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Papers on Trichoptera presented at the Third All-Russia Symposium on Amphibiotic and Aquatic Insects (Venevitinovo Biological Center of Voronezh State University, September 12–15, 2006).

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Акентьева Н.А., Чайка С.Ю. Морфология хеморецепторных органов водных личинок насекомых // Проблемы водной энтомологии России и сопредельных стран: Материалы III Всероссийского симпозиума по амфибиотическим и водным насекомым. – Воронеж, Воронежский государственный университет, 2007. 409 с. С. 22-27.

[Akentyeva N.A., Chaika S.Yu. Morphology of chemosensory organs in aquatic larvae of insects // Questions of aquatic entomology of Russia and adjacent lands: Materials of the Third All-Russia Symposium on Amphibiotic and Aquatic Insects. – Voronezh, 2007. – P. 22-27.]

The morphological peculiarities of the sensory organs of antennae and mouth-parts in larvae of the amphibious insects with complete metamorphosis are studied with scanning electron microscope: the caddisfly *Limnephilus centralis* Curt. (Trichoptera, Limnephilidae), the mosquito *Culex pipiens* L. (Diptera, Culicidae) and the drone fly *Eristalis* sp. (Diptera, Syrphidae). The postembryonal development of the sensory organs is traced.

Bibliogr. 3. Fig. 2.

Барабанова А.А., Жуковская М.И., Иванов В.Д., Мельницкий С.И. Влияние октопамина на антеннальные ответы у *Phryganea grandis* L. (Trichoptera, Phryganeidae) // Проблемы водной энтомологии России и сопредельных стран: Материалы III Всероссийского симпозиума по амфибиотическим и водным насекомым. – Воронеж, 2007. – С. 30-36.

[Barabanova A.A, Zhukovskaya M.I., Ivanov V.D., Melnitsky S.I. Octopamine influence to the antennal responses in *Phryganea grandis* L. (Trichoptera, Phryganeidae) // Questions of aquatic entomology of Russia and adjacent lands: Materials of the Third All-Russia Symposium on Amphibiotic and Aquatic Insects. – Voronezh, 2007. – P. 30-36.]

Octopamine influences the antennal sensitivity in the caddisfly species *Phryganea grandis* under experimental conditions: injections reduce the EAD response to hexan-1-ol stimulation in males and do not affect females. The antennae are more sensitive to this volatile chemical in males than in females. Similar sex-specific effect of octopamine was earlier found in Lepidoptera, but not recorded in Blattodea so far.

Bibliogr. 5. Fig. 3.

Барышев И.А. Суточная динамика вылета ручейников *Agapetus ochripes* Curt. и *Hydroptila tineoides* Dalm. в реке Индера (Кольский полуостров, Россия) // Проблемы водной энтомологии России и сопредельных стран: Материалы III Всероссийского симпозиума по амфибиотическим и водным насекомым. – Воронеж, 2007. – С. 37-39.

[Baryshev I.A. Daily dynamics of adult emergence of caddisflies *Agapetus ochripes* Curt. and *Hydroptila tineoides* Dalm. in the Indera River (Kola Peninsula, Russia) // Questions of aquatic entomology of Russia and adjacent lands: Materials of the Third All-Russia Symposium on Amphibiotic and Aquatic Insects. – Voronezh, 2007. – P. 37-39.]

The daily dynamics of the adult emergence of the caddisflies *Agapetus ochripes* Curt. and *Hydroptila tineoides* Dalm. were studied in the Indera River, located near the Polar Circle. In the first half of June, adults of *Agapetus ochripes* emerge only in the afternoon; at the beginning of July *Hydroptila tineoides* adult emergence occurred, being bimodal, with the second peak after sunset. After leaving from the pupal cocoons, the caddisflies went upward and reached the bank on the surface of water.

Bibliogr. 12. Fig. 1.

Гигиняк И.Ю. Видовое разнообразие и биотопическая приуроченность личинок ручейников (Trichoptera) в озерных и речных экосистемах центральной и северной частей Беларуси // Проблемы водной энтомологии России и сопредельных стран: Материалы III Всероссийского симпозиума по амфибиотическим и водным насекомым. – Воронеж, 2007. – С. 58-65.

[Giginyak I.Yu. Species diversity and biotopic preferences of Trichortera larvae in lacustrine and riverine ecosystems of central and northern parts of Belarus // Questions of aquatic entomology of Russia and adjacent lands: Materials of the Third All-Russia Symposium on Amphibiotic and Aquatic Insects. – Voronezh, 2007. – P. 58-65.]

The specific variety of caddisfly larvae in 17 rivers and 17 lakes, different in morphometric characteristics and the degree of anthropogenous influence of central and northern parts of Belarus, was studied. Collected and identified specimens belonged to 42 species from 7 families. The Sorensen-Czekanowski index between lakes and rivers is 0,196. The correlation between caddisfly species number and the coefficient of a coast indentation, and the correlation of species number and the chromaticity of water are shown.

Bibliogr. 4. Fig. 2. Tabl. 3.

Григоренко В.Н., Иванов В.Д., Мельницкий С.И. Новые данные по фауне ручейников (Trichoptera) Кавказа // Проблемы водной энтомологии России и сопредельных стран: Материалы III Всероссийского симпозиума по амфибиотическим и водным насекомым. – Воронеж, 2007. – С. 74-84.

[Grigorenko V.N., Ivanov V.D., Melnitsky S.I. New data on the fauna of caddisflies (Trichoptera) of the Caucasus // Questions of aquatic entomology of Russia and adjacent lands: Materials of the Third All-Russia Symposium on Amphibiotic and Aquatic Insects. – Voronezh, 2007. – P. 74-84.]

Additions to the Trichoptera fauna of the Caucasus are given and faunistic changes are listed according to both original samplings and materials from the Zoological Institute of the Russian Academy of Sciences. Altogether 37 species are discussed; some faunistic changes are made on the basis of recent publications.

Bibliogr. 35.

Данькова Н.В., Иванов В.Д. Фауна ручейников (Trichoptera) рек Кольского полуострова // Проблемы водной энтомологии России и сопредельных стран: Материалы III Всероссийского симпозиума по амфибиотическим и водным насекомым. – Воронеж, 2007. – С. 87-95.

[**Dankova N.V., Ivanov V.D.** Fauna of caddisflies (Trichoptera) of rivers of the Kola Peninsula // Questions of aquatic entomology of Russia and adjacent lands: Materials of the Third All-Russia Symposium on Amphibiotic and Aquatic Insects. – Voronezh, 2007. – P. 87-95.]

Data on the fauna of caddisflies (Trichoptera) of 13 rivers of the Kola Peninsula are provided on the basis of the authors' collections and materials from the Zoological Institute RAS. The total checklist of caddisflies, with literature records, includes 80 species from 18 families. Maximum species diversity is in the families Limnephilidae (21 species), Leptoceridae (10) and Hydropsychidae (8).

Bibliogr. 12. Tabl. 1.

Заика В.В. Ручейники (Trichoptera) Тувы и Северо-Западной Монголии // Проблемы водной энтомологии России и сопредельных стран: Материалы III Всероссийского симпозиума по амфибиотическим и водным насекомым. – Воронеж, 2007. – С. 120-125.

[**Zaika V.V.** The caddisflies (Trichoptera) of Tuva and northwestern Mongolia // Questions of aquatic entomology of Russia and adjacent lands: Materials of the Third All-Russia Symposium on Amphibiotic and Aquatic Insects. – Voronezh, 2007. – P. 120-125.]

A checklist of the species of caddisflies (Trichoptera) of the principal river basin systems of the Tuva Republic and northwestern Mongolia is given.

Bibliogr. 15.

Иванов В.Д. Структура, функции и эволюция крыловых сочленений ручейников // Проблемы водной энтомологии России и сопредельных стран: Материалы III Всероссийского симпозиума по амфибиотическим и водным насекомым. – Воронеж, 2007. – С. 132-139.

[**Ivanov V.D.** Structure, function and evolution of wing articulations in caddisflies // Questions of aquatic entomology of Russia and adjacent lands: Materials of the Third All-Russia Symposium on Amphibiotic and Aquatic Insects. – Voronezh, 2007. – P. 132-139.]

Structural and functional analysis of wing articulations in caddisflies reveals specific characters at the family level. Evolution of the articulation is functionally dependent on and influenced by the wing coupling in flight. The evolutionary trends, taxonomic significance of the wing articulations in caddisflies, and the fossil evidence are discussed.

Bibliogr. 16. Fig. 1.

Иванчева Е.Ю. Распределение Trichoptera по типам водоёмов и влияние гидрологического режима на их жизнедеятельность в условиях Окского заповедника // Проблемы водной энтомологии России и сопредельных стран: Материалы III Всероссийского симпозиума по амфибиотическим и водным насекомым. – Воронеж, 2007. – С. 140-144.

[**Ivancheva E.Yu.** The allocation of Trichoptera in different water bodies and the influence of hydrological conditions on their vitality in the Okskiy Reserve // Questions of aquatic entomology of Russia and adjacent lands: Materials of the Third All-Russia Symposium on Amphibiotic and Aquatic Insects. – Voronezh, 2007. – P. 140-144.]

The study was performed in May–July 1990–1997 in the Okskiy Reserve and the adjacent territory. The allocation of Trichoptera in different types of water bodies was analyzed. It was found that the level and the speed of flood have a maximum influence on the vitality of caddisflies.

Bibliogr. 6. Tabl. 1.

Корноухова И.И. Географические предпосылки генезиса фаун ручейников (Trichoptera) Большого Кавказа и Закавказского нагорья и сопоставление систематического состава этих фаун // Проблемы водной энтомологии России и сопредельных стран: Материалы III Всероссийского симпозиума по амфибиотическим и водным насекомым. – Воронеж, 2007. – С. 149-152.

[**Kornoukhova I.I.** Geographical preconditions of the genesis of caddisfly (Trichoptera) faunas of the Big Caucasus and Transcaucasian mountains and comparison of their systematic composition // Questions of aquatic entomology of Russia and adjacent lands: Materials of the Third All-Russia Symposium on Amphibiotic and Aquatic Insects. – Voronezh, 2007. – P. 149 -152.]

The main features of the geographical preconditions of the genesis of the Caucasus caddisfly fauna and the regular structure of the faunas of Trichoptera of mountain areas of the Caucasus (the Big Caucasus and the Transcaucasian mountains) are considered. In both faunas, the quantity of genera and species is similar, whereas their composition is very different. The historical distinction of the geographic preconditions of the Caucasus mountain fauna formation is emphasized for the first time: West Asia strongly influenced all the Caucasus fauna, but its Transcaucasian part initiated as a component of the fauna of West Asia, to which the Transcaucasian mountains structurally belong.

Bibliogr. 2. Tabl. 1.

Корноухова И.И., Хазеева Л.А. Амфибиотические насекомые бассейна реки Урух (Северный Кавказ) // Проблемы водной энтомологии России и сопредельных стран: Материалы III Всероссийского симпозиума по амфибиотическим и водным насекомым. – Воронеж, 2007. – С. 152 -158.

[**Kornoukhova I.I., Khazeyeva L.A.** Amphibiotic insects of the Urukh river basin (Nothern Caucasus) // Questions of aquatic entomology of Russia and adjacent lands: Materials of the Third All-Russia Symposium on Amphibiotic and Aquatic Insects. – Voronezh, 2007. – P. 152 - 158.]

The basic features of the systematic structure and ecological conditions of the distribution of representatives of four groups of amphibiotic insects (Ephemeroptera, Plecoptera. Trichoptera and Diptera) in the river basin of the Urukh, left-hand tributary of the Terek, are considered. It is found that the brook fauna is the most developed and that the fauna of the lower reaches of the Urukh is reduced in general.

Bibliogr. 2. Fig. 1. Tabl. 1.

Мельницкий С.И. Ультраструктура клеток стернальных феромонных желез Trichoptera // Проблемы водной энтомологии России и сопредельных стран: Материалы III Всероссийского симпозиума по амфибиотическим и водным насекомым. – Воронеж, 2007. – С. 192-203.

[**Melnitsky S.I.** Cell ultrastructure of sternal pheromone glands in Trichoptera // Questions of aquatic entomology of Russia and adjacent lands: Materials of the Third All-Russia Symposium on Amphibiotic and Aquatic Insects. – Voronezh, 2007. – P. 192-203.]

Recent Trichoptera and primitive Lepidoptera are characterized by the presence of sternal glands that secrete pheromones on the fourth and fifth abdominal segments. The fine structure of these glands is described for the first time. The ultrastructure of cells of the pheromone glands of the fifth abdominal segment of caddisflies is analysed in both sexes of *Rhyacophila obliterata* (Rhyacophilidae) and *Chaetopteryx villosa* (Limnephilidae), which have the first and the third morphological type of sternal glands, respectively. The paired sternal glands consist of a cuticular saccular reservoir and three types of cells: cells of hypoderm, terminal secretory cells, and canal cells. The secretory and canal cells in the aggregate form a complicated cell complex, in which secretory cells produce the secretion, while the canal cells form the receiving and conducting cuticular canals. These ducts provide the canal cell discharge of the secretion into the cavity of the gland's reservoir. Comparative analysis of the ultrastructure of pheromone gland cells reveals considerable differences in cell structure among the studied species.

Bibliogr. 26. Fig. 1. Tabl. 1.

Наумова Н.В., Сиренко А.Г. Дополнение к фауне Trichoptera Восточных Карпат // Проблемы водной энтомологии России и сопредельных стран: Материалы III Всероссийского симпозиума по амфибиотическим и водным насекомым. – Воронеж, 2007. – С. 218-221.

[**Naumova N.V., Sirenko A.G.** Additions to the fauna of Trichoptera of the eastern Carpathians // Questions of aquatic entomology of Russia and adjacent lands: Materials of the Third All-Russia Symposium on Amphibiotic and Aquatic Insects. – Voronezh, 2007. – P. 218 – 221.

In the course of a study of the fauna of the Trichoptera (Insecta, Arthropoda) of the Gorgan mountains, eastern Carpathians, in 2000–2005, 14 species of Trichoptera were recorded. 2 of them are new to the fauna of the Carpathians and 1 is new to the Ukraine.

Bibliogr. 21. Tabl. 1.

Самохвалов В.Л. Учет численности и характер распределения личинок *Grensia praeterita* McL. в литорали озера Джека Лондона (Магаданская область, Верхняя Колыма) // Проблемы водной энтомологии России и сопредельных стран: Материалы III Всероссийского симпозиума по амфибиотическим и водным насекомым. – Воронеж, 2007. – С. 292-295.

[**Samokhvalov V.L.** Records of the number and character of allocation of *Grensia praeterita* McL. larvae in the littoral of Jack London Lake (Magadan Area, Upper Kolyma) // Questions of aquatic entomology of Russia and adjacent lands: Materials of the Third All-Russia Symposium on Amphibiotic and Aquatic Insects. – Voronezh, 2007. – P. 292-295.]

The results of recording larvae by instruments in different working areas are discussed. Changes of the basic parameter of abundance, depending on the surveyed area, are shown.

Bibliogr. 1. Fig. 2. Tabl. 1.

Сукачева И.Д. Пермские ручейники семейства Protomeropidae (Trichoptera, Protomeropina) и их место в системе насекомых // Проблемы водной энтомологии России и сопредельных стран: Материалы III Всероссийского симпозиума по амфибиотическим и водным насекомым. – Воронеж, 2007. – С. 350-355.

[**Sukatsheva I.D.** Permian caddisflies of the family Protomeropidae (Trichoptera, Protomeropina) and their place in the insect system // Questions of aquatic entomology of Russia and adjacent lands: Materials of the Third All-Russia Symposium on Amphibiotic and Aquatic Insects. – Voronezh, 2007. – P. 350-355.]

The Protomeropina is the oldest suborder of Trichoptera known from the Permian (250 myr). It comprises four extinct families, of which Protomeropidae is discussed here. Members of this family have homonomous wings with rich non-specialized venation. The morphology of numerous new and previously known fossils demonstrate the significant similarity of Protomeropidae to the basal Mecoptera, and furthermore, of the basal Amphiesmenoptera to the basal Neuroptera (rather than to Neuropteroidea as a whole).

Bibliogr. 9. Fig. 2.

Хатухов А.М., Якимов А.В. К познанию фауны ручейников (Trichoptera) Кабардино-Балкарской республики // Проблемы водной энтомологии России и сопредельных стран: Материалы III Всероссийского симпозиума по амфибиотическим и водным насекомым. – Воронеж, 2007. – С. 359 -363.

[**Khatukhov A.M., Yakimov A.V.** A contribution to the knowledge of the caddisflies (Trichoptera) of the Kabardino-Balkariya Republic // Questions of aquatic entomology of Russia and adjacent lands: Materials of the Third All-Russia Symposium on Amphibiotic and Aquatic Insects. – Voronezh, 2007. – P. 359-363.]

A checklist of 36 species of caddisflies that occur in Kabardino-Balkariya is given; collection localities and the number of specimens are indicated. The highest caddisfly diversity is observed in the zone of groundwater discharge in the foothill forest-steppe (Chernorechenskiye Springs).

Bibliogr. 4. Tabl. 1.

Шубина В.Н. Ручейники (Trichoptera) в бентосе водотоков бассейна верхнего течения Печоры // Проблемы водной энтомологии России и сопредельных стран: Материалы III Всероссийского симпозиума по амфибиотическим и водным насекомым. – Воронеж, 2007. – С. 380-385.

[**Shubina V.N.** Trichoptera in the benthos of the upper Pechora river basin streams // Questions of aquatic entomology of Russia and adjacent lands: Materials of the Third All-Russia Symposium on Amphibiotic and Aquatic Insects. – Voronezh, 2007. – P. 380-385.]

Trichopterans are widespread in the benthos of the upper Pechora river basin streams. The list of Trichoptera of this territory's streams includes 27 species from 13 families. The European and Palaearctic species along with some northern elements predominate in the Trichoptera fauna.

Bibliogr. 3. Tabl. 2.