

Report on the main results of the surveillance under article 17 for annex I habitat types (Annex D)

CODE: 8330

NAME: Submerged or partially submerged sea caves

1. National Level

1.1 Maps

1.1.1 Distribution Map	Yes
1.1.2 Distribution Method	Estimate based on partial data with some extrapolation and/or modelling (2)
1.1.3 Year or period	2012
1.1.4 Additional map	No
1.1.5 Range Map	Yes

2. Biogeographical Or Marine Level

2.1 Biogeographical Region

2.2 Published

Marine Mediterranean (MMED)

- Gerovasileiou V, Voultsiadou E (2012) Marine Caves of the Mediterranean Sea: A Sponge Biodiversity Reservoir within a Biodiversity Hotspot. PLoS ONE 7(7): e39873. doi:10.1371/journal.pone.0039873
- Giakoumi, S., Sini, M., Gerovasileiou, V., Mazor, T., Beher, J., Possingham, H. P., ... & Katsanevakis, S. (2013). Ecoregion-Based Conservation Planning in the Mediterranean: Dealing with Large-Scale Heterogeneity. PLoS one, 8(10), e76449.
- Parravicini, V., Guidetti, P., Morri, C., Montefalcone, M., Donato, M., & Bianchi, C. N. (2010). Consequences of sea water temperature anomalies on a Mediterranean submarine cave ecosystem. Estuarine, Coastal and Shelf Science, 86(2), 276-282.
- HCMR unpublished data (2007-2014).

2.3 Range of the habitat type in the biogeographical region or marine region

2.3.1 Surface area - Range (km ²)	41441,4
2.3.2 Range method used	Estimate based on partial data with some extrapolation and/or modelling (2)
2.3.3 Short-term trend period	2001-2012
2.3.4 Short-term trend direction	stable (0)
2.3.5 Short-term trend magnitude	min max
2.3.6 Long-term trend period	
2.3.7 Long-term trend direction	N/A
2.3.8 Long-term trend magnitude	min max
2.3.9 Favourable reference range	area (km ²) operator approximately equal to (≈) unkown No method Range has been estimated from cave occurrence data provided in the literature. Since the original habitat type's definition is based on geological rather than biological criteria, its range cannot have changed since the adoption of the Directive. FRR is thus considered equal to the current range.
2.3.10 Reason for change	Improved knowledge/more accurate data

2.4 Area covered by Habitat

Report on the main results of the surveillance under article 17 for annex I habitat types (Annex D)

2.4.1 Surface area (km ²)	
2.4.2 Year or period	
2.4.3 Method used	Absent data (0)
2.4.4 Short-term trend period	2001-2012
2.4.5 Short-term trend direction	stable (0)
2.4.6 Short-term trend magnitude	min max
2.4.7 Short term trend method used	Complete survey/Complete survey or a statistically robust estimate (3)
2.4.8 Long-term trend period	
2.4.9 Long-term trend direction	N/A
2.4.10 Long-term trend magnitude	min max
2.4.11 Long term trend method used	N/A
2.4.12 Favourable reference area	<p>area (km)</p> <p>operator N/A</p> <p>unknown No</p> <p>method Surface area for marine caves cannot be determined due to inherent difficulties. As this habitat type is defined by geological rather than biological criteria, its area (or number) cannot have changed since the adoption of the Directive.</p>
2.4.13 Reason for change	

2.5 Main Pressures

Pressure	ranking	pollution qualifier(s)
Changes in abiotic conditions (M01)	low importance (L)	N/A
scuba diving, snorkelling (G01.07)	medium importance (M)	N/A
marine macro-pollution (i.e. plastic bags, styrofoam) (H03.03)	medium importance (M)	N/A
introduction of disease (microbial pathogens) (K04.03)	low importance (L)	N/A
Pollution to surface waters (limnic & terrestrial, marine & brackish) (H01)	medium importance (M)	N/A

2.5.1 Method used – pressures based exclusively or to a larger extent on real data from sites/occurrences or other

2.6 Main Threats

Threat	ranking	pollution qualifier(s)
shallow surface abrasion/ mechanical damage to seabed surface (G05.02)	high importance (H)	N/A
temperature changes (e.g. rise of temperature & extremes) (M01.01)	high importance (H)	N/A
pH-changes (M01.04)	high importance (H)	N/A
Pollution to surface waters (limnic & terrestrial, marine & brackish) (H01)	medium importance (M)	Mixed pollutants (X)
missing or wrongly directed conservation measures (G05.07)	high importance (H)	N/A
marine macro-pollution (i.e. plastic bags, styrofoam) (H03.03)	high importance (H)	N/A

2.6.1 Method used – threats expert opinion (1)

2.7 Complementary Information

Report on the main results of the surveillance under article 17 for annex I habitat types (Annex D)

2.7.1 Species

Peyssonnelia squamaria (S.G.Gmelin) Decaisne, 1842

Palmophyllum crassum (Naccari) Rabenhorst, 1868

Mesophyllum expansum (Philippi) Cabioch & Mendoza, 2003

Peyssonnelia rubra (Greville) J.Agardh, 1851

Petrosia ficiformis (Poiret, 1789)

Agelas oroides (Schmidt, 1864)

Spirastrella cunctatrix Schmidt, 1868

Myriapora truncata (Pallas, 1766)

Miniacina miniacea (Pallas, 1766)

2.7.2 Species method used

The list of typical species presented here follows the phytosociological criteria set by Dafis et al. 2001, upgraded by recent field samplings and relevant studies to include other important engineering and structural species. There is no applied methodology as yet to quantitatively assess the quality of these habitats.

2.7.3 Justification of % - thresholds for trends

2.7.4 Structure and functions - methods used

Estimate based on partial data with some extrapolation and/or modelling (2)

2.7.5 Other relevant information

2.8 Conclusions (assessment of conservation status at end of reporting period)

2.8.1 Range
assessment Favourable (FV)
qualifiers N/A

2.8.2 Area
assessment Unknown (XX)
qualifiers N/A

2.8.3 Specific structures and functions (incl Species)
assessment Unknown (XX)
qualifiers N/A

2.8.4 Future prospects
assessment Inadequate (U1)
qualifiers stable (=)

2.8.5 Overall assessment of Conservation Status
Inadequate (U1)

2.8.5 Overall trend in Conservation Status
stable (=)

3. Natura 2000 coverage conservation measures - Annex I habitat types on biogeographical level

3.1 Area covered by habitat

3.1.1 Surface area (km²)
min max

3.1.2 Method used
Absent data (0)

3.1.3. Trend of surface area
stable (0)

3.2 Conversation Measures

Report on the main results of the surveillance under article 17 for annex I habitat types (Annex D)

3.2.1 Measure	3.2.2 Type	3.2.3 Ranking	3.2.4 Location	3.2.5 Broad Evaluation
Measures needed, but not implemented (1.2)	Legal	medium importance (M)	Both	Maintain