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

CODE: 1150

NAME: Coastal lagoons

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	2001-2012
1.1.4 Additional map	No
1.1.5 Range Map	Yes

2. Biogeographical Or Marine Level

2.1 Biogeographical Region

Mediterranean (MED)

2.2 Published

• Christia, C., Tziortzis, I., Fyttis, G., Kashta, L., & Papastergiadou, E. (2011). A survey of the benthic aquatic flora in transitional water systems of Greece and Cyprus (Mediterranean Sea). Botanica marina, 54(2), 169-178.

• Christia, C., Giordani, G., & Papastergiadou, E. (2014). Assessment of ecological quality of coastal lagoons with a combination of phytobenthic and water quality indices. Marine pollution bulletin, 86(1), 411-423.

• Christophoridis, A., Stamatis, N., & Orfanidis, S. (2007). Sediment heavy metals of a Mediterranean coastal lagoon: Agiasma, Nestos Delta, Eastern Macedonia (Greece). Transitional Waters Bulletin, 1(4), 33-43.

• HCMR, 2014. Monitoring of coastal and transitional waters in Greece under the article 8 of the Water Framework Directive (WFD 2000/60/EC), Simboura N & P Panagiotidis (eds). HCMR Annual Report 2013, 145pp (in greek)

• HCMR, 2013. Monitoring of coastal and transitional waters in Greece under the article 8 of the Water Framework Directive (WFD 2000/60/EC), Simboura N & P Panagiotidis (eds). HCMR Annual Report 2012, 123pp (in greek)

• HCMR Technical Reports (2007-2014)

• HCMR unpubl data (2007-2014)

• Christia, C., Tziortzis, I., Fyttis, G., Kashta, L. & Papastergiadou, E. (2011). A survey of the benthic aquatic flora in transitional water systems of Greece and Cyprus (Mediterranean Sea). Botanica marina 54(2): 169-178.

•Markou, D. A., Sylaios, G. K., Tsihrintzis, V. A., Gikas, G. D., & Haralambidou, K. (2007). Water quality of Vistonis Lagoon, Northern Greece: seasonal variation and impact of bottom sediments. Desalination, 210(1), 83-97.

• Orfanidis, S., Pinna, M., Sabetta, L., Stamatis, N. and Nakou, K. (2008), Variation of structural and functional metrics in macrophyte communities within two habitats of eastern Mediterranean coastal lagoons: natural versus human effects. Aquatic Conserv: Mar. Freshw. Ecosyst., 18: S45–S61

• Simboura, N. & S. Reizopoulou, 2008. An intercalibration of classification metrics of benthic macroinvertebrates in coastal and transitional ecosystems of the Eastern Mediterranean ecoregion (Greece). Marine Pollution Bulletin 56:116

• ΙΧΘΥ.Κ.Α., 2001. Μελέτη Οργάνωσης & Λειτουργίας Αλιευτικής Εκμετάλλευσης των Λιμνοθαλασσών

• Φυττής Γ., 2011. Παρακολούθηση της οικολογικής ποιότητας των λιμνοθαλασσών Κοτύχι & Πρόκοπος της Δ. Ελλάδας : ανάλυση των βιοκοινωνιών των υδρόβιων μακρόφυτων και μακροασπόνδυλων στα πλαίσια εφαρμογής της οδηγίας 2000/60/ΕΕ για τα ύδατα. Master Thesis, Πανεπιστήμιο Πατρών, 272σελ

• WWF Ελλάς, Ελληνική Ορνιθολογική Εταιρία & ΕΛΛΗΝΙΚΗ ΕΤΑΙΡΕΙΑ Περιβάλλοντος και Πολιτισμού, 2009. Ελληνικοί Υγρότοποι Ραμσάρ: Αξιολόγηση Προστασία

ς και Διαχείρισης. Αθήνα. Φεβρουάριος 2009.
• Zogaris S, Kapsimalis V & S. Reizopoulou, 2003. Coastal lagoons in the Amvrakikos Gulf (Greece): Conservation evaluation and Typology development using an integrated river basin-coastal zone approach. International Conference on Southern European Coastal Lagoons: The Influence of River Basin-Coastal Zone interactions, 10-12 November, Ferrara, Italy.

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

2.3.1 Surface area - Range (km²)	1827,09	
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 (km²)	
	operator	approximately equal to (≈)
	unkown	No
	method	Most major 1150 Habitat Types in Greece have been largely identified and included in the initial establishment of the Greek NATURA 2000 Network. Although quality of these ecosystems is systematically deteriorating, their large-scale extent may be regarded as stable. Thus, current range and FRR is considered approximately equal to the range of the habitat type at the time of the Directive's adoption.
2.3.10 Reason for change	Improved knowledge/more accurate data	

2.4 Area covered by Habitat

2.4.1 Surface area (km²)	334,8	
2.4.2 Year or period	2001-	
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	decrease (-)	
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	more than (>)
	unknown	No
	method	Although highly dynamic and naturally variable in size and structure, coastal lagoons and their surrounding wetlands (largely inseparable and interdependent systems) are known to have been losing ground to a number of anthropogenic pressures such as damming, water flow modifications, agricultural activities, etc.
2.4.13 Reason for change	Improved knowledge/more accurate data	

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2.5 Main Pressures

Pressure	ranking	pollution qualifier(s)
Pollution to surface waters (limnic & terrestrial, marine & brackish) (H01)	high importance (H)	Mixed pollutants (X)
Marine water pollution (H03)	medium importance (M)	Mixed pollutants (X)
human induced changes in hydraulic conditions (J02)	high importance (H)	N/A
agricultural intensification (A02.01)	high importance (H)	N/A
Fishing and harvesting aquatic resources (F02)	high importance (H)	N/A
intensive fish farming, intensification (F01.01)	medium importance (M)	N/A
off-road motorized driving (G01.03.02)	medium importance (M)	N/A
golf course (G02.01)	medium importance (M)	N/A
abandonment of saltpans (salinas) (C01.05.01)	low importance (L)	N/A
missing or wrongly directed conservation measures (G05.07)	medium importance (M)	N/A
habitat shifting and alteration (M02.01)	high importance (H)	N/A

2.5.1 Method used – pressures: based exclusively or to a larger extent on real data from sites/occurrences or othe

2.6 Main Threats

Threat	ranking	pollution qualifier(s)
agricultural intensification (A02.01)	high importance (H)	N/A
continuous urbanisation (E01.01)	medium importance (M)	N/A
human induced changes in hydraulic conditions (J02)	high importance (H)	N/A
Fishing and harvesting aquatic resources (F02)	high importance (H)	N/A
Sport and leisure structures (G02)	medium importance (M)	N/A
Marine and Freshwater Aquaculture (F01)	medium importance (M)	N/A
Changes in abiotic conditions (M01)	medium importance (M)	N/A
missing or wrongly directed conservation measures (G05.07)	medium importance (M)	N/A
Abandonment of management of water bodies (J02.13)	high importance (H)	N/A
habitat shifting and alteration (M02.01)	high importance (H)	N/A

2.6.1 Method used – threats: expert opinion (1)

2.7 Complementary Information

2.7.1 Species

Ruppia maritima L.
Ruppia cirrhosa (Petagna) Grande
Chara spp Linnaeus, 1753
Cymodocea nodosa (Ucria) Asch.
Zostera noltii Hornem
Lamprothamnium papulosum (K. Wallroth) J.Groves, 1916

2.7.2 Species method used: The list of typical species presented here follows the phytosociological criteria set by Dafis et al. (2001), updated by recent phytosociological studies. To assess the ecological status of the Habitat Type however, multi-specific approaches

	have been applied based on various biotic indices which take into account the composition and relative abundance of the invertebrate (infaunal) communities of benthic sediments (Simboura & Reizopoulou, 2008)
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	Most of the collected data regarding habitat type 1150 status across Greece result from the HCMR Monitoring activities under the article 8 of the Water Framework Directive.

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	Inadequate (U1)
	qualifiers	declining (-)
2.8.3 Specific structures and functions (incl Species)	assessment	Inadequate (U1)
	qualifiers	declining (-)
2.8.4 Future prospects	assessment	Bad (U2)
	qualifiers	declining (-)
2.8.5 Overall assessment of Conservation Status	Bad (U2)	
2.8.5 Overall trend in Conservation Status	declining (-)	

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	160	max	190
3.1.2 Method used	Estimate based on partial data with some extrapolation and/or modelling (2)			
3.1.3. Trend of surface area	N/A			

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
Measures needed, but not implemented (1.2)	Legal Administrative Contractual Recurrent One-off	high importance (H)	Both	Not evaluated
Restoring/improving water quality (4.1)	Legal	medium importance (M)	Both	Enhance
Regulation/ Management of fishery in marine and brackish systems (7.3)	Legal	medium importance (M)	Inside	Enhance
Legal protection of habitats and species (6.3)	Legal	low importance (L)	Inside	Enhance
Other measures (8.0)	Legal	medium importance (M)	Inside	Enhance

Urban and industrial waste management (8.1)	Legal	medium importance (M)	Inside	Enhance
Regulation/ Management of hunting and taking (7.1)	Legal	low importance (L)	Inside	Unknown
Establish protected areas/sites (6.1)	Legal One-off	medium importance (M)	Inside	Enhance Long term