
- **Pires, R. and Alves, A.S.** 2006. (Abstract) Can monk seals in Madeira coexist with man? In: I. Kuklik (Ed.), Conference Guide and abstract book. 20th Annual Conference of the European Cetacean Society, 2-7 April 2006, Gdynia, Poland: 124.

Web publications, presentations and reports

- **Androukaki E., Chatzispyrou, A., Adamantopolou, S., Dendrinos, P., Kommenou, A., Kuiken, T., Tounta, E. and Kotomatas, S.** 2006. (Poster presentation). Investigating the causes of the death in monk seals, stranded in coastal Greece. 20th Annual Conference of the European Cetacean Society, 2-7 April 2006, Gdynia, Poland. [PDF 1.1 MB]
- **MOm.** 2005. Increasing the survival rate for Mediterranean monk seal pups under treatment. Technical workshop, organised by MOm, the Hellenic Society for the Study & Protection of the Monk Seal, Athens, Greece, 9 July 2005: 1-16. [PDF 113 KB]
- **MOm.** 2005. Mediterranean monk seal rehabilitation in Greece 1990-2004: 15 years of action. The Hellenic Society for the Study & Protection of the Monk Seal (MOm), Athens, Greece: 1-31. [PDF 1.4 MB]

TMG thanks Harun Güçlüsoy and Alexandros Karamanlidis for their help in compiling this listing.

Publishing Info

Vol. 9 (1): June 2006

The Monachus Guardian
ISSN: 1480-9370

Editor: William M. Johnson
Production Editor: Matthias Schnellmann

Published by: Friends of the Monk Seal

c/o M. Schnellmann
Wernerstr. 26
CH-3006 Bern
Switzerland

All e-mail communications, including letters to the Editor, should be sent to:
editor@monachus-guardian.org

The views expressed in *The Monachus Guardian*
do not necessarily reflect those of its publishers or financial supporters.