

## THE MAMMAL COLLECTION (MAMMALIA) OF THE ZOOLOGICAL MUSEUM OF UZHGOROD NATIONAL UNIVERSITY

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**The mammal collection (Mammalia) of the Zoological Museum of Uzhgorod National University.** — **A. Kron, O. Lugovoy, V. Roshko, V. Roshko, V. Roshko.** — The mammal collection of the Zoological Museum of Uzhgorod University consists of more than 4 800 specimens of 125 mammal species of world fauna. Among them, 115 mammal species are displayed in the exhibition halls. The mammal collection of the Zoological Museum is kept in scientific repositories, while a part of specimens is represented in three exhibition halls (210 exhibits). The geographic origin of specimens in the museum's collection covers all continents but Antarctica. Most of the species represented in the exhibition (34 or 29.6 %) belong to Rodentia, followed by species of Carnivora (28 or 24.4 %) and Artiodactyla (15 or 13.0 %). The most common species in the collection are rodents (Rodentia): common vole (*Microtus arvalis*) and striped field mouse (*Apodemus agrarius*), a total of 1422 specimens. The general systematic representativeness of the exhibited part of the collection of mammals of the Carpathian region is 80 species, which is 77.2 % of the total number of mammals of the Ukrainian part of the Carpathians. In a systematic regard, the mammal collection of the Zoological Museum includes specimens of 125 species of 14 orders of the world fauna (41.2 %), representing 44 families and 89 genera. The collection contains 38 species listed in the Red Data Book of Ukraine, most of them belong to Chiroptera (9 species), Rodentia (9 species), and Carnivora (8 species). All bat species are listed in the Red Data Book of Ukraine. There are 497 bat specimens in the Zoological Museum, 13 of which are displayed in the exhibition halls. The IUCN Red List of Threatened Species, which covers six categories of conservation status, is additionally noted. The rarest species having endangered status (Endangered, EN) are the Russian desman (*Desmana moschata*), Malayan tapir (*Tapirus indicus*), tiger (*Panthera tigris*), Caspian seal (*Phoca caspica*), barbary macaque (*Macaca sylvanus*), Asian elephant (*Elephas maximus*), and European rabbit (*Oryctolagus cuniculus*). Some other species are critically endangered (CR): Chinese pangolin (*Manis pentadactyla*), European mink (*Mustela lutreola*), saiga antelope (*Saiga tatarica*), and Bornean orangutan (*Pongo pygmaeus*).

Key words: mammal collections, Zoological Museum, Uzhgorod National University.

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### Introduction

The Zoological Museum of the Uzhgorod National University (UzhNU) was founded in December 1945, two months after the University was formally established. At first, the origin and its formation were directly related to the names of the organizers and first heads of University departments of zoological profile: I. Rogal (Department of Zoology and Biology), S. Sehedá (Department of Invertebrate Zoology), I. Koliushév (Department of Vertebrate Zoology) (Roshko, 2004; Shidlovsky, 2012). In 74 years of its existence, the Zoological Museum has developed into a solid scientific and educational centre of faunal diversity. It is an excellent source of zoological guidance and a laboratory for students. Initially, it was formed as a fundamental scientific collection for zoological scientists not only in Ukraine but also from abroad (Kron, Lugovoi, 2015). Information on the beginnings and development of the Zoological Museum had been repeatedly published in popular and scientific publications (Pysanets, 2009; Merzlikin, 2014; Filipenko, 2014; Kron et al., 2014).

In 2019, the museum staff revised the species identification of exhibited specimens conforming their scientific names to the currently recognised mammal nomenclature. Based on the results of recent inventory, there are about 4 825 specimens in the museum's mammal collection representing 125 species of the world's mammal fauna. Nowadays, the Zoological Museum of UzhNU is the only place in the region where visitors can get acquainted with the fauna of the world.

The aim of this publication is to describe the mammal collection of the Zoological Museum of Uzhhorod National University. Such a collection an important basis for exploration and studying the fauna of the world by students of different specialties (Bokotey et al., 2008; Zizda et al., 2012; Zagorodniuk et al., 2014; Roshko et al., 2019).

### **A brief history of the collection**

The formation of collections at the Zoological Museum had begun long before it was established. At the beginning of the foundation of the Zoological Museum, the exhibits of biology cabinets of the Uzhhorod, Mukachevo and Berehovo high schools were handed over to the Museum of Uzhhorod University. In addition, letters were sent to leading universities and scientific zoological institutions of the former Soviet Union asking to help with the enrichment of the museum with materials. As a result, in addition to the own stuff, specimens were obtained from the following institutions: Zoological Museum of the Zoological Institute of the USSR Academy of Sciences (Leningrad); Zoological Museum of the Institute of Zoology and Parasitology, Academy of Sciences of the Lithuanian SSR (Vilnius); State Museum of Natural History of the Academy of Sciences of the Ukrainian SSR (Lviv); Zoological Museum of Moscow State University; Zoological Museum of Kyiv State University; Zoological Museum of Kishinev State University; Zoological Museum of Tomsk State University; Zoological Museum of Gorky University; Zoological Museum of Samarkand State University; Zoological Museum of Odesa State University; Zoological Museum of Kharkiv State University; Biological Station of the Institute of Hydrobiology of the Academy of Sciences of the Ukrainian SSR (Odesa); Biological Station of Odesa State University (Krasnomorsk); State Reserve "Askania Nova"; Astrakhan State Reserve; Southern Sakhalin State Reserve; Kizil Agach State Reserve (Azerbaijan); Whaling flotilla "Glory" (Odesa). Today, due to periodical expeditions and gifts from local nature lovers, the museum continues to expand.

Yuriy Mateleshko had been working at the Zoological Museum for more than 40 years. He was a remarkable professional taxidermist who studied the business with the best specialists of the Soviet Union at the Zoological Museum of Moscow State University. He produced about 500 exhibits and more than 1 000 specimens of the scientific collection. Yuriy Mateleshko knew the secrets of working with large animals. He was even invited by the Ministry of Culture of USSR to the shooting of the Italian-Soviet movie "Battle of Waterloo" to make skin-mounts of 10 horses (Roshko, 2004).

Specimens of the plains zebra (*Equus quagga*) and the common eland (*Taurotragus oryx*) were obtained from the State Reserve "Askania Nova", the saiga antelope (*Saiga tatarica*) and goitered (*Gazella subgutturosa*) came from Astrakhan State Reserve, while the humpback whale (*Megaptera novaeangliae*) and the short-beaked common dolphin (*Delphinus delphis*) were given by the whaling flotilla "Glory" (Odesa). The Russian desman (*Desmana moschata*) and the mountain hare (*Lepus timidus*) were presented by the Zoological Museum of Gorky University, long-clawed ground squirrel (*Spermophilus leptodactylus*) and yellow ground squirrel (*Spermophilus fulvus*) came from the Zoological Museum of Samarkand State University. The Zoological Museum of the Zoological Institute of the AS USSR (Leningrad) presented the arctic fox (*Vulpes lagopus*) and surilis (*Presbytis* sp.). The Siberian flying squirrel (*Pteromys volans*) come from the Zoological Museum of Tomsk State University. Some mammals were donated by persons who wished to remain unknown.

### **Collection analysis and discussion**

The Zoological Museum of Uzhhorod University has about 5 000 displayed specimens. Above species taxa of Carpathian mammals are fully represented in the collection. However, only 80 species (64.6 %) are represented in the exhibition and 77.2 % in among the stock material, which is due to the absence of rare species of bats and small mammals. Nevertheless, this allows to reflect the full diversity of mammals in the Ukrainian Carpathians (Tables 1, 2). The Zoological Museum mostly represents the fauna of the Transcarpathian region and it is the only source in the region where visitors can get acquainted with mammal species of both the local and global fauna (Bashta, Potish, 2007; Zatushevsky et al., 2016).

Table 1. Comparative analysis of the number of mammal species of the Ukrainian Carpathians represented in the Zoological Museum

Таблиця 1. Порівняльний аналіз представлення видової чисельності ссавців Українських Карпат в зоологічному музеї

No.	Order	Species in Transcarpathia	Species in Transcarpathia represented in the collection	Species in the collection, %	Species listed in RDBU
1	Eulipotyphla	9	9	100.0	4
2	Artiodactyla	3	3	100.0	1
3	Chiroptera	23	14	60.9	14
4	Carnivora	17	15	88,2	8
5	Lagomorpha	1	1	100.0	1
6	Rodentia	26	19	73.1	9
	Total	79	61		37

\* Note: RDBU — Red Data Book of Ukraine.

Table 2. Different mammal groups in the museum collections and their status after the IUCN (Version 2015-4)

Таблиця 2. Представленість різних рядів ссавців у колекції музею, та їхній статус за МСОП

Order	CR	EN	VU	NT	LC	DD	RBU	∑ species
Monotremata				1	1			2
Diprotodontia					1			1
Cingulata					2			2
Proboscidea		1						1
Eulipotyphla		1		1	10		4	12
Cetacea					2		1	2
Artiodactyla	1		3		10	1	1	15
Chiroptera				2	12		14	14
Perissodactyla		1		1				2
Pholidota	1							1
Carnivora	1	2	5	2	17		8	28
Lagomorpha		1			4		1	5
Rodentia			1	1	33	1	9	36
Primates	1	1			1			4
∑	4	7	9	8	93	2	38	125

There are 210 species of mammals in the exhibition halls of the Zoological Museum, 37 of which are listed in the Red Data Book of Ukraine (Red Data Book..., 2009). The most represented species are rodents (Rodentia), bats (Chiroptera) and carnivores (Carnivora), which have the largest part (79 %). Such distribution is connected with a large number of field practices for students of UzhNU and educational activity of the population, regarding the conservation of bats. (Zizda et al., 2012). In the Zoological Museum, there is also a collection of horns and antlers of even-toed ungulates (Artiodactyla) consisting of 29 specimens.

The class of mammals (Mammalia) is represented in the museum collection by 125 species of 14 of 34 orders of the world fauna (41.18 %), belonging to 44 families and 89 genera. Most of the mammalian specimens are deposited in the scientific fund, with a total number of 4 825 units (Figs 1–4). Among them, there are 4 critically endangered species: saiga (*Saiga tatarica*), Chinese pangolin (*Manis pentadactyla*), European mink (*Mustela lutreola*), and orangutan (*Pongo pygmaeus*), with a total number of 4 units. Nine species are endangered and 9 are vulnerable (VU). Close to the threat of extinction are 6 species: platypus (*Ornithorhynchus anatinus*), Mediterranean water shrew (*Neomys anomalus*), Malayan tapir (*Tapirus indicus*), river otter (*Lutra lutra*), and striped hyena (*Hyaena hyaena*), represented by 36 units. (The IUCN Red List..., Version 2015-4).



Fig. 1. Fragment of the collection of order Chiroptera in the scientific zoological repositories.

Рис. 1. Фрагмент колекції ссавців ряду Chiroptera в наукових фондах музею.



Fig. 2. Fragment of the collection of family Erinaceidae in the scientific zoological repositories.

Рис. 2. Фрагмент колекції зразків родини Erinaceidae в наукових фондах музею.



Fig. 3. Fragment of the collection of *Talpa europaea* in the scientific zoological repositories.

Рис. 3. Фрагмент колекції *Talpa europaea* у наукових фондах Зоологічного музею.

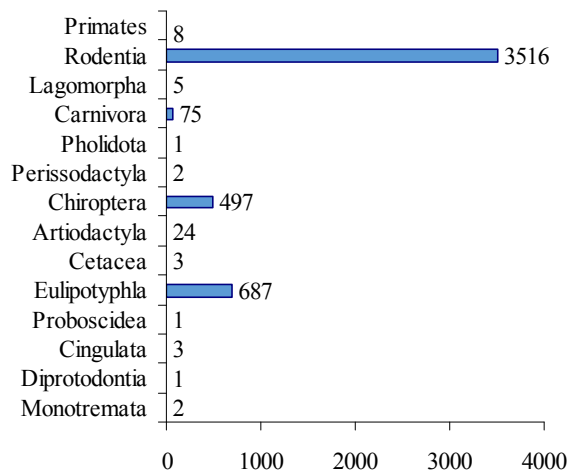


Fig. 4. The number of specimens of mammals of different orders in the Zoological Museum of UzhNU.

Рис. 4. Кількість зразків ссавців з різних рядів в експозиції Зоологічного музею УжНУ.

There are 93 species of least concern (LC) and 2 species with insufficient information (DD). Species that are listed by IUCN as extinct (EX) and extinct in the Wild (EW) are absent in the museum collection.

The most abundant species in the Zoological Museum is the common vole (*Microtus arvalis*) and the striped field mouse (*Apodemus agrarius*), the number of which in the collection reaches 756 and 666 specimens, respectively.

The most represented taxa in the mammal collection of the Zoological Museum are rodents (Rodentia) (36 species, of which 59 units are displayed in the exposition and 3 457 are in the funds) and bats (Chiroptera) (497 units, 14 species) (Table 2).

The systematics of mammals in the list of collection follows the recent reviews (Zagorodniuk, 2008, 2009; Zagorodniuk, Kharchuk, 2011; Zagorodniuk, Emelianov, 2012). The species lists are fully formed for the templates of species protection categories (The IUCN..., 2016).

## Class Mammalia — Mammals

### Infraclass Monotremata — Monotremes

#### *Superorder Monotremata (s. str.)*

**Order Monotremes (Monotremata)** is represented by 2 families (Tachyglossidae, Ornithorhynchidae), 2 genera *Tachyglossus* and *Ornithorhynchus*, and 2 species: short-beaked echidna (*Tachyglossus aculeatus*) and platypus (*Ornithorhynchus anatinus*). The species presented are at the lowest risk. Does not qualify for a more at-risk category (Least Concern, LC) and likely to become endangered in the near future (Near Threatened, NT).

### Infraclass Metatheria — Marsupials

#### *Superorder Australidelphia*

**Order Diprotodontia (Diprotodontia)** is represented by family Macropodidae, genus *Macropus* and species: the eastern grey kangaroo (*Macropus giganteus*). The only species in this order that is represented in the Zoological Museum. The species is of the lowest risk (LC).

### Infraclass Eutheria (Placentalia) — Placentalia

#### *Superorder Xenarthra (Edentata)*

**Order Armadillos (Cingulata / Loricata)** is represented by family Dasypodidae, 2 genera *Chaetophractus* and *Dasypus*, and 2 species: big hairy armadillo (*Chaetophractus villosus*), nine-banded armadillo (*Dasypus novemcinctus*). The order is represented by species of lowest risk (LC).

#### *Superorder Paenungulata*

**Order Proboscidea (Proboscidea)** is represented by family Elephantidae, genus *Elephas* and species: Asian elephant (*Elephas maximus*), which has a high risk of extinction in the wild (Endangered, EN).

#### *Superorder Lypotyphla (=Insectivora s. l.)*

**Order Eulipotyphla (Eulipotyphla)** are represented by 3 families Erinaceidae, Soricidae, Talpidae, 6 genera (*Erinaceus*, *Neomys*, *Sorex*, *Crocidura*, *Talpa*, *Desmana*), and 12 species: northern white-breasted hedgehog (*Erinaceus concolor*), European hedgehog (*Erinaceus europaeus*), alpine shrew (*Neomys anomalus*), Eurasian water shrew (*Neomys fodiens*), common shrew (*Sorex araneus*), Eurasian pygmy shrew (*Sorex minutus*), Laxmann's shrew (*Sorex caecutiens*), alpine shrew (*Sorex alpinus*), bicolored shrew (*Crocidura leucodon*), lesser white-toothed shrew (*Crocidura suaveolens*), European mole (*Talpa europaea*), Russian desman (*Desmana moschata*). The order has 10 species of the least concern (LC), 1 endangered in the near future (NT) and 1 of a high risk of extinction in the wild (EN). Four species are listed in the Red Data Book of the Ukrainian fauna: *Neomys anomalus*, *Sorex alpinus*, *Crocidura leucodon*, *Desmana moschata*.

#### *Superorder Ungulata*

**Order Cetaceans (Cetacea)** is represented by 2 families Balaenopteridae and Delphinidae, 2 genera *Megaptera*, *Delphinus*, and 2 species: embryos of the humpback whale (*Megaptera novaeangliae*) and short-beaked common dolphin (*Delphinus delphis*), which are the least concern (LC). In particular, *Delphinus delphis* is listed in the Red Data Book of Ukraine.

**Order Even-Toed Ungulates (Artiodactyla)** are represented by 3 families (Suidae, Cervidae, Bovidae), 13 genera (*Sus*, *Capreolus*, *Cervus*, *Alces*, *Dama*, *Connochaetes*, *Gazella*, *Saiga*, *Taurotragus*, *Capra*, *Ovis*, *Ovis*, *Rupicapra*), and 15 species: wild boar (*Sus scrofa*), European roe deer (*Capreolus capreolus*), Siberian roe deer (*Capreolus pygargus*), red deer (*Cervus elaphus*), elk (*Al-*

*ces alces*), fallow deer (*Dama dama*), black wildebeest (*Connochaetes gnou*), goitered (*Gazella subgutturosa*), saiga antelope (*Saiga tatarica*), common eland (*Taurotragus oryx*), angora goat (*Capra hircus angorensis*), Siberian ibex (*Capra sibirica*), mouflon (*Ovis orientalis orientalis*), urial (*Ovis orientalis vignei*), chamois (*Rupicapra rupicapra*). This order is represented by 10 species of the least concern (LC), 3 vulnerable species (VU), while *Saiga tatarica* is at an extremely high risk of extinction in the wild (Critically Endangered, CR). *Alces alces* since 2009 has been listed in the Red Data Book of Ukraine.

**Order Odd-Toed Ungulates** (Perissodactyla) are represented by 2 families (Equidae, Tapiridae), 2 genera (*Equus*, *Tapirus*), and 2 species: plains zebra (*Equus quagga*) and Malayan tapir (*Tapirus indicus*). One species is at high risk of extinction in the wild (EN) and one is Near Threatened (NT).

### **Superorder Archonta (Archon)**

**Order Bats (Chiroptera)** are represented by 3 families (Rhinolophidae, Miniopteridae, Vespertilionidae), 7 genera (*Rhinolophus*, *Miniopterus*, *Myotis*, *Plecotus*, *Nyctalus*, *Pipistrellus*, *Eptesicus*, *Barbastella*), and 14 species: lesser horseshoe bat (*Rhinolophus hipposideros*), greater horseshoe bat (*Rhinolophus ferrumequinum*), common bent-wing bat (*Miniopterus schreibersii*), lesser mouse-eared bat (*Myotis oxygnathus*), greater mouse-eared bat (*Myotis myotis*), Natterer's bat (*Myotis nattereri*), Geoffroy's bat (*Myotis emarginatus*), Daubenton's bat (*Myotis daubentonii*), brown long-eared bat (*Plecotus auritus*), western barbastelle (*Barbastella barbastellus*), common noctule (*Nyctalus noctula*), common pipistrelle (*Pipistrellus pipistrellus*), Nathusius' pipistrelle (*Pipistrellus nathusii*), serotine bat (*Eptesicus serotinus*). The order includes 12 species that have the category 'least concern' (LC) and 2 species are near threatened (NT). All species of Chiroptera represented in the Zoological Museum are listed in the Red Data Book of Ukraine.

### **Superorder Ferae (Carnivora s. l.)**

**Order Pangolins (Pholidota)** are represented by family Manidae, genus *Manis* and species Chinese pangolin (*Manis pentadactyla*). This species is considered critically endangered (CR).

**Order Carnivores (Carnivora)** are represented by 9 families (Felidae, Viverridae, Hyaenidae, Canidae, Ursidae, Otariidae, Phocidae, Procyonidae, Mustelidae), 18 genera (*Panthera*, *Puma*, *Lynx*, *Felis*, *Viverra*, *Hyaena*, *Vulpes*, *Canis*, *Nyctereutes*, *Ursus*, *Callorhinus*, *Phoca*, *Procyon*, *Martes*, *Mustela*, *Lutra*, *Meles*, *Vormela*), and 28 species: lion (*Panthera leo*), tiger (*Panthera tigris*), snow leopard (*Panthera uncia*), cougar (*Puma concolor*), Eurasian lynx (*Lynx lynx*), European wildcat (*Felis silvestris*), African wildcat (*Felis silvestris lybica*), viverra (*Viverra sp.*), striped hyena (*Hyaena hyaena*), red fox (*Vulpes vulpes*), arctic fox (*Vulpes lagopus*), golden jackal (*Canis aureus*), grey wolf (*Canis lupus*), dingo (*Canis lupus dingo*), raccoon dog (*Nyctereutes procyonoides*), brown bear (*Ursus arctos*), northern fur seal (*Callorhinus ursinus*), Caspian seal (*Phoca caspica*), raccoon (*Procyon lotor*), beech marten (*Martes foina*), European pine marten (*Martes martes*), short-tailed weasel (*Mustela erminea*), least weasel (*Mustela nivalis*), European polecat (*Mustela putorius*), European mink (*Mustela lutreola*), Eurasian otter (*Lutra lutra*), European badger (*Meles meles*), marbled polecat (*Vormela peregusna*). The order includes 17 species of the least concern (LC), 5 species are vulnerable (VU), 2 species are near threatened (NT), 2 are at high risk of extinction in the wild (EN) and 1 species (*Mustela lutreola*) is considered critically endangered (CR). Eight species are listed in the Red Data Book of Ukraine: *Lynx lynx*, *Felis silvestris*, *Ursus arctos*, *Mustela erminea*, *Mustela putorius*, *Mustela lutreola*, *Lutra lutra*, *Vormela peregusna*.

### **Superorder Anagalida**

**Order Lagomorphs (Lagomorpha)** is represented by 2 families (Leporidae, Ochotonidae), 3 genera (*Oryctolagus*, *Lepus*, *Ochotona*), and 5 species: European rabbit (*Oryctolagus cuniculus*), European hare (*Lepus europaeus*), mountain hare (*Lepus timidus*), tolai hare (*Lepus tolai*), steppe pika (*Ochotona pusilla*). The order includes 4 species of the least concern (LC), 1 species is at a high risk of extinction in the wild (EN), while *Lepus timidus* is listed in the Red Data Book of Ukraine.

**Order Rodents (Rodentia)** is represented by 13 families, 28 genera, and 36 species. Their description is given in two parts according to the proposed division into mouse-like and non-muroid rodents (Zagorodniuk, 2009).

Group of Non-Muroid Rodents (Non-Muroidea). Twelve genera are represented in the Zoological Museum: *Sciurus*, *Spermophilus*, *Marmota*, *Tamias*, *Pteromys*, *Glis*, *Muscardinus*, *Castor*, *Sicista*, *Allactaga*, *Stylodipus*, *Dipus* with 16 species: red squirrel (*Sciurus vulgaris*), speckled ground squirrel (*Spermophilus suslicus*), little ground squirrel (*Spermophilus pygmaeus*), European ground squirrel (*Spermophilus citellus*), yellow ground squirrel (*Spermophilus fulvus*), long-clawed ground squirrel (*Spermophilus leptodactylus*), alpine marmot (*Marmota marmota*), Siberian chipmunk (*Tamias sibiricus*), Siberian flying squirrel (*Pteromys volans*), edible dormouse (*Glis glis*), hazel dormouse (*Muscardinus avellanarius*), Eurasian beaver (*Castor fiber*), northern birch mouse (*Sicista betulina*), great jerboa (*Allactaga major*), thick-tailed three-toed jerboa (*Stylodipus telum*), northern three-toed jerboa (*Dipus sagitta*). In this group, 14 species are of the least concern (LC), 1 species is near threatened (NT), 1 species is vulnerable (VU) Five species are included into the Red Data Book of Ukraine: *Spermophilus suslicus*, *Spermophilus citellus*, *Sicista betulina*, *Allactaga major*, *Stylodipus telum*.

Suborder Muroid Rodents (Muroidea). There are 15 genera in the Zoological Museum: *Spalax*, *Micromys*, *Apodemus*, *Sylvaemus*, *Mus*, *Rattus*, *Nesokia*, *Cricetus*, *Lemmus*, *Ellobius*, *Ondatra*, *Myodes*, *Chionomys*, *Arvicola*, *Microtus*) with 19 species: lesser mole-rat (*Spalax leucodon*), harvest mouse (*Micromys minutus*), striped field mouse (*Apodemus agrarius*), yellow-necked mouse (*Sylvaemus tauricus*, = *flavicollis*), wood mouse (*Sylvaemus sylvaticus*), house mouse (*Mus musculus*), brown rat (*Rattus norvegicus*), short-tailed bandicoot rat (*Nesokia indica*), European hamster (*Cricetus cricetus*), Norway lemming (*Lemmus lemmus*), northern mole vole (*Ellobius talpinus*), muskrat (*Ondatra zibethicus*), bank vole (*Myodes glareolus*), European snow vole (*Chionomys nivalis*), European water vole (*Arvicola amphibius*), montane water vole (*Arvicola scherman*), common vole (*Microtus arvalis*), Transcaspian vole (*Microtus transcaspicus*). In this group, 19 species are of the least concern (LC) and 1 species has few data for conservation category assessment (Data Deficient, DD). This superorder have 4 species included into the Red Data Book of Ukraine: *Spalax leucodon*, *Cricetus cricetus*, *Ellobius talpinus*, *Chionomys nivalis*.

Suborder Caviioidea is represented by 1 family Myocastoridae, 1 genus *Myocastor*, and 1 species of the least concern (LC): coypu (*Myocastor coypus*).

### **Superorder Archonta**

**Order Primates (Primates)** are represented by 3 families (Atelidae, Cercopithecidae, Homiidae), 4 genera (*Alouatta*, *Macaca*, *Presbytis*, *Pongo*), and 4 species: Venezuelan red howler (*Alouatta seniculus*), barbary macaque (*Macaca sylvanus*), surilis (*Presbytis* sp.), Bornean orangutan (*Pongo pygmaeus*). The order have 4 species of the least concern (LC), 1 species is endangered (EN) and 1 species (*Mustela lutreola*) is at a high risk of extinction in the wild (CR).

### **Conclusions**

1. The mammal collection of the Zoological Museum of Uzhhorod University includes 125 species of the world's mammal fauna. The Museum's exhibition displays 115 mammal species of which 38 species are listed in the Red Data Book of Ukraine, mainly bats (9 species), rodents (9 species), and carnivores (8 species).

2. The total number of mammal specimens displayed in the exhibition is 210, while the scientific collection consists of 4 825 specimens of the class Mammalia

3. Most of the species displayed, namely 34 (29.6 %) are representatives of Rodentia, 28 (24.4 %) belong to Carnivora, and 15 (13.0 %) to Artiodactyla.

4. The most abundant species in the mammal collection of Zoological museum are the common vole (*Microtus arvalis*) and the striped field mouse (*Apodemus agrarius*), represented by 756 and 666 specimens respectively.



5. The mammal collection contains specimens of species listed in the IUCN Red List of Threatened Species and having six categories of conservation status. The rarest are 7 endangered species (Endangered, EN): Russian desman (*Desmana moschata*), Malayan tapir (*Tapirus indicus*), tiger (*Panthera tigris*), Caspian seal (*Phoca caspica*), barbary macaque (*Macaca sylvanus*), Asian elephant (*Elephas maximus*), European rabbit (*Oryctolagus cuniculus*) and 4 species are critically endangered (CR), including the Chinese pangolin (*Manis pentadactyla*), European mink (*Mustela lutreola*), saiga antelope (*Saiga tatarica*), and Bornean orangutan (*Pongo pygmaeus*).

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