

## Fauna

The **diversity of plant communities** and varied ecological factors have shaped the **richness, dynamics, and distribution of fauna** in this area. The dense development of forest stands, interspersed with meadows, pastures, high-mountain areas, riverine, and canyon ecosystems, has allowed the development of a **rich animal world**.

## Mammals

In **Dragišnica and Komarnica Nature Park**, a **large number of mammal species** have been recorded. Below are some of the most significant species, including their **Latin names, national names, IUCN status, and protection status in Montenegro**:

### Gray Wolf – *Canis lupus*

#### Description:

The gray wolf is the largest member of the dog family (*Canidae*). It has a dense, double coat that protects it from the cold. Fur color varies from gray, white, black to brown shades, depending on its habitat, but **grayish shades are most common**.

#### Size:

- Body length: 100–160 cm
- Height: 60–90 cm
- Average weight: 30–50 kg

#### Habitat:

Gray wolves can live in **various habitat types**, with their presence depending primarily on **prey availability** and the degree **human disturbance**. They most commonly inhabit forests, mainly because human activity has pushed them out of open areas.

#### Diet:

Carnivorous — hunts **deer, roe deer, wild boar, hares**, but adapts to available prey.

#### Protection Status:

- **IUCN Status:** Least Concern (LC)
- **Protection in Montenegro:** Protected

## Red Fox – *Vulpes vulpes*

The red fox belongs to the **Canidae family** and is part of the order **Carnivora**. It is one of the most widespread carnivores in the world inhabiting nearly the entire Northern Hemisphere, including Europe, Asia, and North America. In Montenegro, it occurs as a **native and common species**, especially in forested and hilly areas.

### Physical characteristics:

- Body mass: usually **8–10 kg**
- Body length: **60–90 cm**, with a tail length of **30–50 cm**
- Fur: typically **reddish**, with a lighter underside and darker ear edges and legs
- Tail: used for **balance, communication, and thermoregulation**
- Movements: **fast and agile**, aiding in hunting

### Protection Status:

- **IUCN Status:** Least Concern (LC)
- **Protection in Montenegro:** Protected under the **Law on Wildlife and Hunting**

## Brown Bear – *Ursus arctos*

The brown bear belongs to the **Ursidae family** and is one of the **largest terrestrial carnivorous animals** in the world. In Montenegro, it occurs as a **native species**, most commonly associated with **mountainous and forested areas**.

### Morphology:

- **Body mass:**
  - Males: 100–300+ kg (sometimes more)
  - Females: usually smaller, averaging 60–150 kg
- **Body length:** 150–250 cm
- **Shoulder height:** 90–120 cm
- **Fur:** generally brown, with shades ranging from light to dark; a distinctive shoulder hump is formed by strong forelimb muscles
- **Locomotion:** walks on all fours but can stand on hind legs to survey the surroundings
- **Front paws:** strong, with pronounced claws used for digging, handling prey, and turning rocks

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### Habitat:

Brown bears prefer:

- Dense forests with abundant understory vegetation
- Mountainous and hilly areas
- Regions with **minimal human disturbance**

Due to habitat reduction, bears sometimes move closer to settlements, especially in search of food.

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#### **Diet:**

Brown bears are **omnivorous**, although they belong to the order **Carnivora**.

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#### **Hibernation (Winter Sleep):**

- Typically lasts from **November to March**, depending on climate and food availability

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#### **Reproduction:**

- **Mating season:** June–July
- **Delayed implantation:** the fertilized embryo begins development only in late autumn

### **Balkan Lynx – *Lynx lynx balcanicus***

The **Balkan lynx** is a subspecies of the **Eurasian lynx** (*Lynx lynx*) and represents **one of the most endangered wild animals in Europe**. This subspecies is present in the **Western Balkans**, including Montenegro. Due to its **small population and habitat fragmentation**, the Balkan lynx is classified as **Critically Endangered (CR)** according to the IUCN.

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#### **Morphology:**

- **Body mass:** 12–25 kg (males larger than females)
- **Body length:** 80–130 cm + tail 15–25 cm
- **Fur:** yellowish to reddish-brown, with black spots varying in intensity among individuals
- **Ears:** characteristic black tufts at the tips
- **Head:** broad, with prominent facial ruffs on the cheeks
- **Movement:** silent and agile, with remarkable jumping and climbing abilities

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## **Habitat:**

The Balkan lynx prefers:

- Mountain forests
- Beech, coniferous, and mixed forests
- Areas with dense vegetation and minimal human presence

It is **highly territorial** and requires large home ranges, which presents challenges for population conservation.

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## **Diet:**

The lynx is a **carnivore**, hunting **silently and from ambush**.

As a **top predator**, it plays a crucial ecological role in **controlling prey populations** and maintaining ecosystem stability.

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## **Behavior:**

- Solitary — lives alone except during the breeding season
- Most active at **dusk and night**
- Communicates through **scent marking** of its territory
- Can travel long distances — up to **20 km per day**

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## **Reproduction:**

- **Mating period:** February–March
- **Gestation:** approximately 70 days
- Females give birth to **1–4 kittens** in May or June
- Young remain with the mother until the following winter

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## **Status and Protection:**

The Balkan lynx is critically endangered due to:

- Habitat loss (deforestation, fragmentation)
- Large-scale chemical and forestry interventions
- Illegal hunting and poaching
- Decline in prey populations (roe deer and hare)

It is estimated that **fewer than 50 adult individuals** remain in the entire Balkans, making it one of the **rarest mammals in Europe**.

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## Chamois (*Rupicapra rupicapra*)

The **chamois** is a characteristic species of the mountainous regions of Europe, including the **Dinarides**, where it occurs as a native and stable population. In Montenegro, it inhabits **high mountain massifs**.

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### Morphology:

- **Body mass:** 25–50 kg (males slightly larger than females)
- **Body length:** 110–135 cm
- **Height at withers:** 70–85 cm
- **Horns:** both males and females have dark, backward-curved horns, 15–25 cm long (thicker in males)
- **Fur:**
  - Summer: reddish-brown
  - Winter: darker, almost black, with longer hair
- **Characteristic:** extremely sure-footed on steep and rocky terrain, thanks to anatomically adapted hooves

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### Habitat:

The chamois is a **typical high-mountain resident**, preferring:

- Steep cliffs
- Grassy and rocky mountain areas
- Elevations from 1200 to 2500+ m above sea level

They choose **spacious viewpoints and inaccessible areas** as protection from predators such as wolves, lynx, and golden eagles (especially for their young).

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### Diet:

The chamois is an **herbivore**.

Its feeding habits influence the **vegetation structure** of mountain ecosystems, contributing to ecological balance.

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### Behavior:

- Primarily **social** — forms herds, usually of females and young
- Males are more solitary, joining herds during the breeding season
- Most active in **early morning and evening**
- Moves **agilely and quickly** over steep rocks

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### Reproduction:

- **Breeding season:** November–December
- **Gestation:** ~6.5 months
- Females give birth to **one young** (rarely two) in early June
- The young follow the mother throughout the year

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### Status in Montenegro:

- Naturally distributed and genetically stable
- Subject to hunting regulation, but **fully protected in protected areas**
- Ecologically, culturally, and symbolically important for Montenegro's mountain landscapes

**Protection status:** IUCN **Least Concern (LC)**; in Montenegro — **permanent hunting ban** on chamois and its offspring, males protected under hunting laws.

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### European Hare (*Lepus europaeus*)

The **European hare** is a wild mammal from the hare family (*Leporidae*). It is the most widespread hare species in Montenegro and across the Balkans.

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### Morphology:

- **Body mass:** 3–6 kg
- **Body length:** 50–70 cm
- **Ears:** long, often with dark tips
- **Legs:** very long and strong hind legs, adapted for fast running and jumping
- **Fur:**

- Summer: yellowish-brown
- Winter: grayish, thicker
- **Tail:** short and bicolored (dark upper side, light underside)

Hares are morphologically adapted for rapid escape: they can run up to 70 km/h with sudden changes of direction.

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### **Habitat:**

The European hare prefers:

- Agricultural areas (fields, croplands)
- Meadows and grasslands
- Forest edges
- Hilly and lowland terrain

It avoids dense forests and high mountain zones.

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### **Diet:**

The hare is a **strict herbivore**.

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### **Behavior:**

- **Nocturnal and crepuscular**
- Spends the day in shallow ground depressions, hidden in vegetation (does not dig burrows)
- Moves **quickly and unpredictably** to avoid predators
- Uses **body language and acute hearing** to communicate and detect danger

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### **Reproduction:**

- **Breeding season:** February–August
- **Gestation:** ~42 days
- Females can have **2–4 litters per year**
- Each litter usually contains **1–4 young**
- Young are born **fully furred and with open eyes**, able to move immediately (unlike rabbits, which are born blind and hairless)

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## **Status in Montenegro:**

The European hare is relatively common, but local population density depends on:

- Hunting pressure
- Condition of agricultural land
- Presence of predators
- Winter conditions

Hares are managed through hunting seasons and quotas, and hunting is **prohibited in protected areas**.

**Protection status:** IUCN Least Concern (LC); in Montenegro — protected under the law on wildlife and hunting.

## **Birds – Ornithofauna**

The park is home to a **large number of bird species**, among which the most significant are listed below, along with their Latin and common names, and protection status:

### **Rock Partridge (*Alectoris graeca*)**

The rock partridge is a **mountain bird** from the pheasant family (*Phasianidae*) and the genus *Alectoris*. It is known for its distinctive appearance, with a black “frame” around the face and a strong reddish beak. It is a robust, agile bird that navigates rocky slopes exceptionally well, relying more on running than flying.

#### **Appearance**

- Size: 32–35 cm
- Beak and legs: red or orange
- Plumage: grey-brown back, lighter belly
- Distinctive black stripe around the face, running from the eyes to the throat
- Flanks have dark and light stripes forming bands

This pattern provides excellent camouflage in rocky environments.

#### **Habitat**

The rock partridge lives in:

- Rocky hills and mountains
- Dry grasslands
- Slopes with shrubs and low bushes

It is usually found above agricultural zones but may descend lower for feeding.

## Behavior

- Spends most of its time on the ground, running quickly and hiding skillfully
- Feeds on seeds, grasses, berries, and in spring and summer, insects (important for chick growth)
- Moves in family groups (coveys), especially outside the breeding season

## Nesting

- The nest is well-hidden among rocks or low grass
- Clutch usually contains 10–20 eggs
- Chicks are able to run and follow the mother immediately after hatching

## Golden Eagle (*Aquila chrysaetos*)

The golden eagle is one of the largest and most striking birds of prey in the Northern Hemisphere. It is known for its powerful wings, strong beak, and distinctive golden-brown feathers on the nape, which give it its name. In many cultures, it symbolizes power, freedom, and courage.

## Appearance

- Body length: 70–95 cm
- Wingspan: 180–230 cm
- Weight: 3–7 kg (females are larger than males)
- Plumage: dark brown with golden tones on the nape and neck

Its eyesight is extremely sharp—estimated to be 8 times better than that of a human.

## Habitat and Distribution

The golden eagle lives in:

- Mountainous areas
- Plateaus
- Open spaces and steep cliffs

It is distributed across:

- Europe (including the Balkans)
- Asia
- North America
- Northern Africa

On the Balkans, it is most commonly found in mountainous and hard-to-reach areas.

### **Diet**

The golden eagle is a top predator in its ecosystem. It feeds on:

- Hares
- Partridges and pheasants
- Rodents
- Young foxes and martens
- Occasionally carrion

It soars at high altitudes and attacks suddenly at great speed.

### **Behavior**

- Typically lives in mated pairs (monogamous)
- The nest, called an eyrie, is built on cliffs or tall trees
- The female lays 1–4 eggs, usually 1–2 chicks survive

### **Conservation Status**

The golden eagle is legally protected in many countries.

Main threats:

- Habitat loss
- Poisoning (from animals or pesticides)
- Collisions with power lines

## **Red-footed Falcon (*Falco vespertinus*)**

The red-footed falcon is a medium-sized bird of prey from the falcon family. It is known for its impressive speed and agility in flight, as well as its characteristic brown plumage. It inhabits open areas, cliffs, and dry steppes. In many cultures, it has been valued as a falconry bird due to its hunting skills.

### **Appearance**

- Body length: 40–50 cm
- Wingspan: 95–115 cm
- Weight: 500–900 g
- Upperparts: brown; underparts: lighter with dark streaks

- Dark stripe across the eye (“moustache”), typical of falcons
- Wings: long and narrow, adapted for fast flight
- Females are slightly larger than males, which is common among raptors

## **Habitat and Distribution**

The red-footed falcon prefers:

- Rocky slopes
- Steppes and grasslands
- Dry open areas
- Mountain foothills

It is distributed in:

- Southern Europe
- Southeastern Europe (including the Balkans)
- Northern and Eastern Africa
- Southwestern Asia

In the Balkans, it is most commonly found in hilly and mountainous regions with open hunting grounds.

## **Diet**

Feeds on:

- Small birds (passerines, pigeons, partridges)
- Small mammals (voles)
- Lizards and larger insects

It hunts using fast, sudden attacks, often diving from height.

## **Behavior and Nesting**

- Does not build its own nest — uses abandoned nests of crows, kites, or eagles, or rock crevices
- Female lays 2–4 eggs
- Both parents participate in raising the young
- Highly territorial; pairs often remain in the same area for several years
- Decline in prey populations

Conservation efforts include protecting cliffs and mountain zones, as well as controlling hunting and poisoning.

## Western Capercaillie (*Tetrao urogallus*)

The capercaillie is one of the most impressive forest birds in Europe. It is known for its size, magnificent plumage, and unique spring song, performed by males at special sites called lekking grounds. This bird symbolizes old, peaceful, and well-preserved forests.

### Appearance

- Body length: 70–100 cm
- Wingspan: 95–125 cm
- Weight: 3–6 kg (females are significantly smaller)
- Male: dark plumage with metallic green sheen on the chest, large fan-shaped tail, red eyebrow above the eye
- Female: smaller, brown and streaked plumage for camouflage

During the mating season, the male looks especially impressive and proud.

### Habitat

The capercaillie inhabits:

- Coniferous and mixed forests
- Mostly mountainous areas
- Forests with blueberries, ferns, and moss

This bird requires large, quiet, and undisturbed forest complexes.

### Diet

Feeds on:

- Buds
- Berries (especially blueberries)
- Conifer needles
- Grasses
- Insects (chicks primarily eat insects for protein)

In winter, it often survives almost exclusively on pine needles.

### Behavior and Nesting

- In spring, males perform songs and dances at lekking grounds
- Can be very aggressive and territorial during mating season
- Female builds the nest on the ground, well hidden under shrubs

- Clutch: 6–12 eggs
- Chicks follow the mother immediately after hatching

## Amphibians and Reptiles

The wider area of Dragišnica and the Komarnica Canyon represents a region with a very rich and diverse fauna of amphibians and reptiles.

### Fire Salamander (Salamandra salamandra)

The Fire Salamander, also known locally as the “fiery salamander,” is one of the most recognizable amphibian species in our forests. Its black body with striking yellow or orange markings serves as a warning to predators that it is toxic and should be avoided. This species is a symbol of clean and moist forest habitats.

#### Appearance

- Body length: 15–25 cm
- Shiny black body with yellow, orange, or reddish spots and stripes
- Skin is moist and smooth, as it also breathes through the skin
- Moves slowly but steadily, mostly at night or after rain
- No two individuals have the same pattern — each salamander is unique

#### Habitat

The Fire Salamander lives in:

- Moist deciduous and mixed forests
- Near streams, springs, and damp ravines

- Under logs, stones, and dense leaf litter
- Avoids direct sunlight and dry soil; most active at night or after rain

## Diet

Feeds on:

- Snails
- Earthworms
- Insects
- Larvae
- Small arthropods

Prey is captured slowly and precisely using quick head movements and its sticky tongue

## Toxicity and Defense

Its skin secretes a mild toxin called salamandrin. It is not dangerous to humans, but:

- Can cause a tingling sensation if it comes into contact with eyes or mouth
- Protects it from most natural predators
- Predators rarely attack it due to its toxicity

## Reproduction

- Mating occurs on land
- Females do not lay eggs but give birth to live larvae directly into streams or springs
- Larvae develop gills and live in water before later emerging onto land

## Grass Snake (Natrix natrix)

The Grass Snake is a non-venomous snake from the Colubridae family and is one of the most well-known and widespread snakes in Europe. It is often seen near water, meadows, and forests. It is easily recognized by the two light (white or yellow) crescent-shaped spots on the back of its head, which give it its name.

## Appearance

- Length: 60–130 cm (sometimes up to 150 cm)
- Slim body, olive-green, gray, or brown in color
- Dark spots or stripes may appear along the back
- Most distinctive feature: two yellow or white spots behind the head
- Eyes with round pupils (a sign of non-venomous snakes)

## **Habitat**

The Grass Snake lives in areas:

- Along rivers, lakes, ponds, and wetlands
- In meadows and damp forests
- Near village gardens and grassy fields
- Excellent swimmer, often seen at the water's edge

## **Diet**

Feeds on:

- Frogs
- Tadpoles
- Fish
- Aquatic insects
- Prey is usually swallowed whole without being killed by a bite, as the snake has no venomous fangs and relies on speed and reflexes

## **Behavior**

- Completely harmless to humans
- If threatened, it may:
  - Hiss
  - Make itself appear larger
  - Play dead (lie stiffly on its back with mouth open)
- Most active during the day, especially in warmer months

## **Reproduction**

- Mating occurs in spring
- Females lay 10–30 eggs in moist soil, decaying leaves, or compost
- Hatchlings emerge in late summer and resemble miniature adults

## **Protection and Status**

- The Grass Snake is a beneficial species, helping regulate frog and fish populations
- Legally protected in many countries — capturing or killing is prohibited
- Main threats:
  - Fear and unjustified killing
  - Loss of aquatic habitats
  - Traffic-related mortality

## Horned Viper (Vipera ammodytes)

The Horned Viper is the most well-known venomous snake of Southeastern Europe and is considered the most venomous snake in this part of the continent. Its name comes from its ability to suddenly “spring” and deliver a rapid bite when defending its territory. The Horned Viper is not aggressive — it usually avoids humans and only attacks when it feels threatened.

### Appearance

- Length: 60–90 cm (rarely up to 110 cm)
- Body: short and stout, with a well-defined triangular head
- Color: can vary — grayish, brown, olive, sandy
- Most often displays a dark zigzag pattern along the back
- Distinctive small horn-like protrusion on the tip of the snout
- Eyes: vertical pupils (cat-like), typical of venomous snakes

### Habitat

The Horned Viper inhabits:

- Rocky and dry hilly areas
- Karstic meadows and mountain slopes
- Forest edges
- Vineyards and olive groves
- Often basks on warm rocks, walls, and paths

### Diet

Feeds on:

- Mice and other small rodents
- Small birds
- Lizards
- Delivers venom with its bite, which acts quickly on prey
- Plays an important role in controlling rodent populations

### Behavior

- Not aggressive — avoids human contact
- Attacks only when surprised or threatened
- If threatened, it may:
  - Hiss
  - Coil its body into a defensive posture
  - Perform a short, rapid strike forward
- Most active in the morning and late afternoon, especially in summer

### Venom

- Can be dangerous to humans, but severe cases are successfully treated today thanks to antivenom and modern medicine
- Important: Most bites occur when a person steps on the snake or tries to catch or kill it

## **Protection and Status**

- Legally protected in many countries
- Killing a Horned Viper without reason is illegal and harmful to natural balance
- Main threats:
  - Intentional killing due to fear
  - Destruction of natural habitats