LIFE - Nature Project LIFE12 NAT/GR/000688

CYCLADES Life: Integrated monk seal conservation of Northern Cyclades

3rd Annual Conservation Status Report

of the Mediterranean monk seal population at the island of Gyaros

Executive summary

June 2016

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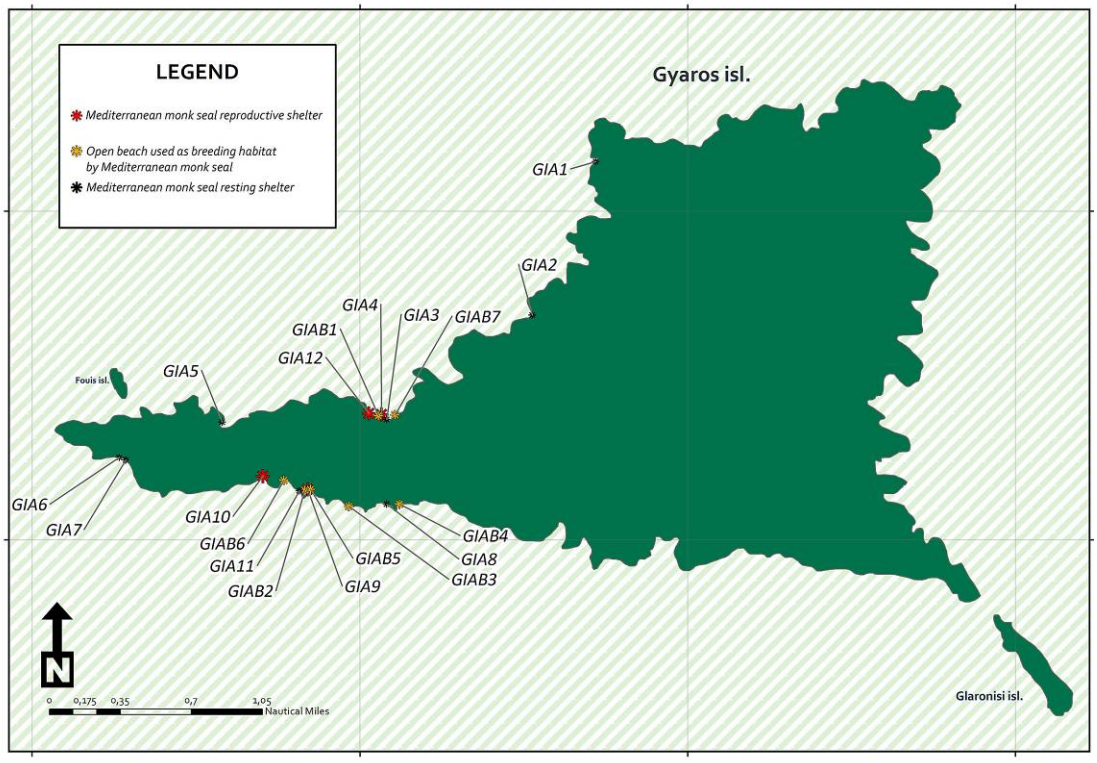
INTRODUCTION

The Mediterranean monk seal (*Monachus monachus*) is the rarest extant member of the family Phocidae and is classified by the IUCN as “Endangered”. Once widely and continuously distributed in the Mediterranean and Black Seas, and in the north Atlantic waters from Morocco to Cap Blanc, including the Azores, the Canary and the Madeira Islands, the species is currently found only in the eastern Mediterranean, in Madeira and in Cabo Blanco. In the eastern Mediterranean the main stronghold of the Mediterranean monk seal is in Greece; one of the most important populations of the species has been identified at the island of Gyaros in the northern Cyclades. This report provides an overview of the main research findings of the program LIFE CYCLADES in 2015 – 2016, taking into account the research findings of more than a decade of monitoring the species at the island of Gyaros by the MOm/Hellenic Society for the Study and Protection of the Monk seal. The methodology used in studying the species have been thoroughly described in the previous reports of the program.

RESULTS

The main results obtained during the reporting period are:

- Throughout the 37.05 km coastline of Gyaros eleven suitable coastal caves have been identified; four of the caves have been evaluated as suitable for resting and pupping, while the other eight have been evaluated as suitable only for resting. Another eight open beaches are regarded as suitable terrestrial habitat for monk seals as they have been found to be used by the species. During the reporting period two of the caves (GIA2 and GIA3) that had undergone significant morphological changes returned to their "original" state and were included again in the monitoring scheme.



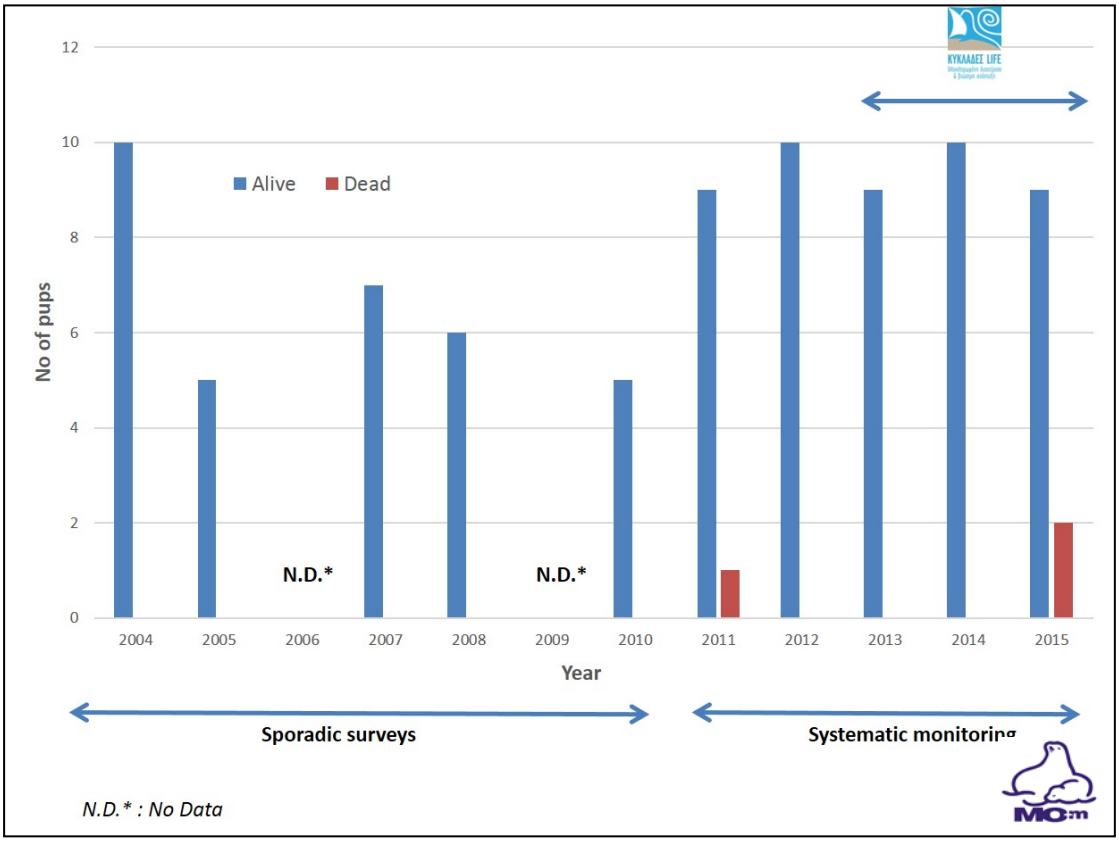
Map 1. Location of the terrestrial monk seal habitats at the island of Gyaros

- Most monk seal shelters at the island of Gyaros have entrances above water surface that lead through long entrance corridors to the main cave chamber, which includes one or more dry surfaces (internal beaches) for resting and/or pupping. The resting/pupping area is a beach consisting of sand and/or pebbles.

- Terrestrial habitat use appears to be constant and intense throughout the year with a considerable increase during the pupping season. Seals have been observed using all parts of the beaches in the two main pupping caves GIA4 and GIA10 at Gyaros; even during bad sea conditions there usually is a dry part of the beach that provides safe refuge to the seals in the cave. The local monk seal population uses regularly also an open beach GIAB6 that is located next to the pupping cave GIA10.

Picture 1 Adult females using the open beach GIAB6 for nursing (up) © P.Dendrinos/MOm or molting (down) © A. A. Karamanlidis/MOm.

- During the reporting period 11 monk seals were born; from 2004 – 2016 the birth of 83 monk seals was recorded and the mean annual pup production in 2011 – 2016, when systematic monitoring efforts were carried out was 10.3. During the reporting period two pups were found dead within the first two months of their life.



Picture 2. Annual pup production at Gyaros island

- Analysis of the audiovisual material collected so far (25478 photographs obtained from infrared cameras installed) has enabled the individual identification of 34 individuals [excluding newborn pups; i.e., 27 adult females, 7 adult males]. Based on the mean annual pup production we estimate that approximately 70 non-pup individuals live at Gyaros.

Picture 3 Characteristic identification cards of the adult male M7_FILIPPOS_GYAROS. © MOm.

Picture 4. Characteristic identification pictures of the adult female F14_VEATRIKI_GYAROS, during 3 different years, 2011, 2014 και 2015. © MOm & © P.Dendrinos/MOm.

CONCLUSION

Following the thorough evaluation of the data collected so far we conclude that:

- Terrestrial habitat availability and quality for the Mediterranean monk seal at the island of Gyaros continues to be similar to that of other important monk seal populations in the eastern Mediterranean, such as the Northern Sporades in the northern Aegean and Kimolos & Polyaigos, and Karpathos & Saria in the southern and south eastern Aegean, respectively. The two main pupping caves at Gyaros possess ideal morphological characteristics for pupping and cave GIA4 continues to have among the highest annual pupping rates for a cave in the eastern Mediterranean.

- The mean annual number of births (n = 10.3) recorded at the island of Gyaros is one of the highest recorded for the species in the Mediterranean Sea.

- The demographic structure and behaviour of the Mediterranean monk seal population at the island of Gyaros continues to be similar to that observed at the monk seal population at Cabo Blanco and is indicative of a population with the typical demographic structure of a seal colony. This is the only known monk seal population so far in the eastern Mediterranean with this population structure.

The present findings in respect to demographic structure, habitat availability, quality and density, annual pup productivity and, most importantly, the fact that the species uses in the area open beaches as pupping sites, show clearly that the island of Gyaros still represents an area of outstanding importance for the survival of the Mediterranean monk seal.

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