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### A new sighting of the Mediterranean Monk Seal, *Monachus monachus* (Hermann, 1779), in the Marmara Sea (Turkey)

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## SHORT COMMUNICATION

### A new sighting of the Mediterranean Monk Seal, *Monachus monachus* (Hermann, 1779), in the Marmara Sea (Turkey)

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The Mediterranean Monk Seal, *Monachus monachus* (Hermann, 1779), has been listed by IUCN as critically endangered since 1996 (IUCN 2013). Güçlüsoy, Kırac, Veryeri, and Savaş (2004) mentioned only one individual from the Marmara Sea out of 100 individuals given for the entire coast of Turkey. On the other hand older fishermen in the region still remember the presence of a large colony of Monk Seal inhabiting the coast of Karabiga about 30 years ago (pers. comm.). Loss of habitat due to urbanisation and intensive fishing activities have been pointed out as the main factors responsible for the disappearance of the population in the Marmara Sea. Other reasons such as pollution and diseases may also be among the causes of decline of the population (Yediler & Gucu, 1997; Kırac & Veryeri, 2009). Karabiga in the southwest of the Marmara Sea is among the very few sites where coastal development has not reached an alarming level for the wildlife and therefore still holds pristine coasts.

We surveyed the coast of the Marmara Sea for Monk Seals between April and June 2014, as indicated in Figure 1. The coast was searched for suitable resting/breeding habitats/caves. Also fishermen of the region were interviewed. The questions directed to the fishermen were (i) whether there are seals within their respective fishing grounds; (ii) when and where the seals were sighted within the last year; (iii) whether there is a visible trend in the population during the last 10 years. The information provided by the fishermen, particularly by the older fishermen, was then used to prioritize the sites to be surveyed. Priority areas, which were pointed out by most of the fishermen, were surveyed both by boat and from the land.

In total six caves displaying Monk Seal resting/breeding characteristics (see Karamanlidis, Pires, Silva, & Neves, 2004; Gucu, Gucu, & Orek, 2004) were discovered. There was clear evidence in one of those cases, namely the peculiar odour and tracks on the inner sandy beach, and this indicated the recent presence of a seal in the cave. The cave had a surface opening with an inner area and a platform formed by sand, pebbles and large boulders. During the surveys, seals were sighted at four different occasions on 21 April, 27–30 May and 14 June 2014, and were recorded on a video. The approximate coordinates of seals were between 40°27'N 27°17'E and 40°28'N 27°17'E. They were

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Figure 1. Study area in the Sea of Marmara.

observed for about 15 sec. to 30 min. duration. The smaller and apparently younger seal was about 1.5 m long. The size of the other was estimated at 3 m. As judged from the size and grey pelage, the latter was most likely an adult female (see Samaranch & Gonzales, 1999). As the sizes of the two individuals were observed, one of the seals in the area is a juvenile not older than 1 year.

Given the long distance to the nearest known Monk Seal breeding colony located in the northern Aegean, and the narrow strait of Çanakkale in between, it is very likely that the smaller seal (if not both of them) was born in the Marmara Sea and most likely within the vicinity of Karabiga as juveniles tend to remain around the whelping site (Gucu et al., 2004). In the first observation, which lasted 30 minutes, the younger individual was sighted around a fishing net and captured by video recording. In the second observation, an individual was sighted at the stern of the survey boat in the dark for a shorter period of time, and so no feature that might help identify the individual could be recognized. In the third and fourth observations, the adult female was seen in the bay.

Cave observations have been conducted during day time. The seals were not observed in the cave but very fresh flipper tracks were found on the sandy-pebble bottom. Although no evidence of seal occurrence has been found in the other caves but in view of the proximity of the caves, the seals most possibly use more than one cave for resting and for their other needs. All fishermen met during the surveys were aware of the occurrence of seals in the area and they all agreed that the number of seals declined dramatically already more than 10 years ago. The seals sighted during the surveys have been known by the fishermen for more than 3 years. During the interviews no hostility against seals was felt, but there was considerable hostility about the damage to their fishing nets made by dolphins in the area.



Figure 2. The adult female individual was swimming and hunting around the fishing net.

Our sightings reveal an urgent need for an immediate conservation measure and a comprehensive Monk Seal monitoring programme in the area. Although fishermen pointed out a few more sites on the south coast of the Marmara Sea, our sightings were all made at almost the same spot. This information shows the importance of the site for the species. The area should be treated as an ecologically sensitive habitat and development plans for the area which may be detrimental for the Monk Seal should be re-evaluated accordingly. A coal-fired thermal power plant planned for the region seems to be a significant risk that may eradicate the species by destroying its last hold in the Marmara Sea.

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