

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

## NATIONAL LEVEL

### 1. General information

1.1 Member State	GR
1.2 Habitat code	9530 - (Sub-) Mediterranean pine forests with endemic black pines

### 2. Maps

2.1 Year or period	2015
2.3 Distribution map	Yes
2.3 Distribution map Method used	Based mainly on extrapolation from a limited amount of data
2.4 Additional maps	Yes

## BIOGEOGRAPHICAL LEVEL

### 3. Biogeographical and marine regions

3.1 Biogeographical or marine region where the habitat occurs	<b>Mediterranean (MED)</b>
3.2 Sources of information	<p>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.</p> <p>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.</p> <p>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.</p> <p>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).</p> <p>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.</p> <p>Αθανασιάδης Η.Ν., Θεοδωρόπουλος Γ.Κ. &amp; Κωνσταντινίδης Ν.Π. 1992. Οι φυτοκοινωνιολογικές μονάδες βλάστησης των δασών της <i>Pinus nigra ssp. pallasiana</i> της χερσονήσου Σιθωνίας Χαλκιδικής. Επιστ. Επετ. Τμημ. Δασολογίας &amp; Φυσ. Περιβάλλοντος, ΑΠΘ, ΛΕ/1: 273-306.</p> <p>Barbero M. &amp; Quézel P. 1976. Les groupements forestiers de Grece Centro-Meridionale. <i>Ecologia Mediterranea</i> 2: 1-86. Bergmeier E. 2002. Plant</p>

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

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Brullo S., Giusso del Galdo G. & Guarino R. 2001. Orophilous communities of the Pino-Juniperetea class in Mediterranean area. *Feddes Repert.* 212 (3-4): 262-308.

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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Ελευθεριάδου Ε., Θεοδωρόπουλος Κ. & Παπαιωάννου Α. 2002. Πρώτα αποτελέσματα εξέλιξης της βλάστησης μετά από πυρκαγιά σε αναδασώσεις μαύρης πεύκης (*Pinus nigra* J.F. Arnold) στο Πανεπιστημιακό Δάσος Ταξιάρχη Χαλκιδικής. Πρακτικά 10ου Πανελληνίου Δασολογικού Συνεδρίου της Ελληνικής Δασολογικής Εταιρείας, Τρίπολη, 26-29 Μαΐου 2002: 237-247.

Gamisans J. & Hebrard J.-P. 1979. A propos de la vegetation des forets d'Epire et de Macedoine Grecque occidentale. *Documents phytosociologiques* IV: 290-327.

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). Καρέτσος, Γ. 2002. Μελέτη της Οικολογίας και της Βλάστησης του Όρους Οίτη. Διδακτορική Διατριβή. Πανεπιστήμιο Πατρών, σελ. 325.

Κοράκης Γ. & Αραβίδης Η. 2004. Καταγραφή, ταξινόμηση και αξιολόγηση των φυσικών ενδιαιτημάτων του Λακωνικού Ταυγέτου σύμφωνα με την οδηγία 92/43/ΕΟΚ. Πρακτικά 1ου Πανελληνίου Περιβαλλοντικού Συνεδρίου, Νέα Ορεστιάδα, 7-9 Μαΐου 2004: 891-900.

Μπαζός Ι. & Γιαννίτσaros Α. 2005. Χλωρίδα και βλάστηση της Λέσβου: γενική επισκόπηση. Πρακτικά 10ου Πανελληνίου Επιστημονικού Συνεδρίου της Ελληνικής Βοτανικής Εταιρείας, Ιωάννινα, 5-8 Μαΐου 2005, σελ. 8 (σε CD).

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

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

## 4. Range

4.1 Surface area	6545
4.2 Short-term trend Period	2007-2018
4.3 Short-term trend Direction	Stable (0)
4.4 Short-term trend Magnitude	a) Minimum <span style="margin-left: 150px;">b) Maximum</span>
4.5 Short-term trend Method used	Based mainly on extrapolation from a limited amount of data
4.6 Long-term trend Period	
4.7 Long-term trend Direction	
4.8 Long-term trend Magnitude	a) Minimum <span style="margin-left: 150px;">b) Maximum</span>
4.9 Long-term trend Method used	Based mainly on extrapolation from a limited amount of data
4.10 Favourable reference range	a) Area (km <sup>2</sup> ) b) Operator <span style="margin-left: 100px;">Approximately equal to (≈)</span> c) Unknown <span style="margin-left: 100px;">Yes</span> d) Method
4.11 Change and reason for change in surface area of range	No change The change is mainly due to:
4.12 Additional information	

## 5. Area covered by habitat

5.1 Year or period	2015-015-
5.2 Surface area (in km <sup>2</sup> )	a) Minimum <span style="margin-left: 100px;">b) Maximum</span> <span style="margin-left: 100px;">c) Best single value</span> 2582,6
5.3 Type of estimate	Best estimate
5.4 Surface area Method used	Based mainly on extrapolation from a limited amount of data
5.5 Short-term trend Period	2007-2018
5.6 Short-term trend Direction	Stable (0)
5.7 Short-term trend Magnitude	a) Minimum <span style="margin-left: 100px;">b) Maximum</span> <span style="margin-left: 100px;">c) Confidence interval</span>
5.8 Short-term trend Method used	Based mainly on extrapolation from a limited amount of data
5.9 Long-term trend Period	

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

5.10 Long-term trend Direction			
5.11 Long-term trend Magnitude	a) Minimum	b) Maximum	c) Confidence interval
5.12 Long-term trend Method used			
5.13 Favourable reference area	a) Area (km <sup>2</sup> )	Approximately equal to (≈)	
	b) Operator	Yes	
	c) Unknown	Yes	
	d) Method		
5.14 Change and reason for change in surface area of range	No change		
	The change is mainly due to:		
5.15 Additional information			

## 6. Structure and functions

6.1 Condition of habitat	a) Area in good condition (km <sup>2</sup> )	Minimum 2324,34	Maximum 2324,34
	b) Area in not-good condition (km <sup>2</sup> )	Minimum 0	Maximum 0
	c) Area where condition is not known (km <sup>2</sup> )	Minimum 258,26	Maximum 258,26
6.2 Condition of habitat Method used	Complete survey or a statistically robust estimate		
6.3 Short-term trend of habitat area in good condition Period	20072018		
6.4 Short-term trend of habitat area in good condition Direction	Stable (0)		
6.5 Short-term trend of habitat area in good condition Method used	Complete survey or a statistically robust estimate		
6.6 Typical species	Has the list of typical species changed in comparison to the previous reporting period? No		
6.7 Typical species Method used	<p>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. &amp; Botta-Duká t, J. 2002. Determination of diagnostic species with statistical fidelity measures. <i>Journal of Vegetation Science</i> 13: 79–90. Dimopoulos, P., Raus, Th., Bergmeier, E., Constantinidis, Th., Iatrou, G., Kokkini, S., Strid, A. &amp; 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. &amp; Dimopoulos, P. 2009. A new algorithm for the determination of differential taxa. <i>Journal of Vegetation Science</i> 20: 233-240.</p>		
6.8 Additional information	Assumption: 90% of habitat area is estimated to be in good condition.		

## 7. Main pressures and threats

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

## 7.1 Characterisation of pressures/threats

Pressure	Ranking
Fire (natural) (M09)	H
Intensive grazing or overgrazing by livestock (A09)	M
Sports, tourism and leisure activities (F07)	M
Other invasive alien species (other than species of Union concern) (I02)	H
Interspecific relations (competition, predation, parasitism, pathogens) (L06)	M
Reduced fecundity / genetic depression (e.g. inbreeding or endogamy) (L05)	M
Storm, cyclone (M07)	M
Abiotic natural processes (e.g. erosion, silting up, drying out, submersion, salinization) (L01)	M

Threat	Ranking
Other forestry activities, excluding those relating to agro-forestry (B29)	M
Fire (natural) (M09)	H
Droughts and decreases in precipitation due to climate change (N02)	H
Intensive grazing or overgrazing by livestock (A09)	M
Other invasive alien species (other than species of Union concern) (I02)	M
Abiotic natural processes (e.g. erosion, silting up, drying out, submersion, salinization) (L01)	M
Interspecific relations (competition, predation, parasitism, pathogens) (L06)	M
Reduced fecundity / genetic depression (e.g. inbreeding or endogamy) (L05)	M

## 7.2 Sources of information

PRESSURES: Based mainly on expert judgement and other data.  
THREATS: Based on expert opinion.

## 7.3 Additional information

# 8. Conservation measures

## 8.1 Status of measures

a) Are measures needed? **No**

b) Indicate the status of measures

## 8.2 Main purpose of the measures taken

## 8.3 Location of the measures taken

## 8.4 Response to the measures

## 8.5 List of main conservation measures

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

## 8.6 Additional information

## 9. Future prospects

9.1 Future prospects of parameters	a) Range	Good
	b) Area	Good
	c) Structure and functions	Good

## 9.2 Additional information

## 10. Conclusions

10.1. Range	Favourable (FV)
10.2. Area	Favourable (FV)
10.3. Specific structure and functions (incl. typical species)	Favourable (FV)
10.4. Future prospects	Favourable (FV)
10.5 Overall assessment of Conservation Status	Favourable (FV)
10.6 Overall trend in Conservation Status	Stable (=)
10.7 Change and reasons for change in conservation status and conservation status trend	a) Overall assessment of conservation status No change The change is mainly due to:  b) Overall trend in conservation status No change The change is mainly due to:

## 10.8 Additional information

## 11. Natura 2000 (pSCIs, SCIs, SACs) coverage for Annex I habitat types

11.1 Surface area of the habitat type inside the pSCIs, SCIs and SACs network (in km <sup>2</sup> in biogeographical/marine region)	a) Minimum b) Maximum c) Best single value	832,07
11.2 Type of estimate	Minimum	
11.3 Surface area of the habitat type inside the network Method used	Complete survey or a statistically robust estimate	
11.4 Short-term trend of habitat area in good condition within the network Direction	Stable (0)	
11.5 Short-term trend of habitat area in good condition within network Method used	Complete survey or a statistically robust estimate	
11.6 Additional information	The change in 11.1 (in comparison to the previous report) is due to the updated mapping datasets on terrestrial habitat types within the Natura 2000 network (pSCIs, SCIs and SACs), based on the most recent national project (results became available in 2018). As this project did not include the extended areas of the Natura 2000 sites, nor the newly proposed SCIs, the surface area reported is the	

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

minimum.

## 12. Complementary information

12.1 Justification of % thresholds for trends

12.2 Other relevant information