



CATALOGUE OF THE MONK SEALS IN THE FOÇA PILOT MONK SEAL CONSERVATION AREA, TURKEY, FROM 1993 TO 1999

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The critically endangered Mediterranean monk seal (*Monachus monachus*) has been known to occur in Foça since early antiquity (Johnson & Lavigne 1999). During the last century, occurrence of the species at and around Foça was reported by Mursaloglu (1964) Berkes et al. (1979), Marchessaux (1987), Savas and Kiraç (1991), Öztürk and Dede (1995), and Güçlüsoy and Savas (2003). In 1991, Foça was selected as a Pilot Monk Seal Conservation Area (PMSCA) in order to implement the National Strategy for the Conservation of the Monk Seal (Güçlüsoy & Savas 2003). The status and habitat use of the local monk seal population was described by Güçlüsoy and Savas (2003), who lived and worked in Foça between June 1993 and December 1998. However, although we listed identified monk seal individuals in that publication, we did not provide detailed descriptions. Because monk seals are relatively long-living (Marchessaux 1989) and have an estimated home range of 40 km (Berkes 1978) and 37-56 km (Gucu & Ok 2004), we believe it useful to make these detailed descriptions available to any researchers who may carry out future studies in this part of the Aegean Sea – including neighbouring Greek Islands, such as Chios. The identification data were collected during routine field surveys, involving monitoring of the area's 11 caves and observations from 39 selected points. Detailed description of the methodology is provided in Güçlüsoy and Savas (2003). The 9 monk seal individuals identified during the study period are as follows:

S1 Duygu:

Sex: Female

Phenotype (after Samaranch & Gonzales 2000):

Large & medium grey seal

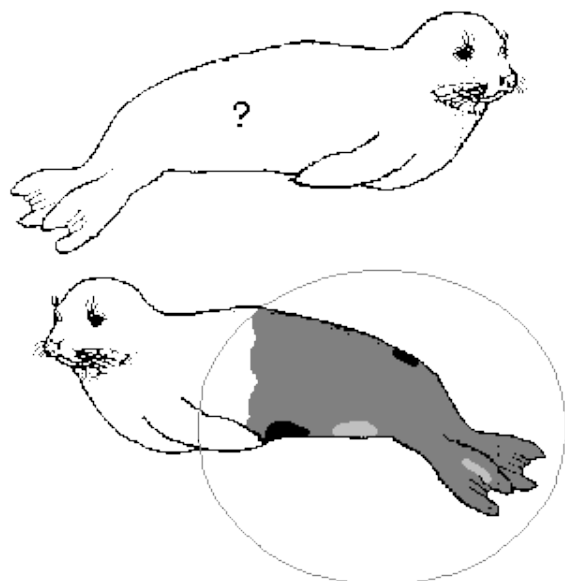
Estimated length: 210 – 240 cm

Date of first observation: 27.IV.1994

Date of last observation: 20.VI.1997

Total Number of observations: 13

Special note: She was observed twice with Disi Korsan (S2).



S2 Disi Korsan:

Sex: Female

Phenotype (after Samaranch & Gonzales 2000):
Large & medium grey seal

Total length (nose to extended rear flippers at necropsy): 210 cm

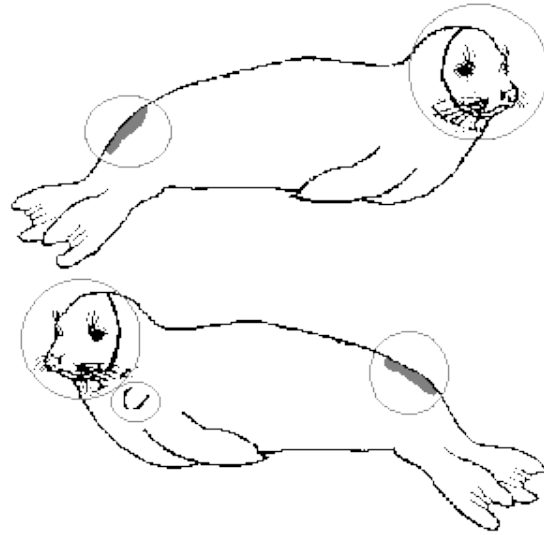
Weight (at necropsy): 152 kg

Date of first observation: 7.I.1995

Date of last observation: 4.IV.1998

Total number of observations: 44

Special note: Identification of this individual was facilitated because a rope was entangled around the seal's head. She was observed twice with Duygu (S1) and twice with both Emine (S8) and Bahtiyeye (S7). Prior to her death, she was found to be showing signs of illness in 5 sightings (2 from Yenifoça) between 24 January and 11 March 1998. Despite realising our presence during three cave checks of FÇ11, she did not attempt to escape, nor did she show any reaction to our presence. When found dead she was very emaciated and the vertebrae and rib bones were clearly visible. During necropsy, all teeth from the lower jaw and some from the upper jaw were found missing. Two small calibre shotgun pellets were discovered in the head and the upper left ventral zone, and two larger calibre pellets above the right eye. However, these were not the main cause of death. We found that a severe infection was the most probable cause of death, due to an unidentified disease. It is thought likely that the bullet wounds and the rope debris found cutting into her head caused general physical weakening, thus contributing to her death.



S4 Sühendan:

Sex: Female

Estimated length: 220-250 cm

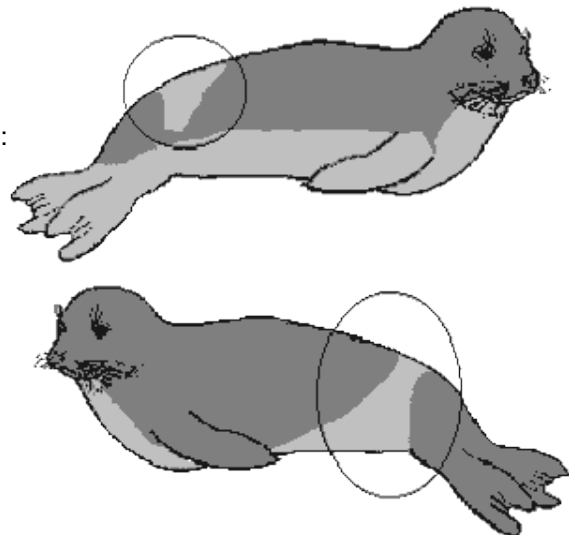
Phenotype (after Samaranch & Gonzales 2000):
Large & medium grey seal

Date of first observation: 18.X.1994

Date of last observation: 5.X.1995

Total number of observations: 5

Special note: She was observed once with Emine (S8).



S5 Ilksen:

Sex: Female

Phenotype (after Samaranch & Gonzales 2000):
Large & medium grey seal

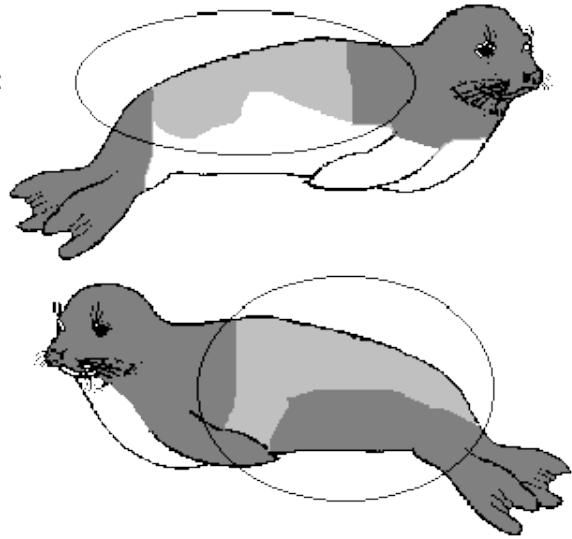
Estimated length: 200-230 cm

Date of first observation: 31.V.1995

Date of last observation: 13.IX.1996

Total number of observations: 6

Special note: She was one of the seals observed while hauling out on the western coast of Hayirsiz Island.



S6 Marianne:

Sex: Female

Phenotype (after Samaranch & Gonzales 2000):
Large & medium grey seal

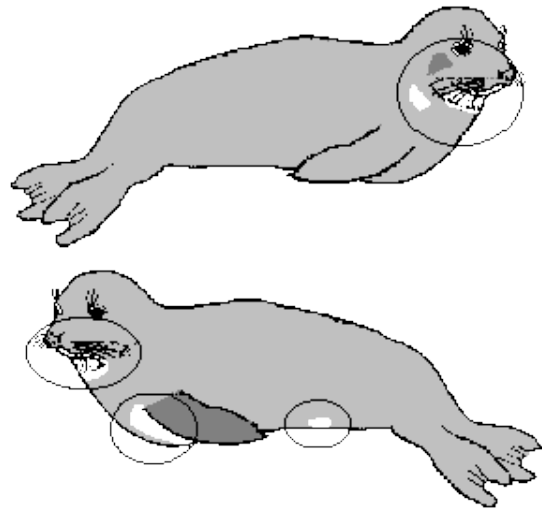
Estimated length: 210-240 cm

Date of first observation: 26.IV.1996

Date of last observation: 5.X.1997

Total Number of observations: 9

Special note: She was one of the seals observed while hauling out on the western coast of Hayirsiz Island.



S7 Bahtiye:

Sex: Male

Phenotype (after Samaranch & Gonzales 2000):
Juvenile

Total length (nose to extended rear flippers at necropsy): 157 cm

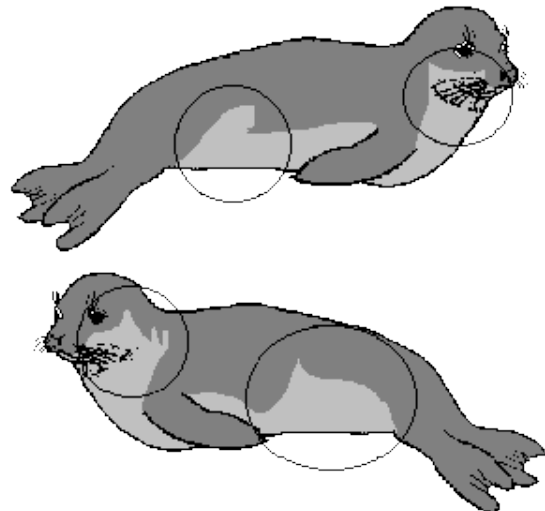
Weight (at necropsy): 39 kg

Date of first observation: 18.X.1996

Date of last observation: 10.II.1997

Total number of observations: 35

Special notes: He was born in the coastal cave (coded as FÇ02) situated in the Siren Rocks of Orak Island on 16 October 1996 and died when he was 117 days old. The cause of death was entanglement in a trammel net. He was observed 22 times with his mother Emine (S8), 4 times with his sister Derya (S9), twice with both Emine (S8) and Disi Korsan (S2) and once with Emine (S8) and Derya (S9).



S8 Emine:

Sex: Female

Phenotype (after Samaranch & Gonzales 2000):
Large & medium grey seal

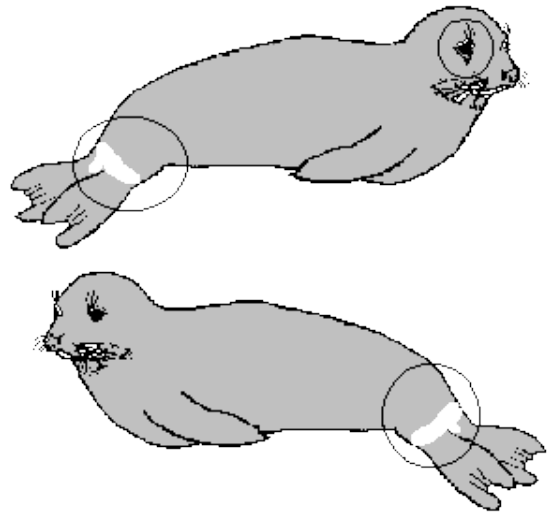
Estimated length: 210-240 cm

Date of first observation: 5.X.1995

Date of last observation: 26.IX.1998

Total Number of observations: 62

Special notes: She is the mother of Derya (S9) and Bahtiye (S7). She was observed 22 times with Bahtiye (S7), 18 times with Derya (S9), twice with Bahtiye (S7) and Disi Korsan (S2), once with Bahtiye (S7) and Derya (S9) and once with Sühendan (S4).



S9 Derya:

Sex: Female

Phenotype (after Samaranch & Gonzales 2000):
Juvenile

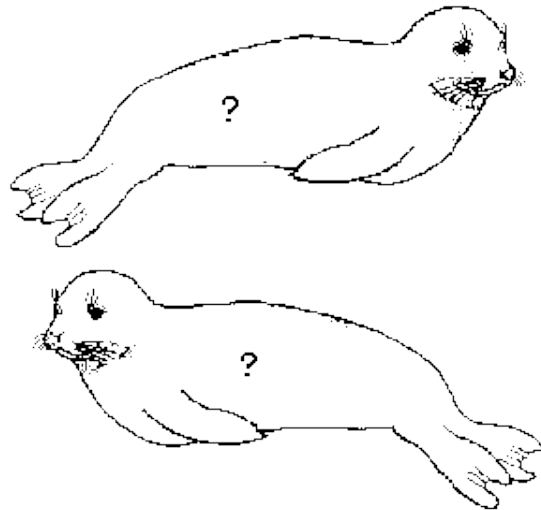
Estimated length: 150-180 cm

Date of first observation: 13.X.1995

Date of last observation: 22.I.1998

Total number of observations: 51

Special notes: She was born on 11 October 1995, and was found entangled in a trammel net like Bahtiye (S7) when 104 days old. However, the fishermen in whose net she was entangled, saved this seal. She has been observed 18 times with Emine (S8), 4 times with Bahtiye (S7) and once with Emine (S8) and Bahtiye (S7).



S10 Fatma:

Sex: Female

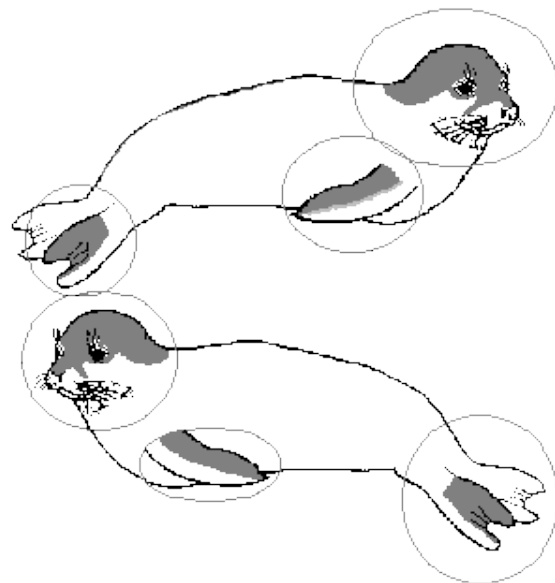
Phenotype (after Samaranch & Gonzales 2000):
Juvenile

Estimated length: 150-180 cm

Date of first observation: 31.VII.1998

Date of last observation: 10.X.1998

Total number of observations: 9



Discussion

During the study period – four and five years after the designation of the area as a PMSCA – when two pups Derya (S9) and Bahtiye (S7) were born and a juvenile, Fatma (S10) was observed, the area still served as an important monk seal breeding site. However, because the area is also an intensively exploited artisanal fishing ground, both pups were subsequently entangled in trammel nets. The same threat was also observed in two pups born on the western coasts of the Gulf of Izmir on the Karaburun Peninsula (Veryeri et al. 2001).

Although we did not hear or receive any report of the shooting of seals in the PMSCA, the discovery of shotgun pellets in the corpse of Disi Korsan (S2) indicates that direct killing remains a threat within the home range of the population.

Because this home range is likely to be greater than the area covered by the Foça PMSCA, attempts should be made to determine its extent, with a view towards expanding protection measures, including zonation and guarding efforts.

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