

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

CODE: 9110

NAME: Luzulo-Fagetum beech 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.

Barbero M. & Quézel P. 1976. Les groupements forestiers de Grece Centro-Meridionale. *Ecologia Mediterranea* 2: 1-86.

Bergmeier E. 1990. Walder und Gebusche des Niederen Olymp (Kato Olimbos, NO-Thessalien). *Phytocoenologia* 18(2/3): 161-342.

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

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

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 οξυάς στην Ελλάδα. Πρακτικά 7ου Πανελληνίου Επιστημονικού Συνεδρίου της Ελληνικής Βοτανικής Εταιρίας, Αλεξανδρούπολη, 1-4 Οκτωβρίου 1998: 96-101.

Dierschke H. 1998 (1997). Syntaxonomical survey of European beech forests:

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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 Palearctic Habitat Classification. 6th International Workshop, "European Vegetation Survey", Rome, Italy, 13 -16 March 1997.

Ελευθεριάδου Ε., Τσιριπίδης Ι., Θεοδωρόπουλος Κ. & Ξυστράκης Φ. 2007. Τύποι οικοτόπων της περιοχής "Ροδόπη (Σημάδα)" του Δικτύου "Φύση 2000". Πρακτικά 13ου Πανελληνίου Δασολογικού Συνεδρίου της Ελληνικής Δασολογικής Εταιρείας, Χλόη Καστοριάς, 7-10 Οκτωβρίου 2007 (τόμος Ι): 91-99.

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.

Κοράκης Γ.Χ. 2003. Οι μονάδες βλάστησης του όρους Πάικου και η αξιολόγησή τους από αναδασωτική σκοπιά. Διδακτορική Διατριβή. ΑΠΘ, σελ. 264 + Παράρτημα.

Κωνσταντινίδης Π. & Τσιουρλής Γ. 2001. Οι βλαστητικές μονάδες (τύποι οικοτόπων) της Επαρχίας Λαγκαδά (Λεκάνη Μυγδονίας): Μέρος Ι: Περιγραφή, ανάλυση και χαρτογράφηση. *Επιστ. Επετ. Τμημ. Δασολογίας & Φυσικού Περιβάλλοντος ΜΔ*: 627-654.

Κωνσταντινίδης Π. & Τσιουρλής Γ. 2001. Οι τύποι οικοτόπων της Επαρχίας Λαγκαδά (Λεκάνης Μυγδονίας): Μέρος ΙΙ. Οικολογική κατάσταση και δυναμική. *Επιστ. Επετ. Τμημ. Δασολογίας & Φυσικού Περιβάλλοντος ΜΔ*: 655-680.

Πουλής Γ. 2011. Οι φυτοκοινωνίες των δασών οξιάς του όρους Οξυά (Κ. Ελλάδα). Μεταπτυχιακή Διπλωματική Εργασία. Θεσσαλονίκη, 50 σελ.

Raus Th. 1980. Die vegetation Osthessaliens (Griechenland), III. Quercu-Fagetea und azonale Gehölzgesellschaften. *Bot. Jahrb. Syst.* 101(3): 313-361.

Reif A. & Löblich-Ille K. 1999. Sind die Rotbuchenwälder im Pieria-Gebirge (Nordgriechenland) hohenzonal oder extrazonal? Eine Studie zum Übergang zwischen temperaten und submediterranen Wäldern in Nordgriechenland. *Phytocoenologia* 29(1): 87-146.

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

Τσιριπίδης Ι. 2001. Οι φυτοκοινωνίες δασών οξιάς της Ροδόπης και εκτίμηση περιβαλλόντων τους για αναδάσωση. Διδακτορική Διατριβή. ΑΠΘ, σελ. 359 + Παραρτήματα.

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

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

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.

Φωτιάδης Γ. 2004. Καθορισμός των δασικών φυτοκοινωνιολογικών μονάδων του Ελληνικού τμήματος του όρους Μπέλες και της οροσειράς των Κρουσίων. Διδακτορική Διατριβή, ΑΠΘ, σελ. 273 + Παράρτημα.

Φωτιάδης Γ., Παναγιωτίδης Σ. & Γερασιμίδης Α. 2005. Φυτοκοινωνιολογικές μονάδες των δασών οξιάς του τόξου Βέρνο-Άσκιο (ΒΔ Ελλάδα). Πρακτικά 10ου Πανελληνίου Επιστημονικού Συνεδρίου της Ελληνικής Βοτανικής Εταιρείας, Ιωάννινα,

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5-8 Μαΐου 2005, σελ. 9 (σε CD).

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

Zoller H., Geissler P. & Athanasiadis N. 1977. Beiträge zur Kenntnis der Wälder, Moos- und Flechtenassoziationen in den Gebirgen Nordgriechenlands. Bauhinia 6/1: 215-255.

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

2.3.1 Surface area - Range (km ²)	1971
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 (≈) unknown 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)	1342,3
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
Forestry activities not referred to above (B07)	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)

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2.6 Main Threats

Threat	ranking	pollution qualifier(s)
Forest and Plantation management & use (B02)	low importance (L)	N/A

2.6.1 Method used – threats

expert opinion (1)

2.7 Complementary Information

2.7.1 Species

Abies borisii-regis

Aremonia agrimonoides

Calamagrostis arundinacea

Carex digitata

Corallorhiza trifida

Deschampsia flexuosa

Epilobium montanum

Fagus sylvatica

Hieracium murorum

Hieracium olympicum

Hieracium racemosum

Luzula luzulina

Luzula luzuloides

Luzula pilosa

Luzula sylvatica

Neottia nidus-avis

Orthilia secunda

Picea abies

Poa nemoralis

Prenanthes purpurea

Vaccinium myrtillus

Veronica officinalis

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

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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

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 553,2 max 553,2

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