



Funded by the
Erasmus+ Programme
of the European Union

2020-1-BG01-KA229-078980

The red book of endangered species



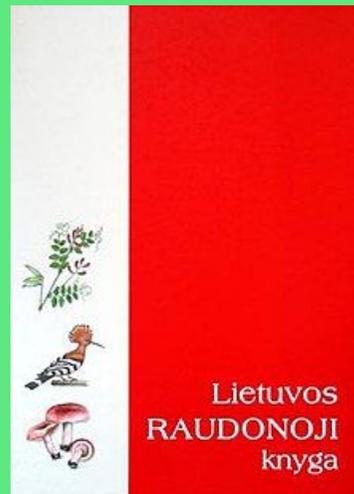
A group of students in each country undertook the task. They collected the information about the animals' and plants' species which are in danger in their own countries. Pupils made a research- how the situation with endangered species has been changing during last ten years.

Students have gained knowledge about the “Red book” and endangered animals and plants, they have raised awareness about the environment by presenting their researches and develop skills in using ICT.





Endangered species of animals and plants are listed in Lithuanian red book.



There are hundreds of species of animals throughout Lithuania that are disappearing fast due to hunting or man's interference in their natural habitat. The wild cat, Flying Squirrel, beavers, elk, ferret – these are just few names of animals hunted nearly to extinction. In the twentieth century white black grouse and great spotted eagle disappeared. Lynx, otter, and European mink are on the borderline of extinction. The Lithuanian Red Book included 18 mammals. Trade in these species is forbidden, but some of these animals are killed and used for medical research, others are hunted for meat or adornment. Lithuanian government banned killing of endangered species and establishes nature reserves, national parks.

Lynx-lūšis



Lynxes have a short tail, characteristic tufts of black hair on the tips of their ears, large, padded paws for walking on snow and long whiskers on the face. Under their neck they have a ruff which has black bars resembling a bow tie, although this is often not visible.

The living places are coniferous and mixed forests with dense undergrowth, ditches, wetlands. Usually they eat hares, deer, sometimes birds and small rodents. Hunts on the edges of the forest. Lynxes are in danger in Lithuania because of these main reasons:
Hunting;
Poaching, especially looping;
Wolves and stray dogs which can attack lynxes.

In the first half of the 19th century, lynxes in Lithuania were almost extinct.

Later, the lynx protection was improved: feeding conditions became better, the number of wolves decreased. Most of them were in the 20th century, 8 - 9 decades (about 150 - 200 lynx).

Later, the number of lynxes decreased almost doubled. The current population is about 30 -40 animals.

The lynx has been listed in the Lithuanian Red Data Book since 2000.



Ermine-Šermuonėlis

The Ermine is a small, slender, and black-tailed. Grows up to 30 cm long.

The Ermine lives in wooded, swampy and open areas. It eats rabbits, rodents (mice, rats), other small mammals, as well as birds, their eggs and chicks. Sometimes it also eats fish, reptiles, amphibians and invertebrates.



The Ermine has been listed in the Lithuanian Red Data Book since 2003.

Primrose (*Primula farinosa*)- Raktažolė pelenėlė



Primula farinosa, the bird's-eye primrose, is a small [perennial plant](#) in the family [Primulaceae](#).

The [leaves](#) are set in rosettes and are 2–10 centimetres (0.8–4 in) long and 1–2 centimetres (0.4–0.8 in) broad, smooth on top, powdery-white on the underside. The violet-blue [flowers](#) appear in early spring, and often in rounded clusters on top of a powdery stem when the plant is older. This plant is listed in Lithuanian red book.

Beefsteak Fungus (*Fistulina hepatica*)- Ažuolinė kepena



The shape resembles a large tongue, and it is rough-surfaced with a reddish-brown colour.

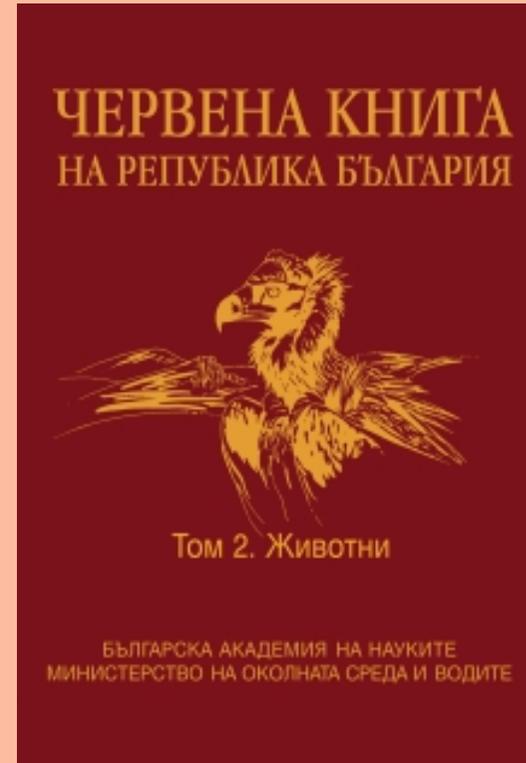
The species is fairly common, and can often be found on [oaks](#) and [sweet chestnut](#).

BULGARIA

Endangered species of animals and plants are listed in Bulgarian red books.



The red book, volume 1 - Plants and mushrooms



The red book, volume 2 - Animals

The bald eagle

The bald eagle

The bald eagle (*Aquila chrysaetos*) is one of the largest birds of prey found in our lands.

Overview . Its body length is 80 - 95 cm, the wingspan - 195 - 220 cm, and weight - 2.8 - 6.5 kg.

Lifestyle and feed

It feeds on a variety of small animals, but prefers wagtails and tortoises, which it breaks by dropping them from above on rocks. He also hunts crows, rabbits, foxes, snakes, etc. In winter it also feeds on animal carcasses. Inhabits rocks near open spaces. The bald eagle leads a solitary lifestyle. The oldest known individual lived 32 years in the wild, and another individual in captivity reached 46 years of age. From ancient times the eagle is a symbol of strength. The female is often huge. He builds several nests, one of which he visits often to rest.



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Reproduction

The nest is most often found on rock ridges, cracks and less often on trees. It is characteristic that they choose the lower parts of their territory for nesting. Its nest is huge up to 3 meters in diameter and up to 2 meters high. The female can lay only 3 eggs a year. It begins to muddy in March or April. Hatching lasts about 43 days. It only hatches the female, which remains in the nest for about 5 weeks after the young have hatched (usually one). After this time, it receives food once a day, most often on the edge of the nest. By the eighth week, the baby is fully feathered and at the age of 80 days begins to fly, but stays with his parents until the end of autumn. Puberty occurs at 5-6 years of age.



Colorful ferret

The spotted ferret, also known as the European spotted ferret and the Sarmatian ferret, is a rare predator that is found in Southeastern Europe and Asia, including the territory of Bulgaria, and its range is rapidly shrinking.

Overview

The length of the body is 28-38 cm and its weight is 0.7 kg. The tail is 12-20 cm long and has a dark brown end. He has a black-brown belly and his snout is light and covered with dark spots. There are black-brown and yellowish-white spots on the back. The eyes of the motley ferret are larger than those of other ferrets.

Distribution

It is found in Bulgaria, Greece, Romania, Serbia and Montenegro, Turkey, Pakistan, Ukraine, Mongolia, North China, Afghanistan, Kazakhstan and Russia. Lives in open and dry terrain. It generally inhabits steppes, semi-deserts and deserts. It usually lives in fortified and flat sandy areas.



Lifestyle and feed

The variegated ferret is a nocturnal animal. It feeds on rodents, birds and eggs. Lives alone. The variegated ferret is active mainly at night.

Reproduction

According to foreign sources, the dispersal began in some places in early February, and in others (North Caucasus) in May. The pregnancy lasts more than five months, and the number of young in the litter is from four to eight.



Edelweiss (Еделвайс)

Edelweiss grows in inaccessible places in the highlands. Perennial herbaceous plant. Edelweiss is dried and used for decoration, as it retains its beauty for a long time. It grows on calcareous soils. Bees love it because of its honey flowers. Edelweiss flowers are used in medicine for the preparation of drugs against diseases of the lungs, heart and others. The plant is included in the "Red Book of Bulgaria".



The stem of the flower is up to 20 cm high, tufted and covered with hairs. The leaves are very narrow, attached to the stem without stalks and are covered with white silky hairs. Edelweiss blooms in June - August. Its flowers look like an asterisk with about 10-12 petals arranged in a circle.

Distribution in Bulgaria. Stara Planina and Pirin

General distribution. The mountains of Europe: from the Carpathians to the Pyrenees, the Alps, the Central Apennines and Bulgaria. The beautiful silver edelweiss flower, which grows high in the mountains, is the basis of many legends. In France, edelweiss is known as an alpine star because the rocks on which it grows appear to be strewn with stars. In Italy, edelweiss is called a silver rock flower.

The Latin name of the flower Edelweiss *Leontopodium* means lion's paw. Edelweiss is also called the flower of Prometheus. According to ancient Greek legend, Prometheus, who gave people fire, was nailed to the rocks on which edelweiss grows.



One of the legends about edelweiss tells of a princess who was very beautiful. It was time for her to choose a husband and there were many candidates. But the princess was in no hurry. She devised a condition - she would marry the one who brought her edelweiss from the high cliffs. The princess knew that her wish could not be fulfilled easily, as edelweiss grew on inaccessible rocks. Many of the candidates gave up, others tried to climb the high cliffs and paid with their lives for the desire to have the princess as a wife. Only one of the candidates for the princess's hand was the lucky one. He climbed the steep cliffs for days until he managed to reach the beautiful flower. On his return he had to overcome many dangers.

He finally returned to the princess after a long time. She was very happy to have the flower of her dreams. But the lucky one, who got to the flower, was disappointed with the princess when he saw her again. The fact that such worthy men died because of her seemed unbearable to him, and he gave up the desire to marry her.



Another legend tells of two lovers whose parents did not allow them to become a man and a woman. So they climbed the steep cliffs and jumped, holding hands, without fear of death. After they jumped, the rock was covered with beautiful flowers that looked like stars.

It has since been believed that if a man gave edelweiss to a woman, it would forever belong to him and he would never look at another man. And he who has the courage to climb the steep cliffs and tear off the beautiful edelweiss himself, will always be able to enjoy good luck in love.



Yellow mountain cream (Жълт планински крем)

Description: Perennial herbaceous plant, up to 1 m. The stem is leafy along its entire length with lanceolate leaves up to 10 cm long. In its upper part the stem is often branched and each branch in well-developed individuals ends in color. The petals are bright yellow, and with red stamens on the stamens.



Propagated
mainly by seeds.

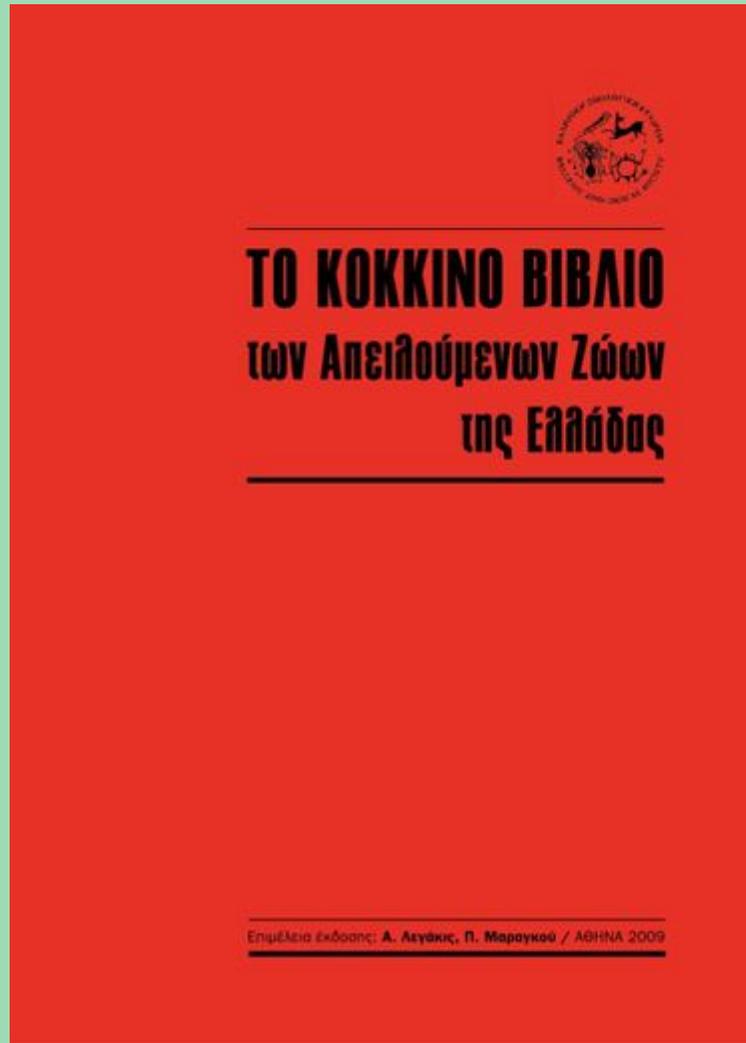


Habitat: Yellow mountain cream grows on grassy places and rocky meadows, on silicate and calcareous terrain. It blooms in June - July. It is threatened by mowing the meadows, grazing cattle and destruction by tourists. It has a very interesting shape, gives a gentle look and harmony. The upright stem, up to 1 meter high, is very tough and when it tries to tear off, it is pulled out next to the bulb itself, so that it is doomed to die. Blooms: June-July.

Ecstatus: Balkan endemic. Protected species from the Biodiversity Act. The species is included in the Red Book of the Republic of Bulgaria. It has a strong and unpleasant odor, which attracts its pollinators. Mountain cream is a Balkan subendemic - apart from Serbia and Bulgaria, it also grows in the Carpathians.



GREECE



The red book of
endangered species in
Greece

Endangered animals

Mediterranean seal (*Monachus monachus*)



Monachus monachus



NAME:

The Mediterranean seal Monachus monachus got its name either because of the shape of the top of its head that looks like it is wearing a Roman Catholic monk's hat or because it does not live in large groups preferring isolation from human presence. It is represented in ancient Greek coins and refers to excerpts from Homer describing it sunbathing on sandy shores.



POPULATION:

This seal is the rarest species of seal and one of the six most endangered mammals on the planet. Most of the population of the Mediterranean seal lives in Greece and specifically in the [Sporades](#).

Monk seals are widely distributed throughout the entire coastline of the country and show a strong preference for isolated and inaccessible islands, islets or parts of the coastline on the mainland. The largest are those at the Northern Sporades Islands .

characteristics:

The Mediterranean seal is one of the largest species of seals in the world and its length reaches 2-3 meters while its average weight is 250 kg. Females mature at 3-4 years of age, while males mature a little later. The lifespan of the seal has not been scientifically proven, but it is estimated to be about 35-40 years.



Diet:

The Mediterranean seal feeds on all species of fish and cephalopods that exist in the area where it lives. An adult seal is estimated to consume 5-10% of its body weight daily. To secure their food, they attack nets, followed by fishing boats and migratory fish species.

Threats:



The main threats to the Mediterranean seal are:

- a) The increased mortality of adults and minors due to deliberate deaths from humans.**
- b) The increased mortality of minors due to loss of suitable habitats.**
- c) The increased mortality of adults and minors due to entanglement in nets.**

In order to protect this beautiful creature from extinction, many organizations were founded such as the National Marine Park of Alonissos and Northern Sporades. This was the first marine park established in Greece and is currently the largest marine protected area in Europe.

Caretta Caretta Turtle



Caretta-Caretta is exclusively a sea turtle with a shell created from horny plates of brown-red character. Scale approximately 90 kg and its length reaches one meter.

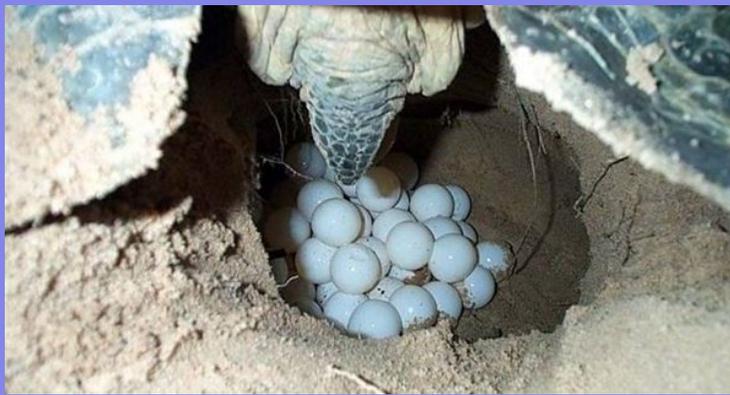


It feeds mainly on marine plants and invertebrates with a particular preference for warblers.

In the Sekania area of Zakynthos is the most important spawning beach of its kind in the entire Mediterranean. Other important spawning beaches for this species of turtle, in our country, are located in the bay of Laganas (in Zakynthos), in the gulf of Kyparissia, in the gulf of Laconia, in Rethymno and Chania.



It lives in the sea, but its perpetuation depends entirely on the land, since there completes its biological cycle, with spawning, hatching, and the subsequent entry of chicks into the sea.



The chicks have to deal with many natural enemies - crabs, seagulls and fish - and their mortality is extremely high. It is estimated that out of every thousand turtles, only one survives and grows up!



Abandoned and in-use fishing gear is responsible for many turtle deaths.

The loss of suitable spawning grounds and the introduction of new predators have also affected the turtle population as well as the pollution of the environment.



Endangered plants



Veronica oetaea

Veronica oetaea is a tiny plant and its main feature is the short biological cycle that does not exceed three weeks. However, it is included in the Red Book of Rare and Endangered Plants of Greece as a critically endangered species.



It is an endemic plant of the mountain of Oiti and grows in the seasonal lakes of Oiti, in the Livadies plateau, at the top of Greveno and in the place Alykaina of the Oiti National Park. Veronica is found only in Oiti and nowhere else in the world.

It appears and grows for a short period of time (2-3 weeks), so it is a plant with a very short biological cycle, perhaps one of the shortest in the plant kingdom and is not easily recognizable, as it is a small plant (up to ~ 5 cm height) with small white flowers.

The sites (habitat) are three small seasonal lakes, characteristic of the Mediterranean ecosystems of high altitude and Veronica grows when they dry, around the end of May to the middle of June.

Its main threat is the movement of wheeled vehicles (4x4 cars and motorcycles) off the forest road and in the areas where it grows. However, it is also threatened by other human activities due to the ignorance that exists about the special importance of the species.



Alyssum tenium



The flora of Tinos includes 34 endemic, rarely endangered or protected species. One of them is Alyssum tenium.

The vegetation of the island is the typical phryganic vegetation of the Cyclades, while the maquis is limited to a few slopes and streams. Abandoned terraces are ideal places where many rare species grow.

The most important of these is the strait endemic

[Alyssum tenium](#) that grows only on the island of [Tinos](#).



It grows to 10–100 cm tall, with oblong-oval leaves. Alyssum flowers are characteristically small and grouped in terminal clusters, they are often yellow or white colored but can be pink or purple.

Endangered species of animals and plants are listed in Portugal red book.





Among the creatures facing extinction within 50 years, if drastic action isn't taken in terms of conservation and protection of habitats, are the ***Iberian Wolf*** and the ***Black Vulture***.



Iberian Wolf

The situation of the Iberian wolf has been worsening due to the decrease in its natural prey. The more hunting is practiced, the less food the wolves have and with the lack of natural food, the wolves go out hunting for cattle, causing the discontent of the breeders. As a way to solve the problem, the breeders end up chasing and proceed to illegal slaughter.

In the last decades, several measures were taken to preserve the Iberian wolf and in 1988 it became a species protected by law in Portugal. In 2005 the Iberian wolf was classified as “Em Perigo” by the Portuguese Red Book of Vertebrates.

Despite the various efforts and the implementation of protection and conservation measures, the results are not immediate, because the conservation of a species takes time and eliminating the threat factors is not easy.

Black Vulture

We can find Black Vultures (*Aegypius monachus*) in the East and South Center of the Portuguese mainland, along the border region of “Beira Baixa” and “Baixo Alentejo”, being also a sporadic visitor in the Douro International area.

Predatory and scavenger species have suffered a great decline due to the decrease in wild prey, which has been disappearing due to direct persecution, illegal poisoning and loss of habitat.

Vultures are considered “opportunistic birds” and despite the decrease in species in Portuguese territory, this vulture ended up adapting to the scarcity environment and opted for other food alternatives, ending up feeding on cattle carcasses, such as sheep and goats.

In addition to the lack of food, the main cause for the decrease of the vulture in the last decades, was the persecution, through the use of poisons.





In 2010, four individuals from Spanish black vulture colonies crossed the border and successfully reproduced in Portugal. This small nucleus has been increasing and there are now approximately 13 couples in the same border area. In the late 1970s, the black vulture was reduced to a few hundred individuals, however, it is now estimated that, between Portugal and Spain, it exceeds two thousand couples.

Four-leaf clover

The four-leaf clover has not been seen in Portuguese territory for almost 4 years. This is not the *Trifolium* with genetic mutation, which we would all like to find as a symbol of luck, but rather, the aquatic fetus *Marsilea quadrifolia*, whose last known population nucleus in Portugal was located near the mouth of the Corgo River, in "Trás-os-Montes".

According to data from the Portuguese Botanical Society, that habitat has not been home to this species since 2006 and the last time it was observed in Portugal was in 2014.

This fetus has not yet been declared extinct, but it could become one if it remains unseen until 2027. For now "it has the status of critically endangered, as there are continued declines in terms of the extent of occurrence, area of occupation, habitat quality, population size and number of locations.



Armeria Sampaio

This threatened plant owes its condition to the pressure caused by recreational activities that occur in the region where they are located.

They are often found in mountain areas along stony meadows and between cracks in granitic rocks.

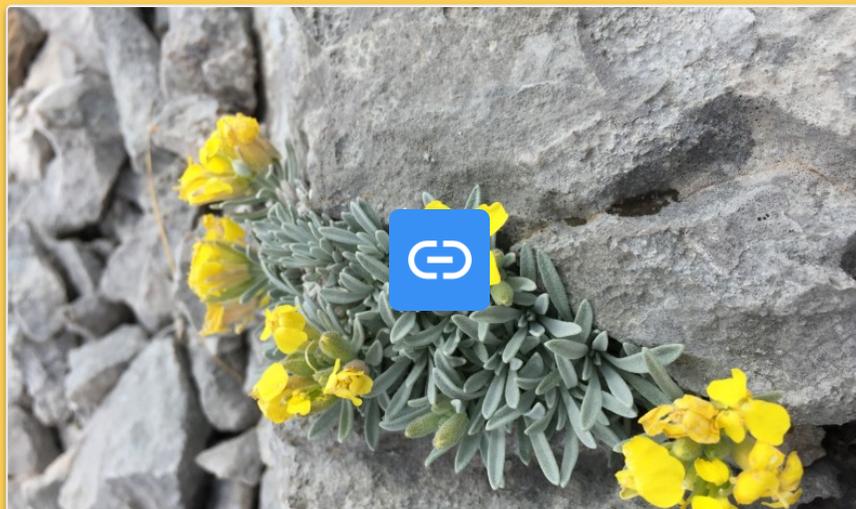
This plant is protected by the Portuguese law.



A vibrant sunburst graphic with a central orange circle and numerous rays extending outwards, set against a yellow background. The rays are a darker shade of orange.

CROATIAN RED BOOK

Endangered plants in Croatia



Zaštićene biljke u Hrvatskoj

PERUNIKA

Croatian national flower



Flowering time is from May to July

Cylindrical, creeping and permanent rootstock

The leaves are usually blue

**For medicinal purposes, it is mainly collected
in podanak**

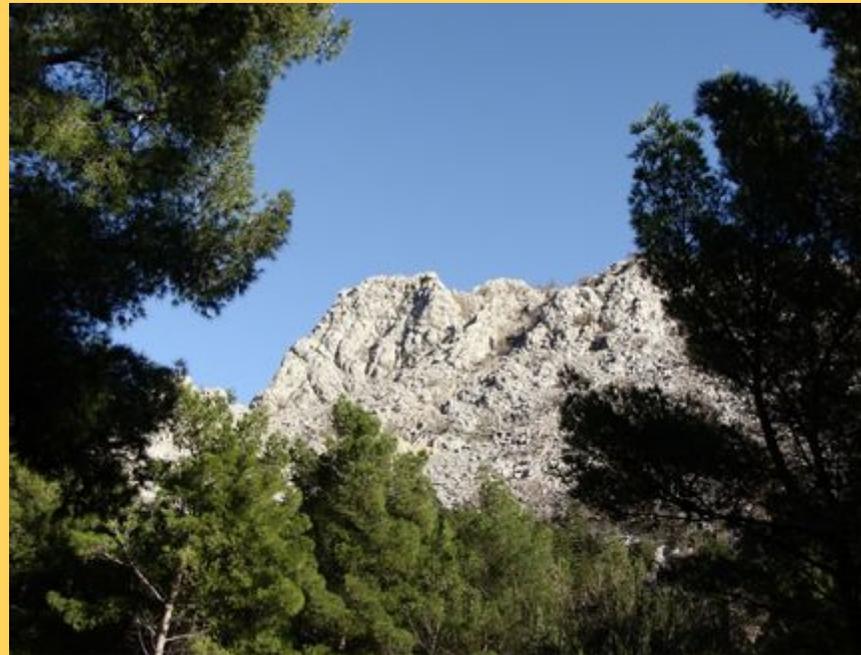
**The most famous sites are: Medvednica,
Strahinčica, Samoborsko gorje, Ogulinsko
polje.**



Maps can only be
viewed online



**Velebitska degenija -
from Croatian mountain Velebit**



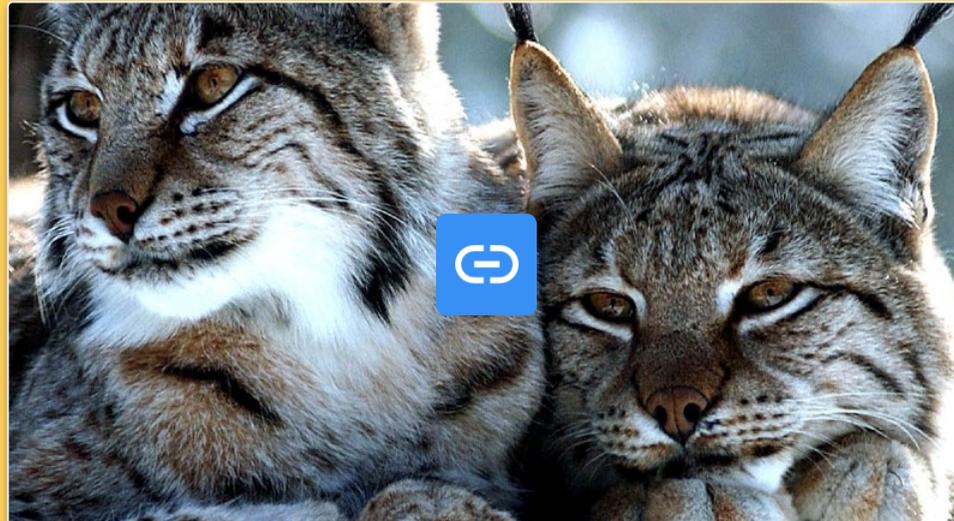


Velebit degenia is an endemic plant from the Brassicaceae family. Strictly protected species, a symbol of Velebit and Croatia, is on a 50 linden coin. The rarest plant in Croatia. Velebit degenia is a gentle and modest plant. Its stem is up to 10 cm high. The leaves are narrow, lanceolate, pointed apex clustered in rosettes and silvery white. It blooms in May and June. It has beautiful yellow flowers. The fruits are grayish. The root is long and is drawn into the cracks of the rocks and under the stones. Grown in culture on karst rock, it is not long-lived and must be constantly renewed.

Search for velebitska degenija on the mountain



Endangered animals in Croatia



Zaštićene životinje u Hrvatskoj

Čovječa ribica - human fish



It lives in the groundwater of Slovenia, Croatia, Bosnia and Herzegovina and Montenegro.

It feeds on water shrimp, worm-like animals, insect larvae and mollusks

It is permanently protected by the law on nature protection.

Human fish is endemic to the Dinarides.

Their bodies are elongated and the adults have external gills

Her body is whitish-yellow or white-reddish in color



VIDRA

-

OTTER



Semi-aquatic animals of the marten family.

She has a long and slender body, short legs and a long tail.

Her fur is brown to dark brown.

The otter most often feeds on fish, but also on crabs (33%) and frogs.

The otter is mostly active at night, and during the day it lies in a den, a shelter above the ground.

She has a well-developed sense of sight, hearing and smell.

They are solitary animals, they are found with individuals of other species (only at the time of mating).

OTTER





*Protected
animals and plants
of Slovakia*

Tatra highland chamois

Rupicapra rupicapra tatrlica





Tatra National Park

The Highland chamois is a subspecies of the Highland chamois that lives in all parts of the Tatras. It is part of the logo of both national parks in the High Tatras. It lives in herds in alpine terrain above the forest line.





Illustrated by Ivana

Adult males are approximately 80 cm long, 70-80 cm tall and weigh 25-35 kg. Women are smaller, they also have conical horns, but are slightly less strong and less curved than men. Chamois feed mainly on grasses, lichens and herbs. In summer, chamois have a rusty to rusty brown color. On the contrary, in the winter months, their thick and dark coat protects them from frost.

The natural enemies of chamois are mainly the lynx and the bald eagle. Permanent occurrence in Slovakia was documented in 2.6% of the territory, temporarily in 0.2%. The Tatra chamois is one of the critically endangered animals.



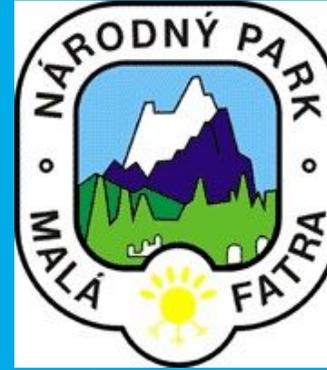
In 2006, there were 371 chamois in the Slovak Tatra National Park. In 2010, the population grew to 699 people. Since 2018, about 1,010 people have lived here. Due to concerns about the survival of chamois in the original mountains, this species was artificially introduced to the Low Tatras in 1969-1976. 30 individuals were introduced and the current population is approximately 100 individuals.

Lyrics by Marián



Lynx - Lynx lynx

Malá Fatra
National Park



The lynx is found in a group of endangered animals. Approximately 7,500 people live in Europe. Its occurrence is about half of the territory of Slovakia, in Slovakia it is about 400 individuals.



In Slovakia, its number is constantly increasing due to the fact that since the Second World War it has been constantly on the list of protected animals. Before 1964, its incidence was only 6.3% of the territory, after 1964, the incidence increased to 28.3% of the territory. It is currently located in 52.8% of Slovakia.

It is usually located at an altitude of 800 to 1,000 meters above sea level. In Slovakia it is in the Carpathians and in national protected parks.



The lynx hides in its prey, but if it can't catch it quickly, it usually stops chasing the victim. He has excellent eyesight, he can recognize larger prey, such as roe deer, even at 400 meters.

Since 1999, a project has been underway in the Malá Fatra National Park to find out whether it is possible to return lynx born to lynx to nature.

The project was successful, in 2010 the document Return of Features was a lynx.

Lyrics by Dionysus



Illustrated by Ivana

LEKNO BIELE -
Nymphaea alba



It is an aquatic, legally protected plant, which is rare in our country.

It has striking and large floating leaves, but especially distinctive white flowers.

It blooms from June to August. The flowers have a diameter of 10 - 20 cm. They open only on a sunny day and only two to seven days.



It is a perennial plant. It overwinters the lower part of the plant, from which new leaves and flowers grow in the spring. It has a rich root system on a muddy bottom, from which long leaf stems grow.



Illustrated by Marián

The water lily is still surrounded by water. It grows in the lowlands of southern Slovakia in lakes, calm or peaceful waters. They also grow it in gardens and parks. Different shades of color were bred. It occurs mainly in Jurská Šura and in the Danube and East Slovak lowlands.

Lyrics by Ninka



Illustrated by Ivana

Illustrated by Sofia



Borovica limbová - *Pinus cembra*



It is an alpine coniferous tree that grows scattered along the upper border of the forest. He will live to be old, 400 years old and allegedly up to 1,000 years old. It is very frost-resistant, withstands low temperatures down to -60°C . They usually measure 15 - 25 meters.



It is a thermophilic tree demanding soil, moisture, adapted to the continental climate. It has a continuous straight trunk and a dense conical to cylindrical crown.

Limbo wood has been highly valued in the past for its quality in furniture, carpentry and diesel. Today it is less endangered (population is growing) and occurs mainly only in national parks. In Slovakia, it occurs only in the High Tatras on the upper border of the forest. Its current share is 0.02%.



Lyrics by Marián

Illustrated by Ninka



The following were used in our book:

Texts: Pupils of primary school with kindergarten in Horná Ždana

Illustrations: Pupils of primary school with kindergarten in Horná Ždana

Images: Creative Commons License

Videos: youtube

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„Rivers Introduce Valuable Environmental Reaction and Sustainability“

has been funded with support from the European Commission. This publication reflects the views only of the author, and the Commission cannot be held responsible for the information contained in this publication.

Co-funded by the
Erasmus+ Programme
of the European Union

