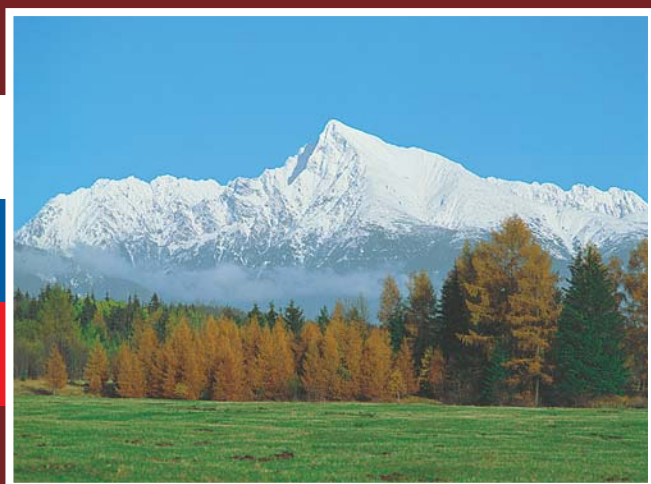


***Ministry of the Environment
of the Slovak Republic***



***STATE OF THE ENVIRONMENT
REPORT
SLOVAK REPUBLIC 2007***



***Slovak Environmental
Agency***





Everybody, while performing an activity, which could endanger, harm or destroy **plants or animals**, or their biotopes, are obliged proceed so that there is no pointless death loss or damage and destruction.

§ 4 par. 1 of the Act No. 543/2002 Coll. on Nature and Landscape Protection as subsequently amended

• FLORA AND FAUNA

Flora

◆ Endangerment of plant taxons

State of endangered individual plant taxons has been elaborated pursuant to the relevant red lists. Complete *Red list of plants and animals of Slovakia* (In: *Ochrana prírody /Nature protection/* vol. 20) was created in 2001.

State of endangerment of plant taxons in 2007

Group	Total number of taxons		Endangered (IUCN cat.)						Ed
	World (global estimation)	Slovakia	EX	CR	EN	VU	LR	DD	
Cyanophytes and Algae	50 000	3 008	-	7	80	196	-	-	-
Lower fungi	80 000	1 295	-	-	-	-	-	-	-
Higher fungi	20 000	2 469	5	7	39	49	87	90	-
Lichens	20 000	1 585	88	140	48	169	114	14	-
Bryophytes	20 000	909	26	95	104	112	85	74	2
Vascular plants	250 000	3 352	77	266	320	430	285	50	220

Source: SNC SR

Legend:

Ed – endemic species

IUCN categories of endangerment:

EX – extinct

CR – critically endangered

EN – endangered

VU – vulnerable

LR – less endangered

DD – data deficient

The basic **reason** of plants endangerment is especially **the destruction of the sites**. **The most endangered habitats** in Slovakia include: inland salt marshes and salt meadows, Carpathian travertine salt lakes, inland Pannonic sand dunes, alpine and sub-alpine grassland, alpine snow beds, xeric grassland and scrub vegetation on calcareous substrate with species of the *Orchideaceae* family, active raised bogs, transition

mires and quaking bogs, Calcareous fens with *Cladium mariscus* and species of the *Caricion davallianae*, alkaline fens, petrifying springs with tufa formation.

Comparison of the vascular plant endangerment* in selected countries

	Slovakia	Austria	Hungary	Poland	Czech Rep.
Vascular plants (%)	30.3	33.4	19.8	11.2	42.5

Source: OECD

* Among "endangered" taxons are those taxons classified under categories: CR, EN, and VU under IUCN.

Czech Rep.: Data include extinct species.

◆ Protection of plant taxons

Protection of plant taxons is in the presence regulated by the **Resolution of MoE SR No. 24/2003 Coll.** to the *Act on Nature and Landscape Protection No. 543/2002 Coll.* as amended by Resolution 638/2007 Coll. Number of the **state protected taxons** is now **1 418** (vascular plants – 1 285; bryophytes – 47; higher fungi – 70; lichens – 17). There are **823 taxons** occurring in Slovakia (vascular plants – 713, bryophytes – 23, higher fungi – 70, lichens – 17).

Wild-growing plant taxons in Slovakia protected by international conventions and EU regulations (2007)

	Cyanophytes and Algae	Fungi	Lichens	Bryophytes	Vascular plants
In attachment II of Habitats Directive	-	-	-	9	40
In attachment IV of Habitats Directive	-	-	-	-	42
In attachment I and II of CITES	-	-	-	-	110
In attachment I of Bern Convention	-	-	-	8	34

Source: SNC SR

There were processed and realized **rescue programmes** for the following species of vascular plants:

Rescue programmes (RP)	Vascular plants species
Processed in 2007	There wasn't processed RP in 2007.
Realized in 2007	There were realized RP for the following species in 2007: <i>Orchis coriophora</i> subsp. <i>coriophora</i> , <i>Ophrys holubyana</i> , <i>Drosera anglica</i> , <i>Rhynchospora alba</i> , <i>Scheuchzeria palustris</i> , <i>Lycopodiella inundata</i> , <i>Pulsatilla zimmermannii</i> , <i>Pulsatilla pratensis</i> subsp. <i>flavescens</i> , <i>Orchis palustris</i> , <i>Orchis elegans</i> , <i>Anacamptis pyramidalis</i> , <i>Carex chordorhiza</i> , <i>Carex pulicaris</i> , <i>Glaux maritima</i>

Source: SNC SR

Actual problem endangering the diversity of plant species in last years has been becoming **invasive species**. In 2007, **elimination** of invasive plant species was carried out at 50 sites in protected areas of the size of almost 50 ha. This activity followed up on the measures implemented also in the previous years. 14 species

of introduced and invasive plant species were thus eliminated. Outside the protected areas, eliminated were 7 species of invasive plants at 73 sites of the size of 76 ha.

There was observed approximately **175 allochthonous species** of plants in Slovakia, whereof in the presence about **20** species behaves as invasive ones. **The most spread** invasive plant species in our country are *Fallopia japonica*, *Helianthus tuberosus*, *Heracleum mantegazzianum*, *Impatiens parviflora*, *Solidago canadensis*, *Fallopia sachalinensis*, *Impatiens glandulifera*, *Solidago gigantea*, *Aster novi-belgii*, *Aster lanceolatus*, *Robinia pseudoacacia*, *Ailanthus altissima*, *Rudbeckia laciniata*.

Fauna

◆ Endangerment of animal species

State of endangered individual animal taxons has been elaborated pursuant to the relevant red lists.

State of endangerment of the particular invertebrate taxons in 2007

Taxons	Number of taxons		Categories of endangerment (IUCN)							Endang erment total	Endang. %
	World	SR	EX	CR	EN	VU	LR	DD	NE		
Mollusca	128 000	277	2	26	22	33	45	8	135	136*	49.1
Aranea	30 000	934	16	73	90	101	97	45	-	422	45.2
Ephemers	2 000	132	-	8	17	16	-	-	-	41	31.1
Odonata	5 667	75	4	-	14	11	13	5	-	47	62.7
Orthoptera	15 000	118	-	6	7	10	20	10	-	53	44.9
Heteroptera	30 000	801	-	14	7	6	4	-	-	31	3.9
Coleoptera	350 000	6 498	2	15	128	490	81	2	-	718	11.1
Hymenoptera	250 000	5 779	-	23	59	203	16	-	-	301	5.2
Lepidoptera	100 000	3 500	6	21	15	41	17	11	-	111	3.2
Diptera	150 000	5 975	-	5	10	71	19	93	-	198	3.3

Source: SNC SR

* without the category of NE

State of endangerment of the particular vertebrate taxons in 2007

Taxons	Number of taxons		Categories of endangerment (IUCN)							Total	%
	World ⁴⁾	SR	EX	CR	EN	VU	LR	DD	NE		
Lampreys		4	-	4	-	-	-	-	-	4	100.0
Pisces	25 000	79	6	7	8	1	22	2	-	45 ¹⁾	57.0
Amphibians	4 950	18	-	-	3	5	10	-	-	18	100.0
Reptiles	7 970	12	-	1	-	4	6	-	-	11	91.6
Birds ²⁾	9 946	219	2	7	23	19	47	4	19	121	55.3 (35.5 ³⁾)
Mammals	4 763	90	2	2	6	12	27	15	4	68	75.6

Source: SNC SR

¹⁾ taxon has two forms listed under two different categories (EX, CR)

²⁾ only nesting birds – of total number of 341 birds of Slovakia, only the all 219 species of nesting birds were assessed

³⁾ % of total number of birds 341

⁴⁾ Source: UNEP – GBO

IUCN Categories:

EX - extinct taxon

CR - critically endangered taxon

EN - endangered taxon

VU - vulnerable taxon

LR - lower risk taxon

DD - data deficient taxon

NE - non evaluated taxon

Comparison of vertebrates endangerment¹⁾ in selected countries (%)

	Slovakia	Austria	Hungary	Poland	Czech Rep.	EU*
Invertebrates	5.3	-	> 0.9	5.6	0.3	13.9
Pisces	24.1	41.7	32.1	14.5	29.2	38.1
Amphibians	44.4	100.0	100.0	-	90.0	46.7
Reptiles	38.5	75.0	100.0	33.3	100.0	85.7
Birds	14.4	26.0	18.8	14.5	55.9	100.0
Mammals	22.2	22.0	71.1	15.7	33.3	82.4

Source: OECD

¹⁾ "endangered" taxons include species under categories: CR, EN, and VU under IUCN

* proportion of globally endangered species according to IUCN, included in the European instruments (EU directives, Bern convention)

Austria) only autochthonous species; invertebrates: insecta, decapoda, mysidacea and mollusca.

Czech Rep.) data refer to autochthonous species and EX including.

Hungary) "Endangered" reptiles and amphibians refer to the protected and highly protected species.

◆ Protection of animal species

Protection of animal species is regulated by the **Resolution of MoE SR No. 24/2003 Coll.**, which implements the *Act on nature and landscape protection No. 543/2002 Coll.* as amended by **Resolution 638/2007 Coll.** The number of **animal taxons under state protection** is now **813 taxons** on the level of species and subspecies and to **12 taxons** on the level of genus.

Animal wildlife in Slovakia protected by international conventions and EU regulations (2007)

	Invertebrates	Pisces	Amphibians	Reptiles	Birds	Mammals
In annex II of Habitats Directive	53	23	5	1	-	22
In annex IV of Habitats Directive	50	1	10	9	-	46
In annex I of Birds Directive	-	-	-	-	74	-
In annexes I and II of CITES	2	5	-	-	61	5
In annexes II and III of Bern Convention	26	36	11	8	120	26
In annexes II and III of Bonn Convention	-	3	-	-	54	-
In annex of AEWA*	-	-	-	-	122	-

* AEWA – African-Eurasian Migratory Water Bird Agreement

Source: SNC SR

Rescue programmes in 2007 were realized for the following taxons: *Marmota marmota*, *Aquila chrysaetos*, *Aquila pomarina*, *Falco cherrug*, *Falco peregrinus*, *Paranssius apollo* and *Umbra krameri*.

In **breeding** and **rehabilitation stations** operated by the nature and landscape protection organizations (including ZOO Bratislava and ZOO Bojnice) there were **adopted** in 2007 altogether **426** injured individuals or otherwise disabled animals. Back to wild nature there were **released** altogether **191** individuals and there was spent more than 260 thous. SKK.

There was provided **the guarding** of 146 nests of 10 bird of prey species (*Aquila chrysaetos*, *A. pomarina*, *A. heliaca*, *Haliaeetus albicilla*, *Falco peregrinus*, *F. vespertinus*, *Circus aeruginosus*, *C. pygargus*, *Pernis apivorus*, *Milvus milvus*) - information only for the organization organs of SNC SR. There were successfully **brought up 138 nestlings**, which is in average 1 brought up nestlings per nest and there were spent about 215 thous. SKK.

In term of in situ animal preservation in 2007 there were organized **transfers and restitutions** of protected and endangered animals into proper nature biotopes by nature and landscape protection organizations. There were these animals – *Spermophilus citellus*, *Amphibia*, *Umbra krameri*, *Parnassius apollo*, *Pholidoptera Friwaldskyi* and there was spent altogether 79.1 thous. SKK.

Within the **improvement of nesting and living conditions** of animals, there were realized more than 447 actions, while there was invested more than 550 thous. SKK.

In concern of preventing the collisions of **migrating Amphibians** with the car transport, in 2007, transfers of amphibians were carried out and foil barriers were installed in total length of 18,5 km within the protected areas, as well as in open nature. More than 50 thous. of amphibians were transferred, with app. 50 thous. SKK invested.

◆ **Game stock and hunting and fishing**

To 31st March 2007, the **spring stock numbers** of the ungulate game species, without Fallow deer species, were higher in comparison to the previous year. Hunting for the rare animal species is strictly regulated.

Spring stock of game and game hunting as of March 31 (pieces)

Species	2004		2005		2006		2007	
	stock	hunting	stock	hunting	stock	hunting	stock	hunting*
Deer	38 264	13 118	39 738	14 030	41 105	12 888	41 287	15 185 ¹⁾
Fallow deer	7 475	2 011	8 425	2 529	8 010	2 208	8 125	2 890 ¹⁾
Roe deer	84 547	20 269	85 124	20 659	87 324	17 313	89 439	22 723 ¹⁾
Wild boar	27 415	23 727	27 116	22 551	27 175	17 820	27 124	25 758 ¹⁾
Brown hare	201 316	31 842	199 226	36 511	208 946	17 560	202 724	39 892 ¹⁾
Grey partridge	18 622	832	17 293	484	15 579	10	13 285	535 ¹⁾
Pheasant	180 105	116 050	181 374	143 373	187 139	110 113	182 287	160 126 ¹⁾
Chamois	522	7	625	12	665	8	645	10 ¹⁾
Bear	1 419	34	1 483	35	1 577	16	1 739	25
Wolf	1 158	86	1 165	74	1 219	91	1 322	123
Otter	315	0	343	0	380	0	480	0

* Actual hunting in numbers, excluding other kills.

Source: SO SR

Amount of the fish **caught** in the fish ponds, water dams and water flows for economic and sport purposes achieved **2 871 t** in 2007. The waters were **stocked by 65 995 735 pieces of setting**.

Fishing for the economic and sport purposes in 2007 (t)

Fish species	2003		2004		2005		2006		2007	
	total	of this SFA*	total	of this SFA*	total	of this SFA*	total	of this SFA*	total	of this SFA*
Fish total	2 528	1 631	2 783	1 565	2 652	1 663	2 979	1 697	2 871	1 659
Of these:										
Carp	1 186	1 040	1 360	988	1 281	1 092	1 597	1 169	1 430	1 146
Trouts	743	50	878	52	800	49	837	49	939	54
Crucians	101	71	80	75	76	71	117	71	8	66
White amur	36	34	28	28	33	24	39	33	45	40
Bighead carps	10	4	8	5	12	6	12	4	8	4
Sheat fish	36	35	36	35	37	35	34	33	40	39
Maskalonge	59	56	66	60	74	67	62	60	58	55
Sand-eel	78	78	78	76	83	82	65	64	68	60
Grayling	12	12	9	8	13	7	8	7	12	6
Huchen	1	1	1	1	1	1	1	1	0,2	0,2
Breams	99	98	98	98	106	105	95	94	76	75
Torgoch	1	0	0	0	9	1	2	1	3	1
Chevins	27	27	21	21	16	16	16	16	17	17
Other fish species	139	125	120	117	111	107	94	95	168	96

*SFA – Slovak Fishing Association

Source: SO SR

OCHRANA DRAVCOV NA SLOVENSKU
realizuje

OCHRANU ORLA KRÁĽOVSKÉHO

v rámci projektu LIFE-Nature (LIFE03NAT/SK/000098)
„Ochrana orla kráľovského v slovenskej časti Karpát“
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