

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

NATIONAL LEVEL

1. General information

1.1 Member State	GR
1.2 Species code	1428
1.3 Species scientific name	Marsilea quadrifolia
1.4 Alternative species scientific name	
1.5 Common name (in national language)	Marsilia

2. Maps

2.1 Sensitive species	Yes
2.2 Year or period	2015
2.3 Distribution map	Yes
2.4 Distribution map Method used	Complete survey or a statistically robust estimate
2.5 Additional maps	Yes

3. Information related to Annex V Species (Art. 14)

3.1 Is the species taken in the wild/exploited?	No	
3.2 Which of the measures in Art. 14 have been taken?	a) regulations regarding access to property	No
	b) temporary or local prohibition of the taking of specimens in the wild and exploitation	No
	c) regulation of the periods and/or methods of taking specimens	No
	d) application of hunting and fishing rules which take account of the conservation of such populations	No
	e) establishment of a system of licences for taking specimens or of quotas	No
	f) regulation of the purchase, sale, offering for sale, keeping for sale or transport for sale of specimens	No
	g) breeding in captivity of animal species as well as artificial propagation of plant species	No
	h) other measures	No

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

3.3 Hunting bag or quantity taken in the wild for Mammals and Acipenseridae (Fish)

a) Unit

b) Statistics/ quantity taken	Provide statistics/quantity per hunting season or per year (where season is not used) over the reporting period					
	Season/ year 1	Season/ year 2	Season/ year 3	Season/ year 4	Season/ year 5	Season/ year 6
Min. (raw, ie. not rounded)						
Max. (raw, ie. not rounded)						
Unknown	No	No	No	No	No	No

3.4. Hunting bag or quantity taken in the wild Method used

3.5. Additional information

BIOGEOGRAPHICAL LEVEL

4. Biogeographical and marine regions

4.1 Biogeographical or marine region where the species occurs

Mediterranean (MED)

4.2 Sources of information

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

5. Range

5.1 Surface area

62

5.2 Short-term trend Period

2007-2018

5.3 Short-term trend Direction

Increasing (+)

5.4 Short-term trend Magnitude

a) Minimum b) Maximum

5.5 Short-term trend Method used

Complete survey or a statistically robust estimate

5.6 Long-term trend Period

5.7 Long-term trend Direction

5.8 Long-term trend Magnitude

a) Minimum b) Maximum

5.9 Long-term trend Method used

5.10 Favourable reference range

a) Area (km²) 9
 b) Operator
 c) Unknown
 d) 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

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

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 5.1 for the period 2007-2012.

5.11 Change and reason for change in surface area of range

No change
The change is mainly due to:

5.12 Additional information

6. Population

6.1 Year or period

2015

6.2 Population size (in reporting unit)

a) Unit number of map 1x1 km grid cells (grids1x1)
b) Minimum
c) Maximum
d) Best single value 13

6.3 Type of estimate

Best estimate

6.4 Additional population size (using population unit other than reporting unit)

a) Unit area covered by population in m2 (area)
b) Minimum 300000
c) Maximum 330000
d) Best single value

6.5 Type of estimate

Best estimate

6.6 Population size Method used

Complete survey or a statistically robust estimate

6.7 Short-term trend Period

2007-2018

6.8 Short-term trend Direction

Increasing (+)

6.9 Short-term trend Magnitude

a) Minimum
b) Maximum
c) Confidence interval

6.10 Short-term trend Method used

Complete survey or a statistically robust estimate

6.11 Long-term trend Period

6.12 Long-term trend Direction

6.13 Long-term trend Magnitude

a) Minimum
b) Maximum
c) Confidence interval

6.14 Long-term trend Method used

6.15 Favourable reference population (using the unit in 6.2 or 6.4)

a) Population size 100000 with unit area covered by population in m2 (area)
b) Operator
c) Unknown
d) Method The favourable reference population is set as the

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

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.

6.16 Change and reason for change in population size

No change

The change is mainly due to:

6.17 Additional information

7. Habitat for the species

7.1 Sufficiency of area and quality of occupied habitat

a) Are area and quality of occupied habitat sufficient (for long-term survival)?

Yes

b) Is there a sufficiently large area of unoccupied habitat of suitable quality (for long-term survival)?

7.2 Sufficiency of area and quality of occupied habitat Method used

Complete survey or a statistically robust estimate

7.3 Short-term trend Period

2007-2018

7.4 Short-term trend Direction

Increasing (+)

7.5 Short-term trend Method used

Complete survey or a statistically robust estimate

7.6 Long-term trend Period

7.7 Long-term trend Direction

7.8 Long-term trend Method used

7.9 Additional information

The surface of the habitat area is estimated at 0.3 km² and its quality is good. The area of suitable habitat is 0.6 km². 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.

8. Main pressures and threats

8.1 Characterisation of pressures/threats

Pressure	Ranking
Agriculture activities not referred to above (A36)	H
Modification of hydrological flow (K04)	M
Abiotic natural processes (e.g. erosion, silting up, drying out, submersion, salinization) (L01)	M
Threat	Ranking
Agriculture activities not referred to above (A36)	H
Modification of hydrological flow (K04)	M
Abiotic natural processes (e.g. erosion, silting up, drying out, submersion, salinization) (L01)	M

8.2 Sources of information

PRESSURES: Mainly based on expert judgement and other data.

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

THREATS: Based on expert opinion.

8.3 Additional information

9. Conservation measures

9.1 Status of measures

- a) Are measures needed? Yes
- b) Indicate the status of measures Measures needed but cannot be identified

9.2 Main purpose of the measures taken

9.3 Location of the measures taken

9.4 Response to the measures

9.5 List of main conservation measures

()

9.6 Additional information

10. Future prospects

10.1 Future prospects of parameters

- a) Range Good
- b) Population Good
- c) Habitat of the species Poor

10.2 Additional information

11. Conclusions

11.1. Range

Favourable (FV)

11.2. Population

Favourable (FV)

11.3. Habitat for the species

Favourable (FV)

11.4. Future prospects

Unfavourable - Inadequate (U1)

11.5 Overall assessment of Conservation Status

Unfavourable - Inadequate (U1)

11.6 Overall trend in Conservation Status

Unknown (x)

11.7 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:

11.8 Additional information

Improving trend in range, population size and habitat area is due to improving and expanding research (field sampling) which leads to inventory of new occurrences of the species. In fact in some localities, the habitat of the species

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

and thus the population size is even decreasing (due to technical works). This is the reason why no certain conclusion on the CS trend can be drawn.

12. Natura 2000 (pSCIs, SCIs and SACs) coverage for Annex II species

12.1 Population size inside the pSCIs, SCIs and SACs network (on the biogeographical/marine level including all sites where the species is present)	a) Unit	number of map 1x1 km grid cells (grids1x1)
	b) Minimum	
	c) Maximum	
	d) Best single value	291
12.2 Type of estimate	Best estimate	
12.3 Population size inside the network Method used	Complete survey or a statistically robust estimate	
12.4 Short-term trend of population size within the network Direction	Increasing (+)	
12.5 Short-term trend of population size within the network Method used	Complete survey or a statistically robust estimate	
12.6 Additional information	The change in 12.1 (in comparison to the previous report) is mainly due to the recent update of the Greek Natura 2000 Database (extended areas of current Natura 2000 sites and newly proposed SCIs) and also (in cases of absent data or mandatory population unit 1x1 grid) to a different approach/method used for the calculation of the population size in GIS.	

13. Complementary information

13.1 Justification of % thresholds for trends

13.2 Trans-boundary assessment

13.3 Other relevant Information

Note on 5.10. 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. Since 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 5.1 for the period 2007-2012.

Note on 6.4. The area covered by the plant is strongly influenced by the water depth of the lake.

Note on 6.15. Since the population is measured in area units, the note regarding FRR applies also for FRP.