Two new species of Phylini (Heteroptera, Miridae, Phylinae) from Middle Asia and Caucasus with notes on *Compsidolon pumilum* (JAKOVLEV 1876)[1]

F.V. KONSTANTINOV

Abstract: Two new species of Phylini, *Glaucopterum heissi* nov.sp. (Southern Kazakhstan) and *Compsidolon hiemale* nov.sp. (Armenia, Azerbaijan and Tajikistan) are described. The diagnosis of *Compsidolon pumilum* is discussed and the following new synonymy is proposed: *Compsidolon pumilum* (JAKOVLEV 1876) = *Compsidolon balcanicum* JOSIFOV 1993.

Key words: Miridae, new species, new synonymy, Phylini, taxonomy.

Introduction

Examination of specimens retained in the Zoological Institute, Russian Academy of Sciences, reveals two new species of the genera *Glaucopterum* and *Compsidolon*, while *Compsidolon* (*Apsinthophylus*) *balcanicum* is found to be conspecific with the highly variable species C. (A.) *pumilum*. Specimen measurements (in millimeters) given are mean and range (in parentheses) for five specimens of each sex, taken from across the distributional range. The terminology of the genital structures follows KONSTANTINOV (2003). The term "dots" is used in the descriptions to denote small, usually round, variously colored spots, while the term "spots" is reserved to indicate small but irregularly shaped colored areas. All scale bars equal to 0.05 mm. Type specimens of the new species are retained in the Zoological Institute, St. Petersburg.

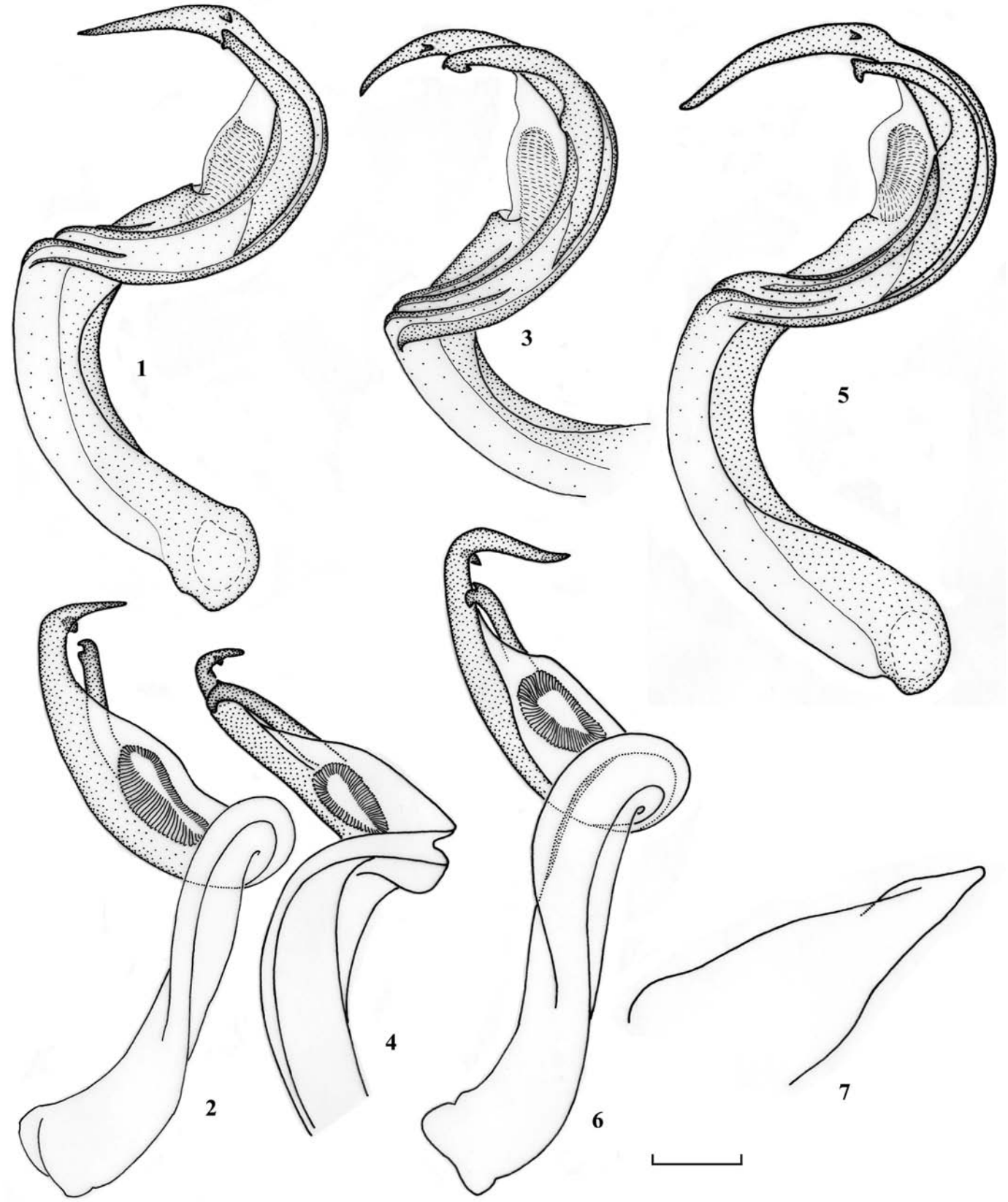
Glaucopterum heissi nov.sp. (Figs 1, 2, 7, 15, 20, 21, 29, 31, 33)

Holotype: ♂, KAZAKHSTAN: Zhambyl Prov., 25 km SW of Otar railway station, on *Atraphaxis* sp., 9-10.VI. 1978 (Kerzhner). Paratypes: 5♂♂, 11♀♀, same label data as in holotype.

Diagnosis: Recognized by the almost pale general coloration, orange tinge on scutellum and femora, vestiture of silvery-white and embrowned simple setae, shape of both apical processes of vesica, and simple apex of the right paramere. Most similar in general appearance and male genitalic structure to G. *emeljanovi* KERZHNER 1984 and G. *polii* PUTSHKOV 1975. Differs from the former by the slightly embrowned veins of the membrane, single apex of the right paramere (compare Figs 15 and 17) and structure of the apical processes of vesica. As compared to that of G. *emeljanovi*, the large apical process of the vesica in G. *heissi* nov.sp. is short and straight in lateral view (compare Figs 1 and 5), and the distal apex of the small apical process is at least of the same length as the proximal one or longer (compare Figs 2 and 6). *Glaucopterum polii* is distinguished from G. *heissi* nov.sp. in the slightly but regularly embrowned membrane and structure of both apical processes of the vesica (Figs 3, 4). Males of G. *heissi* nov.sp. also differ from males of both G. *emeljanovi* and G. *polii* in the smaller eyes and narrower pronotum, but these distinctions are most probably due to the limited number of specimens of these species known so far. The

[1] The paper is dedicated to Ernst Heiss in recognition of his contributions to our knowledge of the Palearctic Heteroptera, and to the Aradidae worldwide.

Denisia 19, zugleich Kataloge der OÖ. Landesmuseen Neue Serie 50 (2006), 493–502



Figs 1-7: Male genitalia of *Glaucopterum* spp. **1-6**, vesica in lateral and ventral views: (**1-2**) *G. heissi* nov.sp.; (**3-4**) *G. polii*; (**5-6**) *G. emeljanovi*; (**7**) apex of theca of *G. heissi* nov.sp..

new species resembles G. *vilgus* PUTSHKOV 1977, G. *maculipenne* KERZHNER 1984, and G. *albonigrum* KERZHNER 1984 in the male genitalic structure, but the two latter species readily differ in darkened head, pronotum, scutellum, femora, and ventral surface. *Glaucopterum vilgus* has a pale dorsum, but can be clearly distinguished by the vestiture composed of lanceolate silvery-white and contrastingly long brown simple setae, absence of orange tinge, twin-coned right paramere and structure of both apical processes of the vesica.

Description: **Vestiture**: Dorsal surface with mixture of silvery-white and embrowned, reclining, sparse and easily abraded simple setae. Ventral surface, legs, and antennae with dense, reclining silvery-white simple setae.

Coloration: Males greenish yellow (Fig. 33), scutellum and femora pale orange, cuneus and apex of corium usually with minute, faint, dense and regularly distributed pale brown dots, ventral surface of hind femora usually with a series of faint pale brown dots apically; females somewhat brighter, dorsum uniformly yellowish, often with orange tinge, at least hind femora pale orange, without brown markings. Antennae, tibiae, and tarsi uniformly pale; tibial spines short and pale; labium pale, with darkened segment IV. Membrane smoky hyaline, with brown edging along veins.

Male genitalia: Right paramere (Fig. 15) with distinctly convex outer surface and simple apex. Left paramere (Figs 20, 21) of regular form, with apically rounded sensory lobe and long, thin and straight apical process. Apex of theca (Fig. 7) simple, with slight constriction near theca mouth. Vesica S-shaped (Figs 1, 2), well sclerotized, with two apical processes; large process straight, with simple tooth basally, small process not adjoining to longer one, apically bifurcate, with distal apex somewhat better developed than proximal one; secondary gonopore distinctly sculptured, located on membrane basal of apex by approximately width of gonopore.

Structure and measurements: Total length male 4.05 (3.90-4.30), female 3.55 (3.50-3.65). Head width male 0.85 (0.83-0.88), female 0.84 (0.83-0.85); vertex width male 0.41 (0.40-0.43), female 0.44 (0.43-0.45); antennal segment II male 1.07 (1.03-1.10), female 0.98 (0.95-1.00). Pronotum: width male 1.35 (1.30-1.38), female 1.28 (1.23-1.33); length male 0.63 (0.63), female 0.57 (0.55-0.58).

Body almost parallel-sided, slightly stouter in females; male 2.9-3.1×, female 2.6-2.9× as long as width of pronotum; vertex male 1.8-2.0×, female 2.1-2.2× as wide as eye; antennal segment II male 0.8×, female 0.7-0.8× as long as basal width of pronotum, male 1.2-1.3×, female 1.1-1.2× as long as width of head. Labium reaching hind coxae. Females macropterous. Tarsi as in Fig. 29, claws as in Fig. 31.

Distribution: Southern Kazakhstan.

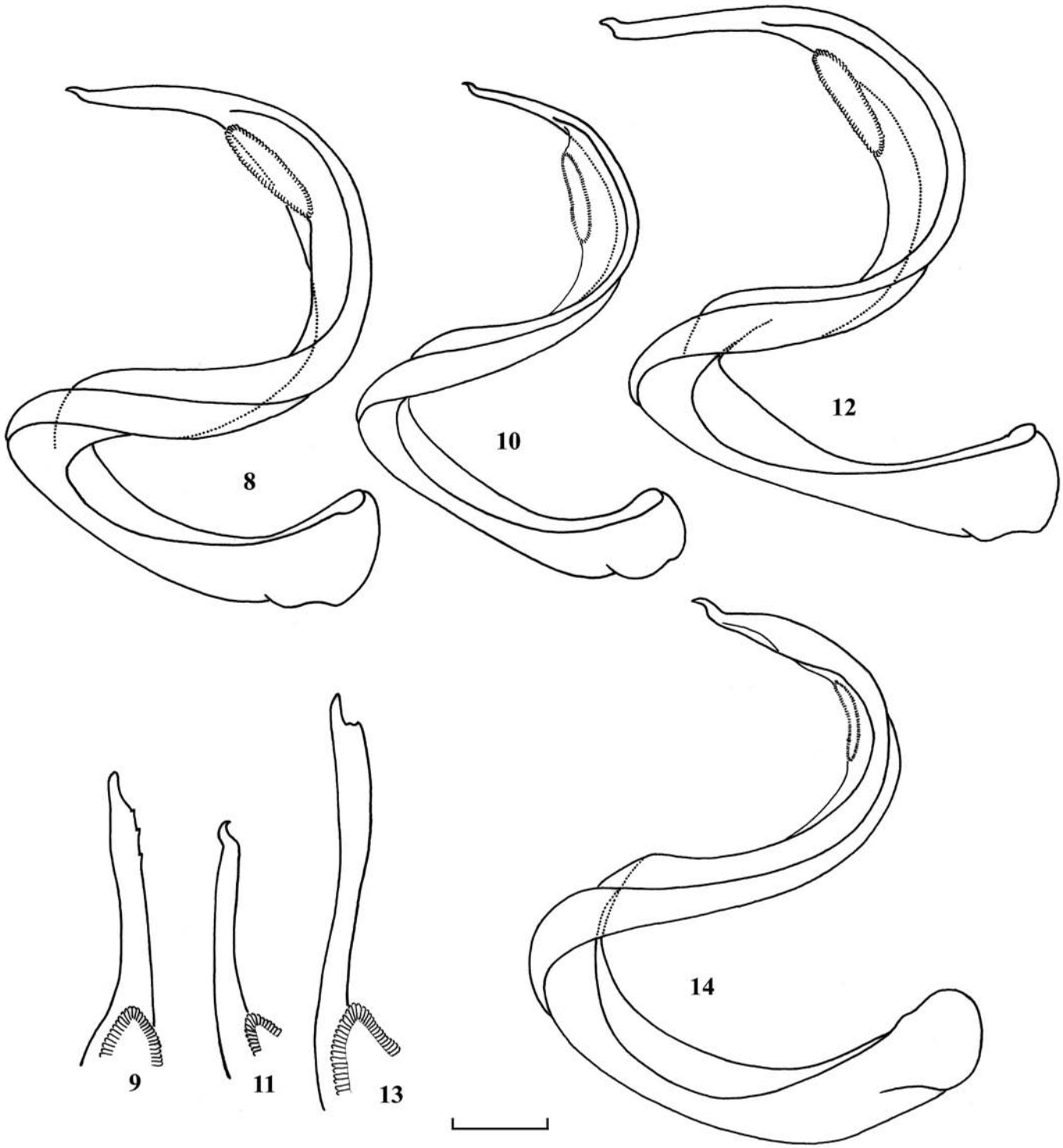
Host plant: *Atraphaxis* sp. (Polygonaceae).

Etymology: Named after the distinguished heteropterist Ernst Heiss. It is with great pleasure that I dedicate the description of this taxon to him on the occasion of his 70th birthday.

Compsidolon (*Apsinthophylus*) *hiemale* nov.sp. (Figs 14, 19, 24, 25, 26, 27, 30, 32, 37, 38)

Holotype: ♂, **Tajikistan**, Khurmi, right bank of Zeravshan River, 4.XII.1943 (Kiritshenko). Paratypes: **Tajikistan**: Khurmi, right bank of Zeravshan River, 1♀, 2.XII.1943, 2♂♂, 4♀♀, 4.XII.1943, 2♀♀, 17.XII.1943, 2♀♀, 18.XII.1943 (Kiritshenko); Pendzhikent (now Panjakent), valley of Zeravshan River, 1♂, 23.XI.1943, 1♀, 6.XII.1943, 1♀, 15.XII.1943 (Kiritshenko); **Azerbaijan**: Nakhichevan Prov., Dzhuga nr Dzhulfa (now Culfa) on Araks River, 3♂♂, 3♀♀, 4.XI.1931 (Ryabov); **Armenia**: Yerevan, 1♂, 1.XI.1931 (Korinek).

Diagnosis: Recognized by the large male (Fig. 37), brachypterous female (Fig. 38), uniform coloration of antennal segments and structure of the male genitalia. Differs from the group of species with darkened antennal segment I in the uniform coloration of antennae, as in specimens of C. *hiemale* nov.sp. with embrowned antennal segment I all other segments also embrowned. Similar to C. *absinthii* (SCOTT 1870), C. *saxosum* PUTSHKOV 1975, C. *torridum* LINNAVUORI 1975, and C. *robustum* LINNAVUORI 1986 in large size male, as body length of other



Figs 8-14: Vesica of *Compsidolon* spp. **8-13**, vesica and its apical process of *C. pumilum*: (**8-9**) paratype of *C. balcanicum*, Bulgaria; (**10-11**) specimen from Armenia; (**12-13**) specimen from Wyoming, USA; (**14**) vesica of *C. hiemale* nov.sp..

species with pale antennal segment I seldom exceed 3.0 mm. Differs from all these species in the very dense, dark brown and regularly distributed dotting on dorsum, without small irregularly shaped spots in addition to dots on forewings as in C. *absinthii*, or aggregations of dots as in C. *saxosum*. Dotting in C. *robustum* is much fainter than in C. *hiemale* nov.sp. while C. *torridum* differs from the new species in the dotted color pattern of cells. Structure of vesica in C. *absinthii* and C. *saxosum* is similar to that of C. *hiemale* nov.sp., but in both species sensory lobe of the left paramere is broadly ovate

and flattened. Vesicae in *C. robustum* and *C. torridum* are much more robust than in *C. hiemale* nov.sp. In the former species the vesica is S-shaped, with broad, blade-like apical process and tightly coiled, with gonopore located far from the apex in the latter. Finally, brachypterous females are so far unknown in all these four species.

Description: **Vestiture** of densely distributed silvery white simple setae: long, semierect, somewhat curved setae and adpressed, comparatively short, more or less straight setae. Ventral surface, legs and antennae with densely distributed, reclining to semierect silvery-white simple setae; antennal segment I with two pale spine-like setae at middle of inner surface.

Coloration: Head pale, with brown markings, vertex usually with a few reddish dots and infuscate areas along eyes; frons usually with a series of thin brown transverse rays radiating from median line, rarely pale; area just above antennal pit, maxillary plates and apex of clypeus brown; antennae from uniformly dark brown to uniformly pale dirty brown, antennal segment I always of same color as segment II; all segments of labium embrowned, with pale bases and apices, segment IV uniformly dark brown. Exposed part of mesoscutum and scutellum covered with brown dots and usually embrowned along median line, in males mesoscutum with orange tinge. Pronotum and forewings usually with irregular areas of pale brown, rarely uniformly pale, with dense brown dotting, medioapical area of corium in males usually with a few reddish dots; membrane entirely or at least largely embrowned, with indistinct pale areas distal to apex of cuneus and laterally, base of membrane in males with oblique wedge-shaped dark brown macula. Ventral surface largely brown, thorax brown, usually with pale edges of sclerites; abdomen uniformly brown to pale, with brown stripe laterally. All femora, especially hind femora somewhat brown, apically with dark brown dots on dorsal and ventral surfaces. Tibia with distinct dark brown dots at bases of pale tibial spines.

Male genitalia: Vesica S-shaped (Fig. 14), thin, with finely upturned apical process, secondary gonopore, weakly sculptured, subapical, located on membrane; right paramere (Fig. 19) of regular form, not pigmented, somewhat larger than left one; left paramere (Fig. 24, 25) with sensory lobe thin and straight, not flattened, apical process long and curved, laterally claw-like; apex of theca (Figs 26, 27) thin and straight to apex.

Structure and measurements: Total length male 4.18 (3.8-4.3), female 2.38 (2.1-2.7). Head width male 0.69 (0.68-0.70), female 0.68 (0.68-0.70); vertex width male 0.31 (0.30-0.33), female 0.37 (0.35-0.38); antennal segment II male 0.94 (0.88-0.98), female 0.71 (0.63-0.83). Pronotum: width male 1.09 (1.08-1.13), female 0.92 (0.88-0.95); length male 0.43 (0.40-0.45), female 0.38 (0.38).

Body almost parallel-sided, distinctly oblong in males, stumpy in females; male 3.5-4.0×, female 2.4-2.8× as long as width of pronotum; vertex male 1.5-1.7×, female 2.3-2.5× as wide as eye; antennal segment II male 0.8-0.9×, female 0.7-0.9× as long as basal width of pronotum, male 1.3-1.4×, female 0.9-1.2× as long as width of head. Labium hardly reaching hind coxae. Hind femora long and thin in males, distinctly swollen in females, tarsi as in Fig. 30, claws as in Fig. 32.

Distribution: Known from Armenia, Nachichevan Prov. of Azerbaijan and NW Tajikistan.

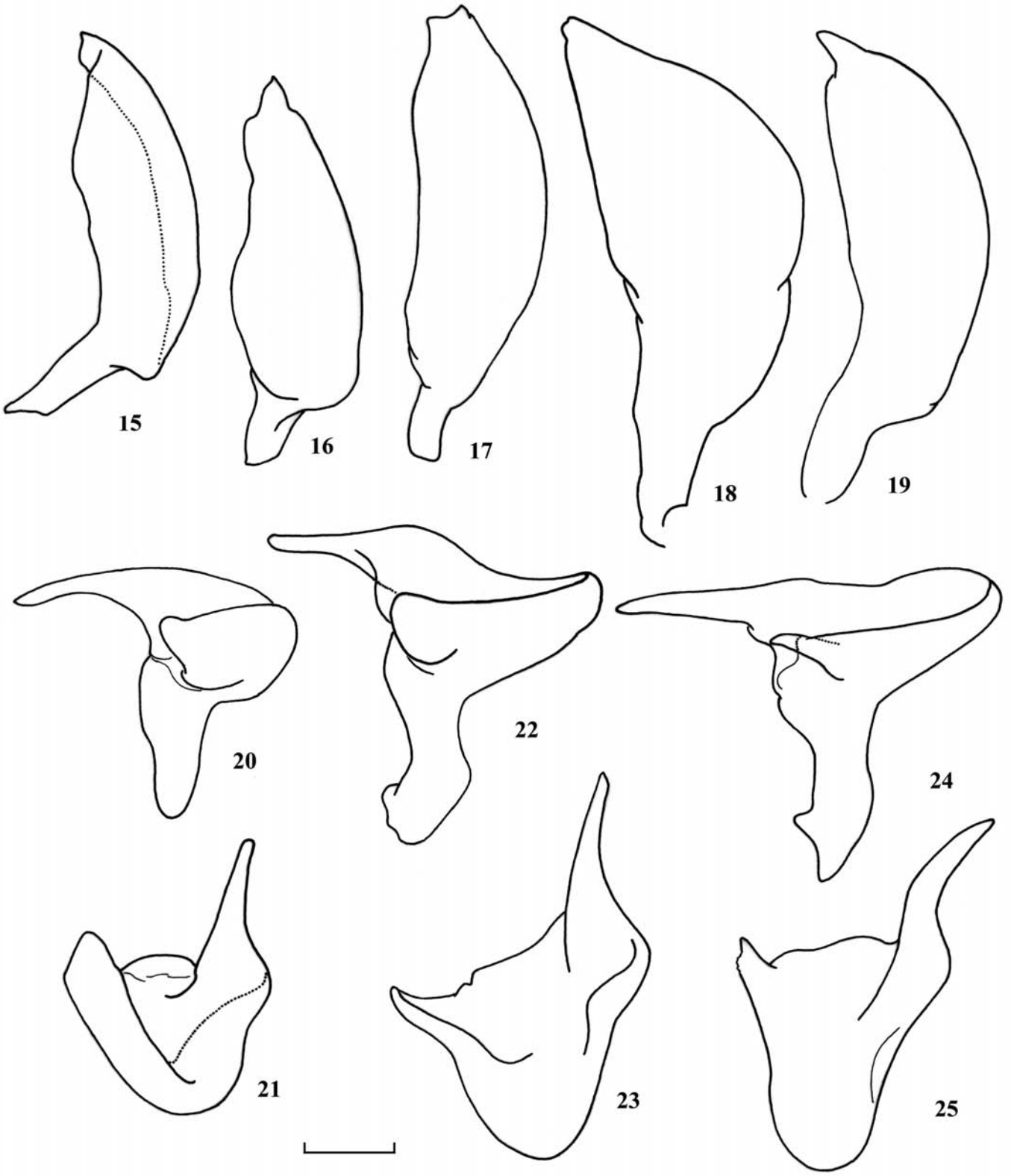
Host plant: Unknown.

Etymology: The name "hiemale" (= wintry) refers to the dates of sampling of the species. All specimens of *C. hiemale* nov.sp. were collected during the cold season.

Discussion: The species undoubtedly belongs to the subgenus *Apsinthophylus* based on the structure of the male genitalia, vestiture, and head.

Discussion of *Compsidolon* (*Apsinthophylus*) *pumilum* (Jakovlev 1876) with new synonymy

Compsidolon balcanicum was described from Bulgaria (Josifov 1993) and so far known only from the type series. It is stated in the description, that *C. balcanicum* is closely related to *C. pumilum*, but differs in



Figs 15-25: Parameres. **15-19**, right paramere: (**15**) *G. heissi* nov.sp.; (**16**) *G. polii*; (**17**) *G. emeljanovi*; (**18**) *C. pumilum*; (**19**) *C. hiemale* nov.sp.; **20-25**, left paramere: (**20-21**) *G. heissi* nov.sp.; (**22-23**) *C. pumilum*; (**24-25**) *C. hiemale* nov.sp..

the brighter and more contrasting dark brown spots on hind femora, smaller eyes and longer labium, which always extends beyond the hind coxae. Examination of specimens of *C. pumilum* from various localities of European part of Russia, Middle Asia, Siberia, and Northern America shows that the color pattern of dorsum and femora is highly variable

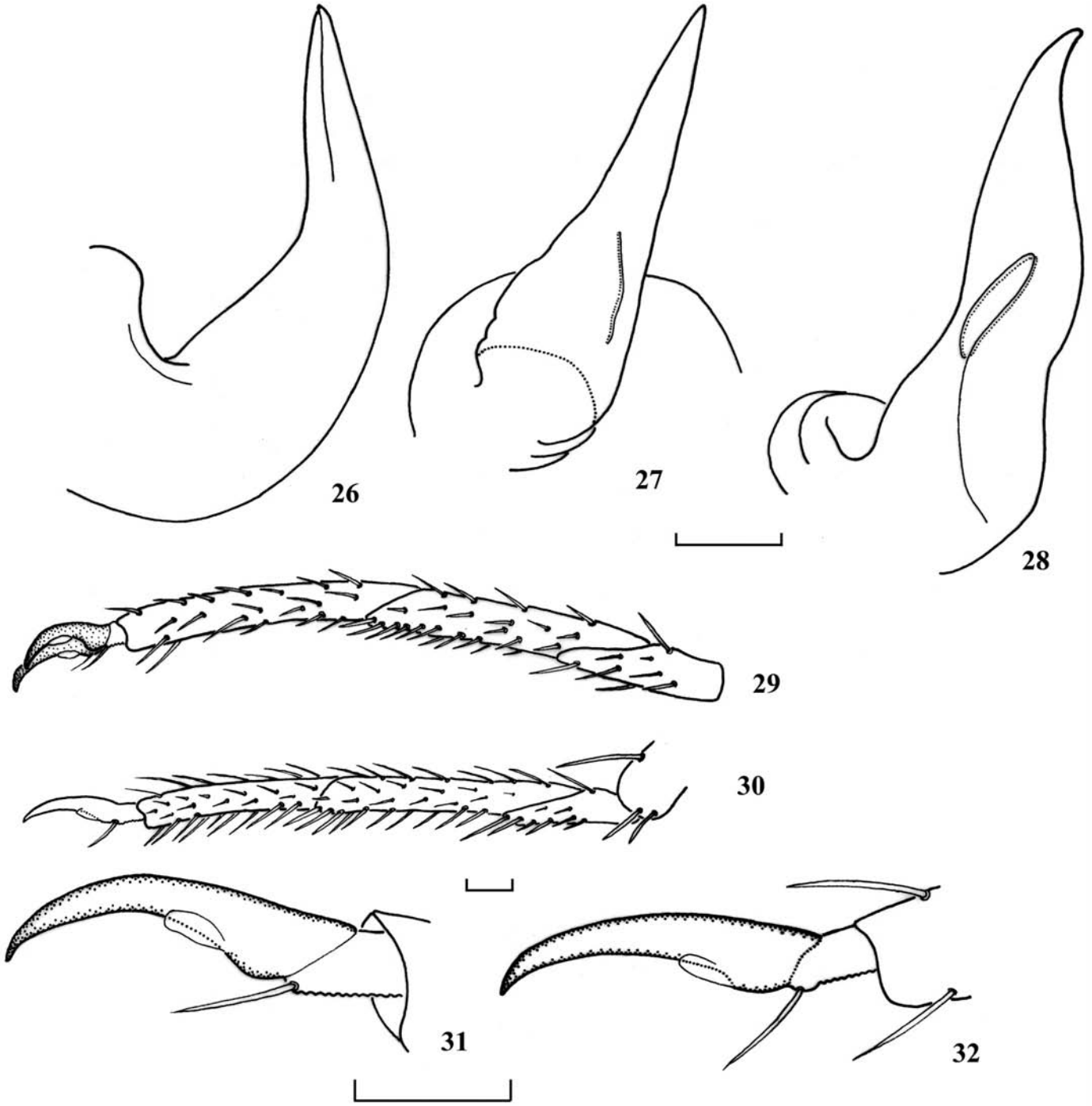
within the species (Figs 35-36) and not infrequently almost identical to that in paratypes of *C. balcanicum* (Fig. 34). Because of the high variability most measurements and ratios in *C. pumilum* were also uninformative for discriminating the species. Vertex in males of *C. balcanicum* is 1.9-2.1× as wide as eye, while in males of *C. pumilum* this ratio varies greatly. In most males of the latter species, the vertex is 1.5-1.7× as wide as eye, but in the population from Northern Kazakhstan this ratio exceeds 1.9, and in specimens from Wyoming, USA it was even 2.3. In all studied representatives of *C. pumilum*, the labium reaches the hind coxae and sometimes extends to abdominal sternites II or III. Finally, no distinctions were found in the structure of parameres, theca and vesica. Although the size of the vesica and shape of its apical process somewhat differs between populations (Figs 8-13), I was unable to find any distinct types of vesica structure in *C. pumilum*. However, the structure of the theca (Fig. 28) and parameres (Figs 18, 22, 23) is almost identical in all examined specimens. Based on the preceding discussion *C. balcanicum* JOSIFOV 1993 is placed in synonymy with *C. pumilum* (JAKOVLEV 1876).

The species can be diagnosed by the following combination of characters. Whitish yellow to dirty pale brown, dorsum and apices of femora ranging from densely covered with brown dots to nearly immaculate; females exceptionally uniformly pale; antennal segment I uniformly dark; exposed part of mesoscutum in males with orangish tinge; ground color of hind femora somewhat darker than that of dorsum; membrane always with oblique basal wedge-shaped dark brown spot and from uniformly pale brown to milky hyaline, with indistinctly shaped and irregular brown spots; vestiture a mixture of long, pale semierect and short, silvery-white adpressed simple setae; tibia with dark dots at bases of pale tibial spines; tarsal segment II 1.3-1.4× as long as segment III; females macropterous.

Vesica S-shaped (Figs 8-13), thin; secondary gonopore weakly sculptured, subapical, located on membrane; apical process finely upturned; apex of theca (Fig. 28) long, thin and straight; right paramere (Fig. 18) about twice as long as left one, rather heavily sclerotized and remarkably pigmented; sensory lobe of left paramere (Figs 22, 23) plate-like, broad and flattened, apical process of left paramere long, thin, comparatively straight. Body length 3.0-3.9 mm in males, 2.5-2.9 mm in females.

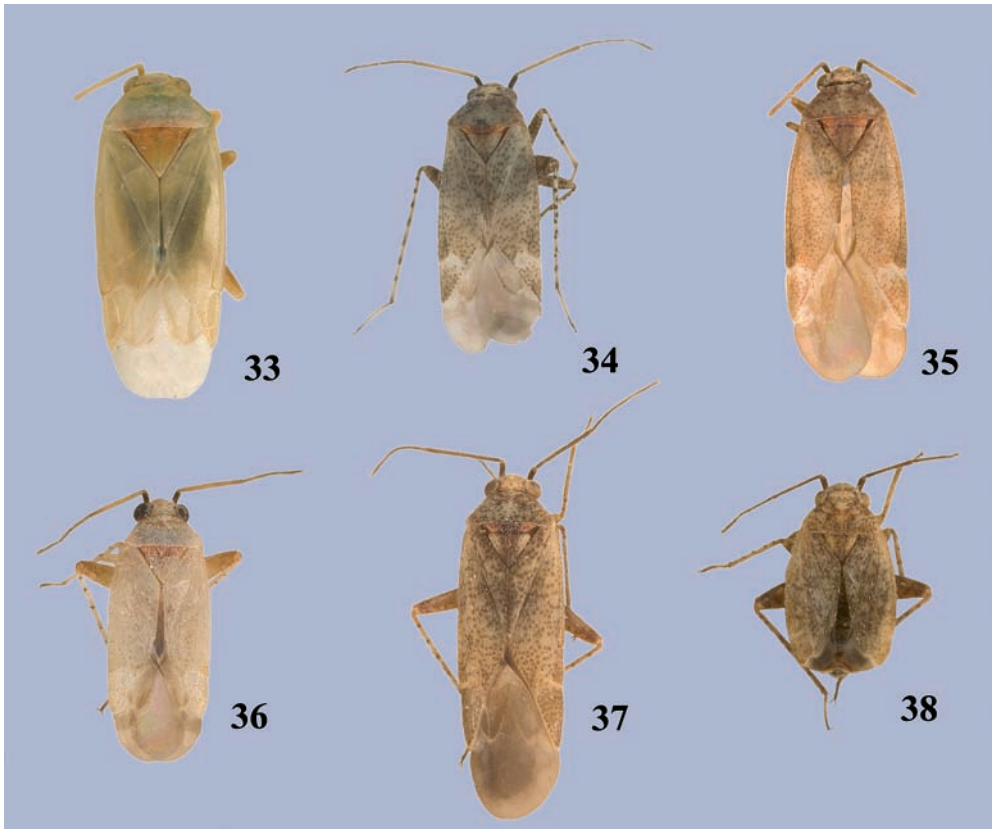
C. pumilum is most similar to *C. alcmene* LINNAVUORI 1971, *C. balachowskyi* (WAGNER 1958), *C. minutum* WAGNER 1970, and *C. sabulicola* LINNAVUORI 1984 in the color pattern of dorsum, darkened antennal segment I and structure of the male genitalia. *C. alcmene* differs from *C. pumilum* by the presence of reddish tinge on cuneus, embrowned tibial spines and larger body (length of single male known so far is 4.25 mm). *C. balachowskyi* can be easily recognized by the entirely darkened femora. *C. minutum* differs from *C. pumilum* in the smaller size (2.1-2.3 mm) and darkened maxillary plates. According to original description by LINNAVUORI (1984), *C. sabulicola* can be distinguished by brachypterous females and the male genitalia structure, viz. rather thin, long and recurved ventral sensory lobe of the left paramere, comparatively small right paramere, which is slightly longer than the left one and the more robust vesica with elongated apical process.

Material examined: **Bulgaria**: 1♂, 1♀, paratypes of *Compsidolon balcanicum* JOSIFOV 1993, Pirin-Geb., Javorov, 1800m, 20.IX.1987 (Josifov); **Ukraine**: 1♀, Khadzhibeiskiy Liman nr Kherson, 14.VII.1920 (Kiritshenko); Luzanovka nr Odessa, (Kiritshenko): 1♂, 5.X.1922, 1♀, 14.VII.1920, 3♀♀, 23.VII.1920; 1♀, Pristenok railway station nr Lugansk, 16.VI.1928 (Talitskiy); Krimea: 1♀, Bel'bek St. (now Fruktovoe), 10.VII.1897 (Kuznetsov); 7♂♂, 9♀♀, Koktebel, 8.VI.1914 (Kiritshenko); Eupatoria, (Jakovlev): 1♂, lectotype of *Psallus atomosus* var. *obscurior* REUTER 1910, 1♂, 1♀, 28.VI.1905, 3♂♂, 1♀, 30.V.1906; 1♂, 11.VI.1907; 1♂, 30.V.1908; 1♂, Semidvor'e, 25-27.IX (Bianchi); Kertch (Kiritshenko): 1♀, 1.VI.1917, 1♀, 7.VII.1917, 1♂, 1.IX.1917, 2♀♀, 8.IX.1917, 1♂, VI.1918; **Armenia**: 3♂♂, Nork nr Yerevan, dry valley, 12-15.VI.1934 (Ryabov); 1♂, Yerevan, 12-15.VI.1934 (Ryabov); Yerevan (Korinek): 1♀, 2.XI.1931, 1♂, 27.VI.1932; **Azerbaijan**: Turut steppe, Evlakh, (Bogachev): 1♂, 5-7.XI.1948, 1♂, 28.V.1948; 1♀, Mindzhivan' on Araks River, 4-5.VI.1933 (Lukyanovich); 4♂♂, 1♀, Talysh, Tatoni, Zuvant, 5-6.VIII.1933 (Ryabov); Nakhichevan' (Naxcivan) Prov.: 1♂, Akulis (now Yukhary Aylis) nr Ordubad, 29.V.1957 (Zagulyaev); 1♂, Paraga, NW Ordubad, 24.VI.1933 (Znoiko) 1♂, Ordubad on Araks Riv-



Figs 26-32: Apex of theca, tarsus and claw. **26-28**, apex of theca: (**26-27**) *C. hiemale* nov.sp., lateral and dorsal views, (**28**) *C. pumilum*, dorsal view; **29-30**, tarsus: (**29**) *G. heissi* nov.sp., (**30**) *C. hiemale* nov.sp.; **31-32**, claw: (**31**) *G. heissi* nov.sp., (**32**) *C. hiemale* nov.sp.

er, 27.V.1934 (Ryabov); **Russia**: Dagestan: 1♂, 1♀, Tarku-tau Mt. nr Machachkala, 10.X.1936 (Kiritshenko); 1♂, Akhty, 27.VIII.1933; 1♂, Kumtorkale, 30.IX.1926 (Ryabov); Kaptchugay, (Ryabov): 3♂♂, 15.XI.1939, 3♂♂, 2.X.1937; 1♂, Khodzhal-Makhi, 26.VI.1926 (Ryabov); 2♂♂, Khasan-Urt, 6.VIII.1928 (Ryabov); Derbent (Ryabov): 3♀♀, 19.VI.1928, 1♀, 3.X.1928, 4♂♂, 12.X.1928; Volgograd Prov.: 1♂, lectotype of *Psallus atomosus* REUTER 1878, Sarepta (Jakovlev); 2♂♂, paralectotypes of *P. atomosus* REUT., Sarepta (Jakovlev); Astrakhan' Prov.: 1♀, lectotype of *Agalliastes pumilus* JAKOVLEV 1876, Yandykovskoe (Jakovlev); 2♀♀, Savinka, N from Elton Lake, 12.VII.1934 (Lyubishchev); 1♀, Dosang railway station, 64 km N Astrakhan', 9.VI.1961 (Emeljanov, Kerzhner); 1♀, 100 km SW Astrakhan', 15.VII.1961 (Emeljanov, Kerzhner); Saratov. Prov.: 1♀, Saratov, Lysaya Mt., 25.IX.1935 (Lukyanovich); 2♀♀, Lepekhinskaya, S of Kras-



Figs 33-38: Dorsal habitus. (**33**) *G. heissi* nov.sp., male; **34-36**, *C. pumilum*, males: (**34**) paratype of *C. balcanicum* Josifov from Bulgaria, (**35**) paralectotype of *C. atomosum* (Reuter) from Russia, Volgograd Prov., (**36**) specimen from Kazakhstan, **37-38**, *C. hiemale* nov.sp.: (**37**) male, (**38**) female.

nyi Kut, 25.VI.1961 (Kerzhner); 3♂♂, 5♀♀, Dyakovka, 25 km S Krasnyi Kut, 21-24.VI.1961, on *Artemisia monogyna* (Kerzhner); Orenburg Prov.: 2♂♂, Verkhnedneprovka, left bank of Ural River, 11-18.VIII.1934 (Zimin); 1♀, Iletsk, 22.VI-II.1938 (Lukyanovich); Gorno-Altai Prov.: 1♂, Kosh-Agach, h=2400-2700 m, 25.VIII.1964, on *Artemisia obtusitoloba* (Kerzhner); Tuva Prov.: 13♂♂, 12♀♀, Kyzyl, on *Artemisia frigida* (Kerzhner), 13-18.VIII.1964; 3♂♂, S Tuva, Erzin, 15.VI-II.1964, on *Artemisia* sp. (Kerzhner); 1♀, SE Tuva, upper course of Morgun-Buren', 26.VII.1964, on *Artemisia frigida* (Kerzhner); Buryatia: 1♀, Ulan-Ude, 10.IX.1973 (Kerzhner); 1♀, Verkhne-Udinsk (now Ulan-Ude), 11.VI.1926 (Kiritshenko); 1♀, Troitskosavsk (now Kyakhta), 27.VII.1928 (Lukyanovich); 1♀, Naushki on Selenga River, 4.IX.1928 (Lukyanovich); 1♀, Ust'-Kiran, Karnakovskiy forest, 3.VIII.1908 (Khomze); **Kazakhstan**: Ak-Suat Lake, 250 km S Kustanay (Qostanay), (Formozov): 1♂, 12-15.VI.1934, 1♂, 16.VI.1935, 3♀♀, 15-16.VII.1935, 1♂, 3♀♀, 19.VI.1936, 1♂, 29.VII.1946; 2♂♂, 2♀♀, Uil, 19-20.VI.1932 (Lukyanovich); 1♀, Saraychik, lower course of Ural River, 9-11.VI.1932 (Lukyanovich); Atbasar (Rezvoy): 1♀, 28.VI.1937, 1♀, 29.VI.1937, 1♂, 9.VII.1937, 1♀, 30.VIII.1937, 1♀, 22.IX.1937; 1♂, Saikhin railway station, 30.VI.1961, on *Atriplex cana* (Emeljanov, Kerzhner); 9♀♀, Dzhanibek railway station, 26.VI.1961 (Kerzhner); 1♀, Akmolinsk (now Astana), 20.VI.1932 (Popov); 1♂, Eskeneyskie Mts., Akmolinsk Distr., 15.VII.1903 (Petrovskiy); 4♂♂, 3♀♀, Muyunkum Sands, Kargalykol Lake, 15-22.V.1910 (Kiritshenko); 1♀, Merke, Aulie-Ata (now Taraz), 16.VI.1910 (Kiritshenko); 4♂♂, 2♀♀, Dzhungarskiy Alatau, Topolevka, E Sarkand (Sarquant), 22.V.-9.VI.1957 (Kerzhner); Kokpekty, Zaisan Lake., 16.VI.1930 (Lukyanovich); 1♀, between Rivers Takyr and Kalguty, nr Zaisan Lake, 30.VI.1930 (Lukyanovich); 2♂♂, 1♀, Burkhatka picket, Zaisan Lake, 22.VI.1930 (Lukyanovich); **Uzbekistan**: 1♂, Fergana valley, Gava, 5-6.IX.1928 (Kuznetsov); **Turkmenistan**: 1♀, Askhabad, 5.V.1932 (Kuznetsova); 1♂, 1♀, Askhabad, 25.V.1934 (Popov); 1♀, Dzhebel, 12.VI.1934 (Popov); **Iran**: 5♂♂, 7♀♀, Persia, Shachuh (now Shah-Kuh), 16-19.VI.1914 (Kiritshenko); 2♀♀, Persia, Shahrud, 13-28.V.1914 (Kiritshenko); **Kyrgyzstan**: 4♀♀, Daraut-Kurgan, Alaysk valley, Fergana, 15.VII.1928 (Kuznetsov); 1♂, Mikhailovka, valley of Kugart River, Fergana, 15.V.1925 (Dobrzhanskiy); 1♀, Air-Tash Pass, 18.VIII.1928 (Kuznetsov); **Tajikistan**: Pendzhikent (now Panjakent), valley of Zeravshan River (Kiritshenko): 1♀, 17.XI.1943, 1♀, 18.XI.1943, 1♀, 23.XI.1943, 1♂, 27.XI.1943; 5♀♀, Khurmi, right bank of Zeravshan River, 4.XII.1943 (Kiritshenko); 2♂♂, 17♀♀, nr source of Iskander-Darya River, 12.VII.-11.VIII.1947 (Kiritshenko); 1♀, NW coast of Iskander-kul' Lake, Gissar Mts. Range, 22.VII.1947 (Kiritshenko); 1♂, Sary-Tag River nr Iskander-Kul',

21.VII.1947 (Kiritshenko); 3♂♂, 25♀♀, Khodzhi-Obigarm, S slope of Gissar Mts. range, 12-25.IX.1943 (Kiritshenko); Ruidasht, 40 km N Stalinabad (now Dushanbe), S slope of Gissar Mts. Range: 1♀, 11.IX.1947 (Kiritshenko), 2♀♀, 2.IX.1937 (Gussakovskiy); **Mongolia**: Selenge Aimag: 3♂♂, 9♀♀, Zarucheinyi forest nr Ust'-Kiran, 21.VIII.1908 (Khomze); Töv (=Central) Aimag: 3♂♂, 3♀♀, steppe nr Songino SW Ulan-Bator, 1.VII.1967, on *Artemisia frigida* (Kerzhner); USA: Wyoming: 2♂♂, 2♀♀, Carbon Co., Park-side Cmpgrd., 11 mi S Red Lodge, 7250 ft, 12.VI-II.1986, on *Artemisia frigida* (Schwartz, Stonedahl).

Acknowledgements

I am greatly indebted to Dr. I.M. Kerzhner (Zoological Institute, Russian Academy of Sciences), Dr. Michael D. Schwartz (ECORC, Agriculture and Agri-Food, Ottawa, Canada), and Dr. Randall T. Schuh (American Museum of Natural History) for comments on the manuscript. The study was supported by NSF Planetary Biodiversity Inventory grant DEB-0316495. The equipment used during the work was funded by the Russian Foundation for Basic Research, project No 05-04-48179, and "Leading scientific schools" project No. NSh 7130.2006.4.

Zusammenfassung

Zwei neue Arten des Tribus Phylini, *Glaucopterum heissi* nov.sp. (Süd-Kasachstan) und *Compsidolon hiemale* nov.sp. (Armenien, Aserbaidschan und Tadschikistan) werden beschrieben. Der Status von *Compsidolon pumilum* wird diskutiert und die folgende neue Synonymie vorgeschlagen: *Compsidolon pumilum* (JAKOVLEV 1876) = *Compsidolon balcanicum* JOSIFOV 1993.

References

JOSIFOV M. (1993): Ein kleiner Beitrag zur Systematik der Miriden (Insecta: Heteroptera). — Reichenbachia **30**: 9-15.

KONSTANTINOV F.V. (2003): Male genitalia in Miridae (Heteroptera) and their significance for suprageneric classification of the family. Part I: general review, Isometopinae and Psallopinae. Belg. J. Entmol. **5**: 3-36.

LINNAVUORI R.E. (1984): New species of Hemiptera Heteroptera from Iraq and the adjacent countries. — Acta Entomol. Fennica **44**: 1-59.

Address of the Author:

Dr. Fedor V. KONSTANTINOV
Department of Entomology
Faculty of Biology and Soil Sciences
St. Petersburg State University
Universitetskaya emb. 7/9
199034 St Petersburg
Russia
E-Mail: f_k@mail.ru

Appendix: locality data for illustrated specimens

Glaucopterum heissi nov.sp.: Figs 1, 2, 7, 15, 20, 21, 29, 31, 33: paratypes, Kazakhstan, Zhambyl Prov., 25 km SW Otar station, 9-10.VI.1978, on *Atraphaxis* sp. (Kerzhner).

G. emeljanovi: Figs 5, 6, 17: paratype, Mongolia, Bayanhongor Aimag, 80 WSW Bayan-Hongor, 10.VII.1970, on *Atraphaxis* sp. (Emeljanov).

G. polii: Figs 3, 4: Kyrgyzstan, Uch-Tube, 10 km SW Kichik-Karakol on Gulcha River, 26.VI.1986 (Volkovich); Fig. 16: paralectotype, Kyrgyzstan, Osh Prov., Gulcha, 10.V.1962 (Putshkov).

Compsidolon hiemale nov.sp.: Figs 14, 19, 24, 25, 26: paratypes, Azerbaijan, Nakhichevan Prov., Dzhuga nr Dzhulfa (now Culfa) on Araks River, 4.XI.1931 (Ryabov); Figs 27, 30, 32, 38: paratypes, Tajikistan, Khurmi, right bank of Zeravshan River, 4.XII.1943 (Kiritshenko); Fig. 37: paratype, Tajikistan, Pendzhikent (now Panjakent), valley of Zeravshan River, 23.XI.1943 (Kiritshenko).

C. pumilum: Fig. 8, 9, 34: paratype of *Compsidolon balcanicum*, Bulgaria, Pirin-Geb., Javorov, 1800m, 20.IX.1987 (Josifov); Figs 10, 11: Armenia, Nork nr Yerevan, dry valley, 12-15.VI.1934 (Ryabov); Figs 12, 13: USA, Wyoming, Carbon Co., Park-side Cmpgrd., 11 mi S Red Lodge, 7250 ft, 12.VI-II.1986, on *Artemisia frigida* (Schwartz, Stonedahl); Figs 18, 22, 23, 28: Russia, Tuva Prov., Kyzyl, 18.VIII.1964, on *Artemisia frigida* (Kerzhner); Fig. 35: paralectotype of *Psallus atomosus* REUTER 1878, Russia, Volgograd Prov., Sarepta (Jakovlev); Fig. 36: Kazakhstan, Muyunkum Sands, Kargalykol Lake, 19.V.1910 (Kiritshenko).