



Unio crassus

Annex	II, IV
Priority	No
Species group	Molluscs
Regions	Alpine, Atlantic, Black Sea, Boreal, Continental, Mediterranean, Pannonian

The Unionid mussel *Unio crassus* is a widespread species which has suffered great declines throughout much of its range. It inhabits rivers with sandy substrates and clean waters from Ural to Western, Northern and South Eastern Europe, but absent from the British Isles. In the IUCN 2011 Red List it was considered Endangered (EN) with viable populations mainly found in Northern Europe and in Russia.

Like many mussels it is dependent on fish for completion of the life cycle due to parasitic larval stage. *U. crassus* can use a range of fish species, but in many areas the specific species used is unclear. The following species are known to be used: *Cottus gobio*, *Phoxinus phoxinus*, *Leuciscus cephalus*, *Scardinius erythrophthalmus*, *Gymnocephalus cernua* and *Perca fluviatilis*.

Small changes in CS between the reporting periods (2001-2006 and 2007-2012). The existing ones mainly due to new MS not reporting 2001-2006.

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

The conservation status in Atlantic region is Bad and declining. No change between the 2001-2006 and the 2007-2012 periods.

The conservation status in the Continental Bio-region is Bad and declining. No change between the 2001-2006 and the 2007-2012 periods. However Bulgaria reports exceptionally good CS, something which should be better validated with hard data sets as it contradicts the knowledge on this species, for example the 2011 IUCN Red List compilation of data.

In the Boreal area the situation for this species is somewhat better than in continental Europe. Conservation status is Unfavourable-Inadequate. No change between the 2001-2006 and the 2007-2012 periods.

Mediterranean region: The species has a restricted and poorly known population in the region. Status unknown for all four parameters.

The Conservation Status in the Black Sea Bio-region is Unknown (XX).

Pannonian region: The Conservation Status is Unfavourable-Inadequate. Hungary reports exceptionally good CS, something which should be better validated with hard data sets as it contradicts the knowledge on this species, for example the 2011 IUCN Red List compilation of data.

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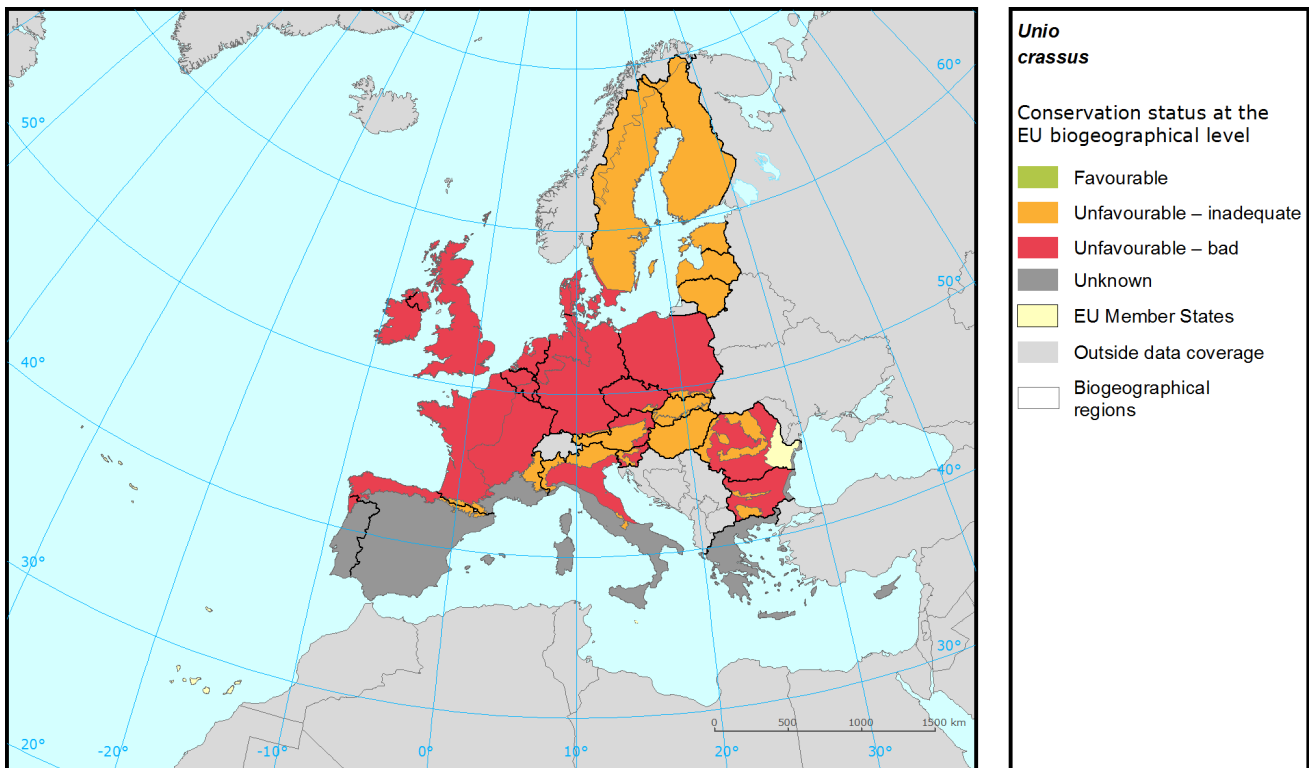
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High importance threats and pressures are: fertilisation, pollution to surface waters from various sources, siltation, water deviations, dredging, canalization, changes in hydraulic conditions, fishing and changes in abiotic and biotic conditions.

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Assessment of conservation status at the European biogeographical level



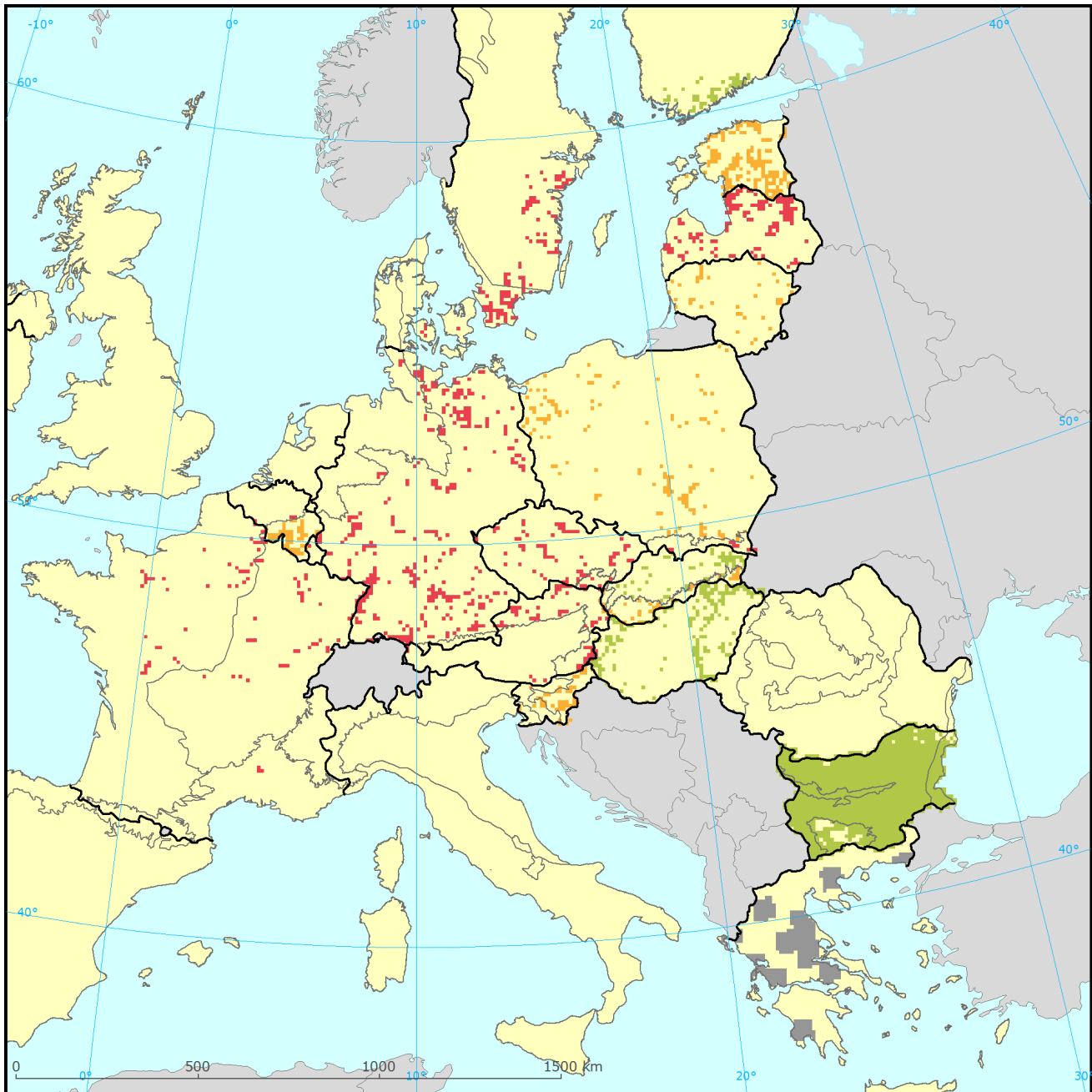
Region	Conservation status (CS) of parameters				Current CS	Trend in CS	% in region	Previous CS	Reason for change
	Range	Population	Habitat	Future prospects					
ALP	U1	U1	U1	U1	U1	-	7	U2	Not genuine
ATL	U2	U2	U2	U2	U2	-	2	U2	
BLS	FV	XX	XX	XX	XX		3	XX	
BOR	FV	U1	U1	U1	U1	=	14	U1	
CON	U1	U2	U2	U1	U2	-	57	U2	
MED	XX	XX	XX	XX	XX		9	XX	
PAN	U1	U1	U1	U1	U1	-	7	FV	Not genuine

See the endnote for more informationⁱ

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Assessment of conservation status at the Member State level



Unio crassus

Distribution and conservation status at the Member State level

- | | |
|---------------------------|------------------------|
| Favourable | EU Member States |
| Unfavourable - inadequate | Outside data coverage |
| Unfavourable - bad | Biogeographical region |
| Unknown | |

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.

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MS	Region	Conservation status of parameters				Current CS	Trend in CS	% in region	Previous CS	Reason for change
		Range	Population	Habitat	Future prospects					
AT	ALP	U2	U2	U2	U2	-	2.8	U2-		
BG	ALP	FV	FV	FV	FV		66.7			
PL	ALP	FV	U2	U2	U1	-	4.2	U2	Genuine	
SI	ALP	U1	U1	U1	U1	-	3.7	U1-		
SK	ALP	FV	FV	FV	FV		22.7	FV		
BE	ATL	FV	U1	U2	U2	-	6.9	XX	Better data	
DE	ATL	U2	U2	U2	U2	-	24.1	U2	Genuine	
FR	ATL	U2	U2	XX	U1	=	69.0	U2		
BG	BLS	FV	FV	FV	FV		100.0			
EE	BOR	FV	U1	U1	U1	x	35.5	U1		
FI	BOR	FV	FV	FV	FV		11.2	FV		
LT	BOR	FV	U1	U1	U1	=	8.8	U2	Better data	
LV	BOR	FV	U1	U2	U1	x	29.5	U1	Better data	
SE	BOR	FV	U2	U1	U1	=	15.0	U2-	Better data	
AT	CON	U2	U2	U2	U2	-	3.4	U2	Changed method	
BE	CON	FV	XX	U1	U1	x	3.0	XX		
BG	CON	FV	FV	FV	FV		55.4			
CZ	CON	FV	U1	U2	U1	=	3.9	U2	Genuine	
DE	CON	U1	U2	U2	U2	-	18.7	U2	Genuine	
DK	CON	FV	U2	FV	U2	x	0.3	U2		
FR	CON	U2	U2	XX	U1	=	2.3	U2		
LU	CON	U2	U2	U2	U2	-	0.1	U2	Genuine	
PL	CON	FV	U1	U1	U1	+	7.8	U2	Better data	
RO	CON	FV	U1	U1	U1					
SE	CON	FV	U2	U1	U1	=	2.8	U2-	Better data	
SI	CON	U1	U1	U1	U1	-	2.4	U1-		
FR	MED	U2	U1	U2	U2	=	1.1	U2		
GR	MED	XX	XX	XX	XX		98.9	XX		
CZ	PAN	U1	U1	U2	U1	=	3.2	U2	Genuine	
HU	PAN	FV	FV	FV	FV		78.7	FV		
RO	PAN	FV	U1	U1	U1					
SK	PAN	U1	XX	U1	U1	=	18.1	U2-	Better data	

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.

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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.

Ten most frequently reported 'highly important' pressures

Code	Activity	Frequency
H01	Pollution to surface waters	24
J02	Changes in water bodies conditions	20
A08	Fertilisation in agriculture	11
A02	Modification of cultivation practices	7
E03	Discharges (household/industrial)	4
J03	Other changes to ecosystems	4
K01	Abiotic natural processes	4
M01	Abiotic changes (climate change)	4
A04	Grazing by livestock	3
B07	Other forestry activities	3

Ten most frequently reported 'highly important' threats

Code	Activity	Frequency
H01	Pollution to surface waters	25
J02	Changes in water bodies conditions	19
A08	Fertilisation in agriculture	9
A02	Modification of cultivation practices	7
E03	Discharges (household/industrial)	4
J03	Other changes to ecosystems	4
K01	Abiotic natural processes	4
M01	Abiotic changes (climate change)	4
B07	Other forestry activities	3
C03	Production of renewable energy (abiotic)	3

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	BLS	BOR	CON	MED	PAN
AT	13				71		
BE		100			68		
BG	50		58		30		
CZ					12		19
DE		88			61		
DK					100		
EE				60			
FI				55			
FR		x			x	100	
HU							59
LT				87			
LU					100		
LV				10			
PL	70				27		
RO					100		91
SE				50	35		
SI	50				58		
SK	20						24

See the endnotes for more informationⁱⁱ

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
6.3	Legal protection of habitats and species	25
4.2	Restoring/improving the hydrological regime	19
6.1	Establish protected areas/sites	18
4.1	Restoring/improving water quality	13
4.3	Managing water abstraction	8
2.1	Maintaining grasslands and other open habitats	4
2.0	Other agriculture-related measures	3
3.0	Other forestry-related measures	3
4.0	Other wetland-related measures	3
7.4	Specific single species or species group management measures	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=Unio+crassus>

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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.