

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

CODE: 7210

NAME: Calcareous fens with *Cladium mariscus* and species of the *Caricion davallianae*

1. National Level

1.1 Maps

| | |
|---------------------------|--|
| 1.1.1 Distribution Map | Yes |
| 1.1.2 Distribution Method | Complete survey/Complete survey or a statistically robust estimate (3) |
| 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.

Dimopoulos P., Sýkora K.V., Gilissen C., Wiecherink D. & Georgiadis T. 2005. Vegetation ecology of Kalodiki fen (NW Greece). *Biologia/Bratislava* 60 (1): 69-82.

Grandstein S.R. & Smittenberg J.H. 1977. The hydrophilus vegetation of western Crete. *Vegetatio* 34(2): 65-86.

Grigoriadis N., Donth S., Theodoropoulos K., Eleftheriadou E. 2005. Establishment of a habitat monitoring system in Agra wetland (Pella, Greece). *Annali di Botanica (nuova serie)* 5: 21-36.

Θεοχαρόπουλος Μ., Δημητρίλλος Γ., Χοχλιούρος Σ. & Γεωργιάδης Θ. 2000. Γεωγραφική εξάπλωση και συνοικολογία του *Cladium mariscus* L. στην Ελλάδα. Πρακτικά 8ου Επιστημονικού Συνεδρίου της Ελληνικής Βοτανικής Εταιρείας, Πάτρα, 5-8 Οκτωβρίου 2000: 161-167.

Φωτιάδης Γ., Καζόγλου Ι. & Μπούσμπουρας Δ. 2008. Τύποι βλάστησης της λίμνης Χειμαδίτιδας πριν από την τεχνητή άνοδο της στάθμης της. Πρακτικά 6ου Πανελληνίου Λιβαδοπονικού Συνεδρίου, Λεωνίδιο Αρκαδίας, 2-4 Οκτωβρίου 2008: 101-106.

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Theocharopoulos M. Georgiadis T. Dimitrellos G. Chochliouros S. & Tiniakou A. 2006. Vegetation types with *Cladium mariscus* (Cyperaceae) in Greece. *Willdenowia* 36: 247-256.

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

| | |
|---|---|
| 2.3.1 Surface area - Range (km ²) | 574 |
| 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) | 0,07 |
| 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) |
|---|--------------------|------------------------|
| Cultivation (A01) | low importance (L) | N/A |
| mowing / cutting of grassland (A03) | low importance (L) | N/A |
| Soil pollution and solid waste (excluding discharges) (H05) | low importance (L) | N/A |

2.5.1 Method used – pressures mainly based on expert judgement and other data (2)

2.6 Main Threats

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| Threat | ranking | pollution qualifier(s) |
|---|--------------------|------------------------|
| Cultivation (A01) | low importance (L) | N/A |
| mowing / cutting of grassland (A03) | low importance (L) | N/A |
| Soil pollution and solid waste (excluding discharges) (H05) | low importance (L) | N/A |

2.6.1 Method used – threats expert opinion (1)

2.7 Complementary Information

2.7.1 Species

Agrostis stolonifera

Calystegia sepium

Carex acuta

Carex distans

Carex riparia

Cirsium creticum

Cirsium vulgare

Cladium mariscus

Cyperus longus

Dittrichia viscosa

Dorycnium rectum

Eupatorium cannabinum

Galium debile

Juncus maritimus

Lythrum junceum

Mentha aquatica

Orchis laxiflora

Phragmites australis

Rumex conglomeratus

Tripidium ravennae (syn: Saccharum ravennae)

Schoenoplectus lacustris

Schoenus nigricans

Typha angustifolia

Utricularia australis

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.

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(2013).ReferencesChytrý, 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.

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| 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 |
| 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 ²) | min | 0,07 | max | 0,07 |
| 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 | high importance (H) | Inside | Maintain Long term |
| Legal protection of habitats and species (6.3) | Legal | high importance (H) | Both | Maintain Long term |