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Contents	English Page	Russian Page
TRYAPITSYN (TRJAPITZIN), V.A.: Possibilities of Introducing Chalcidoidea (Hymenoptera), Enemies of the Pests of Agricultural Crops, into the USSR	1	484
YAGODIN, S.V.: Functional Properties of the Antennal Receptors of the Cockroach <i>Periplaneta americana</i> L. (Blattodea) with Reference to the Maintenance of Prolonged Flight	13	511
BRODSKIY (BRODSKY), A.K.: Evolution of the Wing Apparatus in Stoneflies (Plecoptera). III. Wing Deformation in <i>Iso-genus nubecula</i> Newman During Flight	25	523
STEKOL'NIKOV, A.A. AND V.I. KUZNETSOV: Functional Morphology of the Male Genitalia and Some Notes on the Systematics of Moths of the Subfamily Geometrinae (Lepidoptera, Geometridae)	37	535
SLEPYAN, E.Z. AND N.I. GABARAYEVA: Structure and Development of the Gall Formed by the Larva of the Sawfly <i>Pontania proxima</i> (LEPEL.) (Hymenoptera, Tenthredinidae) on the Leaves of the Willow <i>Salix fragilis</i> L.	55	550
SYCHEVSKAYA (SKTSHEVSKAJA), V.I.: The Predatory Fly <i>Paraprosalpia silvestris</i> Fall. (Diptera, Anthomyiidae) and Its Prey	66	557
CHUMAKOVA, I.V., M.P. KOZLOV, AND A.M. BELOKOPYTOVA: Estimation of the Role of Feeding on the Reproduction of Rodent Fleas (Siphonaptera) Bred on Various Hosts	71	562
BELOV, V.V.: A New Species of the Genus <i>Heptagenia</i> Walsh (Ephemeroptera, Heptageniidae) from the South of the Khabarovsk Region	79	601
KHARITONOV, A.YU. AND S.N. BORISOV: <i>Diplacodes</i> Kirby, A Genus of Dragonflies New to the USSR (Odonata, Libellulidae)	82	604
ZHIL'TSOVA (ZHIL'TZOVA), L.A.: New and Little-Known Species of Stoneflies (Plecoptera) from the Caucasus	85	607
STOLYAROV, M.V.: New Data on Tettigonioida (Orthoptera) of the Caucasus	91	612
EYKHLER, V. AND T.T. VASYUKOVA (EICHLER AND VASSJUKOVA) A New Species of the Genus <i>Docophorus</i> Eichler, 1944 (Mallophaga, Philopteridae) from the White-Winged Crossbill <i>Loxia leucoptera bifasciata</i> Brehm	99	620
LOPATIN, I.K.: New Genera and Species of Leaf-Eating Beetles (Coleoptera, Chrysomelidae) from Iran. Results of the Czechoslovak-Iranian Expedition of 1973. II.	102	623
MEDVEDEV, L.N. AND DANG TKHI DAP (DANG DAP): New Genera and Species of Leafbeetles of the Subfamily Galerucinae (Coleoptera, Chrysomelidae) from Vietnam	108	629
BAYTENOV (BAJTENOV), M.S.: A Review of the Weevils of the Genus <i>Apion</i> Herbst, Subgenus <i>Metapion</i> Schilsky (Coleoptera, Curculionidae)	115	636

A NEW SPECIES OF THE GENUS HEPTAGENIA WALSH (EPHEMEROPTERA, HEPTAGENIIDAE) FROM THE SOUTH OF THE KHABAROVSK REGION

V.V. BELOV

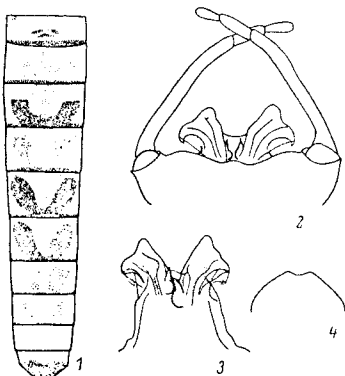
The species described below was for a long time known only by a single female specimen collected in Khabarovsk. A large series of both sexes has been collected by the author at light in the western part of the Yevreyskaya (Hebrew) Autonomous Province and it is now feasible to present an effective description of the species and to compare it with other known species of its genus *Heptagenia*. The holotype is deposited in the collection of the Faculty of Entomology and Moscow University.

Heptagenia gurznica Belov, sp. n.

Material (imagos in alcohol). Holotype: ♂, Khabarovsk Region, Amur River, Bashurovo near Obluch'ye, at light, 7.VIII.1980 (Belov), preparation no. 504; paratypes: 21 ♂, 16 ♀, including 1 ♀ from Khabarovsk, summer, 1959 (Levanidova); additional specimens from same locality as holotype, 28.VII-10.VIII.1980.

Male. Imago. Dimensions of holotype in mm: length of body 9.5; caudal filaments 19; forewing 9.8; hindwing 3.5; foreleg 8.6 (femur 2.7; tibia 2.7; tarsus 3.3, with length of segments decreasing in series 2, 3, 4, 5 = 1, 2nd segment 4.5-5.0 times as long as 1st); hindleg 6.3 (femur 2.7; tibia 2.5; tarsus 1.1, with length of segments decreasing in series 5, 2, 3 = 1, 4).

Color. Yellow, abdominal tergites and legs somewhat brighter, with orange tinge. Eyes black, vertex and lower margin of face becoming reddish, black mark present before lower part of eyes. Pronotum at sides with large black mark; mesonotum anterior to base of wing with elongate, sometimes linear, black mark; brown color; above wings and on part extending behind wings on the disc alongside mesal line with diffuse rusty stripes becoming weak anteriorly; mesonotum brownish. Sternum near trochanters with variable pattern of small, diffuse, dark brown and reddish marks. Legs rusty yellow, femora on outer part of apical half (anterior femora on inner part also) becoming reddish. Membrane of wings hyaline, without pattern, scarcely infuscated along costal margin in apical half of forewing. Veins very distinct; brownish; Sc of forewing paler, rusty yellow. Abdominal sternites unicolorous yellow. Tergites more brightly colored, rusty yellow, with definite dark pattern (Fig. 1); posterior margins of tergites I-IV with broad black border, on tergites VII-IX it is narrow and pale, posterior border of all tergites except I and IX reaching lateral margin of tergites without narrowing; apical half of tergite X wholly black. Tergite I with indistinct transverse reddish brown mark fused with posterior marginal band and with a pair of dark maculations behind hindtrochanters; tergites II and III with trilobate dark marks extending forward from hind margins, medial lobe of which reaches anterior margin of tergites; mark on tergite III especially large; tergite IV with pair of divergent, broad, blunt marks laterally, hardly fused with hind border of tergite; tergites V and VI with paired, broad, dark, tapering, somewhat oblique marks reaching posterior margin and a scarcely distinguishable mesal stripe; tergites VII and VIII with pale reddish traces of marks similar to those on tergites V and VI; caudal filaments unicolorous brown.



Figs. 1-4. *Heptagenia guranica* sp. n.

Genitalia as in Fig. 2-3.

Variation. Lateral lobes of marks on 3rd tergite may project laterally more strongly than shown in Fig. 1; marks on tergite IV may be smaller and more rounded and lie quite isolated from hind marginal border or on the contrary be enlarged and united by a dark connection. In rare cases, marks on tergites V and VI may not be joined to hind border of their segments.

Female. Imago. Dimensions in mm: length of body 8-10; caudal filaments 16-18; forewing 9-12; hindwing 3.4-4.2; foreleg 5.8-7.0 (femur 2.2-2.7; tibia 2.1-2.4; tarsus 1.5-2.0 (length of segments in decreasing series 2, 3, 5, 4, 1, 2nd 2.2 times as long as 1st); hindleg 5.6-6.8 (femur 2.5-3.0; tibia 2.1-2.7; tarsus 1.0-1.2 (length of segments in decreasing series 5, 2, 3, = 1, 4). Color as in male, but in forewing veins C, Sc, R, and transverse veins between them paler than others, rusty yellow (in Khabarovsk female all veins very pale, apparently result of bleaching by fixing reagent). Subgenital plate as in Fig. 4.

Subimago and larva unknown.

Biology. In the summer of 1980 flight of the imagos to ultraviolet light began on the 28th of July and lasted until the 10th of August; the total number of the mayflies that came to the light was nearly equally divided between males and females, but the greatest number of males was taken at the beginning and end of the flight.

Comparison. *H. guranica* sp. n. is closest to species of the *flavescens* group, which is distributed in the eastern and central parts of North America. Among the species of this group (*H. cruentata* Walsh, *H. dolosa* Traver, *H. flavescens* Walsh, *H. marginalis* Banks, and *H. townesi* Traver), besides by details of genitalic structure, it may be easily differentiated by abdominal and caudal filament coloration.

From the Far-Eastern *H. chinensis* Ulmer and *H. perflava* Brodsky it is also well distinguished by coloration and male genitalic structure.

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