

HOW TO SAVE THE MONK SEAL

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ABSTRACT

The "First International Conference on the Mediterranean Monk Seal, Rhodes, Greece, 2-5 May, 1978" revealed that monk seal, *Monachus monachus* populations disappeared on the west Mediterranean coastlines of Europe, but still they try to live on the coastline of Turkey and Greece in eastern Mediterranean, and if they are not protected properly soon they will be extinct in a few decades, but unfortunately there were no sound ecological or biological information on their lifehistory to begin to protect them soon.

From 1980 onwards being supported by the University of Ankara we have been carried on researches on this subject. We have already obtained almost enough biological information needed for protection, but with two exceptions; The exact localities of suitable breeding caves and the length of distance needed between two protected area to prevent the inbreeding and degenerations of the protected population.

By inquiring the small coastal fishermen and verifying the obtained information in the place and finally taking detailed notes, we tried to visit nearly all Turkish coastlines as many times as possible in order to compare the events with each others. Thus we could find out the longest distance monk seals could cover per year as 600-700 km. We discussed and evaluated the biological effects and results of this length for a successful monk seal protection.

Today the Turkish fishermen who are 80 or 90 years old testify to having seen the monk seals on along all of the Turkish coasts from Sinop to the Bulgarian border on the Black Sea, on the İstanbul Strait, on the islands in the Marmara Sea, and the southern coast line of the Marmara Sea, and on Çanakkale, İzmir, on the Aegean coasts and at Kaş, Antalya, Alanya, Silifke, Mersin, İskenderun, and as far as the Syrian border on the Mediterranean coasts (Fig. 1). They can also give some quite reliable information relating to the life and behaviour of the monk seal. However the first written record of the monk seals on the Turkish coasts is by Deveciyan (1914) from İstanbul. The se-

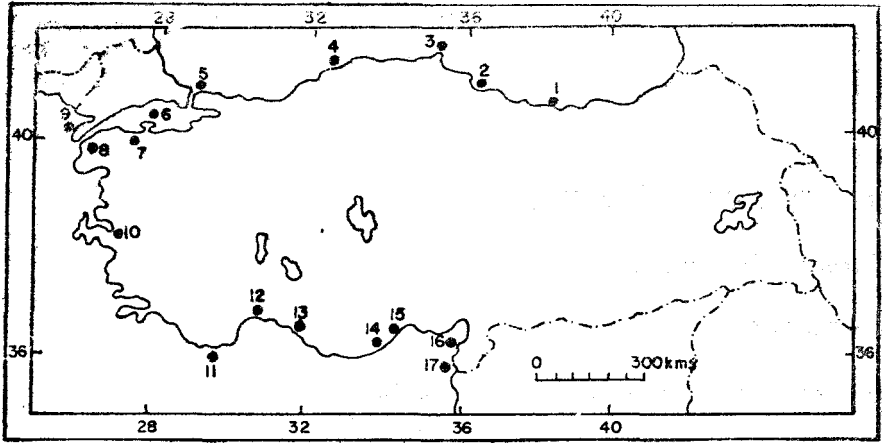


Fig. 1. The map of Turkey indicating the localities given in the text 1- Perşembe, 2- Samsun, 4- Zonguldak, 5- İstanbul strait 6- Marmara Islands, 7- Southern coastline of Marmara Sea, 8- Çanakkale, 9- Gelibolu Peninsula, 10- İzmir, 11- Kaş, 12- Antalya, 13- Alanya, 14- Silifke, 15- Mersin, 16- İskenderun, 17- Syrian border.

cond record is by B. Mursaloğlu (1964). The second record traces the localities of the five monk seals which lived at the Ankara Zoo at a time and states that one had been captured in the vicinity of Mersin, one from the vicinity of Alanya, one from Çanakkale, and the other two from Zonguldak. Today although it is quite rare, one can spot a monk seal on any part of the Turkish coastline cited above.

The papers presented and the discussions by the 61 scientists who came together in the "First International Conference On The Mediterranean Monk Seal, Rhodes, Greece, May 1978", brought to light the fact that the monk seal was almost extinct on the western Mediterranean coasts and that if the monk seals on the eastern Mediterranean coasts were not protected immediately they would be extinct in 10-15 years' time. The conference also made it evident that there was not sufficient sound, biological knowledge to ensure the protection of the monk seal. Therefore the scientists had to begin research immediately to collect biological information about the monk seal which was indispensable to protect it.

Turkey was very lucky due to the monk seals still living on her coasts. The Ankara University began research on the monk seal immediately in March 1980. Since being centrally located, it was very easy from Ankara to reach all the Turkish coasts. The researches we

have carried out have been supported by the Ankara University and the Turkish Scientific and Technical Research Council (TUBITAK) between 1980–1982; partly by WWF / IUCN and the Ankara University between 1982–1983, and only by the Ankara University from 1986 on.

METHODS AND MATERIAL

The methods and the material used in the researches have been given in detail in B. Mursaloğlu (1984 a, 1984 b, and 1986).

RESULTS AND DISCUSSION

As the characteristics of the breeding-caves are of utmost importance for the survival of the monk seal pup the interior ones have been described and the results of their effects have been discussed in detail in B. Mursaloğlu (1984 a, 1984 b, and 1986).

The geographical situations and characteristics of the breeding caves are also as important as their interior characteristics. Therefore they will be dealt with in detail here.

The entrances of the cave, we have been observing for eight years do not face the north or the south directly, but they face north-west. This is important because the wildest winds of the area blow from the north or the south. These winds are so strong that from time to time the cave entrances are completely blocked by waves and they almost explode inside the caves. The north-west situation of the cave, we have been observing is different as its entrances face north west, and it is rarely disturbed by the dominant local strong winds and waves. When the wind blows from the north, the entrances are protected by the hill in which the cave is situated. The waves coming from the south can not penetrate into the cave and they merely break on the southern side walls of it. Thus the monk seals can easily enter and exit the cave to feed during the heavy northern or southern seasonal storms. Moreover since the cave is geographically located between two bays, Alaçati bay and Mersin bay (Fig. 2) which are also protected from northern and southern winds, the monk seals inhabitants of the cave can go to the convenient one to feed in all weather conditions.

These strong winds from the north and the south generally blow from the beginning of October till mid-April, that is exactly when the pup is suckled by the mother for nearly 4–4.5 months in the breeding

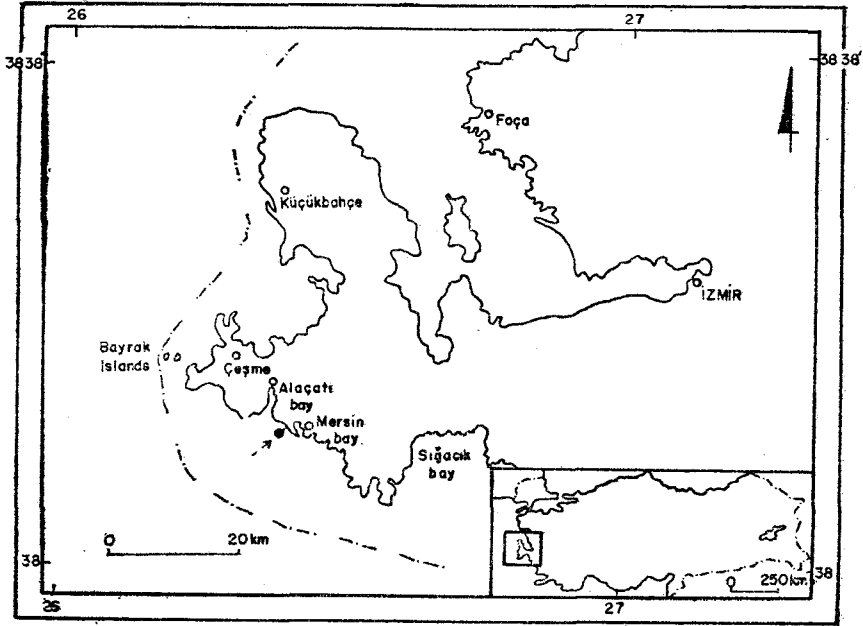


Fig. 2. The map of Çeşme Peninsula indicating the geographical situation of the breeding-cave south-east of Alaçati, Çeşme, İzmir, Turkey.

cave and the pup does not take anything else but milk, B. Mursaloğlu (1986). Therefore, this period and the geographical situation and characteristics of the cave are important for both, for mother to feed and for the pup for surviving.

On the Aegean coasts the mountains are not parallel to the coast as they are in the southern and northern Turkey. Hence, the Aegean coasts do not present a nearly straight vertical line but they have several bays and archipelagos. This provides a variety of feeding resources for the monk seals. Since the caves are located in or near rocky bays they are wave resistant and do not collapse easily as the caves on northern and southern coasts of Turkey do. Unfortunately the human beings also prefer these indented coast and there are an ever increasing number of summer resorts and hotels near and in these bays. The Marmara Sea coasts are also being invaded by factory plants.

1980-1981 were the last years of the anarchy in Turkey. By then neither native nor foreign tourists visited the area. From 1982 onwards as the anarchy was ended, these coasts began to have been invaded

by both native and foreign tourists and hence not much place has been left for the monk seals to live. Two pups were born in the cave we have been observed continually, one in 1980, and the second in 1981. From the beginning of tourist invasion 1982 onwards the cave has been visited rarely by some monk seal individual, but no pup has been born there anymore.

Before the beginning of 1980's no monk seals had been reported from east of Sinop or around Samsun (Fig. 1). All monk seal population on the Black sea coast used to be concentrated between east of Sinop and Bulgarian border. The monk seals had deserted the coasts between İstanbul and Sinop as the area rapidly became popular and opened to tourism at the beginning of 1980's. Later some monk seals have been reported at first in the vicinity of Samsun in 1983-1984. In 1986 during our field work at the Black Sea coastal line 300-350 km east of Sinop, where formerly no seals had been seen, before strikingly few in number, but some monk seals were seen. 15 or 20 fisherman, who were not acquainted with monk seals before, testified to the same event at different time that a seal had swam from Samsun to Perşembe near Ordu, that is to say nearly 300-350 km east of Sinop stopping from time to time, taking a rest on the rocks. That means that even in such long distances there will not be any danger of isolation and interbreeding for the monk seal population in protected areas.

The pups born in unsuitable caves do not wait for their mothers all day on inland of the caves and leave the caves to swim around. Therefore these pups who are observed alone are mistaken for orphans and taken away by human beings or they suffer a worse fate sometimes and are dashed on to the rocks by the waves in stormy weather and they die or are severely injured. In 1980 we went to the east of Antalya where the monk seal pup of the Ankara Zoo had been found and captured, we observed that the caves in the location did not have neither long passages nor under wather entrance preventing the pup from swimming to the open sea before becoming strong enough. Their entrances were wide open straight ahead to the sea and the dangers it brought. In 1985 when we visited the sites where two other pups had been captured, that is, the south of Urla (İzmir), and Kumluca (Antalya) we observed caves of the same unsuitable nature. Since the sites where the suitable caves are located have been invaded by human beings, the monk seals have deserted these places and they had to bring up their pups in whatever unsuitable, but far away enough caves during

the lactation period which covers a long time about 4-4,5 months. Due to the structure of these caves the survival rate of the pups are getting lower and lower, and this effects the monk seal population negatively.

Quickly expanding tourism, the construction of summer resorts, and hotels and the factory plants are invading or ruining the habitats of the monk seals.

Since the monk seals can travel distances located 300-350 km far from each other as we found out in the east of Sinop, it would be very beneficial, and without any risk of inbreeding to reserve certain areas for protection even at such distances which are not suitable for tourism.

Since the different witnesses who are not aware of each other, report having seen a monk seal, do not ever think about the possibility of seeing the same seal after some period at some other locality, that is, they report each sighting as yet another individual seal as we have observed in the east of Sinop. Therefore, the high number of seals reported before by Ronald (1979, 1984), are not realistic and high above the actual seal population. This approach wich used the data obtained from second hand and not testified, leads to very high numbers in guesses relating to the population. Still, esitimations untestified are continuing to be so. The overestimation of the number of monk seals causes some dangerous courage to apply some dangerouss met-hots like the captive breeding, and the taking away the lonely looking pups mistakingly as orphan ones when they are swimming around the unsuitable breeding caves entrances waiting the return of their mothers, and applying somes devices under the skin of monk seals to trace them in the nature to get some information on the distances they cover.

Today, the enemy of the monk seals are not only the fishermen, but all those who invade and ruin their habitats.

Finally I wonder where shall we put the monk seals, which have been removed from their natural habitats, and are being kept in some aquarium, if they might have success in reproduction, and what shall we do with these poor creatures whose habitats have allready been almost completely ruined. Why are we trying to breed them in captivity instead of trying to help them to breed in their own natural, undisturbed habitats, where they are still leading a natural life today?

In the last ten years so much information about the monk seal's life history has been accumulated that it is a wonder why we are not using this knowledge to preserve the monk seals in their own natural habitats soon. If we really mean to save the Mediterranean monk seal, the sensitive marine indicator of our own ecosystem, why don't we begin to protect them soon? We have no more time.

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