

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	2120 - Shifting dunes along the shoreline with <i>Ammophila arenaria</i> ("white du

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	Mediterranean (MED)
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. 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. Babalonas D. 1980. Vegetationseinheiten und Vegetationskartierung in dem Mündungsgebiet des Flusses Evros. Feddes Repert. 9 (9/10): 615 – 627.</p> <p>Babalonas D., Sýkora K.V. & Papastergiadou E. 1995. Review of plant communities from Greek dunes and salt marshes. A preliminary summarizing list. Ann. Bot. (Roma) 53: 107-117. 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.</p> <p>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 του 6ου Επιστημονικού Συνεδρίου της Ελληνικής Βοτανικής Εταιρείας και της Βιολογικής Εταιρείας</p>

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Κύπρου, Παραλίμνι Κύπρου, 6-11 Απριλίου 1996: 68-73. Δρόσος Ε., Αθανασιάδης Ν., Θεοδωρόπουλος Κ. & Ελευθεριάδου Ε. 1996. Αμμόφιλες, Αλόφιλες και υδρόφιλες φυτοκοινωνίες του Δέλτα του Θεσσαλικού Πηνειού ποταμού. Επιστ. Επετ. Τμημ. Δασολογίας & Φυσικού Περιβάλλοντος 39(1): 327-365.

Gehu J.M., Costa M., Biondi E., Franck J. & Arnold N. 1987. Donnees sur la vegetation littorale de la Crete (Grece). Ecologia Mediterranea XIII (1/2): 93-105.

Georgiadis Th., Dimopoulos P. & Dimitrellos G. 1997. The flora and vegetation of the Acheron Delta (W Greece) aiming at nature conservation. Phytion 37: 31-60.

Θεοδωρόπουλος Κ. 2001. Ζώνες βλάστησης και τύποι οικοτόπων του νομού Θεσσαλονίκης. Επιστ. Επετ. Τμημ. Δασολογίας & Φυσικού Περιβάλλοντος ΜΔ: 353-381.

Korakis G. & Gerasimidis A. 2006. Coastal and halophytic habitats and their flora in Evrotas Delta (SE Peloponnisos, Greece). J. Biol. Res. 6: 155-166.

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.

Lavrentiades G.J. 1964. The ammophilous vegetation of the western Peloponnesos coasts. Vegetatio 12(3-4): 223-287.

Lavrentiades G.J. 1976. On the vegetation of Patras area. Veroffentlichungen des Geobot. Inst. ETH, Stiftung Rubel, Zurich 56: 59-71.

Lavrentiades G. & Babalonas D. 1976. Uber die vegetation der Ostlichen Kavala-Kunsten (Nordgriechenland). Sci. Annals Fac. Phys. & Mathem., Univ. Thessaloniki 16: 309-321.

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

Μπαμπαλώνας Δ.Γ. 1979. Φυτοκοινωνιολογική Μελέτη επί της Βλαστήσεως του Δέλτα του Ποταμού Έβρου (Αινήσιον Δέλτα). Διδακτορική Διατριβή. ΑΠΘ, σελ. 158 + Παράρτημα με 2 πίνακες.

Μπαμπαλώνας Δ. 1979. Οι φυτοκοινωνιολογικές τάξεις *Ammophiletalia arundinaceae* (Br.-Bl. 1933) R. Tx. et Oberd. 1958 και *Elymetalia gigantei* Vich. 1971 στην οριακή θέση της Θράκης.

4. Range

4.1 Surface area	105,71
4.2 Short-term trend Period	2007-2018
4.3 Short-term trend Direction	Stable (0)
4.4 Short-term trend Magnitude	a) Minimum b) Maximum
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 b) Maximum
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 ²) b) Operator Approximately equal to (≈) c) Unknown Yes d) Method
4.11 Change and reason for change in surface area of range	No change The change is mainly due to:

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4.12 Additional information

5. Area covered by habitat

5.1 Year or period	2015-015-		
5.2 Surface area (in km ²)	a) Minimum	b) Maximum	c) Best single value 33,12
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	b) Maximum	c) Confidence interval
5.8 Short-term trend Method used	Based mainly on extrapolation from a limited amount of data		
5.9 Long-term trend Period			
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 ²)	b) Operator	More than (>)
	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 ²)	Minimum 29,81	Maximum 29,81
	b) Area in not-good condition (km ²)	Minimum 0	Maximum 0
	c) Area where condition is not known (km ²)	Minimum 3,31	Maximum 3,31
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	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		

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

6.8 Additional information

Assumption: 90% of habitat area is estimated to be in good condition.

7. Main pressures and threats

7.1 Characterisation of pressures/threats

Pressure	Ranking
Roads, paths, railroads and related infrastructure (e.g. bridges, viaducts, tunnels) (E01)	M
Sports, tourism and leisure activities (F07)	M
Construction or modification (e.g. of housing and settlements) in existing urban or recreational areas (F02)	M
Other invasive alien species (other than species of Union concern) (I02)	M
Other human intrusions and disturbance not mentioned above (H08)	H
Natural succession resulting in species composition change (other than by direct changes of agricultural or forestry practices) (L02)	H
Threat	Ranking
Conversion to forest from other land uses, or afforestation (excluding drainage) (B01)	H
Extraction of minerals (e.g. rock, metal ores, gravel, sand, shell) (C01)	H
Roads, paths, railroads and related infrastructure (e.g. bridges, viaducts, tunnels) (E01)	M
Sports, tourism and leisure activities (F07)	H
Other human intrusions and disturbance not mentioned above (H08)	M
Other invasive alien species (other than species of Union concern) (I02)	M
Burning for forestry (B13)	M
Natural succession resulting in species composition change (other than by direct changes of agricultural or forestry practices) (L02)	H
Agriculture activities not referred to above (A36)	H

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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? | Yes |
| b) Indicate the status of measures | Measures identified, but none yet taken |

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

Reduce impact of transport operation and infrastructure (CE01)

Habitat restoration of areas impacted by transport (CE06)

Reduce impact of outdoor sports, leisure and recreational activities (CF03)

Other measures related to residential, commercial, industrial and recreational infrastructures, operations and activities (CF12)

Management, control or eradication of other invasive alien species (CI03)

Reduce impact of other specific human actions (CH03)

Management of habitats (others than agriculture and forest) to slow, stop or reverse natural processes (CL01)

8.6 Additional information

9. Future prospects

9.1 Future prospects of parameters

- | | |
|----------------------------|------|
| a) Range | Good |
| b) Area | Poor |
| c) Structure and functions | Good |

9.2 Additional information

10. Conclusions

10.1. Range

Favourable (FV)

10.2. Area

Unfavourable - Inadequate (U1)

10.3. Specific structure and functions (incl. typical species)

Favourable (FV)

10.4. Future prospects

Favourable (FV)

10.5 Overall assessment of Conservation Status

Unfavourable - Inadequate (U1)

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 | Improved knowledge/more accurate data
Use of different method |
|----------------------------------------------|------------------------------------------------------------------|

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The change is mainly due to: Improved knowledge/more accurate data

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 km² in biogeographical/marine region)

- a) Minimum
- b) Maximum
- c) Best single value 8,43

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 minimum.

12. Complementary information

12.1 Justification of % thresholds for trends

12.2 Other relevant information