

Spain'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

Spain hosts a large proportion of species that are threatened at the European level, and has an important responsibility for protecting these species within its territory. Species in Spain 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. Spain 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 progress towards this target.

Considerable conservation investment is needed from Spain 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 Spain 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 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.

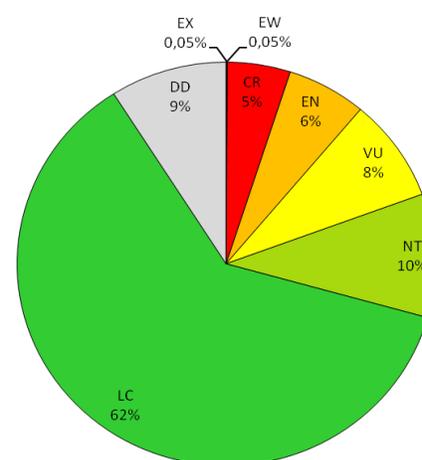
Conservation status

Spain is host to an estimated 85,000 species of animals and plants. This number represents 54% of the total species described for Europe and could represent more than 5% of the species in the world. According to the table below, approximately 38% of the species assessed by the European Red List of Species are present in Spain. For some of the taxonomic groups, the percentages of European species that occur in Spain are particularly high; such as dragonflies, saproxylic beetles and butterflies.

Of the 2,233 species assessed that occur in Spain, the groups comprising the highest number of species are vascular plants, terrestrial molluscs, butterflies and saproxylic beetles. Of the total number of species assessed in the country more than one fifth* are considered threatened and at least 10% are Near Threatened at the European level, one species is Extinct in the Wild and one species is already Extinct. 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 Spain are found mostly in shrublands, rocky areas, wetlands and forests. These ecosystems require particular attention in order to ensure the habitats of these sensitive species remain.

European status of species in Spain



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 Spain	% of European sp. occurring in Spain	No. of threatened sp. in Spain (status at European level)		
				CR	EN	VU
Mammals	233	111	48%	4	4	10
Reptiles	140	62	44%	5	7	3
Amphibians	83	29	35%	1	1	3
Freshwater fishes	522	71	14%	5	9	12
Butterflies	435	234	54%	0	4	8
Dragonflies	137	79	58%	0	1	5
Saproxylic beetles**	431	224	52%	0	6	5
Terrestrial molluscs**	1,233	418	34%	22	19	53
Freshwater molluscs	854	166	19%	11	8	23
Vascular plants**	1,826	839	46%	61	76	63
TOTAL	5,894	2,233	38%	109	135	185

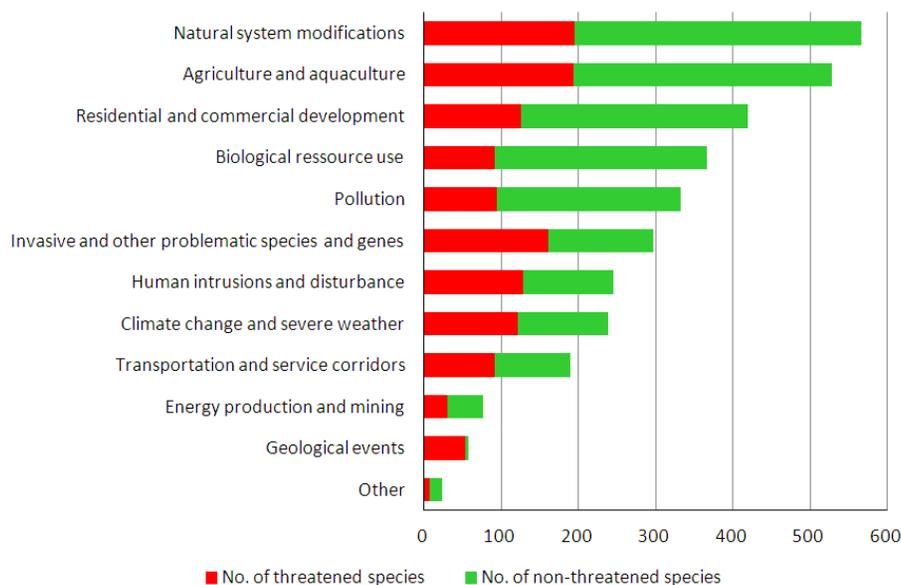
**Not comprehensively assessed, selected species only.

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 Spain. For freshwater species, major threats include the over-extraction of water, which in many cases is further exacerbated by increasing droughts due to climate change, pollution 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.

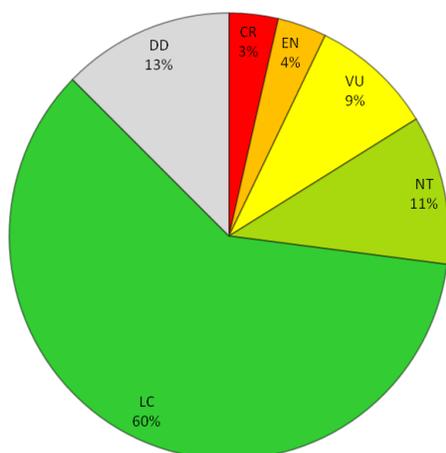
Major threats at the European level to species occurring in Spain



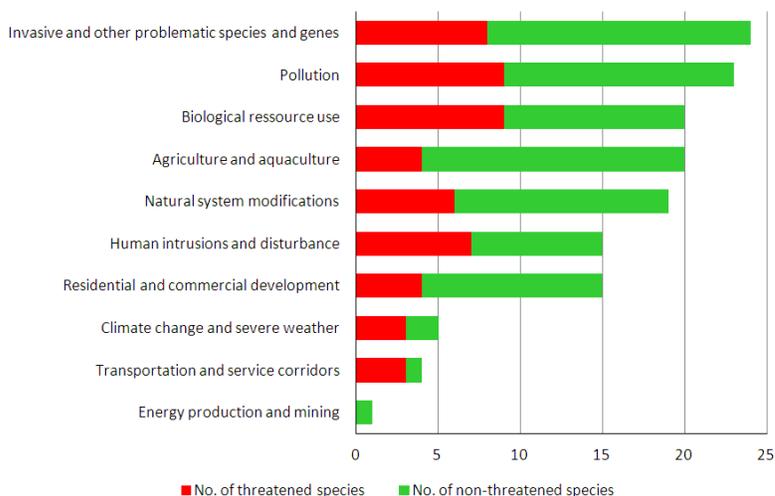
Mammals

Spain hosts 48% of all the mammals that occur in Europe. Of these 111 species of mammals, 19%* are threatened at the European level and at least an additional 11% are considered Near Threatened. The major threats at the European level that can possibly (or potentially) affect mammals in Spain are invasive and other problematic species, both native and non-native. Mammal populations are also highly threatened mainly by agricultural and forestry effluents and noise pollution. Hunting, trapping, logging and wood harvesting also pose serious threats to mammals in the country.

Status at European level



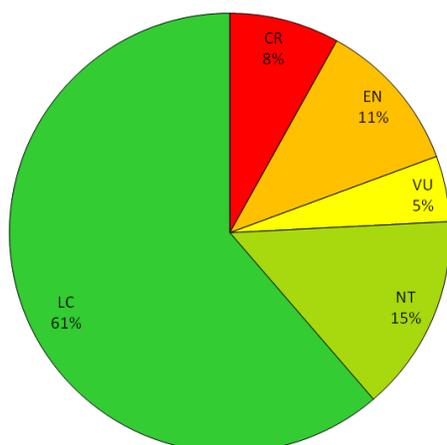
Threats at European level



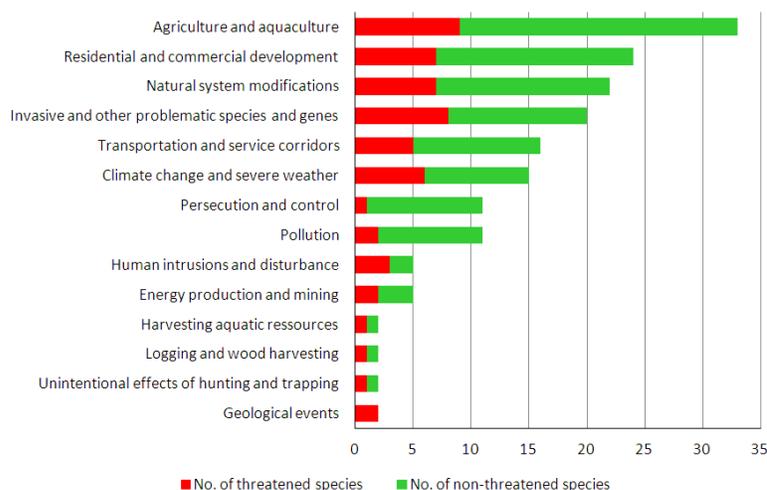
Reptiles

Reptile species in Spain represent 44% of all the reptiles in Europe. Twenty-four percent* of the reptile species that occur in Spain are considered threatened at the European level and the group shows the highest percentage of Critically Endangered species from all the groups assessed in the country. Habitat loss, fragmentation and degradation especially due to agricultural intensification and urbanization are the main threats to this group at the European level. It is also interesting to note that at least 18% of the reptile species in Spain may be threatened by human persecution and control, especially snakes and vipers.

Status at European level



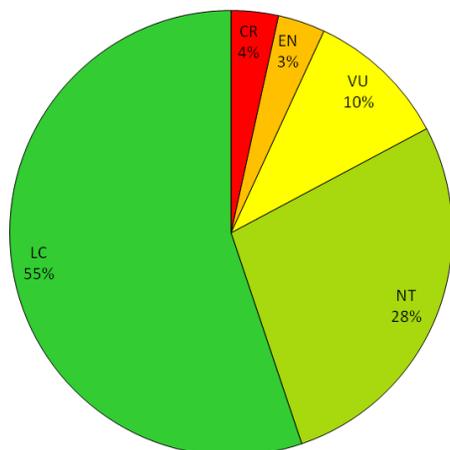
Threats at European level



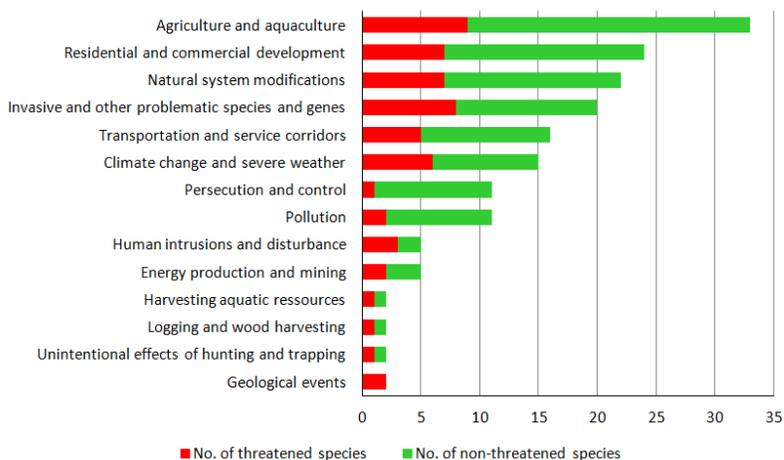
Amphibians

Amphibians in Spain represent 35% of all amphibians occurring in Europe. This group shows high endemic species richness in the Iberian Peninsula, which also has one of the greatest concentrations of threatened species of amphibians. Seventeen percent* of the amphibian species that occur in Spain are threatened at the European level and more than a quarter of the species are Near Threatened. The main threat to this group at the European level is the loss and degradation of suitable breeding habitat mainly due to agricultural activities through excessive water withdrawal and water pollution by agrochemicals.

Status at European level



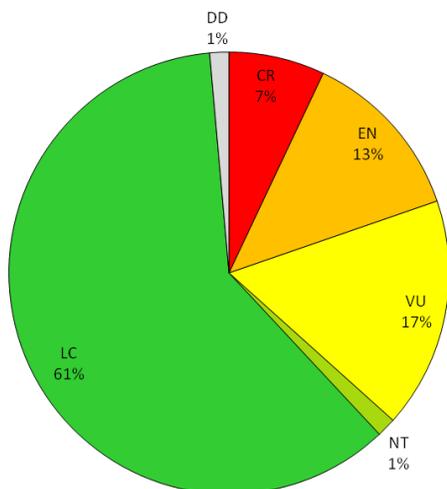
Threats at European level



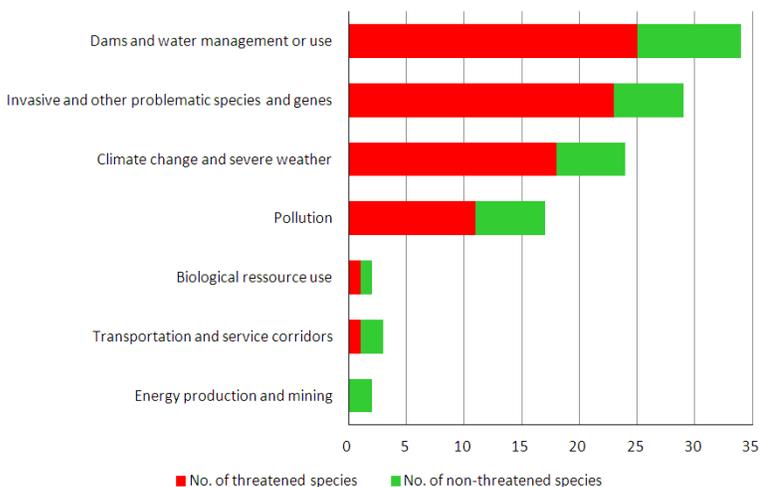
Freshwater fishes

Freshwater fishes are one of the most threatened groups at the European level and Spain hosts the largest number of threatened species at the European level. Thirty-seven percent* of the species that occur in Spain 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%. Although areas with the highest species richness clearly coincide with the lower parts of large rivers flowing to the Black and Caspian Sea, some of the highest concentrations of threatened freshwater fish species are found in Spain. The most important threat to this group at the European level is the abstraction of water from underground or from the streams and rivers themselves.

Status at European level



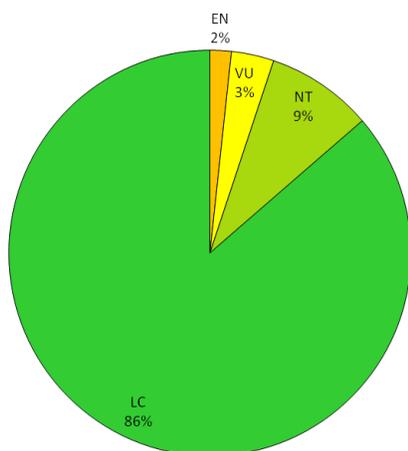
Threats at European level



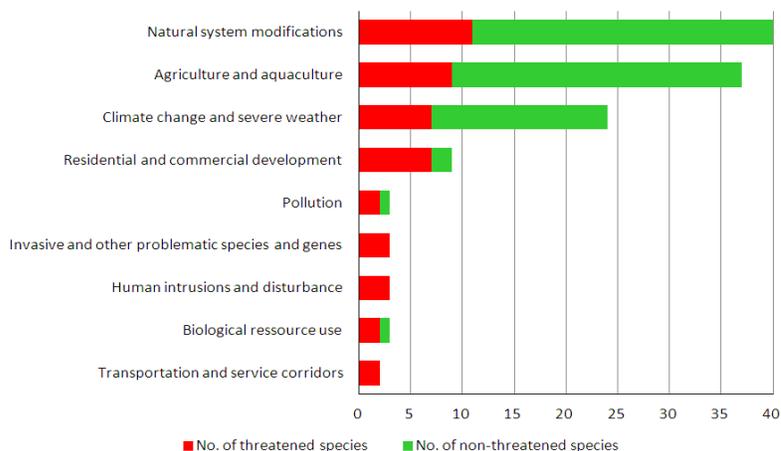
Butterflies

Spain hosts 54% of all butterfly species in Europe and 5%* of them are considered threatened at the European level. The mountainous areas of Spain have a rich variety of butterfly species as well as a high number of endemic species. The conservation status of butterflies in Spain based on the European Red List data is relatively good since approximately 86% of the species are classified as Least Concern. 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



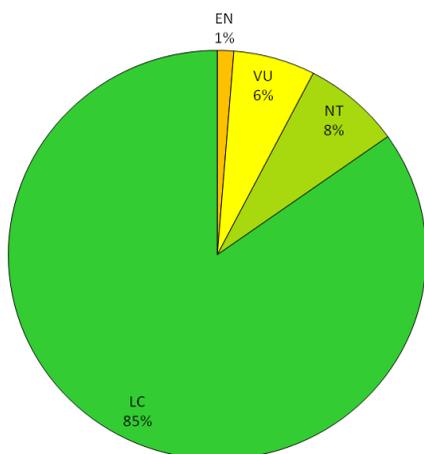
Threats at European level



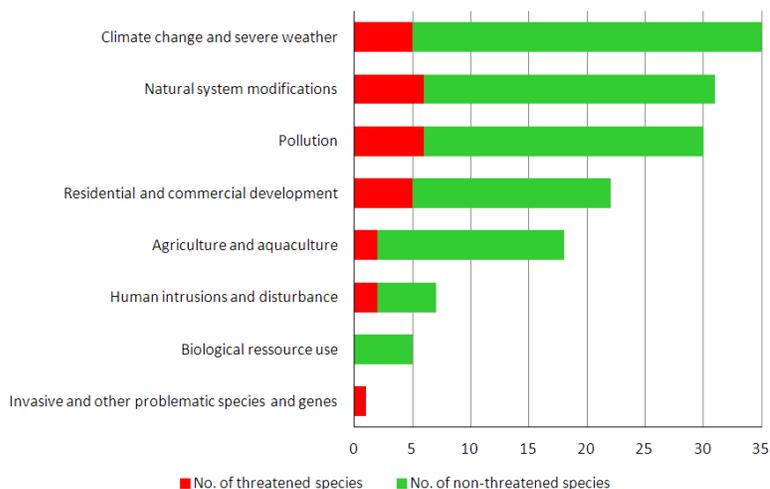
Dragonflies

Fifty-eight percent of all the dragonflies in Europe are present in Spain. After France and Italy, Spain hosts the highest number of dragonflies in Europe. In Spain, 8%* are considered threatened at the European level. A large concentration of threatened species is found in the Iberian Peninsula, especially in the Mediterranean region. This group is adversely affected by desiccation caused by dry weather, fires 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



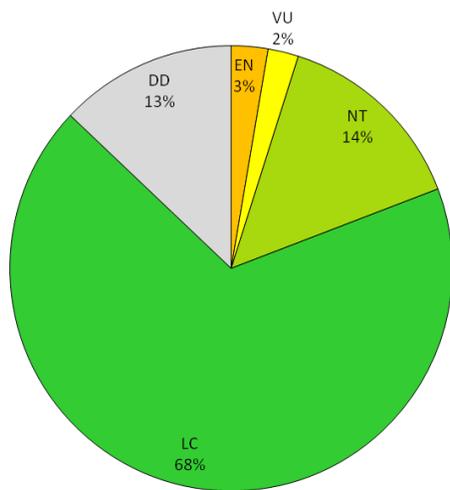
Threats at European level



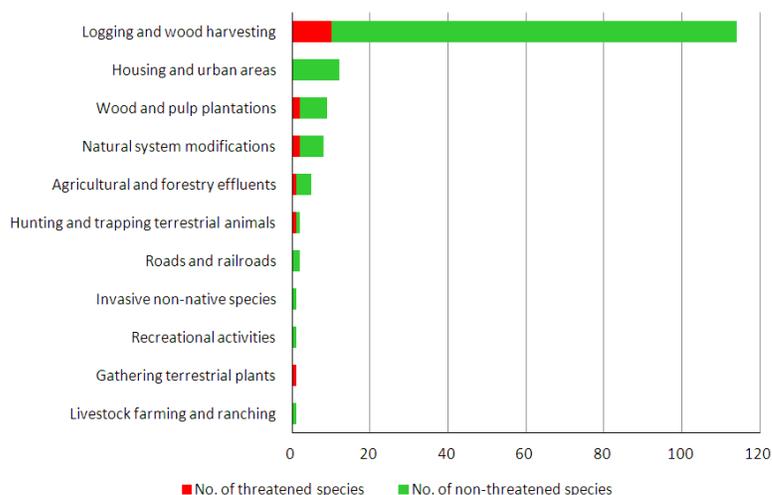
Saproxylic beetles

Fifty-two percent of the beetle species assessed by the European Red List are present in Spain. Approximately 6%* of the species in this group are considered threatened at the European level, which is less than half of the percentage of threatened saproxylic beetle species in Europe, and none of them are Critically Endangered. Fourteen percent of them are considered as Near Threatened and 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



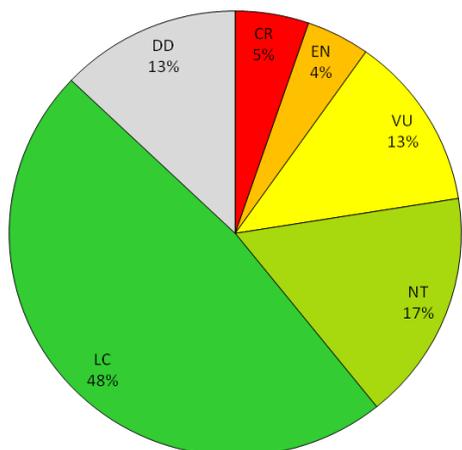
Threats at European level



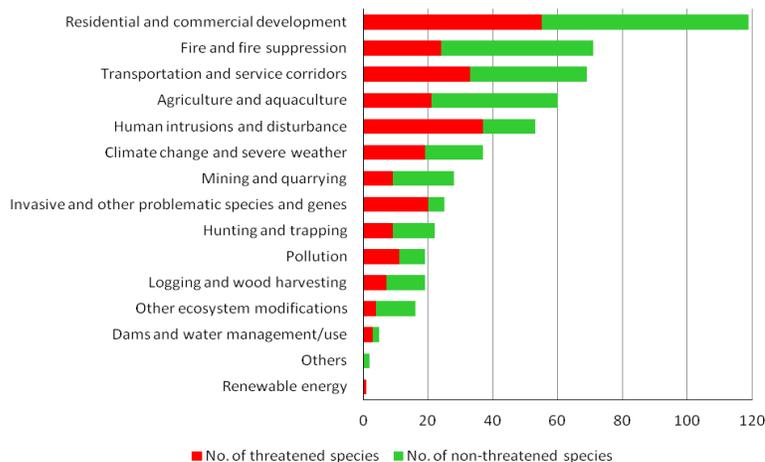
Terrestrial molluscs

Twenty-six percent* of the terrestrial molluscs assessed that are present in Spain are threatened and 17% are Near Threatened at the European level. The majority of threatened terrestrial molluscs are found in the Macaronesian Islands, including the Canary Islands. In this region the percentage of endemism for this group is 82%. The major threat to this group at the European level is continuous destruction of suitable habitat from increased overflow of settlements into the countryside.

Status at European level



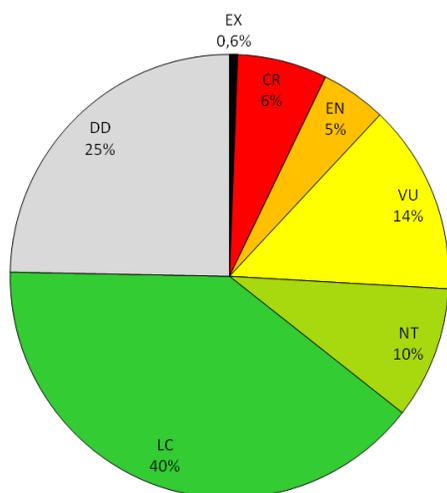
Threats at European level



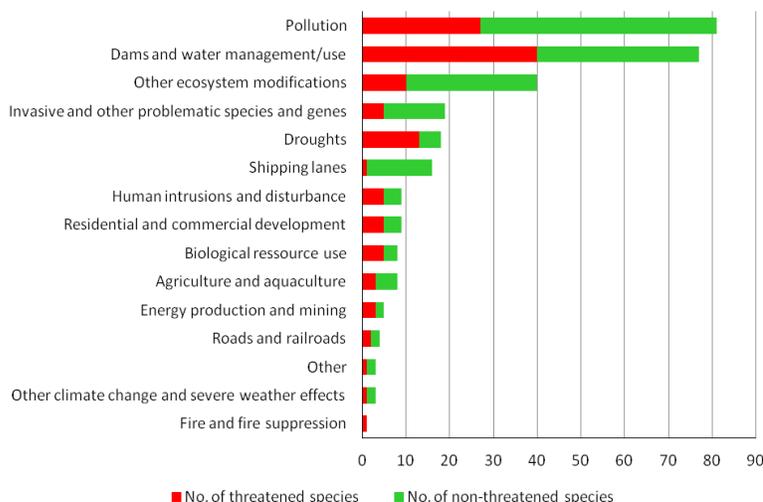
Freshwater molluscs

Thirty four percent* of freshwater molluscs that occur in Spain are threatened at the European level. One of the species within this group has already gone Extinct, *Islamia ateni* which was endemic to Spain. Water abstraction is the main threat to this group especially in the Iberian Peninsula where the springs are being converted to off-take water and vegetation used for habitat is being removed to improve the 'cleanliness' of the off-take area. Declining water quality in freshwater rivers and lakes caused by agricultural activities is also one of the major threats at the European level.

Status at European level



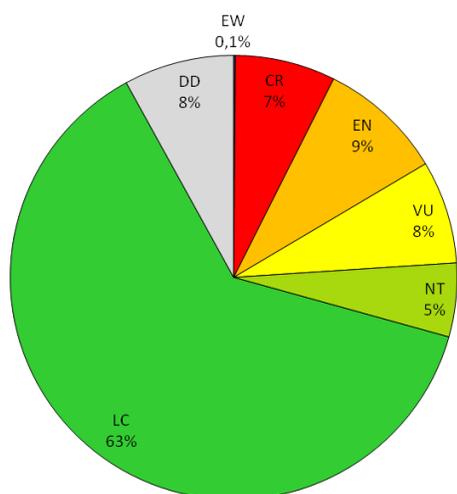
Threats at European level



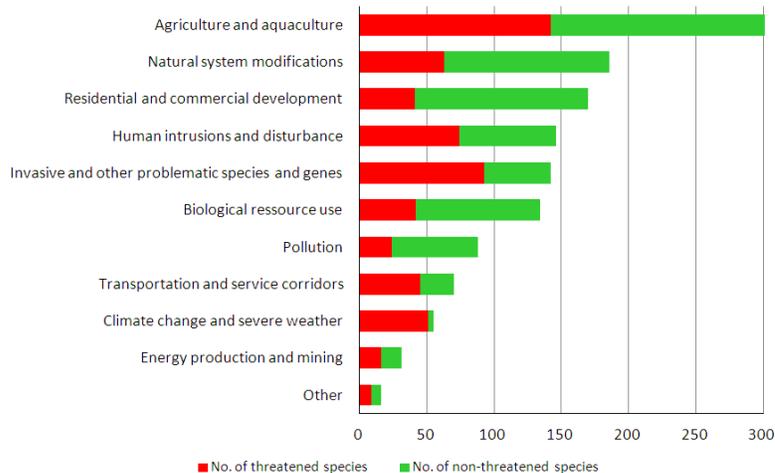
Vascular plants

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 839 species are found in Spain, which represent 46% of the total of species assessed in Europe. Spain is also one of the countries that has the highest number of single country endemics. Twenty-six percent* of the 839 vascular plant species assessed in Spain are considered threatened at the European level. For terrestrial plants, intensified livestock farming, especially intensive grazing activities have the worst impacts. For aquatic species, direct habitat loss caused by draining for development, agriculture and pasture is the main threat.

Status at European level



Threats at European level





INTERNATIONAL UNION FOR CONSERVATION OF NATURE © May 2013

Document prepared by Silvia Sánchez, Andrea Pino del Carpio, Ana Nieto and Melanie Bilz
European Union Representative Office
Boulevard Louis Schmidt 64
1040 Brussels, Belgium
+32 2 739 03 13

For more information please contact: ana.nieto@iucn.org

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

The European Red List is a project funded by the European Commission.
Cover photo by Antonio Ruiz (*Iberus gualtieranus*)

REFERENCES

- Bilz, M., Kell, S. P., Maxted, N. and Lansdown, R.V. 2011. *European Red List of Vascular Plants*. Publications Office of the European Union, Luxembourg.
- Cox, N.A. and Temple, H.J. 2009. *European Red List of Reptiles*. Office for Official Publications of the European Communities, Luxembourg.
- Cuttelod, A., Sheddon, M and E. Neubert. 2011. *European Red List of Non-marine Molluscs*. Publications Office of the European Union, Luxembourg.
- Freyhof, J. and Brooks, E. 2011. *European Red List of Freshwater Fishes*. Publications Office of the European Union, Luxembourg.
- Kalkman, V.J., Boudot, J-P., Bernard, R., Conze, K-J., De Knijf, G., Dyatlova, E., Ferreira, S., Jović, M., Ott, J., Riservato, E. and Sahlén, G. 2010. *European Red List of Dragonflies*. Office for Official Publications of the European Communities, Luxembourg.
- Nieto, A and Alexander, K.N.A. 2009 *European Red List of Saproxyllic Beetles*. Office for Official Publications of the European Communities, Luxembourg.
- van Swaay, C., Cuttelod, A., Collins, S., Maes, D., López Manguira, M., Šašić, M., Settele, J., Verovnik, R., Verstrael, T., Warren, M., Wiemers, M. and Wynhoff, I. 2010. *European Red List of Butterflies*. Office for Official Publications of the European Communities, Luxembourg.
- Temple, H.J. and Terry, A. 2009. *The status and distribution of European mammals*. Office for Official Publications of the European Communities, Luxembourg.
- Temple, H.J. and Cox, N.A. 2009. *European Red List of Amphibians*. Office for Official Publications of the European Communities, Luxembourg.

*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.