



STATE OF THE ENVIRONMENT REPORT – SLOVAK REPUBLIC

2018

25th anniversary of annual reports

BIODIVERSITY

KEY QUESTIONS AND KEY FINDINGS

What is the conservation status of species and habitats of European importance?

The results of reporting for the 2013 to 2018 period show that, as of 2018, 75% of species and 63.4% of habitats of European importance are in an unfavourable status (unsatisfactory, or bad).

What is the status in terms of the protection of and care for flora and fauna?

11.4% of the lower plants in the SR and 14.6% of higher plants are currently threatened, while 19.7% of higher plants occurring in the SR are protected. As regards fauna, 24.2% of vertebrates are threatened and 6.6% of invertebrates, while over 3% of species are protected.

In 2018 rescue programmes for 6 species and care programmes for 3 species of fauna were implemented.

What is the status and trend in the national network of protected areas and the European Natura 2000 network?

In the SR at present there are a total of 1 097 so-called small-area protected areas and 23 so-called large-area protected areas of the national network classified through protection levels (2 to 5) with a total area of 1 147 060 ha (without overlapping), or 23.4% of the area of the SR.

In 2018 care programmes were approved for 35 so-called small-area protected areas, which are concurrently sites of Community importance, and 7 Special protection areas.

Within the framework of the European Natura 2000 network of protected areas, in 2018 the sufficiency of the updated national list of sites of Community importance was assessed by the EC and the preparation of protection projects for the declaration of sites of Community importance not overlapping with the national protected areas network continued.

MONITORING OF SPECIES AND HABITATS

146 fauna species, 49 flora species and 66 types of habitat of European importance **are monitored** in Slovakia.

Monitoring was carried out in 1 191 permanent monitoring localities (PML) for fauna, 136 PML for plants and 391 PML

for habitats. A **comprehensive information and monitoring system** (CIMS) was supplemented with 26 334 zoological, 36 231 botanical and 650 habitat occurrence records, including protected and invasive species.

VEGETATION

Status of endangerment of wild plants

In the SR at present **1 046 species of lower plants (11.4%)** are **threatened** (in the categories CR – critically threatened, EN – threatened and VU - vulnerable; pursuant to the IUCN),

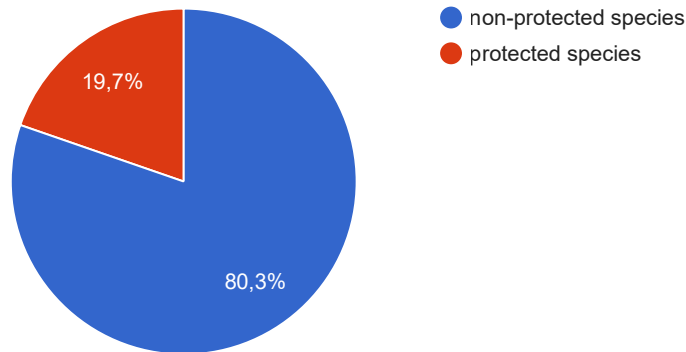
while one third of bryophytes and almost one quarter of lichens are at risk. Of the **higher plants, 527 species are threatened (14.6%)**.

Species protection of flora

At present, **823 species** and **subspecies** of plants occurring in the SR are **protected**, of which 713 species of higher

(vascular) plants, 23 species of bryophytes, 17 lichen species and 70 species of higher fungi occurring in the SR.

Chart 029 | Share of protected species of higher plants



Source: SNC SR

FAUNA

State of endangerment of wild animals

Pursuant to **current red lists of fauna**, **1 636 invertebrates (6.4%)** and **100 taxa of vertebrates (24.2%)** are threatened (in the categories CR, EN and VU; pursuant to the IUCN). Among **the most threatened invertebrates** are cockroaches

(44.4%), mayflies (34.2%), dragonflies (33.3%), as well as molluscs and spiders (up to 30%). Among the **vertebrates**, lamprey (100%) and amphibians with reptiles (over 40%) are most at risk.

Species protection of fauna

The number of **protected fauna** currently includes **1 042 taxa**, of which **816 occur in the SR** (over 3%). A taxonomic

group of birds is not included, as all species of naturally occurring birds in the territory of the SR are protected.

Care for protected and threatened fauna species

In 2018 rescue programmes (RP) were approved for the **wood grouse** (*Tetrao urogallus* Linnaeus, 1758) and **black grouse** (*Tetrao tetrix* Linnaeus, 1758) for 2018 to 2022.

RP have been implemented for the **Danube clouded yellow butterfly** (*Colias myrmidone* Esper, 1781), **mountain Apollo butterfly** (*Parnassius apollo* Linnaeus, 1758), European pond turtle (*Emys orbicularis* Linnaeus, 1758), the **red-footed falcon** (*Falco vespertinus* Linnaeus, 1766), the **western capercaillie** (*Tetrao urogallus* Linnaeus, 1758) and **black grouse** (*Tetrao tetrix* Linnaeus, 1758).

Care programmes were implemented for the **grey wolf** (*Canis lupus*), the **Eurasian lynx** (*Lynx lynx*) and the **brown bear** (*Ursus arctos*) in Slovakia in 2018.

164 nests of 8 species of birds of prey have been **guarded** (Eastern imperial eagle, golden eagle, spotted eagle, migratory falcon, eagle owl, red-footed falcon, black-headed falcon and white-tailed eagle) and a total of **182 nestlings** have successfully hatched in them.

INVASIVE SPECIES

Invasive flora species

The **trend in the occurrence and development** of invasive alien non-native flora species, but also other non-native flora species with a high invasive potential, **is worsening**. In 2018 the **mapping of invasive species** continued. 57 localities of invasive flora species in protected areas or their buffer zones covering a total area of 18.47 ha and 632 localities outside protected areas (in the 1st level of protection) covering 115,71 ha were mapped. The **removal** of invasive flora species was implemented in 70 localities in protected areas covering

46,97 ha. This involved 6 non-native and invasive flora species (*Asclepias syriaca*, *Heracleum mantegazzianum*, *Ambrosia artemisiifolia*, *Solidago gigantea*, *Negundo aceroides*, species of the *Fallopia* genus). Outside protected areas, 6 species of invasive plants have been removed in 22 localities over an area of 3,901 ha (*Heracleum mantegazzianum*, *Asclepias syriaca*, *Ailanthus altissima*, *Fallopia japonica*, *Solidago gigantea*, *Ambrosia artemisiifolia*).

Invasive fauna species

A **list** of invasive fauna species is provided in Annex No 2 of Decree of the Ministry of the Environment of the SR No 24/2003 and includes **26 species** (2 molluscs, 3 crustaceans,

9 fish species, 1 amphibian species, 2 reptile species, 1 bird species and 8 mammal species).

SUMMARY INFORMATION ON THE CONSERVATION STATUS OF SPECIES AND HABITATS OF EUROPEAN IMPORTANCE AND THE CONSERVATION STATUS OF BIRDS

The first Report on the conservation status of habitats and species of European importance pursuant to Art. 17 of the Habitats Directive for the SR was prepared and submitted to the EC in 2007 (for the 2004 to 2006 period), the second in 2013 (for the 2007 to 2012 period). In 2018 the preparation of the third Report (for the 2013 to 2018 period) began with an assessment of the monitoring results (submitted to the EC in April 2019), as well as the second report on the conservation status of birds pursuant to Art. 12 of Directive 2009/147/EC of the European Parliament and of the Council of 30 November 2009 on the conservation status of wild birds (Birds Directive), submitted to the EC in July 2019.

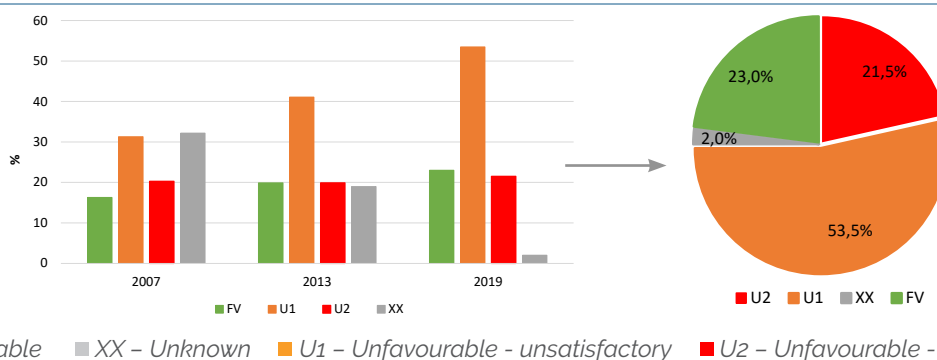
status of species and habitats, which is however caused primarily by improved introduction of monitoring system findings, better expert estimates and the identification of previously unknown relevant species and habitat data. The status assessment is therefore closer to reality than was the case in the previous reporting periods. In fact, therefore, this is not actually a deterioration compared to the previous periods but rather an improved and more realistic status assessment, while the status is more or less the same as in the previous periods.

The quantity of unknown assessments has decreased significantly due to the systematic collection of monitoring data in recent years.

Overall there has been a deterioration in the conservation

Assessment of the conservation status of species of European importance

Chart 030 I Comparison of the conservation status of species of European importance



FV – Favourable XX – Unknown U1 – Unfavourable - unsatisfactory U2 – Unfavourable - bad

Source: SNC SR

Chart 031 I Comparison of the conservation status of species of European importance by taxonomic group



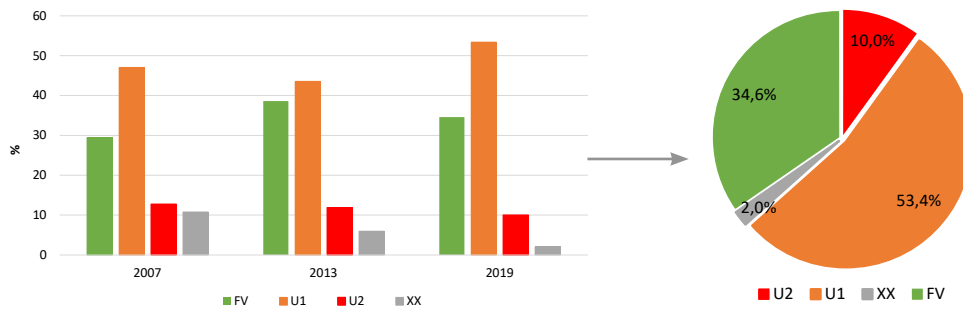
Note: The number in brackets indicates the number of status assessments in each bioregion

Source: SNC SR (CIMS)

We recorded a real change in the case of *Liparis loeselii* (one place in the Pannonian biogeographical region was flooded through natural processes and the population disappeared).

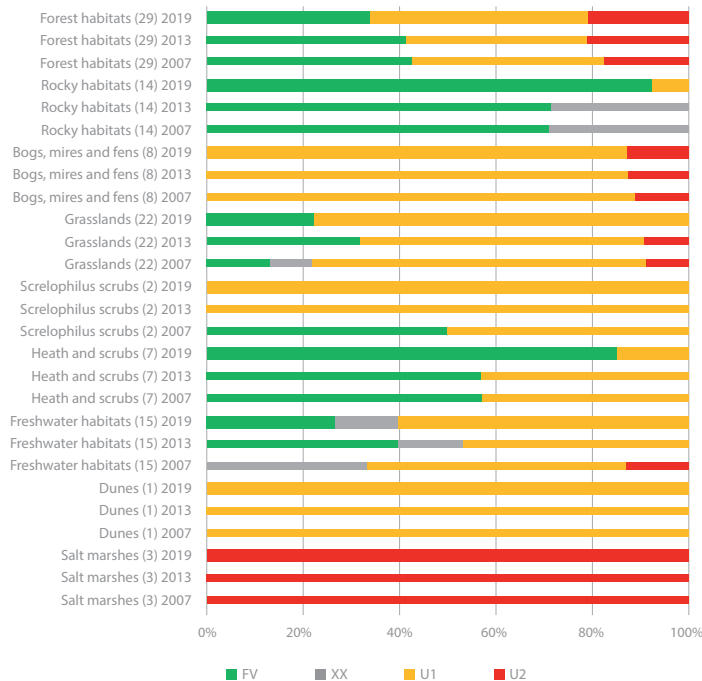
Assessment of the conservation status of habitats of European importance

Chart 032 I Comparison of the conservation status of habitats of European importance



Source: SNC SR

Chart 033 I Comparison of the conservation status of habitats of European importance by individual group



Source: SNC SR

Note: The number in brackets indicates the number of status assessments in each bioregion

We recorded a real change only in the case of habitat 9190 (the area was reduced by 17% due to human interference).

The new report for 2013 to 2018 is primarily based on CIMS data, thanks to which the quantity of unknown assessments

of the conservation status of habitats and species of European importance has significantly fallen.

Slovak reports submitted so far within the meaning of the above commitments are available at: <https://cdr.eionet.europa.eu/Converters/sk/eu/art17/envxrnpsd/>

Assessment of the conservation status of individual bird species

In Slovakia there are 81 bird species subject to the Birds Directive and also subject to reporting pursuant to Art. 12 of this Directive (<https://bd.eionet.europa.eu/article12/>).

Primarily **species tied to the agrarian landscape have been assessed as in an unsatisfactory status**. Another group in a **bad status** as a whole are **predators**, with up to 10 species assessed as in a bad status. There are also relatively many species **in an unsatisfactory status** in the group **tied to wetland habitats**. The western capercaillie (*Tetrao urogallus*) and black grouse (*Tetrao tetrix*) **were also assessed as being in an unsatisfactory status**, while their favourable status is closely linked to a suitable method of managing forests and other mountain habitats in view of the sharp decrease in

their population, the consequences of climate change and the impact of other factors such as predation (e.g. by foxes and wild pigs), while their habitat is shrinking and they are on the verge of extinction. Other forest species are also in an unfavourable status. Of the populations mentioned, the greater white-fronted goose (*Anser albifrons*), taiga bean goose (*Anser fabalis*) and the common merganser (*Mergus merganser*) have been assessed as in a bad status. The average **mortality of birds**, including threatened species, on power lines in the countryside remains high (50 to 100 000 individuals a year), despite systematic long-term activity in conjunction with electrical operators.

ECOSYSTEM SERVICES

Within the framework of the State Nature Conservancy of the SR, work on the preparation of a methodology and the assessment of ecosystem services (ES) in cooperation with external experts continued in 2018. A **proposal for a methodology for the national assessment of ES**, together

with alternative assessment options, has been prepared. Work has been ongoing on **sections of the nationwide assessment of ES**, the preparation of materials, geodatabases and, primarily, further updates and **modifications of the map of Slovakian ecosystems**.

CARE FOR PROTECTED PARTS OF NATURE

Implementation of the law and conceptual activities in biodiversity protection

TRADE IN THREATENED SPECIES

In 2018, the Ministry of the Environment of the SR as the executive body of the SR pursuant to the **Convention on International Trade in Threatened Species of Wild Fauna and Flora (CITES)** issued **2 101 exemptions** from the ban on commercial activities pursuant to Art. 8(3) of **Council Regulation (EC) No 338/97**, on the protection of species of wild fauna and flora by regulating trade therein, as amended (hereinafter only the "Council Regulation"), especially for turtles (about 60%), parrots, birds of prey and owls; **1 consent**

to the relocation of live specimens for a zoo pursuant to Art. 9 of the Council Regulation; and **190 permits** for import/export/re-export pursuant to Art. 4 and Art. 5 of the Council Regulation (especially watchstraps made of alligator leather - approx. 45%).

In 2018, the Ministry of the Environment of the SR continued to perform the tasks arising from the **National Action Plan of the SR 2014-2019 for the enforcement of the Council Regulation**. Inspections of large felines have been identified as priorities.

BIODIVERSITY PROTECTION

Within the framework of the performance of tasks arising from the **Convention on Biological Diversity (CBD)** and the **EU Biodiversity Strategy to 2020**, there was active participation in the 14th session of the conference of the CBD parties (**COP14**) (as part of which ecological connectivity in the Carpathians and Central Europe was presented) as well in the 9th meeting of the parties to the **Cartagena Protocol and the 3rd Meeting of the Parties to the Nagoya Protocol in Egypt**. Two meetings of the Biodiversity Working Group were prepared and held (Bratislava, 23 April 2018, 9 November 2018). Materials for the assessment of the performance of tasks from the **Action Plan** for the Implementation of Measures Arising from the **Updated National Biodiversity Strategy to 2020** as well as materials and a proposal for the

6th national report on CBD implementation were prepared. At the same time, the preparation of materials for the **global strategic framework for biodiversity protection after 2020 (Post 2020)**, as well as the preparation of the **new Common Agricultural Policy after 2020**, has already begun.

Within the framework of the performance of tasks arising from the **Convention on Wetlands of International Importance Especially as Waterfowl Habitats** (Ramsar, Iran, 1971), proposals for updating the **Slovak Wetland Care Programme to 2024** and the **Wetland Action Plan for 2019-2021** were prepared in 2018. **Management measures** in selected **Ramsar localities** were carried out, and a **draft national report** for the 13th session of the **Conference of the Parties to the Convention** was prepared.

Cave protection

In 2018 **no** new cave buffer zones or new publicly accessible caves **were declared**. 4 new cave closures **were constructed** and 7 damaged cave closures **were repaired**.

The State Nature Conservancy of the SR and the Slovak Caves Administration **operated** 13 accessible caves, while another 5 accessible caves were rented for operation (Morské oko cave was out of operation).

As of 2018, **7 439 caves were registered in the SR**, and are also natural monuments pursuant to the Act on Nature and Landscape Protection. **44 of the most important** of these have been included in **national natural monuments**. **19 caves are accessible, 45 are open to the public and 20 have a declared buffer zone.**

Protection of minerals and fossils

The **list of protected minerals** includes **12 mineral types** described for the first time for science in the territory of Slovakia; **61 significant minerals**, appearing rarely in the SR and of European importance; minerals with specific morphological shape or evolution; and meteorites found in the territory of the SR. The list of **protected fossils** includes

655 fossil types, which are unrepeatable material from extinct flora and fauna, pursuant to which the relevant taxon was first described in Slovakia, and **selected groups of rarely occurring fossils**, the character and level of conservation of which make them unique records of the development of organisms in the geological history of Slovakia.

Protected trees

The **protected trees (PT)** system includes a total of **443 PT** and their groups, including alleys - protected sites, or a total of **1 251 individual trees** within the framework of **65 taxa** (of

which 32 are native and 33 non-native). 62.8% of PT were in an **optimal status**, 33.4% **were threatened** and 3.8% **degraded**.

National system of protected areas

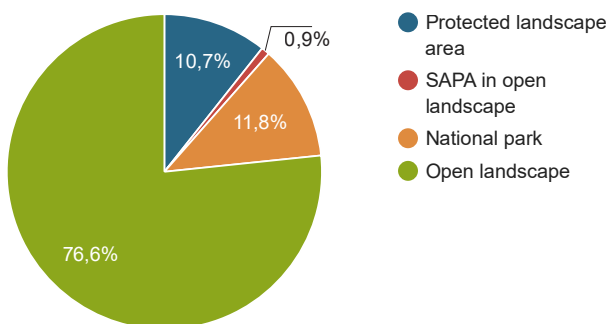
AREA OF PROTECTED AREAS

In 2018 no protected areas **were declared, updated or cancelled** in the national system.

The **total area** of specially protected nature in the SR

classified using levels of protection (**2nd to 5th level** of protection, the so-called national system of protected areas) **in 2018 was 1 147 060 ha**, or **23.39%** of Slovak territory.

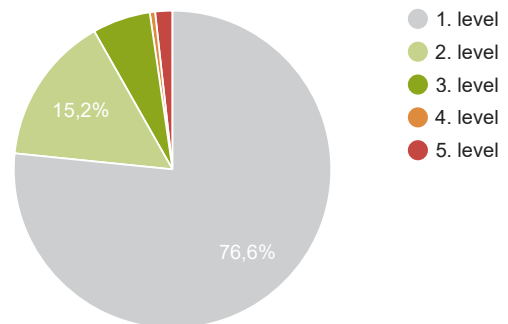
Chart 034 | Share of protected areas by selected category



Source: SNC SR

Note: Data per 2018

Chart 035 | Share of protected areas by level of protection



Source: SNC SR

Note: Data per 2018

Table 010 I Overview of the number and area of protected areas

Category	Number	Number Size of core area (ha)	Size of buffer zone (ha)	% of SR territory (incl. PZ)
National parks	14	522 582	x	10.66
Protected landscape areas	9	317 541	262 591	11.83
Protected landscape fragments	1	3	x	0.00
Protected sites	172	11 015	2 425	0.27
Nature reserves (including 2 private)	384	14 222	301	0.30
National nature reserves	209	80 776	2 239	1.69
Natural monuments (without caves and waterfalls)	217	1 525	207	0.04
Natural monuments - publicly accessible caves	45	0	31	0.00
Natural monuments - other declared caves	9	0	261	0.01
Natural monuments - natural waterfalls	0	0	0	0.00
National natural monuments (without caves and waterfalls)	11	59	27	0.00
National natural monuments - caves	44	0	3 055	0.06
National nature monuments - natural waterfalls	5	0	0	0.00
SAPA total	1 097	107 599	8 545	2.37

Source: SNC SR

STATUS OF PROTECTED AREAS

The status of so-called small-area protected areas placed in the 2nd to 5th level of protection is assessed through 3 categories of endangerment. Of the total area of 116 144 ha

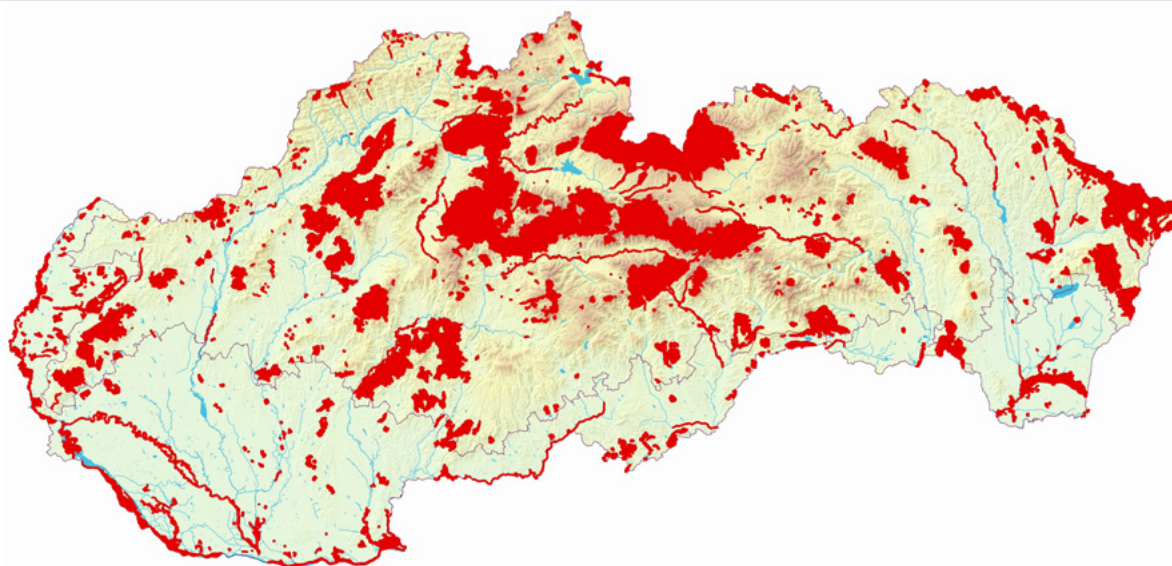
of small-area protected areas, **0.4% were degraded, 17.3% threatened and 82.3% in an optimal status.**

European network of protected areas - Natura 2000

Sites of Community importance

- the updated **national list of sites of Community importance (SCI)**; approved by Government Resolution of the SR No 239 of 17 March 2004, Government Resolution of the SR No 577 of 31 August 2011, and Government Resolution of the SR No 495 of 25 October 2017) **contains 642 SCI**;
- SCI** account for **12.56% of the territory of Slovakia**, while the average for landlocked SCI in the whole of the EU is 13.84% (pursuant to EC data from February 2018). Of this, **agricultural land** makes up **6.3%** and **forest land 83.9%**;
- in **2018** the EC **assessed the sufficiency** of the updated national list of SCI. On 30 May 2018 and 12 October 2018 bilateral talks with the EC were held in Bratislava, and the official conclusions were subject to consultation;
- in 2018 the State Nature Conservancy of the SR continued with the **preparation of protection projects** for declared SCI wholly or partly outside the national system of protected areas. **24 new** protection projects were **processed** and **a further 21** protection projects **updated** pursuant to the requirements of the Ministry of the Environment of the SR.

Map 011 I Map of sites of Community importance according to the updated national list (after the 2nd update)

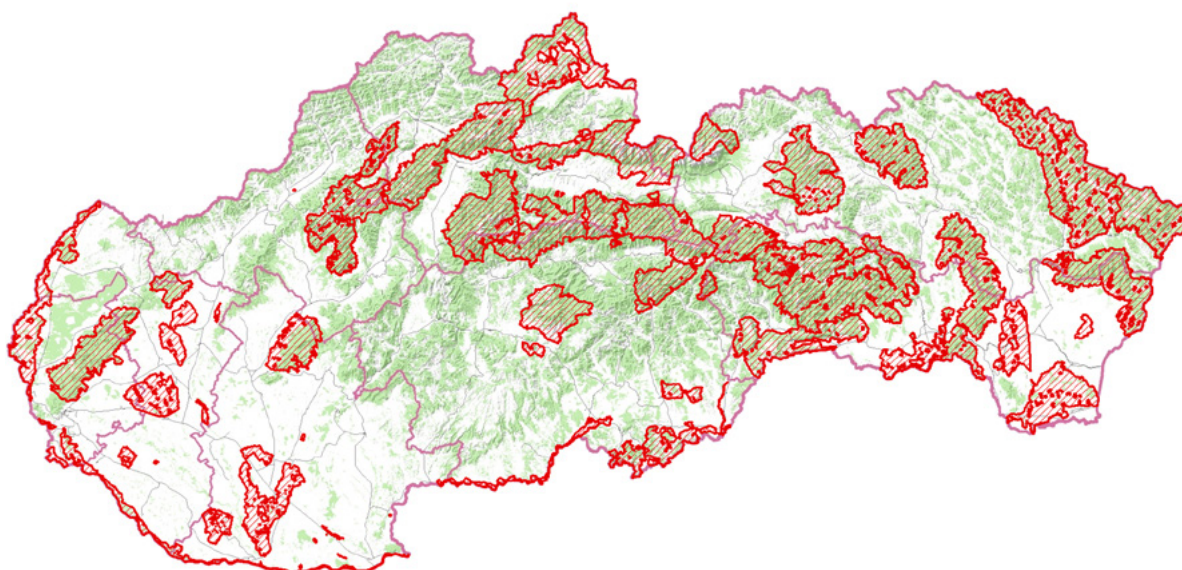


Source: SNC SR

Special protection areas (SPA)

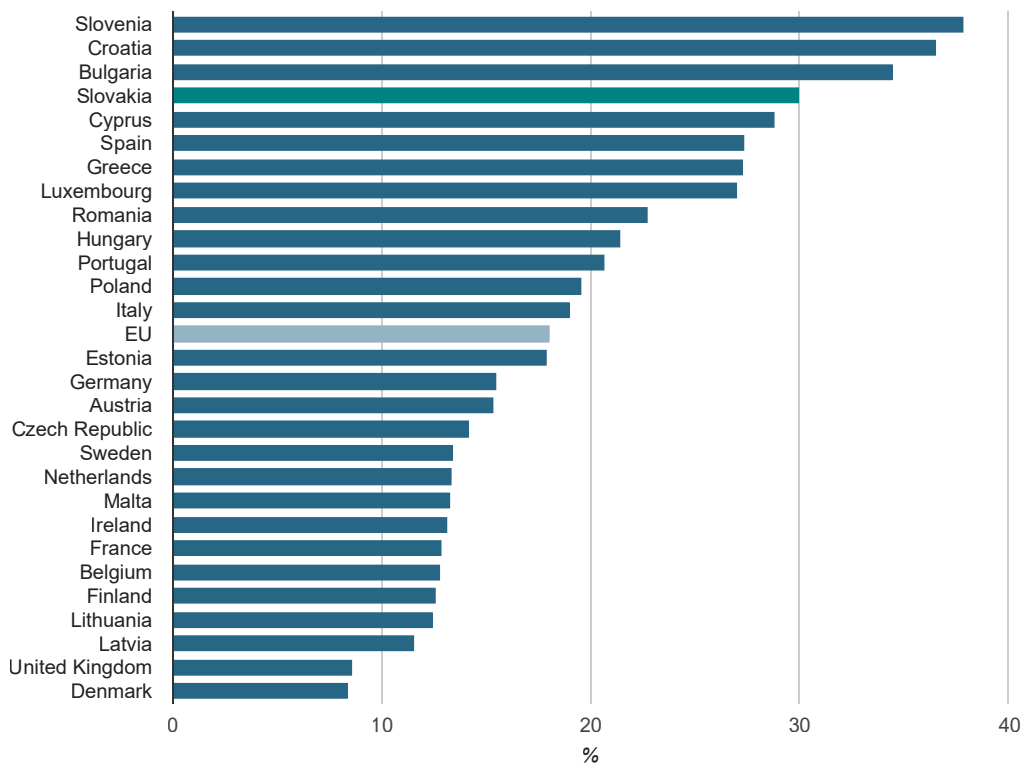
- **the updated national list of SPA** (approved by Government Resolution of the SR No 636 of 9 July 2003 and Government Resolution of the SR No 345 of 25 May 2010) contains **41 territories** covering **26.16%** of the SR. **Agricultural land** accounted for **22.8%** of this and **forest land 69.7%**;
- all the SPA have already been declared through generally binding legislation;
- **in 2018** the Ministry of the Environment of the SR in cooperation with State Nature Conservancy of the SR also continued the process of completing expert proposals for **care programmes for SPA and, in cooperation with the municipal authorities** in the regions, continued their discussions with the subjects concerned. The Government of the SR **approved** care programmes for **7 SPA in 2018**.

Map 012 I Map of SPA pursuant to the updated national list



Source: SNC SR

Chart 036 I International comparison of the share of Natura 2000 territory in the total territory of the country



Note: Data per 2018

Source: EC (Natura 2000 Barometer, EU-28)

Protected areas in the international context

Council of Europe European Diploma of Protected Areas:

- NNR Dobročský prales (1998),
- NP Poloniny (1998).

UNESCO World Natural Heritage (within the framework of the Convention for the Protection of the World Cultural and Natural Heritage):

- Caves of the Slovak and Aggtelek Karst (1997),
- Old beech forests and beech forests of the Carpathians and other regions of Europe (2007, with an expansion of the localities in 2011 and 2017).

Biosphere reserves (within the framework of the *UN Man and the Biosphere Programme - MaB*):

- Biosphere Reserve (BR) Poľana (1990),
- BR Slovenský kras (1977),
- BR Východné Karpaty (1998; trilateral BR: Poland/Slovakia/Ukraine),
- BR Tatry (1992; bilateral BR: Poland/Slovakia)

Ramsar localities (within the framework of *Convention on Wetlands of International Importance Primarily as Habitats of Waterfowl, the so-called Ramsar Convention*):

- **14 localities**; in total 40 695 ha, respectively 0.8% of Slovak territory.

Most of these areas are also part of the national system of protected areas.

Care of protected areas

In 2018 **35** care programmes for **small-area protected areas**, which are concurrently also sites of Community importance, were **approved**. With the approval of care programmes for **7 SPA**, the total number of such approved documents increased to 13.

In 2018 **2 educational trails** established by State Nature Conservancy of the SR **were added**, meaning that within the

framework of its organisational units **70 educational trails are registered**. In addition, **83 educational localities** have been registered and **1 information centre for nature protection has been added**, bringing the total number within the framework of organisational units of the State Nature Conservancy of the SR to **11**.