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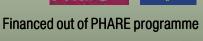
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ropean Union Natura 2000 Network (Birds & Habitats Directives) www.europa.eu.int/comm/environment/nature European Centre for Nature Conservation (ECNC) tral European, Adriatic, Danubian, South-Eastern European Space (CADSES)

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European Network of Protected Areas in the Slovak Republic

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# NATURA 2000 – EUROPEAN NETWORK

habitats of large carnivores, such as bear, wolf and lynx.

Despite this fact, natural habitats acreage as well as flora and fauna species numbers constantly decrease also in Slovakia. Red lists alert with extinction threat of 163 mammal species and 903 vascular plant species, i.e. almost one third of total amount. Accession to European Union brings huge increase of investments in industrial production, tourism development, agriculture intensification, what actually strongly increases pressure to hitherto well-preserved wildlife.

# NATURA 2000

Legal basis for establishment of NATURA 2000 network is given by two EU legal norms: - Council Directive 79/409/EEC on the conservation of wild birds (Birds Directive),

Council Directive 92/43/EEC on the conservation of natural habitats and of wild fauna and flora (Habitats

The aim of the directives is maintenance or improvement, respectively, of favourable conservation status of rare and endangered flora and fauna species and natural habitat types in Europe and so providing biodiversity protection within the EU member states. The main tool is establishment of a **coherent network of protected** areas NATURA 2000, within which appropriate ways of management in favour of these habitats and species protection are applied.

NATURA 2000 represents a basic pillar of the EU nature protection policy. NATURA 2000 network covers approximately 18% of the area of the former EU15.

NATURA 2000 consists of 2 types of sites:

- On the basis of the Birds Directive, **special protection areas** (SPAs) for protection of bird species listed in the BD annexes are designed - On the basis of the Habitats Directive, **sites of Community importance** (SCIs) for protection of habitats and

The aims of the directives are defined in a general way only and it is upon particular member states to define fulfilment of the given obligations, therefore in different countries, implementation of the directives is different. Compliance of the Slovak law with the Birds and Habitats directives has been achieved through an enactment of

In Slovakia in 2005, there are 9 national parks, 14 protected landscape areas and a network of so called "smallscaled protected areas" (protected sites, nature reserves and nature monuments). An overlap of proposed NATURA 2000 network with currently existing protected areas is 68 %. The area simultaneously represents

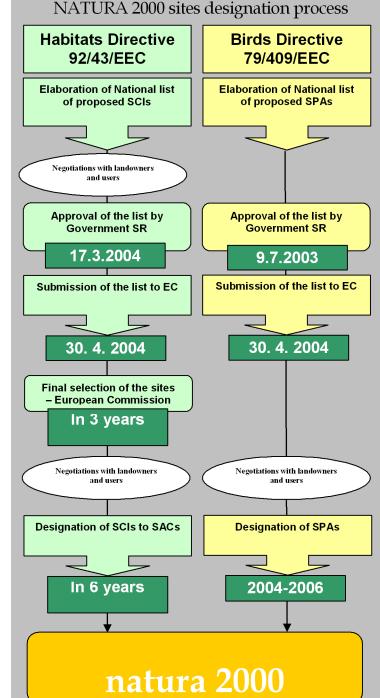
the Act No. 543/2002 on Nature and Landscape Protection and the Order No. 24/2003 that executes the Act.

NATURA 2000 sites are selected within 9 EU biogeografic regions: Alpine, Atlantic, Black See, Boreal, Continental, Macaronesian, Mediterranean, Pannonian and Steppic. In Slovakia 2 of them occur: Alpine and Pannonian.



Each member state prepares its own proposal of the sites to be included in NATURA 2000 network. Final selection is then done by European Commission on the basis of submitted proposals. Selection of the sites is executed on the basis of scientific criteria. The basis is defined by EC and actual knowledge on distribution and status of particular habitats, flora and fauna species. Proposed sites are summarised in National list of proposed special protection areas and National list of proposed sites of Community importance approved by government. Since the approval of the national lists, the proposed NATURA 2000 sites have been considered the

Process of designation of NATURA 2000 sites continues through submission of the national lists to EC who comments selection of SPAs and performs selection of SCIs. Before the sole designation of particular sites, the negotiations with the landowners and users on management of the sites take place. Finally, the sites are designed hrough particular relevant orders, where the measurements in favour of maintenance or improvement of avourable status of habitats and species of European importance present in the site are given.



Why actually birds are of such exceptional status in a form of separate European directive? Within a world of animals, birds represent a specific group. In comparison to other fauna species they are for people quasi more visible, what is given as by number of bird species so their way of life (singing, ability to fly). They occupy all continents including Antarctica and through their distant migrations overhanging the countries borders, protection

341 wild bird species occur in Slovakia. Out of them, 85 are rare also from European point of view including forest species (e.g. Western Capercailzie *Tetrao urogallus*, Black Stork *Ciconia nigra*), waterfowl (geese, herons) or birds of agricultural land (Great Bustard Otis tarda, Corncrake Crex crex).

To ensure favourable conservation status of endangered species of European importance, Slovak Republic

International Partner) elaborated a list of proposed special protection areas (scientific proposal). The list contained 45 sites with total area of ca 1 390 000 ha. After negotiations with relevant state authorities, the scientific proposal was narrowed in 7 sites. The final list contains 38 sites with total area of ca 1 236 000 ha that protected areas is 55.1%.

The list was approved by the Government of SR on 9 July 2003 and submitted to European Commission in

Conditions and measurements are defined in particular orders on designation of particular SPAs.

occur in Slovakia.

A list of the proposed sites of Community importance has been elaborated by State Nature Conservancy in cooperation with relevant scientific institutions and expert NGOs. The list contains 382 sites with respect to create the representative habitats network that enables efficient and lasting protection of endangered habitats and species. Total area of the SCIs is 570 000 ha, i.e. 11.7 % of the area of Slovakia. The overlap of proposed SCIs with the existing network of protected areas is 86%.

not deteriorate until final decision on (no) involvement in NATURA 2000 network is given. Therefore also the proposed SCIs are protected through a system of degrees of protection given for particular sites in the national list.

# Common Principles of NATURA 2000 Sites Management

In no case the designation of SPA or SCI means suspension or prohibition of agricultural, forest or other utilization of the site or the surroundings. On the contrary, an active management is often in a position of a precondition of keeping the natural values of the area (e.g. mowing, managing the arable land as a habitat for some species). Basic principle of the NATURA 2000 sites management is an effort to manage the sources sensitively with respect to the needs of present plants and animals.

In co-operation with the landowners and users of the land the concrete measures concerning the agricultural, forest or other management utilisation of particular NATURA 2000 sites taking into consideration the sustainable

natural habitats or species present in the site is not allowed. Therefore all planned activities including plans and programs with a potential negative effect on – generally speaking – status of the NATURA 2000 site are subject to an expert appropriate **environmental impact assessment** or **strategic environmental assessment**. Basic criteria for the assessment are given by presence of natural habitats and species for which the site has been designated.

reasons of overriding interest only. Anyhow in such case it means application of adopted compensatory measures by investor of the activity.

# Sustainable Development of NATURA 2000 Sites

# General principles of habitats management

1. COASTAL AND HALOPHYTIC HABITATS

Necessary conservation requirements are maintenance or renovation of the water regime (spring floodwaters and summer drying up), maintenance of underground waters chemical composition, prevention of ploughing up, drying up, secondary forestation, basing the waste dumps, (from homes or building sites) building in of the area or absence of the management.

It is important to provide the extensive cattle, sheep or poultry grazing (intensive management forms are not advisable as far as they can strongly damage the vegetation cover and under the influence of oversized excrement fertilization penetration of allochthonous species can occur). If provision of grazing is not possible, the habitat areas should be at least mowed once per 2 years.

If the habitat areas are weeded, it is recommended to mow them before unwanted plant species drop the seeds, eliminate the biomass and provide grazing as a follow up.

Many species of the halophytic steppes require superficial disturbance of the vegetation cover. It can be provided with trampling by grazing or in other ways, e.g. superficial holing with the nail harrows in several years' intervals (not very often to exclude unwanted species invasion). Similar effect can be achieved through sporadically used country paths.

# 2. COASTAL SAND DUNES AND INLAND DUNES

It is necessary to prevent artificial sand dunes forestation, building in or basing the waste dumps, (from homes or building sites), sand exploitation as well as the activities that increase amount of nutrition in a substrate (e.g. fertilization), i.e. all activities that can cause expansion of some grass species, e.g. Calamagrostis epigejos.

### 3. FRESHWATER HABITATS Standing waters and swamps

require prevention from water pollution caused by the increased level of nutrients and different chemica substances as well as oversized fertilization and localization of the field dung-pits in the adjacent areas, waste substances disposals, cattle grazing in the wetlands, drying up the adjacent parcels, oversized water take-off and recreational or sport activities that can deteriorate the present vegetation. Unwished activities, especially in the middle of an agricultural land, can be restricted by fencing with a wood barling.

reed Phragmites australis, through cutting twice a year manually or with light mechanization - first time at the end of May/beginning June or at the end of June at the latest, second time in September. In this manner, further development of reed is eliminated. It is also required to control expansion of the allochthonous invasive species on the border of the habitat areas,

e.g. *Echinocystis lobata*, *Helianthus tuberosa*, *Solidago gigantea* as well as penetration and subsequent expansion of the expansive autochthonous species, e.g. Trapa natans, Ceratophyllum submersum, Bidens sp., which can negatively influence the communities diversity.

The oxbow lakes deteriorated by river regulations and drainage of agricultural land can be restored through connection of the oxbow lakes and an existing river, water regime adjustment (e.g. simulated floods), deposits elimination and transfer of species from other localities.

Require optimal water regime with slowdown of drainage of the area (through creation of the meanders), prevention of the rivers straightening and deepening, maintenance and restoration of the missing shore stands of autochthonous wood species, elimination of allochthonous and invasive plant species with combination of mechanical and chemical media and prevention of pollution by waste water disposals and penetrations from adjacent agricultural parcels.

For the existence of submerged or floating plant species, keeping relevant necessary water depth and stability

### It is necessary to prevent elimination of gravel bars and stone deposits with the occurrence of Myricaria germanica.

4. TEMPERATE HEATH 5. SCLEROPHYLLOUS SCRUB Moor lands require to be managed. The most suitable combination is given by mowing in spring (May) and subsequent extensive grazing of especially sheep by which the wood invasion and overgrowing is reduced. It is

to eliminate the raw humus so the moor land stands can restore.

Alpine moor lands and scrub pine stands do not require specific management but it is necessary to prevent their deterioration through oversized tourism, fruit collection and elimination of scrub pine from the original stands. In restoration of the already deteriorated scrub pine stands it is necessary to use the seeds from the same area but it is not suitable to spread it at the cost of other habitat types in the area, e.g. Alpine grasslands.

suitable, ca every 15 years, before getting old to burn the stands on the frozen ground (December – February)

The xerophilous (thermophilous) scrub were often eliminating in the past, however currently we register their increase in a consequence of meadows and pastures management abandonment. Closed scrub stands are necessary to be sporadically thin and open out, higher invasive wood species that can shadow other species should be eliminated and sporadic grazing and clearing of less closed stands is necessary. End of August is the most suitable time to cut the scrub and grown-up woods to prevent the runners of young specimen lignification.

The common juniper stands are a part of the extensive sheep or goat pastures. They require grazing at least once per 2 years to maintain a "park" character of the stands. Sporadic elimination of the invasive wood species or thinning of the closer juniper stands is necessary.

Keeping the homogenous representation of scrub vegetation in an agricultural land is important due to elimination of the tendencies to use the areas for growing of energetic, fast-growing allochthonous wood species as Canadian poplar or different willow clones.

### 6. NATURAL AND SEMI-NATURAL GRASSLAND FORMATIONS

Alpine stands do not require any management. It is however necessary to prevent artificial planting of the scrub pine, oversized tourism trampling as well as oversized building up of the ski centres.

In case of the rupicolous calcareous or basophilic grasslands, xeric and calcareous grasslands and rupicolous pannonic grasslands it is necessary to prevent overgrowing of the habitats through elimination of the invasive wood species. The lighting conditions, i.e. conditions necessary for existence of the species bounded to these habitats will be kept.

### Semi-natural dry grasslands and scrubland facies

To maintain the current habitats coverage and character it is necessary to prevent an artificial wood planting (acacia and pine in lower altitudes, scrub pine in Alpine meadows and pastures), ploughing up, opening of the mining areas, building up the lands as well as the ski lifts building, which use and maintenance deteriorate species-rich Nardus grasslands in the mountain areas.

Necessary is extensive sheep, goat or a cattle grazing. By intensive grazing the pastures are deteriorated with intensive trampling and fertilization causing decrease of rare species, e.g. orchids and invasion of unwished

The Bromion erecti stands prefer manual mowing at least once per 2 years before grazing. Currently only few localities are utilized in this manner. Grazing can negatively affect presence of some rare species if they are not accommodated to it

In the overgrown stands it is optimal to provide woods elimination not at once, but in a stepwise way. If the stands

are not utilized longer period, it is necessary to eliminate a cumulated biomass and to open them for extensive

Species-rich Nardus grasslands require extensive sheep grazing or regular mowing once per 2 years with a sporadic additional organic fertilizing (sheep manure is the best). If cattle, sheep are fenced it is necessary to have respect to regular fences transfers and appropriate herd number to exclude extension of the allochthonous

### Semi-natural tall-herb humid meadows It is necessary to prevent drainage of the area or its close surroundings as well as water regime adjustments,

forestation, fertilization, ploughing up or abandonment of the land.

Molinia meadows on calcareous soils require spring floods connected with the soil over-soaking and regular mowing at least once per 2 years, (annually is the best). Out of the long-term unmanaged stands it is necessary to rake out the old biomass. By Molinia outbreak the biodiversity of the area decreases, so annual mowing before flowering (July, August) is required

expansion decreases and old biomass is eliminated, is suitable. Management absence should not be longer than 5-7 years. In such a case threaten overgrowing with woods or plants, e.g. *Phalaroides arundinacea*. Alluvial meadows of river valleys of the *Cnidion venosi* belong to the most productive alluvial meadows, for which

regular mowing twice a year in June – July and in the end of August or September is suitable. Combination of

spring mowing with autumn grazing can negatively affect the species composition. An endangerment increases

require regular mowing with light mechanization once or twice a year (May, August) in the lowlands and once

a year (June or July) or in case of a lower biomass production once per 2 years in the mountain areas. They require

light organic fertilization (cattle manure) in the several years' intervals as well. Sporadic sheep and cattle grazing

For hydrophilous tall-herb fringe communities a sporadic cutting in 2-3 years period, by which unwanted species

with a spring floods absence, on which they are existentially dependent. Mesophile grasslands The maintenance pre-conditions are appropriate management, prevention from oversized fertilization and ploughing up of the meadows as far as they can cause total liquidation of the habitat. Mesophile grasslands

### can be used. In the more extensive meadows (above 5 ha) it is suitable to leave an uncut part to enable natural reproduction of some flora species.

7. RAISED BOGS, MIRES AND FENS

For maintenance of the raised bogs and fens it is necessary to prevent any of the water regime changes (drainage, ploughing up) or changes of the water chemical composition in the habitat area or its surroundings, bog  $exploitation, artificial forestation \, as \, well \, as \, oversized \, grazing \, or \, cattle \, course \, in time \, of \, high \, underground \, water \, and \, course \, in time \, of \, high \, underground \, water \, and \, course \, in time \, of \, high \, underground \, water \, and \, course \, in time \, of \, high \, underground \, water \, and \, course \, in time \, of \, high \, underground \, water \, and \, course \, in time \, of \, high \, underground \, water \, and \, course \, in time \, of \, high \, underground \, water \, and \, course \, in time \, of \, high \, underground \, water \, and \, course \, in time \, of \, high \, underground \, water \, and \, course \, in \, time \, of \, high \, underground \, water \, and \, course \, in \, time \, of \, high \, underground \, water \, and \, course \, in \, time \, of \, high \, underground \, water \, and \, course \,$ 

In case the stands are endangered by cattle coursing, particular habitat areas can be fenced. The drainage channels should be blocked with the bars or filled with bog to prevent drainage of the area.

The fens with a lower underground water level or areas with lower nutrition input as well as some non-forest petrifying tufa springs require mowing and subsequent biomass elimination in August or September. The mowing intervals are stated according to the necessity (annually or every 2 years, in the fens with Cladium mariscus the interval can be longer). If the area has not been mowed for a longer time, it is necessary to restore the stand through an old biomass elimination and subsequent mowing (manually or with light mechanisms).

For more radical biomass or unwanted wood species elimination it is possible to mulch that change a concurrence niches in the area and enables establishment of typical bog species. In the subsequent years mowing should

The woods in fens and raised bogs with a changed water regime or insufficient management should be eliminated by cutting or grubbing out in autumn the best

Stands with Rhynchospora alba or Drosera rotundifolia require a sporadic slight surface disturbance that provide a niche for the species existence (small depressions where species occur in numerous populations). In case of Drosera also cattle coursing can help, however not often to prevent deterioration of other habitats.

Other raised bogs or fen habitat types do not require any specific management.

# 8. ROCKY HABITATS AND CAVES

On the non-stabilized screes it is necessary to reduce intensive movements, trampling and stone material

On the stabilized screes to prevent artificial woods planting and keeping the microclimate. On the screes in the forest stands to prevent sudden elimination of the surrounding stands that can cause up to the drying up the communities and on the other hand in the termophilous habitats to regulate shadowing and so also moisture conditions through keeping or elimination of the woods.

It is necessary to restrict rock climbing and alpinism that cause especially mechanical deterioration of vegetation and pollution in case of longer residence and consequent invasion of unwanted species. In case of protected and endangered species presence in these habitats the mining should be absolutely excluded and in case of already existing mining plots to regulate expansion of the mining space in a way to prevent deterioration of the species.

Especially in the calcareous areas in the area of Slovenský raj or Veľká Fatra Mts. it is necessary to reduce grazing by allochthonous species, e.g. *Rupicapra rupicapra rupicapra* (distribution area in the Alps, not Carpathians).

Deterioration of the caves through lighting a fire and alpinism should be prevented. Keeping the suitable microclimate in the surroundings is also important – it require e.g. reduce the clear-cutting above rare cave

# 9. FORESTS

Prevention of geographically allochthonous wood species expansion, e.g. *Robinia pseudoacacia*, Euroamerican

- Transfer of missing wood of original species composition into the forest stands
- Use an artificial renovation of the forest stands in exceptional cases only; take advantage of the opportunities of natural renovation and coherent smooth ways of management consistently

- Preference of more diversified space composition of the forest stands, which can be achieved through more diversified natural species composition, longer renovation period and suitable tending processes
  - Respect of dead wood presence, which is important for some flora and fauna species onthogenesis, but for
- a stability of the forest ecosystem as a hole as well. It is possible to achieve it through keeping few trees with holes out of natural species composition in the stand up to the final decomposition stage The sprout stands (low stands grown in a vegetative way) should be rebuilt to the high forest stands
- To use more sensitive procedures in the forest management, i.e. elimination of heavy loud mechanisms but

use of ecologically suitable decomposable materials and chemical substances.

# Financing NATURA 2000

Sustainable development means harmonization of a men's life quality with sustainable use of natural sources; management and social utilization and environmental attitudes including biodiversity protection should jointly operate for people's as well as nature welfare. In majority of the NATURA 2000 sites this is possible to achieve by continuation of a hitherto management. In case of new activities required above the frame of the standard management in favour of biodiversity protection, the landowners and users can ask for a state financial contribution. In case the management restrictions in favour of biodiversity protection are required, the landowners and users are eligible to ask for a **compensation for standard management restriction**.

Financing implementation of management or social measures that support or contribute to sustainable development of NATURA 2000 sites is in a large extent eligible to be supported from the European Community funds and initiatives for regional and rural development.

For strengthening institutional functions of the <u>forests</u>, maintenance or improvement their ecological stability, increase of their economical, ecological and social value or their production potential rehabilitation, it is possible apply for a financial support out of the Sectoral Operation Program - Agriculture and Rural Development or **Agricultural Development Program**, within the measures for the forest management.

 $From \, an \, \underline{agricultural} \, point \, of \, view, \, the \, most \, important \, for \, NATURA \, 2000 \, sites \, management \, are \, traditional \, ways \, details a constant of a constant and a constant of a constant of$ of extensive management. Maintenance of natural meadows requires harmonisation of their protection and the most advantageous management utilisation. For such purposes serve especially measures of the agroenvironmental schemes. Financial tools are however available for e.g. building up new breeding stations if it is likely they will not negatively affect protection objectives of the site. Relevant programs are SOP - Agriculture and Rural Development or Agricultural Development Program too, measures for unfavourable areas, agroenvironmental support, support to fulfil the Community standards, forestation of agricultural land, etc.

The activities of fishermen and fish farmers should respect water biodiversity protection requirements. In case of harmonization of management or building up fish breeding localities with sustainable development principles, the activities are eligible to be supported out of the SOP - Agriculture and Rural Development, measure for

One of the most interesting sources for municipalities is the SOP - Industry and Services with a priority Tourism **Development.** The inhabitants are eligible to apply for a financial support for tourism infrastructure reconstructions, e.g. building up and maintenance of the tourist, biking and cultural paths, resting places, etc. Tourism development of the area in co-operation with nature protection organisations can help to promote nature values of the area.

In case the protected areas or NATURA 2000 sites are localised in the border areas with Poland, Czech Republic, Hungary, Ukraine or Austria, eligible finance tool for sustainable management is a community initiative INTERREG that represents a financial support for regional development in general, natural and cultural heritage or sustainable tourism development. Final accepters are regional and local municipalities, institutions active in field of regional or local development, nature protection and environmental management, research institutions and universities, regional and local trade associations, private institutions, foundations, non-governmental organisations.

Direct support for protection and management of NATURA 2000 sites is defined in the SOP - Basic Infrastructure within a priority Environmental Infrastructure. Through measure "Infrastructure improvement and development for protection and rational water utilization" the flood-protection projects or flood areas restoration projects are eligible for support. Measure "Environment protection, improvement and restoration" enables to finance direct elaboration and implementation of the protected areas management plans including building up necessary infrastructure.

Further support of the nature protection projects is at disposal in the **Environmental Measures Implementation** 

Support Program (former State Environmental Fund) and in the European environmental financial tool LIFE. Direct

as well as indirect financial resources for support of the projects in the NATURA 2000 sites are rendered also within

the **EEA Financial Mechanism** and **Norwegian Financial Mechanism** that enable to finance in general the projects for environmental and nature protection, cultural heritage, human resources development, etc. Eligible subjects for applications are state or private organisations, non-governmental organisations, educational and research institutions, environmental, voluntary and community organisations, public-private partnerships.

## LIST OF ANNEX II HD HIGH PLANTS OCCURES IN SLOVAKIA

Aconitum firmum subsp. moravicum Adenophora lilifolia Aldrovanda vesiculosa Angelica palustris Ostericum palustre Apium repens Asplenium adulterinum \*Campanula serrata Cirsium brachycephalun \*Cochlearia tatrae Coleanthus substilis Colchicum arenarium Crambe tataria \*Cvclamen fatrense Cypripedium calceolus \*Daphne arbuscula \*Dianthus nitidus \*Dianthus praecox subsp. lumnitzeri Dracocephalum austriacum Echium russicum Eleocharis carniolica \*Ferula sadleriana Gladiolus palustris Himantoglossum adriaticum Himantoglossum caprinum Iris aphylla subsp. hungarica Iris humilis subsp. arenaria Ligularia sibirica Liparis loeselii Marsilea quadrifoli

### Tozzia carpathica LIST OF ANNEX II HD BRYOPHYTES OCCURES IN SLOVAKIA

Buxbaumia viridis Dicranum viride Drepanocladus vernicosus Mannia triandra Meesia longiseta Ochyraea tatrensis Orthotrichum roaeri Scapania massolongi

\*Onosma tornensis

\*Pulsatilla pratensis subsp. hungarica

Tephroseris longifolia subsp. moravica

Pulsatilla grandis

\*Pulsatilla slavica

\*Pulsatilla subslavica

\*Serratula lycopifolia

Thesium ebracteatum

Pulsatilla patens

# LIST OF ANNEX II HD ANIMALS OCCURES IN SLOVAKIA

Anisus vorticulus Sadleriana pannonica Theodoxus transversalis Unio crassus Vertigo angustior Vertigo geveri Vertigo moulinsiana

Coleoptera \*Osmoderma eremita \*Phryganophilus ruficollis \*Pseudogaurotina excellens \*Rosalia alpina Bolbelasmus unicornis

Duvalius hungaricus Graphoderus bilineatus Limoniscus violaceus Lucanus cervus Probaticus subrugosus Rhysodes sulcatus Stephanopachis substriatus \*Austropotamobius torrentium \*Callimorpha (=Euplagia) quadripunctaria Colias myrmidone Dioszeghyana (=Orthosia) schmidtii

Coenagrion ornatum Cordulegaster heros

Eriogaster catax

l entidea morsei

Lycaena dispar

Maculinea nausithous

Polvommatus eroides

Maculinea teleius

Euphydryas aurinia

Hypodryas (=Euphydryas) maturna

Boros schneider

Carabus hungaricus

Carabus variolosus

Carabus zawadszkii

Cucujus cinnaberinus

Cerambyx cerdo

Isophya stysi Odontopodisma rubripes Paracaloptenus caloptenoides Pholidoptera transsylvanica

Leucorrhinia pectoralis

Ophiogomphus cecilia

Stenobothrus eurasius slovacus Aspius aspius Rarbus meridionalis (peloponesius) Cobitis taenia (elongatoides) Cottus gobio Eudontomyzon danfordi Eudontomyzon mariae (vladykovi)

Gobio albipinnatus

Gobio kessleri Gobio uranoscopus Gymnocephalus baloni Gymnocephalus schraetzei Hucho hucho Lampetra planeri Misaurnus fossilis Pelecus cultratus Rhodeus sericeus amarus

Rutilus frisii meidingeri

Rutilus pigus Sabanejewia aurata (balcanica) Umbra krameri

Zingel streber

## Emys orbicularis

Bombina bombina Bombina variegata Triturus cristatus Triturus dobrogicus Triturus montandoni

\*Bison bonasus \*Canis lupus

\*Marmota marmota latirostris \*Microtus oeconomus mehelyi \*Rupicapra rupicapra tatrica \*Ursus arctos Barbastella barbastellus Castor fiber Lutra lutra Lynx lynx Microtus tatricus Miniopterus schreibersi

Mustela eversmannii

Myotis bechsteini

Myotis dasycneme

Mvotis emarginatus

Rhinolophus euryale

Myotis myotis

Myotis blythi

Rhinolophus hipposideros Spermophilus citellus

Rhinolophus ferrumequinun

Excint species in Slovakia

Acrocephalus melanopogoi

Aegolius funereus

\* - priority species

Alcedo atthis Anas platyrhynchos Anas querquedula Anas strepera Anthus campestris Aquila heliaca Aguila chrysaetos Aguila pomarina Ardea purpurea Aythya ferina Avthva fuliqula Aythya nyroca Bonasa bonasia Botaurus stelaris Bubo bubo Bucephala clangula Caprimulgus europaeu Ciconia ciconia Ciconia nigra Circaetus gallicus Circus aeruginosus Circus pygargus Coracias garrulus Coturnix coturnix Crex crex Dendrocopos leucotos Dendrocopos medius Dendrocopos syriacus Dryocopus martius Egretta alba Egretta garzetta Falco cherug

Lanius colurio Lanius excubitor Lanius minor Larus canus Larus melanocephalus Limosa limosa Lullula arborea Luscinia svecica Mergus albellus Merops apiaster Milvus migrans Milvus milvus Monticola saxatilis Muscicapa striata Netta rufina Nycticorax nycticorax Otis tarda Otus scops Pernis apivorus Phalacrocorax pygmaeus Phoenicurus phoenicurus Picoides tridactylus Picus canus Platalea leucorodia Porzana parva Porzana porzana Recurvirostra avosetta Riparia riparia Saxicola torquata Sterna hirundo Streptopelia turtur Strix uralensis Svlvia nisoria Tetrao tetrix Tetrao urogallus

Tringa totanus

Code Name

1340\* Inland salt meadows

Ficedula albicollis

Ficedula parva

Galerida cristata

Glaucidium passerinur

Haliaeetus albicilla

Chlidonias hybridus

Ixobrychus minutus

Chlidonias niger

Jynx torquilla

# LIST OF ANNEX I HD HABITAT TYPES OCCURES IN SLOVAKIA

1530*	Pannonic salt steppes and salt marshes	SI3
2340*	Pannonic inland dunes	Pi1
3130	Oligotrophic to mesotrophic standing waters with vegetation	Vo1
	of the Littorelletea uniflorae and /or I soeto-nanojuncetea	
3140	Hard oligo-mesotrophic waters with benthic vegetation of <i>Chara</i> spp.	Vo5
3150	Natural eutrophic lakes with Magnopotamion or Hydrocharition - type vegetation	Vo2
3160	Natural dystrophic lakes and ponds	Vo3
3220	Alpine rivers and the herbaceous vegetation along their banks	Br2
3230	Alpine rivers and their ligneous vegetation with Myricaria germanica	Br3
3240	Alpine rivers and their ligneous vegetation with Salix elaeagnos	Br4
3260	Water courses of plain to montane levels	
	with the Ranunculion fluitantis and Callitricho-Batrachion vegetation	Vo4
3270	Rivers with muddy banks with <i>Chenopodion rubri</i> p.p. and <i>Bidentition</i> p.p. vegetation	Br5
4030	European dry heaths	Kr1
4060	Alpine and boreal heaths	AI9
4070*	$Bushes\ with\ Pinus\ mugo\ and\ Rhododendron\ hirsutum\ (Mugo-Rhododendretum\ hirsuti)$	Kr10
4080	Sub-arctic Salix spp. scrub	Kr4, K
40A0*	Subcontinental peri-Pannonic scrub	Kr6
5130	Juniperus communis formations on heaths or calcareous grasslands	Kr2
6110*	Rupicolous calcareous or basophilic grasslands of the Alysso-Sedion albi	Pi5
6120*	Xeric sand calcareous grasslands	Pi2
6150	Siliceous alpine and boreal grasslands	Al1, Al
6170	Alpine and subalpine calcareous grasslands	AI3, A
6190	Rupicolous pannonic grasslands (Stipo-Festucetalia pallentis)	Tr5
6210	Semi-natural dry grasslands and scrubland facies	Tr1
	on calcareous substrates (Festuco-Brometalia) *important orchid sites	
6230*	Species-rich Nardus grasslands, on siliceous substrates in mountain areas	Tr8
	(and submontain areas in continental Europe)	
6240*	Sub-Pannonic steppic grasslands	Tr2
6250*	Pannonic loess steppic grasslands	Tr3
6260*	Pannonic sand steppes	Tr4
6410	Molinia meadows on calcareous, peaty or clayey-silt-laden soils (Molinion caeruleae)	Lk4
6430	Hygrophilous tall herb fringe communities of plains and of the montane to alpine levels	Br6, B
		AI5, LI
6440	Alluvial meadows of river valleys of the Cnidion dubii alliance	Lk8
6510	Lowland hay meadows (Alopecurus pratensis, Sanguisorba officinalis)	Lk1
6520	Mountain hay meadows	Lk2
7110*	Active raised bogs	Ra1
7120	Degraded raised bogs (still capable of natural regeneration)	Ra2
7140	Transition mires and quaking bogs	Ra3
7150	Depressions on peat substrates of the Rhynchosporion	Ra4
7210*	Calcareous fens with Cladium mariscus and species of the Caricion davallianae	Ra5
7220*	Petrifying springs with tufa formation (Cratoneurion)	Pr3
7230	Alkaline fens	Ra6
8110	Siliceous scree of the montane to snow levels	Sk3
	(Androsacetalia alpinae and Galeopsietalia ladani)	
	Calcareous and calshist screes of the montane to alpine levels ( <i>Thlaspietalia rotundifolii</i> )	Sk4
	Medio-European upland siliceous scree	Sk5
	Medio-European calcareous scree of hill and montane levels	Sk6
8210	Calcreous rocky slope with chasmophytic vegetation	Sk1

LIST OF THE BIRDS

Office hours: Wednesday 14:00 - 18:00 PLA Ponitrie Administration Samova ul. 3, SK-949 01 Nitra

PLA Poľana Administration J. M. Hurbana 20, SK-960 01 Zvolen Office hours: Monday 13:00 - 17:00 PLA Strážovské vrchy Administration Orlové 189, SK-017 01 Považská Bystrica

Office hours: Wednesday 12:00 - 18:00 PLA Východné Karpaty Administration Lipová ul. 19. SK-066 01 Humenné

Office hours: Thursday 14:00 - 18:00

# OF PROTECTED AREAS IN THE SLOVAK REPUBLIC

Slovakia – jewel of Europe Slovakia in its relatively small cover abounds with exceptionally rich biodiversity. Reasons for it are given by border of Carpathians – mountains of exceptionally diverse and rugged geological composition – and Pannonian lowlands as well as still relatively high rate of unviolated wildlife. Up to 40% of the land is covered with forests, approximately 17% with meadows and pastures. Slovak biodiversity is visible in occurrence of more than 3 350 vascular plants or approximately 3 500 butterflies or 341 bird species as well. We are one of few European countries with natural

coherent European network of protected areas With EU accession on 1 May 2004, Slovakia joined a community of countries, which is built on principles of common internal and external policy. Common rules and standards are binding equally to all EU member states

and superior to particular national laws. So the EU represents itself towards the rest of the world as one whole.

flora and fauna species listed in the HD annexes are proposed. They become a part of NATURA 2000 until the EU member state designs them in statutory, administrative or contractual act (special areas of conservation (SACs)). In Slovakia, the SCIs will be designed in the existing categories of protected areas to become SACs.

54% of total proposed NATURA 2000 network that covers 29% of Slovakia.



Office hours: Monday 13:00 - 17:00 Wednesday 9:00 - 14:00 NP Muránska planina Administration Janka Kráľa 12, SK-050 01 Revúca Office hours: Wednesday 8:00 - 18:00

Office hours: Monday 9:00 - 11:00, 13:00 - 16:00

NP Pieniny Administration

Office hours: Wednesday 13:00 - 17:00 SNC SR - Regional Centre Bratislava Office hours: Tuesday 13:00 - 17:00

Protection of Birds

of birds represent the most large-scaled form of global biodiversity protection.

designs within NATURA 2000 network special protection areas. State Nature Conservancy in co-operation with Society for Protection of Birds in Slovakia SOVS (BirdLife represent 25% of the area of the Slovak Republic, while overlap of proposed sites with a network of existing

Special protection areas are a new category of protected areas in Slovakia. In comparison to an established national system of nature protection through degrees of protection, through which the relevant general restriction levels are given, in the SPAs the lowest degree with the basic restrictions valid in whole Slovakia is applied and definite conditions specific to particular subjects of protection of particular SPAs are defined according to their protection subject, e.g. in the SPAs designed for protection of the Imperial Eagle's nests (Aquila heliaca) a specific condition of management restrictions up to 30 m around the nests in time of the younglings is valid.

# Habitats Protection for Favourable Status of Species

Sites of Community importance according to the Habitats Directive serve for maintenance or improvement of favourable conservation status of habitat types and species of European importance occurring in the sites. Relevant habitat types and species are listed in the annexes I, II and IV of the Habitats Directive - according to it 66 habitat types including 23 priority habitat types, 50 flora and 138 fauna species of European importance

The list was approved by the Government of SR on 17 March 2004 and submitted to European Commission in Until the final sites of Community importance are selected from the national list (up to 3 years), the proposed SCIs are so called **preliminary protected**. The purpose of the measure is to ensure that the status of proposed sites does

For each SPA or SCI, the specific protection objectives that lead to provision of favourable conservation status of selected habitat types and species are defined in the specific **management plans**.

development principles in way to exclude further possible threats or to regenerate already deteriorated areas are defined. In this way also extinction of small and endangered populations of rare species should be prevented.

If deterioration of status of the site can be expected, the activity is allowed to be executed in case of imperative

Equally important is regulation and elimination of wood species (esp. pines and acacias) invasion from the dunes and surroundings as far as their presence sets bounds to occurrence of typical species for sand habitats.

On the shores of the open water surface it is necessary to regulate representation of the tall-herb species, e.g.

Falco peregrinus

Falco vespertinus

91NO\* Pannonic inland sand dune thicket (*Junipero-Populetum albae*)

91Q0 Western Carpathian calcicolous Pinus sylvestris forests 9410 Acidophilous spruce forests of the montane to alpine levels (*Vaccino-Piceetea*)

Ls3.6 9190 Old acidophilous oak woods with *Quercus robur* on sandy plains 91D0\* Bog woodland Ls7.1,Ls7.2, Ls7.3 91E0\* Alluvial forestsMixed ash-alder alluvial forests of temperate and Boreal Europe (Alno-Padion, Alnion incanae, Salicion albae)

> Ls10 Ls6.2

9420 Alpine Larix decidua and/or Pinus cembra forests

Ls2.2 Ls3.1 Ls3.2, Ls3.3, Ls3.5.2 Ls3.4

Sk2

Pi4

Sk8

Ls5.2

Ls5.1

Ls5.3

Ls5.4

Ls2.3.1

Ls4

Ls9.4

91FO Riparian mixed forests of Quercus robur, Ulmus laevis, and Ulmus minor, Fraxinus excelsior or Fraxinus angustifolia, along the great rivers (Ulmenion minoris) Ls1.2 91G0\* Pannonic woods with Quercus petraea and Carpinus betulus 91H0\* Pannonian woods with *Quercus pubescens* 9110\* Euro-Siberian steppic woods with *Quercus* subsp.

Ls1.1, Ls1.3, Ls1.4

Office hours: Wednesday 9:00 - 18:00

PLA Malé Karpaty Administration (2)

Pažitná ul. 84, SK-917 01 Trnava

PLA Vihorlat Administration

8220 Siliceous rocky slope with chasmophytic vegetation 8230 Siliceous rock with pioneer vegetation of the *Sedo-Scleranthion* or of the Sedo albi-Veronicion dillenii 8310 Caves not open to public 9110 Luzulo-Fagetum beech forests 9130 Asperulo-Fagetum beech forests 9140 Medio-European subalpine beech woods with *Acer* and *Rumex arifolius* 9150 Medio-European limestone beech forests of the *Cephalanthero-Fagion* 9170 Galio-Carpinetum oak-hornbeam forests 9180\* *Tilio-Acerion* forests of slopes.screes and ravines

91M0 Pannonian-Balkanic turkey oak - sessile oak forests

Ls2.3.3, Ls9.1, Ls9.2, Ls9.3

Office hours: Monday 9:00 - 15:00

PLA - protected landscape area NP – national park