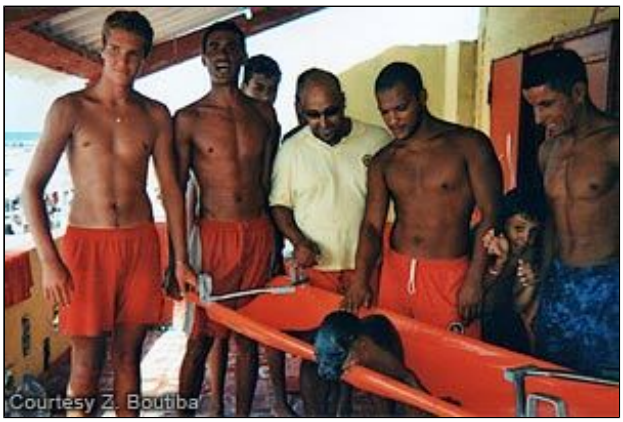
The Monachus Guardian
monachus / schauinslandi / tropicalis

Vol. 10 / No. 1 | Published by Friends of the Monk Seal | June 2007

Mediterranean News: Orphaned pup 'Almond', released to the wild

Cover Story: Trying to make a blue sea green



Monachus Science: A hooded seal is discovered during monk seal surveys

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Guest Editorial

Vol. 10 (1): June 2007

A joyful loss

by Ilksen Dinçer Bas

Her release ceremony was perfectly done. Her caretakers, volunteers, seal lovers, media, uniformed and smiling carriers of her release cage, the minister and the mayor were all there to celebrate her release. As soon as the audience saw the photos and the footage of Badem, everybody was her family. They giggled and made exclamations as if they were watching a photo album of a loved one. There she was with her dry black eyes shrunken inwards! She was so skinny then! Look how she tries to bite the hose! Isn't she lovely! Wow she's chasing an eel now like a guided missile with her eyes crossed!

Five months ago there had been a fierce storm. She swam alone in a sea empty as a desert on cold winter days. She used her instincts to stay alive. When she reached the shores of Didim, she hauled out and collapsed upon the seaweed. She could hardly make it this far. Well-intentioned onlookers, on the other hand, tried to push her back into the water as if she'd washed ashore like a dolphin. It was AFAG's phone call that stopped this. Didim's veterinarian helped us take the necessary measures.

From then on, all our decades of effort to protect monk seals paid off. We harvested the seeds we had sown — that is to say, everybody who had once been involved or interested in the monk seal got organized and did their best during her rescue and rehabilitation. Mustafa Koc, a businessman, sponsored the efforts. The Municipality of Foça constructed a fully equipped rehabilitation unit. The SRRC sent one of its best caregivers. Fishermen caught octopus for her. Journalists rushed in to let the news spread. It was our first baby.

In the beginning, she suckled the doors and walls with her squinted eyes. An angry or curious or frustrated "Baa!" was her sound. "She is quite a character," says everybody who knows her, "very wild and clever." In the third month I asked why she always remained inside the pool even when the pool was empty. The caregivers said, "We normally clean the pool when she is not in it. We used to attract her attention towards the platform by throwing things that she followed. This changed as she grew up. Once we put a bucket to attract her, she came over, and we blocked her on the platform. The second day she didn't come for the bucket. Then we tried fish. She came for the fish, grabbed it with her jaws and tried to turn back to the pool. We blocked the way and she stayed on the platform. Next day she was so fast that she outran us and splashed into the water with a fish in her mouth. The following day, we threw the fish a little bit further, she didn't move a flipper to come out. She remained inside for good. So the water level now goes down to zero and up to the brim while she is in it. The rehab unit is hers and she has the privilege of choosing where she stays."

During these five months, I developed a greater respect for animals of all kinds. The struggle of an octopus that stretched its long sticky cupped arms out of a bucket to escape; its determination to stay alive was remarkable. They never give up, even up to the last minute. The same for Badem. She knew by nature how to catch and eat each creature around to stay alive. For that octopus, her tactic would be to corner it and grab it at the head. Then she would shake her head

in the air as if enjoying hard rock playing in her ears until the arms of the octopus had fallen still, making it an easy swallow. When you see Badem feeding herself, you feel proud. A completely different way of eating occurs with the eels. This time she catches and bites the eel from head to tail and then swallows.

I strongly recommend everyone to click on AFAG's web page. It's not because I have limited space to tell you about her, but it is because I can never tell enough of her cute face, her backstroke underwater, her never ending tumbles, her back flippers like a tulip when they're swirling, nor her almond eyes. Photos are always useful to imagine the rest. However, a release photo might not succeed in telling you that this was a very emotional day for everyone. Once you have nothing more to do to protect your loved one, you pray. I admit this was what I did when she was gone, even though I have no religion. Her pool is empty now. Her reunion with nature is a joyful loss for all of us.

Ilksen Dinçer Bas, Foça, Turkey, April 2007.

Ilksen Dinçer Bas is a Turkish writer, former teacher, and a long-time supporter of the Mediterranean Seal Research Group (AFAG).

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International News

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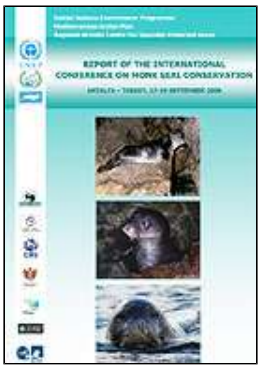
Antalya conference report released



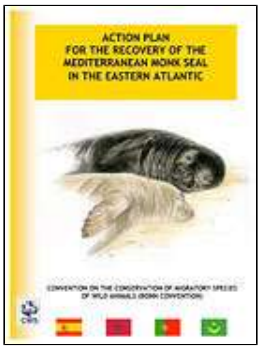
On 22 December Tunis-based RAC/SPA, nominally administrators of the UN Action Plan for the Monk Seal, released its report on September's controversial monk seal conference in Antalya, Turkey. The report is available for download following the link below:

> **RAC/SPA**. 2006. Report of the international conference on monk seal conservation, Antalya, Turkey, September 2006. United Nations Environment Programme, Mediterranean Action Plan, Regional Activity Centre for Specially Protected Areas: 1-69. [PDF 753KB]

In a trend that has become depressingly familiar at RAC/SPA, the report does little to reflect the diverse opinions, concerns and criticisms heard in and around the conference.

For further background and conference impressions, please turn to November's Cover Story in The Monachus Guardian, Anatomy of a Conference.

Library update



For those interested in international efforts to preserve the Mediterranean monk seal in the Atlantic – an issue covered in various back issues of The Monachus Guardian – we are now able to make the full 2005 Action Plan available for download in the Monk Seal Library.

> **CMS. Convention on the conservation of migratory species of wild animals**. 2005. Action Plan for the Recovery of the Mediterranean Monk Seal (*Monachus monachus*) in the Eastern Atlantic. Prepared by the Working Group of the Mediterranean Monk Seal in the Eastern Atlantic for the Convention on the Conservation of Migratory Species of Wild Animals (Bonn Convention): 1-104. [PDF 3.9 MB]

Revision of Mediterranean monk seal conservation strategy

MOm, the Hellenic Society for the Study and Protection of the Monk seal, a Greek non-governmental environmental organisation, is seeking to contract, through a competitive tender, an independent Conservation Specialist to evaluate and revise the *National Strategy for the Conservation of the Mediterranean Monk Seal in Greece*.

With a worldwide population of fewer than 600 individuals, the Mediterranean monk seal *Monachus monachus* is considered by IUCN to be critically endangered. During the last decades numerous conservation activities have concentrated in Greece, since it hosts approximately half of the species' population. The Conservation Specialist's tasks will be:

- to evaluate the existing Strategy, originally drafted in 1996, in terms of its effectiveness to address the species' threats

- to revise the Strategy, so as to address all current conservation requirements of the species and its habitat, identify priorities and suggest cost effective future actions covering the period up until 2015.

The project's duration is 9 months.

MOm will provide to the selected conservation specialist all background documentation and information required, and will assist in setting up working meetings with key stakeholders, experts, and the relevant national and European Commission authorities. The revised Strategy will be widely distributed to scientists, conservationists, stakeholders, and policy makers internationally. Upon its adoption by the National authorities it will constitute a seminal policy tool guiding all activities conducted for the conservation of the species.

Applicants should have extended experience in similar projects and significant knowledge of the conservation requirements of critically endangered species. For a detailed description and the terms of reference of the project, applicants should contact Dr. Spyros Kotomatas, MOm's Scientific Coordinator at the address below. Applications should be forwarded with the indication (IC07-NCS) to info@mom.gr no later than the 15th of September 2007.

EndQuote

That New Graffiti Look

"KALAELOA (KHNL) - Hawaiian Monk seals are showing up with a new graffiti look. But those who deal with the animals say its nothing to worry about, in fact, its meant to help the seals.

Some Kalaeloa viewers are talking story about a Hawaiian Monk seal that appears to be spray painted!

You can see the marking "e-v" on its side. Before you get upset, this isn't the work of some malicious graffiti artist; instead, its done by the National Marine Fisheries Service as a way to track the animals… (Paul Drewes, KHNL)."

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Hawaiian News

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NMFS report warns of Hawaiian monk seal extinction

In November 2006, the National Marine Fisheries Service published its long-awaited Recovery Plan for the Hawaiian Monk Seal (*Monachus schauinslandi*). The plan was developed by the Hawaiian Monk Seal Recovery Team (HMSRT), whose members include current chair, Dr. Joshua Ginsberg, and Dr. Bill Gilmartin, who led efforts to draw up the last recovery plan over two decades ago.

In what might be one the starkest official warnings ever voiced about the fate the species, the report states that: "The Hawaiian monk seal (*Monachus schauinslandi*) is in crisis: the population is in a decline that has lasted 20 years and only around 1300 monk seals remain. Modeling predicts the species' population will fall below 1000 animals in the next five years. Like the extinct Caribbean monk seal and the critically endangered Mediterranean monk seal, the Hawaiian monk seal is headed to extinction. Actions to date have not been sufficient to result in a recovering population."In an initial 5-year plan estimated to cost in access of $52 million, the following actions are envisaged:

1. Investigate factors affecting food limitation
2. Prevent entanglements of monk seals
3. Reduce shark predation on monk seals
4. Reduce exposure and spread of infectious disease
5. Conserve Hawaiian monk seal habitat
6. Reduce Hawaiian monk seal interactions with fisheries
7. Reduce male aggression toward pups/immature seals and adult females
8. Reduce the likelihood and impact of human interactions
9. Investigate and develop response to biotoxin impacts
10. Reduce impacts from compromised and grounded vessels
11. Reduce the impacts of contaminants
12. Continue population monitoring and research
13. Create a main Hawaiian Islands Hawaiian Monk Seal Management Plan
14. Implement education and outreach programs

The report predicts a total period of recovery for the species of 54 years, on the basis that a population can only be considered "recovered" if it continues to qualify for "threatened" classification for 20 consecutive years. The 54-year effort has been budgeted at $432,016,000.

The full report, its findings and recommendations can be downloaded from the Monk Seal Library or from the NMFS website.

National Marine Fisheries Service. 2006. Recovery Plan for the Hawaiian Monk Seal (*Monachus schauinslandi*). National Marine Fisheries Service, Silver Spring, MD: 1-148. [PDF 1.8MB]

Papahanaumokuakea

In a ceremony held on March 2, 2007, reports KAHEA, the Northwestern Hawaiian Islands (NWHI) Monument was honoured with the name Papahanaumokuakea, invoking the ancient Hawaiian creation story of Papa (Earth Mother) and Wakea (Sky Father) and the long stretch of islands to which they gave birth.

These sacred islands were designated the first-ever marine monument by a presidential proclamation issued on June 15, 2006. This declaration means the NWHI will no longer be considered for sanctuary status. As the process to implement this decision develops, the public must continue to be involved at every stage of decision-making to ensure this irreplaceable public trust resource is fully protected. Sign up with the KAHEA action alert network to receive updates on the process to implement the NWHI monument proclamation.

Captive care lends seals a headstart

With the Hawaiian monk seal having declined to the lowest population levels in its recorded history – some 1,200 individuals – scientists and US government officials are scrambling for answers to stem the decline.

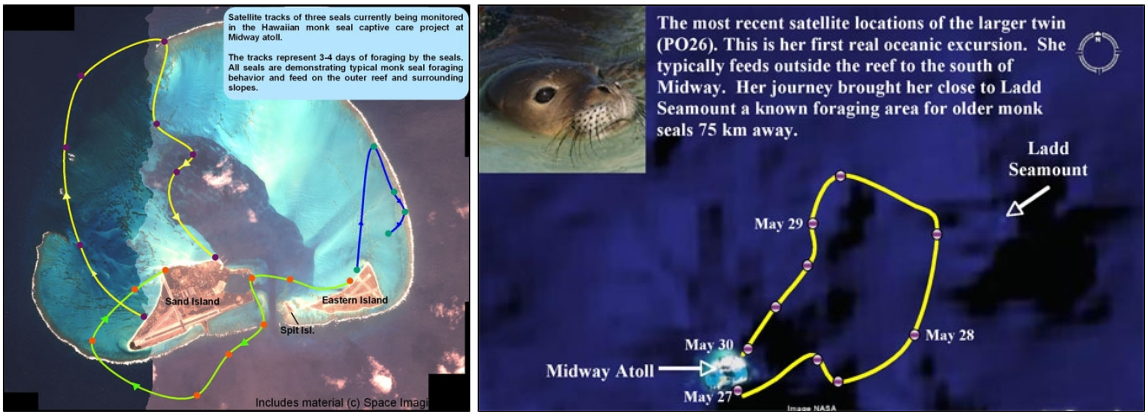
One such initiative is the Captive Care Project, which seeks to improve survival of (mainly female) monk seal pups – the period in which they are most at risk.

Due to factors including starvation, entanglement in marine debris and shark predation, only one in five seals survives to reproductive age. The pilot project, based on Midway Atoll, in the Papahanaumokuakea Marine National Monument, has already cared for 6 female monk seal pups, including the rare fraternal twins PO22 and PO26, that have captured so much attention among the press and public.

Captive Care pups on Midway.

Elements of the Captive Care Project, which the NOAA Pacific Islands Fisheries Science Center runs in collaboration with other government agencies and NGOs such as the Marine Mammal Center, include:

1. Collecting female pups at weaning, and supporting them in shoreline pens.
2. Continuously observing free-roaming seals at Midway while maintaining seals under captive care to better understand the potential causes of pup mortality.
3. Use of satellite linked telemetry to record geographic location and diving behaviour, and to track free roaming male pups (as control animals) and the released female pups, comparing their movements and activities.



Samples of the satellite tracking maps (courtesy Charles Littnan).

The NOAA Pacific Islands Fisheries Science Center site charts the progress of the pups, as well as providing direct public access to satellite tracking maps showing their post-release movements.

Further information

NOAA News Online (Story 2766). NOAA comes to the aid of rare monk seal twins.

NOAA. Captive Care and Release Project Seeks to Aid Recovery of the Endangered Hawaiian Monk Seal. NOAA Pacific Islands Fisheries Science Center.

The Marine Mammal Center: http://www.marinemammalcenter.org

Press Watch

Monk seal dies as team tries to catch it. 15 April 2007.

An endangered Hawaiian monk seal died Tuesday as a team of scientists tried to capture it to attach data instruments and conduct a health screening, officials said.

The female seal had been frequenting Hanauma Bay for several days and had a fish hook caught in its rear flipper, catching the attention of scientists from the Pacific Islands Fisheries Science Center.

Scientists tried to place a net over the seal, but it hit its head on a rock and died, said Sam Pooley, director of the Pacific Islands Fisheries Science Center.

The seal, which was about 2 to 3 years old, died from trauma to the head, a National Oceanic and Atmospheric Administration veterinarian confirmed… (Honolulu Star Bulletin)

http://starbulletin.com/2007/04/15/news/story09.html

Surf's up for seals
Satellite tracking shows females recently released from captivity are doing well. 7 April 2007.

A half-dozen female Hawaiian monk seals at Midway Atoll could be the key to the endangered species' future.

Each of the pups, which range in age from 9 months to a year, was underweight after weaning from their mother's milk last year. But after months in captive care, bulking up on high-calorie herring and getting top-notch medical care, scientists hope that the formerly puny pups will thrive… Only one in five seals survives to reproductive age, scientists know from extensive study in the Northwestern Hawaiian Islands, where most of the seals live. The current "captive care and release project" was jump-started last May, when twins referred to as P022 and P026 by their flipper tag numbers were brought to Oahu to build them up at the NOAA Fisheries Science Center's Kewalo facility. They are the first set of twins to survive past weaning… (Diana Leone, Honolulu Star Bulletin)

http://starbulletin.com/2007/04/07/news/story01.html

Follow six monk seals in wild on Web site. 7 April 2007.

The Hawaiian monk seal population is about 1,200 worldwide, the lowest ever recorded.

Researchers have been making efforts to increase the number through a new captive care project at Midway Atoll that released six female monk seals last month.

Should efforts like these cease, researchers fear the number could drop below the key threshold of 1,000 worldwide.

"The Hawaiian monk seal population is in the worst shape it's ever been in," Robert Braun, a National Oceanic and Atmospheric Administration Fisheries contract veterinarian, said at a press conference yesterday.

Through this captive care project, monk seal scientists at the Pacific Islands Fisheries Science Center and several other partner agencies are trying to improve pup survival to increase the population growth rate.

Currently, the chance a monk seal pup has to reach reproductive age is less than 20 percent… (Catherine E. Toth, Honolulu Advertiser)

http://honoluluadvertiser.com/apps/pbcs.dll/article?AID=/20070407/NEWS11/704070330/1001/NEWS

Monk seals can be tracked on new Web site. 6 April 2007.

In response to the many requests about the status of twin Hawaiian monk seals kept in captive care and returned to Midway Atoll in October 2006, the National Oceanic and Atmospheric Administration Fisheries launched a new Web site to allow you to track the released monk seals.

People can view the location of the twins and four other Hawaiian monk seals as they venture around the three islands that make up Midway Atoll by visiting http://www.pifsc.noaa.gov/psd/captivecareproject.php - monkseal and then click the link for the seal you want to track.

Devices attached to the monk seals send information via satellite about their location and dive depths… (Catherine E. Toth, Honolulu Advertiser)

http://the.honoluluadvertiser.com/article/2007/Apr/06/br/br0528397416.html

Fatal monk seal entanglements linked to El Niño. 9 March 2007.

A link between Hawaiian monk seals becoming entangled in discarded fishing gear and the global climatic phenomenon called El Niño has been revealed. The finding will help focus the cleanup efforts aimed at conserving the critically endangered animals.

The danger of getting caught up in old nets and other marine debris is seriously hindering the recovery of seal populations. The new work shows entanglement is more common in El Niño years because unusual wind and ocean currents concentrate the debris in the seals' habitat… (Aria Pearson, New Scientist)

A juvenile monk seal risks entanglement in derelict fishing gear at Pearl & Hermes Reef in the NWHI. (Photo: Chad Yoshinaga / NOAA Pacific Islands Fisheries Science Center)

http://environment.newscientist.com/article/dn11345-fatal-monk-seal-entanglements-linked-to-el-ni%C3%B1o.html

Laura Bush walks with wildlife. 2 March 2007.

Midway Atoll – First lady Laura Bush didn't just look at the wildlife of the Northwestern Hawaiian Islands on her whirlwind visit here yesterday – she interacted with it.

Bush fed fish to a young endangered Hawaiian monk seal, one of six being fattened in an enclosure to increase their survival chances when re-released to the wild… (Diana Leone, Honolulu Star Bulletin)

http://starbulletin.com/2007/03/02/news/story04.html

Mrs. Bush's Remarks to the Press After Visiting the Hawaiian Monk Seal Captive Care Project. 1 March 2007. Midway Atoll.

MRS. BUSH: This is a great way to end today, with the monk seals, because so far today it's looked like this is all really bird life, but the real huge number of species, and one of the reasons this has been named a national monument, is because of the marine life – the fish that we didn't get to see today, of course, we didn't snorkel, but if you were here in the summer, you probably could do that – and all the other algae and other things that are below the water that are so important to this national marine monument.

So thanks you all for coming with me today. It's been a really terrific day.

Q (Inaudible.)

MRS. BUSH: Well, I love the monk seals, of course, everyone loves them, loves the way they look. And then I fell in love with all those little albatross chicks. You feel very protective of them, they're so vulnerable, sitting on their nests. It's so important that they don't have -- they don't have any natural predators here in their natural life, and it's really important that no invasive predators ever come.

Q What can people back home, do you think, do? What can people at home do to help ensure that these animals have a safe habitat?

MRS. BUSH: Well, I hope people will study up about the Northwestern Hawaiian Islands, about this very important part of our country and the new monument here that protects the Northwestern Hawaiian Islands.

But I also hope people will take from this that we need to really pay attention to how we recycle plastic, and to pay attention to everything that you consume at home that's plastic, and how you get rid of it, and just make sure it doesn't someday end up here on one of these islands, or on any other coast, or in the stomach of one of these marine animals. (The White House, News & Policies)

http://www.whitehouse.gov/news/releases/2007/03/20070302

Judge rules rights violated in seal beheading. 10 January 2007.

Lihue – Prosecutors will have a tough time trying to convict a Kauai man of charges he cut off the head of a dead monk seal.

District Judge Trudy Senda said yesterday that federal and state law enforcement officers violated Justin Freemon's rights last May while questioning him about the dead monk seal at Pilaa Beach on the northeast side of the Garden Isle…

Senda said the law enforcement officers should have read Freemon his Miranda rights. But they continued questioning him and eventually Freemon led them to his campsite, where he showed them the head and the knife used to cut it off. Now the knife, the head, and any other statements cannot be used at trial. (Tom Finnegan, Honolulu Star Bulletin)

http://starbulletin.com/2007/01/10/news/story11.html

A struggle to preserve a Hawaiian Archipelago and its varied wildlife. 19 December 2006.

MIDWAY ATOLL, Northwestern Hawaiian Islands Marine National Monument – As the pilot of the Coast Guard C-130 transport plane banks and circles over atoll after deserted atoll on a five-hour, 1,400-mile flight from Honolulu, the sheer emptiness of the world's largest nature reserve becomes starkly apparent.

Yet two of the most powerful men in the world – first President Bill Clinton and then President Bush – struggled for eight years to upgrade the area into a true reserve, in a process that involved more than 100 public meetings and 52,000 public comments, most of them supportive. The main obstacle was a tiny, marginally profitable fishing fleet composed of eight boats and employing fewer than 20 people, most of them part-time, but vigorously defended by a powerful senator and an entrenched federal bureaucracy. (Christopher Pala, New York Times)

http://www.nytimes.com/2006/12/19/science/earth/19hawa.html?_r=1&ref=us&oref=slogin

Seals' meals revealed
A study reveals seals' meals as part of the ongoing effort to save the scarce mammals. 30 November 2006.

New information about what Hawaiian monk seals eat could help wildlife managers in their quest to save the species from extinction, federal scientists said yesterday.

Tiny blubber samples taken from 248 healthy seals over the past eight years have been analyzed to determine that the endangered animals' most frequently eaten prey are:

- Gindai (flower snapper): 20-25 percent of diet.
- Squid: 15 percent of diet.
- Boar fish, a deep-water fish that resembles the better-known butterfly fish: 13 to 15 percent of diet.
- Duckbill fish, another bottom fish: 9 to 11 percent of diet.
- Tang and surgeonfish, shallow-water reef fish: 10 percent.
- Box crab: 4 to 5 percent.

The gindai, boar fish and duckbill fish, and some of the squid, live at depths of 600 feet or more, said study participant Charles Littnan, an ecologist with the Pacific Islands Fisheries Science Center.

That is significant because "I don't think anybody knew before now that deep-water species of fish were as large a component of the monk seals' diet as they appear to be," Bill Robinson, regional administrator for the National Oceanic and Atmospheric Administration Regional Office, said yesterday after hearing a presentation on the research…

"The new data seems to show that lobsters don't seem to be a part of the monk seals' diet over the last six to eight years," Robinson said. But whether they ate them frequently when they were more abundant might never be known, he said… (Diana Leone, Honolulu Star Bulletin)

http://starbulletin.com/2006/11/30/news/story04.html

New rules help ensure that we will have fish in the future. 21 November 2006.

The [gillnet fishing] regulations became necessary after the introduction of cheaply manufactured monofilament lay gillnets that spurred a destructive force not seen when nets made by hand were valued possessions. Irresponsible fishers stretched their nets over wide areas and left them for long periods of time. The nets trapped everything that swam into them, killing desirable and unwanted sea life indiscriminately. Moreover, the nets often were abandoned, damaging coral reefs and entangling endangered species like the young monk seal found dead off Waimanalo last month, wrapped in a gillnet… (Editorial, Honolulu Star Bulletin)

http://starbulletin.com/2006/11/21/editorial/editorial01.html

Panel lays down gillnet regulations
DLNR will curtail "curtains of death," as critics call them. 18 November 2006.

Lay gillnet fishing will be prohibited around Maui and portions of Oahu's coast, a state board decided yesterday.

Where permitted, the nets cannot be used at night or left in place longer than four hours, and they must be checked every 30 minutes for air-breathing animals such as sea turtles and Hawaiian monk seals, according to new Board of Land and Natural Resources rules approved yesterday.

Gillnets also must not be longer than 125 feet and must have owner identification tags and buoys to help conservation enforcement officers catch offenders…

Detractors of the [fishing] method have referred to it as "a curtain of death" and have pointed to the recent tangling death of an endangered Hawaiian monk seal pup in a gillnet off Waimanalo as a demonstration of the nickname. (Diana Leone, Honolulu Star Bulletin)

http://starbulletin.com/2006/11/18/news/story09.html

Gill nets catch flak after seal death
The pup's demise is cited as another reason for regulation. 8 November 2006.

The recent death of an endangered Hawaiian monk seal pup provides evidence to support the state's push to regulate gill net fishing and debunks arguments that larger animals can escape them, a state Department of Land and Natural Resources official says.

The 5-month-old seal was found tangled in a gill net near Waimanalo last month along with a small white tip shark and other fish.

“This really reinforces the idea that gill nets can be destructive and can kill endangered species,” said Peter Young, department director… (Honolulu Star Bulletin)

http://starbulletin.com/2006/11/08/news/story16.html

Seal’s death shows need for gillnet rules. 24 October 2006.

On the same day that twin Hawaiian monk seals, carefully nursed to health, were returned to their isle of birth at Midway, another of its breed was found dead, its body snarled in a gillnet offshore of Waimanalo.

The death of the 5-month-old pup underscores the need to restrict the use of lay gillnets that kill indiscriminately when left unattended by irresponsible fishers. The state, which has proposed but has yet to finalize gillnet rules, should move ahead quickly.

The pup, dubbed Penelope, the first born on Oahu in eight years, is certainly not the only sea creature to have been harmed by the nets. The cheap monofilament webs trap everything that swims into them, including endangered species like turtles and monk seals. Weighted at the bottom, they also damage coral reefs, breaking off pieces or scraping them. (Editorial, Honolulu Star Bulletin)

http://starbulletin.com/2006/10/24/editorial/editorial02.html

EndQuote

An endangered seal on every lawn

One of the chief concerns for environmentalists over the proposed La‘au development is over what will become of the Monk Seal population, which regularly comes to feed and spawn on the shores at La‘au Point.

What MPL [Molokai Properties Limited] is implying, in their press release, is that not only will a millionaires’ subdivision seamlessly fit into the Monk Seal’s feeding and breeding habits, it will actually improve both. MPL seems to envision a zoological utopia where man and seal live together in gentle harmony – man helping the seals’ food supply and the seals in turn, fertilizing their lawns.

Source: An endangered seal on every lawn: the MPL spin
Haleakala Times – Maui's Free Press, 14 March 2007.

The Monachus Guardian
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Mediterranean News

Vol. 10 (1): June 2007

Algeria / Greece / Italy / Madeira / Malta / Mauritania & Western Sahara / Turkey

Algeria

In Monachus Science, we are publishing Results of a research and information campaign on the possible presence of monk seals on the west coast of Algeria, by researchers and scientists of the University of Oran, Algeria.

The article also records the first known sighting in Algeria of a hooded seal, *Cystophora cristata*.

With a spate of strandings of hooded seals in the Mediterranean in August 2006, including at Algeciras, Malaga, Grenada, and Melilla, scientists are questioning whether erroneous species identifications might result from reported sightings.

According to Manel Gazo of the Fundació CRAM in Spain: "We have now another variable to include in the equation of the presence of monk seals on Mediterranean coasts… we have to keep in mind while interviewing fishermen that they have to discern between two different species of seals!" Possibly, he adds, hooded seals in certain areas may already have been misidentified as monk seals in recent years.

Greece

Mixed signals from the management bodies of key protected areas

'Unclear' is the best word to describe the future of the management bodies governing protected areas in Greece.

Most Greek NGOs remain sceptical at best regarding the progress made to date by these management bodies, established almost 4 years ago by the Greek state. Lack of a legislative conservation framework (zoning and management measures) for most protected areas, delays in setting up key operational procedures, lack of personnel and an almost complete paucity of funding have left the management bodies to discuss virtual-reality conservation.

However, during the last 6 months, the newly appointed – by the Minister of Environment himself – Presidents and members of the Boards, have been activated in order to "emergency" manage the European funds allocated through the Structural Funds for nature conservation. Even though one may consider this an important positive development, the signs are at best mixed and in several cases NGOs already complain about unnecessary or even ill-conceived plans of activities within the protected areas.

Characteristic of the above situation, MOm believes, are the cases of the management bodies of 2 key protected areas for the monk seal, namely that of the National Marine Park of Alonnisos, Northern Sporades (NMPANS) and the Karpathos-Saria area in the Dodecanese.

Despite various organizational difficulties, the management body in Karpathos-Saria slowly but steadily has managed to secure funding of approximately 1 million euros, has already hired research and guarding staff and is ready to draft its management plan. In addition, it is in the last stages of initiating a series of *in situ* conservation activities, such as monitoring key species, a visitor awareness campaign and, most importantly, a guarding project for the area. In support of these initiatives MOm has decided to donate to the management body its vessel "Saria", a fully equipped 9.5-meter speedboat, as well as an environmental exhibit, specially designed to present the unique natural environment of Northern Karpathos. Both were constructed as part of a previous LIFE project that MOm implemented in the area during the 2001-5 period.

In contrast, even though the NMPANS management body appears to have secured close to 3 million euros for the next 2 years, its intentions with respect to implementing key *in situ* conservation activities remain vague. The plan, presented by the Chairman at the latest Board meeting, is to spend close to 1.8 million euros to construct 2 vessels to be used mainly for research, purchase numerous fancy high-tech research equipment, including a submersible ROV (remotely operated vehicle), and to build a network of radars to "electronically" guard the Park. MOm's reservations on these plans and its basic criticism that, at this stage, these should not be the management body's priorities, are not being heard by other Board members or by Ministry of Environment officials. Unfortunately, it seems that nowadays, almost everyone's concern, with respect to the protected areas in Greece, is only how fast the management bodies can spend the European funds allocated for nature conservation. MOm and several other Greek NGOs are not following this rationale and are planning to escalate their opposition. – Dr. Spyros Kotomatas, MOm.

Seal-fisheries update

Research efforts of the MOFI project (Monk Seal & Fisheries: Mitigating the conflict in the Greek Seas, LIFENAT/GR00083), implemented in several different areas of Greece, have continued unabated, also during the current fishing season. In the National Marine Park of Alonnisos, Northern Sporades, monitoring of local fish stocks, as well as investigating monk seal – fisheries interactions, has been carried out in cooperation with local fishermen since last year. This March, similar research efforts were initiated in the area of Kimolos – Polyaigos, in the southwestern Cyclades.

In these two areas, which are of utmost importance for the monk seal population in Greece, research efforts are carried out by researchers of MOm (www.mom.gr) and WWF-Hellas (www.wwf.gr), in close cooperation with researchers from the Hellenic Fisheries Research Institute (www.fishri.gr), which is also responsible for the scientific coordination of this particular research initiative.

Furthermore, this February MOFI researchers visited the island of Kalymnos in the Eastern Aegean, where the largest coastal fishing community in Greece resides. There, in cooperation with the local fishing cooperative, surveys were conducted by extensive questionnaire. These covered a range of subjects, such as fishing effort, fish-stock conditions, interactions with marine mammals, general fishery-related problems, and potential solutions. The overall results of these research efforts will form the basis for the discussion and drafting of the Action Plan for the mitigation of monk seal and fishery interactions, which is the ultimate goal of the MOFI project. For more information, please visit: www.mofi.gr. – Panos Dendrinos and Alexandros Karamanlidis, MOm.

Island seminars on seals in distress

It was an unusual kind of seminar for the local inhabitants of the Greek island of Alonnisos, the heart of Greece's first National Marine Park. Still, in the freezing cold of early December, fishermen, officers of the local port authorities, fire fighters and local residents gathered at a beach to learn about and practice monk seal rescuing techniques.

Designed and delivered by MOm's Rescue Team, the seminar gives practical and easy to learn tips on what to do when challenged with the uneasy task of helping out a Mediterranean monk seal in distress. From identifying poor health signs to how a creature weighing up to 300 kg is to be handled, were only a few of the topics covered.

Upon completion, all attendees received a certificate of participation along with a copy of the manual "Monk seal in danger. Humans to the Rescue".

The monk seal rescue seminar is part of the MOFI project, an EU LIFE – NATURE funded project aimed at mitigating the monk seal – fisheries conflict in the Greek seas. The seminar will take place at all 7 MOFI hot-spot areas. For more information, please visit www.mofi.gr. – Calliope Lagonika, MOm.

Life at Faros

Blogspots have become such a common form of communication and information dissemination that Life at Faros didn't come as a surprise. However, Dr. Giorgos Katsadorakis, MOm member and a renowned Greek ornithologist, did surprise us after all.

The adventurous ornithologist, embarked on a solitary 45-day study of the shag (*Phalacrocorax aristotelis desmarestii),* a protected bird sub-species, endemic of the Mediterranean that counts only 1200 pairs in Greece and about which little is known. The study took place at an uninhabited islet at the northernmost part of the National Marine Park of Alonnisos, Northern Sporades, called Psathura. There, Dr. Katsadorakis found home sweet home at a lighthouse from where he'd enjoy a magnificent view. Whenever he had time, that is, since his research also involved other bird species and the natural environment of the islet itself. On top of that he managed to maintain a very much alive and interesting blog on his everyday life.

Apparently, quite a few of us daydream about staying at a solitary islet at a protected area of remarkable beauty because the blog became a hit in no time! If it's all Greek to you, you can still visit www.lifeatfaros.blogspot.com just for the pictures! – Calliope Lagonika, MOm.

EndQuote

Villa Monachus

Villa Monachus is situated on the coast above the spectacular Blue Caves, right in the north east of the island. There is a stone pathway leading directly to the sea and the legendary Priest's Cave which, back in olden times, was used for meditation by a monk.

Source: The Zakynthos Villa Book, Luxury Villas in Greece.

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Mediterranean News

Vol. 10 (1): June 2007

Italy

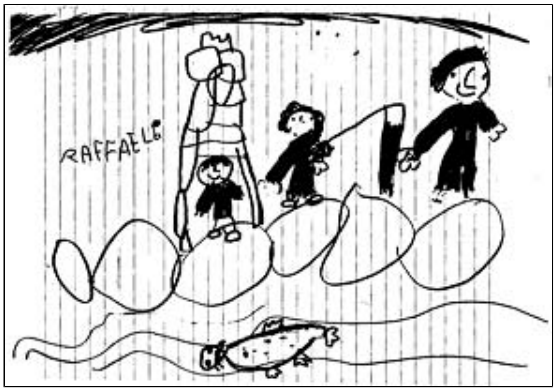
Sports fisherman reports monk seal sighting in Pantelleria (Sicily)

On 17 March, a newspaper article was published in the Sicilian regional newspaper, La Sicilia, reporting an alleged monk seal sighting which had occurred the day before along the southwestern coast of the island of Pantelleria. Contacts were established between the author of the newspaper article and ICRAM staff, in order to identify and subsequently contact the eyewitness so as to investigate the sighting details through a telephonic interview.

The sighting occurred on 16 March at 10.00 am, approximately 50 meters from the coast, in proximity to a location known as Punta Polacca – Nika. The observer, a sports fishermen, resident of the island of the Pantelleria, was travelling at an approximate speed of 1 knot while fishing with a troll line in an area where the bathymetry is approximately 27-35 meters. The sea conditions were very good and visibility was fair. The man reported observing a patch of flickering shadows along the water's edge in front of the boat, saying "it looked to me like horse mackerel shoaling just under the sea surface." After a minute or so, at approximately 20-25 meters' distance and to the left of the boat's bow, he noticed something which looked like the wake of a larger animal moving just under the water's surface. "At first, judging from the dimensions of that large shadow, I thought of a very large fish or a dolphin so I tried to focus on it and pay attention. It was then that the animal emerged, just barely on the water surface, and I saw the back; it was a sloping round back but there were no fins, and the colour struck me, it seemed unusual, it was pretty dark, I would say a medium to dark brown. It was relatively shiny because the sun was shining but the texture was not as shiny as a fish or dolphin would be…" At this point, the observed animal appeared to submerge relatively quickly and then quickly re-emerged a few meters further. "But this time it emerged head first, a round head, similar to that of a human, except that the front part developed somewhat on a horizontal plane, but very squashed, I know that was the nose part, it reminded me of a dog… it was facing the boat, and for very few seconds, as the animal kept on swimming in a straight forward motion, I could see it was keeping its head out of water." The observation was very short, and in a question of seconds the animal dived again, the round back slowly following behind. When prodded on the physical details of the sighted animal the man went on to explain that, "The underneath part of what I would presume was the mouth was darker, while to the sides of the nose, in the cheek area, the colouring seemed lighter. I can't say I saw any other physical details, but I think it was a seal. I have never seen anything like it in all my years of fishing here…" The overall estimated duration of the sighting did not exceed 5-6 seconds, apparently not enough to deduce any further details. Seal sightings have been reported for Pantelleria island in the past, one in September 2006, another one in January 2005 in an area very proximate to the present reported sighting, and several others during the summer of 1998.– Giulia Mo, ICRAM.

Sighting in Sardinia

Emanuelle Coppola of Gruppo Foca Monaca has reported a seal sighting from the northwest coast of Sardinia. The sighting, by an adult recreational fisherman, Signor Gianni Puntus, and two children, took place on 7 May 2007 at around 18.30 near the entrance to the small harbour of Castelsardo. Sig. Puntus photographed the animal with his mobile phone, explaining the poor quality of the image. His 5-year old son Raffaele made a drawing of the event, also reproduced here.



Cilician ecotour

WWF Italy's "Panda Avventure" group is organising two ecotourism excursions to Turkey and the Cilician monk seal project area again this year. The dates are: 22 June to 1 July inclusive, and 26 October to 4 November inclusive. Departures are possible from both Rome or Istanbul. The cost of the full 10-day package – excluding the flight – is 850 Euros. The entire programme can be found on the Gruppo Foca Monaca web site, both in Italian and in English. - Luigi Guarrera, Gruppo Foca Monaca.

Avventure to the Cilican coast of Turkey, 2004.

[For further background, see also Cilician Basin ecotourism project enters second phase, TMG 7(2): 2004].

Madeira

Habitat study around Madeira Island

In accordance with guidelines of the Action Plan for the Recovery of the Mediterranean Monk Seal in the Eastern Atlantic, the Parque Natural da Madeira service is surveying the Madeira coastline to identify potential sites that may be used by the species.

Ponta de São Lourenço was the first area to be surveyed. Following a preliminary study in 1993, in 2001 it was confirmed that the area has excellent conditions for the species.

Recently (9-11 April) a survey was conducted along part of the northwest coast and all the southwest coast of Madeira, from Achadas da Cruz to Funchal. The survey was conducted in collaboration with the CRAM Foundation of Spain, whose researchers were on Madeira for a period of around two weeks conducting *"la Caixa a favor del mar: la ruta del Vell Marí"*, a project of the social fund "la Caixa".

As a result of the survey, eight caves were identified, all located near each other on the extreme west of Madeira. Of the eight, two have conditions suitable for use by monk seals. This fact, in addition to the presence of isolated small beaches and low human disturbance, makes this a potential area of use by monk seals. To date, the only reported sighting of one female and one juvenile on the island was in this area. Most of the sightings around Madeira are of isolated individuals and immature or adult seals. During the survey a sighting of an individual around Achadas da Cruz was also reported. – Rosa Pires, Parque Natural da Madeira, and Manel Gazo, CRAM.

Two births, one dead pup

Last year there was a decrease in the detected births at Madeira and the Desertas Islands from three to two. This could be related to the fact of one of the reproducer females – "Desertinha" -– could not conceive, or aborted her fetus due to the accident that happened in May 2006 [see Seal finds stardom, TMG 9 (2): November 2006].

Unfortunately, one of the new pups was found already dead near Ponta de São Lourenço. It was the first pup detected on Madeira Island.

The cause of death was not possible to determine due to the state of decomposition. – Rosa Pires, Parque Natural da Madeira.

A monk seal pup, born on 6 November 2006 at the Desertas Islands, May 2007.

News from Desertinha

On 7 March, monk seal "Desertinha" was observed for the first time at the Desertas Islands following her serious accident in May last year, in which she was badly debilitated [see Seal finds stardom, TMG 9 (2): November 2006].

Her long journey back to the Desertas from the main island of Madeira shows that she has recovered from the serious injury sustained to her hind flippers.

March is the season that mating occurs more frequently on the Desertas Islands. – Rosa Pires, Parque Natural da Madeira.

IFAW support

The International Fund for Animal Welfare (IFAW) has contributed 3,150 Euros towards improving monk seal rehabilitation conditions at the Desertas Islands and to obtain basic equipment and material to conduct necropsies. – Rosa Pires, Parque Natural da Madeira.

Malta

In our November 2000 issue, we ran an illustrated article on the surprising number of postage stamps to have been issued by countries around the world variously honouring, and in some cases unintentionally slandering, the world's monk seals [Monk Seal Philately, TMG 3(2):

November 2000]. Every so often, we also reported on new stamp issues when they came to our attention.

Today, better late than never, we record a 2004 issue by Mediterranean island Malta.

Country: Malta (EU)

Theme: Fauna (Marine fauna)

Subject: Mammals and Reptiles – Mediterranean Monk Seal –

Date of Issue: 21 April 2004

Series: Subject

Value: 0.16 MTL

Stamp issuing authority: Malta Post plc

Source info:
http://www.wnsstamps.ch/stamps/MT026.04/en.html

Mauritania & Western Sahara

Poster presentation on pup production and mortality

Courtesy of CBD-Habitat, we are making the following poster presentation available for download in the Monk Seal Library:

> **Cedenilla, M.A, H. M'Bareck, M. Haya, A. Maroto, M. Muñoz, P. Fernández de Larrinoa and L.M. González.** 2007. Evolution of pup production and pup mortality of the Mediterranean monk seal colony Cano Blanco (Mauritania-Morocco) after a mass mortality episode. Poster presentation, European Cetacean Society. CBD-Habitat Foundation. [PDF 355 KB]

The passing of Abdellahi Elmokhtar

On 24 February 2007, the naturalist Abdellahi Elmokhtar left us. He was travelling to the Natural Area of Safia, in the Oued-Eddahab-Lagouira region (Morocco)to place informative signs about the protection of the largest surviving population of Dorcas gazelles that still exists in the wild, and which is under protection by a project developed by Nature Initiative, with the assistance of CBD-Habitat Foundation. But the treacherous road that crosses the Sahara on its western border prevented his arrival, taking another victim.

When we met him, he instantly revealed his true nature. We found a transparent and sincere man; deeply convinced that the cause he was fighting for was worth it. He knew that the only way of winning was transmitting his same vision to all. He was one of the founders of the Association Nature Initiative from Dakhla, of which he was the president since its creation. He was always full of enthusiasm and dedication, tremendously engaged in recovering the Saharan fauna: Dorcas gazelles, monk seals, Mohor, Oryx, Addax and the Saharan ostriches.

And with him and the rest of the Nature Initiative, we made the first expeditions to the territory north of the Mauritanian border. Covering the entire coast from El Guerguerat to Cabo Barbas, searching for some indication of the presence of monk seals, we discovered one of the last places where still an important population of Dorcas gazelles survives.

People like Abdellahi give sense and purpose to an effort that often seems like swimming against the tide, and to the belief that there is still hope for many species that are on the verge of extinction. With these lines we want to offer a deserved tribute to him, joining the grief of his family, and committing ourselves to continue with the same vision, with our friends of Nature Initiative, the work that he started.

We shall never forget you. May you rest in the peace of the Sahara that you loved so much. – Michel Cedenilla, Fundación CBD-Habitat.

New Spanish language site on Monachus

Since the beginning of January this year, you can visit one of the most complete websites in Spanish about the Mediterranean monk seal, which contains exhaustive information about the species, its problems and the conservation initiatives aimed at halting its decline.

The website was created by the CBD-Habitat Foundation, which has been working for the protection and conservation of the Cabo Blanco monk seal colony for more than 10 years.

One of the main features of this new website is interaction, so in addition to the large and varied body of information about the species, it features a large number of videos and photos that let you see the different age groups and discover their everyday behaviour such as lactation and feeding, neither of which has been published on the Web before. You can also check the species' historic distribution range and the few places where populations of the animal still survive.

You can access to this Web at www.monachus.es or at www.focamonje.es. – Mercedes Muñoz. Fundación CBD-Habitat.

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Mediterranean News

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Turkey

Monk seal pup "Badem" returns home

The first long-term rehabilitation of a Mediterranean monk seal pup in Turkey, followed by a successful release, took place in April this year. The pup, named Badem ("Almond"), found and rescued on 5 December 2006 at Didim on the Aegean coast of Turkey, underwent rehabilitation in Foça for a 5 month period [see Mediterranean Seal Pup "Badem", press release, 30 December 2006]. There was no possibility of performing an *in situ* rescue. Badem was badly dehydrated and had not suckled for 5-7 days. The open beach where the pup was found is not in breeding habitat and is far away from the nearest monk seal habitats along the Turkish Aegean coast.

She was successfully released on 28 April 2007. A team comprising staff from SAD-AFAG, Foça Municipality, the Turkish Coast Guard, businessman and sponsor Mr. Mustafa Koç, and Zeehondencrèche Lenie 't Hart, performed the transportation of Badem from Foça to Gökova Bay, SW Turkey, and released her on the pristine coasts of the bay.

On the morning of the same day, as scheduled, a ceremony was held in Foça to commemorate this important and unique event. Mr. Osman Pepe, Minister of Environment and Forest, Mr. Cengiz Kaptanoglu and Mr. Kemal Anadol, both Parliamentarians, the Izmir Governor, Foça Governor, Foça Mayor, President of the SPA Authority, Lenie 't Hart (SRRC, the Netherlands), MOm (Greece), MAREVIVO (Italy), SAD-AFAG, Foça residents, and conservationists and guests from Ankara, Istanbul and Izmir, as well as the press and media, were present at the ceremony, which commenced at 9.45. Following presentations on Badem's rehabilitation and the historical significance of Foça to the monk seal, and speeches delivered by various speakers, the Foça Monk Seal Rehabilitation Centre was visited by the participants; the seal pup was taken for transport to her release site at 10.50.

Following transport by SAD-AFAG van and a Coast Guard boat, Badem, named by both Esra and Aylin, daughters of Mr. Koç, was brought to the release site at about 16.45, and she was released at 17.26. Both the coast and the underwater vicinity were thoroughly examined by divers to ensure there were no sharp or foreign objects. The release coast and vicinity have no village settlement, no fish farms and no fishing community. The only way to reach the area is by sea.

Badem left her wooden cage without hesitation after the gate was opened by Aylin Koç, the young daughter of Mustafa Koç, and she stayed on the shore only for about a minute before entering the sea. The pup then swam around the shoreline waters of the bay for approximately 1 hour and 20 minutes, moving calmly and diving, before leaving the area at 18.50. Badem was seen in and around the town of Datça on 6 May, and sometimes approached people, an occurrence sometimes observed in monk seals following rehabilitation. Badem is healthy and is able to forage by herself. SAD-AFAG continuously monitors Badem in and around Datça with its representative Sezer Çete and monk seal information network member Hasan Çiplak in Datça.

Both Hasan and Sezer worked day and night in order to observe the young seal's movements as well as her interaction with locals and tourists.

Veterinarian Avni Gök of Foça Municipality and Richard Dijkema of the SRRC as well as SAD-AFAG staff also visited Datça twice for observation purposes.

The Governor and Mayor were contacted, and also visited several times, and agreed on certain coordinated actions. An action plan was prepared and implemented. Hasan, Sezer, Harun and Avni held a meeting with a slide presentation for local people, hotel owners, students, teachers, fishermen, environmentalists and local governor officers on the status of monk seals generally and on Badem's case in particular. In accordance with the plan, stakeholders were cautioned not to interact with the young seal for the benefit of all concerned – locals, tourists and Badem.

SAD-AFAG caution sign, part of an advisory flyer distributed to the public.

A caution sign with concise information, designed by SAD-AFAG with Greek NGO MOm's advice, was provided to the local governor and mayor who printed and distributed it at certain coastal locations. As of 24 May, the young seal was observed in Kormen port, and on 25 May near Knidos cape by local fishermen. On 30 May she appeared on Bördübet bay in Gökova. The distance she travelled is more than 70 nautical miles in a relatively short period of time. SAD-AFAG is now in continuous contact with a camping site and a hotel, the only two tourism facilities on the pristine Bördübet coasts, following the same procedure undertaken previously in Datça. The cooperative actions of the hotel and camping site owners will help solve this unwanted situation. The behaviour of tourists and local people are the key element: "no interest" by people will discourage Badem from staying in that area. This was demonstrated in Kormen, where Badem was seen on 24 May in the early morning and left the port at noon due to the cool behaviour of fishermen and other local people in the area, as counselled by us. SAD-AFAG provides the same advice to neighbouring settlements around the Datça Peninsula, delivering the message to tourists and locals that "every touch, every close interaction will slowly bring about Badem's end" – expecting them to act far more responsibly.

SAD-AFAG greatly appreciates the partnership with Foca Municipality and assistance received from the Turkish Coast Guard, the Zeehondencreche Lenie 't Hart (SRRC) and Mr. Mustafa Koç during the rehabilitation and release process. Details of this process were conveyed to the Ministry of Environment & Forest and Coast Guard Command, and shared transparently with the media and public via the SAD-AFAG web site www.sadafag.org and press interviews.

The return to the wild is a critical process for Badem, but people should help her in this difficult and last mission. And SAD-AFAG needs the support of all parties concerned to help Badem.

The Foça Municipality Mediterranean Monk Seal Rehabilitation Centre is now a good opportunity for ailing or orphaned monk seals that might possibly be encountered along Turkish coasts in the future. SAD-AFAG and the Foça Municipality are keen to work together on the rescue & rehab of this endangered marine mammal. – Cem Orkun Kiraç and Harun Güçlüsoy, SAD-AFAG.

Further info
Video of Badem and her rehabilitation can be found on youtube.com at:
http://www.youtube.com/watch?v=XMOSb3-tGgI
http://www.youtube.com/watch?v=MolDeS241jg
For the rehab diary of Badem (English and Turkish), visit http://www.sadafag.org.

Greater protection for the monk seal at Mordogan

Mordogan falls into one of the most important monk seal sites of Turkey declared by SAD-AFAG in 1998. The Ayibaligi zone, with its rocky cliffs, also includes an important breeding cave for the species.

However, as was determined during the 1990s, human pressure has been playing a negative role on monk seals in the area. People using the rocks to sunbathe and swim in summer have been a source of stress for the seals.

A picture of the past at the Ayibaligi rocky cliffs.

Advising the public of the new rules.

SAD-AFAG, together with Karaburun Local Agenda (KLA) 21, had proposed bringing in a regulation on the use of the adjacent sea and coastal area near the Ayibaligi cliffs and cave during 2001 and 2002. Finally, when it was introduced again to the agenda of Mordogan Municipality and Karaburun Local Governor early this year, the proposal was evaluated positively, and canoeing, swimming, diving and sailing have now been banned, though local people and tourists may still enjoy sea and sun just a few hundred meters south of the cliff area. Informative signs were designed jointly by SAD-AFAG and KLA 21 and erected at the site by the Municipality in April 2007. The sea border will be marked by buoys that will soon be installed by the Municipality, the Local Governor, KLA 21 and SAD-AFAG. With the help of this new regulation, we hope that breeding will continue by monk seals still frequenting the relatively protected rocky area. – Çigdem Akçura and Ayhan Akçura, KLA 21, and Cem Orkun Kiraç and Harun Güçlüsoy, SAD-AFAG.

stop press… stop press… stop press…

Orphan's behaviour provoking concerns in Turkey

According to volunteers and press reports, monk seal orphan "Badem", who underwent rehabilitation in Foça under the supervision of the Zeehondencrèche Lenie 't Hart (SRRC) of the Netherlands, has been interacting with humans on a regular basis since 6 May, following her release on 28 April. There are suggestions that the young seal may have become imprinted on her human carers during the 5-month rehabilitation process. Locals and tourists have been photographed playing and swimming with Badem, and there have been almost 20 reported instances of people being bitten by her.

Within days of her release in an unspoilt and unpopulated area on Gökova Bay, Badem appeared in the harbour of Datça town and began interacting with local people, though reportedly refusing the fish they tried to feed her.

Veterinarian Avni Gök of the Foça Municipality, nurse Richard Dijkema of the SRRC, and SAD-AFAG staff visited the area on several occasions, both to monitor the animal and to advise locals on the risks of interaction. However, despite an informal grouping of volunteers, there appears to be neither the manpower, budget nor official sanction to implement continuous monitoring and surveillance, 24/7.

There are now growing concerns that interactions may worsen during the summer tourist season, now looming. Some monk seal volunteers in Turkey believe that adequate precautions should be taken immediately to prevent harassment of the seal on the one hand, and potential injury to ill-informed tourists/bathers on the other.

Badem hits the headlines in the mass circulation Turkish newspaper, Hürriyet, 1 June 2007. The caption reads: "**I am happy here, I will not go anywhere**... the released seal that was rehabilitated in Foça will not leave our coast... she plays with tourists, lets her belly be scratched and when tired she lies on a sunbed to rest..."

National and local press reports vary between expressing editorial delight at the seal's antics and concern for her welfare. On at least one occasion local papers have questioned the absence of veterinary care and protection as the seal appeared on a local beach, reportedly weak and shivering from exhaustion.

Most recently (30 May), Badem has been observed and photographed interacting with bathers at a beach club between Datça and mega holiday resort, Marmaris.

Conservation ecologist Gul Moran, who has been monitoring Badem's post-release activity through information from a local NGO member in the area reports that:

"Badem was said to have been handled by her rear flippers during rehab, and thus, she bites everyone who touches her at this vulnerable point. So far, she bit nearly 20 people. The news was in all local and national news papers... She has become the main attraction along this coast.

The tourism season is just starting... in June schools will close and all the secondary house owners will move to the South. The area is going to be extremely crowded... 'blue voyage' sail boats, motor cruisers, package tour sailings, 'banana' boats, 'parasailing', catamaran-mobile-disco's, zodiacs, sports fisherman etc... all will be here.

There has been no extensive and continuous public awareness work yet, or monitoring, or any precautionary action from the Ministry of Environment. Nevertheless, Badem's movement, after her appearance in Datça harbour, is followed, noted and reported by two local volunteers allocated by the national NGO SAD-AFAG."

Those volunteers are SAD-AFAG's Monk Seal Network members, Sezer Çete and Hasan Çiplak. "Sezer Çete and I have been following Badem since she appeared on the Datça coast," says Çiplak. "We monitored the young monk seal very closely and informed the public and tourists not to approach or to interact with the seal, both for their own sake and the seal's."

Foça town veterinarian Avni Gök says: "I have visited Datça twice as part of the SAD-AFAG monitoring team after Badem reached here. According to my observation, the only problem arises from the people who showed great affection to this beautiful animal. We have explained to them in

a tireless way not to interact with the seal and indeed to show no interest at all, so that the young and inexperienced seal will leave the area as a result. From a veterinary point of view, she is very agile, able to hunt by herself and very healthy in general. However, people should act much more responsibly and should consider the consequences of their close contacts with Badem."

Information provided to TMG appears to imply that Badem returned to Gökova Bay of her own accord, rounding the entire Datça peninsula once more. Other reports, however, indicate that the animal was in fact recaptured at the port of Datça town and was then driven across the peninsula and re-released on Gökova Bay, eventually finding more human company at the aforementioned beach club.

Badem is not the first Mediterranean monk seal to become imprinted on its carers. The Greek organisation MOm faced a similar problem with the male orphan Theodoros in the 1990s on Alonissos, in the Northern Sporades Marine Park. His interactions with humans lasted about two years, after which (a period in which he increasingly shunned human contact), he disappeared. On the plus side, his interactions with humans probably made him the most effective goodwill ambassador for his species ever – though Alonissos, it should be stressed, is less busy touristically, and MOm personnel were on hand to educate and deal with potential interaction problems. [See The Islands at the End of the Line, TMG 4 (2): November 2001].

Two rehabilitated monk seals in Mauritania, we believe, also either became imprinted on their carers, or did not adapt well to their release into the wild. Both were subsequently killed, one by a fisherman or hunter [See Monk Seal Fact Files > Rescue and Rehabilitation].

In some instances wild monk seals (especially juveniles) may also interact with humans, as is seen regularly on the Main Hawaiian Islands and, closer to home, at Madeira. Madeira has published a 'Dos and Don'ts' pamphlet for beachgoers, after several ill-informed members of the public were bitten by loafing seals. [See Help us to help the monk seal, English-language brochure, PDF 1.3MB]

Where considered applicable, the Park Service of Madeira, and also MOm in Greece, applies the 'Hawaiian method' of protection, cordoning-off beach loafing seals with stakes and tape, and posting volunteers to keep watch as necessary.

For Badem, such measures are likely to become all the more urgent as she faces summer coasts swarming with tourists. The possibility that she might make a longer foray to the adjacent Greek islands – such as tourist-intensive Kos – can also not be discounted, increasing the importance of effective networking between Turkish and Greek NGOs.

Some critics question whether there has been either sufficient or reliable information made available on Badem, especially to those experts within the wider scientific and conservation community who might be in a position to offer experience and advice.

According to others we interviewed, lack of transparency can become symptomatic of problem rehabilitations, with vital information either getting lost entirely in the smog of conflict or recrimination, or being buried in confidential, internal memos, emails and reports. As has been seen in previous problem cases, the end result is that recognised mistakes in procedure that may have occurred – as well as potential breakthroughs in treatment – will never reach those who need it most, the pups next in line for rehab, in other countries and in other projects. –William M. Johnson.

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Cover Story

Vol. 10 (1): June 2007

Mediterranean: Making A Blue Sea Green

William M. Johnson

The Mediterranean.

It has been used by humans as a food source, a means of travel and transport, an inspiration for art and poetry, and probably as a watery playground, too, since time immemorial.

Long before Homer even imagined the wine dark sea, fish were being caught with bone or bronze hooks, or with nets made of flax or hemp. For centuries, sponge divers pursued their risky trade from steep shores or from simple wooden boats. Merchants plied the Mediterranean's burgeoning trade routes, the holds of their vessels carrying everything from sacks of spice and amphorae of wine or purple dye, to salted fish and chests of gold and silver coin.

In a sense, one might say that the uses that the sea is put to today have not changed drastically in purpose since Egyptian or Phoenician times – only the intensity, flavour and impact of that exploitation has changed with the modern world.

New slants to an ancient problem

Though overfishing was a phenomenon recorded along some of the most exploited coasts of Imperial Rome, with even emperors bemoaning the exorbitant prices charged for mullet and other much sought-after fish species, it was undoubtedly the mechanisation of the industry in the twentieth century that brought about the most sweeping and ecologically harmful changes. Engine power allowed vessels not only to deploy much heavier gear, but also to venture further afield into new and previously uncharted fishing grounds.

Today, modern extraction methods in trawling, seining or long-lining have been refined to the *nth* degree, with synthetic materials, onboard refrigeration, and high-tech tracking all increasing the extractive 'efficiency' of the industry.

The reluctance of governments to clamp down on the industry's worst abuses, such as systematic overfishing, catastrophic seabed damage wreaked by trawling, or the dumping overboard of thousands of tons of non-target fish species, has inevitably meant that the ecological day of reckoning could at best be postponed, never cancelled.

Indeed, the resulting fisheries free-for-all, say experts, has depleted fishing grounds throughout the Mediterranean, and brought many to the brink of collapse.

A recent European Union study found that 65-70% of commercially caught fish species in the Mediterranean are at risk of commercial extinction, with 20% facing a similar fate even in the comparatively less exploited Aegean and Ionian seas.

While even the humble sardine, for years a plentiful staple, has recently been showing worrying signs of instability according to some reports, it is the Bluefin tuna that has fisheries experts and marine ecologists fretting over a catastrophic population dive.

Whereas watch towers were built in some areas of the Mediterranean in ancient times to track the annual migration of Bluefin tuna, such are the potentially lucrative financial rewards today that spotter planes and satellites are deployed to guide in the fleets. Management violations, flouting of agreed fish quotas, illegal and unregulated fishing have all conspired, say researchers, to make the Mediterranean Bluefin tuna industry one of the most unsustainable in the world.

“We have now reached crisis point for Bluefin tuna in the Mediterranean,” says Sergi Tudela, WWF’s Fisheries Coordinator. “Current levels of fishing are 2.5 times higher than the Bluefin tuna populations can sustain. This ongoing mismanagement will lead to the commercial extinction of Bluefin tuna.”

Japan imports most of the Bluefin tuna caught in the Mediterranean, where it is marketed as *sushi* and *sashimi.*

This intense industrialisation of the Mediterranean tuna fishery has hit traditional tuna fishermen hardest, particularly because of the expansion of tuna farming – the practice of trapping tuna schools in purse seine nets and fattening them in cages before killing and freezing.

Tuna brought ashore by traditional fishermen in the National Marine Park of Alonissos, Northern Sporades, in Greece.

Despite belatedly appearing on the political radar in Europe, there have been few serious attempts as yet to preserve fish stocks with measures that have a proven track record elsewhere, such as the establishment of no-fishing zones, and the protection of fish spawning grounds.

In New Zealand, by contrast, fisheries authorities and growing ranks of the fishing industry itself are coming to realise the tangible and long-term benefits of setting aside multiple no-fishing zones. At one zone, reports National Geographic, “former skeptics are now some of the reserve’s staunchest defenders. They refer to it as ‘our reserve’ and act as minutemen, reporting poachers and boundary cheats. Spillover and larval export – the drifting of millions of eggs and larvae beyond the reserve – have become central concepts of marine conservation. Reserves where fishing is banned are now seen as potential stud farms and fish hatcheries, replenishing the surrounding areas.”

> “At least one quarter of marine fish stocks are overharvested.
>
> • The quantity of fish caught by humans increased until the 1980s but is now declining because of the shortage of stocks.
>
> • In some sea areas, the total weight of fish available to be captured is less than a hundredth of that caught before the onset of industrial fishing.”
>
> – Living beyond our means. Statement of the Board of Directors of the Millennium Ecosystem Assessment, 2005.

With the political and economic clout it wields, industrial overfishing also has impacts far beyond the stretches of coast where it lays mile upon mile of nets and lines. In areas of Greece and Turkey, for example, the industry has long been accused of endangering the livelihoods of traditional coastal fishermen by depleting fish stocks and damaging spawning grounds.

In a vicious circle, reduced catches have stoked the anger that the coastal fishermen feel towards Europe's most endangered marine mammal – the Mediterranean monk seal, sometimes with lethal consequences. In Greece, direct killing by fishermen is still considered the most serious mortality factor affecting the species. It is also speculated by some that depleted fishing grounds are driving hungry seals to attack the nets of fishermen, further exacerbating the conflict.

Toxic chemicals

The long march of technological progress has spelt other great changes in the way that humans interact with the sea.

Rather than bequeathing a torn canvas sail, a breached wooden hull and a few amphorae of fish sauce to the Mediterranean, a shipwreck today can involve the release of any number of potentially lethal chemicals, posing risks to both human and environmental health.

Depending upon their severity, oil spills can take disaster-struck areas decades to recover from, and recent experiences have demonstrated graphically how, when an accident does occur along a stretch of coast, seabirds and other marine life may only be the first obvious and distressing casualties. Local livelihoods – from fishermen to hoteliers and shopkeepers – are just as likely to be next.

Following the spill that occurred in northern Lebanon in the summer 2006 as a result of an Israeli military strike on a power station, UN experts warned of the serious health consequences residents were facing in their prolonged exposure to toxic fumes and chemicals.

Other experts predicted that the drifting oil spill would wreck tourism in the region for at least two seasons.

Tourism

More than 220 million tourists visit the Mediterranean every year – many of them squeezed into the summer high season. This places a huge additional burden on an environment and an infrastructure already ill-equipped to handle the 150 million people who live and work around its shores.

Energy and water demands, spiking in hot and parched Mediterranean summers, combined with chronic sewage and garbage disposal problems, present huge challenges and threats to the natural environment.

According to the United Nations Environment Programme (UNEP), some 650 million tonnes of sewage is dumped into the Mediterranean every year from countless towns and cities, posing health risks to bathers in some coastal resorts.

Indeed, although the Mediterranean is the world's most popular tourist destination, the economies of some resorts have been plunging, with tourists being driven away by fears over microbial epidemics, infestations of jellyfish and rubbish-strewn shores.

> "Thousands of holidaymakers in the Mediterranean have been stung by jellyfish as huge swarms of the creatures invade coastal waters. Some Spanish beaches have been closed, but Sicily and North Africa are also reported to be badly affected. Researchers say at least 30,000 people have been stung since summer began."
>
> – Mediterranean on Jellyfish Alert, BBC News, 8 August 2006.

As for refuse disposal, landfills remain the solution of choice for many coastal cities and islands. On most Greek islands, among the most favourite of international tourist destinations, recycling of glass, paper, plastics and aluminium is still little short of a pipe dream. As a result, these and other, potentially far more hazardous products, such as batteries, waste oil, chemicals, fridges and consumer electronics, are simply disposed of in landfills with other domestic waste.

Plastics pollution remains ubiquitous, as a visit to any beach hit by the prevailing winds or currents will only too readily attest. Remains of synthetic fishing nets, buoys, lines and other gear, beach balls, toys, shopping bags and every kind of plastic bottle imaginable can be found littering once pristine shores.

Besides being an eyesore, some scientists also worry over the long term health impacts of degrading plastic entering the marine ecosystem. In the Mediterranean, it has been reported that 30% of all fish have granules of plastic in their digestive tracts.

A plastic-littered beach in the Northern Sporades Marine Park, home to the endangered Mediterranean monk seal.

Plastic also poses a risk to endangered species, such as whales, marine turtles and seals. Turtles can mistake floating plastic bags for jellyfish on which they feed; ingested, the plastic can block their digestive tracts, causing them to starve.

Monk seals, particularly pups and juveniles, can become entangled in discarded fishing nets and drown.

Warning signs

Droughts and floods, heat waves, expanding deserts, dire predictions of the effects of global warming – rather than the extinction of species alone or the ravaging of coastlines or the felling of forests, it might be said that it is these potentially apocalyptic environmental impacts that have grabbed the headlines of late, and increasingly, the concern of the public at large.

Following the 2005 Stern Review on the economics of climate change, led by British economist Sir Nicholas Stern, and the UN Millennium Ecosystem Assessment report, there appears to be growing recognition that remedial action left too late may well exact a higher financial toll than action taken now.

Reports like these voice increasing alarm that human economic and industrial activities cannot go on as they have without devastating ecological, social and financial upheavals. The language, too, often employs dire economic metaphors to impress upon governments, corporations and the general public alike the crisis in which the world finds itself. The Millennium Ecosystem Assessment, for example, co-chaired by the chief scientist to the World Bank, warns of ecologically profligate behaviour that is “running down the account” and “spending the capital.”

Corporate action

Though there may be a consensus of opinion that action taken or envisaged so far is too little, too late, governments, economists and industry are beginning to sit up and take notice.

That much is at least partly evident from the huge surge in interest in Corporate Social Responsibility, or CSR, among businesses, particularly in Europe and North America, with most leading companies now boasting their own CSR or environmental departments.

While sceptics argue that some companies utilise environmental CSR as a profit-making exercise in advertising and public relations, or as a means of white-washing their own dubious environmental track records, there are undoubted examples of corporations pursuing projects that will have demonstrable benefits to the environment, in areas ranging from renewable energy sources and energy efficiency, to promoting “green” business models through the financial sector.

One such institution is the Piraeus Bank in Greece, which has embarked on an ambitious "green" programme both within the bank itself and amongst its clients and investors.

> "Many industries still depend directly on ecosystem services. The collapse of fisheries, for example, has harmed many communities in industrial countries. Prospects for the forest, agriculture, fishing, and ecotourism industries are all directly tied to ecosystem services, while other sectors such as insurance, banking, and health are strongly, if less directly, influenced by changes in ecosystem services."
>
> – Millennium Ecosystem Assessment Synthesis Report, 2005.

The Bank is also a long-time supporter of monk seal conservation in the country, recognising the species as an ecological symbol of the ailing sea it inhabits.

Where marine conservation is concerned, says Vrassidas Zavras, Special Environmental Consultant to Piraeus Bank, "we cannot ignore the fact that Greece possesses an extensive coastline of some 14,000 km, has some 2000 islands, and an ancient seafaring tradition. The sea has always been important to Greece, perhaps today more than ever because of tourism's importance to the national economy."

Piraeus Bank provided funds for the rescue, rehabilitation and release of orphaned monk seal pup, "Dimitris" in 2003/2004, its head of CSR, Sofia Staikou, also attending the release ceremony on the Marine Park island of Alonissos [see Clear blue horizon for Dimitris, TMG 7(1): 2004].

Orphaned pup Dimitris, heading home.

Recognising the social dimension involved, particularly where the livelihoods of Greece's traditional coastal fishermen are concerned, Piraeus Bank also co-sponsors the EU-funded "MOFI" project of MOm, which seeks to mitigate the conflict between fishermen and seals in Greek seas.

Working in 7 target areas, the project is investigating a range of potential solutions to the problems involved, including the feasibility of compensation for damaged fishing gear, and the use of acoustic pingers to discourage seals from approaching stationary nets.

This year, the bank is also embarking on its most ambitious environmental project to date, in a 3-year EU-LIFE initiative that seeks to "green" the bank's internal activities by reducing its ecological footprint, slashing energy consumption and improving recycling. The Ecological Recycling Society, a Greek NGO, is partner to the project. The "Green Banking 4 Life" initiative as it is known, is also deploying renewable energy systems in some of the bank's branches, including the pilot installation of Building Integrated Photovoltaic (BIPV) solar systems.

Through the project, the Bank has committed itself to achieving recycling targets of 70% in its disposed paper, 50% of PET plastics and 70% of toners and cartridges. It also aims to reduce water consumption by 30%, and to achieve an overall reduction in transport of 5%. Additionally, it intends that 80% of its cleaning products be eco-labelled, and for 80% of all A4 paper it uses to be recycled.

The BIPV solar system in Athens.

The March EnergyRES expo in Athens.

Where customers and clients are concerned, the Bank is introducing a package of “green banking products” aimed at encouraging businesses and private individuals to invest in renewable sources of energy. In a related move, the Bank also sponsored the March 2007 EnergyRES exhibition in Athens, which attracted more than 20,000 visitors and featured 85 stands mainly devoted to solar systems.

Time will tell to what extent these and other green measures will be adopted by other corporations, small businesses and private households.

The Mediterranean. Today, it still remains a transport route for potentially hazardous products; a holiday destination and watery summer playground; a vital food source; a rubbish tip and a collective cesspool.

If there is something altogether schizophrenic about using the Mediterranean for such glaringly incompatible activities, then the challenge today is to find the means by which human society can live in harmony with the sea, its coasts and islands.

According to UNEP in Athens, the sea is not yet dying. Its powers of recovery are still strong – it just needs a helping hand.

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In Focus

Vol. 10 (1): June 2007

Pup rescue in Samandag

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Middle East Technical University Institute of Marine Sciences has carried out monk seal research on the northeast corner of the Mediterranean Sea [see Perspectives TMG 6(2): December 2003]. The results of various surveys to the area indicated that the best sites for the seals are located very near to the Turkish-Syrian border. One of the main threats to the seal in this area was illegal fishing practices such as use of explosives. Then, the LEVANT Nature Conservation Society started a new project called Eco-Fish in the area [see Eco-fish, TMG 9(1): June 2006]. The new project unified the fishermen under a fisheries cooperative. Today, the fish, caught non-detrimentally by the members of the Meydan Fisheries cooperative, is being sold to the customers through the Internet. With this system the high commission paid to the fishmonger was diverted to the cooperative and the members doubled their income. The eco-fish project achieved its major goal and use of explosives has been reduced significantly. The project also aimed to establish amity between seal and the fishermen.

Early on 5 November 2006, following a storm, fishermen of the cooperative sighted a seal pup stranded on a beach near to their port. They immediately called the METU-IMS. An hour later a small team from the LEVANT Nature Conservation Society reached the area. A quick inspection showed that the pup was a female no older than 10 days and quite healthy apart from some scratches on the left flipper and the neck. After the examination, the area was abandoned immediately in order not to scare the mother in case she was around. Also, the crowd from the village who heard the story and came to see the seal, was kept away from the beach.

A part of the team watched the pup from a distance in a hide until afternoon. The pup wandered about along the beach and finally found shelter at the foot of a boulder, just on the edge of the swash zone.

In the meantime, the other part of the team tried to reach veterinary assistance. It was a weekend and due to the remoteness of the area the mobile phone was not functioning. Moreover, the electricity had been cut because of the storm. Finally, a seal veterinarian of the Rome Zoo was contacted who guided the team through further steps in the rescue operation. As the pup did not show symptoms of dehydration, the team decided to wait and observe her for 24 hours without taking any other action.

None of the fishermen had seen a seal recently; therefore it was a little surprising for them to find a newborn pup in the area. Luckily the coast had been surveyed by the METU-IMS team and all the caves had been explored and documented earlier. It was therefore possible to monitor the most probable breeding sites throughout the day to discover whether the mother was still around and looking for her pup.

Next day, in the morning, the sea was calmer, and the mother was sighted in a neighbouring bay in front of a cave. However, the health of the pup had worsened; her eyes were red and the scars on her body were susceptible to infection. Therefore, she was tube-fed with a solution of minced fish, rehydration salts and vitamins in the afternoon. The scars were cleaned with an antiseptic solution. After the treatment the beach was immediately abandoned again.

The fishermen who first sighted the pup had seen barking dogs around her, raising fears that her wounds might have been sustained during a dog attack. In the meantime, another team at the Institute contacted several veterinarians having wildlife experience in order to obtain further veterinary assistance in treating the wounds. Some of the veterinarians were cautious about an unnecessary use of antibiotics, which might possibly have jeopardized recognition of the pup by her mother. Therefore no antibiotics were applied but instead the body temperature of the seal was monitored regularly. Among the contacted veterinarians, Huseyin Cihan of the Uludag University Faculty of Veterinary Medicine, called attention to dog bites and possible infection by distemper virus that might have been carried by the dogs. He proposed vaccination against the virus. The medicine needed could not be found in the neighbouring cities and in the end was sent to the site by Dr. Cihan himself.

On the third day, the sea was very calm and with the first light the pup swam along the coast, but took the opposite direction to where her mother and breeding cave were. Finally, she returned to the same point on the same beach where she had slept the previous night.

The pup was named Ruzgar (the Wind) since she was brought with the wind. She was fed twice a day and left alone on the beach afterwards. The people kept away and a watch was always kept over her. Finally, on the fifth day, the pup met the mother and they returned to the cave. The cave was monitored, first visually by a team member and then with an infrared camera. After a very rapid recuperation period, she started to gain weight and moulted the lanugo. After two and a half months she left the cave and moved to another, 500 meter away. As of May 2007, Ruzgar is still in the area. She was also sighted on the Syrian side.

While cursed elsewhere due to the damage they inflict on fishing nets, the seals are considered as a sign of fertility in Meydan village. The fisherman considers himself privileged if Ruzgar feasts with the fish caught on his nets.

Lessons learnt

1. We consider ourselves very lucky, because this event happened in an area that we had surveyed and mapped before. It was therefore possible to find the mother and remain patient until she came to take her pup. Under other circumstances, we might easily have grown discouraged and have transferred the pup to the Institute's harbour for ex situ care and rehabilitation. Consequently, the pup would never have returned to the colony she belonged to. Therefore, mapping the distribution of the seals and their habitats is of crucial

importance. Such information may be vital in determining whether the pup is abandoned or is simply lost.

2. If a pup somehow gets lost, the mother keeps searching for it for a long time. This is a very important fact to be remembered before taking any action to isolate a pup in captivity for rehabilitation purposes.
3. Treatment of a lost or even an abandoned pup is not only a veterinary case. While keeping the pup alive should have priority, the ultimate goal should be the ecological survival of the individual. Unless a pup is returned to its colony it can hardly be considered as a gain for survival of the species. Therefore, any pup rescue operation needs not only to be a veterinary concern but also requires ecological and biological consideration, since the species in question is on the verge of extinction.
4. Scientists in the field working on Mediterranean monk seals are not necessarily veterinarians. Therefore an inventory of able and experienced seal veterinarians, who can provide expert help when required, is of utmost importance; possibly more so than a rehabilitation unit. Such a network needs to be prepared and continuously updated.

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Research

Vol. 10 (1): June 2007

Possible seal pox in the *Monachus monachus* Cyprus colony Is stress and hunger a contributing factor?

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During a regular cave survey in 1998, a mass of dead fish was observed around an island on the west coast of Mersin, Turkey. Dynamite is a common tool to catch fish in this area. Such an accumulation of dead fish is a typical result of an explosion underwater. The fisherman usually harvests only those fish floating on the surface and the remainder is left for scavengers. This was an exceptional case because an adult male monk seal was present, feasting on dead fishes. The male was accordingly named as “Bombaci” (the bomber).

The same male posed for members of Gruppo Foca Monaca [Cilicia on my Mind, TMG 6 (1): 2003) in front of a cave which had previously been considered abandoned due to intense human disturbance. During the following years the same cave was regularly monitored by the METU-IMS team. In one of the visits in 2004, a shepherd living near to the cave spoke about a large black seal bearing a large wound. In December 2004, the METU-IMS team was able to identify this seal, which bore a large scar on his abdomen. The shape and position of the belly patch clearly indicated that he was none other than Bombaci. Thereafter he was repeatedly sighted in and around the cave. Once he accompanied the METU-IMS team during the visual fish census regularly carried out to monitor the state of the fish stocks in the protected area. In December 2005, he was sighted while mating in the same cave. Later, in January 2006, he was again sighted in the area, displaying another courtship play with a female. Almost every time he was sighted the scar was conspicuous, though no open lesion was recognized. However, since all these observations were either made underwater in turbid conditions, or from a distance, it is not possible to be certain that the lesions were not present at that time, in what appeared to be the remnants of a healed wound.

In July 2006, he was spotted in front of a cave on the island of Cyprus, almost 45 miles south of the cave where he was previously sighted. The large and inimitable posterior-ventral scar and identical white belly patch left no doubt as to the identity of the individual [see Seals of Northern Cyprus , TMG 9(2): 2006]. The cave was monitored with infrared monitors and more than 50 photos of Bombaci were taken automatically during the period between July 2006 and January 2007 (Fig. 1). These photographs enabled closer inspection of the scar on his body (Figs. 2 & 3).

Fig. 1. Bombaci, recorded by automatic camera in a cave in Northern Cyprus.

Since the bleeding lesions were considered a cause for concern, Uludag University, Faculty of Veterinary Medicine, Department of Internal Medicine, was contacted for advice and input. As the skin lesions were possibly a symptom of infection by phocine distemper virus, photos were also sent to the faculty for closer examination. Cutaneous nodular lesions on the cranial region of the rear flipper however (Fig 3) seem more like pox virus lesions, which has been identified morphologically in skin lesions of both captive and free-ranging pinnipeds and cetaceans (The

Merck Veterinary Manual 2006). Seal pox is a proliferative lesion characterized by the formation of numerous 0,5 to 3 cm cutaneous nodules on the head, neck, and flippers of affected pinnipeds (Becher 2002). These nodules eventually ulcerate and are slow to heal. Cutaneous spread of this disease is mostly by head and neck rubbing, a common social behaviour of sea lions and other pinnipeds. A break in the epithelial surface is required to start an infection. Lesions can recur (Hicks 1987). The large scars around the nodules on Bombaci's rear flipper and abdomen that developed over the healed areas may indicate that the lesions are recurring. Numerous small nodules on the head and neck are appropriate to the classical appearance of cutaneous poxvirus lesions although electron microscopy and/or PCR testing on tissue samples from lesion areas are needed to diagnose the possible agent (Tryland et al. 2005).

Fig. 2. Photographs recorded by automatic camera allowed closer inspection of the scar and lesions on his body.

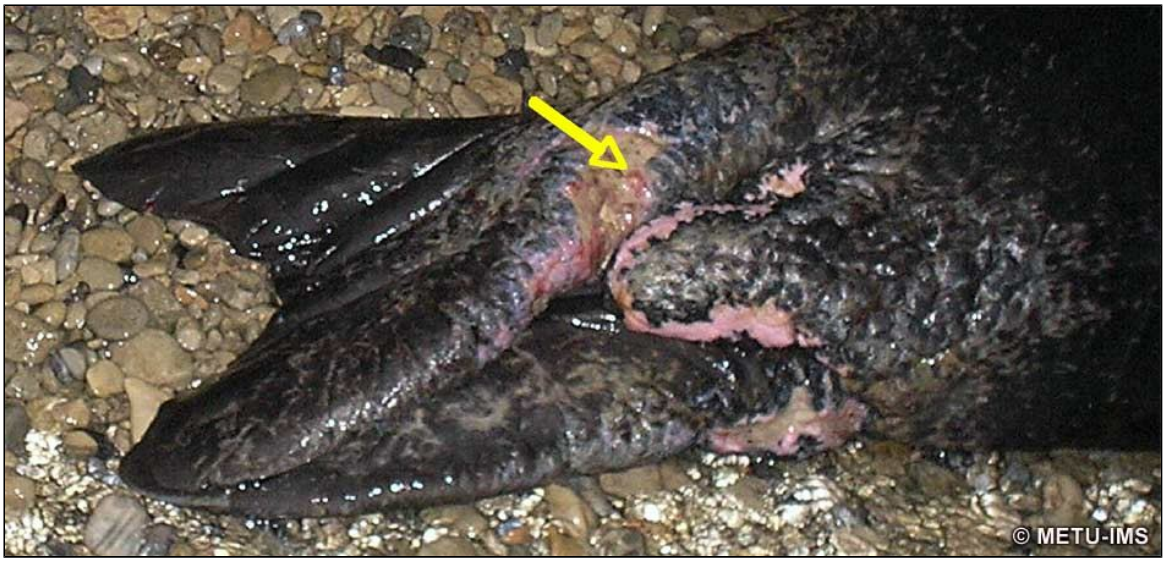

Fig. 3. Close up image showing cutaneous nodular lesions on the cranial region of the rear flipper.

Poxvirus is rarely fatal; however, it is regarded as having an opportunistic nature, causing outbreaks with high morbidity when the immune status of the animals are low, when food availability is scarce or when the animals are stressed (Tryland et al. 2005), as recently seen among reindeer in Finland and Norway (Büttner et al. 1995, Tryland et al. 2001).

Poxviruses from seals are zoonotic, giving cutaneous infections on fingers and hands of people handling diseased animals (Hicks & Worthy 1987, Tryland 2000), which should be noticed by persons involved in handling and care of seals.

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Research

Vol. 10 (1): June 2007

Monk seal (*Monachus monachus*) sightings in the Croatian part of the Adriatic with a special reference to the population of open-sea islands

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Abstract

The Mediterranean Monk Seal (*Monachus monachus*) is one of the world's most endangered mammals. Our research was aimed at obtaining information from the local fishermen in the Croatian part of the Adriatic Sea and investigating its habitats in these areas. We have investigated 51 habitats in the Adriatic Sea. Legislative measures for the protection of the Mediterranean monk seal were not sufficiently effective to enable preservation of this species in the Adriatic sea.

Introduction

The monk seal (*Monachus monachus*, Hermann 1779) belongs to the order (*Pinnipedia)*, family (*Phocidae)*, genus (*Monachus)*. It lives in groups around the Mediterranean and the Atlantic along the coast of Mauritania, Western Sahara and Morocco. The total population is about 350 individuals in smaller isolated and endangered groups, whose biology is still not very well-known (Sergeant et al. 1978). Formerly, a population of 64 individuals was estimated to live in the Adriatic, but today this number has significantly decreased (Jardas & Draganovic 1987). Habitat research (1987-1997) gathering sightings of Mediterranean monk seals at former/present habitats/caves, as well as conversations with fishermen of the Adriatic open sea islands, indicates that this species still lives in that area (Antolovic et al. 1997).

Aim

The aim of the six-year (2000 - 2005) research was to collect data on sightings of the monk seal in the Croatian part of the Adriatic (see map), visit caves/habitats and obtain insights into the attitude of interest groups, in order to encourage cooperation.

Materials and methods

The procedure used was a survey/questionnaire, completed during interviews with fishermen and other inhabitants of the Central and South Adriatic. The collected data (representing 1020 participants) and their analyses, enable an assessment of attitudes towards the protection of the species, as well as an understanding of the behaviour of an individual during a seal sighting encounter.

Sightings of the Monk Seal (*Monachus monachus*) in the Croatian part of the Adriatic 2000 - 2005

Results

Based on systematic research of habitat (51 caves), and also reported shootings of seals, it has been established that the species does inhabit the open sea islands of the Adriatic (Antolovic 2001). Reports of sightings of individuals were in the area of the whole Croatian part of the Adriatic (107 sightings). From the analyses of reports, the species has mostly been observed in spring and summer months and rarely in autumn and winter months. The size (from 1m to 2.60m) and colour (grey and brown) of observed individuals varied.

Conclusion

By educational methods which incorporate lectures, and distributing questionnaires on sightings of the monk seal, the public has become interested in reporting their sightings. Simultaneous sightings in several areas indicate that a smaller population of the monk seal lives in the Adriatic in two colonies of about 6-8 individuals. Material evidence consists of photographs of individuals recorded in various areas of the Croatian part of the Adriatic. Legal regulations are inefficient and a greater possibility for the survival of the species lies in establishing specially protected areas at the open sea islands of the Adriatic.

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The Monachus Guardian
monachus / schauinslandi / tropicalis

Monachus Science

Vol. 10 (1): June 2007

Results of a research and information campaign on the possible presence of monk seals on the west coast of Algeria

First recorded instance of a hooded seal (*Cystophora cristata*) in Algeria

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Introduction

During the summer of 2006, a comprehensive research mission on the Mediterranean monk seal *Monachus monachus* was undertaken by the Environmental Surveillance Network Laboratory of the University of Oran. The purpose of the mission was to reassess knowledge of this species and to identify critical habitats, with the aim of establishing an action plan for its study and conservation along the Algerian west coast.

1. Mission objectives

Carrying out a systematic exploration of the Algerian west coast (Fig.1); to collect information through surveys directed at various stakeholders in the target area (fishermen, yachtsmen, inhabitants of the coastal communities, and local authorities); to undertake information and awareness-raising activities aimed at the wider public; and finally to set up a Network of monk seal observers.

2. Study area location

The target area for the research campaign is shown in **Fig. 1.**

Fig. 1: Study areas **(1**, **2**, **3**, **4**, **5),** and the Wilayas or provinces **(02, 13, 27, 31, 46)** to which each coastal sector belongs.

3. Data collection, information and awareness raising

a) Survey

During a two month period (15 July-15 September 2006), our Mediterranean monk seal investigations were carried out in various coastal localities in the area of Oran, from Mersat Ben M'hidi in the west, to the Bay of Souahlia, in the east (Fig. 1).

We conducted interviews with more than **850 fishermen** (professionals and amateurs working in the area), and with a hundred recreational boatmen who shared with us their observations on the species. This information was supplemented by the testimonies of the maritime authorities (maritime inspectorate, coastguard, civil protection, port authorities, operators of lighthouses and coastal signals), and also the gendarmeries of coastal communities.

During this 60-day research along more than 450 km. of coastline, a public awareness campaign on the problem of the survival of the monk seal in Algeria was undertaken, targeting those directly involved in the maritime professions, our teaching colleagues in the educational community (University related centres of Oran), holiday camps, primary and high-school pupils, and marine protection associations.

Discussions were also held with the teachers of the Schools of Fishing and Aquaculture of the five *wilayas*, or provinces (Tlemcen, Ain Témouchent, Oran, Mostaganem and Chlef), and with those of the Béni Saf Fisheries Research and Study Centre (Aquarium of the city of Béni Saf, Wilaya de Tlemcen).

During our contacts with the "people of the sea", teachers, primary- and high-school pupils, and the young people at the holiday camps, we distributed more than 3000 copies of an information and public awareness leaflet, "Let's save the monk seal", translated into the two languages (Arabic and French). In the event of a possible observation of a seal, this leaflet provides information enabling direct communication with us, so as to facilitate the collection of relevant information.

Furthermore, following an explanation of their contents, posters (A4 format) were provided to harbourmasters and to the directors of the university centres. A network of voluntary observers was established.

b) Research by land

Coastal areas accessible by land were surveyed irregularly on several occasions. Over a total of 50 days, 250 hours of systematic research (4 – 5 hours on average per day) were devoted entirely to the exploration of the coast. The coastal sectors of the western area were traversed by means of a personal vehicle. Successive stops (10 – 20 minutes each) were performed along beaches, cliff tops and outcrops, approximately every 200-250 meters. Sometimes, when the topography was favourable, a search was made for good observation posts overlooking the sea, allowing use of binoculars (Type: DILUX 7x50: fields of observation = 124m x 1000m), to explore habitat (caves, shelters, crevices, small bays, etc.).

Also, two Canon cameras (a professional EOS 3000; the other a digital IXSUS 30) proved a great help during research, providing a photographic record of our contacts with stakeholders.

c) Sorties at sea

Ten missions at sea were undertaken along coastal zones and islands inaccessible by land or difficult to reach in any other way than by boat. All missions were conducted thanks to the logistical support of the Coastguard, and sometimes with the enthusiastic assistance of certain fishermen, yachtsmen or public organizations, which offered use of their respective vessels for better exploration of the more inaccessible areas.

This also made it possible for us to approach sea caves in order to ascertain whether they are still used by the species.

These missions at sea each lasted between 2 – 6 hours and were all undertaken in calm seas.

4. Results of the research mission

Results obtained during our research by land and sea were unsuccessful in that no monk seal individual was observed directly. “People of the sea” questioned on the presence of the species along these coasts remember this amphibious animal which lived formerly in their fishing areas.

There was no indication of monk seal presence at the time of our expedition in July 2006, and testimonies collected are unanimous in suggesting a disappearance of the species in the extensive coastal sector of the wilayas of Tlemcen, Ain Témouchent, Oran and Chlef (Fig.1).

On the other hand, on the coast of the wilaya of Mostaganem, a great surprise awaited us.

Just as in Macta, the species has not been present in the locality of Stidia (in the west of Mostaganem) for several years, according to the inhabitants of this community. A fisherman informed us of the appearance of a young seal with a length of 1.20m and with a black dorsal colouration in 2000. This information may be accurate because a few hundred meters further east, in the sector of the Macta-Cape Rouge, a seal pup was observed, according to numerous local witnesses.

Two fishermen, whose testimony was considered reliable, informed us that they had directly observed a young seal there fifteen days earlier, along the coast of Stidia. This young animal measured approximately 150cm, according to their statements. We thought it necessary to check this important information and to ascertain whether these two young men did not confuse the species with a dolphin. We also questioned other people at Stidia beach, and the Civil Protection Services of the locality. To our general surprise, all the people questioned on the presence of the seal in this coastal area attest to having observed it swim around Sablettes, located further west.

Arriving at the location, at first we met no one who could confirm to us that the species was present in this area, but were advised to meet a Mr. Rafik, Captain of the fire brigade. At that moment, our young student who accompanied us came running up with young swimming teachers/life guards from Sablettes beach, shouting, "Sir! Sir! The seal was observed about 15 days ago! A photograph of the seal was made by the young life guards, as they carried it on their stretcher!”

Quickly confirming this, the picture turned out to be of a very nice young seal, and it seemed likely that its parents could not be far away. We could only conclude that the species continued to survive in the area!

When we met the Captain of the fire brigade, he related an extraordinary account of events: “During a routine exercise two weeks ago, about 10-11 August, the crew of our speedboat saw from afar a small shadow on the surface of the water. The weather was good and the sea calm, and as we approached we were surprised to find ourselves face to face with a very young seal, weak, alone and in distress! Our spontaneous decision was to collect the seal and take it urgently to a veterinarian in the town of Mostaganem! On shore, many young people ran up, curious to see this mysterious animal which we had collected from the sea, and which had nothing in common with a fish! Very quickly, fishermen brought it fresh sardines to eat. Unfortunately, the seal refused to eat. We decided to evacuate it immediately for veterinary care. Luckily, the veterinarian was present at his surgery and kindly agreed to examine the seal immediately. After some time, he administered multivitamin injections. With the seal showing signs of recovery, it was thought best to avoid further disturbance, and under strict monitoring and other precautions, to release it at a secluded shore far away from human frequentation, so that it would have a greater chance of being found by its parents.”

Figures 3 and 4 show the very young seal discovered astray at sea; figure 5 marks the precise point of its observation, while figure 6 records the extraordinary rescue of this young seal by the Service of Civil Protection (Mr. Rafik and Mr. Rabah); a young fisherman (Mr. Mansour) of Sablettes, and the many who congregated at this happy event to observe the appearance of this young pinniped.

Considering its small size **(115cm)**, and weight **(approximately 15kg)** it was considered likely that this young seal had become lost, perhaps while daring to stray away from the cave where it must have lived with its mother, a cave perhaps not far from the point of its discovery.

All the research team speculated as to whether this seal was a **new-born pup** or a **very young seal**.

On the Algerian coast, Lloze (1979) indicates that the size of newborn pups varies between 100 and 110cm; in contrast, Marchessaux (1989) cites a standard length of 96cm for a male newborn pup on the Algerian coast, and a foetus length of 92cm.

Elsewhere, an infant seal discovered dead in a cave on Cape Lindles, in May 1989, measured 92cm. Another seal pup, found dying in a cave near Bou Zadjar by fishermen in August 1997, measured approximately 95cm and weighed about 13kg. Finally, an infant seal conserved in formaldehyde (ref. mn n°3, CERP, Bou Ismail) verges on 100cm and weighs 12.3kg (Boutiba 1996, 1998 & 2004). On the basis of this evidence might one confidently state that this young seal was already weaned and was hunting on its own, perhaps under the surveillance of its mother or parents?

We returned to the same sector on 27-28 August 2006, surveying the coastline from 06:00 to 19:30, recording the extent of cliffs, caves and crevices both here and also in neighbouring areas.

The seals, however, remained elusive, and were most likely thought to be hiding at the end of some underwater cave nearby. Detecting our presence, they would be certain to leave their shelter directly after our departure, probably at night. That is what we thought most likely at that moment.

Truth be told, our early determining of this young marine mammal as a Mediterranean monk seal was too hasty and based only on a simple examination of the few photographs in our possession, and on the assumption that no other seal species has been recorded in Algeria until now. These photos, in spite of their very weak clarity, were examined later by other experts in Europe* who all either doubted the animal's identity as a monk seal, or identified it as a hooded seal, *Cystophora cristata*.

Informed of this new evidence, we set out again to visit the veterinarian who had examined this young mammal in summer 2006, and posed various questions to him about its body, pelage, dentition etc. In response, he recalled various previously unspecified characteristics, including the animal's spindle-shaped body in keeping with its aquatic environment, a splendid silky fur of a bluish grey on the dorsal side, and white-cream on the ventral.

In the photographs, one clearly sees this colouring, characteristic of the pelage of young hooded seals. Figure 2 clearly depicts cutaneous pigmentations in abundance on the dorsal parts of the body, side and posterior, and an obvious crenulation to the caudal section of the animal.

Aware only of the existence of a single seal species in the Mediterranean, and of the literature confirming that fact, to us this young seal could be only be a single Monachinae.

However, the morphological differences largely distinguish these two species. In the photographs, we can clearly observe that the head of the seal in question is small and round in form, presenting a profile in which there is continuity between the cranium and the muzzle. The face is smaller, with a forehead only slightly elevated, presenting brow ridges only a little pronounced. This face surmounts a rather short muzzle, slightly convex at the end, where two nostrils open forming a kind of heart shape, divided into two equal parts by the nasal partition.

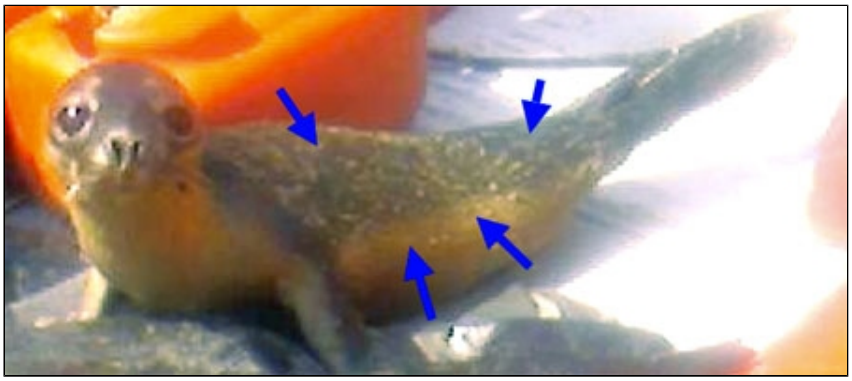

Fig. 2. Distinguishing marks appearing on the body of the young hooded seal.

Hooded seals *Cystophora cristata*, of the circumpolar seas, are thus named because of the presence of a hood or “cap”, on top of the snout, very well developed in adult males, that can be inflated when the animal is excited, or disturbed by humans.

This nasal hood when uninflated takes the form of a loose, wrinkled sack (Robineau 2004).

It is known that adult male hooded seals measure on average 230cm (standard length) and weigh approximately 250kg (Orisland 1959, Rasmussen 1960, Whg 1985). Their maximum size is 283cm, with a weight of 435kg. The smaller females measure on average 200cm and weigh approximately 180kg, and they can reach 229 cm and a weight of 252kg (Robineau 2004). The length at birth varies between 87-115cm (average 100cm) (Rasmussen 1960, Bowen et al. 1985). The size is 98-118cm (average 110cm) at the time of weaning, and reaches 125-130cm at the end of the first year (Whg 1985). In view of this bibliographical data, and the approximate size of 115cm of the young stray seal, it can be concluded that its age would not have exceeded one year.

The idea that a hooded seal, living thousands of kilometres away, could reach the southwestern coasts of the Mediterranean and, in particular, the coasts of Algeria never occurred to us.

Indeed, the hooded seal normally frequents the Arctic and subarctic areas of the Atlantic. Breeding takes place in March-April on the ice in well defined areas: in the northeast of Newfoundland (to a lesser extent in the Gulf of St. Lawrence), in the Davis Strait (63-64°N) in the west, and the northwest of Jan Mayen (71-73°N) in the east. After breeding, the seals disperse at sea in the Davis Strait and Baffin Bay in the west, and between the south of Greenland and Spitsbergen in the east. However, they return to the ice in June-July to moult. In the northeast Atlantic, strong concentrations of seals are observed during this season, with most recorded in the southeast of Greenland (65-67°N) (Robineau 2004).

It is thought that the individuals who reproduce in the northwest of Jan Mayen principally frequent the waters between the northeast of Greenland, Iceland and Spitsbergen (Kapel 1992). The species is sometimes encountered outside its normal distribution range, for example along the Norwegian coast, around the Faroe Islands, the British Isles, and along the coasts of continental Europe, from Denmark to Portugal. The 34 errant specimens counted by Van Bree (1997) along western European coasts, were principally young individuals of less than 1 year (3 only were older than 1 to 2 years, and only 2 were subadults or adults).

Cystophora cristata is the Arctic species most frequently encountered along French coasts. Twenty-four strandings have been recorded: 5 in the English Channel-North Sea area, 3 in Brittany, and 16 along the Atlantic coastline (Robineau 2004). The number of strandings of this species was exceptionally high in the year 2001 (Van Canneyt 2002). Also, hooded seal strandings have been numerous on the Portuguese and Spanish coasts (Toni Font, pers. comm. 2007). It is possible that this young hooded seal travelled from the coasts of the north Atlantic, passed through the Straits of Gibraltar and followed the strong marine currents through the Sea of Alboran, until it stranded along the Algerian west coast.

Conclusion

This expedition enabled the gathering of information on the population of monk seals along the west coasts of the country (the Algerian-Moroccan border in the west, to the departmental limit of Daira de Ténès in the east, 150km from Algiers) (Fig. 1); it was also used to inform and sensitise the general public, and to set up a Regional Network of Voluntary Observers for the Monk Seal along the Algerian west coast.

The results are of little comfort. Indeed, the Mediterranean monk seal *Monachus monachus*, while formerly present in some coastal areas less frequented by humans, now seems to have deserted even those places since some time.

The discovery of a young seal, 115cm in length and weighing approximately 15kg, initially spoke in favour of the survival of at least a reproductive couple, and possibly of a group of seals, living very discreetly in the vicinity of where this young seal was found. On the basis of new data,

however, it was found that this young seal had no connection with *M. monachus*, but was an accidental visitor, a pinniped belonging to the Arctic seals of the genus Cystophora (Nilson, 1820) and to the species known as the hooded seal, *Cystophora cristata* (Erxleben, 1777).

Fig. 3. The young hooded seal *Cystophora cristata* discovered at Sablettes (Wilaya de Mostaganem).

Fig. 4. Various profiles of the head of the young hooded seal at Sablettes (Wilaya of Mostaganem).

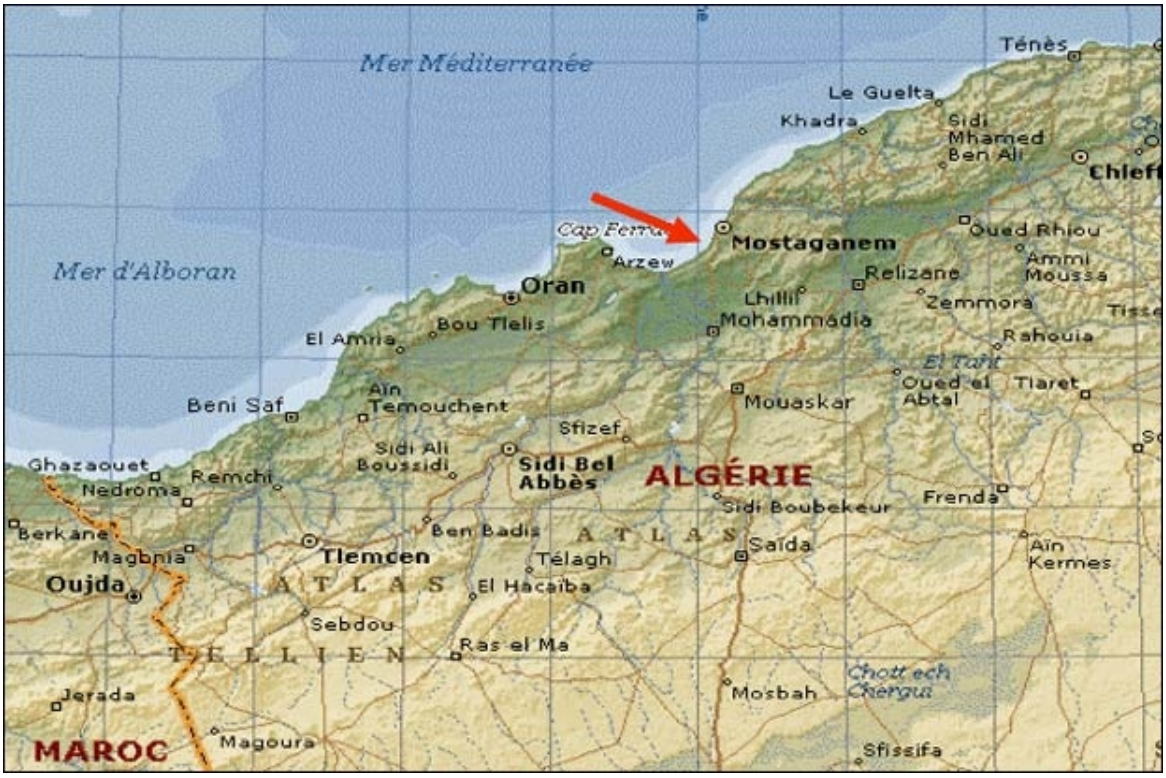

Fig. 5. The red arrow indicates the place where the young hooded seal *Cystophora cristata* was discovered in Sablettes on the Mostaganem coast.

Fig. 6. Scenes from the rescue of the young hooded seal *Cystophora cristata* at Sablettes (Wilaya de Mostaganem).

Acknowledgements

The authors offer their sincere thanks to the following specialists who played a crucial role in determining the identity of the seal species found stranded along the Algerian coast as *Cystophora cristata*, rather than *Monachus monachus* as first thought: Luis Mariano González (Fundación CBD-Hábitat, Spain), Manel Gazo (Fundació CRAM, Spain), Matthias Schnellmann (TMG), William M. Johnson (TMG), Toni Font (Pandion, Spain), and Jeny Androukaki (MOm, Greece).

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Monachus Science Posters

Vol. 10 (1): June 2007

Conservation status and priorities of the critically endangered Mediterranean monk seal *Monachus monachus* in the archipelago of Madeira

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Introduction

The Mediterranean monk seal is critically endangered. The main threats include habitat loss, intentional killing and accidental entanglement in fishing gear (Johnson et al., 2006). In the archipelago of Madeira (Madeira, Porto Santo, Desertas and Selvagens Islands) there is historical evidence of seals only at Madeira, where seals were once abundant (Machado 1979). However, in 1988 there were only 6-8 seals remaining in the area, at the Desertas Islands (Biscoito 1988). In 1989 the Parque Natural da Madeira Service (PNMS) initiated a Conservation Programme and in 1990 the Desertas Islands were declared a Nature Reserve. Efforts to protect the monk seal included the protection of the species and its habitat, scientific research and public awareness. The aims of this study were to record distribution, relative abundance, and basic demographic parameters of the species in the archipelago in order to assess its current conservation status and identify priority protection and management actions for the future.

Methods

Seals were monitored at the Desertas Islands using a non-invasive method, based on the direct observation of seals from 6 lookout-sites or while navigating by boat around the islands. Assessment of the population status at Madeira, Porto Santo and the Selvagens Islands was

based on circumstantial reports of sightings received by PNMS. An effort to systematically collect these was initiated by PNMS in 2002 when a Monk Seal Information Network was established.

Results and discussion

Desertas Islands

Distribution: During the 13099 hours of observation effort (1992-2005), 1258 sightings were recorded (Figure 1; average group size=1.7; maximum number of seals observed=9).

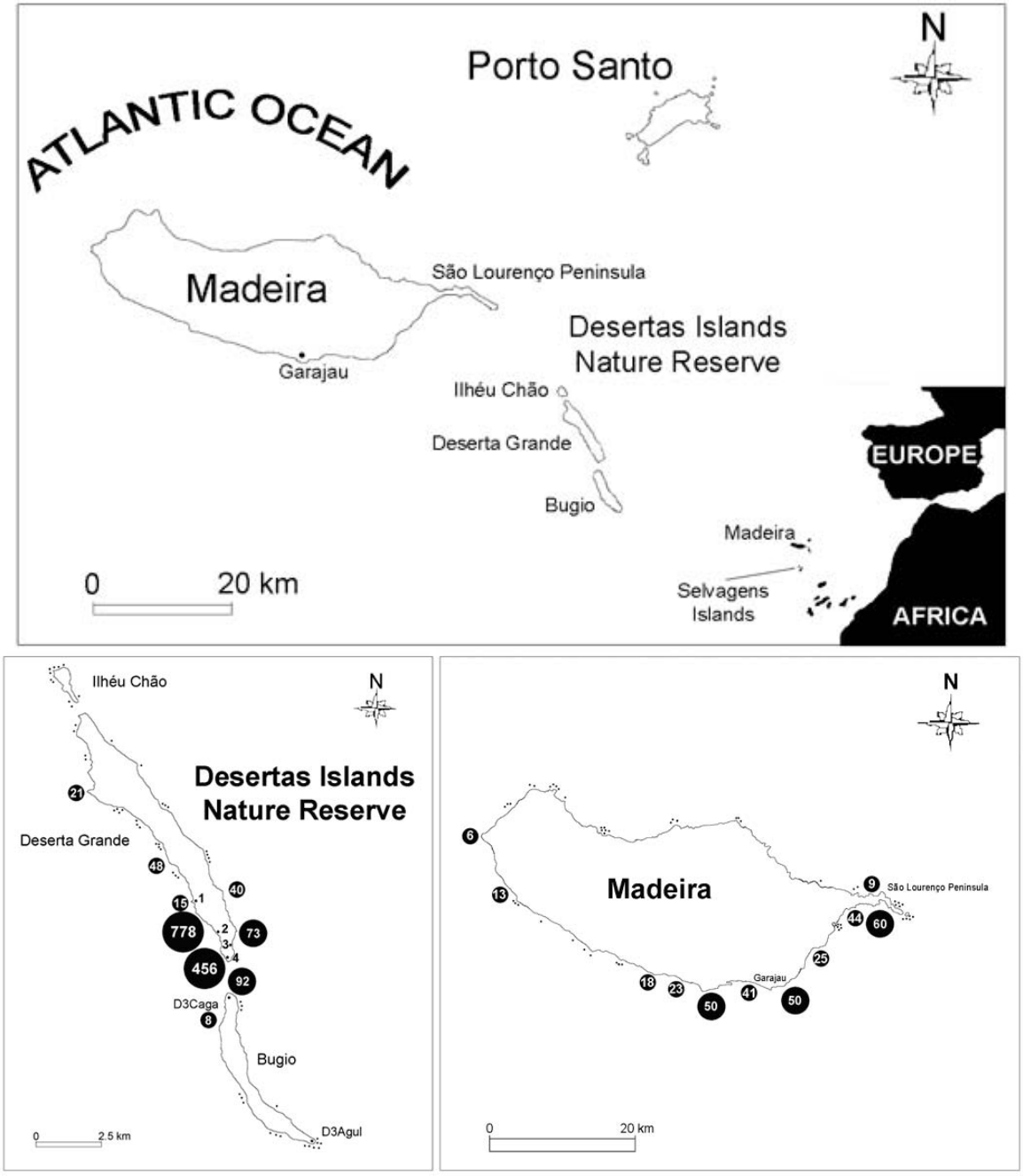

Fig. 1.

Population size: Four black males, 6 large-sized seals (from which, 5 were reproductive females), 1 medium-sized seal and 3 juveniles were identified. Annual birth rate increased significantly (Figure 2; $r2 = 0.759$, $F = 47.120$, $P < 0.005$). All 5 deaths recorded were due to natural causes.

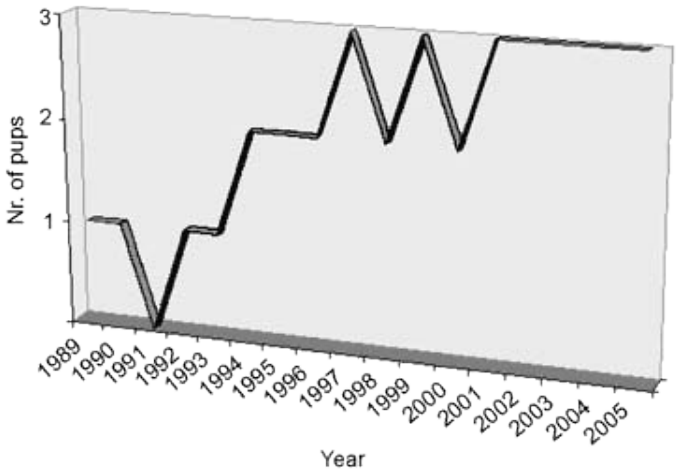

Fig. 2

Behaviour: From 1997 on, seals were seen occupying open beaches (Figure 3).

Fig. 3

Madeira, Porto Santo and Selvagens Islands

Distribution: 389 seal sightings were recorded (Figure 1) (1989 – 2005 – 87% of the sightings were recorded from 2002 on). Sightings of monk seals at Madeira, which were rare in the recent past, occur now frequently. Only 2 seals were sighted at Porto Santo, while no sighting occurred at the Selvagens Islands.

Population size: One black male and 1 large-sized seal (male) were confirmed to be resident.

Behaviour: 36 Human/seal interactions were recorded; in several occasions seals caused damage to fishing equipment.

Conclusions

The monk seal population in the archipelago of Madeira is estimated to number 20-30 adult individuals distributed over Madeira and the Desertas islands. The findings of the study suggest that the species remains critically endangered in the area but that its conservation situation has improved since and due to the implementation of effective conservation actions. Conservation priorities for the future include protecting suitable monk seal habitat, investigating seal–fisheries interactions, increasing environmental education and strengthening the regional legislation regarding the protection of the species.

Acknowledgments

Special thanks to: the staff of the Parque Natural da Madeira Service who made this study possible, and particularly to the reserve wardens who have been key elements in the monk seal

conservation and research programme; to the Regional Government of Madeira through the Regional Secretary of Environment and Natural Resources for all the financial support and personal interest demonstrated throughout the project; to the Portuguese Navy for the invaluable help in patrolling the Nature Reserve and for the transport of staff and equipment.

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This poster was presented at the 21st Conference of the European Cetacean Society:
Integrating Science and Management for Marine Mammal Conservation.
22-25 April 2007, San Sebastian, Spain.

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Letters to the Editor

Vol. 10 (1): June 2007

Two monk seal sightings at Serifos, Greece

I saw two monk seals around the Greek island of Serifos this week.

My activity during sightings: spear fishing (only after fish!!).

Date: 25.04.2007 (late afternoon)
Location: Vous Island, east of Serifos.
Distance to animal: about 10 – 15m.
Behaviour of the animal: swimming.

I did not see the animal clearly because of poor visibility, but after the sighting on the 27.04.2007 I am sure that it was a seal.

Date: 27.04.2007 (14:30)
Location: Southeastern part of Serifos.
Distance to animal: about 0.5 m+.
Behaviour of the animal: 1. unknown activity in cave; 2. swimming.

I had just shot a Sargos [White sea bream *Diplodus sargus sargus*] 3 m into a very deep cave, at that moment wondering why it did not swim deeper into the cave (depth underwater 2-3 m; depth of cave at least 5-6m+. I also wonder if parts of the cave might have an air pocket?). Then I heard a strange noise, and seconds after a grey monk seal swam out of the cave very close to me (minimum distance 0.5 m) – a breath-taking experience!! Afterwards, at the entrance to the cave I noted a large number of fish bones and both heads and tails of not fully consumed fish (1 mackerel tail, and 1 large Sargos head).

I am curious: are monk seal known to be aggressive?

If needed I would be happy to direct researchers to the exact location of the cave (I live in the Piraeus, Greece).

– *Bjoern Lovén,* Underwater Archaeologist, Piraeus, Greece, 6 May 2007.

✓ **Vangelis Paravas, researcher at MOm (Hellenic Society for the Study and Protection of the Monk Seal, replies:**

I would like to thank you for your interest in monk seals, and for the accurate and detailed information you have sent about the recent Mediterranean monk seal sightings at Serifos island.

Here is some information about the monk seal population in the southwestern Aegean islands, (Serifos, Sifnos, Kimolos-Polyaigos and Milos). The southwestern Aegean hosts one of the most important Mediterranean monk seal populations in Greece. Especially the island complex of Kimolos and Polyaigos, which is also part of the Natura 2000 network, and has been proposed by our Society as a National Marine Park for the protection of the species. In the latter islands MOm has been carrying out research and conservation activities for the past 7 years.

I would also like to inform you about the Rescue and Information Network for monk seals (RINT), which is a nationwide project established by MOm in 1991, consisting of a contact network of more than 1,500 persons or local authorities in coastal Greece. In the context of RINT, MOm is collecting detailed monk seal sighting

information at a national level. We are especially interested in sightings of stranded adults or pups that might be injured or orphaned. In such cases we provide first aid help or rehabilitation either on site, or in the monk seal rehabilitation centre on Alonnisos, in the Northern Sporades. In case you observe more monk seals we would like you to contact us directly, either by telephone (2105222888), or by e-mail at v.paravas@mom.gr. You can also find additional details and information on MOm's web site at http://www.mom.gr

Some more information on the monk seal – human interactions. Despite the protected status of Mediterranean monk seals in Greece (they are protected by law), there are still incidents of animals deliberately killed (mostly shot) by humans, mostly because of competition in fisheries-related activities. Monk seals are in general not aggressive. In cases where the animals become aware of human presence their response is to stay out of human sight or, if in the sea, stay alert and wait for the human intrusion to disappear. Only pups, or very young individuals behave more curiously towards people. In any case, monk seals are wild animals, and their behaviour is quite difficult to predict; each individual has its own character, so standard responses are unlikely. During the pupping season (mid August to end of November) female monk seals that have given birth to pups spend a lot of time in cave shelters with their pups, lactating and taking care of them. During this season monk seals shouldn't be disturbed or startled by human presence or activities; otherwise they could become aggressive, or even flee, abandoning the pup.

Hawaiian sightings

I just got back from a weeklong stay in the town of Poipu on the south side of Kauai.

Yesterday at around 8:00 AM five Hawaiian Monk Seals were playing and feeding off the coast. A few minutes later they marched up on to Brenneke beach to take a long nap.

This one dug her nose into the sand, but I have no idea why. A few moments later she rolled on her side and went to sleep.

Monk seal loafing on Brenneke beach, Kauai.

Eventually, some volunteers showed up and roped off the area to keep people from getting too close to the seals.

When last I checked three of them were still sleeping on the beach twelve hours later.

I thought some of you might enjoy the pics and the story.

– *Robert Corrington,* USA, 5 April 2007.

To Report Hawaiian monk seal sightings call

220-7802 (Oahu)

or email.

To Report Hawaiian monk seal strandings call

(888) 256-9840

The Isle of Alboran, Spain

Has anyone been to Alboran island in Spain, as it would appear that at one time there was a small population, but perhaps it has died out.

– *Stephen Hammerton,* Gibraltar, 28 November 2006.

✓ **Dr. Mariano Paracuellos, science advisor of the Indalo de Oz (Almería – Spain) replies:**

Indeed, I think there are good indications that for years there may have been more or less frequent sightings of *M. monachus* at Alboran island, which again might point towards a constant presence of the species on the island, at least for some moments in the past (perhaps in the 19th century, or, at the most, the beginnings of the 20th), as described in the book, *Historia Natural de la Isla de Alborán* but at the moment the only thing that there is are very sporadic and occasional sightings of solitary animals. Therefore, there doesn't exist any stable seal population on the island right now, albeit some can be detected accidentally and erratically. [Editor's note: For readers of Spanish, *Historia Natural de la Isla de Alborán* is available online. Chapter V: pages 76-77 discusses the historical presence of the monk seal on the island.]

Thanks, also, to Jesús Contreras of Indalo de Oz for providing information on this issue.

The editor reserves the right to edit letters for the sake of clarity and space

The Monachus Guardian
monachus / schauinslandi / tropicalis

Recent Publications

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In Print

- **Aguilar, A., L.H. Cappozzo, M. Gazo, T. Pastor, J. Forcada and E. Grau.** 2007. Lactation and mother-pup behaviour in the Mediterranean monk seal Monachus monachus: an unusual pattern for a phocid. Journal of the Marine Biological Association of the United Kingdom 87 (1): 93-99.
- **Bearzi, G., E. Politi, S. Agazzi and A. Azzellino**. 2006. Prey depletion caused by overfishing and the decline of marine megafauna in eastern Ionian Sea coastal waters (central Mediterranean). Biological Conservation 127: 373 – 382.
- **Baker, J.D. and P.M. Thompson**. 2007. Temporal and spatial variation in age-specific survival rates of a long-lived mammal, the Hawaiian monk seal. Proceedings of the Royal Society B: Biological Sciences 274 (1608): 407-415.
- **Dendrinos, P., A.A. Karamanlidis, E. Androukaki and B.J. McConnell**. 2007. Diving development and behavior of a rehabilitated Mediterranean monk seal (*Monachus monachus*). Marine Mammal Science. 23 (2): 387-397. [Abstract PDF 7KB]
- **Donohue, M. and D.G. Foley**. 2007. Remote sensing reveals links among the endangered Hawaiian monk seal, marine debris, and El Nino. Marine Mammal Science 23 (2): 468-473.
- **Littnan, C.L., B.S. Stewart, P.K. Yochem and R. Braun**. 2007. Survey for Selected Pathogens and Evaluation of Disease Risk Factors for Endangered Hawaiian Monk Seals in the Main Hawaiian Islands. EcoHealth 3: 232–244.

Web publications, presentations & reports

- **Cedenilla, M.A., H. M'Bareck, M. Haya, A. Maroto, M. Muñoz, P. Fernández de Larrinoa and L.M. González**. 2007. Evolution of pup production and pup mortality rate of the Mediterranean monk seal colony Cabo Blanco (Mauritania-Morocco) after a mass mortality episode. Poster presentation, European Cetacean Society. CBD-Habitat Foundation. [PDF 355KB]
- **Kaboglu, G., H. Güçlüsoy, K.C. Bizsel, H. Eronat, C.O. Kıraç and Y. Savas**. 2007. (Abstract). Information technology for the endangered marine species management: AFBIKA Geo-database. CIESM 38. Congress, 9-13April 2007, Istanbul: 93.
- **Kıraç, C.O. and H. Güçlüsoy**. 2007. (Abstract). Regulation on ships navigation to reduce risk of marine accidents in favour of marine and coastal ecosystems on the Aegean Coasts of Turkey. CIESM 38. Congress, 9-13April 2007, Istanbul: 118.
- **NMFS. National Marine Fisheries Service**. 2006. Recovery Plan for the Hawaiian Monk Seal (*Monachus schauinslandi*). National Marine Fisheries Service, Silver Spring, MD: 1-148. [PDF 1.8MB]

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

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Publishing Info

Vol. 10 (1): June 2007

The Monachus Guardian
ISSN: 1480-9370

Editor: William M. Johnson
Production Editor: Matthias Schnellmann

Published by: Friends of the Monk Seal

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Wernerstr. 26
CH-3006 Bern
Switzerland

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