



Botrychium simplex

| | |
|----------------------|--|
| Annex | II, IV |
| Priority | No |
| Species group | Vascular plants |
| Regions | Alpine, Atlantic, Boreal, Continental, Mediterranean |

The fern *Botrychium simplex* has broad distribution across Europe being classified as circumpolar-north floristic element. It grows also in Greenland, North America and Asia. However, populations in EU are usually small and sites often scattered. This species occurs in different habitat types: nutrient-poor grasslands, dry heaths, bogs, forests, steppes, rocky habitats, often close to the sea. The species is listed as Near Threatened (NT) in the IUCN European Red List.

The conservation status of the species is "Unfavourable", being classified as "Unfavourable Bad" in Atlantic, Boreal and Continental biogeographical regions and "Unfavourable Inadequate" in Alpine and Mediterranean regions. The most significant decline was recorded in the Continental region (from "Favourable" to "Inadequate Bad") while the improvement was recorded only in Alpine region (from "Unfavourable Bad" to "Unfavourable Inadequate"). On the country level, only Slovenia in Alpine region classified the conservation status of the species as "Favourable".

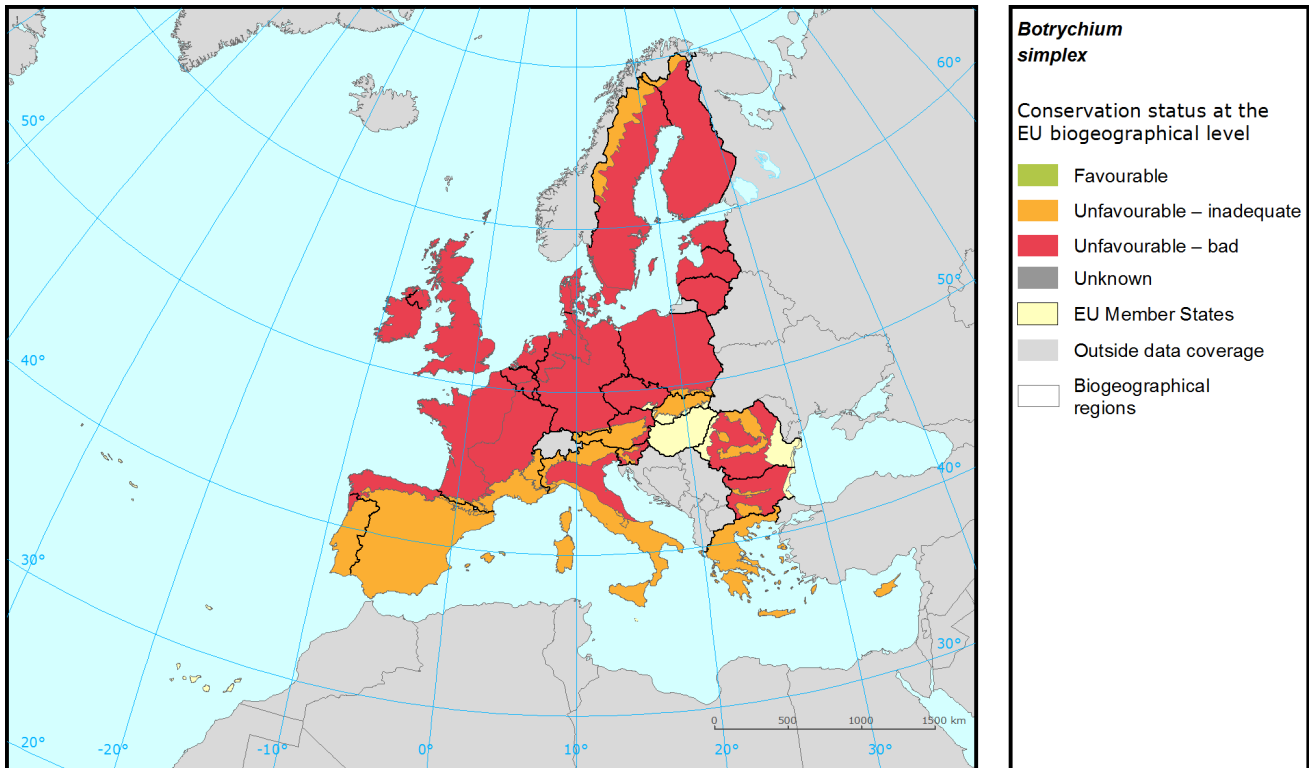
It is very sensitive to any change in its habitat such as fertilizers application and drainage, management changes, abandonment and overgrowing by shrubs.

Changes in overall conservation status between 2001-06 and 2007-12 report are mostly caused by real change in conservation status in Continental region, and caused by different methodical approach and better data rather than real change in conservation status in Alpine region. No changes in overall conservation status between 2001-06 and 2007-12 reports in Atlantic, Boreal and Mediterranean region.

Better data required from Greece and Lithuania.

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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 | FV | U1 | U1 | U1 | U1 | + | 36 | U2 | Not genuine |
| ATL | U2 | U2 | U1 | U1 | U2 | x | 2 | U2 | |
| BOR | U1 | U2 | U1 | U2 | U2 | - | 45 | U2 | |
| CON | U1 | U2 | U1 | U1 | U2 | - | 6 | FV | Genuine |
| MED | U1 | FV | FV | XX | U1 | = | 11 | U1 | |

See the endnote for more informationⁱ








Species: *Botrychium simplex*
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Assessment of conservation status at the Member State level



Botrychium simplex

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 | FV | U1 | U1 | U1 | = | 29.4 | U1 | | |
| FR | ALP | FV | FV | FV | U1 | U1 | + | 64.7 | U2 | Better data |
| SI | ALP | FV | FV | FV | FV | FV | | 5.9 | | |
| DE | ATL | U2 | U2 | U1 | U1 | U2 | x | 100.0 | U2 | No data |
| FI | BOR | FV | U2 | U1 | U2 | U2 | x | 33.3 | U2- | Better data |
| LT | BOR | U1 | U2 | XX | XX | U2 | x | 19.0 | U2 | |
| LV | BOR | U2 | U2 | U2 | U2 | U2 | - | 4.8 | U2- | Better data |
| SE | BOR | FV | U2 | U1 | U1 | U2 | - | 42.9 | FV | Genuine |
| DK | CON | U2 | U2 | U2 | U2 | U2 | x | | U1 | Better data |
| FR | CON | U1 | U2 | U2 | U2 | U2 | - | 33.3 | U2 | |
| SE | CON | FV | U1 | U1 | U1 | U1 | - | 66.7 | FV | Genuine |
| FR | MED | U1 | FV | FV | XX | U1 | = | 80.0 | U1 | |
| GR | MED | XX | XX | XX | XX | XX | | 20.0 | XX | |

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.

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Ten most frequently reported 'highly important' pressures

| Code | Activity | Frequency |
|-------------|---|------------------|
| A04 | Grazing by livestock | 33 |
| A05 | Farming and breeding of livestock | 11 |
| J02 | Changes in water bodies conditions | 11 |
| K02 | Vegetation succession/Biocenotic evolution | 11 |
| A03 | Mowing or cutting grasslands | 6 |
| A08 | Fertilisation in agriculture | 6 |
| B06 | Grazing in forests & woodland | 6 |
| F04 | Taking and collection of terrestrial plants | 6 |
| G01 | Outdoor sports, leisure and recreational activities | 6 |
| J03 | Other changes to ecosystems | 6 |

Ten most frequently reported 'highly important' threats

| Code | Activity | Frequency |
|-------------|---|------------------|
| A04 | Grazing by livestock | 32 |
| A05 | Farming and breeding of livestock | 11 |
| F04 | Taking and collection of terrestrial plants | 11 |
| J02 | Changes in water bodies conditions | 11 |
| K02 | Vegetation succession/Biocenotic evolution | 11 |
| A03 | Mowing or cutting grasslands | 5 |
| A08 | Fertilisation in agriculture | 5 |
| B06 | Grazing in forests & woodland | 5 |
| G01 | Outdoor sports, leisure and recreational activities | 5 |
| J03 | Other changes to ecosystems | 5 |

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 | 59 | | | | |
| DE | | x | | | |
| DK | | | | 0 | |
| FI | | | 95 | | |
| FR | x | | | 100 | 100 |
| LT | | | 50 | | |
| LV | | | 100 | | |
| SE | | | 8 | 100 | |
| SI | 100 | | | | |

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 |
|------|--|-----------|
| 2.1 | Maintaining grasslands and other open habitats | 50 |
| 6.3 | Legal protection of habitats and species | 25 |
| 7.0 | Other species management measures | 13 |
| 7.1 | Regulation/ Management of hunting and taking | 13 |

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=Vascular+plants&period=3&subject=Botrychium+simplex>

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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.