

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

CODE: 9150

NAME: Medio-European limestone beech forests of the Cephalanthero-Fagion

## 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., Mastrogiani 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.

Bergmeier E. & Dimopoulos P. 2001. *Fagus sylvatica* forest vegetation in Greece: Syntaxonomy and gradient analysis. *Journal of Vegetation Science* 12: 109-126.

Bergmeier E. & Dimopoulos P. 1999. Classification of Greek *Fagus* woodlands: a preliminary survey. *Annali di Botanica*, Roma, 57: 91-104.

Βραχνάκης Μ., Φωτιάδης Γ. & Καζόγλου Ι. 2011. Τύποι Οικοτόπων Εθνικού Πάρκου Πρεσπών – Αναγνώριση-Καταγραφή 2011. Εταιρία Προστασίας Πρεσπών, σελ . 101.

Δημόπουλος Π. & Bergmeier E. 1998. Χωρολογία και συνχωρολογία των δασών ο ξυάς στην Ελλάδα. Πρακτικά 7ου Πανελλήνιου Επιστημονικού Συνεδρίου της Ελληνικής Βοτανικής Εταιρίας, Αλεξανδρούπολη, 1-4 Οκτωβρίου 1998: 96-101.

Dierschke H. 1998 (1997). Syntaxonomical survey of European beech forests: some general conclusions. *Ann. Bot. (Roma)* 55: 17–26.

Dimopoulos P. & Bergmeier E. 1997. The Beech forests of Greece: Diversity, Syntaxonomy and relationships with the Palaearctic Habitat Classification. 6th International Workshop, "European Vegetation Survey", Rome, Italy, 13 -16

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March 1997.

Gamisans J. & Hebrard J.-P. 1980. A propos de la vegetation des forets en Grece du Nord-est (Macedoine orientale et Thrace occidentale). Documents phytosociologiques 5: 243-276.

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

Ντάφης Σ. 1969. Σταθμολογικαι έρευναι εις δάση οξιάς. Επιστ. Επετ. Γεωπονικής και Δασολογικής Σχολής Πανεπιστημίου Θεσσαλονίκης, 13: 1-49.

Schreiber H.J. 1998. Waldgrenzen nahe Buchenwälder und Grasländer des Falakron und Pangäon in Nordostgriechenland. Syntaxonomie, Struktur und Dynamik. Arb. Inst. Landscraftsökol. Westf. Wilhelms-Univ. Münster, 4: 1-171.

Σταμέλλου Σ. 2011. Φυτοκοινωνίες και μοριακή ποικιλότητα της οξιάς (*Fagus sylvatica*) στο όρος Μενοίκιο. Μεταπτυχιακή Διατριβή. ΑΠΘ, σελ. 47.

Tsiripidis I., Bergmeier E. & Dimopoulos P. 2007. Geographical and ecological differentiation in Greek Fagus forest vegetation. Journal of Vegetation Science 18: 743-750.

Tsiripidis I., Fotiadis G., Karagiannakidou V. & Babalonas D. 2005. Classification problems of forest vegetation in Greece: Transition from beech to deciduous oak zone. Bot. Chron. 18(1): 253-268.

Tsiripidis I., Karagiannakidou V., Alifragis D. & Athanasiadis N. 2007. Classification and gradient analysis of the beech forest vegetation of the southern Rodopi (Northeast Greece). Folia Geobotanica 42: 249–270.

Tsiripidis I., Karagiannakidou V. & Athanasiadis N. 2005. Ecological and phytogeographical differentiation of beech forests in Greek Rodopi (Northeast Greece). Biologia 60: 57-67.

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

2.3.1 Surface area - Range (km <sup>2</sup> )	990
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	N/A
2.3.7 Long-term trend direction	min max
2.3.8 Long-term trend magnitude	area (km <sup>2</sup> ) operator approximately equal to (≈) unkown No method
2.3.9 Favourable reference range	
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 <sup>2</sup> )	296,4
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

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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
forest exploitation without replanting or natural regrowth (B03)	low importance (L)	N/A
Discharges (E03)	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
forest exploitation without replanting or natural regrowth (B03)	low importance (L)	N/A
Discharges (E03)	low importance (L)	N/A

2.6.1 Method used – threats expert opinion (1)

## 2.7 Complementary Information

### 2.7.1 Species

*Lathyrus alpestris*

*Lilium martagon*

*Melica uniflora*

*Mercurialis ovata*

*Mercurialis perennis*

*Monotropa hypopitys*

*Neottia nidus-avis*

*Ostrya carpinifolia*

*Physopermum cornubiense*

*Rubus hirtus*

*Viburnum lantana*

*Abies borisii-regis*

*Acer pseudoplatanus*

*Aremonia agrimonoides*

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*Brachypodium pinnatum*

*Buxus sempervirens*

*Calamagrostis arundinacea*

*Campanula rapunculoides*

*Carex digitata*

*Carex flacca*

*Cephalanthera damasonium*

*Cephalanthera rubra*

*Epipactis greuteri*

*Epipactis helleborine*

*Epipactis microphylla*

*Euonymus latifolius*

*Euphorbia amygdaloides*

*Fagus sylvatica*

*Fragaria vesca*

*Fraxinus ornus*

*Galium rotundifolium*

## 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-Duká t, 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.

## 2.7.3 Justification of % - thresholds for trends

## 2.7.4 Structure and functions - methods used

## 2.7.5 Other relevant information

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

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

### 2.8.1 Range

assessment Favourable (FV)

qualifiers N/A

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## 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 (km<sup>2</sup>)

min 84,8 max 84,8

#### 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