Czech Republic’s biodiversity at risk

A call for action

NOT EVALUATED	DATA DEFICIENT	LEAST CONCERN	NEAR THREATENED	VULNERABLE	ENDANGERED	CRITICALLY ENDANGERED	REGIONALLY EXTINCT	EXTINCT IN THE WILD	EXTINCT
NE	DD	LC	NT	VU	EN	CR	RE	EW	EX

The Czech Republic hosts a considerable proportion of the species that are threatened at the European level, and has the important responsibility for protecting these species within its territory. Species in the Czech Republic require greater action to improve their status. While many species already receive some conservation attention, others do not. Species can be saved from extinction but this requires a combination of sound research and carefully coordinated efforts. The Czech Republic as an EU Member State has committed to halting biodiversity loss by 2020 but urgent action is needed to meet this target and better monitoring capacity is required to measure if the target is met.

Considerable conservation investment is needed from the Czech Republic to ensure that the status of European species improves in the long term. This document provides an overview of the conservation status of species in the Czech Republic based on the results of all European Red Lists completed to date. It does not provide the status of the species in the country, therefore we invite the reader to cross check national and sub-national Red Lists. Together, they can be used to help guide policies and local conservation strategies.

The European Red List

The European Red List of Species is a review of the conservation status of more than 6,000 species in Europe according to the IUCN Red List Categories and Criteria and the regional Red Listing guidelines. It identifies species that are threatened with extinction at the European level so that appropriate conservation actions can be taken to improve their status. The geographical scope is continent-wide, including European parts of the Russian Federation and Turkey as well as the Macaronesian Islands. The Caucasus region is not included.

To date, European regional assessments have been completed for all mammals, reptiles, amphibians, butterflies, dragonflies, freshwater fishes and freshwater molluscs and a selection of saproxylic beetles, terrestrial molluscs, and vascular plants. Assessments of pollinators, medicinal plants, birds and marine fishes are currently under development.

The European Red List is compiled by IUCN Global Species Programme, with funding from the European Commission.

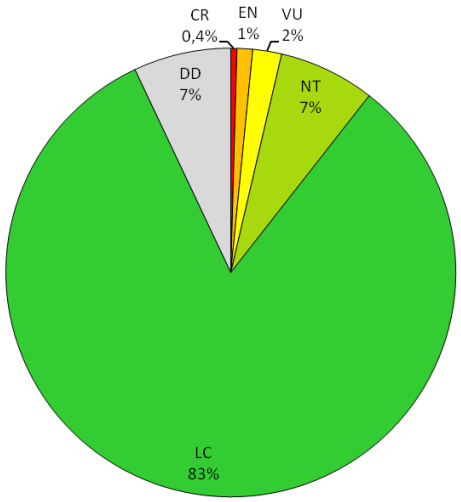
Conservation status

The Czech Republic is host to an estimated 55,480 species of animals and plants. This number represents 35% of the total species described for Europe and could represent more than 3% of the species in the world. According to the table below, approximately 20% of the species assessed by the European Red List of Species are present in the Czech Republic. For some of the taxonomic groups, the percentages of European species that occur in the Czech Republic are particularly high; such as dragonflies, saproxylic beetles and butterflies.

Of the 1,158 species assessed that occur in the Czech Republic, the groups comprising the highest number of species are vascular plants, saproxylic beetles and butterflies. Of the total number of species assessed in the country 4%* are considered threatened and almost 7% are Near Threatened at the European level. Many of these species are endemic to Europe and are found nowhere else in the world.

Species that are considered threatened at the European level and occur in the Czech Republic are found mostly in forests, wetlands and grassland. These ecosystems require particular attention in order to ensure the habitats of these sensitive species remain.

European status of species in the Czech Republic



Number of species assessed within each IUCN Red List category at the European level

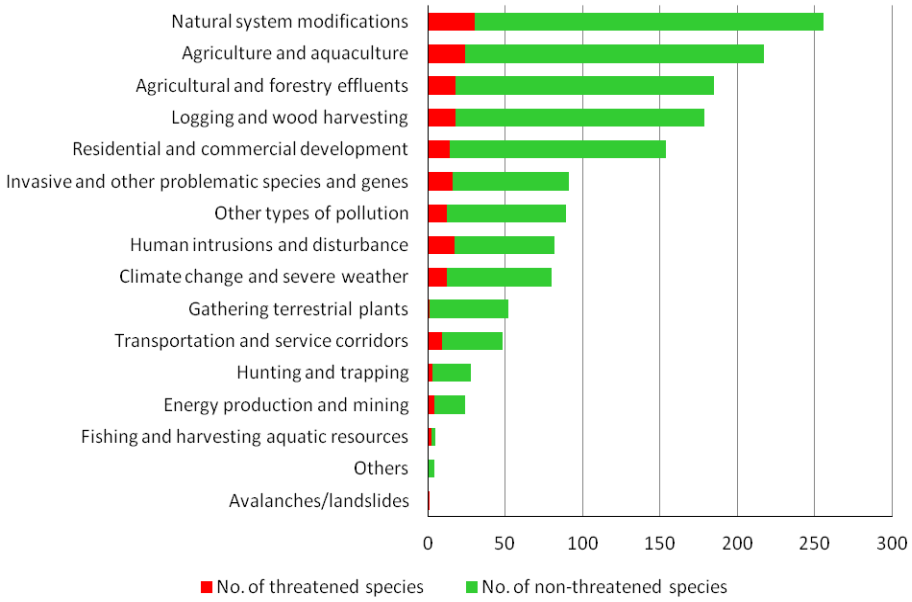
Species group	No. of sp. in Europe	No. of sp. in the Czech Republic	% of European sp. occurring in the Czech Republic	No. of threatened sp. in the Czech Republic (status at European level)		
				CR	EN	VU
Mammals	233	77	33%	1	0	3
Reptiles	140	11	8%	0	0	0
Amphibians	83	21	25%	0	0	0
Freshwater fishes	522	61	12%	1	1	0
Butterflies	435	146	34%	0	3	7
Dragonflies	137	71	52%	0	0	2
Saproxylic beetles**	431	212	49%	0	5	4
Terrestrial molluscs**	1,233	69	6%	0	0	2
Freshwater molluscs	854	76	9%	2	0	1
Vascular plants**	1,826	414	23%	1	4	5
TOTAL	**5,894**	**1,158**	**20%**	**5**	**13**	**24**

**Not comprehensively assessed, selected species only.
This table does not include the Not Applicable (NA) species in Europe (species introduced after AD 1500 or species of marginal occurrence).
The data are based on the results of the European Red List (European region wide assessment).

Major threats

Habitat loss, fragmentation and degradation are the most significant threats at the European level to species that occur in the Czech Republic. For freshwater species, major threats include the over-extraction of water, pollution due to agricultural and forestry effluents and the introduction of alien species. Other major threats come from farming and ranching as a result of agricultural expansion and intensification, urbanization and tourism.

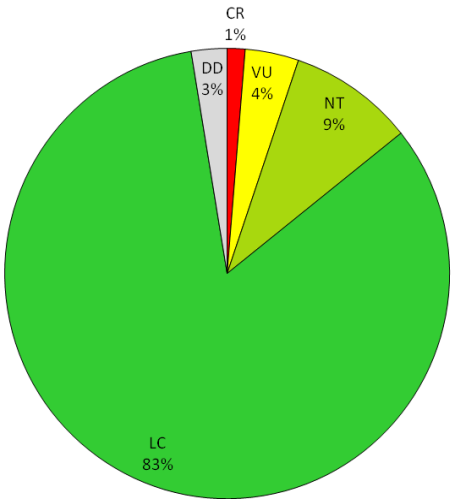
Major threats at the European level to species occurring in the Czech Republic



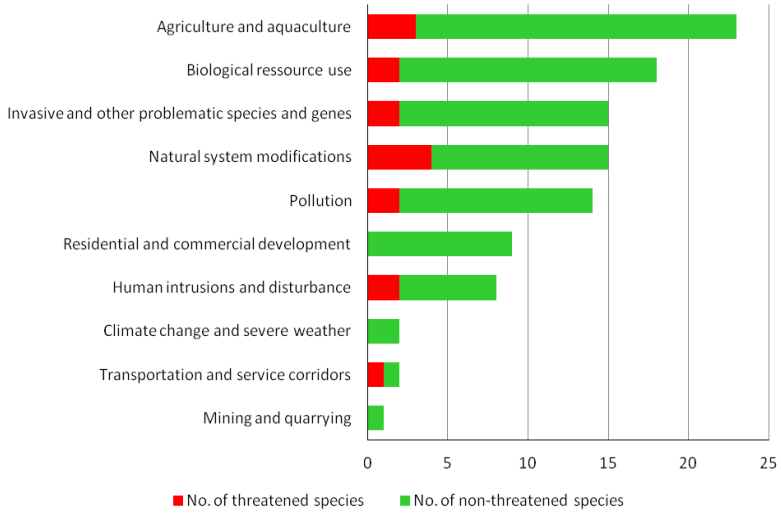
Mammals

The Czech Republic hosts 33% of all the mammals that occur in Europe. Of these 77 species of mammals, 5%* are threatened at the European level and at least an additional 9% are considered Near Threatened. Habitat loss, fragmentation and degradation especially due to agricultural activities are the main threats to this group at the European level. Hunting, logging and wood harvesting and invasive and other problematic species both native and non native also pose serious threats to mammals in the country.

Status at European level



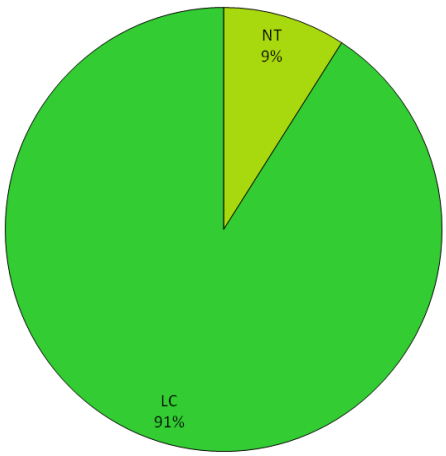
Threats at European level



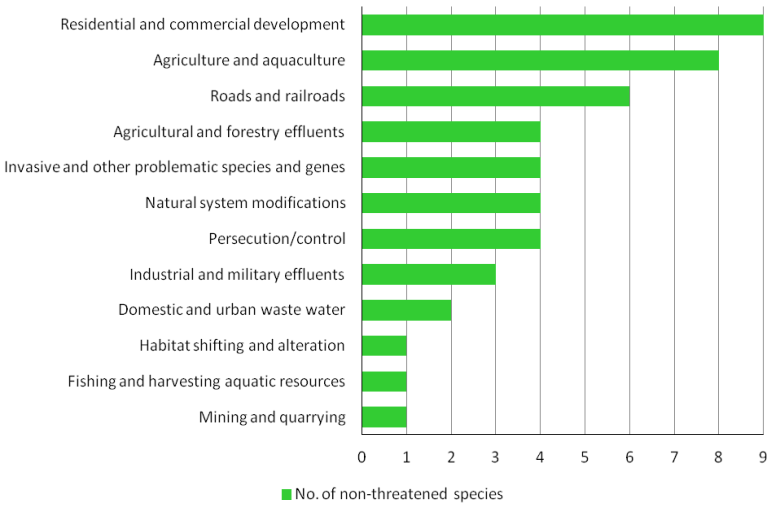
Reptiles

Reptile species in the Czech Republic represent 8% of all the reptiles in Europe. The conservation status of reptiles in the Czech Republic based on the European Red List data is relatively good since none of them are considered threatened, 9% are classified as Near Threatened and 91% are considered as Least Concern. The continuous destruction of suitable habitat from increased overflow settlements into the countryside is the main threat to this group at the European level. Habitat fragmentation and degradation especially due to agricultural intensification and the construction of roads also pose threat. It is also interesting to note that at least 40% of the reptile species in the Czech Republic are threatened by human persecution and control, especially snakes.

Status at European level



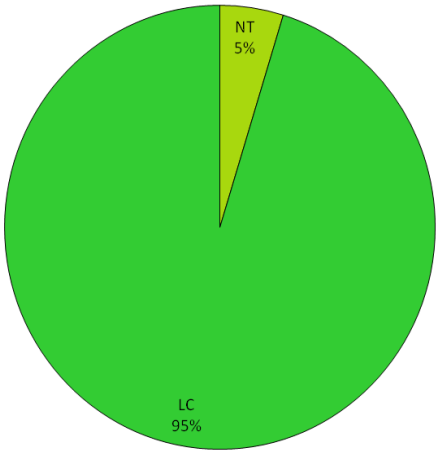
Threats at European level



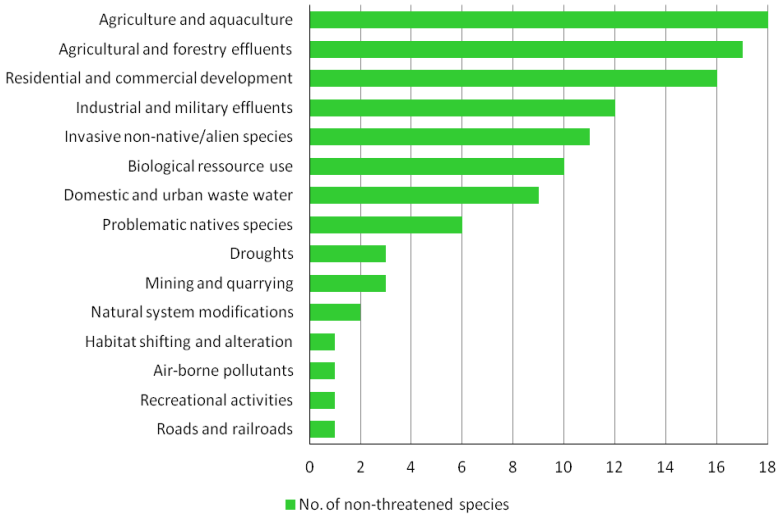
Amphibians

Amphibians in the Czech Republic represent 25% of all amphibians occurring in Europe. The conservation status of amphibians in the Czech Republic based on the European Red List data is relatively good since none of them are considered threatened, 5% are classified as Near Threatened and 95% are considered as Least Concern. The main threat to this group at the European level is the loss and degradation of suitable breeding habitat mainly due to agricultural activities and livestock farming and ranching. Urban development and water quality deterioration caused by agricultural and forestry effluents are also threats to this group.

Status at European level



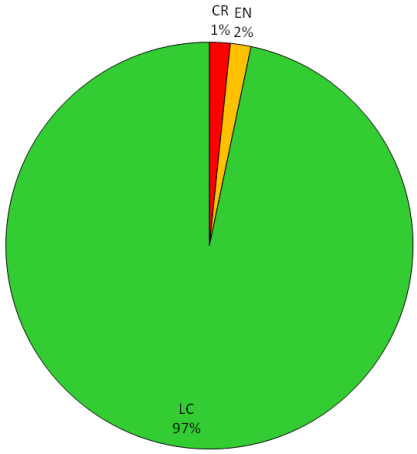
Threats at European level



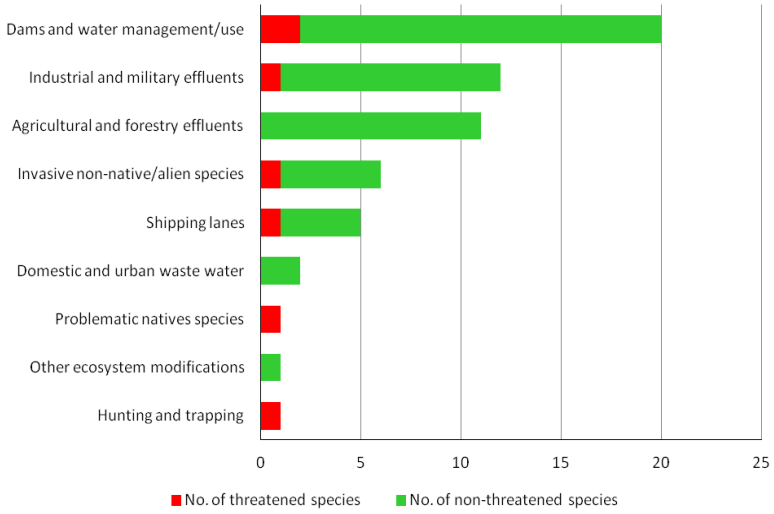
Freshwater fishes

Freshwater fishes are one of the most threatened groups at the European level. Three percent* of the species that occur in the Czech Republic are threatened at the European level, while the percentage of total threatened species that is observed in the European region is 40%*. Additionally, freshwater fishes have a high percentage of endemism in the European region: up to 80%. The most important threat to this group at the European level is the change of water flow patterns due to dam construction. Pollution due to industrial, agricultural and forestry effluents and the existence of invasive and non native species are major threats to this group.

Status at European level



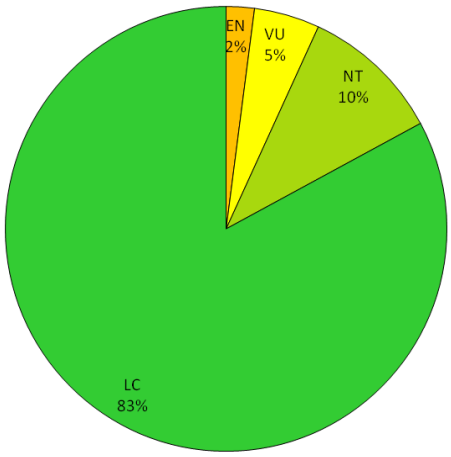
Threats at European level



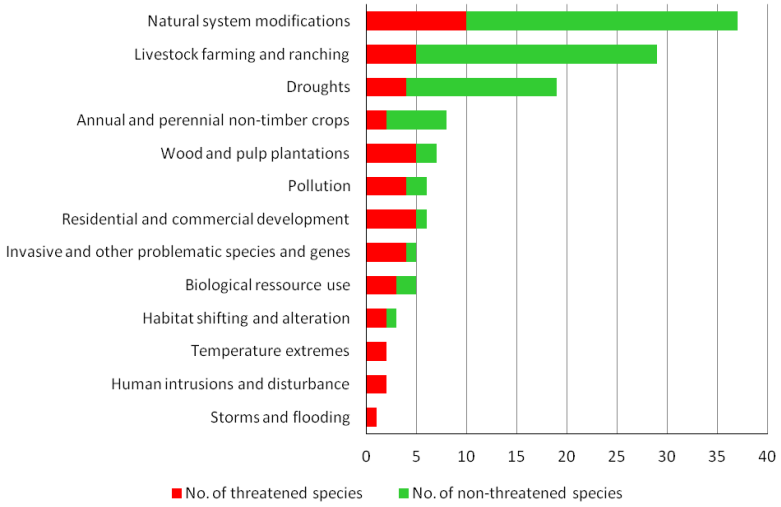
Butterflies

The Czech Republic hosts 34% of all butterfly species in Europe and 7%* of them are considered threatened at the European level. Additionally, 10% of butterfly species are classified as Near Threatened, and 90% are considered as Least Concern at the European level. However, butterflies have very specific food and habitat requirements at different stages of their life cycle so they are very sensitive to changes in their environment, especially to habitat management such as overgrazing, undergrazing or changes in forestry practices.

Status at European level



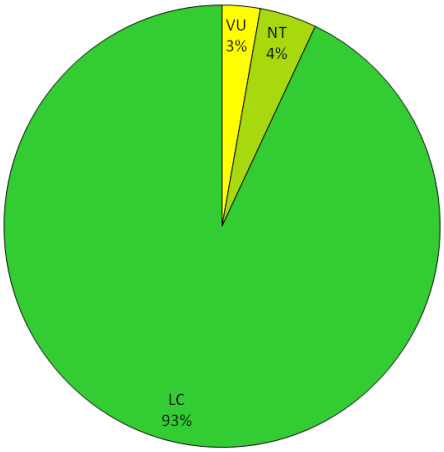
Threats at European level



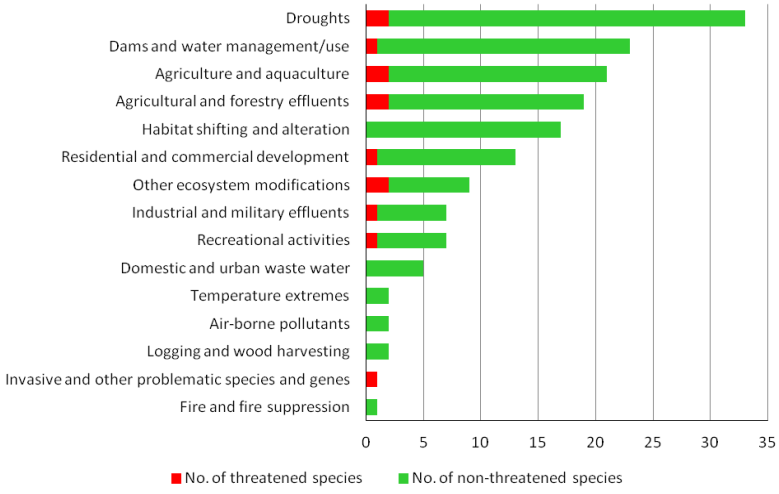
Dragonflies

Fifty-two percent of all the dragonflies in Europe are present in the Czech Republic. Three percent* of dragonfly species that occur in the Czech Republic are considered threatened at the European level. This group is adversely affected by desiccation caused by dry weather and increased water extraction for irrigation and human consumption. River species are also affected by ecosystem modifications such as the construction of dams and reservoirs and water quality deterioration.

Status at European level



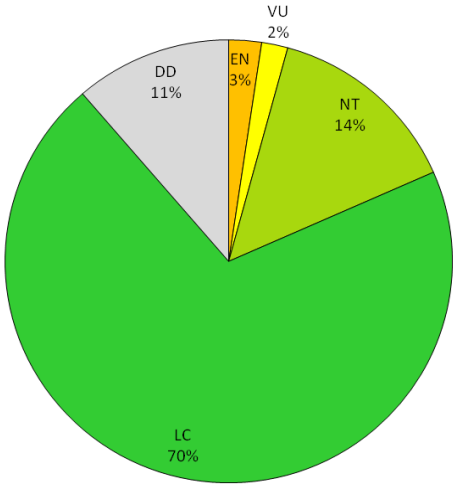
Threats at European level



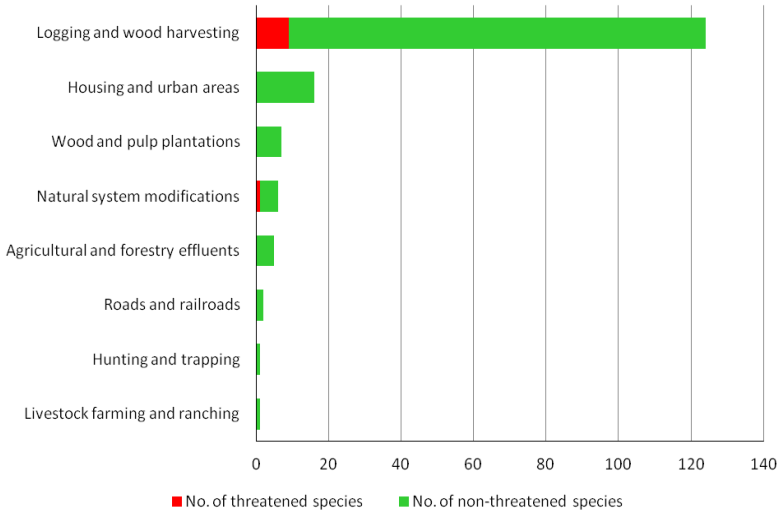
Saproxylic beetles

Forty-nine percent of the beetle species assessed by the European Red List are present in the Czech Republic. Approximately 5%* of the species in this group are considered threatened and 14% of them are classified as Near Threatened at the European level. The species in this group are very dependent on the dynamics of tree aging and wood decay processes. The major threat to this group is logging and wood harvesting; therefore these beetles require sensitive conservation management of tree populations irrespective of their situation.

Status at European level



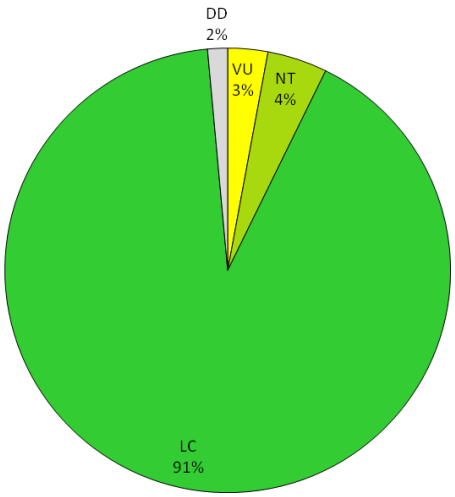
Threats at European level



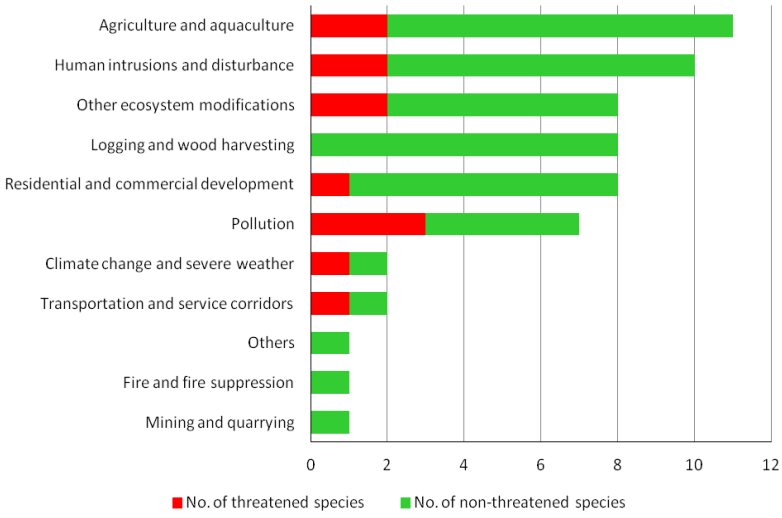
Terrestrial molluscs

Three percent* of the terrestrial molluscs assessed that are present in the Czech Republic are threatened at the European level. The major threat to this group at the European level is the continuous destruction of suitable habitat due to agricultural intensification and livestock farming and ranching. The exploitation of habitats for tourism, forestry and urban development are also major threats to this group.

Status at European level



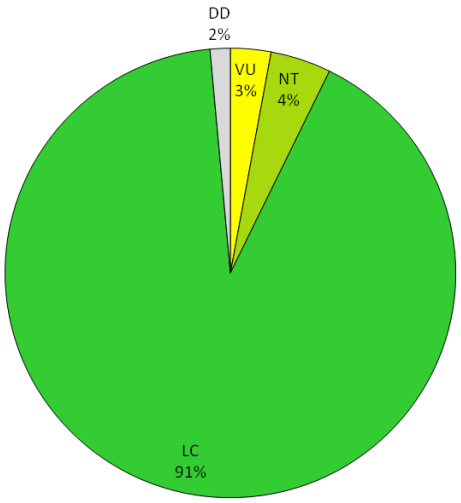
Threats at European level



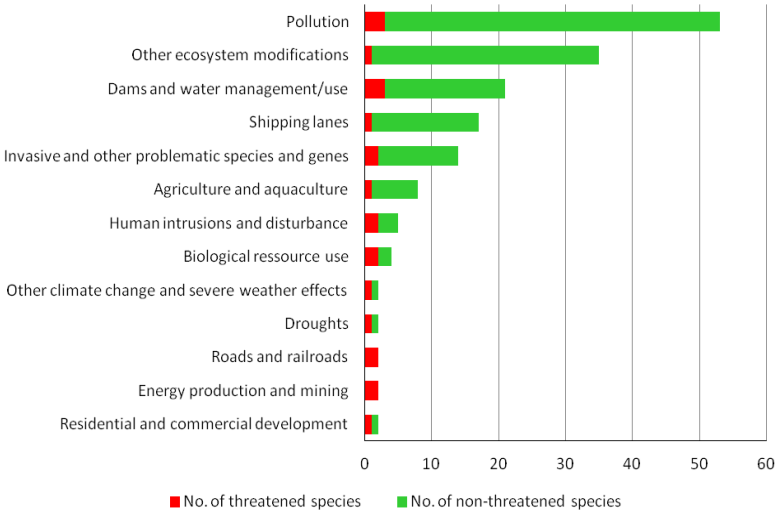
Freshwater molluscs

Nine percent of the freshwater mollusc species are present in the Czech Republic. Approximately 4%* of the species in this group are threatened at the European level. Declining water quality in freshwater rivers and lakes caused by agricultural activities is the major threat for this group at the European level. Water abstraction from underground or from the streams and rivers themselves, and transport on and in freshwater waterways are also threats to this group.

Status at European level



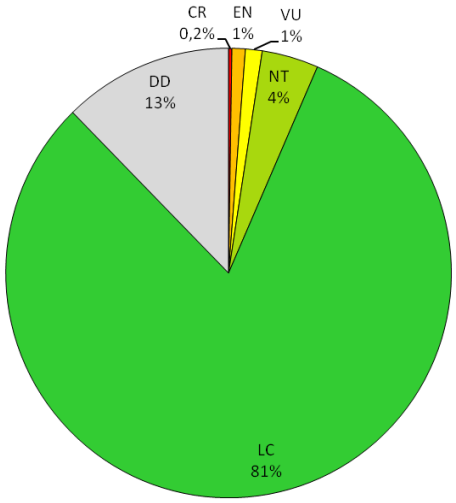
Threats at European level



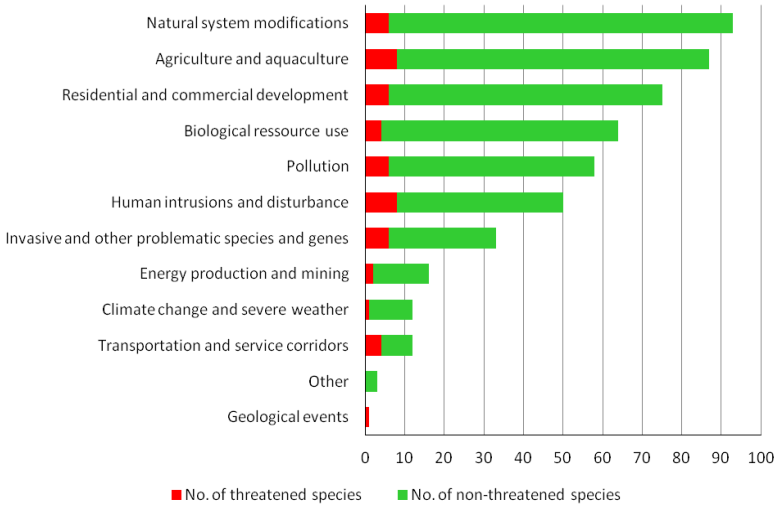
Vascular plants

At European level, priority crop wild relatives, aquatic plants and all species included in the annexes of the Habitats Directive, Bern Convention and CITES have been assessed. A total of 414 species are found in the Czech Republic, which represent 23% of the total of species assessed in Europe. Three percent* of the 414 vascular plant species assessed in the Czech Republic are considered threatened at the European level. For terrestrial plants, intensified livestock farming, especially intensive grazing activities have the worst impacts. For aquatic species, declining water quality caused by agricultural activities is the main threat.

Status at European level



Threats at European level



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http://ec.europa.eu/environment/nature/conservation/species/redlist and
http://www.iucnredlist.org/europe

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*The proportion of threatened species in this document is calculated as follows: (EW + CR + EN + VU) / (total number of species assessed - EX - RE - DD). Since the number of threatened species is often uncertain because it is not known whether DD species are actually threatened or not, this formula considers that DD species are equally threatened as data sufficient species.