TRIGLAVSKI NARODNI PARK

THE POKLJUKA PLATEAU & ITS PEAT BOGS

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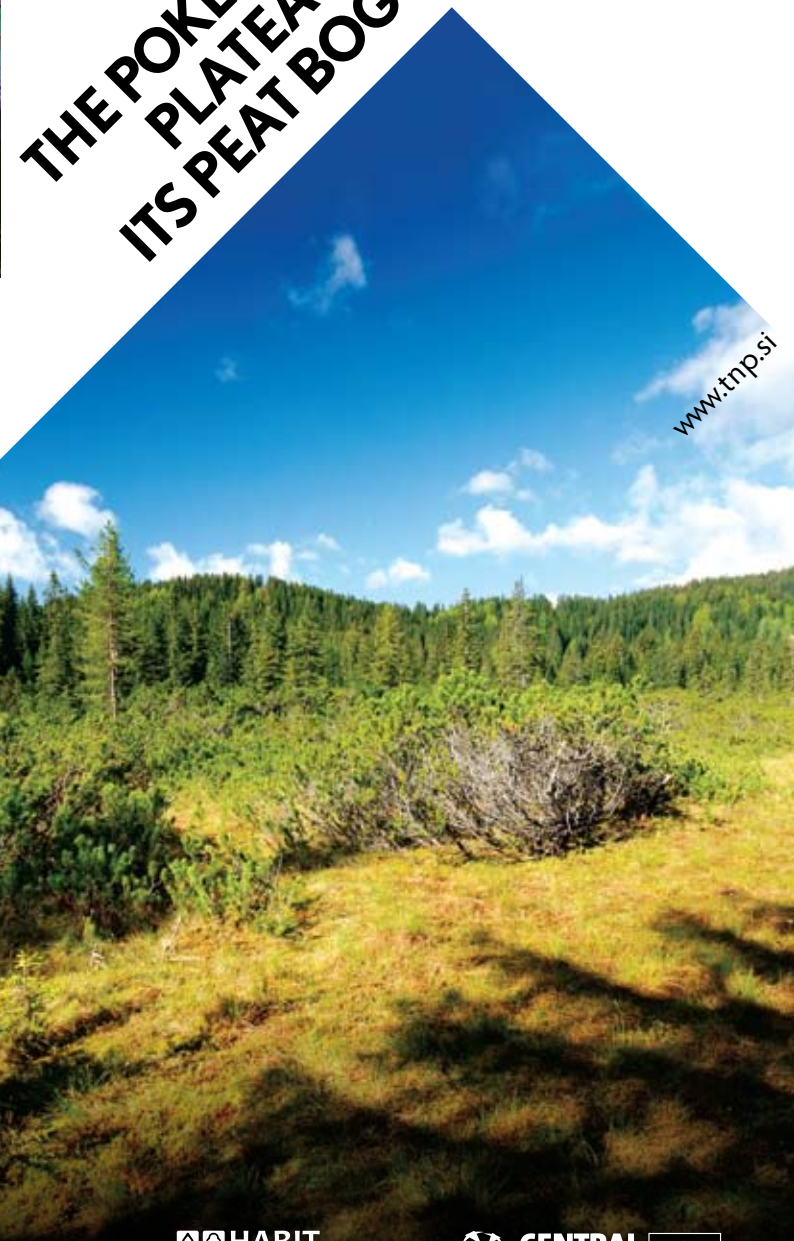

HABIT-CHANGE
adaptive management for protected areas

CENTRAL EUROPE

THE POKLJUKA PLATEAU & ITS PEAT BOGS

Natural bridge

Lipnik spring

Bog iron

Pokljuka is the largest of the highland plateaus in the Julian Alps. It stretches at an altitude of 1200 to 1500 meters, at the eastern edge of the Triglav National Park. To the south, the plateau descends towards the Sava Bohinjka Valley, to the north-east it slopes towards the Radovna Valley, and in the north-west it extends as far as the mountain ridge above the valley of Krma. Although Pokljuka's even relief resembles that of dinaric karst plateaus, glacier activity and pastoral economy have given it a distinct alpine appearance. Karst formations found on Pokljuka include shallow depressions (*konte*), pits and caves. Retreating glaciers deposited ground moraines on which hummocky meadows were gradually formed.

Fresh surface water is scarce due to limestone bedrock; most water sinks rapidly into the ground, flowing unseen along the vast underground systems. At the foot of the plateau, hitting upon impermeable rock, ground water bubbles to the surface in numerous karst springs. The only surface water body on Pokljuka is the area of bogs, former glacial lakes created by receding glaciers.

A number of archaeological sites recall the rich history of Pokljuka. Surface bowl-shaped depressions resembling lunar craters were long believed to be geological formations. However, it was later discovered that these were actually opencast pits for bog iron, which was melted in foundries to produce pig iron.

Forests are the most important natural resource of Pokljuka. As nearly all available beech was cut to make charcoal for the iron industry, spruce is now the predominating tree species. Due to site characteristics and short vegetation period the spruce wood from Pokljuka has specific resonating qualities (resonant wood). Today, beech wood is primarily used as fuel wood, while spruce is used as timber.

Norway spruce wood for timber industry

Bohinj Cika cattle

Alpine dairy farming has a long-standing tradition on the Pokljuka plateau. Today most cattle stay on Pokljuka throughout the grazing season but in the past they only grazed on the plateau for a short period of time before they were herded to high-altitude pastures. Pokljuka pasturelands are also a grazing grounds for an autochthonous cattle breed, the Bohinj *cika*. The reddish cattle with a typical white spot are known for their adaptability, long life period, excellent maternal instincts, and stubborness. In summertime shepherds use cow milk to make delicious Bohinj cheese.

The floral and faunal diversity of Pokljuka is also impressive. Large forests are home to countless inhabitants. The undergrowth is thick with species which prefer the acidic soil of spruce forests. Stag's-horn clubmoss, cranberries, blueberries, wood sorrel and greater wood rush are just several of the plants thriving in the shadow of spruce trees. The diversity and abundance of mushroom species is most evident in years when rain is plentiful. The variety of ecosystems and bounty of food attract many animals. Tree canopies host a myriad of birds, including treecreepers, ring ouzels, chaffinches, boreal owls, hazel grouses, capercaillies and several representatives of the Paridae family. Red and roe deer graze in the open grasslands and forest

Capercaillie

clearings. Puddles and wet patches are home to several amphibian species. In the group of large predators, the wolf and brown bear are occasional visitors.

Extensive forests conceal a special ecosystem typical of Pokljuka – peat bogs. Bogs are areas of stagnant water, covered with a layer of peat ranging in size from several decimeters to several metres and overgrown with bog mosses.

Common frog

The process of bog creation began after the last glacial period. Glaciers receded, leaving small lakelets behind. Throughout the millennia, these filled with organic debris of aquatic plants populating the lakes. Increasingly acidic water promoted the growth and development of certain plants. The area was settled by bog mosses which are still the predominating species overgrowing the bog surface. Bog mosses take roots in the upper layers, and carbonise in lower layers. The surface grows upwards steadily, creating a typical dome-shaped form of a raised bog.

Shrubby lichen

Apart from acidic soil, peat bogs are also characterized by low nutrient supply and high differences in temperature between day and night. During evolution, plants have developed different methods to adapt to these conditions. Several species have developed the ability to trap and eat animals, others obtain nutrients through their partnership with fungi. Plants store water in storage flasks, in tissue or in specially adapted organs. In order to minimize water loss, several plants have developed thick waxy leaf surfaces or extensive root systems.

Peat moss

Round-leaved sundew

Peatbog mushroom

Most animals observed in a bog may otherwise be residents of other wetlands, nearby forests or meadows. Permanent bog residents include several species of dragonflies, true bugs, butterflies, water beetles, and mosquito larvae.

Peat bogs are a very rare habitat in Slovenia, and can only be found in their pristine form on the plateaus Jelovica and Pokljuka and in the Pohorje mountain range. At lower altitudes peat bogs were dried up to obtain farmland or for peat production. A highly sensitive ecosystem, peat bogs are protected under the EU legislation and included in the NATURA 2000 network.

Outstanding natural assets of Pokljuka give the plateau an important role in establishing a permanent balance between nature and man in the Triglav National Park and wider, in Slovenia and Europe. ◆

White-faced darter

THE GORELJEK PEAT BOG NATURE TRAIL

The Goreljek Peat Bog Nature Trail gives the visitors a detailed presentation of the features of Pokljuka and raised bogs. The trail is circular, spans about one kilometre and has five educational stops equipped with information boards. A surfaced path around the bog, supplemented by an occasional floating floor or a bridge, ensures safe walking. The trail welcomes visitors of all age groups. Guided tours of the trail can be arranged with the Triglav National Park Authority.

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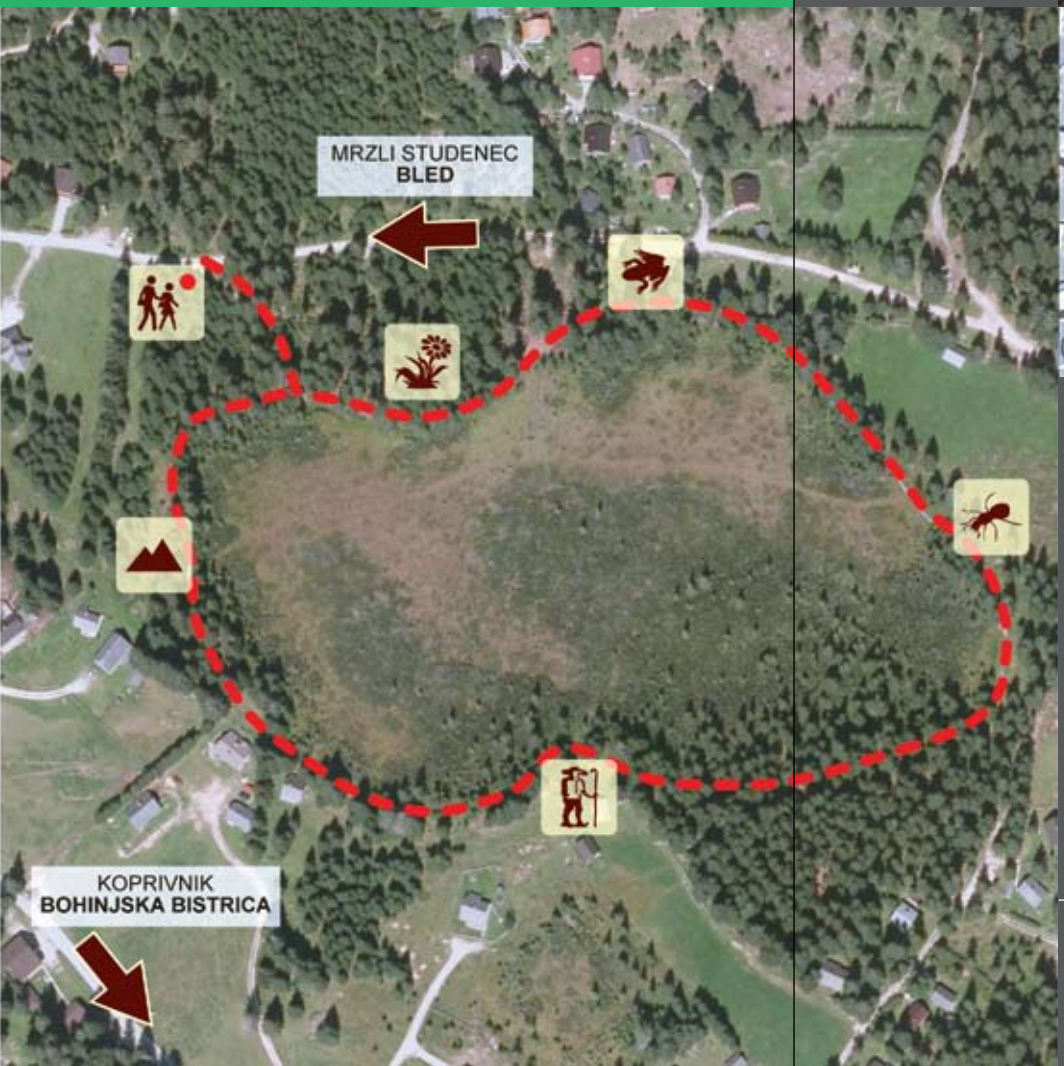

STARTING POINT — GPS E 46°20' 9.67" N 13°58' 3.00"

VEGETATION ON THE BOG

FAUNA ON THE BOG

ANT-HILL

HUMAN ACTIVITY

BOG FACT FILE

0 75 150 m N

Source: SI Public Info, SMARS, DOF (2011).
Cartography: JZ TNP, 2013.

RECENTLY, THE POKLJUKA PLATEAU HAS BEEN UNDER CONSIDERABLE PRESSURE. IN ADDITION TO TRADITIONAL ACTIVITIES, POKLJUKA IS USED FOR AN INCREASING NUMBER OF RECREATIONAL ACTIVITIES WHICH ADVERSELY AFFECT THE AREA'S BIODIVERSITY. OTHER CHANGES ARE CLIMATE-INDUCED. EXTRAORDINARY WEATHER PHENOMENA SUCH AS STORMS, FLOODS, DROUGHTS AND WIND-THROWS, PEST OCCURRENCE, CHANGES IN ECOSYSTEMS AND CHANGED IN THE BIORHYTHMS ARE AMONG THE CHALLENGES WHICH WE WILL NEED TO FACE IN THE FUTURE. IN TURN, THIS REQUIRES CERTAIN CHANGES AND ADAPTATIONS OF MANAGEMENT PRACTICES AT NATIONAL AND EUROPEAN LEVELS. IN THE FRAMEWORK OF THE HABIT-CHANGE PROJECT THE TRIGLAV NATIONAL PARK PARTICIPATED IN THE PREPARATION OF REPORTS ON ADAPTIVE MANAGEMENT IN CENTRAL EUROPE.

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HABIT-CHANGE
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NATURA 2000

CENTRAL EUROPE
COOPERATING FOR SUCCESS.

EUROPEAN UNION
EUROPEAN REGIONAL DEVELOPMENT FUND

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