

## SUMMARY

**Lobkov V.A. Causes and peculiarities of the dynamic of the areals of some mammals** // Uchenye zapiski Tavricheskogo Natsionalnogo Universiteta im. V.I. Vernadskogo. Series «Biology, chemistry». – 2003. – V.17 (56). – № 2. – P. 3-11.

The extension of the areals of some mammals is stipulated by increase of reproduction and reduction of elimination in consequence infringement of spatial-etological structure on the background of very low number. The dying out of the populations encompasses the big spatial at the same time, but colonization of free territory occurs gradually and in succession.

**Key words:** mammals, dispersal, dynamic of areals.

**Volokh A.M. Meaning of biogeographical islands in formation of populations some animals and pulsation of borders areals** // Uchenye zapiski Tavricheskogo Natsionalnogo Universiteta im. V.I. Vernadskogo. Series «Biology, chemistry». – 2003. – V.17 (56). – № 2. – P. 12-22.

It was possible to establish amplitudes of fluctuation of areals of species and reveal their steadiest sites. For large animals they have appeared in mountains forest of the Crimea mountain woods of Carpathians, Crimean and marshy areas Polessya, for average – still valleys of the large rivers. For steady parts areals is characteristic: 1. Optimum combinations of the natural factors during long time, which meet to biological needs of animals; 2. Large enough areas suitable biotops, which for different species of animals is various – greatest at predatory, least – at *Capreolus capreolus*, *Cervus dama* and *Ovis musimon*. The formation frontier of populations large animals requires restoration or creation ecological channels as most suitable biotops, and also careful protection of the centers them residing.

**Key words:** area, population, refugium, isolation, Ukraine.

**Selyunina Z. V., Moskalenko Yu. A. Nature protection territories as islands of natural biodiversity (on an example of forest-steppe sites of the Black Sea reserve)** // Uchenye zapiski Tavricheskogo Natsionalnogo Universiteta im. V.I. Vernadskogo. Series «Biology, chemistry». – 2003. – V.17 (56). – № 2. – P. 23-26.

Unique intrazonal forest-steppe natural complexes of Lower-Dnipro sands in natural condition were stored only on forest-steppe sites of the Black Sea biosphere reserve. Now they are completely surrounded with of pine boarding. The landscape and species diversity natural of faunal complexes is much higher, than in the man-made ones. The area of reserved sites is insufficient for preservation of many species land vertebrates. It is necessary to expand a network of protected natural territories in region.

**Key words:** arenas, special diversity, prevalence.

**Naglov V. A. Influence of changes of a climate on small mammals** // Uchenye zapiski Tavricheskogo Natsionalnogo Universiteta im. V.I. Vernadskogo. Series «Biology, chemistry». – 2003. – V.17 (56). – № 2. – P. 27-32.

For last 25 years in the Kharkov region the tendency to increase of average temperature of a summer and decrease of quantity of summer rains is marked. It has resulted in increase of numbers small mammals in flood-lands of the rivers mainly at the expense of forest species and on fields at the expense of species of a steppe complex and of the eurytopic common field mouse. In forests of waterless valley the number small mammals has decreased.

**Key words:** small mammals, climate, Kharkov region.

**Zagorodniuk I. V. Mountain regions as a zone of the highest species riches of terrestrial vertebrates in Ukraine // Uchenye zapiski Tavricheskogo Natsionalnogo Universiteta im. V.I. Vernadskogo. Series «Biology, chemistry». – 2003. – V.17 (56). – № 2. – P. 33-38.**

Biogeographical analysis of the rarity fauna was carried out using the algorithm of overlapping of the geographical ranges of rare species. List of rarity fauna includes species of amphibians, reptiles, and mammals included in the Red Data Book of Ukraine. Maps constructed for each investigated group indicate the strict increasing of the rare species number in the center of mountain regions, and decreasing of the species riches of rarity fauna to plains. The caudate amphibians, bats, carnivores and birds of prey demonstrate the most clear tendency. Richness on rarity fauna in the mountain region depends on the initial high level of the mountain fauna richness as well as on the high degree of their safety.

**Key words:** biodiversity, species richness, mountains, terrestrial vertebrates.

**Dulitsky A.I., Kovalenko I.S. GIS-inverting of materials of a database in the relation superspecies *Sylvaemus sylvaticus* (=S. arianus+S. uralensis) // Uchenye zapiski Tavricheskogo Natsionalnogo Universiteta im. V.I. Vernadskogo. Series «Biology, chemistry». – 2003. – V.17 (56). – № 2. – P. 39-44.**

At epizootologically inspection since 1971 18970 copies *S. sylvaticus*, *S. arianus* and *S. uralensis* are extracted, that has made 42,2 % from number of the investigated animals. The majority of them were determined as *S. sylvaticus*, but the auditing of fauns has shown, that this species in territory of Crimea is absent. To avoid loss of a huge material of researches, the GIS-analysis of distribution *S. arianus* and *S. uralensis* is carried spent: in case of a joint and exclusive presence *S. sylvaticus* with one of these species in the same point they were accepted for this species. Besides the points to catch animal, taking place on the area of radius 5 km, were united in one. As a result of the carried spent manipulations the share of the precisely addressed information has increased from 58,2 % up to 75,5 %. 24,5 % of the information investigated animal and received from them, on laboratory researches to invert yet it was not possible.

**Key words:** wood mouse, ural mouse, steppe mouse, inverting.

**Zorya, O.V., Kramarenko, S.S. Coincidence and in coincidence model and actual value registration small-rodents northeastern Ukraine // Uchenye zapiski Tavricheskogo Natsionalnogo Universiteta im. V.I. Vernadskogo. Series «Biology, chemistry». – 2003. – V.17 (56). – № 2. – P. 45-49.**

To propose model prediction thickness registration 13 species small-rodents method trap-line up to results registration in first daily.

**Key words:** small-rodents, model value, actual value, thickness registration rodents, forest-steppe.

**Kashtalian A.P. Utilization of meteorological data for prognosticating autumn quantities of bank vole and trappings of common shrew in the forest ecosystems of Berezinsky reserve** // Uchenye zapiski Tavricheskogo Natsionalnogo Universiteta im. V.I. Vernadskogo. Series «Biology, chemistry». – 2003. – V.17 (56). – № 2. – P. 50-57.

The article features data on the quantity dynamics of bank vole over several years and trappings of common shrew on forest permanent plots of Berezinsky reserve; their correlations with weather-climatic conditions are analyzed; equations for building statistical prognoses are included.

**Key words:** bank vole, common shrew, quantity dynamics, weather-climatic conditions, statistical prognosis.

**Zhyla S., Shkvyrya M. Preliminary results of track and visual wolves (*Canis lupus*) marking in Polissian natural reserve** // Uchenye zapiski Tavricheskogo Natsionalnogo Universiteta im. V.I. Vernadskogo. Series «Biology, chemistry». – 2003. – V.17 (56). – № 2. – P. 58-60.

The article contains the results of approbation of wolves marking method by track and visual marks. This work has been carrying out on Polissian natural reserve territory in 2001–2003 period. Availability of using of this method on Ukraine territory was shown.

**Key words:** wolf, marking, Ukraine.

**Tkach, G. E., Naglov, V.A. The comparative analysis of one- and multi day registration of small mammals number on the trap lines** // Uchenye zapiski Tavricheskogo Natsionalnogo Universiteta im. V.I. Vernadskogo. Series «Biology, chemistry». – 2003. – V.17 (56). – № 2. – P. 61-65.

It's shown, that one-day catch of small mammals on the trap lines doesn't reveal completely their specific amount and distorts the proportion of separate species plenty. The use of three-day catch, allowing escaping the above-mentioned shortcomings, is recommended.

**Key words:** small mammals, methods registration of number.

**Gol'din P.E. Postnatal growth and ossification of forelimb skeleton in harbour porpoise (*Phocoena phocoena* (Linnaeus, 1758)) in the Sea of Azov and the Black Sea** // Uchenye zapiski Tavricheskogo Natsionalnogo Universiteta im. V.I. Vernadskogo. Series «Biology, chemistry». – 2003. – V.17 (56). – № 2. – P. 66-81.

Bones of 70 harbour porpoises found dead at the coast of the Sea of Azov and the Black Sea in 2001-03 were studied. Patterns of growth and terms of ossification in each bone were discovered. Growth of forelimb skeleton continues up to 4-8 years. Growth period, relative elongation, and allometry indices grow from proximal to distal segments reaching the maximum values in metacarpus and two first phalanges. Scapula growth does

not meet the regularities in flipper growth; weak bilateral asymmetry is demonstrated in scapula size. Terms of epiphyseal fusion and absolute sizes of flipper bones at given age demonstrate high individual variability. Such a parameters would be used when estimating the age of specimens <3 years old. Sexual dimorphism is reflected in radius and ulna size in adult specimens; these bones can be used in sex determination. Forelimb skeleton is characterized by strong internal correlations. Structures of back edge of flipper have some specific characters in growth pattern and proportions.

**Key words:** *Phocoena phocoena* (L.), Black, Azov seas, forelimb skeleton, growth, ossification.

**Kondratenko O., Zagorodniuk I. Composition and pattern of similarity of small mammals faunas from the reserved sites of eastern part of Ukraine // Uchenye zapiski Tavricheskogo Natsionalnogo Universiteta im. V.I. Vernadskogo. Series «Biology, chemistry». – 2003. – V.17 (56). – № 2. – P. 82-89.**

Comparison of modern state of small mammals fauna in natural reserve sites of eastern part of Ukraine is carried out. Data on distribution and abundance of 23 species are analyzed. By the indices of fauna similarity, all the reserved sites form two groups: sites of Donets-Don steppes together with valley of Siversky Donets river and sites of the Northern Azov region. Indicator species of some reserved microtheriofaunas are mark out.

**Key words:** natural reserve, small mammals fauna, Eastern Ukraine.

**Evstaf'yev I.L. Zone and biotope distribution fine mammals of Crimea // Uchenye zapiski Tavricheskogo Natsionalnogo Universiteta im. V.I. Vernadskogo. Series «Biology, chemistry». – 2003. – V.17 (56). – № 2. – P. 90-97.**

Landscape and floristic variety of Crimea have defined an originality him fauna, zone and biotopes structure of communities. Biocenotics feature of natural zones of Crimea define formation of structural zone complexes of FM differing on species quantitative and share structure, which basis make two basic ecological groups of FM: steppe and mountain-wood species. The group mountain-wood is made by the species having in Crimea isolated from basic part areas, and basis steppe complex of mammals - widely distributed on the territories, next to Crimea, species. The structure of communities of FM in various biotopes essentially differs on species and share to structure of fauna fine mammals, quantitative parity of species and movement of their number.

**Key words:** fauna fine mammals, structure of communities, Crimea.

**Tyshchenko V. M. Swarming of bats at underground sites of Podillya (West Ukraine) in late summer // Uchenye zapiski Tavricheskogo Natsionalnogo Universiteta im. V.I. Vernadskogo. Series «Biology, chemistry». – 2003. – V.17 (56). – № 2. – P. 98-104.**

Investigations of bats swarming at the location places of 15 underground sites of Podillya (West Ukraine) were led in 1999–2000 (during august and early September). 475 individuals of 12 bat species were caught. *Myotis* bats were prevalent (82 %) in late summer swarming, especially *M. daubentonii* (63 %). The dominance of male individuals (74%) was registered. Internationally vulnerable bat species, such as *Rhinolophus hipposideros*, *Myotis dasycneme*, *M. bechsteini*, *Barbastella barbastellus* were recorded.

Accentuated that vitally important and exigent procedure for bat diversity preservation is providing swarming sites of bats with conservation status.

**Key words:** Chiroptera; Myotis; swarming; bat diversity.

**Kochanecj M.I., Khojesky P.B. Hoof animals in the environment of NNP "Skolyvsky Beskydy"** // Uchenye zapiski Tavricheskogo Natsionalnogo Universiteta im. V.I. Vernadskogo. Series «Biology, chemistry». – 2003. – V.17 (56). – № 2. – P. 105-108.

On the territory of NNP «Skolyvsky Beskydy» exists four species of hoof animals: *Bison bonasus* L., *Cervus elaphus* L., *Capreolus capreolus* L., *Sus scrofa* L. We have analyzed population state of the hoof animals, station of living. Main factors which influences on their quantity are condition of their living threw the winter, predators, and illegal hunting.

**Key words:** NNP «Skolyvsky Beskydy», *Bison bonasus* L., *Cervus elaphus* L., *Capreolus capreolus* L., *Sus scrofa* L.

**Ruzhilenko N. S. Beasts mammals of the islands territories of Middle of the Dniپر** // Uchenye zapiski Tavricheskogo Natsionalnogo Universiteta im. V.I. Vernadskogo. Series «Biology, chemistry». – 2003. – V.17 (56). – № 2. – P. 109-114.

Species composition, biotope distribution and density of population beast's mammals on the islands of middle course of the Dniپر are offered.

**Key words:** beast's mammals, colony, density of population.

**Rozhenko N. V. Dynamics and current status of predatory mammals fauna in the Dniپر and Danube deltas** // Uchenye zapiski Tavricheskogo Natsionalnogo Universiteta im. V.I. Vernadskogo. Series «Biology, chemistry». – 2003. – V.17 (56). – № 2. – P. 115-120.

Destruction of the steppe biota in the 19–20<sup>th</sup> centuries has resulted in reducing the territory and fragmentation of habitats for many animals. Some species completely disappeared; others were saved in the most comfort areas. In the south of Ukraine such areas for a lot of predatory mammals are the deltas Dniپر and Danube. In the beginning of the 20<sup>th</sup> century there were 11 species of predatory mammals, while in the beginning of the 21<sup>st</sup> century there lived only 14 species. In spite of an intensive anthropogenic transformation of the delta cenoses, the deltas themselves have saved their main ecological characteristics, being the most important habitats of the European wildcat, European mink and otter in the steppe zone. At present some island populations of the jackal and marten are forming there. The deltas of the Dniپر and Danube are now characterized by the richest species diversity of predatory mammals in Ukraine.

**Key words:** fauna, population, delta, river, predatory mammals.

**Kolesnikov M. A., Kondratenko A. V. Current state of populations of rare mammals of Mustelidae family at South-Eastern Ukraine** // Uchenye zapiski Tavricheskogo Natsionalnogo Universiteta im. V.I. Vernadskogo. Series «Biology, chemistry». – 2003. – V.17 (56). – № 2. – P. 121-129.

Data on the current populations' state for six Mustelidae species (*Mustela erminea*, *M. eversmanni*, *M. lutreola*, *Vormela peregusna*, *Lutra lutra*, *Meles meles*) at South-

Eastern Ukraine in borders of the Lugansk and the Donetsk administrative provinces are given. Factors having a negative influence on density and abundance of these species in the region are considered.

**Key words:** carnivores, Mustelidae, abundance, natural reserve, South-Eastern Ukraine, Red Data Book of Ukraine.

**Sheshurak P. Prospects of study of a fauna in the territory of projected national parks in the Chernigiv region** // Uchenye zapiski Tavricheskogo Natsionalnogo Universiteta im. V.I. Vernadskogo. Series «Biology, chemistry». – 2003. – V.17 (56). – № 2. – P. 130-133.

The brief information about projected national parks and their mammal fauna in the Chernigiv region are given in the article. Prospects of study of mammal fauna in this territory with respect to formation of national parks are given too.

**Key words:** Chernigiv region, national park, mammal fauna, prospects of study.

**Srebrodolska Y.B., Dykyy I.V., Mysyuk V.O. Mammal fauna of the shutsk national natural park** // Uchenye zapiski Tavricheskogo Natsionalnogo Universiteta im. V.I. Vernadskogo. Series «Biology, chemistry». – 2003. – V.17 (56). – № 2. – P. 134-143.

Complex study of the mammals was held during 2000–2003 on the territory of the Shutsk National Natural Park. Present composition of the mammal fauna was ascertained, which includes 53 species, among which 8 are listed in the Ukrainian Red Data Book. The occurrence of 9 new for the fauna species was discovered. Detailed study of the bat fauna was carried out for the first time. As a result, 7 parental colonies of the four species were found, e.g. *P. pipistrellus*, *P. nathusii*, *M. dasycneme*, *N. noctula*: 4 monospecific and 3 polyspecific. 95 bat specimens were captured, among them 86 were ringed.

**Key words:** Shutsk national natural park, mammals, fauna.

**Sitnikova E.F. Carnivorous mammal biosphere reserve “Bryansky Les” (Russia, Bryansk Region)** // Uchenye zapiski Tavricheskogo Natsionalnogo Universiteta im. V.I. Vernadskogo. Series «Biology, chemistry». – 2003. – V.17 (56). – № 2. – P. 144-150.

The reserve is organized in 1987 in the left coast part of a river Desna, his area 12168 ha. The items of information on 13 species of carnivorous mammals (28,3 % of theriofaune) are resulted.

**Key word:** carnivorous mammal; species composition and abundance in the reserve.

**Samchuk M.G., Sagaidak A.V., Smagol' V.M. Hunting teriofauna of Mizrichinsky regional landscape park** // Uchenye zapiski Tavricheskogo Natsionalnogo Universiteta im. V.I. Vernadskogo. Series «Biology, chemistry». – 2003. – V.17 (56). – № 2. – P. 151-153.

Ecological-faunetic review of mammals' hunting species is stated. The structure of mammals' species is not changed for long-time practical use. The teriofauna has rare species. The cause of optimization of ungulate animals' populations is reinforcement of biotechnical and guard measures.

**Key words:** Mizrichinsky RLP, teriofauna.

**Bashta A.-T. Species composition of bats (Chiroptera) in the reverie forests of Borzhava river (Transcarpathians) // Uchenye zapiski Tavricheskogo Natsionalnogo Universiteta im. V.I. Vernadskogo. Series «Biology, chemistry». – 2003. – V.17 (56). – № 2. – P. 154-159.**

Reverie forests of the lower part of Borzhava (Transcarpathian region) are very important habitats for the occurrence and feeding a lot of bat species. 16 bat species (almost 60% of bat fauna of Ukraine) are noted here. 5 of them are included to the Red Data book of Ukraine. Obtained data underline the necessity of protection of these reverie forests.

**Key words:** bats, biodiversity, reverie forests, Ukraine.

**Tytar V., Hammer M. Monitoring wolf (*Canis lupus* L.) in the «Kinburnska kosa» regional landscape park // Uchenye zapiski Tavricheskogo Natsionalnogo Universiteta im. V.I. Vernadskogo. Series «Biology, chemistry». – 2003. – V.17 (56). – № 2. – P. 160-170.**

A quantitative baseline set in 2001 for monitoring the relative abundance of wolves in the Kinburnska protected area in Ukraine and checked in 2002, has been checked repeatedly against the data for 2003. There seems to be a sharp decline in wolf numbers, best indicated by regression analysis of cumulative numbers wolf tracks/km/day recorded on the transects. The decline may be due to the extremely cold and harsh winter of 2002/2003. Although wolf numbers seem to be very low, there has been no distortion of the sex ratio (remaining 1:1) and percentage of juveniles (up 50% of footprints belong to young wolves), giving hope that under favorable conditions the wolf population in the area may restore itself.

**Key words:** *Canis lupus*, monitoring, relative abundance.

**Borovik E. M. Dynamics the density of families distribution marmot population (*Marmota bobac* Muller, 1776) // Uchenye zapiski Tavricheskogo Natsionalnogo Universiteta im. V.I. Vernadskogo. Series «Biology, chemistry». – 2003. – V.17 (56). – № 2. – P. 171-172.**

As a result of infringement of conditions make hay in reservation, and as reduction of a stocking level on unprotected terrains, there was a deterioration of conditions of a habitation marmot. It has resulted to decrease of the density of the family's distribution marmot populations of the Streltsivsky steppe.

**Key words:** family field, reservat of a succession, decreases numbers marmot.

**Tokarsky V.A. Historical changes of the geographical ranges and abundance of the steppe Marmot (*Marmota bobak* Muller, 1776) in Ukraine // Uchenye zapiski Tavricheskogo Natsionalnogo Universiteta im. V.I. Vernadskogo. Series «Biology, chemistry». – 2003. – V.17 (56). – № 2. – P. 173-185.**

In the past marmots in the European parts of Russia and Ukraine were simply landscape animals but a large-scale cultivation of steppe virgin lands resulted in a sharp decrease of their number. At the beginning of the 20<sup>th</sup> century the European bobac are the European subspecies of the steppe marmot was on the verge of disappearance but due to

the protection measures taken it appears non to be the only subspecies among the European marmots the number and the range of which have increased in recent years. The steppe marmot is represented in Ukraine by two populations in Kharkov and Lugansk regions formed on the basis of a small number of separate colonies in Melovsk and Velikobourluks districts. In the late 60<sup>th</sup> and the early 70<sup>ies</sup> the steppe marmot distributed to Voronezh, Rostov and Belgorod regions of Russia. To Belgorod region the steppe marmot penetrates from the Lugansk and the Kharkov populations.

**Key words:** Ukraine, Marmots, populations.

**Skorobogatov, Eu.V., Atemasova, T.A., Atemasov, A.A. The dynamics of Eurasian beaver colonies in flood-plain altered by drainage // Uchenye zapiski Tavricheskogo Natsionalnogo Universiteta im. V.I. Vernadskogo. Series «Biology, chemistry». – 2003. – V.17 (56). – № 2. – P. 186-191.**

The results of long-term observations on *Castor fiber* L., 1758 colonies in a drained flood-plain are presented. The beavers prefer canals with luxurious emergent and submerged vegetation when choosing family home range. Experiencing the shortage of suitable sites pairs formed by young animals occupy former feeding grounds and, thus, establish new independent settlements.

**Key words:** beaver, *Castor fiber*, colony, family.

**Arutyunyan L.S., Dulitsky A.I. Cannibalism and generation's activity – key population's adaptations by Norway rat (*Rattus norvegicus* Berk.) on use of a food resource during seasonal pessimums // Uchenye zapiski Tavricheskogo Natsionalnogo Universiteta im. V.I. Vernadskogo. Series «Biology, chemistry». – 2003. – V.17 (56). – № 2. – P. 192-197.**

In 1983–1993, in a zone of rice's cultivation was studied dynamics of duplication of a rat. We have noted of regular autumn generation, winter and early spring duplication. It is not characteristic for not sleeping in the winter and not reserving forage of kinds at treatment of events from position individuals. The phenomenon is treated with population's positions. Superfluous number individuals, not supplied by forages in the period of pessimum, represent a fodder resource of a population, which is realized by means of cannibalism and necrophagia. In such case Norway rat, it is necessary to consider as a reserving kind at a level of a population. The opinion, that such preparation of stocks – more progressive adaptation expresses in comparison with others. She is universal, as allows a population to accumulate greatest possible for the given conditions a resource for a survival at extreme displays of pessimum. At soft pessimums the powerful spring duplication conducting to increase density and expansion of area of a kind is initiated. It is supposed, that cannibalism at rat – essential population's mechanism of strategy of a survival and that such mechanism is characteristic, apparently, and for others not sleeping in the winter and not reserving kinds, as house mouse.

**Key words:** Norway rat, cannibalism, adaptation.



**Timoshenkov V. A. *Mustela putorius* and *Vormela peregusna* in the natural reserve “Khomutivsky steppe”** // Uchenye zapiski Tavricheskogo Natsionalnogo Universiteta im. V.I. Vernadskogo. Series «Biology, chemistry». – 2003. – V.17 (56). – № 2. – P. 198-202.

*Mustela putorius* and *Vormela peregusna* regularly registered on the territory of the natural reserve “Khomutivsky steppe”. Records of the first species are located near the banks of river and in human buildings, and the second species – at the open steppe sites. Individuals of both species are registered more often in the years that follow after the peak of rodent abundance. The reasons of death of individuals of both species are their collisions with the human, both in settlements and reserve territory. At the moment, the reserve does not provide the protection for these species.

**Key words:** *Mustela putorius*, *Vormela peregusna*, protection.

**Didyk J. Studying of wild mammals trichinelosis in Ukraine** // Uchenye zapiski Tavricheskogo Natsionalnogo Universiteta im. V.I. Vernadskogo. Series «Biology, chemistry». – 2003. – V.17 (56). – № 2. – P. 203-205.

Epizootic situation on trichinellosis of wild carnivores and omnivores in some regions of Ukraine is described.

**Key words:** wild mammals, trichinellosis, hunters.

**Bobkova O. Distribution of mites and ticks as bats' ectoparasites in caves of Ukraine** // Uchenye zapiski Tavricheskogo Natsionalnogo Universiteta im. V.I. Vernadskogo. Series «Biology, chemistry». – 2003. – V.17 (56). – № 2. – P. 205-211.

On the territory of Ukraine for bats in caves 21 species of the ticks concerning 7 families and 11 genera was registered. In structure of fauna of ectoparasites of bats living in underground of the Crimean peninsula, Podolia and Bukovina, family Macronyssidae characterized by the most species and taxonomic riches. Occurs both polyxenic, and oligoxenic species.

**Key words:** ectoparasites, ticks, mites, bats, caves, Ukraine.

**Denisova E.V. Vertebrates as natural enemies of bats** // Uchenye zapiski Tavricheskogo Natsionalnogo Universiteta im. V.I. Vernadskogo. Series «Biology, chemistry». – 2003. – V.17 (56). – № 2. – P. 211-215.

Summary. In the review on the literary and own data are systematized and the items of information about natural and synantropical enemies of bats (mainly from territory former USSR) are classified. Are given the lists of species of enemies of bats and all victims.

**Key words:** bats, enemies, victim.