



Margaritifera margaritifera

Annex	II, V
Priority	No
Species group	Molluscs
Regions	Alpine, Atlantic, Boreal, Continental, Mediterranean

Margaritifera margaritifera, Freshwater pearl mussel, has its range over large parts of Northern, Western, Central and South Western EU with boundaries in Finland, Latvia, Ireland, Portugal and Czech Republic. Large declines of population numbers has occurred over most of the range. *M. margaritifera* is Critically Endangered (CR) in the 2011 IUCN Global Red List assessment.

M. margaritifera is a stream and river dwelling species with a complex and sensitive life cycle. It is dependent on the migratory fish species salmon and trout for completion of its life cycle. Thus the conservation status of these species is of high importance for the mussel.

M. margaritifera is considered to be a so called umbrella species with conservation efforts having positive effects on a large number of other species in running waters.

It has been assessed as unfavourable-bad both in the reporting period of 2001-2006 and 2007-2012.

Alpine region: The situation is slightly better in alpine region due to less human impact on running waters. Still, the overall evaluation is Unfavourable

Atlantic region: The situation is unfavorable regarding Population, Habitat and Future prospects. Inadequate for range.

Continental region: All parameters are unfavourable.

Boreal range: The range is favourable but Population, Habitat and Future prospects are unfavourable and declining.

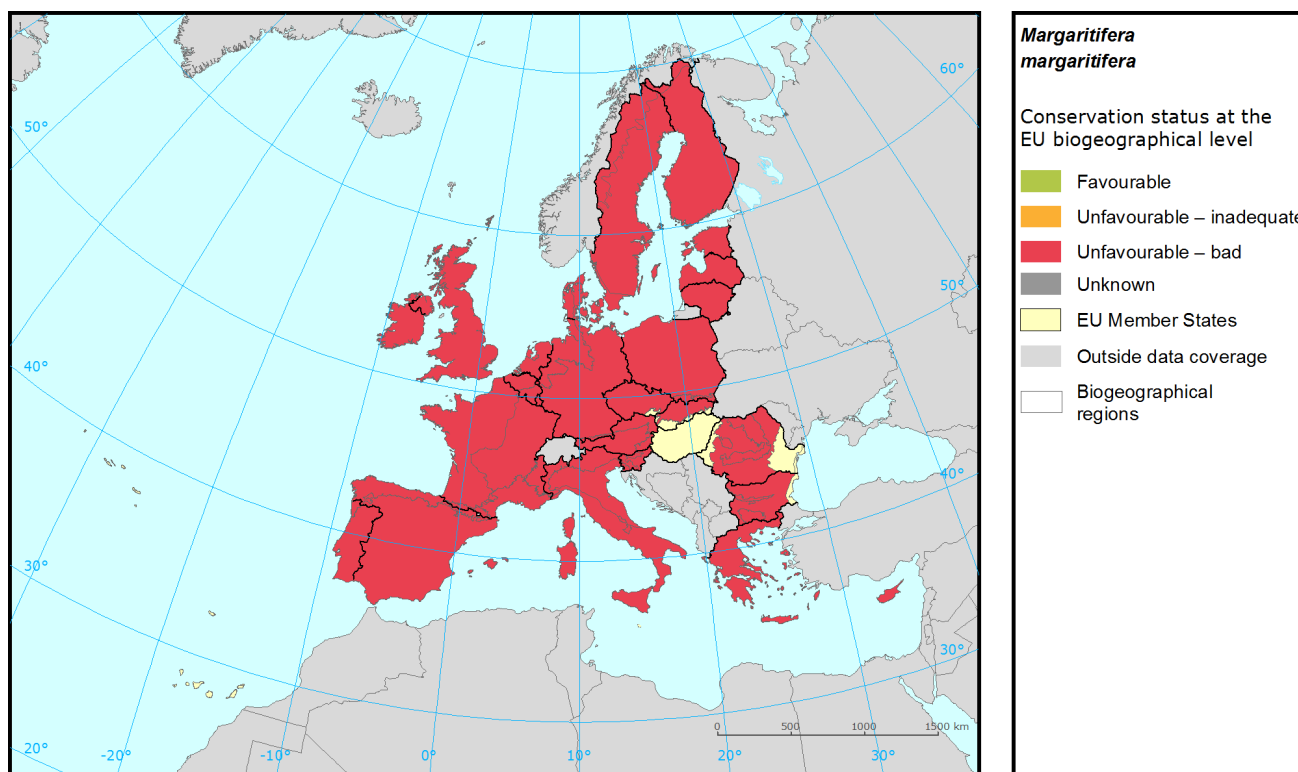
Mediterranean region: All parameters are unfavourable.

Main threats and pressures are: pollution, mainly fertilization, from agricultural and forestry and household activities as well as diffuse sources, silting up and sedimentation, changes in water levels and hydraulic conditions due to hydropower and for other reasons, canalization, fishing, physical forestry activities, water abstractions from groundwater, irrigation, invasive non-native species.

Species: *Margaritifera margaritifera*

Report under the Article 17 of the Habitats Directive

Assessment of conservation status at the European biogeographical level



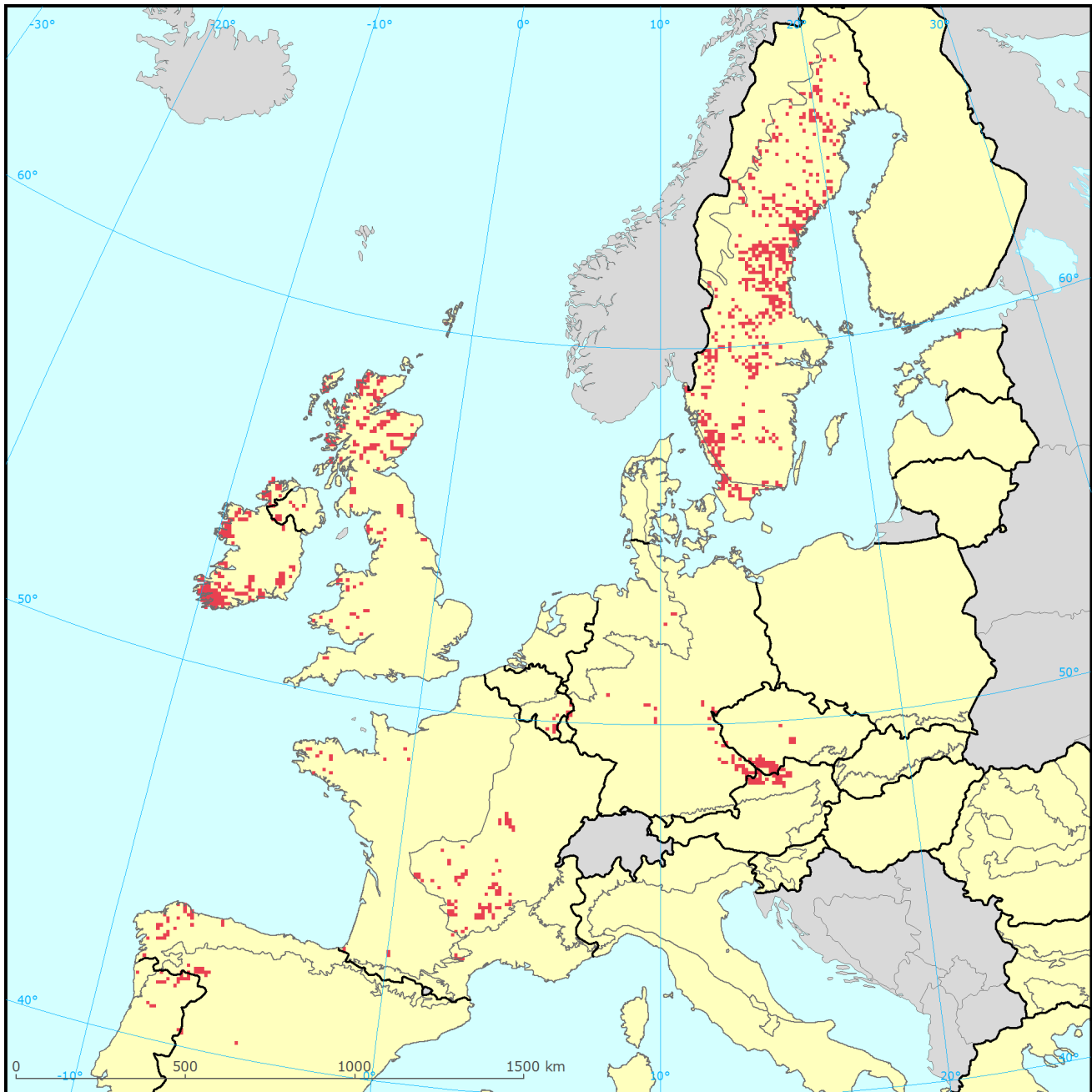
Region	Conservation status (CS) of parameters				Current CS	Trend in CS	% in region	Previous CS	Reason for change
	Range	Population	Habitat	Future prospects					
ALP	FV	U2	U1	U1	U2	=	2	U2	
ATL	U1	U2	U2	U2	U2	-	27	U2	
BOR	FV	U2	U2	U2	U2	-	53	U2	
CON	U2	U2	U2	U2	U2	-	16	U2	
MED	U2	U2	U2	U2	U2	-	2	U2	

See the endnote for more informationⁱ

Species: *Margaritifera margaritifera*

Report under the Article 17 of the Habitats Directive

Assessment of conservation status at the Member State level



Margaritifera margaritifera

Distribution and conservation status at the Member State level



The map shows both Conservation Status and distribution using a 10 km x 10 km grid. Conservation status is assessed at biogeographical level. Therefore the representation in each grid cell is only illustrative.

Species: *Margaritifera margaritifera*

Report under the Article 17 of the Habitats Directive

MS	Region	Conservation status of parameters				Current CS	Trend in CS	% in region	Previous CS	Reason for change
		Range	Population	Habitat	Future prospects					
FI	ALP	U1	U2	FV	U2	x	54.3	FV	Better data	
SE	ALP	FV	U2	U1	U1	=	45.7	U2		
DE	ATL	U2	U2	U2	U1	+	0.8	U2	Genuine	
DK	ATL	XX	XX	XX	XX			U2		
ES	ATL	U1	U2	U2	U2	-	7.0	XX	Changed method	
FR	ATL	U2	U2	U2	U2	-	4.7	U2		
IE	ATL	FV	U2	U2	U2	-	39.2	U2	Genuine	
PT	ATL	U2	U2	U2	U2	-	0.3	U2-		
UK	ATL	U1	U2	U2	U2	-	48.1	U2-		
EE	BOR	U2	U2	U2	U2	-	0.4	U2-		
FI	BOR	U1	U2	U2	U2	-	31.1	U1	Better data	
LV	BOR	U1	U2	U2	U2	-	2.2	U1-	Better data	
SE	BOR	FV	U2	U1	U1	=	66.3	U2-		
AT	CON	U2	U2	U2	U2	-	13.7	U2	Changed method	
BE	CON	FV	U2	U2	U2	+	4.7	U2-		
CZ	CON	U2	U2	U2	U2	-	13.7	U2	Genuine	
DE	CON	U2	U2	U2	U2	-	17.2	U2	Genuine	
FR	CON	U2	U2	U2	U2	-	34.8	U2		
LU	CON	U2	U2	U2	U2	-	0.4	U2	Genuine	
SE	CON	FV	U2	U1	U2	-	15.5	U2		
ES	MED	U1	U2	U2	U2	-	43.8	U2	Changed method	
PT	MED	U2	XX	U1	U2	x	56.2	U2		

Knowing that not all changes in conservation status between the reporting periods were genuine, Member States were asked to give the reasons for changes in conservation status. Bulgaria and Romania only joined the EU in 2007 and Greece did not report for 2007-12 so no reason is given for change for these countries. Greek data shown above is from 2001-06.

Main pressures and threats reported by Member States

Member States were asked to report the 20 most important threats and pressures using an agreed hierarchical list which can be found on the [Article 17 Reference Portal](#). Pressures are activities which are currently having an impact on the species and threats are activities expected to have an impact in the near future. Pressures and threats were ranked in three classes 'high, medium and low importance'; the tables below only show threats and pressures classed as 'high', for some species there were less than ten threats or pressures reported as highly important.

Species: *Margaritifera margaritifera*

Report under the Article 17 of the Habitats Directive

Ten most frequently reported 'highly important' pressures

Code	Activity	Frequency
J02	Changes in water bodies conditions	20
H01	Pollution to surface waters	14
J03	Other changes to ecosystems	9
B07	Other forestry activities	6
K01	Abiotic natural processes	6
K03	Interspecific faunal relations	6
A02	Modification of cultivation practices	5
A07	Use of 'pesticides' in agriculture	5
A08	Fertilisation in agriculture	5
B02	Forest and plantation management & use	5

Ten most frequently reported 'highly important' threats

Code	Activity	Frequency
J02	Changes in water bodies conditions	19
H01	Pollution to surface waters	13
J03	Other changes to ecosystems	9
K03	Interspecific faunal relations	7
A02	Modification of cultivation practices	6
A08	Fertilisation in agriculture	6
K05	Reduced fecundity/Genetic depression	6
A07	Use of 'pesticides' in agriculture	4
B02	Forest and plantation management & use	4
B07	Other forestry activities	4

Species: *Margaritifera margaritifera*

Report under the Article 17 of the Habitats Directive

Proportion of population covered by the Natura 2000 network

For species listed in the Annex II of the Directive Member States were asked to report the population size within the Natura 2000 network. The percentage of species population covered by the network was estimated by comparing the population size within the network and the total population size in the biogeographical/marine region.

Percentage of coverage by Natura 2000 sites in biogeographical/marine region

	ALP	ATL	BOR	CON	MED
AT				68	
BE				100	
CZ				77	
DE		100		73	
DK		x			
EE			100		
ES		7			33
FI	100		20		
FR		x		x	
IE		94			
LU				100	
LV			98		
PT		x			x
SE	89		32	96	
UK		38			

See the endnotes for more informationⁱⁱ

Species: *Margaritifera margaritifera*

Report under the Article 17 of the Habitats Directive

Most frequently reported conservation measures

For species listed in the Annex II of the Directive Member States were asked to report up to 20 conservation measures being implemented for this species using an agreed list which can be found on the Article 17 Reference Portal. Member States were further requested to highlight up to five most important ('highly important') measures; the table below only shows measures classed as 'high', for many species there were less than ten measures reported as highly important.

Ten most frequently reported 'highly important' conservation measures

Code	Measure	Frequency
4.1	Restoring/improving water quality	16
4.2	Restoring/improving the hydrological regime	15
6.1	Establish protected areas/sites	13
6.3	Legal protection of habitats and species	11
7.4	Specific single species or species group management measures	10
3.2	Adapt forest management	5
4.0	Other wetland-related measures	5
2.2	Adapting crop production	3
3.0	Other forestry-related measures	3
4.3	Managing water abstraction	3

This information is derived from the Member State national reports submitted to the European Commission under Article 17 of the Habitats Directive in 2013 and covering the period 2007-2012. More detailed information, including the MS reports, is available at:

<http://bd.eionet.europa.eu/article17/reports2012/species/summary/?group=Molluscs&period=3&subject=Margaritifera+margaritifera>

Species: *Margaritifera margaritifera*

Report under the Article 17 of the Habitats Directive

i Assessment of conservation status at the European biogeographical level: Current Conservation Status (Current CS) shows the status for the reporting period 2007-2012, Previous Conservation Status (Previous CS) for the reporting period 2000-2006. Reason for change in conservation status between the reporting periods indicates whether the changes in the status were genuine or not genuine. Previous Conservation Status was not assessed for Steppic, Black Sea and Marine Black Sea regions. For these regions the Previous status is therefore considered as 'unknown'. The percentage of the species population occurring within the biogeographical/marine region (% in region) is calculated based on the area of GIS distribution.

ii Percentage of coverage by Natura 2000 sites in biogeographical/marine region: In some cases the population size within the Natura 2000 network has been estimated using a different methodology to the estimate of overall population size and this can lead to percentage covers greater than 100%. In such case the value has been given as 100% and highlighted with an asterisk (*). The value 'x' indicates that the Member State has not reported the species population and/or the coverage by Natura 2000. No information is available for Greece. The values are only provided for regions, in which the occurrence of the species has been reported by the Member States.