




Cover Story

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40 YEARS OF MONK SEAL CONSERVATION IN TURKEY

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In the 19th century, Francis Beaufort, Captain of the HMS Frederikssteen, a British naval ship surveying the eastern Mediterranean, saw herds of monk seals on Provençal (Dana) Island on the southern coast of Asia Minor (Beaufort 1818). Almost a century later, Karekin Deveciyan briefly mentioned the presence of monk seals on Turkish coasts while he was director of the Istanbul fish market (Deveciyan 1914). Up until that point, no research or conservation activity focusing on monk seals in Turkish waters had been carried out, and indeed, it was not until 50 years later, in May 1964, that Prof. Bahtiye Mursaloglu's milestone article was published in the Journal of Mammalogy. During this period, in the absence of any legal protection, monk seals had been persecuted systematically by fishermen and hunters for their skin and blubber (Kiraç & Savas 1996, Kiraç 2001).

Mursaloglu (1964) examined five live and dead seals collected from the Black Sea, Aegean Sea and Mediterranean coasts of Turkey and taxonomically identified them as the Mediterranean monk seal *Monachus monachus*. This was the first scientific record of the species in Turkey. In the "environmental history" of Turkey, the study also marked the starting point for modern research and conservation activities for the protection of monk seals.

Generation to generation

The 40 year period from 1964 to 2004 can be broadly categorized into three main generations, the first represented by the scientific article by Mursaloglu in 1964, the second by scientific studies from 1974 until 1987 and the third by research and conservation actions from 1987 to date. These indicate that monk seals still survive along Turkish coasts with a considerable population, estimated most recently as 104 individuals (Güçlüsoy et al. in prep.).

The second generation activities began with Ronald and Healey's questionnaire studies in 1974 (Berkes et al. 1979) and continued with the field surveys of Fikret Berkes, a Turkish Canadian biologist, between 1974 (Yediler et al. 1993) and 1978 (Berkes 1976 & 1978, Berkes et al. 1979). Mursaloglu's efforts continued in parallel, marked by her participation in the 1978 First International Conference on the Mediterranean Monk Seal in Rhodes, and field surveys conducted between 1979 and the early 1980s (Mursaloglu 1984a, 1984b, 1984c, 1986 & 1991). Although Mursaloglu and Berkes had worked separately on various Turkish coasts, their studies often supplemented and confirmed each other's findings, identifying the general status and distribution of monk seals in Turkey. Mursaloglu, however, also concentrated on the behaviour of the species, and convened the 3rd International Monk Seal Conference, held 2-6 November 1987 in Antalya, Turkey (Kiraç & Bas 1999). In the meantime, French scientist Didier Marchesseaux also undertook a brief interview survey along some Turkish coasts in order to gain a better understanding of the monk seal's population and distribution (Marchesseaux 1987).

During the second generation period, significant scientific results were published by Mursaloglu (1984b, 1984c) and Berkes et al. (1979) on monk seal population, distribution and biology, as well as threats to the species that varied according to region (Karamanlidis & Johnson 2002). These,

in turn, provided a substantial basis for third generation scientific and conservation activities by younger conservationists and researchers in Turkey; indeed, they played a crucial role in enabling a species and habitat status assessment to be made, comparing the 1990s-2000s with the previous two decades.



Bahtiye Mursaloglu studying a monk seal poster in her Ankara home.



Bahtiye Mursaloglu with fishermen in Foça.

The important findings of Mursaloglu and Berkes, however, went virtually unnoticed by the broader public, by other academics and even by the responsible government departments, such as the Ministry of Forests (MoF) and the Ministry of Agriculture (MoA). Official permission for fishermen to kill dolphins in the Black Sea, for example, ignored the obvious vulnerability of the monk seals in the area, and the great risk of extermination they faced by these licensed “dolphin hunters”. Such short-sighted government decisions were taken despite Mursaloglu’s warnings in 1964 and despite IUCN’s inclusion of the species in the endangered red list in 1966. Indeed, monk seal slaughters continued until an official ban was imposed on the dolphin hunt in the Turkish Black Sea in 1980.

The most significant contributions by Berkes et al. (1979) were in determining the habitat, distribution and population of monk seals on the Black Sea, Aegean and Mediterranean coasts of Turkey, while also forming an analysis of threats according to region. Berkes also proposed the establishment of international marine parks between Turkey and Greece (Berkes 1978) while Mursaloglu (1984a, 1984b, 1984c, 1986 & 1991) provided substantial knowledge on the biology of the species including mother-pup relations, cave usage, and habitat requirements. Both stressed the importance and urgency of *in situ* protection.

Third generation science and conservation

November 1987 should be regarded as another milestone in the Turkish history of monk seal conservation, when representatives of the Mediterranean Seal Research Group (AFAG) and the Istanbul University Faculty of Aquatic Products (IU-FAP) met at the 3rd International Monk Seal Conference organized by Mursaloglu on behalf of Ankara University in Antalya. Ironically, this conference marked the end of Mursaloglu’s long professional career but coincided with the inaugural activities of AFAG (Kiraç & Bas 1999) and IU-FAP. Indeed, AFAG had been established only a month before the Antalya conference as a group within the Middle East Technical University Sub-Aqua Society in Ankara, a step triggered by Berkes through his invaluable guidance.

Despite retirement, Mursaloglu increased her contact with AFAG during the last years of her life and agreed to act as the scientific consultant of AFAG’s UNDP-GEF funded “BlackSeal” project, a commitment she maintained until her death in 1999 [see [Obituary: Bahtiye Mursaloglu, 1918–1999](#), TMG 2 (1): May 1999].

Following its establishment, AFAG continued basic research and conservation activities with several short-term expeditions. The most prominent ones were carried out in the Dilek Peninsula National Park in February 1988, in Olimpos National Park in May 1988 and at the Black Sea in 1990. A “seal-fish farm interaction” survey, the first of its kind in Turkey, was also conducted at the Bodrum Peninsula in 1992. These initial and seriously under-funded field activities were conducted by only a handful of AFAG staff and volunteers, often using their own savings.



A monk seal off the Siren Rocks in the Foça Specially Protected Area.



SAD-AFAG's Yalçın Savas during surveys in the Foça Specially Protected Area.

Meanwhile, the efforts of AFAG and IU-FAP were bearing fruit in the press, with the publication of several popular articles drawing attention to the plight of the species. This, in turn, created a synergy among interested groups. In discussions with AFAG, Foça Municipality expressed a serious interest in becoming actively involved in the conservation of this rare marine mammal. Stemming from this dialogue, AFAG proposed the establishment of the National Monk Seal Committee (NMSC) and the adoption of a National Strategy to encourage a more coordinated approach to the conservation of the species. With the blessing of the Ministry of Environment, governmental departments, NGOs, universities and other interested parties were invited to attend the inaugural NMSC meeting in Ankara in January 1991. The meeting concluded by unanimously adopting a "National Strategy for the Conservation of the Monk Seal in Turkey".

Fifteen NMSC meetings were held at more or less regular intervals between 1991 until 2001 and, during that 10-year period, Local Monk Seal Committees were also established, initially at Foça (1992) and Yalikhavak (1993), and later at Aydıncık and Karaburun. However, aside from Foça, none of these local committees have ever functioned adequately – due to an absence of outside support – in finding solutions for the conservation of the species and habitat protection; nor have they succeeded in introducing sustainable fisheries in their respective areas.

In June 1993, the Foça Pilot Project (FPP) commenced, with AFAG coordinating conservation efforts in the town funded with a grant from WWF. The initiative quickly generated interest and support among Foça locals and fishermen, The aims of the project were also reinforced with the provision of a patrol boat by the Ministry of Environment (MoE). The FPP yielded important results, not only in respect to determining the status of the species in Izmir Bay but also in developing experience in coastal and marine zone management planning. The project also developed a close working relationship with locals, artisanal fishermen, the Foça Municipality and the Foça Governorship.

Since then, AFAG has carried out numerous field expeditions, research initiatives and public awareness activities along Turkish coasts, mainly supported by organizations from abroad, including WWF (International, national offices and the Mediterranean Programme Office), UNDP-GEF, the Henry Ford European Conservation Awards, the European Commission, the Prince Bernhard Nature Conservation Fund, and the Van Tienhoven Foundation. National sponsors have included ?S Bank and TUBITAK.

With the financial help of WWF and initial coordination by AFAG, the Middle East Technical University - Institute of Marine Sciences (METU-IMS) carried out research along the west Mersin stretch of Turkey's Mediterranean coast from 1994 to 1997.

Uniting for a cause

During this period, there were also attempts by NGOs to increase efficiency, influence and funding potential by taking united actions on behalf of the monk seal.

In 1989, AFAG's written proposal for a collaborative agreement with DHKD (Turkish Society for the Protection of Nature), failed to elicit a positive reply. AFAG, however, went on to operate in an effective manner under SAD, established in 1994.

Later, in 1997, an attempt to establish a Turkish Monk Seal League among SAD-AFAG, the IU Faculty of Aquatic Products (IU-FAP) and METU-IMS also proved unsuccessful, and it quickly fell into a moribund state after just a couple of meetings.

A year later, at SAD-AFAG's invitation, three METU-IMS monk seal conservationists joined forces with SAD-AFAG in order to spur coordinated and effective action on behalf of the monk seal. Although this collaborative effort produced clear and beneficial results during the first years, regrettably, the two organisations had already drifted apart by the end 2003. Whatever the precise causes of this estrangement, and without apportioning responsibility for it, there is little doubt that it has had a negative impact on the monk seal's chances of survival in Turkey.

Despite the recent and tragic extinction of the species in the Black Sea, the Mediterranean monk seal continues to survive along Turkish coasts. Although time is not on conservation's side, this is undoubtedly Turkey's opportunity to demonstrate to its Mediterranean neighbours — most of which lost the species in the mid 1950s — that the monk seal *can* be saved. The opportunity is not only a chance to save a single species, but to preserve some of Turkey's last unspoilt coastal zones. Given sufficient foresight, those who champion the monk seal cause in Turkey will also see the rewards in establishing well-managed marine protected areas, for the benefit and enjoyment of fishermen, tourists, local people and monk seals alike.

ASSESSMENT OF 40 YEARS — A SUMMARY

40 years have passed since the first modern scientific study was published on monk seals in Turkey and, in reviewing that period, we can list the following major achievements as well as weaknesses:

Strengths and achievements

I. Research and acquiring scientific data

- The first scientific study authored by Mursaloglu in 1964 confirmed the occurrence of the endangered Mediterranean monk seal along Turkish coasts; it formed an important basis for later research and conservation efforts.
- During the second generation period of Turkish monk seal history, significant and wide-ranging scientific data were collected by various researchers, covering distribution and abundance, habitat requirements, breeding and feeding. Such information proved indispensable in determining conservation priorities for the species in Turkey (Berkes et al. 1979, Berkes 1976, 1978, Mursaloglu 1984a, 1986, 1991).
- Third generation scientific studies played an important role in acquiring more precise and up-to-date data on the distribution and status of the species, and have also furthered knowledge on ecology and biology of the species (Öztürk et al. 1991, Öztürk 1992, Güçlüsoy et al. 1999, Kompanje et al. 2000, Kiraç et al. 1998a, 2002, Salman et al. 2001, Güçlüsoy & Savas 2003b, Karamanlidis & Johnson 2002).
- In this, the third generation period, the current status of the species and its habitat are monitored more effectively. A case in point is SAD-AFAG's "FokData" monk seal data base, launched in 1990, which stores individual sighting records originating from throughout the coastal areas of Turkey (Kiraç et al. 1998a).

II. Sustainable management of aquatic resources

- Largely because of lobbying efforts by SAD-AFAG, METU-IMS, IU-FAP and others, some fisheries decisions of relevance to the monk seal have subsequently been taken in close cooperation with local fisheries cooperatives, particularly those at Foça and Aydıncık on the west Mersin coasts.
- A regulation banning entry into monk seal caves under any circumstances was incorporated into the government's 1991 Aqua Products Circular, following a proposal by SAD-AFAG during the first NMSC meeting in Ankara and subsequent adoption by the MoA.

- Banning beach-seines and coastal trawlers in the Foça SPA in 1992, following a proposal by the local fishermen of Foça, the Foça Municipality and SAD-AFAG.
- Banning beach-seines and other coastal trawler fishing techniques on all Turkish coasts (except for Ayvalik and vicinity), proposed by SAD-AFAG based on the study reports of the Fisheries Faculty of Aegean University and the experience gained from the FPP in 1999; approved by the Ministry of Agriculture in 2001.
- Banning harpoon fishing of dusky grouper (*Ephinephelus guaza*) and dog tooth grouper (*E. caninus*) in Turkey, proposed by SAD-AFAG in 2002 and approved by the Ministry of Agriculture (MoA) in 2002, to the benefit of the species and artisanal fishermen.
- “No fishing zones” established in Kizilliman and Melleç in Mersin, and Mordogan in Izmir, in order to keep fishing away from important monk seal breeding caves. The proposals provided by SAD-AFAG and METU-IMS, in joint action and in consensus with artisanal fishermen, were subsequently adopted by the MoA.
- The establishment of marine guarding systems in two protected areas, Foça (donated by MoE) and Aydıncık (by AFAG), with the use of patrol boats operated by local government and stakeholders, including fishing cooperatives and municipalities.
- Involvement of artisanal fishermen in conservation, through actions such as the “Artisanal Fisheries Symposium” held by SAD-AFAG and Dokuz Eylül University in 1999, and the strengthening of artisanal fishing cooperatives in Foça, Karaburun and Aydıncık via financial and equipment support by SAD-AFAG in 2002 and 2003.

III. Conservation: protected areas and sustainable management plans

Concrete steps and achievements made during the third generation conservation period (since 1987) include:

- A coastal zone and adjacent marine area zonation plan for the “Foça Monk Seal and Sea Protection Area” (Aslan cape to Deveboynu cape), prepared and submitted to the MoE by SAD-AFAG in 2003.
- The declaration of five coastal areas as 1st degree protected areas (SIT) along the west Mersin coast, totalling some 70 km. Proposed by METU-IMS in 1998 and adopted by the Ministry of Culture (MoC) [see [Regional News](#), TMG 1 (2): December 1998].
- The declaration of Kūdūr Peninsula (near Bodrum) as a 1st degree protected area (SIT), proposed by SAD-AFAG in 1999, and subsequently adopted by the MoE and Ministry of Culture (MoC) [see [Mediterranean News](#), TMG 2 (1): May 1999].
- Regulating navigation around the Ayvalik islands, Foça islands and Bodrum Peninsula and adjacent islands. Ships greater than 300 GT and ships with all tonnages carrying hazardous cargo will no longer be permitted to navigate between the mainland and adjacent islands so as to ensure safety of navigation, life and environment. The SAD-AFAG proposal was adopted in 2001 by the Undersecretariat for Maritime Affairs and implemented by the Department of Oceanography and Navigation.
- SAD-AFAG supported the MoC in providing habitat data for a court case against an investor attempting to construct a hotel in Gökgemile bay near Fethiye — a 1st degree protected area (SIT) and also an important monk seal site. The MoC won the court case in 1999. Similarly, various illegal coastal zone developments have been investigated by SAD-AFAG.
- As a result of research studies by SAD-AFAG, METU-IMS and IU-FAP, 12 Important Monk Seal Sites in Turkey were identified and subsequently proposed to the NMSC as protected areas in 1998 [see [Endgame: the fight for marine protected areas in Turkey](#), TMG 5 (1): May 2002].
- In May 2004, the Turkish government publicly pledged to establish permanent protection status for 5 Important Monk Seal Sites of the 12 originally recommended [see [Turkish government pledges 5 new protected areas for the Monk Seal](#), TMG 7 (1): June 2004].
- In 2000, during a study considering revisions to the extensive “no diving zones” under MoC regulations, SAD-AFAG proposed continuation of diving restrictions in seal-critical areas. Persuaded by SAD-AFAG’s case, the MoC subsequently agreed to announce further *new* “no diving zones” on certain coasts.

IV. Public awareness and lobbying activities

- During the third generation period, decision makers, universities and academics, the press and media, and the general public have been widely informed about the monk seal in Turkey, the threats facing it, and measures necessary to prevent its extinction.
- On the formal education level, SAD-AFAG, METU-IMS and IU-FAP have undertaken education programmes in selected high schools, primary schools and universities nationwide.
- Threat factors against the species and its habitats have been clearly identified and published (Savas 1999, Güçlüsoy & Savas 2003a, Kiraç et al. 1998b) and reported to relevant ministries, local governors and mayors for corrective actions to be taken.

V. Others

- At Çavus Island near Bodrum, an oil spill clean-up operation was launched and successfully completed by SAD-AFAG in 1997 to save monk seal habitats. The operation, aided by local people, collected 137 tons of oil waste [see [Oil Spill At Çavus Island](#), TMG 1 (1): May 1998].

WEAKNESSES

- Lack of coastal zone management planning in protected areas, especially within the 5 top-priority Important Monk Seal Sites of Turkey — this in spite of the considerable knowledge already available on abundance and distribution of the species, and the threats facing it, within these areas.
- Lack of any adequate protection within the remainder of the 12 Important Monk Seal Sites in Turkey, identified and subsequently recommended to the NMSC as protected areas in 1998.
- Insufficient coordination, cooperation and consensus within the NMSC under the control of MoE. Lack of effective collaboration and cooperation between GOs and NGOs.
- Inadequate patrolling and inspection of coastal National Parks, Specially Protected Areas and SIT areas, as well as Important Monk Seal Sites. Illegal activities continue to undermine the quality of these habitats and disturb the species. A lack of qualified personnel compounds the problem.
- The extinction of the monk seal in the Black Sea, while the authorities stood by, witnessing this inexorable process without taking any meaningful action to halt it.
- Difficulty in achieving effective collaboration among conservationists and universities; the tendency to act as individual organizations rather than as a coordinated unit or coalition.
- Local Monk Seal Committees have shown little sign of functioning adequately on their own, with the exception of the Foça LMSC.
- Funding remains erratic and in chronically short-supply, hampering monk seal research and conservation efforts and hindering longer-term planning.

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