

technique Maximum Entropy (MAXENT). Predictions were validated using a random seed process of 20 : 80 percent Training : Testing. Results interpreted through the use of a receiver operator characteristic (ROC) method gave a prediction area under the curve (AUC) of 0.885. Habitat suitability was predicted to occur most frequently within the central, deepest, part of the bay, with a decreasing trend outside. The results of this study highlight two important findings. Firstly that across the study *B.muscus* observations occurred within a particularly small range of temperature. Secondly areas of high predicted HS appear to be isolated within the bay. Therefore, with respects to changes in the sightings frequency of this species within Iceland waters, temperature change is considered to be prime factor in the habitat variation for *B.muscus* and that currently Skjálfandi Bay represents an increasing critical area of habitat for this species.

#### **H09 SPERM WHALE WINTER PRESENCE IN THE TYRRHENIAN SEA, ITALY**

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Little information is available about the dynamics of the sperm whale (*Physeter macrocephalus*) in the Mediterranean Sea during the winter season. In the Pontino-Campano Archipelago, an area characterized by complex submarine canyon systems, the sperm whale summer presence was documented since 1991. However, its residency and movements within the study area were regularly investigated using photo-identification data collected in the summer season over a 6 year period (2003–2008). In order to explore the occurrence of the species during winter months, the research effort was extended and 24 boat surveys were conducted from October 2007 to January 2008. Animals were detected using stereo towed hydrophones and Rainbow Click software and a total number of 1490 minutes of vocalizations were collected. We encountered four sperm whale groups (mean group size: 7,5; range: 4-11), one of them including a calf. Whales showed a preference for the deepest part (850 m) of the canyon of Cuma and close to the 700 m isobath off the northwest coast of Ventotene, where a mirror canyon system is located. While diving, whales appeared to be feeding on two occasions performing a large number of creaks and fast clicks. Socializing was the most relevant surface activity observed (63%), since whales spent up to two hours per sighting clustering at the surface. Moreover, during social behaviors sequences of codacreaks, squeals and codas were recorded. Only one identified whale was photographically re-captured and 9 new individuals were added to the existing catalogue (n=29), reaching a significant peak in the recruitment rate. It is unclear whether the species have regular movements and distribution patterns within the Mediterranean Sea due to different association models between individuals. Our data suggest that environmental (the "canyon" effect) and ecological features (prey

fluctuation) too may influence the distribution and movements of the sperm whale.

## **H10 THE MEDITERRANEAN MONK SEAL (*MONACHUS MONACHUS*) SURVEY IN ANTALYA REGION**

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The current distribution of the Mediterranean monk seal (*Monachus monachus*) population in Mediterranean is becoming clearer with the recent studies. The region of Antalya, despite being acknowledged as an important Mediterranean monk seal habitat, has never been studied systematically. On the other hand, there were signals of existence of possible individuals living in the region regarding the structure of the coastal topography and the frequency of the recent news about monk seal observations. The studies carried out in the Eastern Coasts of the Turkish Mediterranean Sea and Northern Cyprus was addressing this part of the Turkish coasts as missing parts where the possible breeding areas and caves were unknown. Considering the mobility of the animals, it was necessary to find out the distribution of the species, and possible habitats. The west part of the Antalya with small islands and rocky cliff coast line appeared to be the most suitable area, including the cape Gelidonya where human disturbance seems minimal. Three surveys were carried out between June 20 and November 7. The research team was composed of 6 people – 5 scientists and 1 volunteer. The first phase of the study was surveying the entire coastline, and discovering the possible caves which have the possibility of being used by the seals. After completing the survey, second phase was installing infrared monitoring systems to the caves. And third phase was to check and reinstall the monitoring devices to the caves. Between Kemer (36°32'10"N – 30°33'40"E) and Finike(36°16'11" - 30°22'04"E) nearly 70km of coastline was completely covered. Although total of 37 caves were discovered 11 monitoring device was installed to 8 possible caves. More than 200 seal photographs were collected from 3 caves and 3 different individuals were identified. A GIS inventory was created with the results of surveys. The human disturbance was observed to be very high over the monk seal habitats, and most serious pressure was appeared to be the human intruders which were even observed with infrared monitors. The results of this study are not only important for conservation planning in the scale of studied region, but also enlightening for a better understanding of the seal population, their interaction and habitat use in the entire Turkish Mediterranean Sea.