

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

CODE: 95A0

NAME: High oro-Mediterranean pine forests

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.

Habeck F. & Reif A. 1994. Die Waldgesellschaften der montanen und subalpinen Stufe des Ostabfalls des Olymp, Greichenland. Phytocoenologia 22(4): 501-536.

Θεοδωρόπουλος Κ., Ξυστράκης Φ., Ελευθεριάδου Ε. & Σαμαράς Δ. 2011. Ζώνες βλάστησης και τύποι οικοτόπων της περιοχής του Φορέα Διαχείρισης Εθνικού Δρυμού Ολύμπου. Επιστ. Επετ. Σχολής Δασολογίας και Φυσικού Περιβάλλοντος, ΑΠΘ 2002, ΜΕ, σελ. 18 (σε CD).

Χοχλίουρος Π.Σ. 2005. Χλωριδική και Φυτοκοινωνιολογική Έρευνα του Όρους Βερμίου - Οικολογική προσέγγιση. Διδακτορική Διατριβή. Πανεπιστήμιο Πατρών. 352 σελ. + 3 Παραρτήματα.

Xystrakis, F., Theodoropoulos, K., Eleftheriadou, E. & Reif, A. 2009. The vegetation of forest and shrubland with creeping *Pinus heldreichii* in "Elikodromio", Olympus National Park, Greece. In: Ivanova, D. (ed.), Plant, fungal, and habitat diversity investigation and conservation. Proceedings of IV Balkan Botanical Congress, Sofia, 20-26 June 2006. Institute of Botany, Sofia, pg. 345-352.

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

2.3.1 Surface area - Range (km ²)	579
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)	286,43
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 approximately equal to (≈) unknown No method
2.4.13 Reason for change	Improved knowledge/more accurate data Use of different method

2.5 Main Pressures

Pressure	ranking	pollution qualifier(s)
Forest and Plantation management & use (B02)	low importance (L)	N/A
grazing in forests/ woodland (B06)	low importance (L)	N/A
Changes in biotic conditions (M02)	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)
Forest and Plantation management & use (B02)	low importance (L)	N/A
grazing in forests/ woodland (B06)	low importance (L)	N/A
Changes in biotic conditions (M02)	low importance (L)	N/A

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2.6.1 Method used – threats expert opinion (1)

2.7 Complementary Information

2.7.1 Species

Alyssoides utriculata

Anthericum liliago

Aremonia agrimonoides

Calamagrostis arundinacea

Chamaecytisus hirsutus subsp. *polytrichus* (syn: *Chamaecytisus polytrichus*)

Cotoneaster nebrodensis

Cytisus decumbens

Daphne oleoides

Ferulago sylvatica

Festuca varia

Genista radiata

Gymnadenia conopsea

Hieracium murorum

Hieracium pannosum

Laserpitium siler

Ostrya carpinifolia

Pinus heldreichii

Polygala nicaeensis

Rosa pendulina

Sesleria robusta

Thalictrum minus

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-Dukat, 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, G. & Dimopoulos, P. 2009. A new algorithm for the determination of differential taxa. *Journal of Vegetation Science* 20: 233-240.

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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 Favourable (FV)
qualifiers N/A

2.8.3 Specific structures and functions (incl Species)

assessment Favourable (FV)
qualifiers N/A

2.8.4 Future prospects

assessment Favourable (FV)
qualifiers N/A

2.8.5 Overall assessment of Conservation Status

Favourable (FV)

2.8.5 Overall trend in Conservation Status

N/A

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 103,4 max 103,4

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

medium
importance (M)

Inside

Maintain
Long term