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THE FUNCTIONAL ROLE OF SPIDER COMMUNITIES OF ASH-OAK FORESTS BY VERCHNYODNISTROVSKA PLAIN

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Spiders are consumers of second and third sequence. With another predator arthropoda they are formed biotic uniformity (collection of organisms, which one execute same function in usage of streams of matters and energy in an ecosystem and are in one stage of vegetation; Uzenbayev, 1989). Therefore the functional role of spiders in particular communities is expedient for studying on a foundation of their involvement in usage of energy by a complex predatory mesofauna. With this purpose were investigated communities mesoarthropoda substrate (in spring) in flood-plain moist ash-oak forest and drained ash-oak forest, which one are parted by a dike.

In the flood-plain oak forest is original, adapt to flood complex invertebrate. Its characteristic is high population of small predators, which indicate significant production of mesofauna. Carabidae and Aranei are main organization animal of the complex of predator arthropoda. Their energy exchange is 76,9% by summary energy exchange of complex predator arthropoda of mesofauna inner layer of substrate (this data obtained from test by biocenometr), 50,4% - in surface substrate (from trap rest).

The index of average density in moist ash-oak forest is 3,2 times as much, the biomass is 17,5 times as much, and the usage of energy by twenty-four hours is 11,7 times as much in comparison with virgin flood-plain ash-oak forest. The functional base of complex predator arthropoda in inner layer of substrate is formed by Chilopoda and Staphilinidae (81,4% by summary energy exchange), on surface of substrate - Opiliones i Aranei (67,8%).

The role of spiders in transformation of the matters and energy is maximum in communities of active invertebrate of surface of substrate, where their energy exchange is 36,6-37,0% of the by summary energy exchange of predator arthropoda mesofauna.

The energy exchange is highest in the inner layer of substrate in virgin flood-plain ecosystem and amount 27,3% of summary energy exchange of complex predator arthropoda of mesofauna, in drained ecosystem only 5,0%.

ФУНКЦІОНАЛЬНА РОЛЬ УГРУПОВАНЬ ПАВУКІВ ЯСЕНЕВО-ДУБОВИХ ЛІСІВ ВЕРХНЬОДНІСТРОВСЬКОЇ РІВНИНИ

Гірна А.Я.

Встановлено функціональну роль павуків на основі їхньої участі у використанні енергії комплексом хижих членистоногих мезофауни. З'ясовано, що у меліорованих екосистемах ясеневих дібров значення павуків у трансформації речовин і енергії є меншим, ніж у первинних.

PHYLOGENETIC ANALYSIS OF UKRAINIAN BEES

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Some hypotheses about an origin of the Ukrainian bees are known. The first approves, that they occur from *Apis mellifera mellifera* L. (Taranov, 1987), the second - from *Apis mellifera carnica* Pollmann, 1879 (Gubin, 1977), the third - from hybridization of subspecies *A.m.mellifera* and *Apis mellifera carpatica* Foti et al., 1965 (Bilash, Krivtsov, 1991). F.Ruttner (1988) by morphometrical researches attributed the Ukrainian bees to *Apis mellifera macedonica* Ruttner, 1987, but did not include them in a map of distribution of *A.m.macedonica*, because he had not enough of samples. For define valid taxonomy position of the Ukrainian bees it is necessary to carry out phylogenetics researches by sequencing analysis.

In this work we has been determined nucleotide sequence of a fragment of gene ND2 of mitochondrial DNA (mtDNA) three samples of bees from Ukraine (A.D.Komissar's apiary near Kiev), three samples of bees from Russia (Republic Bashkortostan, Burzjansky region) from apiaries the Kapova-cave, the Koran-Elga, and from hollow tree nesting bees from national park «Shulgan-Tash». Analysed sequences of these bee samples have been deposit to GenBank (DQ181611-DQ181623, DQ361088-DQ361090). By comparison and calculation of average genetic distances between samples shown the close genetic relationship of bees from Ukraine from A.D.Komissar's apiary and bees of *A.m.macedonica* from Greece. Bees of subspecies *A.m.mellifera* from Russia, *Apis mellifera ligustica* Spinola, 1806 from Italy, *A.m.carnica* from Austria and Germany had mostly genetically distant from the Ukrainian bees.

Thus, sequencing analysis of a fragment of gene ND2 of mtDNA shown the Ukrainian bees has been attributed to subspecies *A.m.macedonica*. For the greater objectivity data we planned to expand number of bee samples.

ФИЛОГЕНЕТИЧЕСКИЙ АНАЛИЗ УКРАИНСКИХ ПЧЕЛ

Ильясов Р.А., Поскряков А.В., Николенко А.Г., Комиссар А.Д.

До сих пор точно не известно о происхождении пчел Украины и их подвидовой принадлежности. Современная таксономия их относит к подвиду *Apis mellifera sossimai* Engel, 1999. Однако секвенционный анализ фрагмента гена ND2 мтДНК показал, что украинские пчелы могут относиться к подвиду *A.m.macedonica*.