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SUBGENERIC SYSTEMATICS OF HARES OF THE GENUS

LEPUS (LAGOMORPHA, LEPORIDAE)

A.O. Averianov

Summary

The systematics of the genus Lepus is revised. The genus includes 22 living and 3 fossil species; they were united into seven subgenera: Sinolagus, subgen. nov. (type L. sinensis Gray, 1832), Poecilologus Lyon, 1904, Eulagos Gray, 1867, Lepus s. str., Tarimologus Gureev, 1947, Sabanolagus, subgen. nov. (type L. victoriae Thomas, 1893) and Macrotolagus Mearns, 1896.

SEXUAL DIMORPHISM AND SEASONAL CHANGE

OF THE SONG IN ALTAI PIKA (OCHOTONA ALPINA)

A.A. Nikol'skii, T.D. Mukhamediev

Summary

In 1991 — 1993 in Sayano-Shushenskii state biosphere reserve (West Sayan, South of Krasnoyarsk Territory) we observed vocal activity of Altai pika. Animals were marked with ear tags. Vocal displays of pikas were tape-recorded. Electro-acoustical analysis of recordings was done. In the vocal repertoire of Altai pika we found the song — acoustical display involving several structural components. Also testises of males were measured.

Trill is a component of the song of adult males and it never occurs in the song of adult females. Singing activity in males is maximum in breeding season and reduces to zero level in late summer. On the contrary, singing activity in females is minimum in breeding season and gets maximum level in late August. Critical moment of the seasonal dynamics of adult males’ and females’ vocal activity sets in early July. This time vocal activity of females begins to dominate over that of males. This period is characterized by the most complex changes in the species living cycle. Pikas' breeding activity fades, they start to store the food for winter; peak of nesting period still exists, but the young animals begin dispersing. Period of females' maximum vocal activity coincides with the period of stabilization of spatial pattern of the settlement. Males' vocal activity positive correlates with the size of testises. It is supposed that vocal activity of males undergoes hormonal (androgen) control.

MONGOLIAN GAZELLE (PROCAPRA GUTTUROSA PALL.)

IN SOUTH-EASTERN TRANSBAIKALIA

V.E. Kirilyuk, A.A. Cherepitsin

Summary

In the 18th century Mongolian gazelle (Procapra gutturosa Pall.) inhabited all the steppe zone in South-Eastern Transbaikalia (Russia). Thousands of gazelles migrated there in winter from Mongolia and China. The local population had been disappearing through people fault until 1970s—1980s. Since 1992, the local population from adjoining area of Mongolia has settled in South-Eastern Transbaikalia on the territory of "Daursky" nature reserve. In 1994 50 to 60 gazelles and in 1995 — about 25 gazelles bred in the reserve. Simultaneously, the intensity of gazelles' migration in Mongolia has increased toward the sector between Torey Lakes and the junction of Russian, Mongolian and Chinese borders. This is a result of the increase in the number of gazelles in Eastern Mongolia. Also some prerequisites exist for the species restoration in South-Eastern Transbaikalia now.

CAUCASIAN OTTER (L.I. MERIDIONALIS OGENEV, 1931)

AT THE SOUTH-EASTERN TRANSCAUCASIAN REGION

V.P. Litvinov

Summary

Otters are rare in the area examined. Their presence at Kyzyl-Agach reserve was first mentioned in 1937. In 1970s after Malyi Kyzyl-Agach gulf was transformed into a freshwater reservoir their numerity started growing. The presence of several otter families has been reported every year, and in
1974 a crumbled burrow with blind cubs in it was found. A year later a couple of adult otters with one-year-old whelp was caught.

When large reservoirs were maid in Talysh mountains and a network of water-feeding collectors was laid in stepe areas of south-eastern Transcaucasian region, some former otter inhabitations appeared to be demolished while new ones showed up. The coloration of individuals examined as well as their body and skull sizes are provided in the present paper.

NEW SPECIES OF GALL-MIDGES (DIPTERA, CECIDOMYIIDAE) FROM ASTERACEAE IN KAZAKHSTAN

Z.A. Fedotova

Summary
Six new species of gall-midges are described: Arthrocnodax asiaticus sp. n., A. chondrillaphilus sp.n., Dasineura seneciocola sp. n. and Jaapiella cousiniae sp. n. Four of them are found to be predators of plant mites on Achillea, Chondrilla and Hieracium. Two new species from the genera Dasineura and Jaapiella develop in flower galls on Cousinia and Senecio. Cousinia is a new source of food known for gall-midges. Data on biology and distribution of new gall-midges are given.

DISTRIBUTION AND BIOLOGY OF RARE SPECIES OF NIMPHALIDAE (LEPIDOPTERA) — MELITAEA ACRAEINA STAUDINGER, 1886

A.V.-A. Kreuzberg

Summary
A population of the rare endemic species Melitaea acraeina Staudinger, 1886 was found in Fergana Valley. For a long period of time the special studies on biology, phenology and numerity dynamics of this species were held. At present, this species appears to be ruderal, being recorded in agrolandscapes, because its original biotopes were destroyed.

ANATOMY OF BARK IN LONICERA SPECIES

L.I.Lotova, M.V.Nilova

Summary
The stem bark anatomy in 39 species of the genus Lonicera was studied. All the species examined were found to be very close to each other in the structure of one-year-old and perennial shoots. The primary bark consists of parenchyma and collenchyma. It becomes deformed at the early stages. The primary phloem is represented by fibers, markedly large in section, forming an entire ring. The secondary phloem in one-year-old shoots consists of sieve tubes with companion cells and storage parenchyma. Sieve plates are compound, with 6—10 sieve areas in each. The secondary phloem in perennial stems also contains fibers, forming diversely shaped groups. At the first vegetation period the first periderm originates directly under the ring of protophloem fibers. The circular rhytidome in perennial stems consists of periderms, alternating with died sites of secondary phloem. The outer cork layers gradually exfoliate.

A PROBLEM OF AGE STATE DISTINGUISHING IN ORCHIDACEAE (CALYPSO BULBOSA (L.) OAKES AS AN EXAMPLE)

T.N. Vinogradova

Summary
Giving Calypso bulbosa as an example, we considered the possibility of using some structural traits (including a number of leaf nerves) for distinguishing age states in the species studied. Observations, being held for many years, revealed that the number of nerves could either increase or decrease in the particular plant after usual leaf changing. When a population underwent stress situations (frosts, transplantation), the number of plants with the nerve number changed (in one or another way) increased. Also some questions pertaining to Calypso ecology are discussed in the present issue.
SPECIFIC STRUCTURES OF SEED COAT
IN PODOCARPACEAE ENDLICHER, 1847 AND A POSSIBILITY
OF USING THEM IN FAMILY SYSTEMATICS

A.V. Bobrov, A.P.Melikjan

Summary
We described cavities (‘camera’) found in the seed coat in some podocarps species. We believe that these cavities are unique structures having a great phylogenetical weight, particularly — rudiments of cavities of exterior sporangial ring. This exterior sporangial ring and interior one organised synangium — an ancestral ovular structure (according to M. Benson’s synangial hypothesis). The presence of the cavities is an important systematic feature. The single representative of genus Dacrycarpus with this kind of seed coat cavities — D. dacrydioides (from New Zealand) deserves to be distinguished to a separate genus. The priority genus name with corrected diagnosis (Dacrycarpus (Endl.) de Laub. emend. Bobrov et Melikjan) should be conserved for single New Zealand species. Other species of ‘Dacrycarpus’ (all — from Malesia) that are different from D. dacrydioides by many important specific features have been distinguished to genus Bracteocarpus Bobrov et Melikjan gen. nov. Studied 20 species of Podocarpus s.str. that have this kind of seed coat cavities have been distinguished to separate genus Margbensonia Bobrov et Melikjan gen. nov.

ANATOMICAL SPECIALITIES OF FAR EASTERN BENTS (AGROSTIS L.)

E.I. Kurchenko

Summary
Anatomical structure of lamina in 10 species of the genus Agrostis L. inhabiting Far East was investigated. The following characters were proved to have taxonomic significance: lamina shape, number of trichomes and motor cells, sclerenchyma development and location, etc. Species-specific anatomical peculiarities are revealed. Species of sect. Agraulus with small chromosome number are relatively poorly differentiated in contrast with clearly differentiated highly polyploid species of sect. Trichodium. The degree of sclerenchyma development correlates with ontogenesis duration.

ALLIUM VODOPJANOVAE FRIESEN
IN STONY STEPPE OF EAST TRANSBAIKALIA

V.A. Cheryomushkina, A.Ju. Krolyuk

Summary
New data on the distribution of Allium vodopjanovae- on the territory of East Siberia are given. Age-class composition of the population was studied. The population was, found to be normal, with bimodal spectrum. With regards to analyzed organismic and populational features of A. vodopjanovae examined was considered to be stable and able for self-reproduction. It was shown that the species studied should be protected, taking into account its biology and phytocoenotic distribution.