

INVESTIGATION ON THE MEDITERRANEAN MONK SEAL *MONACHUS MONACHUS* (HERMANN, 1779) IN GÖKÇEADA ISLAND (NORTHERN AEGEAN SEA)

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Abstract

The distribution of Mediterranean monk seal *Monachus monachus* (Hermann, 1779) in the Northern Aegean Sea is very important because this species is facing a danger of becoming extinct from Turkey and the world. The monk seal prefers quiet and isolated islands, islets and beaches. However, due to overurbanization and degradation of coastal ecosystem, this species is losing its habitat. This study was carried out between 1993-1996 in Gökçeada, one of the Turkish islands in the Northern Aegean Sea, during which two seals were observed. As a result of the field surveys on the north shore of the island, 5 caves suitable for seals were found. Public awareness activities about the protection of Mediterranean monk seals were held with the fishermen to give them the information about the species protection around the island.

Key-words : cetacea, conservation, Aegean Sea

Introduction

The distribution of the seals around Gökçeada Island is in the overlapping zone with that around the nearby Greek islands. Around these islands, namely Limnos and Samotraki Islands, the occurrence of the monk seal is known (1). Therefore the distribution and identification of the seal individuals in this overlap zone are important for the appropriate protection measures and strategies.

The studies on the distribution of the Mediterranean monk seals around Gökçeada are rather few. Marchessaux (2), as a result of the short period studies he made in Turkey, estimated that there were about 10 individuals living in the shore between Çanakkale Strait and Baba Cape including Gökçeada and Bozcaada in the Northern Aegean Sea. Mursaloglu (3) reported that monk seals in Turkish coastlines may be seen rarely around Gökçeada. Bozcaada Island to Baba Cape. Öztürk, (4) stated that there were two individuals, one young and the other old, observed in Gökçeada. On the other hand, in Lesvos Island (Greece) a minimum population of six seals was identified during the period of 1989-90 and presence of seals in Ag. Efstratios, Limnos and Samotraki Islands were indicated (1). In addition, 4-5 seals were reported in Samotraki Island (5). The present study was aimed to collect more detailed information regarding the distribution and protection of Mediterranean monk seal around Gökçeada, in the Northern Aegean Sea.

Materials and methods

The study was carried out between 23-29 September 1993, 17-30 July 1994, 17-29 July 1995, 21-27 March 1996 and 15-29 August 1996 in Gökçeada. During the study period, observations were made directly at the sea and from the land. In the sea observations, 9 m wide and 28 HP boat named *Yunus* was used. During these observations, caves suitable for seals were examined by skin diving and photographs were taken. Field studies and observations were made on the north shore of the island between Kuzu Port and Kömür Cape (Figure 1). Damages to the fishing net and death or stranded animals were also examined.

Results and discussion

During the study period, two individuals were observed. One was generally seen swimming between Katkaval Cape and Kaleköy on 25.9.1993, 27-29 July 1994 and 21.7.1995, while the other was observed resting on the beach of the cave near Kömür Cape, between coordinates 40° 10' 12" N- 25° 42' 24" E on 27.9.1993 and 27.7.1994 (Figure 1). The latter individual also observed around Kömür Cape on 24.7.1995.

The swimming seal was observed 150 m off shore. This individual was about 2 m in length, dark grey to black in color and spotted with whitish marks on its dorsal and ventral sides. The individual seen on the cave beach (and around the cave) was about 3 m in length, grey in color and spotted with white marks all over the body.

It is supposed that these animals are not the same individual due to their different size and coloration. There is also a possibility that

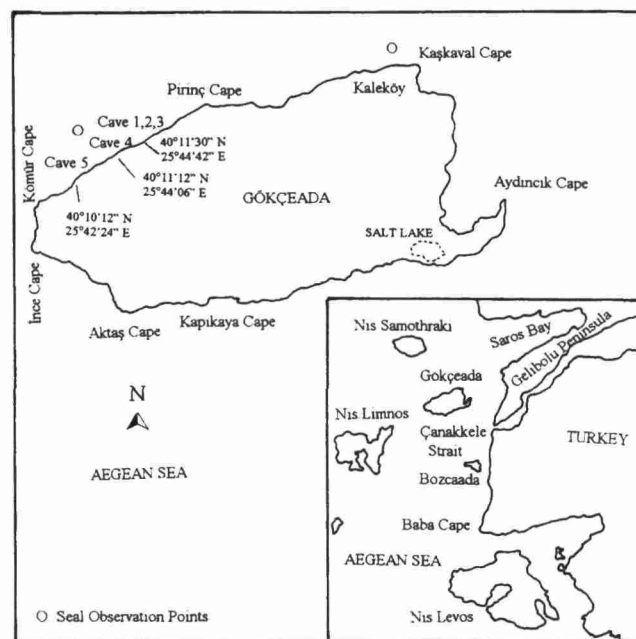


Figure 1 : The location of caves and seal encounter points in Gökçeada Island and nearby Greek Islands, in the Northern Aegean Sea.

these seals are the same individuals as those indicated in Öztürk (4).

In this area, any research on seal caves had not been reported. We found five caves on the north coast of Gökçeada. All these caves were considered suitable for seals due to aerial space, long entrance and large stony or rocky substrata. Among these caves, especially the 4th and 5th caves, can be quiet seal habitat. The 5th cave can also be used as a breeding ground since it has larger and more isolated space than the others. The caves are marked in Figure 1 with the coordinates and features of the caves are shown in Table 1.

Monk seals are known to damage fishing nets. This is the reason why some fishermen show antagonistic attitude towards them (6). However, during this study, 70 gill nets were examined and we did not find any damages in these fishing nets. This may be explained by the abundance of fish or low fishing effort in the island. In addition, no dead seal nor seal pup had been recorded in the area recently.

As a conclusion, most of the north shore of Gökçeada is quite clean and very suitable for the Mediterranean monk seals since it has potential habitats and low human population, and this species has not yet diminished from the Northern Aegean Sea. However, more detailed studies should be made in this seal overlap zone between Turkey and Greece to implement effective protection measures.