

EMERALD NETWORK IN UKRAINE DURING THE WAR

The Emerald Network consists of nature conservation areas across Europe that are designed to preserve species and habitats threatened with extinction. The network was established to fulfill the requirements of the Berne Convention.

After Ukraine joins the EU, the Emerald Network will be connected to Natura 2000, a nature conservation network created for the same purpose within the EU.

In Ukraine, the Emerald Network includes:

377 protected areas

162 proposed areas

30%

are impacted by war or occupation

including unique steppe areas

Steppe or alpine? Why biogeographical regions are so important

Biogeographical regions are areas with relatively homogenous environmental conditions and similar characteristics.

Sites proposed for inclusion in the Emerald Network must conform to defined landscape requirements. In fact, there is a whole cycle of assessments, whose main purpose is to ensure that proposed areas truly meet the criteria for rare habitats and include rare species for a particular biogeographical region. Natura 2000 and the Emerald Network are designed on the basis of biogeographical regions.

4 biogeographical regions in Ukraine

In size terms among Ukrainian areas, the continental biogeographic region is the largest, followed by steppe.

The range of steppe habitats in Ukraine is the largest among countries that have ratified the Berne Convention.

continental

steppe

alpine

pannonian

More than 50%

Occupied steppe sites

Biogeographical regions damaged by war

The diagram shows the number of Emerald Network sites in Ukraine subject to occupation or located on the front line.

1

3

Sites directly affected by the Russian-Ukrainian war

25%

Approximately

Continental region sites in the conflict zone; presently most of them are mined

steppe

continental

alpine

unoccupied

Biogeographical regions

All Emerald Network including:

occupied

sites where Ukraine has regained control

What is the Berne Convention?
This is the short name for the Convention on the Conservation of European Wildlife and Natural Habitats. It is named after the city where it was signed in 1979.

1999

The Berne Convention was ratified in Ukraine.

How the Emerald Network was formed in Ukraine

2016

Forest and freshwater areas predominate among Ukraine's first Emerald Network sites.

2019

Mainly steppe and marine habitats were added to the Emerald Network.

2021

Over 200 candidate sites were approved. Mainly steppe landscapes in river valleys were nominated.

Chalk outcroppings
± 10 000 ha
of unique European chalk outcroppings are under occupation.

Endemic plants on chalk outcroppings are found nowhere else on Earth.

Such outcroppings are of great strategic importance due to their elevated position.

Currently, almost 100% of chalk habitats in Ukraine are in the war zone.

Steppe depressions (pody)
>40
Sites found nowhere else in Europe are occupied/within the conflict zone.

Pody are ephemeral lakes in the steppe zone that appear during spring snowmelt.

Ukrainian pody fill with water once every 11 years and their vegetation is thus quite variable.

Migration birds use these sites as stopovers.

Unique steppe habitats were included in the Berne Convention upon Ukraine's request.

Marine habitat for cetaceans
2
Areas of particular importance for cetaceans in Europe have been occupied since 2014.

Three species of cetaceans inhabit the Black Sea: Bottlenose dolphin, Common dolphin, and Harbor porpoise.

Cetacean mortality is on the rise due to the war causing acoustic injuries. Submarines could be the cause.

2 Emerald Network sites have been recognized as areas of special importance for cetaceans in Europe (according to the ACCOM-BAMS Agreement on the Conservation of Cetaceans).

Emerald Network sites and war

At least 100,000 ha
of Emerald Network sites were engulfed in fires resulting from the hostilities. Included are roughly 7,600 hectares of radiation-contaminated forests in the Chernobyl zone.

Over 50% –
Plants and animals listed in Ukraine's Red Book are harmed by mine explosions, deforestation, fires, noise from explosions, and military equipment.

20 species –
Plants listed in Ukraine's Red Book may disappear due to large-scale fires caused by shelling and munitions explosions.

15-30 times –
Heavy metals contamination is higher than normal.

Map Legend

- boundaries of biogeographical regions
- Emerald Network sites (protected and proposed)
- Occupied sites
- Sites where Ukraine has regained control

Data as of October 29, 2022

Source: Ukrainian Nature Conservation Group
Image credit: Wikipedia

Crimean mud volcanoes
50
Active mud volcanoes in Crimea have been under occupation since 2014

All Crimean mud volcanoes are on the Kerch Peninsula. They do not exceed 5 meters in height.

Volcanoes emit methane and liquid clay rather than magma.

There are no current hostilities on the Crimean Peninsula, but the state of conservation for fauna and habitats is unknown.

Crimea's unique mud volcano habitats were included in the Berne Convention at Ukraine's request.

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