

Guest Editorial: Has Zeus gone mad?

by Alexandros A. Karamanlidis

Obituary: Prince Bernhard of the Netherlands

International News

– including **The Numbers Game III: the latest ifs, buts and maybes of Mediterranean monk seal population estimates**

Caribbean News

Hawaiian News

– including **Activists laud state and federal efforts to create the largest marine refuge in the world in the Northwestern Hawaiian Islands**

Mediterranean News

Cover Story: Making seal sense

A political thaw between Greece and Turkey is bringing about the once unthinkable: Greek and Turkish researchers cooperating on the conservation of the monk seal. But what are the experiences, the expectations and the limits? An interview with Jeny Androukaki in Greece and Harun Güçlüsoy in Turkey.

In Focus: The Mediterranean monk seal in Sardinia: a review of evidence and historical data

by Luigi Bundone

Perspectives: In echoes of the past, the sound of the present

by William M. Johnson

Have human attitudes towards the monk seal really changed in the last 3000 years?

Letters to the Editor

Recent Publications

Publishing Info



Cover Story: Making seal sense between Greece and Turkey.



In Focus: Rediscovering monk seal history in Sardinia.



Perspectives: How history colours modern attitudes towards the monk seal.



Guest Editorial

Vol. 8 (1): May 2005

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HAS ZEUS GONE MAD?

by Alexandros A. Karamanlidis

Zeus – the father of the ancient Greek gods. Renowned and respected for his incredible strength and cunning, there was nothing that could strike greater fear into a mortal soul than the wrath of the headmaster of Mount Olympus. ...or almost nothing! Because, becoming a subject of one of his legendary pranks could often have the same, deadly outcome!

I first experienced the tenacity and cunning with which Zeus prepared his little “jokes” in 2003, whilst carrying out my doctoral thesis on the ecology and conservation genetics of the brown bear (*Ursus arctos*). During my field work I discovered a very peculiar aspect of brown bear marking behaviour. Unlike bears throughout the world that “announced” their presence by marking on trees, Greek bears showed an incredible propensity for marking electricity poles. All the analysis of the data I had collected up to then implicated the absence of human activity as one of the driving forces of this “abnormal” behaviour. Then however, in the spring of 2003, a colleague called me from a small village in the south-western foothills of Mount Olympus to investigate an alleged case of livestock depredation by a bear. On site, I realised that the damage had indeed been inflicted by a bear. Closer inspection of the surrounding area also revealed marking behaviour on electricity poles – but this in an area that was well outside the species’ distribution range in the country and in an area of intense human and livestock activity. All the theories I had set up on the marking behaviour of the species and my aspirations to “academic glory” had virtually been swept away by a single event!



Courtesy A. Karamanlidis

Why was Zeus being so mean to me?

More than a year later, as a member of the MOm (Hellenic Society for the Study and Protection of the Monk Seal) I was going through scientific literature looking for information on habitat selection and breeding behaviour of the species. Contemporary knowledge had it that humans were responsible for the monk seal’s demise by depriving them of essential breeding habitat and forcing them to give birth in unsuitable locations where pup mortality was high. The most frequently propagated measure to reverse this situation was the establishment of strictly protected areas, where human activity (and in turn, monk seal activity) would be influenced. Then, during a stormy October day in 2004 another call came to shake my world. The Rescue and Information Network of MOm had been informed of the presence of a newborn pup struggling for his life at a small village at the eastern foothills of Mount Olympus! Inspecting the site, things turned really wild. On a small stretch of beach right next to a luxury holiday resort amidst houses and hotels, a newborn monk seal pup was resting on a beach under the wary surveillance of his mother, who was watching him from a secure distance in the sea.

Over the following month, every time I visited the area and watched, together with the people of the village, the young seal grow older, I could not get this one thought out of my mind! Could there be a remote possibility that two dead-spoken species, Greece’s rarest terrestrial and rarest marine mammal, had “met”? Here, at the foothills of Mount Olympus, amongst basking tourists

and hard-working shepherds? Was this the dawn of a new biological order in our country, or had Zeus gone mad, and was this simply another one of his practical jokes?

The answer to latter question has to be clearly: NO!

After serious thinking it appears to me that Zeus, in his eternal wisdom, wanted to teach a young cocky biologist a good lesson or two. The first could be one of keeping science and in turn, conservation actions too, in perspective. Nature is too complex to fit into a textbook, and statistical confidence intervals are nice and impressive when presented in scientific conferences but at the bottom line can account only for a fraction of the underlying truth. The real beauty of nature and its creatures lies in their unpredictability and tendency to act against what we humans perceive of as "normal". One has to keep this in mind and be prepared to act accordingly. Having said this, lesson number two should give us reason to think over our conservation actions. The establishment of protected areas is without doubt an important instrument in protecting endangered species. But it is not a panacea. With human, and hopefully also endangered species populations increasing, we will sooner or later run out of available space. And secondly, because humans and endangered species are members of the same biological system. Mutual exclusion does not allow both of them to "function" properly.

Moreover, the solution should be sought in two words that are highly correlated. "Tolerance" and "education". Tolerance for the shepherd who has to graze his flock and the bear that needs a healthy forest; tolerance for the tourist who needs a beach and the monk seal that needs an appropriate place to give birth. And education – in its broadest sense – in order to understand how and why all this HAS to be.

Brown bears and monk seals in Greece are apparently showing progress in both of these areas lately. Are humans too?

Alexandros A. Karamanlidis, May 2005.



Obituary

Vol. 8 (1): May 2005

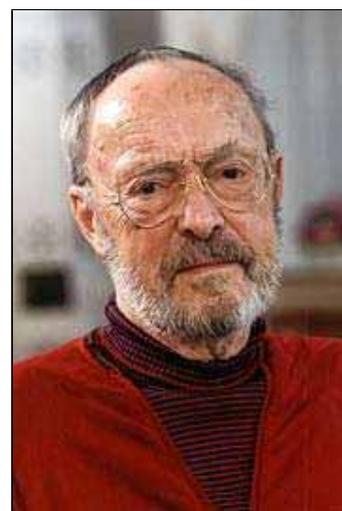
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Prince Bernhard of the Netherlands

On 11 December 2004 His Royal Highness Prince Bernhard of the Netherlands passed away at the age of 93.

In 1937 he married Princess Juliana, who just after World War II became Queen of the Netherlands. He later became the father of the current Queen of the Netherlands, Beatrix. His origins were in German nobility but following his marriage he became a leading member of Dutch society. He was very active and successful economically, militarily (especially during World War II) and played a central role in international nature conservation.

In 1961 he became co-founder of World Wildlife Fund International and WWF-Netherlands. During the following years he visited countries across the world to discuss with the local governments measures to protect endangered animals (e.g. tigers in India, elephants in Africa). Thanks to his dedication, his charming personality and his sense of diplomacy his efforts met with much success. He also created, with the approval of the Dutch government, the knighthood of the Golden Ark, a means of honouring people that have spent much time and energy devoted to nature conservation. Besides a special fascination for elephants, seals also interested him. He privately invested money in the Seal Rescue and Rehabilitation Centre in the Netherlands.



The Mediterranean monk seals also captured his interest. His charitable trust, the Prince Bernhard Fund for Nature, supported two projects of [SAD-AFAG](#) in Turkey. The first of these was the *Çavus Island Clean-up '97 Project* to safeguard monk seal habitats from an oil spill at Gümüslük, in southwestern Turkey [see [Oil Spill at Çavus Island](#), TMG 1(1): May 1998]. The second SAD-AFAG initiative to enjoy Prince Bernhard's patronage was the fourth phase of its *Seal Watch Project*, whose main aim is to monitor in-cave behaviour of the monk seal – the most hidden part of the species' life cycle [see [Seal Watch commences on Karaburun](#), TMG 5(2): November 2002 and [Seal Watch 4 update](#), TMG 6(1): June 2003].

Prince Bernhard of the Netherlands had a rich life but his death is a serious loss for nature conservation all over the world.

– P.J.H. van Bree, Amsterdam, 17 March 2005.



International News

Vol. 8 (1): May 2005

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The numbers game (III)

Note: the following updates [The numbers game \(II\)](#), TMG 6 (2): December 2003.

Thousands of islands, inaccessible coastlines, and a species that shies away from human contact have all conspired to make distribution and abundance assessments for the Mediterranean monk seal (*Monachus monachus*) an extraordinarily inexact science. Conventional wisdom, however, suggests that only 400-500 individuals survive, making the Mediterranean monk seal Europe's most endangered marine mammal.

The Mediterranean monk seal is "Critically Endangered (CR)" according to the IUCN Red List of Threatened Species (IUCN 2000, UNEP-WCM). A species is so listed, according to IUCN, "when it is facing an extremely high risk of extinction in the wild in the immediate future," as defined by specific criteria (For further information, see: www.redlist.org/info/categories_criteria1994.html#categories).

Historically, *Monachus monachus* occupied a wide geographical range. Colonies were found throughout the Mediterranean, Marmara and Black seas. The species also frequented the Atlantic coast of Africa, as far south as Mauritania, Senegal and the Gambia, as well as the Atlantic islands of Cape Verde, Madeira, the Canary Islands and the Azores (Johnson & Lavigne 1999, Johnson 2004).

More recently, however, the species has disappeared from most of its former range, with the most severe contraction and fragmentation occurring during the 20th century. Nations and island groups where the monk seal has been extirpated during the past century include France and Corsica, Spain and the Balearic Islands, Italy, Sardinia, Sicily and the Tuscan archipelago, as well as Egypt, Israel and Lebanon (UNEP/MAP 1994, Aguilar 1998). More recently, the species is also

thought to have become effectively extinct in the Black Sea, the Sea of Marmara (Kirac 2001), and the Adriatic coasts and islands of Croatia (Johnson & Lavigne 1999a, Lavigne & Johnson 2001).

Uncertainty also hangs over the survival of the monk seal in Tunisia, where the species has faced onslaughts in its last retreats by tourists and sports divers (Ouerghi et al. 2001).

Despite sporadic sightings, the species appears to be effectively extinct in Sardinia (Johnson 1998, Johnson & Lavigne 1999a, 1999b).

Illustrating the inherent uncertainty of monk seal population estimates, a monk seal birth was reported in December 2004 in Sicily – possibly the first recorded birth on the island in 30 years [see [“Incredible news” from Favignana](#), this issue]. It is unclear whether some monk seals continued to inhabit Sicily during the intervening years unbeknownst to researchers, or whether they recolonised the island from elsewhere.

Eradicated from most of its former range, the Mediterranean monk seal is now mainly confined to two surviving populations, one occupying the Atlantic coast of northwest Africa, and the other, the northeastern Mediterranean.

Partly because of their own tendency to err on the side of caution, historically, biologists have consistently underestimated the numbers of monk seals populating the Mediterranean — offering some explanation as to why estimates have remained numerically stable over the last 20 years despite severe and undiminished threats (Cf. Ronald & Duguy 1979 and Aguilar 1998).

Conversely, errors have also been known to creep into population estimates when biologists rely on old data. This has often resulted in monk seal colonies being placed in areas where they have been extinct for many years.

Predictably, absence of accurate population data has hampered the implementation of effective conservation actions (Forcada et al. 1999). Although sometimes subject to changing political climates, political instability and military sensitivity has also prevented research along some extensive reaches of the Mediterranean basin, particularly Algeria and Libya.

With question marks hanging over monk seal abundance in many regions and countries, the figures presented in the table below should be treated with caution.

Mediterranean monk seal population estimates

area	regionalsubtotal	areatotal
Black Sea		0 – 0
Bulgaria	0	
Georgia	0	
Romania	0	
Russia	0	
Turkey	0	
Ukraine	0	
Eastern Mediterranean		250 – 300
Albania	0	
Croatia	0	
Cyprus	5	
Egypt	0	
Greece	200 – 250	
Israel	0	
Lebanon	0	
Libya	?	
Serbia and Monte Negro	0	
Slovenia	0	
Syria	?	
Turkey *	50	

WesternMediterranean	15 – 20
Algeria	10
France & Corsica	0
Italy & Sardinia **	0
Malta	0
Morocco	5 – 10
Spain	0
Tunisia	0
Atlantic	178-182
Azores (Portugal)	0
Canary Islands (Spain)	0
Cape Verde Islands	0
Gambia	0
Madeira (Portugal)	24
Mauritania	3
Morocco	1-5
Senegal	0
western Sahara *** (Cabo Blanco)	150
TOTAL	443 – 502

Acknowledgements: Pablo Fernández de Larrinoa, CBD-Habitat, Madrid, Spain; Harun Güçlüsoy, SAD-AFAG, Foça, Turkey, Alexandros Karamanlidis, MOM, Greece.

Additional notes:

* As a result of more intensive research, Turkey is expected to increase its population estimates for the species in the months ahead: for the time being, the estimate remains at 50.

** Italy and Sardinia remain at “0” despite recent sightings, because researchers have yet to identify occupied habitat.

*** Following the mass mortality that struck the world’s largest surviving monk seal colony in the western Sahara in 1997, 103 individuals were estimated to survive (mean estimate. 95% CI: 77 – 148, Forcada, Hammond & Aguilar 1999), down from 300. These estimates are generally considered more reliable than those obtained elsewhere since they relied upon clearly-defined photo-identification procedures, often impractical elsewhere. New estimates of 150 individuals are based on interpretations of evidence by researchers – counts of seals at low tide in breeding caves, increasing beach counts, decreasing mortalities – but have not been confirmed by capture-recapture methods (that compare data from different sample frames).

Sources and further reading

Aguilar, A. 1998. Current status of Mediterranean monk seal (*Monachus monachus*) populations. Meeting of experts on the implementation of the action plans for marine mammals (monk seal and cetaceans) adopted within MAP. Arta, Greece, 29-31 October 1998. UNEP, Athens: 1-34.

Forcada, J., P.S. Hammond and A. Aguilar. 1999. Status of the Mediterranean monk seal *Monachus monachus* in the western Sahara and the implications of a mass mortality event. Marine Ecology Progress Series 188: 249-261.

González, L. M. 1999. Update on the situation of the Mediterranean monk seal (English translation). In: Convention on the Conservation of Migratory Species of Wild Animals. Scientific Council of the Convention on the Conservation of Migratory Species of Wild Animals. 9th Meeting, Cape Town, 4-6 November 1999: 1-16 + 6 maps.

González, L.M. 2004. Mediterranean monk seal (*Monachus monachus*). Up-date of the status and conservation progress. Convention on the Conservation of Migratory Species of Wild Animals. Twelfth Meeting of the CMS Scientific Council Glasgow, Scotland, United Kingdom, 31 March - 3 April 2004: 1-7. [PDF  153KB]

IUCN. 2000. *Monachus monachus*. IUCN RedList of Threatened Species. www.redlist.org

Johnson, W.M. 1998a. [Monk Seal Myths in Sardinia](#). The Monachus Guardian 1 (1) May: 1998.

Johnson, W.M. and D.M. Lavigne (a). 1999. Monk seals in antiquity. The Mediterranean monk seal (*Monachus monachus*) in ancient history and literature. Mededelingen 35: 1-101. The Netherlands Commission for International Nature Protection, Leiden: 1- 128, 17 figs. [Abstract]

Johnson, W.M. and D.M. Lavigne (b). 1999. Mass tourism and the Mediterranean monk seal. The role of mass tourism in the decline and possible future extinction of Europe's most endangered marine mammal, *Monachus monachus*, The Monachus Guardian 2 (2): 1999. [PDF  465KB]

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

Kirac, C.O. 2001. [Witnessing the monk seal's extinction in the Black Sea](#), The Monachus Guardian 4 (2): November 2001.

Kıraç, C.O., Y. Savas, H. Güçlüsoy and N.O. Veryeri. 1998. Status and Distribution of Monk Seals *Monachus monachus* (Hermann 1779) along Turkish Coasts. World Marine Mammal Science Conference, Monaco, 19-24 January 1998, Workshop on the World's Endangered Monk Seals, SAD-AFAG Poster Presentation. [[PDF](#)  51KB]

Lavigne D.M. and W. M. Johnson 2001. [Hanging by a thread](#). The Monachus Guardian 4 (2): November 2001.

Ouerghi, A., G. Mo, F. di Domenico and H. Majhoub. 2001. Assessment of Mediterranean monk seal (*Monachus monachus*) habitat at La Galite, Tunisia: towards a monk seal conservation strategy in northern Tunisia and nearby waters. RAC/SPA, Tunis; ICRAM, Rome; ANPE, Tunisia: 1-3.

Ronald, K. and R. Duguay (eds.). 1979. The Mediterranean monk seal. First international conference on the Mediterranean monk seal, Rhodes, Greece, 2-5 May, 1978. United Nations Environment Programme / Pergamon Press, Oxford, UK: 1-183.

UNEP/MAP. 1994. Present Status and Trend of the Mediterranean Monk Seal (*Monachus monachus*) Populations. pp. 44, 15 figs., refs. UNEP/MAP Meeting of Experts on the Evaluation of the Implementation of the Action Plan for the Management of the Mediterranean Monk Seal, Rabat, Morocco, 7-9 October 1994. RAC/SPA (UNEP), Tunis, UNEP(OCA)/MED WG. 87/3. [[PDF](#)  413KB]

UNEP-WCMC. 2005 Species of conservation concern database. United Nations Environment Programme-World Conservation Monitoring Centre. www.unep-wcmc.org

IFAW defends seal priorities

Waging its high profile campaign against Canada's annual harp seal hunt, the International Fund for Animal Welfare (IFAW) has defended its efforts to conserve the Mediterranean monk seal. In a recent article examining its harp-versus-monk seal priorities, published in [The Telegram](#) of St. John's, Newfoundland, IFAW suggests that "strategic" choices must be made on where to focus the organisation's efforts.

A long-time supporter of the monk seal, IFAW has provided funds to frontline projects in Greece and Madeira, and also to The Monachus Guardian.

In the economic fallout of 9/11, it axed its Mediterranean monk seal programme, quietly withdrawing from the conservation of the species. Facing criticism both from within the organisation and from outside, however, it quickly reconsidered its decision. Some piecemeal funding was restored, at much reduced levels.

Drawing on figures provided by the organisation, the article claims that IFAW "has spent, on average, less than \$25,000 US a year over the past decade and a half on efforts to save critically endangered Mediterranean monk seals."

The Telegram goes on to note, however, that internal documents provided to the paper suggest that the organization is now considering "ramping up its involvement in monk seal conservation."

Signs of that ramping up may have become apparent in May when the IFAW boat Song of the Whale set off on a monk seal research expedition along the poorly investigated coasts of the Western Sahara [see [IFAW boat studies mystery coast](#), this issue].

Further information

Antle, Rob. 2005. A tale of two species. Mediterranean monk seals may be critically endangered, but they don't get the same spotlight as Canadian harp seals. Special Report, The Telegram (St. John's), Canada, Tuesday, May 3, 2005, p. A1, A4. [[PDF](#)  1.4MB].

Mediterranean bottom trawling prohibited below 1000 meters

All areas of the Mediterranean and Black Sea deeper than 1000 m will be permanently off-limits to bottom trawling, according to a decision in late February by the General Fisheries Commission for the Mediterranean (GFCM), the main intergovernmental fishery management body in the region. The binding measure will take effect in late June 2005, although individual GFCM member states may object in the meantime to its applying to them.

The prohibition was influenced by a comprehensive study, conducted in 2004 by WWF and IUCN, on the status of deep-sea ecosystems in the Mediterranean basin. The study recommended as a precautionary measure that fisheries be prevented from extending beyond 1000 m; the measure would protect deep-sea biodiversity, including the nurseries of juvenile deepwater shrimp. That depth represents the current technological limit for most of the Mediterranean deepwater shrimp fleet. Much of the Mediterranean deep sea, with depths to 5000 m, remains unexplored by science or industry. (The IUCN/WWF report, "The Mediterranean Deep-Sea Ecosystems", also called for a representative network of deep-sea MPAs in the region and is available online at www.panda.org/downloads/marine/bookmeddeepsea.pdf 2.2MB)

GFCM has released no official figure on the size of the pending gear closure. However, biologist Sergi Tudela of WWF-Mediterranean estimates it at 55% of the entire basin surface (including the Black Sea), or 1.63 million km² in total. This would be larger than the 950,000-km² bottom-trawl closure recommended in February for the Aleutian Islands in Alaska (MPA News 6:8). In comparison, the Great Barrier Reef Marine Park, widely considered the world's largest MPA, is roughly 350,000 km².

Enforcement of the measure will be the responsibility of the 24 member states of the GFCM, which surround the Mediterranean sea. Part of the closure will be within the 12-nm territorial seas of these states, but most will be on the Mediterranean high seas, outside of national authority. Enforcement of the latter portion will be more complex and challenging, as is the case with high-seas governance (MPA News 5:4). Tudela points out, however, that the areas that would have been most accessible to advances in gear technology are closer to coasts: that is, in territorial seas rather than deeper international waters. "So those waters within 12 nm are important," he says. He adds that regional fisheries ministers are discussing the concept of implementing fisheries protection zones beyond coastal states' 12-nm limits, which could have the effect of helping states enforce the trawl prohibition.

Fishing industry response to the measure has been relatively muted so far, although European industry representatives with interests in other regions have expressed concern that it could spread as a concept to other parts of the world. There have also been statements that the firm 1000-m limit unnecessarily excludes some promising fishing grounds slightly beyond this depth while leaving open some shallower but still fragile areas, including sites with deepwater corals. Francois Simard, marine program coordinator for the IUCN Centre for Mediterranean Cooperation, says a regional network of MPAs could protect unique seabed ecosystems too shallow to be covered by the prohibition. — *Bottom trawling prohibited below 1000 meters in Mediterranean* courtesy MPA News, www.mpanews.org.

EndQuote

IFAW's "moral obligation"

"Clearly, IFAW has played a key leadership role in advancing monk seal protection," the internal [IFAW] documents said.

"But the species still faces serious threats throughout its range, and IFAW, with its in-house expertise and experience, is well positioned to play a leadership role in co-ordinating conservation and animal welfare efforts to enhance its protection."

The documents then list eight reasons why IFAW should get more involved in the issue.

Those reasons include the monk seal's status as "one of the most threatened marine mammals in the world," and the lack of co-ordination in current conservation efforts.

"IFAW is the world's leading NGO with regard to the protection of abundant seal species and therefore also has a moral obligation to protect this highly endangered species," the internal documents said.

"All European offices can be involved in IFAW's work for the protection of the Mediterranean monk seal, and it can provide fundraising opportunities for these offices."

Source: Antle, Rob. 2005. A tale of two species. Mediterranean monk seals may be critically endangered, but they don't get the same spotlight as Canadian harp seals. Special Report, The Telegram (St. John's), Canada, Tuesday, May 3, 2005, p. A1, A4. [[PDF](#)  1.4MB]



Caribbean News

Vol. 8 (1): May 2005

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Florida bones confirmed as Caribbean monk seal's

Bones from a large mammal, unearthed by volunteers at a Pineland, Florida archaeological excavation in 1990, have since been identified as having belonged to the Caribbean monk seal, *Monachus tropicalis*, now considered extinct.

The March 2005 issue of the newsletter of the Randell Research Center relates how identification of the bones was made possible during a visit to the Smithsonian National Museum of Natural History in September last year.

A 2-inch long bone found at the excavation site, originally assumed to have come from a deer before being put into storage along with other mammal and fish bones, was compared with Smithsonian samples and identified as the fourth metatarsal from a left hind flipper.

Other bones in the collection were also identified as seal, probably from the same individual. Archaeologists attempting to analyse the odd accumulation of bones and other marine debris at the Pineland excavation, estimated to be about 1,650 years old, have postulated that a storm surge washed the marine creatures onto shore, along with a wave of mangrove mud. Among the animal remains were shells, fish bones, sea urchin fragments, and the bones of at least one bottlenose dolphin and a loggerhead turtle. Archaeologists have raised the possibility that native Indians who survived the violent storm took advantage of their sudden bounty, butchering the seal and leaving behind the rear flippers.

The full text of the article is available online at the [Randell Research Center](#).

Walker, Karen J. 2005. Pineland mystery bone is from Monk Seal. Now-extinct animal was at Pineland 1,650 years ago. Friends of the Randell Research Center 4 (1) March 2005: 1-2.



Hawaiian News

Vol. 8 (1): May 2005

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Activists laud state and federal efforts to create the largest marine refuge in the world in the Northwestern Hawaiian Islands

Cha Smith, Executive Director of [KAHEA](#): The Hawaiian-Environmental Alliance

On Friday, May 13, 2005 the Hawai'i State Board of Land and Natural Resources voted unanimously to adopt a Refuge for state waters in the Northwestern Hawaiian Islands (NWHI), establishing protections that reflect the needs of this fragile and unique coral reef ecosystem. The rules would protect 100 percent of State waters from extractive uses, including commercial and recreational fishing, and require an entry permit for all other activities.

With this Refuge, the state places itself on the world stage by recognizing the importance of protecting what may be the last wild marine wilderness – the Northwestern Hawaiian Islands. The proposed Refuge is an example of a true Pu'u'honua, a place of safety that will help the endangered Hawaiian monk seals to recover and will provide the lobster population, decimated by years of over-fishing, an opportunity to hopefully survive.

“Most significant for the public benefit is that the proposed marine Refuge insures that potential replenishment of marine resources from this special area to the main Hawaiian Islands will continue,” said Isaac Harp, 'Ilio'ulaokalani Coalition Board member and former commercial fisherman.



The proposed marine Refuge would help potential replenishment of marine resources at the main Hawaiian Islands and also help the endangered Hawaiian monk seals to recover.

Stephanie Fried, Senior Scientist of the conservation group Environmental Defense noted that, “The state's plan greatly adds protections to the NWHI ecosystem, is based on sound science and public input and provides an example of national and international leadership”

The Refuge represents the second attempt to regulate state waters of the Northwestern Hawaiian Islands. The Department of Land and Natural Resources' (DLNR) first proposal, a fishery management area in the NWHI, was soundly rejected throughout Hawai'i by environmentalists and the Native Hawaiian community.

Peter Young, DLNR's Director, acknowledged that public support was crucial to his decision. Hawai'i residents have demonstrated unwavering support for strong protections for the Northwestern Hawaiian Islands and the issue has prompted more citizen participation than any other public trust issue in the state's history. More than thirty separate hearings on the NWHI in

the past five years generated over 100,000 letters, emails and faxes from the concerned public calling for the strongest possible protections for this unique and wondrous ecosystem. The state received more than 24,000 written and oral testimonies during the most recent (July 2004) round of hearings.

Federal Refuge Proposed for NWHI Coral Reef Ecosystem Reserve

On Monday, May 16, 2005, the state's Refuge was taken a step further when Representative Ed Case (Hawai'i) eloquently introduced the NWHI National Marine Refuge Act in Congress. The Act builds on the state's Refuge and incorporates the Hawaiian Island Refuge managed by the U.S. Fish and Wildlife Service, which protects the landmasses and surrounding shallow waters. The Refuge Act would also establish a separate office of Sanctuary and Refuge within the National Ocean Service, recognition long sought after by the Marine Sanctuary program.

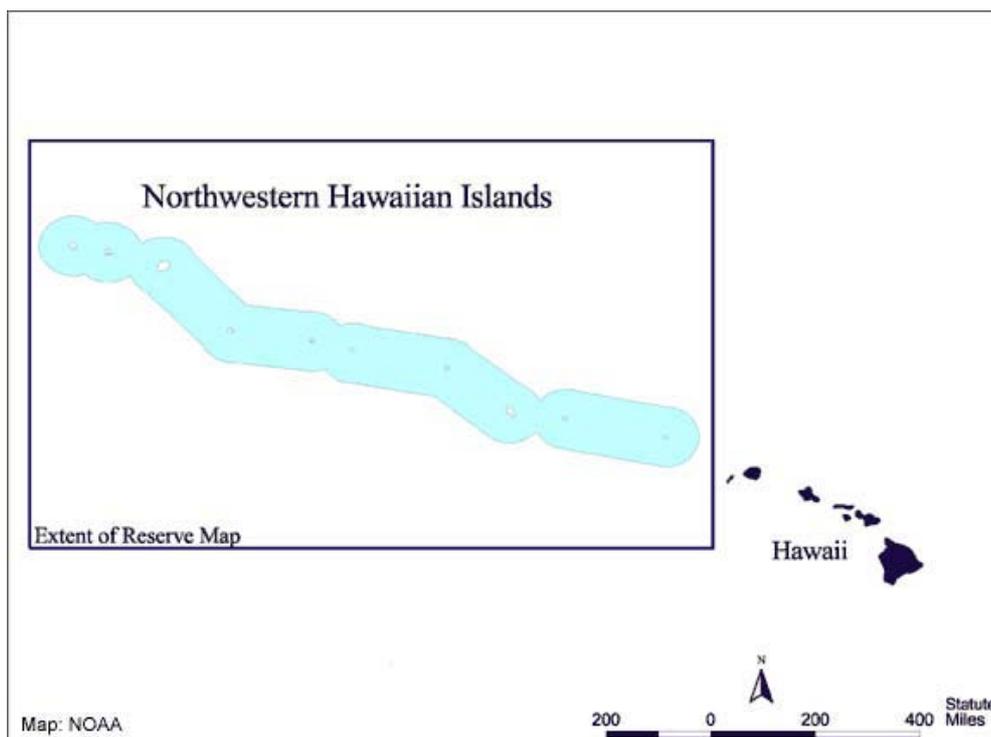


In need of a true Pu'uhonua, a place of safety, the endangered Hawaiian monk seal.

The Northwestern Hawaiian Islands Marine Refuge Act is a true reflection of this complex ecosystem. It would meet the needs of the gravely endangered Hawaiian monk seal, the threatened and endangered sea turtles and the needs of the lobsters struggling to recover from over-fishing. This legislation builds on the legacy of protection that was begun by Teddy Roosevelt in 1909.

Summary points of the proposed federal NWHI Refuge/Pu'uhonua:

- Establishes conservation as "exclusive basis for all decisions by federal agencies"; utilizes a precautionary approach
- Prohibits commercial use, sale of refuge resources, any interference with enforcement and strictly limits all activities
- Provides buyout for existing nine commercial bottomfish fishers
- Establishes within the National Ocean Service an Office for Refuge management, with no requirement for fishery council involvement in Refuge rulemaking
- Mandates that all vessels over 25 ft be certified free of alien species by an inspector; carry VMS, federal observer and post \$1 million vessel grounding bond.



The Northwestern Hawaiian Islands Coral Reef Ecosystem Reserve ([click here for more detailed map](#)).

Congressman Ed Case: "...shouldn't there be some special places in our marine world which are in fact true reserves – truly off-limits, where our marine species can live and thrive in their natural state, without the invasive, extractive hand of humankind? I know in my heart that the answer is yes, and that the Northwestern Hawaiian Islands and their waters are where we should just do it."

Currently, there is a process to propose that federal waters of the Northwestern Hawaiian Islands be designated a National Marine Sanctuary and determine protection measures for this remote ecosystem. Federal waters surround the proposed State Refuge and the U.S. Fish and Wildlife Hawaiian National Refuge. The sanctuary designation process within the NOAA and the Department of Commerce, however, is marred by a lack of transparency and by ongoing attempts by federal officials to repeal and weaken existing protections established for the Northwestern Hawaiian Islands Coral Reef Ecosystem Reserve.

The National Refuge eliminates the political dance choreographed by NOAA as they develop management plans for a proposed sanctuary in the NWHI. So far, NOAA has proposed weakening existing protections established by Executive Order in 2000. As NOAA strives to meet the needs of all stakeholders instead of the resource, its proposals have included allowing commercial fishing and reducing protected habitat for the gravely endangered Hawaiian monk seal. The natural and cultural treasures of this irreplaceable marine ecosystem deserve better.

The NWHI Marine Refuge Act also eliminates NOAA's problematic mandatory 5-year review of whatever protection measures are adopted by the sanctuary program, which would open protections up to political pressure every five years instead of ensuring that strong and lasting regulations safeguard the resource.

Vicky Holt Takamine, President, 'Īlio'ulaokalani Coalition explains: "the Northwestern Hawaiian Islands are viewed by Native Hawaiians as a truly special place and referred to as 'Na Kupuna Islands,' *revered ancestors* to the Main Islands. They hold great cultural and religious significance to the Hawaiian people. We have always maintained that the Northwestern Hawaiian Islands are a nursery to the lower Islands and that by providing strong protections for the Kupuna Islands, we will be protecting fish stocks here."



Stones placed several hundred years ago by Polynesian visitors at Mokumanamana, or Necker Island, for spiritual or navigational purposes.

The *Northwestern Hawaiian Islands hui* represents a broad network of fishers, Native Hawaiians, scientists, divers and Hawai'i residents associated with the 'Īlio'ulaokalani Coalition, KAHEA: The Hawaiian-Environmental Alliance, Environmental Defense and Sierra Club.

Na 'Ilioholoikauaua (Hawaiian monk seals) call on your help to support the H.R. 2376, the National Refuge Act. Continued public support can create a true Pu'uhonua or place of refuge for the remote and fragile Northwestern Hawaiian Islands. Please visit [KAHEA's](http://www.kahea.org) website to find out how.

Further information

Paul Koberstein. 2003. [Plundering the Pacific: the cats who run the fishhouse.](#) The Monachus Guardian 7 (1): December 2003.

Cha Smith. 2003. [NWHI: Creating a Pu'uhonua for Future Generations.](#) The Monachus Guardian 6 (1): June 2003.

The following documents can be found at www.kahea.org:

- DLNR's Press Release
- Hawai'i Regulations Creating a Refuge for NWHI State waters
- Congressman Case Floor Speech
- National Marine Refuge Act
- NWHI *hui* Press Releases

Marine Mammal Commission report in press

The Marine Mammal Commission's Annual Report to Congress for 2004 was due for publication just as we went to press. For those interested in current Hawaiian monk seal population trends, human and natural threats to the species, the future of the Coral Reef Ecosystem Reserve, and efforts to encourage *Monachus schauinslandi*'s repopulation of the Main Hawaiian Islands, the MMC report is an indispensable guide.

Courtesy of the Commission, the relevant Hawaiian monk seal chapter will be made available for download in the Monk Seal Library in due course.

Hawaiian Press Watch

Case seeks U.S. protection for N.W. Islands. 17 May, 2005

U.S. Rep. Ed Case yesterday proposed establishing the Northwestern Hawaiian Islands as the largest marine refuge in the world, banning all fishing within 50 miles of shore.

The proposal, contained in legislation the Hawai'i Democrat introduced in Congress yesterday, took the environmental community by surprise, but those who had read the bill said they were strongly supportive.

"This builds on the legacy begun by Teddy Roosevelt in 1909, and it extends the extraordinary, historic momentum of the state's action Friday," said Stephanie Fried, senior scientist with Environmental Defense. "It seems to be a crystal-clear reflection of public input."

Roosevelt established the 1,100 miles of islands beyond Kaua'i as a wildlife refuge. The state Board of Land and Natural Resources on Friday approved rules that would prohibit all fishing and require an entry permit for any other activities within three miles of shore in the Northwestern Hawaiian Islands.

Case said his proposal would mimic the state's restrictions, but would carry them out to 50 miles from most of the islands, and a little farther from Kure Atoll, to encompass certain seamount habitats. (Jan TenBruggencate, Honolulu Advertiser)

<http://the.honoluluadvertiser.com/article/2005/May/17/In/In18p.html>

Case introduces bill to create world's largest marine refuge in Northwestern Hawaiian Islands. Refuge would do for ocean preservation what Yellowstone Park did for land conservation. 16 May, 2005

Washington, D.C. - Congressman Ed Case (Hawaii, 2nd District) today introduced legislation that would create "the largest marine protected area in our world" – larger than Australia's Great Barrier Reef Marine Protected Area – in the waters of the Northwestern Hawaiian Islands stretching across 1,200 miles of the Pacific Ocean from Nihoa Island to Kure Atoll.

"This initiative will provide the highest possible level of federal protection to an incredibly special area of U.S. waters that is home to 70 percent of our nation's coral reefs and some 7,000 species—up to half of them endemic to the area and found nowhere else on earth. Protecting this area would create an 'Ocean Yellowstone' comparable to our Yellowstone National Park, whose establishment in 1872, although itself revolutionary for its time, became the foundation of our National Park System," said Case, whose congressional district includes the Northwestern Hawaiian Islands.

Case said the highest protection of the entire area is necessary because of growing threats posed by invasive species, marine debris, fishing and other human occupancy and extractive uses. But beyond these basic threats, Case said that there "should be some special places in our marine world which are in fact true reserves: truly off-limits, where our marine species can live and thrive in their natural state, without the invasive, extractive hand of humankind. The Northwestern Hawaiian Islands is this place."

The proposed Refuge is home to many species of coral, fish, birds, and marine mammals, including the highly endangered Hawaiian monk seal, threatened green sea turtle, and endangered leatherback, loggerhead and hawksbill sea turtles. An estimated 14 million seabirds

thrive in the islands and their waters, including 99 percent of the world's Laysan albatrosses and 98 percent of the black-footed albatross population. This also may be the last predator-dominated marine ecosystem left on earth, with about 55 percent of the total fish biomass made up of predator species.

"My proposal, the Northwestern Hawaiian Islands National Marine Refuge Act of 2005, would cover 137,000 square miles of our country's reefs, banks, seamounts and oceans, eclipsing Australia's Great Barrier Reef Marine Protected Area of 125,000 square miles," Case added. "Virtually all activities in the Refuge, generally from land to fifty miles out to sea, would be by permit only. Permitted activities would include scientific research, but would prohibit commercial fishing and other extractive practices except in very narrow circumstances. Existing commercial fishing permit holders would be bought out at fair value."

Case's bill would assign management of the new Refuge, the first of its kind in our country, to a new Office of National Marine Sanctuaries and Refuges within the current managing entity, the U.S. Commerce Department's National Ocean Service. The Office would manage the Refuge in cooperation with the State of Hawaii, and in consultation with an advisory council including representatives from the State of Hawaii and the Native Hawaiian, scientific and marine conservation communities.

"It is vital to note that this bill is grounded solidly in the cultural heritage and traditions of the indigenous peoples of Hawaii, our Native Hawaiians," said Case, who specifically cited the work of Kahea: the Hawaiian Environmental Alliance, among other environmental and Native Hawaiian advocacy groups. The bill provides for the continued traditional use of the Refuge by Native Hawaiians for religious, cultural and sustenance purposes.

Case praised the action of Hawaii's Board of Land and Natural Resources last Friday, May 13th, to establish the Northwestern Hawaiian Islands Marine Refuge in state waters, generally extending three miles out from land. "This bill would now complete the penumbra of protection for this incredible resource and truly discharge our responsibility of stewardship."

Case's prepared remarks for inclusion in the Congressional Record on introduction of the Northwestern Hawaiian Islands National Marine Refuge Act of 2005, as well as the text of the bill, may be found on the top of the splash page of Case's congressional website at www.house.gov/case. **(News from Congressman Ed Case)**

<http://wwwc.house.gov/case/>

Setting refuge status for northwestern isles a wise move. May12, 2005

The state steps to the forefront in protecting the 1,200-mile stretch of the Northwestern Hawaiian Islands under a bold proposal to establish a refuge by its own authority. The Board of Land and Natural Resources should adopt the plan, which makes clear to the federal government the importance the people of Hawaii place on the archipelago and the health of the ocean.

The northwestern islands, declared a marine reserve by President Clinton in 2000, is being considered for re-designation as a national "sanctuary," putting partial direction under the U.S. Department of Commerce. However, sanctuary status, which would regulate a 50-mile zone around the islands, might still allow fishing and other "extractive" practices, contrary to public wishes.

The state's jurisdiction extends only three miles out, but its proposal would bar commercial and recreational fishing, removal of natural resources and visits for purposes other than permitted research, management or Hawaiian cultural activities.

It would preserve a resource vital to sustaining the reef ecosystem that serves as an ocean "nursery" for fish and other sea life and a haven for federally protected species. (Editorial, Honolulu Star Bulletin)

<http://starbulletin.com/2005/05/12/editorial/editorials.html>

Marine refuge helps fishing industry, too. 7 May, 2005

The state Department of Land and Natural Resources has sensibly stepped up to fulfill one of its important roles – that of conservator – by proposing the creation of a marine refuge around the

Northwestern Hawaiian Islands.

Under the state plan, all fishing would be prohibited in waters three miles around each island and atoll in the archipelago that extends 1,200 miles, between Nihoa and Kure. The refuge is envisioned as a way to protect the coral reefs that are home to native plants and, most importantly, the fertile breeding area for many marine animals, including the endangered monk seal and green sea turtle...

Above all, it's in the long-term interest of the fisheries themselves that the fleet of islands serving as nurseries to many fish species be protected. Too few examples of pristine ocean wilderness remain to let this precious ecosystem degrade. (Editorial, Honolulu Advertiser)

<http://the.honoluluadvertiser.com/article/2005/May/07/op/op01p.html>

Northwestern Islands get protection plan. 6 May, 2005

State waters surrounding the Northwestern Hawaiian Islands would become a highly protected "marine refuge" under a proposal announced yesterday.

Peter Young, director of the state Department of Land and Natural Resources, visited the remote islands last year and was astonished to see a school of large ulua visible from shore, thousands of birds on a plane runway, and monk seals and sea turtles lounging on beaches.

"We are dealing with a special place, and it's different," Young said yesterday in announcing that he wants to give the Northwestern Hawaiian Islands the highest level of protection.

That would mean no commercial or recreational fishing or removal of any natural or cultural resources from state-controlled waters, according to draft rules to be considered by the Board of Land and Natural Resources at its meeting next Friday. Visits to the refuge would only be allowed for research, management and native Hawaiian cultural purposes that do not harm the environment – and only then with a state permit. (Diana Leone, Honolulu Star Bulletin)

<http://starbulletin.com/2005/05/06/>

Derelict fishing gear mapped in bid to clean up. 29 April, 2005

Researchers using satellites and aircraft have located a concentration of lost or abandoned fishing nets that drift through the oceans posing a danger to fish and other wildlife, the National Oceanic and Atmospheric Administration said Friday. (MSNBC News)

<http://msnbc.msn.com/id/7680202/>

U.S. Endangered Species Act Works, Study Finds. 18 April, 2005

The longer an animal or plant species is protected under the U.S. Endangered Species Act, the more likely it is to recover, a new study says. The finding contradicts recent criticism that the act has returned too few species to full health. (Maryann Mott, National Geographic News)

http://news.nationalgeographic.com/news/2005/04/0418_050418_endangered.html

Drivers harm natural areas. The illegal use of popular all-terrain vehicles takes an environmental toll that alarms the state. March 7, 2005

For years, off-roading enthusiasts have flocked to secluded open spaces and beaches around Oahu, especially near Mokuleia, to test out their four-wheel-drive vehicles or race with friends. Souped-up pickups or sport utility vehicles, with extra-large tires and special suspensions, have been popular in the islands since the early 1990s...

Beaches from Makua Beach on the Leeward Coast to Army Beach in Mokuleia are also seeing heavy traffic, with four-wheelers threatening ancient Hawaiian burial sites, shoreline animals, like the endangered Hawaiian monk seal, and even beachgoers. (Mary Vorsino, Honolulu Star Bulletin)

<http://starbulletin.com/2005/03/07/news/story1.html>

Gathering Place. February 17, 2005

On a recent visit to Midway I was sad to see dozens of white terns, the manu-o-ku that Polynesian voyagers used to guide them to land, dead on the ground.

Scientists there explained that they died of starvation. White terns live off the small fish that swim up to the surface of the sea because of large fish below them. But with our large fish being taken by longline fishermen, the little fish don't rise to the surface as much and the white terns starve.

The endangered Hawaiian monk seal's diet includes lobster, and many scientists believe that this species is starving because a main food source has been depleted because of overfishing. The lobster has a long life cycle; it takes many years for an egg to mature into an adult with the ability to reproduce. In the 1980s and '90s, in the height of the take, lobster fishermen didn't bother to save the young or egg-bearing females, thereby causing the lobster population to crash, which eventually led to the current ban. (Laura L. Thompson, Honolulu Star Bulletin)

<http://starbulletin.com/2005/02/17/editorial/commentary.html>

It takes a village to raise a Monk Seal. February 2 – February 15, 2005

There's a new, very local-style visitor who seems to be taking up residence here on Maui's shoreline along the Kuau/Ho'okipa area. Have you seen her?

She's a baby monk seal, wearing numbered red tags on her flippers (left #125, right #126). She was born August 13, 2004, on the Moloka'i at Kalaupapa. She's doing well, as she bravely made her way to Maui within her first few months of life and was first logged in with the Maui Watch Team on January 6, 2005 at Ho'okipa.

If we're lucky and take good care, she'll thrive and swim on to enrich the critically endangered population of Hawaiian monk seals and grace us with pups of her own. She is, indeed, a link in the chain of hand-to-hand hope for the future of these precious islands. The Maui Watch Team needs volunteers now more than ever. (Michele Morris, Maui Monk Seal Watch Team, Haleakala Times)

http://mauisfreepress.com/archives/archives2005/features/02_02_05/feature5.html

Seal steals the show on busy Waikiki Beach. January 22, 2005

An endangered Hawaiian monk seal clambered onto usually busy Waikiki Beach yesterday to the delight of tourists and local residents.

"It's very, very rare to see them in Waikiki," said Thea Johanos, National Oceanic and Atmospheric Administration wildlife biologist, though they have come a few times in the past.

"We have seals on the North Shore (of Oahu), Waianae and Sandy Beach, but I haven't heard of a seal at Waikiki," said Jeff Walters, biologist for the state Division of Aquatic Resources.

Volunteers for NOAA have tracked this adult male seal, dubbed "Chester" because of a recognizable scar on his chest. He usually inhabits the southeastern waters of Oahu, Johanos said.

The monk seal, one of about 1,300 in the world, crawled at 9:30 a.m. onto the beach behind the Colony Surf Hotel. Police and Department of Land and Natural Resources officials were immediately called and surrounded the animal with yellow tape and posted signs to keep a distance of 150 feet. (Leila Fujimori, Honolulu Star Bulletin)

<http://starbulletin.com/2005/01/22/news/story3.html>

EndQuote

World's largest MPA proposed for Hawaii

“My proposal, the Northwestern Hawaiian Islands National Marine Refuge Act of 2005, would cover 137,000 square miles of our country’s reefs, banks, seamounts and oceans, eclipsing Australia’s Great Barrier Reef Marine Protected Area of 125,000 square miles,” Case added. “Virtually all activities in the Refuge, generally from land to fifty miles out to sea, would be by permit only. Permitted activities would include scientific research, but would prohibit commercial fishing and other extractive practices except in very narrow circumstances. Existing commercial fishing permit holders would be bought out at fair value.”

Source: Case introduces bill to create world’s largest marine refuge in Northwestern Hawaiian Islands. News from Congressman Ed Case/Monday, May 16, 2005.



Mediterranean News

Vol. 8 (1): May 2005

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Greece

“When at last are you going to deal with the environment, Mr. Minister?”

Representatives of 9 NGOs gathered at the Athens headquarters of Greenpeace on 15 March to mark the government's first anniversary in power and to explain to the public why the environment remains in limbo a full year after the prime minister's pre-election promises.

Quoting from those pledges the press conference participants went on to identify environmental issues ranging from water resources to erosion, waste management to marine protected areas, alternative technology to uncontrolled development, where the government has allegedly failed to deliver – or indeed show any tangible sign of movement whatsoever – on its pre-election commitments.



Greece's flagship monk seal protected area. No management, no funds, no guarding, no development plan.

The press conference brought together Greenpeace, WWF, Elliniki Etairia, Archelon, the Greek Ornithological Society/Birdlife International, Mediterranean SOS and MOM.

MOM highlighted the government's continuing inaction on the protected areas of Greece – where funding cut-offs, guarding layoffs and wholesale disbanding of management authorities has effectively left the country without any protected areas worthy of the name [see [Greek protected areas in limbo despite prime minister's assurances](#), TMG 7 (2): November 2004].

While many new areas have been declared “protected” as part of the EU's Natura 2000 network, without management, guards or budgets, the protection exists only on paper. In other cases, legislation still requires enactment before the areas in question will benefit from good intentions.

Following the conference, the organisations issued a list of 8 priorities requiring urgent action for the protected areas.

Greek Environment Minister, Giorgos Souflias, appeared to take the accusations personally. In a statement issued one day after the press briefing, the Ministry press office accused the NGOs of having a “hidden agenda”.

On 17 March, eight of the NGOs publicly refuted the government's allegations, and a week later dramatically published an open letter in national newspapers, asking Giorgos Souflias directly, “When at last are you going to deal with the environment, Mr. Minister?”

The letter went on to note that:

- 27 established national parks in Greece are not operating.
- 270 of the most important natural sites of the country have no protection.
- The country's obligations to the environment under EU treaties and agreements are not being fulfilled.
- Funds approved by the EU for Greek environmental priorities have not been distributed.

The uncertain future of the National Marine Park of Alonissos, Northern Sporades (NMPANS) was underscored in March by a burglary at the Gerakas Research Station, where budget cuts have left the building unguarded, untended and uninhabited. A computer, VCR and VHF radio were stolen.

To make matters worse, the summer tourist season is fast approaching, a time when traditionally there are more frequent infringements of Park regulations.

Eleni Tounta, MOM's coordinator for the NMPANS, worries that "this will be the second year in a row that the Park has remained unguarded."

Monk seal pup Hippocrates dies in rehab

Orphaned monk seal pup Hippocrates, rescued on the Greek island of Kos in October, died suddenly on Monday 22 November with symptoms of acute enteritis [see [Orphaned pup "Hippocrates" rescued on Kos](#), TMG 7 (2): November 2004].

A necropsy, performed in the Veterinary School of Thessaloniki by a specialized veterinary pathologist, Dr. N. Papaioannou, confirmed that the enteritis had resulted in cardiac pause and lung edema. The seal, which had been under care in [MOM's](#) rehabilitation centre on Alonissos for the past one and a half months, showed progress in development and behaviour, though a delayed increase in body weight.



Hippocrates in the MOM rescue station on Alonissos.

Two days before his death, Hippocrates displayed the first symptoms of enteritis, which were treated with a light diet. Sadly, on the morning of the 22 November, he showed acute symptoms and died three hours later, the swiftness of the animal's deterioration effectively preventing emergency intervention by the rehabilitation team. Samples analyzed by Erasmus University, Rotterdam, did not identify any underlying viral cause of the enteritis. – Jeny Androukaki, MOM.

Final farewell from Dimitris

At 01:57 on 5 November 2004, we received the last signal from "Dimitris", the orphaned pup rehabilitated at MOM's rescue station on Alonissos, and returned to the wild on 22 May 2004 [[Clear blue horizon for Dimitris](#), TMG 7 (1): June 2004].

In accordance with initial predictions, the small satellite transmitter keeping us informed of his movements ceased functioning some 5,5 months after it was first attached, a time broadly coinciding with the animal's first moult.

Besides reaffirming his survival in the wild, the satellite also provided valuable scientific data, shedding light on little understood aspects of the species' ecology, including movement between islands and diving depths. A record dive of 180 meters was registered, effectively re-writing earlier scientific estimates [[Orphaned seal criss-crosses the Sporades Marine Park, sets new diving record](#), TMG 7 (2): November 2004].



The wealth of data collected is currently being analyzed and processed by MOM, and is expected to fill in other gaps in our scientific knowledge of species' behaviour. –Panos Dendrinou, MOM.

Editor's note: For further illustrated information on Dimitris' rescue, rehabilitation and release, check out our [News Archive](#) page.

Kimolos and Karpathos: two Aegean islands with international ecological significance

MOM has marked the end of its four-year LIFE programme in the Aegean by publishing a “layman’s guide” highlighting the challenges, significance and achievements of the project. The EU-backed programme implemented research and conservation objectives in two of Greece’s designated Natura 2000 areas, the N. Karpathos-Saria area in the southeastern Aegean, and the Kimolos-Polyaigos complex in the Cyclades [TMG Mediterranean News, *passim*].

During the programme, the monk seal population and its habitats were monitored, the degree of human intervention in the areas assessed and, following this, an adequate surveillance system designed for each area. Information and environmental education actions at the local and national level was also necessary, in order to make the local community and the wider public aware of the great ecological value of these areas and of the efforts to protect them.

In the Kimolos-Polyegos area, 32 newborn seals were recorded during the past four years. There are a large number of suitable cave refuges for resting and reproduction, which are used with considerably high frequency. Based on a combination of all relevant data, the minimum estimated population is 43 seals, which constitutes the second most important population in the Mediterranean.

In the N. Karpathos and Saria island complex, 19 newborn seals were recorded during the course of the program, and a combination of the available data leads us to estimate that the minimum population in the area is 23 seals.

Having carried out over 240 expeditions (600 hours of monitoring) in the marine area of Kimolos – Polyegos, the researchers of MOM reached the conclusion that the movement of tourist boats and small-scale subsistence fishing in the area of Kimolos constitute the most significant potential pressures on the marine environment.

Following 300 patrols (1,000 hours of recording) in the area of Karpathos, MOM concluded that the area is not under considerable pressure from human activities, but large-scale fishing constitutes a significant potential threat.

In both areas, the findings support the need for the adoption of protection measures, both near the Mediterranean monk seal refuges and in the major fishing grounds.

However, the most important result of actions in both these areas was the development of the necessary requirements (adequate infrastructure, trained and experienced human workforce, detailed knowledge on the use of marine zones) for the implementation of effective surveillance systems.

As a result of the programme, a complete picture has been acquired on the status of the Mediterranean monk seal populations; pilot conservation actions were carried out for subsequent implementation by the protected area management bodies, and the value of the natural environment of these areas was highlighted among locals and visitors. The active participation of schoolchildren constitutes possibly the most important achievement, since they will be the future users of these areas.

These achievements were possible despite the failure of the responsible Ministry for Environment to fulfill its financial obligations (€150,000) to the programme.

With its strategic objective being the creation of a network of protected areas for the monk seal, MOM will continue its actions in both areas. Nevertheless, we feel the need to stress that, to date, the basic requirement for the long-term protection of these areas – their institutional protection – has not been achieved. Believing that the efficient protection and ecologically sustainable development of these areas is a duty that lies with us all, we call upon the Ministry for Environment, the European Commission and all stakeholders to do all in their power to realize these aims. – Stella Adamantopoulou, MOM.

MOM. 2005. LIFE: Four years at a glance. The monk seal: Conservation actions in two Greek Natura 2000 sites. Hellenic Society for the Study & Protection of the Monk Seal (MOM), Athens, Greece: 1-12. [PDF  5.0MB]

Historic commitment

Following their historic exchange visits [see [Developing closer ties between Turkey and Greece in monk seal conservation](#), TMG 7 (2): November 2004], representatives of the “monk seal communities” of Foça in Turkey and Alonissos in Greece have issued a joint statement pledging a commitment to sustainable development, a protection of ecosystems and the monk seal. [[More...](#)]

Monk seal from Platamonas gets a good head start

Since its establishment in 1991, the Rescue and Information Network (RINT) operated by MOM has received numerous seal sightings, thus enabling the society to estimate the distribution of the species in the country and in several cases closely monitor the status of specific individuals. Rarely however has a sightings account, and the fate of the monk seals involved in it, enchanted the people in MOM quite as much as an incident that took place last autumn in the coastal village of Platamonas in northern Greece.



On the 13th of October, MOM was alerted by the port police authorities of Platamonas of a stranded monk seal pup near the village. Upon arrival at the location, the MOM rescue team found a newborn pup struggling to stay afloat under harsh sea conditions. After several hours of anxious efforts the pup managed to come ashore and find shelter on an open beach. All this took place under the wary surveillance of the pup’s mother and therefore the rescue team decided that there was no need for emergency intervention. Because of the bad weather conditions, however, a member of the rescue team remained on site in order to monitor the status of the pup during the following days. A close inspection of the area and enquiries amongst local residents revealed that the pup had been born approximately 500 meters from the village port, in a cave located beneath the foundations of a luxury holiday residence. Standing in the garden of the house, one could actually hear mother and pup vocalizing through the cracks in the earth!

Despite the “unconventionality” of the location of the cave, mother and pup (named “Belucci” and “Moskof” after the famous Italian actress and the owner of the holiday residence) remained in the area even after the bad weather conditions subsided and despite the fact that, due to the proximity of a settlement, human activity, including fishing, was intense. In fact, the seals even attained some local popularity, regularly attracting visitors from neighboring villages and featuring on local TV reports. MOM continued to check upon the status of the two until the 11th of November when mother and pup were last seen in the area. By that time, Moskof had moulted and grown into a healthy young pup. – Alexandros Karamanlidis, MOM.

IFAW-supported project on seal-fisheries interactions draws to a close

Building on a long-standing and fruitful collaboration, MOM has been carrying out an IFAW supported project on seal-fisheries interactions since October 2004.

The project, which is expected to draw to a close this June, aimed to preserve important populations and habitats of the monk seal in the National Marine Park of Alonnisos, Northern Sporades and included two different sets of actions.

The first of these involved the continuation of MOM’s monitoring of the local monk seal population, with an emphasis on the reproductive season. During last year’s pupping season MOM’s field

team managed to collect important information on monk seal habitat in the Park and record seven new births, providing additional evidence that the population remains reproductively active.

The second set of actions involved a preliminary analysis of the complex interactions between Mediterranean monk seals and the fishing sector.

A detailed profile of the fishing sector within the NMPANS was compiled, drawing on data from the port police authority and the local fishing cooperatives of Alonnisos. Approximately a quarter of all fishermen active within the Park were interviewed and essential information gathered on a range of issues including fishing techniques and areas, interaction with marine mammals, and the financial aspects of the Park's fisheries sector.

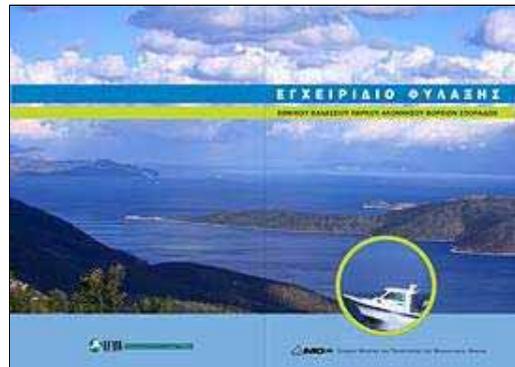
Field trips on fishing vessels were also undertaken in order to evaluate and validate the results of the questionnaires.

By the end of the project, it is expected that an action plan will have been drawn up outlining ways in which seal-fisheries interactions can be mitigated, whilst also encouraging positive dialogue between conflicting parties. The action plan will be presented to the Management Authority of the NMPANS so that it can be adopted as part of the overall management plan of the Park. – Alexandros Karamanlidis, MOm.

NMPANS Guarding Manual published

In order to promote the conservation of the endangered monk seal in the country, the Hellenic government created in 1992 the National Marine Park of Alonnisos and Northern Sporades (NMPANS); this area is considered to be the most important habitat and to host the largest population of monk seals in the country. Acknowledging the fact that the effective operation of any protected area as a conservation measure depends greatly on the effective enforcement of the regulations governing it, and that this in turn is of extreme importance for the survival of the Mediterranean monk seal in the Northern Sporades, MOm (Hellenic Society for the Study and Protection of the Monk Seal) initiated in 1993 and has been carrying out continuously ever since a monitoring project in the area. This project aims to assist the relevant public authorities in the enforcement of the regulations of the NMPANS.

The first ten years of the operation of the project have been marked by significant results in the protection of the Mediterranean monk seal and the effective enforcement of the regulations governing the Park, which is one of the largest Marine Protected Areas (MPA) in the Mediterranean. During this time, the need for carefully planning and carrying out the monitoring project led to the formation of partnerships between MOm and various national and international organisations, throughout which, valuable experience and technical expertise was accumulated. Within the framework of the programme “Monitoring and Guarding the National Marine Park of Alonnisos & Northern Sporades”, funded by IFAW/International Fund for Animal Welfare, and in view of the operation of the recently-established management body of the NMPANS, MOm has proceeded in the compilation of a guarding manual. The manual records the experiences gathered throughout the monitoring project and presents recommendations towards the effective protection of the area. Its aim is to assist the management body of the NMPANS, which is responsible for the overall management of the area, in its initial steps of creating its own guarding/monitoring scheme and disseminate this unique knowledge to other MPA practitioners.



The manual consists of four distinct chapters. Chapter one serves as an introduction to the world of marine protected areas and the ways to monitor and protect them. Considering the fact that marine protected areas have yielded significant results both on the biological and socio-economic level, this chapter presents these results, the major research findings and three case studies and provides the reader the essential background knowledge in order to understand the structure and goals of the monitoring project in the NMPANS.

The manual consists of four distinct chapters. Chapter one serves as an introduction to the world of marine protected areas and the ways to monitor and protect them. Considering the fact that marine protected areas have yielded significant results both on the biological and socio-economic level, this chapter presents these results, the major research findings and three case studies and provides the reader the essential background knowledge in order to understand the structure and goals of the monitoring project in the NMPANS.

The second chapter of the manual begins with a short presentation of the Park including information on the biological, climatic, anthropological and cultural profile of the area. Building upon this information this chapter introduces the project itself. A necessary excursion in the legal framework of guarding and monitoring in protected areas in Greece leads up to a short presentation of the history of the ten year project. A big part of this chapter is devoted to the detailed presentation of the results of the monitoring effort and its significant effects on the enforcement of the regulations governing the area and the protection of the endangered Mediterranean monk seal. Within this context, an attempt is being carried out to highlight the importance of combining monitoring and guarding efforts with a well-planned information and sensitization campaign. This has been the case in the NMPANS and has led to the acceptance of the park by the local community. The second chapter ends with a brief analysis of the problems encountered throughout the project, the solutions given and the conclusions resulting from the planning and implementation of the guarding project for more than ten years.

One of the primary aims of the manual is to serve as a guide to the newly established management body of the NMPANS. This aim is achieved within the third chapter of the manual, where specific recommendations attempt to lead the reader step by step to the creation and operation of an effective monitoring/guarding programme of the area. The recommendations begin with the necessary legislative changes that should take place in order to create the most favourable conditions for the effective guarding and protection of the NMPANS. These recommendations could be broadened in order to encompass other protected areas as well, and would make the cooperation between relevant ministries and the management bodies easier. Following this, the necessary infrastructure and personnel are presented, as well as the methodology for effectively guarding, at a minimal cost, the National Marine Park of Alonnisos, Northern Sporades. Special attention has been given within this chapter to the important issues of the logistic requirements of such an undertaking and the application of alternative monitoring and guarding methods, that should be considered further by the management body of the NMPANS.

Finally, the last chapter presents the general conclusions resulting from the experience of guarding the NMPANS and the recommendations for effectively guarding all protected areas in Greece.

The manual was produced with the financial support of IFAW. – For further information, please contact Dr. Spyros Kotomatas, [MOM](#).

EndQuote

“Just over a month after picking a new chairman for the struggling Zakynthos national [marine] park, Public Works Minister Giorgos Souflias said yesterday he had asked the official to resign over allegations his wife owned an illegal beachfront building on one of the island’s protected turtle nesting areas... The turtle nesting grounds are threatened by tourist development, one of whose worst manifestations is illegal building.”

Source: Park chief axed over wife’s sins, Kathimerini English Edition, Athens, Tuesday 24 May 2005.

Mediterranean News continues with [Italy](#), [Mauritania & Western Sahara](#) and [Turkey](#)...



Mediterranean News

Vol. 8 (1): May 2005

Download this page 

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Italy

“Incredible news” from Favignana... but the incredible fails to move officialdom

In early December 2004, Italy's [Gruppo Foca Monaca](#) (GFM) reported the “incredible news” of a possible monk seal birth on Favignana, a small island off the west coast of Sicily.

It was the first confirmed incidence of a monk seal birth in the area in 20 years (the last one was a pup found dead in Sardinia in 1984), and suggested that reports of the species' extinction in Italy might just be premature.

Mother and pup were found inside a sea cave by a local fisherman. “He came face to face with the female in the cave and both were very scared,” explains Emanuele Coppola of GFM, after he met and talked with the fisherman who reported the “close encounter” in Favignana. “The female escaped, and afterwards he noticed the pup that was also swimming in the 2-meter deep pool inside the cave. Then the pup also escaped.”

From the description of the animal's physical appearance and in-cave behaviour provided by the fisherman, Coppola estimated the pup to be of about weaning age.

Reacting to the reports, GFM quickly put its contingency plan into effect, contacting local officials and fishermen both in person and by phone. Coppola himself went to Favignana, met the fisherman, had a long meeting with the Director of the local Marine Protected Area (the AMP Isole Egadi) to explain the great significance of the event, and was assured that all necessary measures to protect the mother and pup would be put into place. A sense of security, effectively eliminating disturbance by fishermen, tourists and journalists, would probably provide the only hope that the mother seal – and perhaps others – would return there in future years. Problems of potential disturbance and fisheries interactions were, in fact, the main concerns raised, based on recent experiences in Turkey, where pups have died even in protected areas, because young monk seals can be particularly vulnerable to entanglement in fishing gear.

After Coppola's visit to the island, a written evaluation of the situation was submitted to the MPA Director as requested, reports Coppola, but unfortunately no reply was ever received.

“As stressed during the meeting with the Director,” says Coppola, “I reported in my evaluation the suggestion that the main danger for the pup might be caused by the activity of a few fishermen in the area, but no action was taken, not even to let them understand the need to avoid putting their nets in front of the most sensitive caves. I am quite sure that if the pup were then to have been found dead, entangled in a net, nobody would have reported it and any suspicions would have immediately been classified as pure fantasy.”

Coppola returned to Favignana in March this year, finding two caves in the area where the seals had been observed, including one whose characteristics could make it a good potential breeding cave.

However, there was no sign of mother or pup.

“I really hope that the animals are now safe and far from the area,” says Coppola. “The weather there has been very bad for most of the winter and human activity was therefore very limited.”

A mother and pup reappearance at Favignana or elsewhere in Italy's southern coastal region would provide comforting reassurance that the species in Italy *is* back from the dead. For the species to *stay* alive, however, it is likely to require far greater efforts on the part of local officials.

Cilician monk seals find an audience in Rome, Trento and Prague

For the second time since 2003, the [Gruppo Foca Monaca](#) (GFM), in co-operation with the Turkish Embassy in Rome – notably the “Association for Friendship between Turkey and Italy” – invited Ali Cemal Gucu, professor of Marine Sciences in the Middle East Technical University (Mersin), to bring his Cilician Basin monk seal project to life in public lectures.

The first venue was in Rome, at the premises of the Natural History Museum, with the presence of the diplomatic authorities of the two countries but also the president of WWF Italy, Fulco Pratesi, journalists and many friends of the seals. The second occasion was near the Dolomites, in Trento, where an active group supporting monk seal protection wanted to have a “live” presentation of Prof. Gucu's experience. On both the occasions the listeners were introduced, through the use of films and slides, plus a live “sunset” in Cilicia care of Panda Film, to the community of seals of the Cilician region – their past problems, their present situation, the trends of the population, the hopes and the fears, the newest monitoring techniques, and the extension of the project towards the Syrian borders.

Prof. Gucu and GFM also presented the results of their joint project on ecotourism (see [Cilician Basin ecotourism project enters second phase](#), TMG 7 (2): November 2004), which has proven to be an important tool in creating further awareness among the inhabitants of the coastal villages involved in the conservation activities. A new trip for (as always) a very small group of people to Cilicia was advertised for the period between 22 and 31 October 2005 (for further info, please contact l.guarrera@aiab.it or visit the web site www.focamonaca.it)

Prof. Gucu's last stop in Europe was Prague, where he was invited by the local University in the framework of a project on seal conservation and its relation to humans. The project foresees the participation of students (two accompanied Ali from Italy) and the preparation of a film, now underway. More news on this hopefully in the next issue of TMG. – Luigi Guarrera, Gruppo Foca Monaca.

NetWatch

Odyssey Sirens were Monk Seals

A German scientist claims to have found the Sirens of the Greek myth of Odysseus, who lured ships onto the rocks with their song: they are, in fact, monk seals.

Karl-Heinz Frommolt, head of the Archive of Animal Sounds at the Humboldt Museum in Germany, believes he has identified the Sirens' lair on the Li Galli islands, off Sorrento on Italy's Amalfi coast. The island is known as Le Sirenuse, the Island of the Sirens.

His team identified a configuration of rocks which amplifies sound coming from the island. However, tests showed a human voice could not reach far enough out to sea - whereas a moaning monk seal's could...

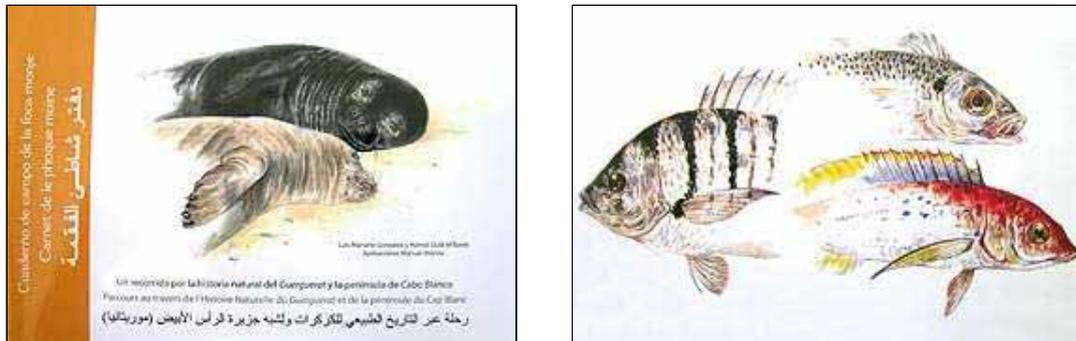
Historians, however, are not amused - believing the value of the tale does not lie in a literal interpretation of what are mythical figures.

Source: [Odyssey Sirens 'were monk seals'](#), BBC News, 19 May, 2005.

Mauritania & Western Sahara

Cap Blanc, up close

A beautifully illustrated book on monk seals, Mauritania, and the legendary Coast of Seals has been published by the Ministry of Environment in Madrid.



Written by Luis Mariano González and Hamdi Ould M'Barek, with illustrations by Manuel Merino Sánchez, the book takes in numerous aspects of life around the Cap Blanc peninsula, from the desert nomads crossing the Saharan sands, to the whales and dolphins passing by offshore, from the subsistence fisherman in their colourfully-painted pirogues to the cave-dwelling seals of the 'Costa de las Focas' and the waterfowl and waders of the Banc d'Arguin.

The book project was coordinated by [Fundación CBD-Habitat](#).

Luis Mariano González and Hamdi Ould M'Barek. 2004. Cuaderno de campo de la foca monje. Carnet de le phoque moine. Ministerio de Medio Ambiente, Dirección para la Biodiversidad, Madrid: 1-72 [Spanish, French, Arabic].

IFAW boat studies mystery coast

Following on from its pledge to "ramp up" its monk seal conservation activities [[IFAW defends seal priorities](#), this issue] the International Fund for Animal Welfare dispatched its research vessel *Song of the Whale* in May to survey the disputed coasts of the Western Sahara. North of the Mauritanian border and the Côte des Phoques, harbouring the world's largest surviving colony of Mediterranean monk seals, the coast is something of a mystery, with little survey work having been conducted in recent times. Historical documents indicate that monk seals were abundant as far north as the Rio d'Oro in the 15th century and were heavily exploited for their fur and oil by Portuguese explorers.

IFAW mounted its expedition in association with [Fundación CBD-Habitat](#) and its onsite technicians, the Institute National de Recherche Halieutique (INRH) of Morocco, and the Dakhla based NGO, Nature Initiative.

As we went to press, no significant new information on the monk seals of the area had been revealed.

A blog written by the boat's crew is, however, available at: <http://www.ifaw.org/ifaw/general/default.aspx?oid=132403>

Mediterranean News continues with [Turkey...](#)



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Turkey

Seal dies despite rescue efforts

Three dead seals and one ailing seal have been found along Turkish coasts since the last issue of TMG, reports Harun Güçlüsoy of SAD-AFAG. Despite considerable efforts to save it, the ailing seal subsequently died during treatment. The spate of deaths has spurred EU-sponsored efforts in Turkey to establish a coastal rescue network [see [Cover Story](#), this issue].

On 28 January 2005, the ailing seal was found stranded by fishermen in Dil Lake in Dilek Peninsula and Menderes Delta National Park. The following day, [SAD-AFAG](#) and the national park personnel determined that the adult male seal was in need of help. An examination of its health by the veterinarians and biologists suggested that he might be in need of long-term treatment and observation, and it was decided to move the animal to a better-suited location within the National Park.

Adnan Menderes University Veterinary Faculty personnel, together with the veterinarian of Foça Municipality determined a course of treatment and began the first applications. During this process the animal's health deteriorated and it was decided that the seal should have been transported to Foça. The treatment continued with the help of rescue experts from the Greek NGO [MOM](#) (within the framework of the EC Turkish Delegation's Micro II programme) as well as experts from the [Seal Rehabilitation and Research Centre](#) of the Netherlands. Despite our best efforts, the seal's health gradually worsened, until his unfortunate death. After this, in the first week of February, a full necropsy was made at the Veterinary Faculty of Adnan Menderes University, with the assistance of Jeny Androukaki of MOM – participating once again under the terms of our common project funded by the EC Turkish Delegation to establish a rescue network in Turkey. After the internal examination and detailed lab work, the cause of death by the Veterinary Faculty was found to be breathing malfunction.

Another dead juvenile seal – reported by a fisherman via e-mail (!) – was found at Alacati on the Çesme Peninsula, on 2 March 2005. A SAD-AFAG team travelled to the site but because of the animal's advanced state of decomposition, no necropsy was possible.

Previously, on 5 December 2004, a dead female monk seal was found at Gözsüzce village in Mersin, Bozyazi. The necropsy determined that the cause of the death was drowning possibly due to entanglement in fishing gear.



From top to bottom:
Dilek, January 2005,
Gözsüzce, December 2004,
Alacati, March 2005 and
Anamur, April 2005.

On 14 April 2005, another dead seal was found at Anamur, also in the Cilician Basin. Again, the animal was so highly decomposed that no necropsy was possible. – Harun Güçlüsoy, SAD-AFAG.

Regional Environment Centre funds rescues

A project recently approved by the National Donations programme of the Regional Environment Centre (REC-Turkey) will help SAD-AFAG establish a Monk Seal Rescue and Information Network along the Turkish Mediterranean coasts to help injured, sick and orphaned monk seals quickly, and also to respond to incidents involving dead seals.

This project will be implemented in cooperation with Dokuz Eylül University - Institute of Marine Sciences and Technology as an extension of the joint MOM/SAD-AFAG rescue network project currently underway with financial aid received from the E.C. Turkish Delegation [see [Cover Story](#), this issue].

The second project, prepared in conjunction with the Foça Municipality and submitted to REC-Turkey by the town authorities, involves the mapping of Posidonia sea grass meadows, an assessment of the threats they face, and the drawing up of management actions to prevent further deterioration and to promote recovery.

Also as part of the project, the species, population numbers and breeding areas of marine birds within the Foça Specially Protected Area will be determined, and threats assessed. According to data collected, adjustments may be made to the existing SPA management plan.

The REC-Turkey project will also help fund the establishment of an information centre in the Foça Public Library. – Harun Güçlüsoy, SAD-AFAG.

Foça and Alonissos issue joint statement of ecological commitment

Following their historic exchange visits [see [Developing closer ties between Turkey and Greece in monk seal conservation](#), TMG 7 (2): November 2004], representatives of the “monk seal communities” of Foça in Turkey and Alonissos in Greece have issued a joint statement pledging a commitment to sustainable development, a protection of ecosystems and the monk seal.

The two communities have also promised to work together on developing further joint initiatives aimed at achieving those goals. The exchange visits were made possible by the EC Delegation in Turkey, through a programme that aims to encourage “Turkish-Greek Civil Dialogue”.



Joint statement of commitment

We, the following undersigning, representing:

The Municipality of Alonnisos, N. Sporades, Greece,
The Municipality of Foça, Turkey,
The Fishing Cooperative of Alonnisos,
The Association of Fishermen of Alonnisos,
The Fishing Cooperative of Foça,
The Hellenic Society for the Study and Protection of the Monk Seal (MOM), and
The Underwater Research Society – Mediterranean Seal Research Group (SAD-AFAG)

In the framework of the joint project of the Representation of the European Commission to Turkey entitled «A comparison and experience exchange between the National Marine Park of Alonnisos

Northern Sporades (Greece) and the Foça Specially Protected Area (Turkey) involving the NGOs MOm and SAD-AFAG» and taking under consideration that Alonnisos and Foça are sharing a lot of common cultural and sociological aspects, we declare the following:

1. We strongly believe that is vital for both our communities to live in peace around our sea and to share our common problems and views in our development process.
2. We strongly believe that sustainable development is the only way for our communities to guarantee the welfare of our citizens and the conservation of our natural environment, thus providing a quality future to our children.
3. More specifically we consider that, for both communities, coastal fisheries constitute a major past, present and future productive asset and must be further developed only under the principles of sustainable management.
4. We, also consider that the endangered species of the Mediterranean monk seal, which is included in the European Community's Habitat Directive (92/43), although competitive to our fishing communities, is a symbol of health and richness of our areas' biodiversity, and the efforts to protect it are an indispensable part of our sustainable development strategy. Pioneers in our respective countries, we, both communities, are supporting the conservation of the Mediterranean monk seal and its ecosystem for the last twenty years, thus reflecting our long term commitment to the above mentioned strategy.
5. We further believe that together with fisheries, sustainable tourism also represents an important present and future asset for both of our communities and must be further developed by enhancing the structure of the specific sector in collaboration with local, national and international bodies.

To that extent we declare in public that:

We are strongly willing to continue the already established collaboration between us, using all available resources to enhance and further develop common initiatives towards the sustainable development of our communities, thus conserving our natural environment, promoting coastal fisheries activities and properly managing tourism

and

We urge all public and private, national and international bodies to support in priority our common development initiatives and stand by us in our effort to sustainably use our environment, which is a source of living for us all.

Signed,

The Mayor of Alonnisos
Mr. Orestis Papachristou

The Mayor of Foça
Mr. Gökhan Demirag

President of the Fishing Cooperative of Alonnisos
Mr. Dimitris Kalogiannis

President of the Fishing Cooperative of Foça
Mr. Yasar Balta

President of the Association of Fishermen of Alonnisos
Mr. Thodoris Malamatenias

President of MOm's Board of Directors
Mrs. Eugenia Androukaki

Member of SAD's Board of Directors,
Mr. Yalçın Savas

Further information

The project report has been added to the Monk Seal Library in English, Greek and Turkish:

SAD-AFAG/MOm. 2005. A Comparison and Experience Exchange between the National Marine Park of Alonnisos – Northern Sporades (NMPANS) (Greece) and the Foça Specially Protected Area (FSPA) (Turkey) involving the NGOs MOm and SAD-AFAG. Final technical report: 1-9. [\[PDF\]](#) 390KB]

SAD-AFAG/MOm. 2005. Ανταλλαγή τεχνογνωσίας ανάμεσα στο Εθνικό Θαλάσσιο Πάρκο Αλοννήσου Βορείων Σποράδων (Ελλάδα) και στην Προστατευόμενη Περιοχή της Φώκαιας (Τουρκία) με την συμμετοχή των ΜΚΟ, ΜΟμ και SAD-AFAG. Μετάφραση της τελικής αναφοράς δραστηριοτήτων του προγράμματος: 1-10. [PDF 550KB]

SAD-AFAG/MOm. 2005. Alonnisos-Kuzey Sporadlar Deniz Milli Parkı (AKDMP)(Yunanistan) ile Foça Özel Çevre Koruma Bölgesi (FÖÇKB) (Türkiye) Arasında, STK'lar MOm ve SAD-AFAG'ın Katılımı ile, Bir Karşılaştırma ve TecrübePaylaşımı. Proje Teknik Raporu Tercümesi: 1-9. [PDF 481KB]

Cilician ecotourism project enters third phase

The Kizilliman MPA covers a very large area (16x12 nautical miles) that is off-limits to large-scale fisheries, and also incorporates a network of small, no-take-zones established in front of the monk seal breeding caves. On land, a 75 km coastal band has also been set aside by the Ministry of Culture as a 1st degree natural asset, offering effective terrestrial habitat protection

The only ongoing research project in the area is “Investigations on the changing impacts on Kizilliman Marine Protected Area and responses of the ecosystem”, funded by the Scientific and Technical Research Council of Turkey. No funds are available for Mediterranean monk seal conservation at the present time.

Many examples from around the globe indicate that, if local people can gain sufficiently from the sustainable use of such MPAs, they would be less likely to exploit the already over-fished ecosystem, and would be more likely to protect their asset for the future. In monk seal conservation, there are only very few avenues available that could involve local people as constructive partners in protection practices, while also generating sufficient revenues to be economically viable.

In October 2002 an ecotourism experiment designed to test the suitability of ecotourism as a sustainable Mediterranean monk seal conservation model was successfully accomplished by Ali Cemal Gucu and Gul Gucu. The second phase was a continuation of the first, involving more local people for guiding, lodging and dining [see [Cilician Basin ecotourism project enters second phase](#), TMG 7 (2): November 2004].



High school seminar on sustainable tourism.

For 2005 the ecotourism projects aims to diversify local involvement and improve the overall partnership. Involving high school students is an important element of the plan, helping to acquaint young people about the purpose of the conservation/ecotourism efforts underway in the area – a message that will hopefully also reach their families.

To involve the high school students from Bozyazi in the ecotour we are organising for November, we visited the schools, talked to students and held a seminar on ecology and the monk seals of the area, and on the work we are engaged in. Before the commencement of November's ecotour, participating students will undergo training.

A seminar focusing on the sustainable tourism aspects of our activities was also held for students at the department of Tourism Administration at the University of Mersin.

Establishing a good working sustainable tourism practice is necessary for the conservation of monk seals in the area – before conventional tourism can take hold.

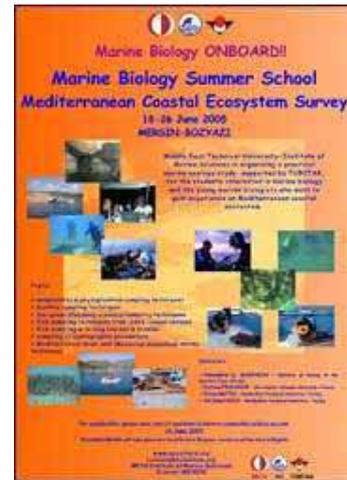
To obtain more detailed information about ecotourism in the Cilician Basin, please visit www.ecocilicia.org. – Serdar Sakinan, Project Assistant, METU-IMS.

Who's for marine biology summer school?

Middle East Technical University is organising a practical marine ecology summer school between 18-26 June 2005 for students interested in marine biology and young marine biologists who want to gain experience on Mediterranean coastal ecosystem.

The summer school, sponsored by TUBITAK, the Scientific and Technological Research Council of Turkey, will be held within the Kizilliman Marine Protected Area recently designated for the protection of the Mediterranean monk seal. Topics that will be included are the sampling techniques of plankton, benthic invertebrates, sea grass meadows, direct and indirect fish census, hydrographic parameters and photo identification and individual recognition.

Instructors are Dr. Alexandra D. Gubanova (Institute of Biology of the Southern Seas, Ukraine), Prof. Patrice Francour (Nice Sophia-Antipolis University, France), Dr. Erhan Mutlu and Dr. Ali Cemal Gucu (Middle East Technical University Institute of Marine Sciences, Turkey). The selected participants will take part in the research activities carried out in the MPA. Accommodation will take place at a local hotel in the close vicinity of the MPA. For more information please visit www.ecocilicia.org or email contact@ecocilicia.org / gucu@ims.metu.edu.tr. – Ali Cemal Gucu, METU-IMS.



[enlarge poster](#) (292KB)

EndQuote

“Although the people and the fishermen of Foça are accustomed to seeing Greeks in their town, this was the first time that they had been introduced to people and fishermen from another monk seal conservation area, who suffered and benefited in very similar ways. Turks are not common visitors to Alonnisos, yet learning of their experiences in the monk seal conservation area in Foça proved equally interesting for the Greek fishermen. The comment of the head of the fishermen’s association of Alonnisos, made during the panel discussion in Foça, was symbolic of this communication between countries and cultures: “I have found friends here and nobody can change my attitude from now on!”

Source: SAD-AFAG/MOm. 2005. A Comparison and Experience Exchange between the National Marine Park of Alonnisos – Northern Sporades (NMPANS) (Greece) and the Foça Specially Protected Area (FSPA) (Turkey) involving the NGOs MOm and SAD-AFAG. Final technical report: 1-9. [\[PDF\]](#)  390KB]



Cover Story

Vol. 8 (1): May 2005

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MAKING SEAL SENSE

Critically-endangered monk seals in the Eastern Aegean may share sea, caves, fish, mates, and human threats, but for many years political realities meant that they were almost regarded as having their own distinct Greek or Turkish nationalities. In short, seal border crossings were not the subject of polite conversation, scientific or otherwise.

Even as little as five years ago, the idea of Greek and Turkish research teams working together to protect a shared population of monk seals would have been unthinkable. But then came a gradual thawing in political relations between the two uneasy neighbours, encouraged by reciprocal humanitarian aid after earthquake disasters, and more recently, by Turkey's EU aspirations.

Although joint management or fieldwork in the militarily-sensitive region will probably remain off the radar screens indefinitely, with the financial encouragement of the EU the two sides are now cooperating on a range of monk seal conservation issues.

The Delegation of the European Commission to Turkey – whose Civil Society Development Programme attempts to foster civil dialogue between the two countries – is funding the latest joint venture: the establishment of a monk seal rescue network in Turkey, drawing on expertise and experience built up over a 14-year period in Greece.

So what are the experiences of the two sides? The limits? The expectations? The Monachus Guardian interviews Jeny Androukaki, head of [MOM](#)'s rescue and rehabilitation division, and Harun Güçlüsoy of [SAD-AFAG](#).

Jeny Androukaki, MOM

TMG: What do you hope to achieve in your current project with Turkish conservationists?

Jeny Androukaki: The aim is to transmit know-how from Greece to Turkey on how to confront emergencies in the eastern Mediterranean – such as how to deal with dead, wounded or orphaned seals, with disease outbreaks or oil spills. By doing this, we hope to develop a compatible methodology on both sides of the Aegean in the establishment and operation of a rescue network. Once the alert system is in place and is functioning efficiently, we also hope that the Network will end up improving the survival chances of seals in distress in the region.

TMG: What is the benefit of following comparable methodologies?

Jeny Androukaki: We share a common population of monk seals. With seals moving between Greece and Turkey for feeding and possibly breeding, it is important that we can reliably compare the data gathered by the research teams in each of the two countries. We can then ensure that we react in the same way when responding to emergencies, based on best, internationally recognised practices.



Greeks and Turks participate in a seal necropsy as part of the Rescue Network project. Second, fourth and fifth from left: MOM's Jeny Androukaki, Foça municipality veterinarian Avni Gök, and SAD-AFAG's Harun Güçlüsoy.

TMG: But politically, this would not have been possible even a few years ago?

Jeny Androukaki: Yes, even 5 years ago, this cooperation would not have been possible. The new approach began in 2001, with small initiatives aimed at transfer of know-how and purchase of research equipment, enabling us to learn from each other's experiences in research, conservation and management. A subsequent project sponsored by the EU focused on forging closer links between the protected area in Foça and the National Marine Park in Alonissos. With exchange visits involving the fishermen of the local communities, officials and others, it was possible to gain a clearer understanding of common problems as well as potential solutions.

TMG: How supportive have the governments been?

Jeny Androukaki: The Greek government is very supportive, the Turkish government also; however, due to past difficulties in communication between the two countries, certain limitations do exist. So the current project focuses on technical exchange of know-how, rather than working together as teams in specific areas.

TMG: How is the transfer of know-how accomplished on a practical level?

Jeny Androukaki: Well, the Turkish team participated in the rehabilitation of orphaned monk seal pup Hippocrates on Alonissos, learning specific rescue and feeding techniques. At the same time, we held a theoretical seminar, focusing on necropsies and the framework by which a rescue and information network can be established in Turkey. Our team also travelled to Turkey to assist in the necropsy of an adult male seal at the Dilek Peninsula National Park.

TMG: How long has the Rescue and Information Network (RINT) been operating in Greece?

Jeny Androukaki: Since 1991.

TMG: And what kind of information has been collected through the RINT that you would consider particularly important in terms of conservation of the species or in yielding new facts about its biology and behaviour?

Jeny Androukaki: Data collected through the RINT have shown that the monk seal is more widely distributed in Greece than previously thought, along both mainland and island coasts. Because of the Network, we have also identified important new breeding habitats of the species, sometimes in very unexpected locations. It has also provided vital information on the direct threats facing the species and its habitat – something that we hope will also be duplicated along Turkish coasts as a result of the current project. It has also alerted us to seals in distress, and provides information to us on emergencies, such as oil spills or constructions in sensitive coastal areas.

TMG: How many seals in distress?

Jeny Androukaki: 22 animals, about two thirds of which were orphaned pups, and the remainder sick or injured adults.

TMG: How was the RINT formed and who composes it? What kind of people are involved?

Jeny Androukaki: All kinds of people, or associations or clubs that have some connection with the sea or coast. The most important are the fishermen who are on the sea throughout the year – they provide us with valuable information year-round. Tourists that have sailing boats. And the Port Police, of course, which play a specially important role because members of the public generally report incidents involving monk seals to their local Port Police, who then contact us.



© Matthias Schnellmann

Foça municipality veterinarian
Avni Gök with MOM's Jeny
Androukaki.



© Matthias Schnellmann

Harun Güçlüsoy of SAD-AFAG
learns all about monk seal
rehabilitation at the MOM rescue
station on Alonissos.

TMG: What type of emergencies is the project gearing up to confront?

Jeny Androukaki: Apart from individual incidents, such as a seal found sick, wounded, orphaned or dead, the project is also trying to devise a common approach to deal with mass mortalities – a disease outbreak, for example, of the kind that hit the Mauritanian seal population in 1997 killing two-thirds of the population in one blow, an oil or toxic waste spill as a result of an accident. There is considerable tanker traffic in the Aegean and so we face this risk. The better we are prepared to face such a crisis, the better our reaction will be.

So we agreed with our Turkish friends to devise a common contingency plan to confront such emergencies. We will have an agreed organisational framework that will identify the specific tasks that are the responsibility of the authorities, and those to be undertaken by the NGOs. We will also need to involve experts and organisations abroad that have the necessary experience and the equipment in dealing with such emergencies.

TMG: How have the Greek-Turkish projects fared on a personal level?

Jeny Androukaki: It has been a moving experience from the very beginning. We had a chance to meet our neighbours for the first time. We met as strangers but quickly became friends – perhaps also because we discovered that we *do* share common problems and solutions in protecting the monk seal and the marine environment.

Harun Güçlüsoy, SAD-AFAG

TMG: How will you adapt the Greek experience in establishing the RINT to Turkish coastal needs and characteristics?

Harun Güçlüsoy: Actually, we will not need to adapt it very much because the characteristics of the coastline, especially in the Aegean, are very similar. The fact that we do not have many inhabited islands may even make it easier logistically to operate the Turkish RINT.

TMG: Who will be involved as members of the Turkish RINT?

Harun Güçlüsoy: Our main target groups are diving clubs, fishing cooperatives, coastal municipalities and existing SAD-AFAG members (currently numbering around 700). However, whenever we visit a site in the Turkish Aegean we look for the locals who log many hours at sea, basically sea lovers who can report sighting data as well as wounded, sick or dead seals. The other possible RINT member candidates for the future will be caretakers of the coastal holiday housing complexes, sailing clubs, tourist agents, marinas, water-related sports federations, relevant faculties and departments of the coastal universities, veterinarians from universities and local councils, and the other relevant governmental agencies including coast guard commanders, gendarme post commanders, harbour masters etc.

TMG: How will you practically set about establishing the RINT in Turkey?

Harun Güçlüsoy: We have targeted the coastline between Dalaman and the Turkish-Greek border in the north. However, though well planned, the duration of our visits to the sites will be the determining factor. Therefore, we are focusing on coastal protected areas, including 4 of the 5 selected sites that have been announced as Important Monk Seal Sites, as previously reported in TMG. Before our visits we gather information on local media contacts, and through them, we let the locals know about our presence. We will be mainly visiting diving clubs and fishing cooperatives as well as national park officials.

TMG: How will your current way of working suit the operation of the Turkish RINT?

Harun Güçlüsoy: To date we have been receiving information from our members as well as governmental organisations, especially in the case of wounded or dead seals. As also MOm does, we registered all the names of those people (approximately 100) who helped us on this issue previously, and we will ask them to become our RINT members. Among these people are fishermen, divers, diving instructors, veterinarians etc. Previously, we also regularly visited sites to collect current knowledge of monk seal presence. With the establishment of the Turkish RINT, we will from now on, also determine the potential RINT members and try to involve them in the operation.

TMG: What difficulties are you encountering, or expect to encounter in the establishment of the Rescue Network in Turkey?

Harun Güçlüsoy: To date, except for the weak response from diving clubs to our invitation message at the “Sualti Dunyasi” and “Scubaturk” e-mail discussion groups, we have not encountered any difficulty, either from governmental organisations or from target groups at the sites we have visited so far, including Marmaris, Datça, Bozburun and Gökova on the south coasts of the Turkish Aegean. All the people we’ve talked with about the Turkish RINT so far have been very enthusiastic, and seem willing to take even greater initiatives for the conservation of monk seals and the marine environment.

TMG: What practical training have you undergone as a result of the current project that will improve monk seal conservation practices in Turkey?

Harun Güçlüsoy: Well, two of us, Avni Gök – the veterinarian of the Municipality of Foça – and myself, had already received previous training in rehabilitation procedures at the Seal Rehabilitation and Research Centre in the Netherlands. That was on common and grey seals, however, and until recently we had never experienced monk seal rehabilitation. But in the current project, Avni and I had the chance of handling a monk seal pup for the first time, which we both found more difficult than expected. In comparison to the pups we handled at the SRRC, the monk seal, Hippocrates, seemed particularly active and strong for his size. It also reminded us that the persons who are handling the pups should be fit physically. Otherwise, though they are small, they can be very difficult to handle.

TMG: The project calls for a full necropsy to be performed on each dead animal found – depending, of course on the stage of decomposition. Why are necropsies important in the conservation of the species?



Rescue Network team members in Turkey collecting a dead monk seal in preparation for necropsy.



Avni Gök and Harun Güçlüsoy tend to an ailing seal at Dilek Peninsula National Park.

Harun Güçlüsoy: As many TMG readers know, monk seals are a very elusive species and difficult to study in field; therefore, necropsies give us direct information about the threats the animals face, their life history, feeding habits and so on. For example, necropsies have confirmed that the majority of pups found stranded on Turkish coasts drowned in fishing gear. Though this confirms breeding in the vicinity of the stranding site, it also indicates the sites where the fishing activity is affecting the health of the local population. And it may also show the sites where important breeding caves should be protected as no-fishing zones. Necropsies may also offer up information on the feeding habits of the monk seals through analysis of stomach contents.

TMG: Have there been instances in the past when rescue and rehab knowledge and techniques might have been applied to save a monk seal’s life in Turkey?

Harun Güçlüsoy: Yes, five times that we are specifically aware of, and all were found along the central Turkish Aegean coasts. **[Editor’s note:** see Further information below for details of past strandings in Turkey.]

TMG: In the event of an orphaned monk seal pup being found in Turkey how/where will you accomplish the rehabilitation, as currently no specific facilities are available?

Harun Güçlüsoy: In the last Dilek National Park stranding, we realised that we could easily set up a temporary facility in Foça. However, we still have to think about organising transfer of the ailing seals. The Authority for Specially Protected Areas decided to offer funds for a rehabilitation unit to be established in Foça. However, during establishment, we will surely need the expertise of MOM and the SRRC. We hope to start this initiative this summer.

TMG: What kind of scientific information do you expect to obtain from the RINT? Is the new data collection system compatible with AFAG's existing FokData database?

Harun Güçlüsoy: Simply, distribution and stranding data. Maybe breeding records. Although the new data collection system is more or less the same as our FokData database, the new data collection system will also allow us to obtain effort data as well. Moreover, second hand data is now being taken into consideration to a certain degree; previously, with the FokData database, we never stored information coming from second hand sources.

TMG: Have the Turkish authorities been supportive?

Harun Güçlüsoy: Yes, during the rehabilitation of the male monk seal found at Dilek NP, the Gendarme station staff on site as well as Aydin Menderes University Veterinary Faculty staff were very helpful. Moreover, the Coast Guard Command Headquarters has given a positive answer to our request that they become the official partner of the Turkish RINT. We are still awaiting positive answers from the Ministry of Environment and Forestry, Gendarme Command Headquarters and Undersecretariat of Maritime Affairs.

TMG: How has the public and mass media reacted to the project?

Harun Güçlüsoy: At the sites we visited so far, locals were very supportive. Also two national newspapers and one magazine have already published stories on the project. We hope to see more news coverage by the end of the project.

TMG: Do you intend to continue your cross-border collaboration in the future? If so, what avenues do you envisage?

Harun Güçlüsoy: I think the best answer to this is the [common statement](#) issued by the Turkish and Greek partners of the first project of the EC delegation to Turkey, through a programme that aims to encourage "Turkish-Greek Civil Dialogue". In that statement, both sides voice a strong commitment to further their cooperation and their marine protection efforts.

Further information

Gorgorapti K. 2002. [Greek-Turkish liaison](#). The Monachus Guardian 4 (2): November 2001.

Gorgorapti K. 2002. [Meeting of minds](#). The Monachus Guardian 5 (1): May 2002.

Güçlüsoy, H., H. Örek and N.O. Veryeri. 2003. [Is the rehabilitation of the Mediterranean monk seal *Monachus monachus* \(Hermann 1779\) in Turkey necessary?](#) The Monachus Guardian 6 (1): June 2003.

Güçlüsoy, H. 2004. [Seal in need](#). The Monachus Guardian 7 (1): June 2004.

Savas, Y. and H. Güçlüsoy. 2004. [Developing closer ties between Turkey and Greece in monk seal conservation](#), The Monachus Guardian 7 (2): November 2004.

TMG. 2004. [Greeks and Turks join forces in rescue project](#). The Monachus Guardian 7(2): November 2004.



THE MEDITERRANEAN MONK SEAL IN SARDINIA

A review of evidence and historical data

Luigi Bundone

Our knowledge of the presence and frequency of the Mediterranean monk seal (*Monachus monachus*) along Sardinian coasts was frequently restricted to the writings of the famous Sardinian speleologist Father Antonio Furreddu.

At first, in the years between 1960 and 1980, he made chance encounters with the seal during his excursions with the Pio XI Speleological Group, in the *Grotta*^[1] *del Bue Marino* (at Dorgali), and subsequently, in the *Grotta del Fico* (at Baunei). The latter became a focal point for his studies on the species.

During the last 30 years, interest in the monk seal's presence in Sardinian waters has generally been orientated towards the *Golfo di Orosei*^[2], especially the area around *Cala Gonone* (Dorgali). The occurrence of this rare pinniped around Sardinia, however, at least in the past, was considerably more widespread.



Cape Monte Santu (Baunei).

Various bibliographic sources and eyewitnesses reports analysed for this article indicate how common the species once was along Sardinian coasts, and the role it played in local culture.

Bue Marino^[3] (*Bòe/Fòe/Vòe/Òe/Bòi marinu*) is the monk seal's common name in Sardinia; in some places it is also called *Vacca Marina*^[4] (*Vàcca/Àcca marina* or *Vàha de mòdde*) and *Vitello Marino*^[5] (*Bitèllu/Vitèddu marinu* or *Viggiu/Biggiu/Iggiu marinu*); more rarely, it was named *Vecchio Marino*^[6] (*Vècchiu/Ècciu marinu*), and finally even *Fòca*^[7] (Puddu & Viarengo 1993, Casu et al. 1984).

The typical summer ending lightning, in absence of rain and thunder, was ascribed to the seal; in Gallura (north-west Sardinian plain) people used to say: "It is the sea calf, son of the sea cow, that is playing."^[8]

Some authors believe that this legend may refer to the flashing eyes of the seal as it raises its head from the sea (Mori 1966, Cucciari 1985, Puddu & Viarengo 1993).

This tale is encountered not only along the coasts but throughout the island, including inland areas; in some variations the monk seal does not even feature at all.^[9] Given the sparse knowledge of marine species among country folk, many people were not even aware of the real meaning of *Bue Marino*, and some assumed it to refer to a real ox.

Some legends reflect beliefs common to other Mediterranean areas.^[10] Old people from Tortoli (on the central southeastern Sardinian coast, close to Arbatax) recall monk seals raiding the seaside vineyards for grapes. Another claims to have seen them while rummaging through the garbage left on the Arbatax *Scogli Rossi*.^[11] Another local proudly claims he has ridden through the sea on the monk seal's back (Caravano 1993).

In former times, the seals were often hunted on the island.

Describing the traditional fishing around Alghero (northwest coast) in his expansive reference work on Sardinia, Goffredo Casalis (1833) wrote: "It is easy to fish enormous fishes, and primarily seals, that live in great numbers in the caves of the Capo Caccia^[12] peninsula."^[13]

On fishing in the waters of Capo Carbonara he reported: "Cagliari's fishermen used to sail every day in this area taking a lot of (fish) species, and seals."^[14]

In more general terms, he remarked: "On the island coasts, where there are rocks and caves, live these seals, seldom being hunted."^[15]

In his book on animals facing extinction in Italy Fulco Pratesi (1978) quotes the naturalist Bonomi, who in 1892 described live seals being captured for menageries and zoos. A net supported by a hawser would be lowered by two men across the entrance of the cave. Inside the cave, sleeping seals would be frightened awake by the boat crew making all manner of noise, including gunfire. Tearing into the water to escape, they would inexorably be caught by the net.

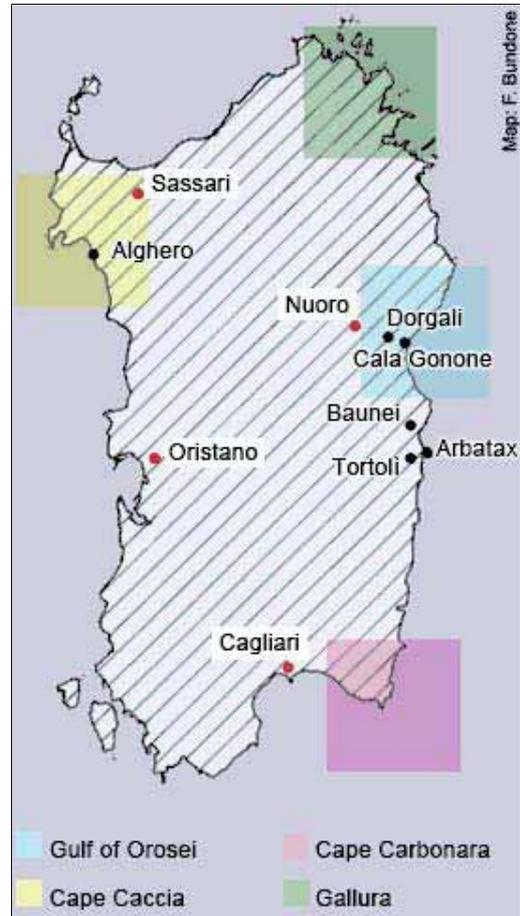
Even the Touring Club Italiano describes seal hunting in its 1918 Guide to the island, reporting that the activity is undertaken by boat along the beaches and particularly inside the caves where the animals rest (Pratesi 1978).

Seals were hunted for skin, fat and, less frequently, meat (Puddu & Viarengo 1993, Altara 1995).

Baunei mountain's (east-south-east) shepherds visited the coast to kill the seals in order to obtain skin to make *Cusinzos*^[16], *gambales*^[17] and other articles of clothing – as old people of the area still confirm, referring to the last decade of the 19th and the first of the 20th century (Furreddu 1973, Anon. 1989, Altara 1995, WWF Italia 1995).

Hunting was accomplished with rifles, harpoons and clubs (Puddu & Viarengo 1993).

In Francesco Cetti (1777), we read: "The hunter takes his time before shooting; the sea calf is one of the most useful to hunt in Sardinia because of the oil and the skin; obtaining food from his flesh, medicines from his blood, thread and string from his intestines, utensils and weapons from his bones are activities left to the Davis Straits inhabitant; Sardinians appreciate just the fat for oil, and the skin mainly. From a sea calf sometimes it is possible to obtain skin four times more than that of an ox, and its quality can be as good as that of a good ox. The skin can be bought from the



Seals killed along the Sardinian coast would sometimes end up as stuffed specimens in museums, like this pup on display in Florence.

artisans, who work leather belts, at 8, 9 and finally 10 scudi[18]: belts are made for vanity and for health. A *quintorza*[19] of sea calf above the collar is a belt that inspires pride within the people who wear it.”[20]

Fat was widely used for producing oil and for tanning other skins such as goat and calf, and to make the *Sa socca*[21] plait workable (Puddu & Viarengo 1993, WWF Italia 1995).

In some places, the flesh was even eaten (Altara 1995, WWF Italia 1995).

In many Sardinian villages in past centuries, it was believed that the derivatives obtained from the skin of the seal possessed therapeutic properties, especially against rheumatic illnesses (De Lucca 1967, Furreddu 1972, Furreddu 1973, Anon. 1989). A belt of seal skin was considered a good remedy for renal illness, rheumatism and stomach ache. It was also believed to induce labour in women, and for this specific purpose belts fashioned from the skin of seal fetuses, taken from the abdomen of the killed females, were regarded as particularly effective (Puddu & Viarengo 1993, Altara 1995).

As Francesco Cetti notes in his 1777 work on the quadrupeds of Sardinia: “A belt of this leather is believed to bring comfort to the kidneys: similarly, girded to women it facilitates birth; for this purpose are preferred the leather of the calf found in the seal abdomen.”[22]

Organs and other bodily derivatives were reputed to help in the treatment of many illness (Altara 1995).

Hair, intestines and other organs were all prepared and dispensed as remedies; they were also noted for their value in easing a difficult birth (De Lucca 1967, Furreddu 1972, Furreddu 1973, Anon. 1989).

This brief analysis of the historical record suggests that monk seals were once an integral part of the Sardinian fauna, sufficiently common indeed that objects of everyday use were obtained from them; as a result, the animals were a familiar feature of local culture.

By erroneously focusing attention exclusively on the Gulf of Orosei, interested parties have inadvertently discouraged the monk seal conservation question from being viewed in the totality it deserves.

Historically, seals lived in large numbers along Sardinian coasts, but like many other species in other parts of the world, they quickly disappeared with the modern age. A more holistic approach might lead to a better understanding of the seal’s historical distribution around Sardinia, and also provide some important answers for its possible future natural recolonisation and protection.

Acknowledgments

I would like to express special thanks to Dr. Giulia Mo for her kind and invaluable suggestions, Dr. Alessia Antinori, Dr. Barbara Bundone and Dr. Elisa Gualà for their patient reading, and all of the [Gruppo Foca Monaca](#) for support.

Bibliography

- Altara, E.** 1995. *La Foca Monaca*. Sottoterra Rivista Semestrale del G.S.B.-U.S.B. n° 101, Anno XXXIV: 43-54.
- Anon.** 1989. *Progetto Foca Monaca*. Commissione delle Comunità Europee-Programma Medspa e Ministero dell’Ambiente, Studiottanta, Mestre, Vol.1: 1-257 + allegati.
- Caravano, L.** 1993. *Sulle tracce dell’ultima foca monaca*. In “Ogliastra”. EdiSar srj., Cagliari: 118-122.
- Casalis, G.** 1833. *Dizionario geografico, storico, statistico, commerciale degli stati di S.M. il Re di Sardegna*. Torino. Volume I: 1-530.
- Casalis, G.** 1836. *Dizionario geografico, storico, statistico, commerciale degli stati di S.M. il Re di Sardegna*. Torino. Volume III: 1-790.
- Casalis, G.** 1851. *Dizionario geografico, storico, statistico, commerciale degli stati di S.M. il Re di Sardegna*. Torino. Volume XVIII bis: 1-774.
- Casu, T., G. Lai and G. Pinna.** 1984. Guida alla flora e alla fauna della Sardegna. Archivio Fotografico Sardo, Nuoro: 1-417.
- Cetti, F.** 1777. *I Quadrupedi di Sardegna*. Sassari: 1-63.
- Cucciari, N.** 1985. *Magia e superstizione tra i pastori della Bassa Gallura*. Arti Grafiche Editoriali “Chiarella”, Sassari. Pp: 1-279.

- De Lucca, M.** 1967. *Incontro con La Foca Monaca nella Grotta del Bue Marino*. In Sottoterra Bollettino informativo del Gruppo Speleologico Bolognese-C.A.I. e dello Speleo Club Bologna -Esagono-E.N.A.L. Anno VI n° 16: 15-18.
- Furreddu, A.** 1972. *Le foche delle grotte*. Speleologia Sarda. Soc. Pol. Sar. Cagliari. Anno I, n°2: 15-22.
- Furreddu, A.** 1973. *La foca monaca in Sardegna*. Speleologia Sarda. Soc. Pol. Sar. Cagliari. Anno II, n°4 (8): 24-27.
- Johnson, William M. and David M. Lavigne.** 1999. Monk seals in antiquity: the Mediterranean monk seal (*Monachus monachus*) in ancient history and literature. Mededelingen 35. Netherlands Commission for International Nature Protection, Leiden: 1-101, 17 figs. [Abstract: www.monachus-guardian.org/mguard03/03scien1.htm]
- Johnson, William M.** 2004. Monk seals in post-classical history. The role of the Mediterranean monk seal (*Monachus monachus*) in European history and culture, from the fall of Rome to the 20th century. Mededelingen 39. Netherlands Commission for International Nature Protection, Leiden: 1-91, 31 figs. [Abstract: www.monachus-guardian.org/mguard12/1231scien.htm]
- Mori, A.** 1966. *Sardegna*. Le Regioni d'Italia. U.T.E.T. Vol. 18: 1-676.
- Pratesi, F.** 1978. *Esclusi dall'Arca, animali estinti e in via di estinzione in Italia*. Oscar Mondadori. Arnoldo Mondadori Editore, Milano: 1-223.
- Puddu, F. and M. Viarengo.** 1993. *Foca Monaca*. Animali di Sardegna. ED. Delfino. 187-195.
- Valdes, P. and M. Ebau.** 1996. *La Foca Monaca in Sardegna: uno Studio Inedito*. Sardegna Speleologica. n° 10: 52-57.
- WWF Italia.** 1995. *Progetto per la protezione della Foca Monaca (Monachus monachus) e dell'Habitat marino costiero attraverso interventi coordinati di salvaguardia e campagne di sensibilizzazione*. Commission of the European Communities & Ministero dell'Ambiente Servizio Conservazione della Natura. Roma, Italia: 1-17 + cartografie, foto, allegati + relazione. *Unpublished*.

Footnotes

- [1] Cave.
- [2] Gulf of Orosei.
- [3] Sea ox.
- [4] Sea cow.
- [5] Sea calf.
- [6] Sea Old.
- [7] Seal.
- [8] *“È lu ‘iggju marinu, fiddolu di la ‘acca marina, ch’è gjuchendi.”*
- [9] From my grandparent’s stories.
- [10] See also Guçlusoy H., W.M. Johnson, A. Karamanlidis, A. 2002. [Mediterranean monk seal behaviour – can we discard anecdotal accounts?](#) The Monachus Guardian 5 (2): 2002.
- [11] Red rocks.
- [12] Cape Caccia.
- [13] *“Prendonsi pure degli altri pesci enormi, e principalmente delle foche, che in gran numero abitano nelle caverne della penisola di Capo Caccia.”*
- [14] *“I pescatori cagliaritani mareggiano tutti i giorni in questi paraggi, e prendon in molta copia le specie...e delle foche.”*
- [15] *“Nelle coste dell’isola, dove sono scogli e spelonche, frequentano queste foche, e spesso se ne fa caccia.”*
- [16] *Cosinzos* or *Cusinzos*, typical shoes of Sardinian shepherds.
- [17] Leggings.

[18] Scudo: a gold or silver coin formerly used in Italy.

[19] *Chintorza* or *Cintòrja*: belt of the Sardinian traditional male dress.

[20] *“Il cacciatore prende quel tempo per fare il suo colpo; e la presa d'un vitel marino è l'una delle più utili cacce in Sardegna per cagione dell'olio, e della pelle; Il far cibo della sua carne, medicamento del suo sangue, filo e spago delle sue budella, utensili ed arme delle sue ossa sono industrie rilasciate dagli abitatori dello Stretto di Davis; da' sardi non si apprezzano se non il lardo per farne olio, e la pelle principalmente. Quattro volte più che dalla pelle d'un bue si giunge talora a ricavare da una pelle di vitel marino, la quale nella sua grandezza arriva pure talora ad uguagliare il cuojo di un buon bue. A otto, a dieci, infin a dodici scudi si compra essa pelle dagli artefici, che lavorano cinture di cuojo: e cinture se ne fanno e per vanità e per giovamento. Per l'uno e per l'altro uso si concia in modo, che vi rimane attaccato il pelo. Una quintorza di vitel marino sopra il colletto è una cintura che ispira alterigia a chi la porta.”*

[21] *Socca* or *Soca*: a rope obtained from strips of ox skin of varying lengths up to 5-6 m, flat, 2 cm wide, for traditional use (such as horse reins, and other classical uses for rope).

[22] *“Una cintura di tal cuojo è pur creduta utile a confortare le reni: e medesimamente si cinge alle donne per facilitare i parti; al qual uopo, però si antipongono i cuoj dei vitelli trovati tuttavia nel ventre della foca.”*



Perspectives

Vol. 8 (1): May 2005

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IN ECHOES OF THE PAST, THE SOUND OF THE PRESENT

William M. Johnson

Although it may be thought of as an obscure species today, its very survival hanging by a thread, the Mediterranean monk seal has appeared in numerous writings inked onto papyrus, parchment or paper during the last 3000 years.

The seal, whose existence is scarcely even known to most Europeans today, formerly touched the lives of many, including poets, philosophers, emperors, satirists, magicians, physicians, naturalists, explorers, seafarers and, of course, fishermen.

Homer, Aristotle, Hippocrates, Plutarch, Galen, Avicenna and Gesner are among some of the ancient and Renaissance world luminaries who recorded observations about the Mediterranean seal and its relationship to human culture, folklore, science and economy.

The seal played a distinct role in Mediterranean myths and superstitions. Animistic imaginations transformed the creatures into nymphs and mermaids. In Greek mythology, they were placed under the protection of Poseidon and Apollo (Johnson & Lavigne 1999a).

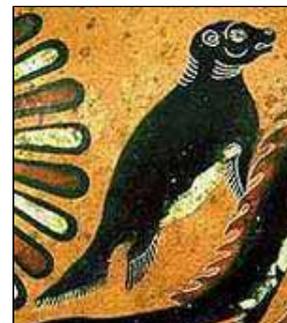
And yet aside from such benign traditions, history shows that the human relationship with *monachus* has always been starkly utilitarian.

Although there are some notable exceptions, by and large this relationship was governed by the species' perceived value in fur, oil, and meat, its efficacy in medicine and magical rites, its public appeal in circuses and zoos. The benefits, real or imagined, were legion. The fur of the seal could predict storms and tempests, while mother's milk found in the stomach of pups was reputed to cure epilepsy and other diseases. The right flipper, placed under the pillow, would ward off insomnia, while the whiskers, distilled into a potion, could win friends and lovers or drive off enemies. Some explorers won small fortunes by boiling seals into oil, and even the poorest fisherman or farmer might benefit by turning the animals into shoes or harness leather.

For the most part, then, monk seals have always been worth far more dead than alive.

Even for zoos and menageries – which presumably had a vested interest in keeping their captives alive for as long as possible – monk seals were obviously worth far more out of their element than along the coasts of their birth. The showman's 'talking fish' may have had a limited shelf life as it was carted around Europe in appalling conditions, but still it generated more than enough gold and silver coin to enrich its owner and pay for its own replacement.

Even when counting costs rather than profits, attitudes towards the species tended to be essentially utilitarian in nature – the seal branded as a pest that threatens fish stocks and damages fishing nets, for example. Such hostility was probably responsible for transmuting the mermaid seal into the sea devil in the folklore in the Dark Ages, and also inspired the myth that the seal would hunt down fishermen in vicious, tooth-gnashing, packs.



A kinder place: the monk seal in ancient Greek myth, depicted on a water jug, some 2,500 years old.

Even conservation of the species has rarely risen above the prevailing utilitarian tide.

In the 19th century, hunters noticed the decline of the species and appealed for its preservation – if only to allow other specimens to be peppered with shot.



A Renaissance woodcut of a Mediterranean monk seal, from Guillaume Rondelet, 1554.

A century later, international charities and scientific institutions were voicing concern about the plummeting fortunes of the seal, yet largely inspired by the same utilitarian reasoning. Monk seals had to prove their value and usefulness to human beings in order to be deemed worthy of survival. A report to the International Union for the Conservation of Nature (IUCN)[1] in 1962, for example, advocated the following measure to halt the continuing decline of the species: “To point out to governments that Monk Seals are an important but now only a potential natural resource. Managed properly the seal could become a permanent source of skins, meat and oil” (Wijngaarden, 1962).

More recently, scientists have pondered whether the monk seal might, if protected, regain some of its legendary tameness, thereby becoming a potential attraction for the tourist industry, whose current brutal indifference is largely responsible for shunting the species into an early grave. Others have suggested that fishermen might be persuaded to relinquish their traditional hostility towards the seal by ferrying paying tourists into marine protected areas (Sergeant et al., 1979; Johnson & Lavigne, 1999b).

While the logic of bringing such protagonists into the conservation process may be unassailable from a pragmatic standpoint, it does little to alter the fact that, fundamentally, utilitarian attitudes towards the species remain intact.

Even passive arguments tend to reflect the same utilitarian and anthropocentric values, the disappearance of the species, for example, being lamented as a loss to human heritage. In much the same vein, research that is often invasive is justified on the basis that it will benefit science. Few words are ever spoken, it seems, of the monk seal's intrinsic value, irrespective of human self-interest.



With international NGOs and governments consistently failing to commit to the species, will monk seals become a lucrative attraction for the tourist industry?

The apparent reluctance of the international conservation community to address, consistently and comprehensively, the dwindling fortunes of the monk seal may eventually prove attributable to the same factors.

Shunned by most multinational conservation charities, it appears that the Mediterranean monk seal – despite the dubious privilege of being elected Europe's most endangered marine mammal – has yet to prove itself capable of rivalling the financial clout, public recognition and press coverage of, say, the giant panda, the African elephant or the harp seal.

While many myths are rooted in utilitarian values, on occasion, the inverse may be equally true.

For coastal fishermen, for example, the seal continues to be a scapegoat for 'their' diminishing fish stocks, even as industrial trawlers plunder the sea a figurative stone's throw from their own boats.

Or consider the comforting myth – so reminiscent of a more ancient one, “Rome has spoken; the matter is settled!” – that legislation outlawing the killing of monk seals has actually had a measurable effect in stemming the decline of the species. Indeed, with remote, tortuous coastlines and lack of enforcement, direct killing has consistently remained the most serious mortality factor affecting *monachus* in the eastern Mediterranean (Androukaki et al. 1999).

Likewise, international conference resolutions, treaties and conventions, action plans endorsed by governments and scientists, often conjure up the myth that conservation of *Monachus monachus* is a coherent, tangible force with assured funding, established targets and regular audits of results. Such is not the case, however, and has little prospect of becoming so in the foreseeable future.

The reality on the ground is that, even a quarter century after the landmark Rhodes international conference drew up a raft of measures to rescue the species from impending oblivion, and despite the single-minded efforts of grassroots organisations in pursuing those objectives, the monk seal continues to be betrayed by official indifference (Ronald & Duguay 1979). Twenty-five years after the event, in fact, governments have yet to establish even one fully-functioning marine protected area for the species in the Mediterranean basin, let alone the interconnecting network of reserves envisaged at Rhodes.

Arguably, it is only through the reading of history that we can begin to understand why the seal of the Mediterranean sea is so perilously close to extinction.

References cited

Androukaki, E., S. Adamantopoulou, P. Dendrinou, E. Tounta and S. Kotomatas. 1999. Causes of Mortality in the Mediterranean Monk Seal (*Monachus monachus*) in Greece. Contributions to the Zoology & Ecology of the Eastern Mediterranean Region 1 (1999): 405-411.

Johnson, W.M. and D.M. Lavigne (a). 1999. Monk seals in antiquity. The Mediterranean monk seal (*Monachus monachus*) in ancient history and literature. Mededelingen 35: 1-101. The Netherlands Commission for International Nature Protection, Leiden: 1-128, 17 figs. [[Abstract](#)]

Johnson, W.M. and D.M. Lavigne (b). 1999. Mass tourism and the Mediterranean monk seal. The role of mass tourism in the decline and possible future extinction of Europe's most endangered marine mammal, *Monachus monachus*, The Monachus Guardian 2 (2): 1999. [[PDF](#)] 465KB]

Ronald, K., and R. Duguay. (eds). 1979. The Mediterranean Monk Seal. First International Conference on the Mediterranean Monk Seal. 2-5 May 1978, Rhodes, Greece. Pergamon Press, Oxford, UK. 1-183.

Sergeant, D., K. Ronald, J. Boulva, and F. Berkes. 1979. The Recent Status of *Monachus monachus*, the Mediterranean Monk Seal. In: K. Ronald and R. Duguay, eds. The Mediterranean Monk Seal. First International Conference on the Mediterranean Monk Seal. 2-5 May 1978, Rhodes, Greece. Pergamon Press, Oxford, UK: 1-183.

Wijngaarden, A. van. 1962. The Mediterranean Monk Seal. From a Report to the International Union for Conservation of Nature. Oryx. Fauna & Flora Preservation Society, London 6: 270-273.

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

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Footnote

[1] Now also known as the World Conservation Union.



Letters to the Editor

Vol. 8 (1): May 2005

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Hawaiian vocalisations

I have a collection of Hawaiian monk seal (*Monachus schauinslandi*) vocalizations available for analysis. Details are provided below. If any professional researcher is interested in using this collection of vocalizations for analysis, please contact me at: monkseals@hotmail.com. I would be interested in co-authorship, but it is not essential.



Female with pup on East Island, French Frigate Shoals
© Damon A. Job

Tape Recording Details:

- Subjects: Mother-infant vocalizations during pupping (focus on infants).
- Location: on East Island, French Frigate Shoals, Northwest Hawaiian Islands
- Date: May-August 1989
- Media: Sony magnet tapes ~2500 vocalizations
- Taping: Sony Professional Walkman (WM-DC6) with Sennheizer directional shotgun microphone (ME-80) with wind sock on Scotch XSM IV 90 Metal-bias tapes.
- Purpose: Collected as part of a Master of Science Thesis.
- Researcher: Damon A. Job. University of Maryland, College Park, MD, Smithsonian Institution Graduate Fellow (1984)
- Advisor: Dr. Daryl Boness, National Zoological Park, Smithsonian Institution. Washington, D.C.

See: **Job, D.A., D.J. Boness and J.M. Francis.** 1995. Individual variation in nursing vocalizations of Hawaiian monk seal pups *Monachus schauinslandi* (Phocidae, Pinnipedia), and lack of maternal recognition. *Canadian Journal of Zoology* 73: 975-983.

– *Damon A. Job*, Gaithersburg, Maryland 20878, USA

What about the Ionian?

I love reading your bi-annual publication. You rarely write about the population of monk seals in the Ionian sea. What is the status of this population? And is there anything being done to protect it?

– *Theodore Alevrontas*, Demarest NJ, USA

✓ Editor's reply:

Regrettably, it's true. We've had few news items or in-depth reports from the Ionian Sea. The most notable exception, our 2002 interview with the President of the National Marine Park of Zakynthos, Greece [[Challenge in the Ionian](#) 5 (1): May 2002], provides some oblique clues as to why. When not under threat from developers or fisheries, conservation efforts are being squeezed by budget cuts and

a point-blank refusal by the authorities to meet their legal obligations. With protected areas still in limbo throughout Greece, and friends of the marine turtle on Zakynthos outraged, it seems likely that the government will be dragged to the International Court again in short order.

Assessments of monk seal population numbers in the Ionian suffered from the withdrawal of key research group Archipelagos (Aiki Panou) and WWF-Greece several years ago. Unfortunately, even another court judgment against Greece is unlikely to benefit the monk seal directly on Zakynthos, since monk seal habitat lies outside the protection zone.

Even relatively recently, the Mediterranean monk seal in the Ionian was regarded as being large enough to play an important role in the recovery of the species. Those seeking further information are advised to check out relevant titles [Keyword: Ionian] in our online Bibliography:

Karamanlidis, A.A. and W.M. Johnson (eds.). 2002. Annotated Bibliography on Mediterranean monk seals (*Monachus monachus*). Version 1.0. The Monachus Guardian: 1-105. [[PDF](#)  366 KB]

An open letter to Readers of Monachus Guardian

Together with a small group of friends in the beginning and a much larger group today, I have worked since 1988 for the development and enhancement of the efficiency of MOM, the Hellenic Society for the Study and Protection of the Monk Seal. During those 16 years I was mainly acting as Policy and Funding Coordinator, sometimes with greater and sometimes with less success, but always with unlimited passion for the protection of nature and especially for the marine and coastal environment.

Today, I have decided to focus my professional career on the Corporate Social Responsibility sector, believing that I will succeed in developing and cultivating the contribution of the private sector to the protection of the environment. The much appreciated invitation of Piraeus Bank, Greece to become their Advisor on Environmental Issues now provides me with many promising avenues as well as productive and substantial work.

As a voting member of MOM and a member of the Board of Directors, I will continue to help in any way I can this NGO that offered thousands of fascinating experiences and collaborations over the years. Believing in MOM's aims and mission statement, but above all believing in its people who stand by it from every position and place, I thank all of you for your collaboration and foresee a fruitful continuation tomorrow.

I wish you all more excitements and less routine.

– *Vrassidas Zavras*, Athens, Greece

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



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Vol. 8 (1): May 2005

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- **Gazo, M. and A. Aguilar.** 2005. Maternal attendance and diving behavior of a lactating Mediterranean monk seal. *Marine Mammal Science* 21 (2): 340–345.
- **González, Luis Mariano, and Hamdi Ould M'Barek.** 2004. Cuaderno de camp de la foca monje. Carnet de le phoque moine. Ministerio de Medio Ambiente, Dirección para la Biodiversidad, Madrid: 1-72 [Spanish, French, Arabic].
- **Parrish, F.A., G.J. Marshall, C.L. Littnan, M. Heithaus, S. Canja, B. Becker, R. Braun and G.A. Antonelis.** 2005. Foraging of juvenile monk seals at French Frigate Shoals, Hawaii. *Marine Mammal Science* 21 (1): 93-107.
- **Pastor, T., J.C. Garza, P. Allen, W. Amos, A. Aguilar.** 2004. Low genetic variability in the highly endangered Mediterranean monk seal. *Journal of Heredity* 95 (4): 291-300.

In press

- **Bayed, A., H. Bazairi, and D. Cebrian.** 2005. (Abstract) The coastal habitat of the Mediterranean monk seal on the Mediterranean coast of Morocco. 19th Annual Conference of the European Cetacean Society, 2-7 April 2005, La Rochelle, France: 60.
- **Gücü, A.C. and F. Erkan.** 2005. A holistic approach for the conservation of the Mediterranean monk seal on the Cilician coast of Turkey. INOC International Workshop on Marine and Coastal Protected Areas. 23-25 March 2005, Meknes, Morocco: 1-11. [[PDF](#)  210 KB]
- **Gücü, A.C., M. Ok, S. Sakinan and K. Rappe.** 2005. (Abstract) Mediterranean monk seal in the Levant Sea – responses to mitigation measures applied. 19th Annual Conference of the European Cetacean Society, 2-7 April 2005, La Rochelle, France: 16. [Abstract [PDF](#)  11 KB]
- **Güçlüsoy, H. Y. Savas, N.G. Veryeri and N.O. Veryeri.** 2005. (Abstract) Further study on the use of infrared sensitive video cameras for the continuous monitoring of a breeding cave used by monk seals. 19th Annual Conference of the European Cetacean Society, 2-7 April 2005, La Rochelle, France: 101.
- **Idrissi, M.** 2005. (Abstract) Plan International de sauvgarde du phoque moine en Atlantique Oriental. INOC International Workshop on Marine and Coastal Protected Areas, 23-25 March 2005, Meknes-Morocco: 85-86.
- **Moumni, A., A. Mesfioui and Kifani Souad.** 2005. (Abstract) Sauvgarde du Phoque moine (*Monachus monachus* Hermann, 1779). INOC International Workshop on Marine and Coastal Protected Areas, 23-25 March 2005, Meknes-Morocco: 156.

Web publications, presentations & reports

- **Tudela, S.** 2004. Ecosystem effects of fishing in the Mediterranean: an analysis of the major threats of fishing gear and practices to biodiversity and marine habitats. Studies and Reviews no. 74, General Fisheries Commission for the Mediterranean, FAO, Rome: 1-58. [[PDF](#)  332 KB]

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



Vol. 8 (1): May 2005

The **Monachus Guardian**
monachus / schauinslandi / tropicalis

Publishing Info

Contents

Next

Previous

Home

The Monachus Guardian

ISSN: 1480-9370

Editor: William M. Johnson

Production Editor: Matthias Schnellmann

Published by: Friends of the Monk Seal

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

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

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