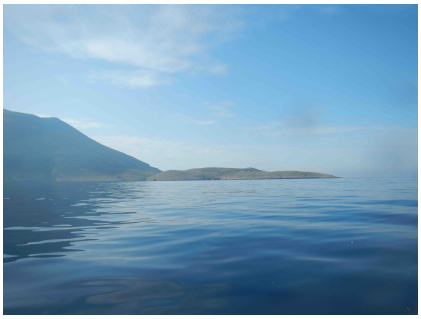
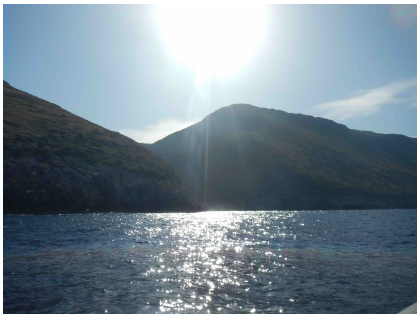
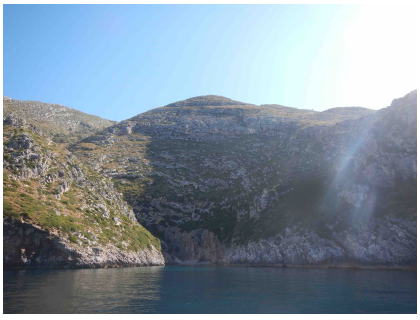
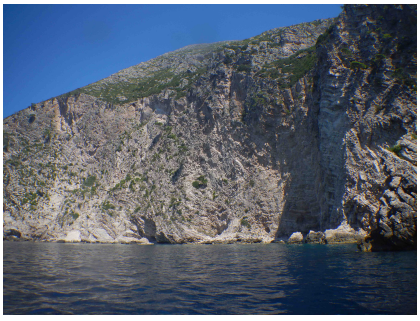
Catalogue of the potential suitable habitat (marine caves) for the Mediterranean monk seal, *Monachus monachus*, in the National Marine Park Karaburun-Sazan





Archipelagos
ambiente e sviluppo
environment and development

The present catalogue is an outcome of the project

Sustainability, threats, presence and habitat use of the Mediterranean monk seal in Albania

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Prepared by **Archipelagos - ambiente e sviluppo, Italia**

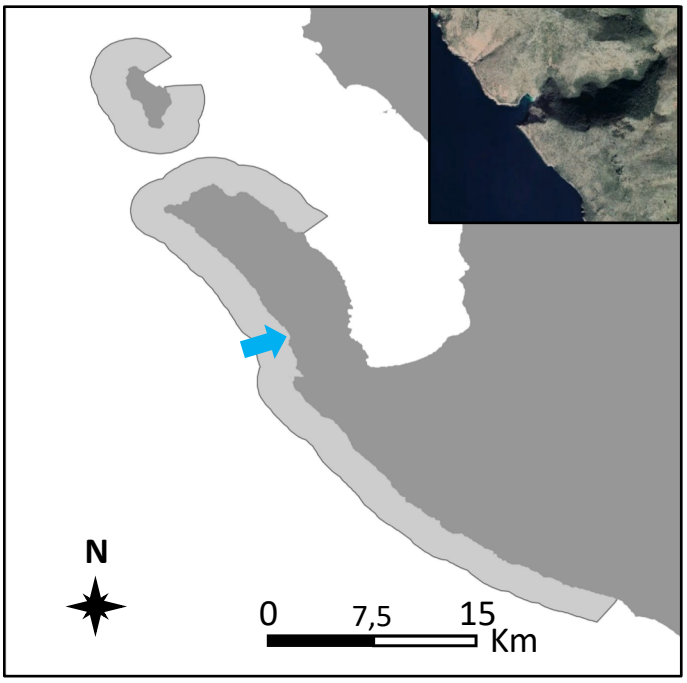
To and in collaboration with the managing authority of the **National Marine Park Karaburun-Sazan** (Parku Kombetar Dëtar Karaburun-Sazan), the **Regional Administrate of Protected Area-RAPA Vlorë** (Administrata e Zonave Mbrojtura Vlorë).

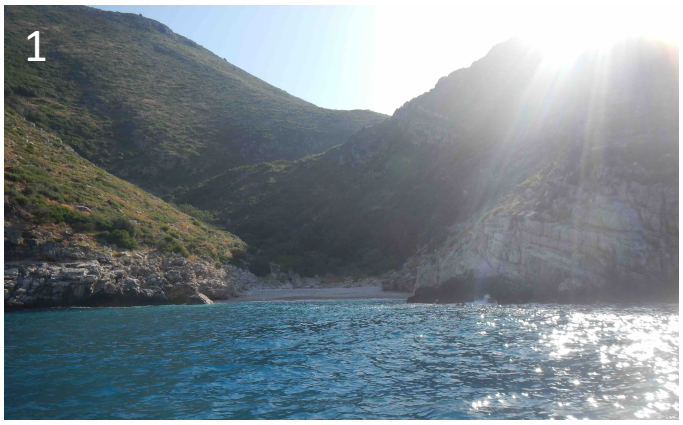
In consideration of the sensitivity of the reported data, no part of this catalogue should be made publicly available without the express and simultaneous consent of RAPA Vlorë and Archipelagos - ambiente e sviluppo, Italia

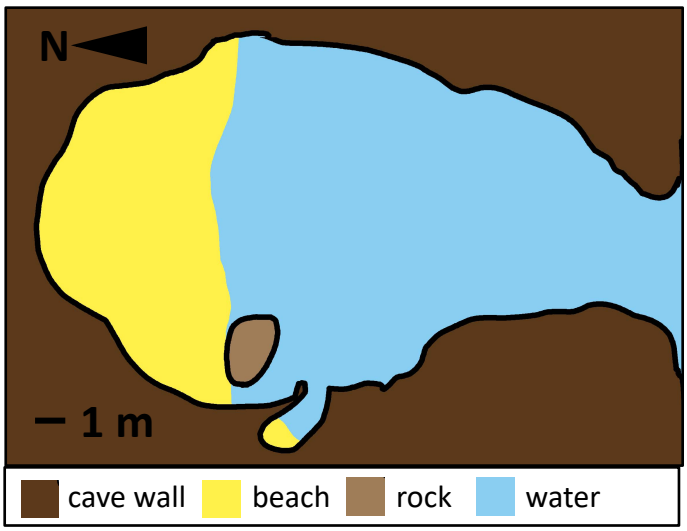
Archipelagos - ambiente e sviluppo, Italia. 2021. Catalogue of the potential suitable habitat (marine caves) for the Mediterranean monk seal, *Monachus monachus*, in the National Marine Park Karaburun-Sazan. Compiled by L. Bundone, internal document to RAPA Vlorë. Within the context of the Project "Sustainability, threats, presence and habitat use of the Mediterranean monk seal in Albania". Grant n°CEPF-109941, funded by the Critical Ecosystem Partnership Fund (CEPF). Co-funded by OceanCare. 9 pp

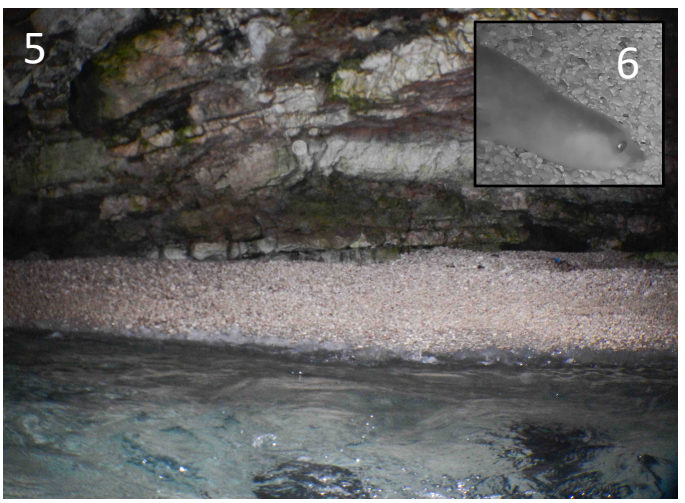
Venice, Italy May 2021

Dafine Cave 40°21’05”N, 19°21’47” E
Potential breeding cave. Located on the north side of the bay of Dafine (fig. 1) is a huge cave with an entrance (fig 2-3) above sea level. The internal sandy/pebbly beach (fig. 4) is about 10 m wide. It presents a secondary minor branch that ends with a tiny beach -pebbles- (fig. 5). The cave is a potential good Breeding cave for the Mediterranean monk seal. The adjacent beach of Dafine bay is quite frequented by tourist during summer that easily can access the cave. Additionally, it seems that smuggling activities have been carried out in its interior. In November 2019 an Infrared camera was positioned in the interior. In February 2021 a monk seal was finally caught -active cave-(fig.6)

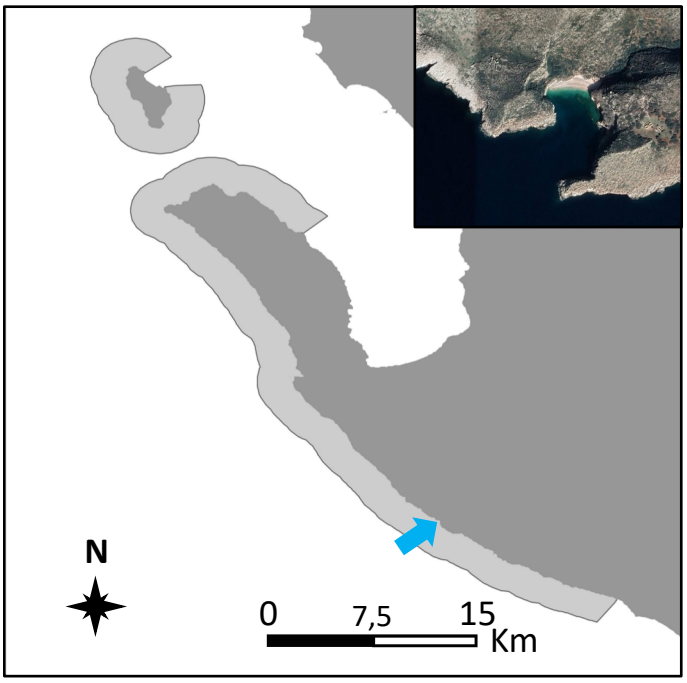


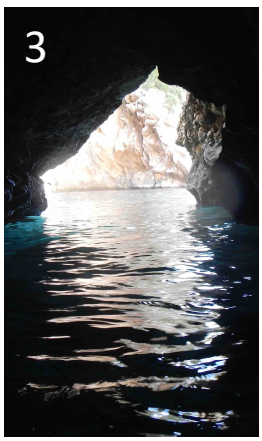


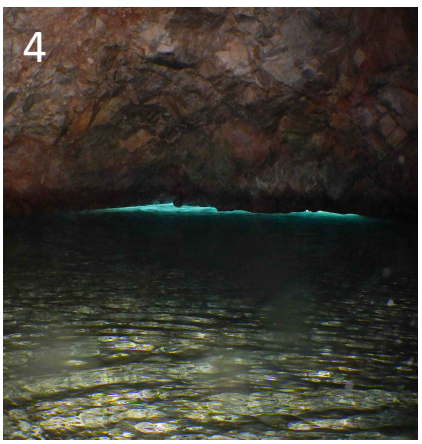


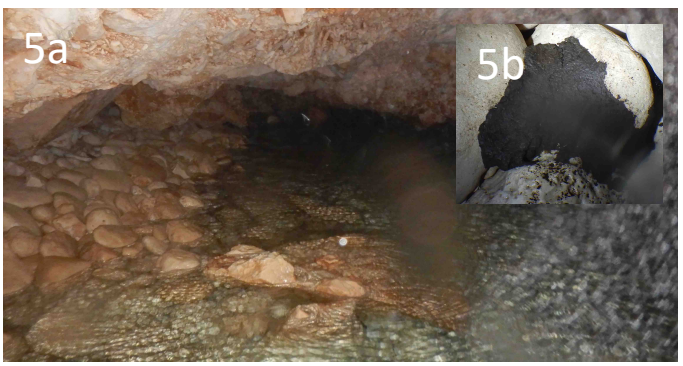


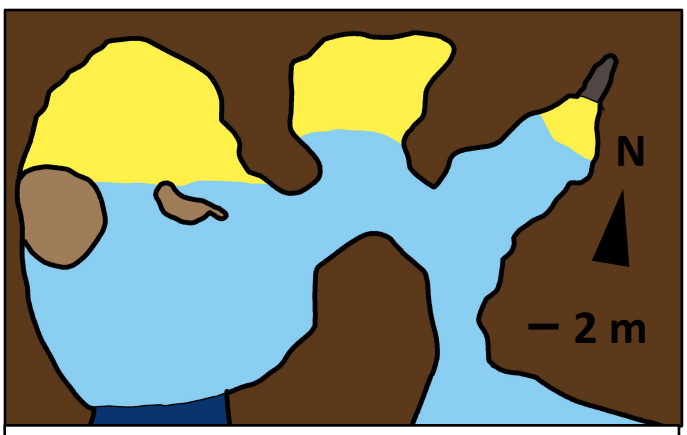
Grama Cave 40°12’57”N, 19°28’22” E
Potential breeding cave. Located on the southwest side of the bay of Grama (fig. 1), is composed of three rooms with rocky beaches (fig. 5a & 6a): sand could be present according to the wave actions. The cave has an entrance above sea level (fig. 2 & 3) and a wide syphon (fig. 4) in the more internal room just below sea level. In August 2019 a monk seal scat (fig. 5b) was recovered in the intermediate beach. The cave was monitored since November 2019. In December 2020 and January 2021 monk seal presence was recorded by the camera in the first beach- active cave- (fig. 6b).

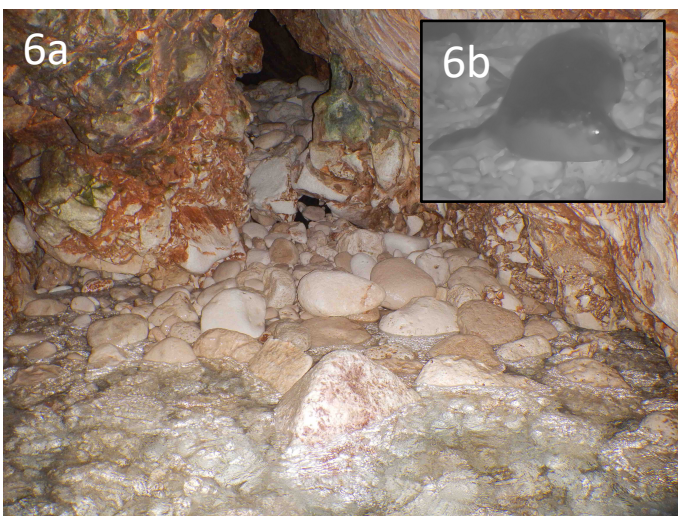




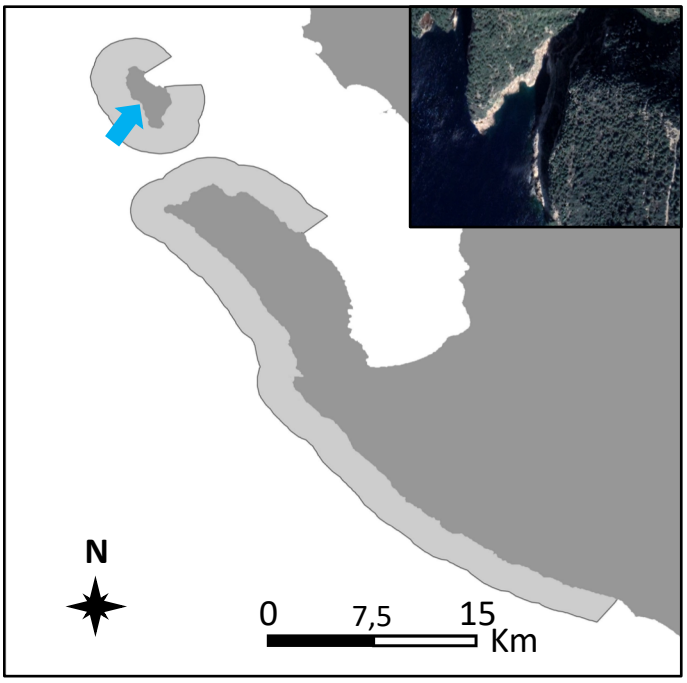


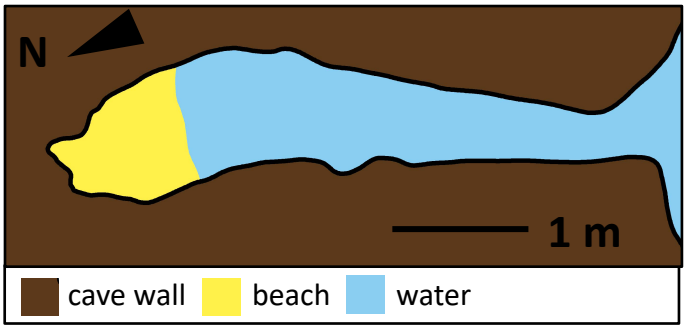




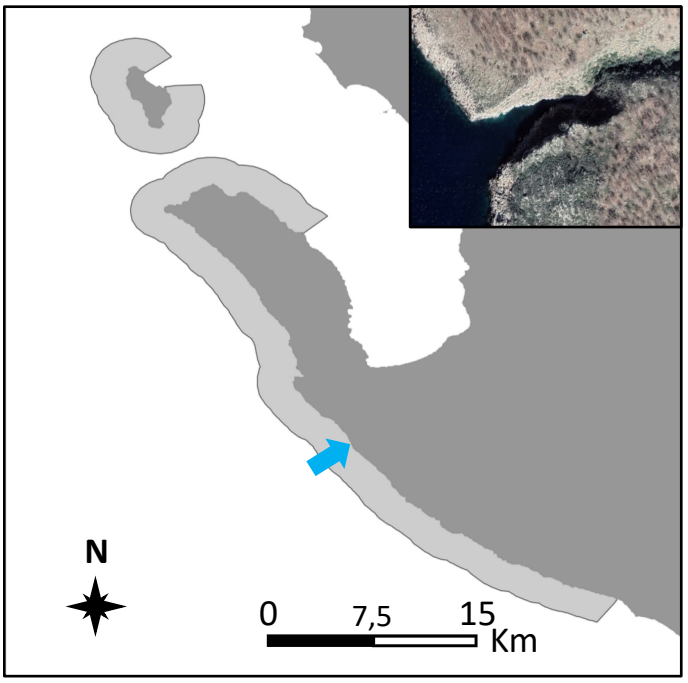


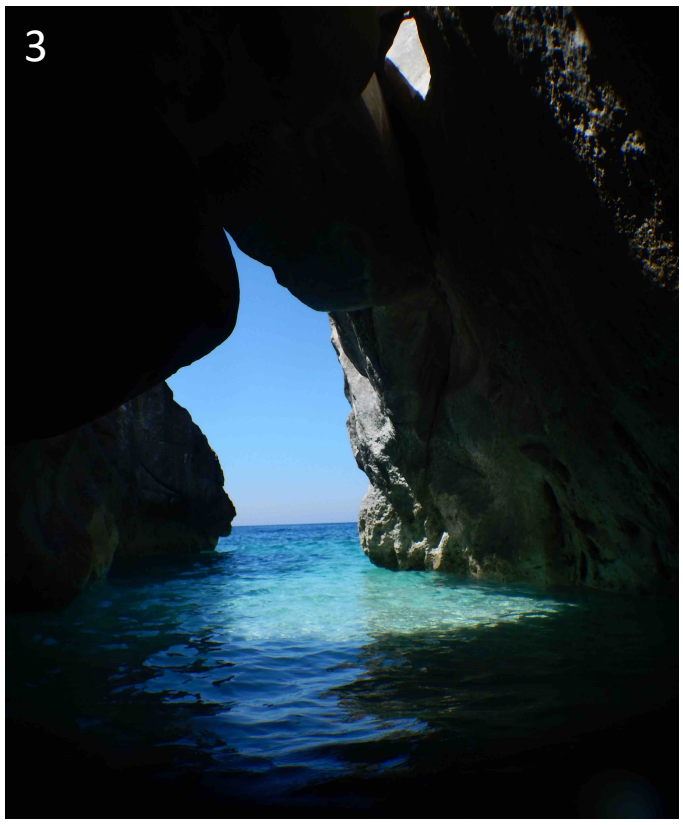
S01 Cave 40°29’24”N, 19°16’28” E
Potential resting/breeding cave. The cave (fig. 1,2 & 4), on the island of Sazan, is located at the end of a protected cove. It is characterized by a tiny small pebble beach (fig. 3), presenting the very minimum morphological characteristics as a potential breeding cave. Is suitable for the species at least as a resting cave. Confirmed and unconfirmed sightings have been reported from the surroundings, including from an underwater entrance cave (40°29’23”N, 19°16’27” E) in the close proximity of this cave (fig. 5), which require further investigations.

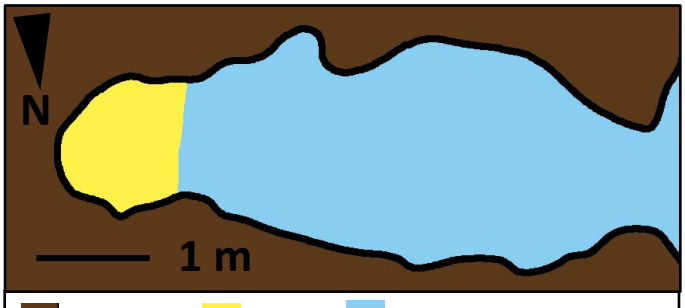




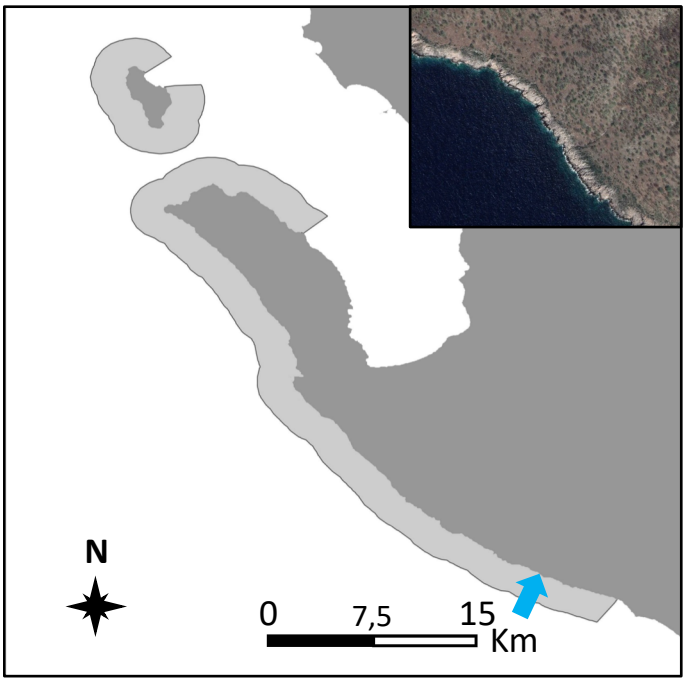
K01 Cave 40°16’18”N, 19°24’26” E
Potential resting/breeding cave. The internal sandy beach (fig. 5) of the cave can provide shelter to monk seal specimens, where they might as well give birth in its interior. However, the morphological characteristics are far away from an ideal breeding cave, but it is certainly suitable for haul out and rest.

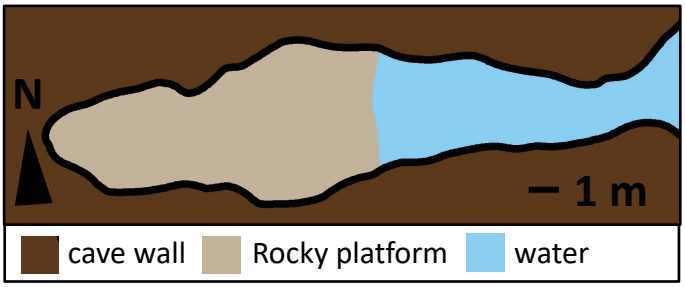


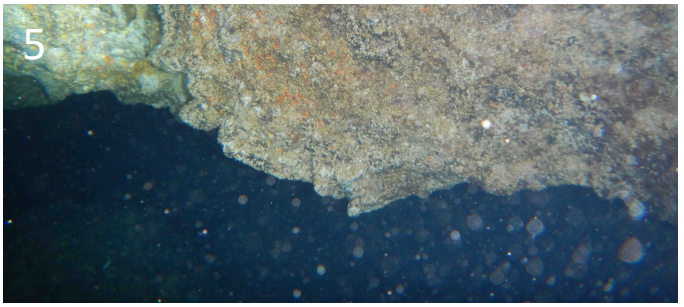




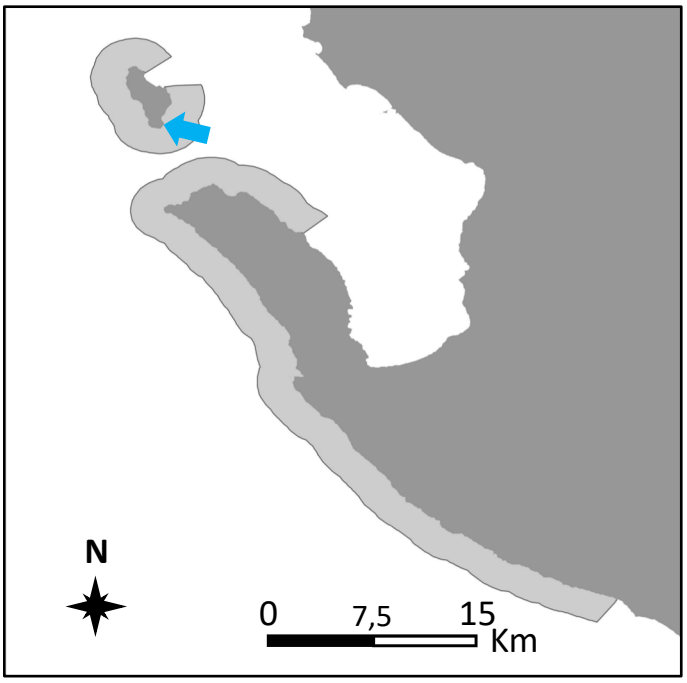
K02 Cave 40°11’16”N, 19°31’46” E
Potential resting/breeding cave. The cave present in its interior a rocky platform (fig. 3) suitable for the species use. The specimens frequenting this stretch of coast might use take advantage of this cave. Additionally, the presence of a close-by syphon (5) requires additional researches oriented in investigating also marine caves with underwater entrances. The exposure of the cave (fig. 1, 2a & 2b) to waves and currents might not allow to classifying the cave as one presenting good condition for giving birth.

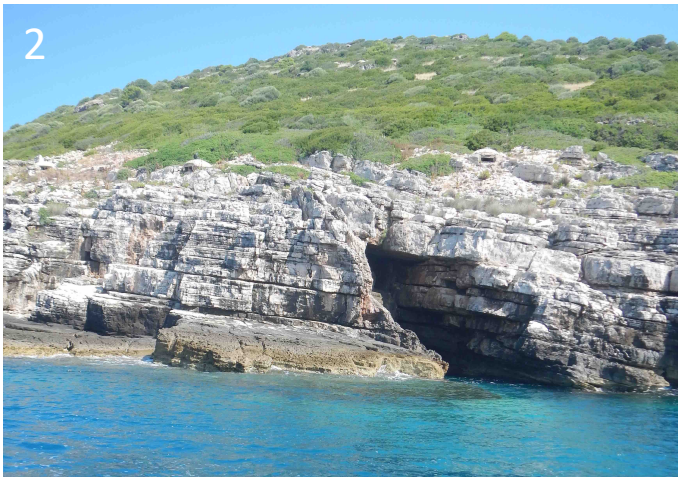


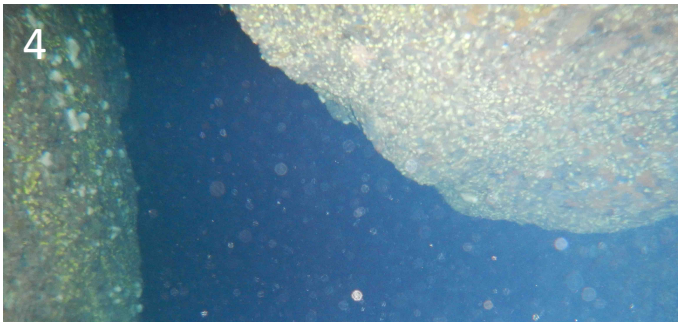


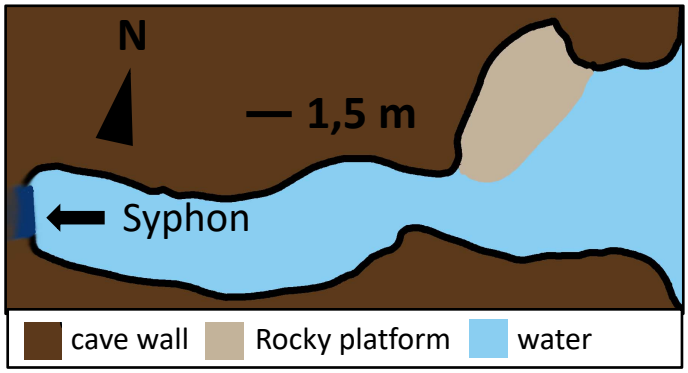


S02 Cave 40°28’24”N, 19°17’07” E
The cave is located on the island of Sazan (fig. 1). Despite it does not present in its interior any beach, the presence of a rocky platform on the entrance (fig.2), a main platform system in the immediate exterior (fig. 2), and the existence of a syphon in the interior (fig. 4 & 5), allowed to consider the cave as potentially suitable for the species. The syphon clearly requires further investigation surveys. The island of Sazan was reported to be frequented by the species in literature over the past times, without any reference of actual habitat use. The last confirmed report from the surroundings of the island date back to 2003.

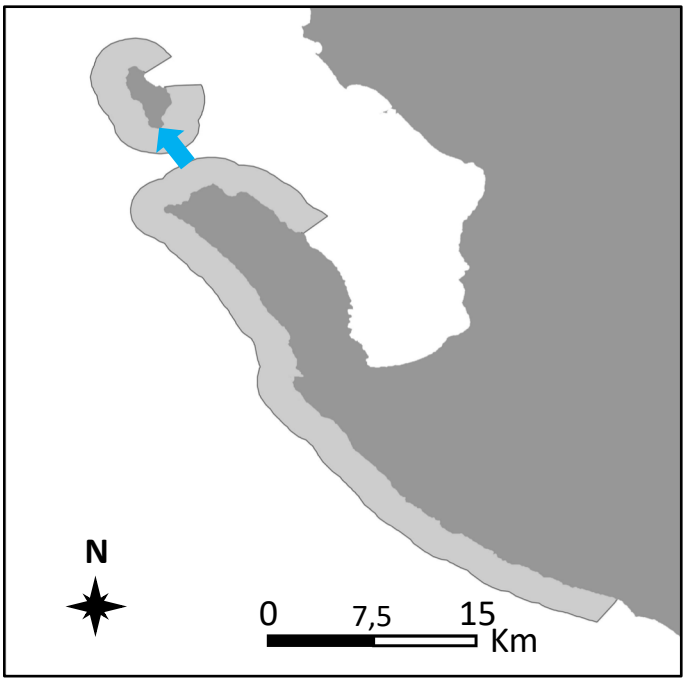


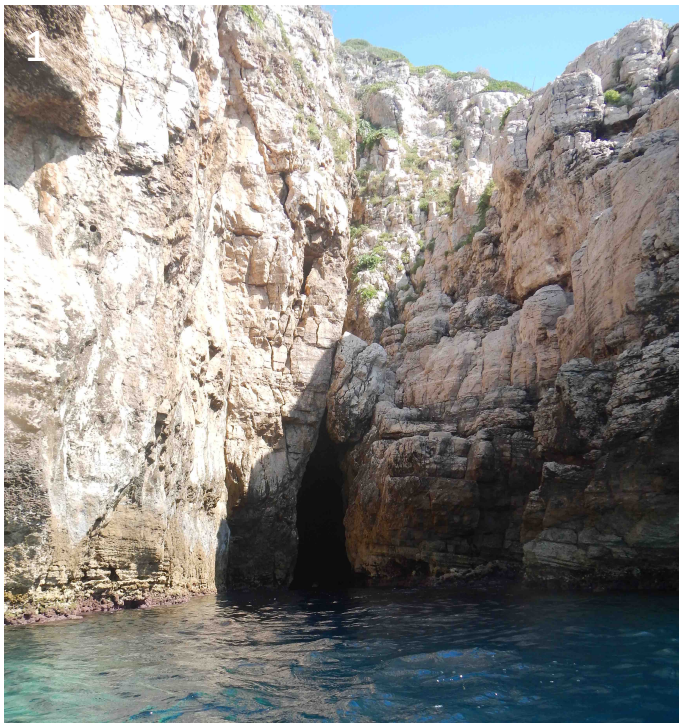


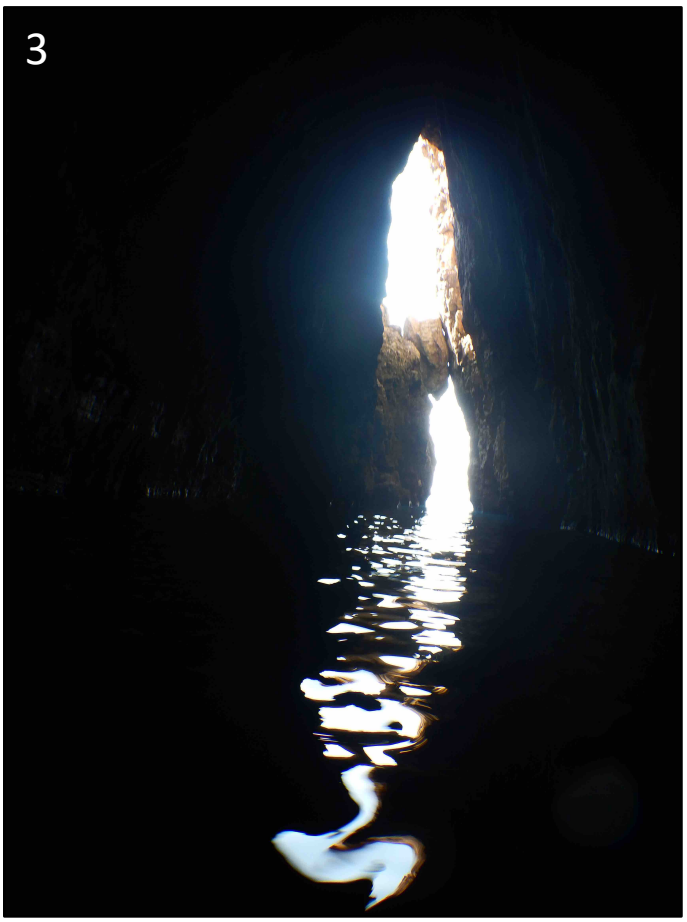


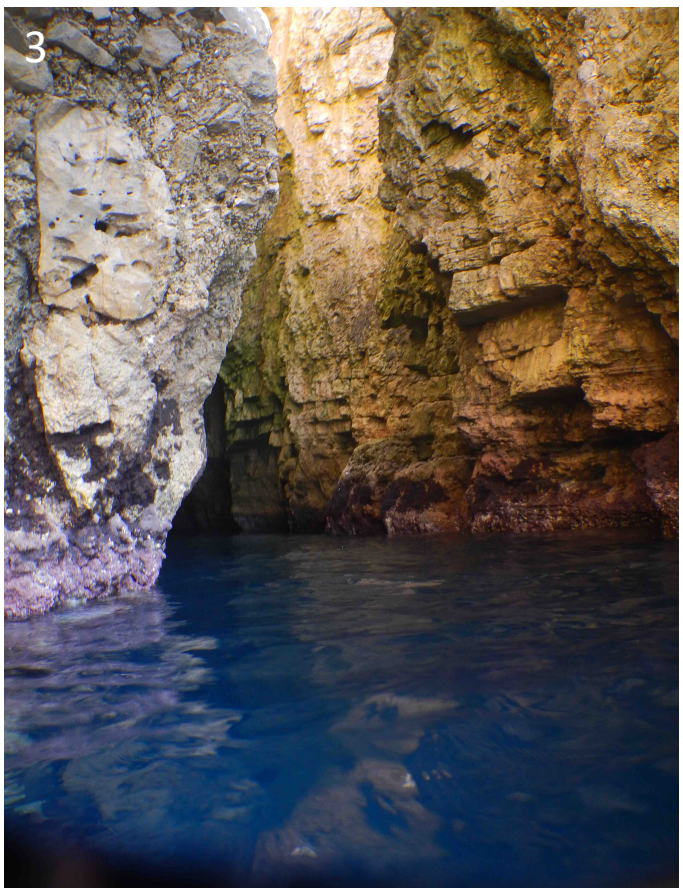


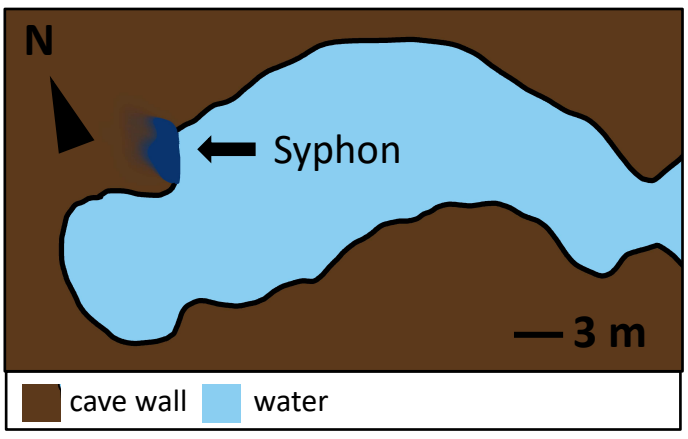
S03 Cave 40°28’28”N, 19°17’12” E
Also this cave is located on the island of Sazan. It does not have in its interior beaches or platforms. However, in its most internal part, it presents a syphon. Underwater entrances cave were not investigated within this preliminary survey but the information related was recorded for future surveys as they might represent potentially suitable habitat available for the species.











Haxi Ali Cave 40°25’47”N, 19°18’24” E
The cave is one of the best known marine cave in the area, regularly visit by tourist in summer season. The big entrance cave (fig. 1,2 & 3) and the touristic pressure (fig.3) might exclude the cave as suitable for the species. However, the presence of collapsed rocks at the entrance (fig. 1) and in the interior part, along with the almost absence of human frequentation outside the summer season, make this cave a potential resting cave for the monk seal.