

Report on the main results of the surveillance under article 11 for annex II, IV and V species (Annex B)

0.1 Member State	GR
0.2.1 Species code	1428
0.2.2 Species name	Marsilea quadrifolia
0.2.3 Alternative species scientific name	N/A
0.2.4 Common name	Marsilia

1. National Level

1.1 Maps

1.1.1 Distribution Map	Yes
1.1.1a Sensitive species	Yes
1.1.2 Method used - map	Complete survey/Complete survey or a statistically robust estimate (3)
1.1.3 Year or period	2010-2012
1.1.4 Additional map	Yes
1.1.5 Range map	Yes

2. Biogeographical Or Marine Level

2.1 Biogeographical Region	Mediterranean (MED)
2.2 Published sources	Παπαστεργιάδου Ε. 2009. Marsilea quadrifolia. Στο: Φοίτος Δ., Κωνσταντινίδης Θ., Καμάρη Γ. (επιμ.) Βιβλίο ερυθρών δεδομένων των σπανίων και απειλούμενων φυτών της Ελλάδας. Τόμος Δεύτερος. Σελ. 166-167

2.3 Range

2.3.1 Surface area - Range (km ²)	62
2.3.2 Method - Range surface area	Complete survey/Complete survey or a statistically robust estimate (3)
2.3.3 Short-term trend period	2002-2012
2.3.4 Short-term trend direction	increase (+)
2.3.5 Short-term trend magnitude	min 9 max 62
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) 9 operator N/A unkown No method Favourable reference range is larger than the minimum range value observed in Kerkini lake and corresponds to c. the population size (in m2) set as favourable reference population. FRR corresponds to the minimum range value observed in the period 2002-2012 and is larger than any observation since 1993. In 2012 the species has expanded to a much larger area than it covered in the previous years and this correponds to the maximum value reported in 2.3.1 for the period 2007-2012.
2.3.10 Reason for change	Improved knowledge/more accurate dataUse of different method

2.4 Population

2.4.1 Population size (individuals or agreed exception)	Unit N/A min max
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2.4.2 Population size (other than individuals)	Unit	area covered by population in m2 (area)		
	min	300000	max	330000
2.4.3 Additional information	Definition of locality			
	Conversion method			
	Problems			
2.4.4 Year or period	2010-2012			
2.4.5 Method – population size	Complete survey/Complete survey or a statistically robust estimate (3)			
2.4.6 Short-term trend period	2002-2012			
2.4.7 Short term trend direction	increase (+)			
2.4.8 Short-term trend magnitude	min		max	confidence interval
2.4.9 Short-term trend method	Complete survey/Complete survey or a statistically robust estimate (3)			
2.4.10 Long-term trend period				
2.4.11 Long term trend direction	N/A			
2.4.12 Long-term trend magnitude	min		max	confidence interval
2.4.13 Long-term trend method	N/A			
2.4.14 Favourable reference population	number	100000		
	operator	N/A		
	unknown	No		
	method	The favourable reference population is set as the population size which will ensure the long term survival of the species in lake Kerkini, as judged by expert opinion. Since the population is measured in area units, the note regarding FRR applies also for FRP.		
2.4.15 Reason for change				

2.5 Habitat for the Species

2.5.1 Surface area - Habitat (km ²)	0,3			
2.5.2 Year or period	2010-2012			
2.5.3 Method used - habitat	Complete survey/Complete survey or a statistically robust estimate (3)			
2.5.4 a) Quality of habitat	Good			
2.5.4 b) Quality of habitat - method	The habitat of the species is shallow, calm and warm water bodies having a muddy bottom. During the current reporting period, the species has expanded, covering a larger than ever area, which is an indication that its special habitat requirements are met in lake Kerkini.			
2.5.5 Short term trend period	2002-2012			
2.5.6 Short term trend direction	increase (+)			
2.5.7 Long-term trend period				
2.5.8 Long term trend direction	N/A			
2.5.9 Area of suitable habitat (km ²)	0,6			
2.5.10 Reason for change	Improved knowledge/more accurate data			

2.6 Main Pressures

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Pressure	ranking	pollution qualifier(s)
Agriculture activities not referred to above (A11)	high importance (H)	N/A
human induced changes in hydraulic conditions (J02)	medium importance (M)	N/A
abiotic (slow) natural processes (K01)	medium importance (M)	N/A
disposal of household / recreational facility waste (E03.01)	low importance (L)	N/A
diffuse pollution to surface waters due to household sewage and waste waters (H01.08)	low importance (L)	N/A
non intensive mixed animal grazing (A04.02.05)	low importance (L)	N/A

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

2.7 Main Threats

Threat	ranking	pollution qualifier(s)
Agriculture activities not referred to above (A11)	high importance (H)	N/A
human induced changes in hydraulic conditions (J02)	medium importance (M)	N/A
abiotic (slow) natural processes (K01)	medium importance (M)	N/A

2.7.1 Method used – threats expert opinion (1)

2.8 Complementary Information

2.8.1 Justification of % thresholds for trends

2.8.2 Other relevant Information

Note on 2.3.9. The only confirmed locality of the species is Lake Kerkini. The plant has not been confirmed in the area of Thraki (pre 1921 record, with no locality data). A recent (1996) report from Kriti requires confirmation. FRR corresponds to the minimum range value observed in the period 2002-2012 and is larger than any observation since 1993. In 2012 the species has expanded to a much larger area than it covered in the previous years and this corresponds to the maximum value reported in 2.3.1 for the period 2007-2012

Note on 2.4.2. The area covered by the plant is strongly influenced by the water depth of the lake.

Note on 2.4.14. Since the population is measured in area units, the note regarding FRR applies also for FRP.

2.8.3 Trans-boundary assessment

2.9 Conclusions (assessment of conservation status at end of reporting period)

2.9.1 Range	assessment Favourable (FV) qualifiers N/A
2.9.2. Population	assessment Favourable (FV) qualifiers N/A
2.9.3. Habitat	assessment Favourable (FV) qualifiers N/A
2.9.4. Future prospects	assessment Inadequate (U1) qualifiers unknown (x)
2.9.5 Overall assessment of Conservation Status	Inadequate (U1)
2.9.5 Overall trend in Conservation Status	unknown (x)

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3. Natura 2000 coverage and conservation measures - Annex II species

3.1 Population

3.1.1 Population Size

Unit area covered by population in m2 (area)

min 300000 max 330000

3.1.2 Method used

Complete survey/Complete survey or a statistically robust estimate (3)

3.1.3 Trend of population size within

increase (+)

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	low importance (L)	Both	
Legal protection of habitats and species (6.3)	Legal	high importance (H)	Inside	Long term
Regulation/ Management of hunting and taking (7.1)	Legal	high importance (H)	Inside	Long term
Establish protected areas/sites (6.1)	Legal One-off	high importance (H)	Inside	Enhance Long term