



**Nacionalni park**  
Sjevorni Velebit

ENGLISH

## The youngest National park

Giant, seemingly bare blocks of rock with many cracks, dense woods, glades, small and large grassy karst valleys, pits, sinkholes, ice caves, ponds and karrens. Northern Velebit area is a true mosaic consisting of various habitats of different plant, fungus and animal species the wealth of which we just began discovering.

This variation of karst forms, living creatures and landscapes was the reason for the establishment of the Northern Velebit National park. It is a part of National Ecological Network, a system of most valuable areas with endangered species, habitats and landscapes in Croatia.

## Present Protection of Velebit

Within the UNESCO's MAB program – Man and Biosphere, in 1978, the Velebit mountain was included in the network of World biosphere reserves. Three years later, Velebit became a Nature park.

The area covered by the Northern Velebit National park also includes previously protected areas – the *Hajdučki i Rožanski kukovi* Strict reserve, *Visibaba* Botanical reserve, and *Zavižan-Balinovac-Velika kosa* Botanical reserve, which hosts the famous Velebit botanical garden, declared a monument of park architecture.



**Velebit Nature park**  
01 Northern Velebit National park  
02 Paklenica National park

**Park in numbers**  
SURFACE AREA 109 km<sup>2</sup>  
LENGTH around 18 km  
WIDTH 4-10 km  
ALTITUDE 518-1676 m  
HIGHEST PEAK Veliki Zavižan



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- 01 View of Rožanski kukovi from Premužić trail
- 02 Croatian sibirea (*Sibirea altaiensis* ssp. *croatica*)
- 03 Ural owl (*Strix uralensis*)

## Creation of the karst mountain

The landscape of Northern Velebit National park is characterized by an outstanding karst relief whose diversity, quantity and complexity of forms make it one of the most interesting and attractive karst areas in the world. Sinkholes, grikes, karren, stone columns, caves and pits are amongst many karst forms giving this area perfect diversity, harmony and beauty and are therefore a trademark of Northern Velebit National park.

The crucial factors in the formation of this impressive karst relief were advanced thickening of carbonate sediments, intensive tectonic activity which caused the unique shape of the relief as well as carbon dioxide enriched water which keeps incessantly dissolving carbonate sediments.

The area of Northern Velebit National Park consists of sediment rocks which gradually formed in an ancient shallow sea in which sea algae, fish and other animals lived and bread through long geological periods. In such marine environment, which was only a few tens of meters deep, carbonate mud, sand and skeletal remains of the sea creatures settled out. The process of hardening or cementing turned this complex material into carbonate deposits hundreds and thousands of meters thick. These very deposits make the mountain mass we call Velebit today.

Velebit is a relatively young mountain. Its rocks began to elevate above the sea level approximately 40 million years ago with the period of strongest elevation centering around 23 million years ago. Elevation of Velebit is still going on to this very day and will most likely equally continue in the future.

- 04 A stone guard
- 05 Karren
- 06 Sinkholes
- 07 Shallow sea



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# A mysterious world

Hidden from your eyes, deep down in the bosom of Northern Velebit, is a realm of another world. This is an empire of underground karst forms – caves and pits, which are unique speleological features.

Pits are typical underground karst forms created by chemical and mechanical weathering of rocks in a tectonically broken terrain. They contain vertical or steeply tilted channels whose total inclination exceeds 45 degrees. Caves, on the other hand, are speleological forms which contain horizontal or only slightly inclined channels.

More than 220 speleological features had been discovered in the area of Northern Velebit National Park by 2009. Over 95% of them belong to the group of pits. The Park area, especially the Strict reserve Hajdučki i Rožanski kukovi hosts many deep pits, so it belongs to the most interesting speleological localities in the world. The following three pits with depth over 1000 m have been discovered in the Park: Lukina jama – Trojama pit system, Slovačka jama and Velebita.

The pits are home to quite a few unusual living creatures which are adapted to permanent darkness, high moisture and unchanging temperature. Thirty three species of these animals had been identified in 20 speleological objects within the Park by 2009. Some of these species are endemic, i.e. indigenous to Northern Dinaric Alps and Northern Velebit. The most popular underground species by far is the highly endemic Velebit leech. So far, it was identified in only four deep pits in Hajdučki i Rožanski kukovi strict reserve.

08 Entrance to the underground

09 Ice barriers

10 At the bottom of a pit

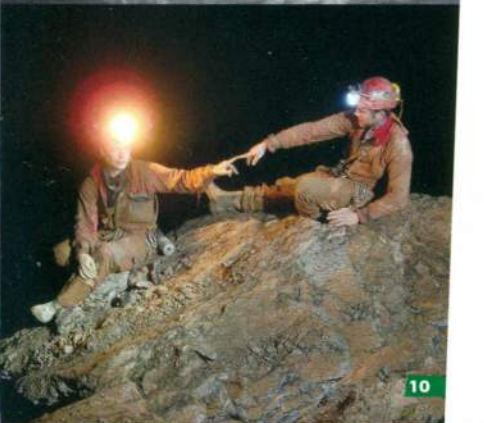
11 Velebit leech (*Croatobranchus mestrovi*)



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# A treasury of life

The air view of Northern Velebit National park reveals a fascinating mosaic of dark coniferous and mixed forests, steep rocky peaks and cliffs interwoven with grasslands of all sizes. The rough beauty of this place is shaped by climate. Plants, animals and fungi that live here must be adapted to extreme conditions.

Among many beautiful and stunning creatures living in Northern Velebit are many rare and endangered species, such as the bear, wolf, lynx, chamois, capercaillie, golden eagle, ural owl, Tengmalm's owl, alpine chough, three-toed woodpecker, apollo and purple-edged copper butterflies, *Gymnopilus picreus* and *Tetraea dumbirensis* fungi, great yellow gentian, common bearberry, fairy's thimble, Croatian pink, karst edelweiss, Bosnian lily and orange lily.

The highest Velebit peaks are covered in mountain pine, spruce, beech and sycamore. The inland slopes are covered in beech and mixed beech and fir forest, while the seaside slopes are overgrown with downy oak and oriental hornbeam and European hop-hornbeam. Thanks to the careful management of forests in the past, and also to the inaccessibility of this area, the forest ecosystems in the Park are very well preserved. The presence of dead and old trees in the forests provides the habitat for five out of nine European woodpecker species. The Northern Velebit forests are also



12 Chamois (*Rupicapra rupicapra*)

13 Edelweiss (*Leontopodium alpinum*)

14 The trees of subalpine beech forest are pipe-shaped due to snow pressure

15 White-backed woodpecker (*Dendrocopos leucotos*) can be seen in beech forests of Northern Velebit

extremely rich in fungi which, by decomposing, return nutrients to the natural circulation, and are thus essential to the health of the whole ecosystem.

Grasslands open up the area and constitute a valuable segment of the landscape. They enrich the species and habitat diversity, as the animals and plants living on them are specific to grasslands. Although one might think that they have been here forever, almost all of Velebit grasslands have been created by man. Once created, the grasslands were maintained by pasture, mowing and removal of trees and shrubs. As they have been abandoned and are currently not being maintained, the grasslands are gradually converting back to forests. Grasslands are thus the most endangered type of habitat in the Park, facing certain disappearance. This is why they require active protection: removal of trees and shrubs, mowing and pasture. In the wealth of grassland flora and fauna, butterflies catch the eye. As there are many species and individuals, the butterflies and moths are very important in the food web, and are one of the main sources of food for numerous birds.

The conditions on the rocky terrain are a bit like the conditions in the desert – there is no shelter from the sunshine, which is more intensive in the mountains due to thin air, and the water does not stay on the rocks for a long time. The rocky terrain is made of two types of habitats – the rocks and the scree. Although it seems bare and uninhabited, the surface of rocks is covered in lichen. Less resistant living organisms find their homes in cracks among the rocks, and the endemic Horvath's rock lizard is one of them. Thanks to its flattened body shape, it can crawl deep into the crevices. Scree is a loose aggregation of broken rocks, often found on slopes. It is an unstable foundation, and the soil and water are located deep inside.

16 In the past Mirovo was one of the largest summer settlements on Velebit Mt.

17 Mountain alcon blues (*Maculinea arion f. rebeli*) mating

18 Plants rooted in rock crevices

19 Croatian savory (*Micromeria croatica*)



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## Man's trace

The long presence of man has left a specific mark on the landscape of Northern Velebit. Shepherd's huts, drystone walls, traditional paths and ponds are current reminders of this. Grasslands that give a special charm to this place were formed through clearing forest land for pasture and growing crops. Residents of settlements on Velebit littoral slopes used to graze their livestock on the mountain – sheep, goats, cows and horses. During the brief summer periods they used to farm small, cleared areas of land.

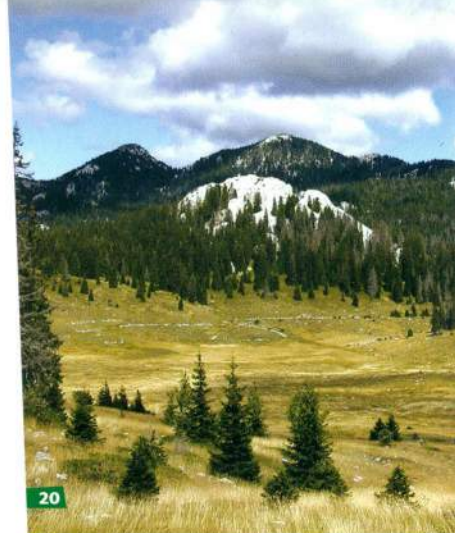
Northern Velebit mountaintop had no permanent settlements – the climate was too tough for this. This is why the highest zone was used only during the warmer part of the year, and the seasonal moving took place in several „stages“, depending on the weather. While staying in the mountain, people used to live in „summer huts“. These were simple housings built of roughly chiselled stone, with roofs covered by wooden shingle. There are records of tens of summer settlements with shepherd' huts in Northern Velebit National park.

To ensure sufficient water, which was always scarce in karst areas, people used to build stone reservoirs (cisterns). The livestock was watered in ponds that were built around by stone and regularly maintained. During the most severe heat, they brought snow and ice from ice caves.

20 Veliki Lubenovac is among the biggest grasslands in the Park, with the remains of summer huts

21 Summer huts

22 The outer mouth of a cistern, carved from a single stone



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# Explore and experience Northern Velebit

**Northern Velebit National park** is the right destination for those preferring active holidays in nature – mountain climbing, walking, trekking and cycling. It is criss-crossed with approximately thirty mountain paths offering visitors various possibilities for recreation. Only by taking a walk will you discover some of the most beautiful and most charming places!

## Educational trails

In order to make your stay at the Northern Velebit National Park more interesting, we placed educational panels along some of the existing mountain paths and shepherds trails. They will help you learn more about the natural and cultural values of this area.

**Staza zviri** ("Trail of beasts") – it connects the Park entrance point – Babić Siča to Zavižan mountain hut. The walk takes around 1.5 hours.

**Trag čovika** ("Trail of Man") – also connects the Park entrance – Babić Siča to Zavižan mountain hut, but on the seaward Velebit slope, by way of old shepherds trails.

**Velebit botanical garden paths** – on the occasion of Garden's 40<sup>th</sup> anniversary, fifteen educational panels were placed along its paths which teach you more about the plants and their diversity.

**Premužić trail** – Along the section of the trail crossing Northern Velebit National Park, 26 educational panels are placed, forming an educational mosaic on the area's geology, speleology, plants, animals and cultural heritage.

- 23 Conquering peaks
- 24 Cycling through nature
- 25 Educational trail starting point at the entrance to the Park
- 26 Educational panels are gladly read by children and adults



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## Zavižan

Zavižan is one of the most popular localities within the Northern Velebit National park. The Zavižan mountain hut is located at 1594 m asl, below Vučjak peak. This is the oldest mountain meteorological station in Croatia, founded in 1953. If you take an extra step and climb for another fifteen minutes to one of the surrounding peaks, you will have a beautiful view of the Kvarner islands and Lika inland. The Zavižan views are the very ones leaving our visitors breathless.

## Velebit Botanical Garden

In close proximity to Zavižan, some fifteen minutes on foot from the mountain hut, is the Velebit botanical garden, founded in 1967 on doctor Fran Kušan's initiative. The idea its founders followed is still living: to make the Velebit flora available, not only to scientists, researchers and Velebit lovers, but to all visitors of the area.

Symbol of the Velebit botanical garden represents the endemic plant - Velebit degenia in fruit. Degenia is indigenous only to the central and southern part of Velebit, while in the National park it can only be seen in the Velebit botanical garden, where it was brought by man.

- 27 View from Veliki Zavižan peak
- 28 View of Kvarner islands
- 29 Entrance to Velebit botanical garden
- 30 Velebit degenia (*Degenia velebitica*)



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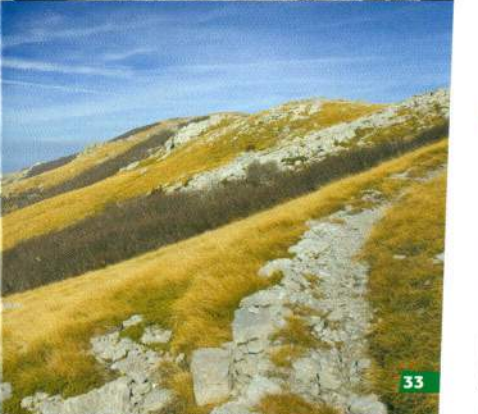
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## Alan - Mirovo

Alan and its surroundings are areas of vast grasslands, valleys and picturesque peaks. Alan also offers a beautiful view of the sea and the islands. Very close to Alan is Mirovo, a former summer mountain settlement. Today, this is just another Velebit grassland with visible remains of drystone walls and old summer dwellings. In the past, Mirovo was one of the biggest settlements on Velebit.

## Štirovača

The Southern part of the National park covers a segment of Štirovača – a large karst valley at around 1100 m altitude, known for its vast preserved coniferous forest. Štirovača is one of the rare localities in the Park with a source of potable water and a few creeks supplying water to the surrounding grasslands.

In the past, Štirovača was a very lively place, especially during warmer summer months. There was a sawmill there, a restaurant, houses where farmers lived with their families, forest workers, sawmill workers...

## Premužić trail

The Premužić trail is considered to be a construction masterpiece as it is built of stone – drystone, and laid in such a way as to lead us into the roughest and craggiest parts of the Northern Velebit - Hajdučki i Rožanski kukovi in a very easy way. It was built in the 1930s. It is 57 km long, and it is laid along Velebit mountain ridge from Zavižan to Baške Oštarije in Central Velebit. The trail was named after its designer and builder, forestry engineer Ante Premužić, a passionate mountaineer and Velebit lover. As there are no difficult climbs, it is suitable for visitors not used to mountaineering. Premužić trail is officially protected as national cultural heritage.

31 Premužić trail - a favourite destination of all nature lovers

32 A monument to the builder

33 Grasslands on the slopes of Alan

34 One of Štirovača streams



## How to reach us

### Northern part of the Park – Babić Siča Entrance – Zavižan, Velebit botanical garden

Babić Siča (1300 m asl) is in the Northern part of the Park and it is the main entrance for all those who want to visit the area of Zavižan and Velebit botanical garden. You can reach Babić Siča from direction of Oltari, by gently climbing the asphalt road in the length of 10 km. Oltari are 10 km away from Krasno and 12 km away from Sveti Juraj on the Adriatic coast. There are 7,5 km of non-asphalt mountain road from Babić Siča to the Zavižan mountain hut.

### Southern part of the Park – Štirovača and Alan

If you want to visit the area of Štirovača, you can drive along the asphalt winding road for 29 km from Krasno. If you're going to Alan, turn to the West three km before descend to Štirovača valley, in direction of Jablanac and drive around 9 km on a non-asphalted road with no steeper climbs to Alan mountain hut. From the Adriatic motorway, above Jablanac, you can also reach Alan mountain hut taking a 25 km long asphalt, but pretty narrow road. You can reach Štirovača also by taking a forest asphalt road from Gospić, via Pazarište.

Roads leading to the Northern Velebit National park and through it are partly macadam. Please check their condition and the possibility of passing through with the Park Management. Check if you have enough petrol because there is no petrol station in Krasno and the nearest stations are in Otočac (25 km from Krasno) and Senj (35 km from Krasno). Make sure to calculate the distance you plan to cover by vehicle and get sufficient supplies of petrol.

# Advice and rules of conduct

By respecting the wilderness and behaving adequately you will make your stay at the National Park more pleasant and comfortable. Please respect the following rules:

- Always bring enough water.
- Wear high and strong shoes.
- Bring enough warm and waterproof clothes, and protect your head from the sun.
- Watch your step and check before you grab anything while climbing or descending.
- If you see bears, do not try to follow them, but stay calm; do not, under any circumstances, try to approach cubs.

## In the area of the Northern Velebit National park it is not allowed to:



MAKE LOUD  
NOISE



THROW  
WASTE



CAMP



LEAD DOGS  
NOT ON A LEASH



DISTURB  
THE ANIMALS



MOVE OUTSIDE  
PATHS AND ROADS



MAKE  
A FIRE



PICK PLANTS AND  
MUSHROOMS

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