

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

CODE: 2110

NAME: Embryonic shifting dunes

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	2006-2012
1.1.4 Additional map	No
1.1.5 Range Map	Yes

2. Biogeographical Or Marine Level

2.1 Biogeographical Region

2.2 Published

Mediterranean (MED)

Dimopoulos P., Xystrakis F. and Tsiripidis I. 2014. Deliverable A1. Final Catalogue of Habitat Types – 1st edition. Ministry of Environment, Energy and Climate Change, OIKOM Ltd - E. Alexandropoulou - A. Glavas, Athens, pages 54.

Dimopoulos P., Fotiadis G., Tsiripidis I., Panitsa M. and Karadimou E. 2014. Deliverable A2. Report and Literature Database on Habitat Types of Greece – 1st edition. Ministry of Environment, Energy and Climate Change, OIKOM Ltd - E. Alexandropoulou - A. Glavas, Athens, pages 210.

Tsiripidis I., Xystrakis F., Kasampalis D., Mastrogianni A., Strid A. and Dimopoulos P., 2014. Deliverable A4. Potential Distribution Maps of Habitat Types – 1st edition. Ministry of Environment, Energy and Climate Change, OIKOM Ltd - E. Alexandropoulou - A. Glavas, Athens, Athens, pages 176.

Dimopoulos P., Tsiripidis I., Xystrakis F., Panitsa M., Fotiadis G., Kallimanis A.S. and Kazoglou I. 2014. Deliverable A6. Explanatory Implementation Manual for the Conservation Degree Assessment of Habitat Types – 1st edition. Ministry of Environment, Energy and Climate Change, OIKOM Ltd - E. Alexandropoulou - A. Glavas, Athens, pages 35. (with Annexes: I. Habitat types protocols, pages 600; II. Explanatory notes on the habitat types protocols selection, pages 4; III. Correspondence of Habitat types protocols with the clusters of vegetation relevés (excel file).

Dimopoulos P., Tsiripidis I., Xystrakis F., Kallimanis A.S and Panitsa M. 2014. Deliverable A7. Preliminary Analysis of the Field Data for the Habitat Types – 1st edition. Ministry of Environment, Energy and Climate Change, OIKOM Ltd - E. Alexandropoulou - A. Glavas, Athens, pages 16.

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Βασιλείου Α., Μπαμπαλώνας Δ. & Greuter W. 2000. Ανάλυση της βλάστησης και των εδαφικών συνθηκών στη λιμνοθάλασσα της Επανομής. Πρακτικά 8ου Επιστημονικού Συνεδρίου της Ελληνικής Βοτανικής Εταιρείας, Πάτρα, 5-8 Οκτωβρίου 2000: 89-95.

Γεωργιάδης Θ., Δημόπουλος Π., Πανίτσα Μ. & Δημητρέλλος Γ. 1996. Τα φυσικά οικοσυστήματα της Πελοποννήσου με βάση την ποικιλότητα σε τύπους οικοτόπων και τα σημαντικά τους είδη. Πρακτικά 6ου Επιστημονικού Συνεδρίου της Ελληνικής Βοτανικής Εταιρείας και της Βιολογικής Εταιρείας Κύπρου, Παραλίμνι Κύπρου, 6-11 Απριλίου 1996: 68-73.

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Voliotis D. & Drossos E. 1982. A study of an Extensive Biotope of the Aromatic Sea daffodil (*Pancratium maritimum*) near Aphytos. Cassandra Peninsula, Northern Greece. *Bauhinia* 7/4: 229-242.

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

2.3.1 Surface area - Range (km ²)	105,71
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
2.3.10 Reason for change	Improved knowledge/more accurate data Use of different method

2.4 Area covered by Habitat

2.4.1 Surface area (km ²)	32,85
2.4.2 Year or period	2000-2012
2.4.3 Method used	Estimate based on partial data with some extrapolation and/or modelling (2)
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	Estimate based on partial data with some extrapolation and/or modelling (2)
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	area (km) operator more than (>) unknown No method
2.4.13 Reason for change	Improved knowledge/more accurate data Use of different method

2.5 Main Pressures

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Pressure	ranking	pollution qualifier(s)
Cultivation (A01)	low importance (L)	N/A
grazing (A04)	low importance (L)	N/A
forest planting on open ground (B01)	low importance (L)	N/A
Mining and quarrying (C01)	low importance (L)	N/A
Roads, paths and railroads (D01)	low importance (L)	N/A
Urbanised areas, human habitation (E01)	low importance (L)	N/A
Discharges (E03)	low importance (L)	N/A
Outdoor sports and leisure activities, recreational activities (G01)	low importance (L)	N/A
Sport and leisure structures (G02)	low importance (L)	N/A
Other human intrusions and disturbances (G05)	low importance (L)	N/A
Soil pollution and solid waste (excluding discharges) (H05)	low importance (L)	N/A
invasive non-native species (I01)	low importance (L)	N/A
fire and fire suppression (J01)	low importance (L)	N/A
human induced changes in hydraulic conditions (J02)	low importance (L)	N/A
Other ecosystem modifications (J03)	low importance (L)	N/A

2.5.1 Method used – pressures mainly based on expert judgement and other data (2)

2.6 Main Threats

Threat	ranking	pollution qualifier(s)
Cultivation (A01)	low importance (L)	N/A
grazing (A04)	low importance (L)	N/A
Mining and quarrying (C01)	low importance (L)	N/A
Roads, paths and railroads (D01)	low importance (L)	N/A
Urbanised areas, human habitation (E01)	low importance (L)	N/A
Discharges (E03)	low importance (L)	N/A
Outdoor sports and leisure activities, recreational activities (G01)	low importance (L)	N/A
Sport and leisure structures (G02)	low importance (L)	N/A
Other human intrusions and disturbances (G05)	low importance (L)	N/A
invasive non-native species (I01)	low importance (L)	N/A
fire and fire suppression (J01)	low importance (L)	N/A
human induced changes in hydraulic conditions (J02)	low importance (L)	N/A
Other ecosystem modifications (J03)	low importance (L)	N/A
Soil pollution and solid waste (excluding discharges) (H05)	low importance (L)	N/A

2.6.1 Method used – threats expert opinion (1)

2.7 Complementary Information

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2.7.1 Species

Ammophila arenaria

Anthemis tomentosa

Cakile maritima

Calystegia soldanella

Centaurea aegialophila

Centaurea cuneifolia

Centaurea pumilio

Cutandia maritima

Cyperus capitatus

Echinophora spinosa

Echium arenarium

Elytrigia juncea (syn: *Elymus farctus*)

Eryngium maritimum

Euphorbia paralias

Jasione heldreichii

Matthiola tricuspidata

Ononis variegata

Achillea maritima (syn: *Otanthus maritimus*)

Pancratium maritimum

Pseudorlaya pumila

Silene ammophila subsp. *Carpathae*

Silene congesta

Silene sartorii

Silene succulent

Sporobolus pungens

Triplachne nitens

2.7.2 Species method used

Typical species were determined on the basis of a vegetation database, comprised of about 22000 sampling plots. First, a list of possible typical species was determined per habitat type, selecting the ones presenting a high fidelity value to the habitat types according the algorithm of Tsiripidis et al. (2009) and the phi coefficient value (Chytrý et al. 2002). Then typical species per habitat type were selected from the above-mentioned lists by expert judgment and using as criteria species niche breadth, their ability to comprise indicators of habitat types' conservation status and their function as keystone species. The nomenclature of the typical species follows Dimopoulos et al. (2013).References Chytrý, M., Tichý, L., Holt, J. & Botta-Dukát, J. 2002. Determination of diagnostic species with statistical fidelity measures. *Journal of Vegetation Science* 13: 79–90. Dimopoulos, P., Raus, Th., Bergmeier, E., Constantinidis, Th., Iatrou, G., Kokkini, S., Strid, A. & Tzanoudakis, D. 2013: Vascular plants of Greece: an annotated checklist. – Berlin: Botanischer Garten und Botanisches Museum Berlin-Dahlem, Freie Universität Berlin; Athens: Hellenic Botanical Society. *Englera* 31: 1-367. Tsiripidis, I., Bergmeier, E., Fotiadis,

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2.7.3 Justification of % - thresholds for trends

2.7.4 Structure and functions - methods used

Complete survey/Complete survey or a statistically robust estimate (3)

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 Inadequate (U1)
qualifiers stable (=)

2.8.3 Specific structures and functions (incl Species)

assessment Inadequate (U1)
qualifiers stable (=)

2.8.4 Future prospects

assessment Unknown (XX)
qualifiers N/A

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 24,9 max 24,9

3.1.2 Method used

Complete survey/Complete survey or a statistically robust estimate (3)

3.1.3. Trend of surface area

stable (0)

3.2 Conversation Measures

3.2.1 Measure

3.2.2 Type

3.2.3 Ranking

3.2.4 Location

3.2.5 Broad Evaluation

Establish protected areas/sites (6.1)

Legal
Administrative
One-off

high importance
(H)

Inside

Enhance
Long term