

# ANALYSIS OF SIGHTINGS OF MONK SEAL (*MONACHUS MONACHUS*, HERMANN 1779) IN THE CROATIAN PART OF THE ADRIATIC 2006-2009

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## Abstract

The monk seal (*Monachus monachus*, Hermann 1779) belongs to the order Pinnipeds (*Pinnipedia*), family seal (*Phocidae*), sea monk genus (*Monachus*). The total population amounts to about 350 individuals in smaller, isolated and endangered groups. The aim, during a four-year systematic research (2006-2009) the data on the sightings of monk seal in the Croatian part of the Adriatic Sea have been collected. The results, the sightings were reported in the area (79 sightings). According to the systematic research of the habitat (21 caves) of the open-sea islands and the Adriatic coast and their recordings, it has been determined that a monk seal stays in them. Conclusion, for the survival of the species it is essential to protect areas of open-sea islands in the Adriatic and to place infrared cameras inside the caves thus giving us the insight of their use.

**Keywords:** *Adriatic Sea, Islands*

## Introduction

The monk seal (*Monachus monachus*, Hermann 1779) belongs to pinnipeds (*Pinnipedia*), of family seal (*Phocidae*), sea monk genus (*Monachus*). It lives in small groups at the Mediterranean and Adriatic [1]. It uses caves which have a sunny beach or stone plaques as habitats [3]. In the Atlantic it lives along the West Sahara coast, Mauritania and Morocco. They stay in the litter area. Due to its sensitivity, rarity and critical status it belongs to ten most endangered mammals of the world. [2]. Once, the number of the individuals in the Adriatic was 64 and today this number has drastically decreased [5]. It feeds on molluscs, cephalopods and fish. The population of the species is decreasing. The exact cause is not known. It is presumed that it is caused by killing of sexually mature individuals and decreased reproduction activity and mortality due to viral disease. The biology of the species is still quite unknown [4].

## Material and Methods

The aim of a four year (2006 – 2009) systematic research is gathering data on sightings of the monk seal in the Croatian part of the Adriatic and to research new caves/habitats of the species. The interest group – fishermen are given a questionnaire/postcard during a terrain visit of the researched area at the Adriatic. The gathered data on the sights of the individual and their analyses will enable new ideas on the behaviour of the individual during meeting and time of keeping back/observation.

## Results

The four year systematic research of the habitat (21 caves) of open-sea islands and the Adriatic coast and their recording, it has been determined that a monk seal stays in them. The monk seal is present in the Adriatic Sea. The sightings were reported in the area of the whole Croatian part of the Adriatic (79 sightings, picture 1). The photoidentification method of video records and photographs of the monks seals was used. Based on these results it is presumed that several various individuals have been living in this area of the Adriatic (a male, a female and a young of the animal) and individuals for which a gender could not have been determined by photoidentification.



Map of Croatia  
■ Sightings of the Monk Seal (*Monachus monachus*)  
in the Croatian part of the Adriatic 2006 - 2009.

Fig. 1. Sightings of the Monk Seal (*Monachus monachus*) in the Croatian part of the Adriatic 2006 - 2009

## Discussion

The public became interested in reporting their sightings of the species by educational methods/lectures, distributions of questionnaires on the sightings of monk seals. Simultaneous sightings in various areas indicated that a smaller population of the monk seal lives in the Adriatic in two colonies of 5-7 individuals. Material evidence is video records and photographs of individuals taken in caves or near them, in various areas of the Croatian part of the Adriatic. Survival of the species can be obtained by establishing specially protected areas of open sea islands of the Adriatic and placing infrared cameras inside caves which would give us the insight into their use.

## References

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