# New and little known leafhoppers and planthoppers from Caucasus (Homoptera, Cicadina)

## V.M. Gnezdilov

Gnezdilov, V.M. 2001. New and little known leafhoppers and planthoppers from Caucasus (Homoptera, Cicadina). *Zoosystematica Rossica*, **9**(2), 2000: 359-364.

*Mycterodus aspernatus* sp. n. closely related to *M. sarmaticus* Logv. is described. Redescriptions of *Allygidius (Dicrallygus) caucasicus* Mel. and *Laburrus (Laburrus) kuznetsovi* Em. and new data on distribution of other 14 species of Cicadina in Caucasus are given.

V.M. Gnezdilov, Zoological Institute, Russian Academy of Sciences, Universitetskaya nab. 1, St. Petersburg 199034, Russia.

Examination of the collection of Zoological Institute of Russian Academy of Sciences, including material recently collected from West Caucasus, allows us to describe a new species of the genus *Mycterodus* Spin. and present new data on distribution of some species of leafhoppers and planthoppers in Caucasus.

The type specimens of the species described below are kept in the Zoological Institute, St. Petersburg.

## Family **ISSIDAE**

#### Mycterodus aspernatus sp. n.

(Figs 1-6)

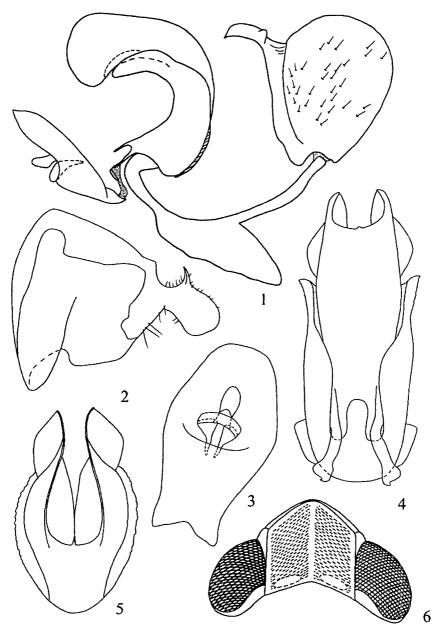
Holotype. o, Russia, Krasnodar Territory, 8 km SE of Krasnaya Polyana, Aibga Range, 1850-1900 m, subalpine meadow, 10.VII.1999 (V.M. Gnezdilov).

Paratypes. Russia: 11 o', 15 o, as holotype; 1 o', 10 o, as holotype, but 11.VII.1999; Georgia, Abkhazia: 1 o', 1 o, Bzybskiy Range, 13-18.VIII.1931 (Yu.N. Voronov); 1 o, Kves-khu Mt., 1800-2000 m, 18.VIII.1931 (Yu.N. Voronov).

Description. Coryphe transverse, 1.25 time as wide as long, sharply narrowed to apex; posterior margin of coryphe gently concave. Metope with strong longitudinal intermediate keels. Median keel continues on postclypeus, sometimes weakening at the lower part of metope. Transverse keel of metope strong. Pronotum with a median concavity and a median keel on the bottom of this concavity. Scutellum with median groove; lateral keels do not reach its posterior margin; anterior margin elevated like a keel.

Upper side of body brown. Margins and median keel of coryphe light brown. Strongly pigmented specimens have also diffuse black edging near anterior and lateral margins of coryphe. Metope between intermediate keels dark brown to black, outside of intermediate keels light brown with darkened traces of larval pits and black edging along anterior margin of coryphe. Inner sides of intermediate keels and the transverse keel of metope light. Tempora in front and under eyes black. Clypeus light brown with dark brown stripes at apex of postclypeus and anteclypeus. Antenna dark, excepting light brown first segment. On the pronotum, middle of anterior margin, posterior margin and traces of larval pits brownish. Longitudinal veins of elvtra here and there bordered with brown. Underside of body light brown. External margins of paranota darkened. Legs brown with black longitudinal stripes on femora and tibiae. Lateral teeth of hind tibia black. Tarsal segments dark brown to black. Black spots of abdominal sterna arranged in median stripe; setiferous pores black. Abdominal tergites and pleurites black. Pygofer, genital plates and anal tube (from above) light brown.

Male genitalia resembling those of *M. sar-maticus* Logv. in general structure. Penis strongly bent dorsally near the middle, with rounded apex. Sides of penis apex turned into the cavity of secondary gonopore on dorsal side. Sides of secondary gonopore with two pairs of symmetrical saliences. Hooks of penis short, sharply narrowed near the apex (dorsal view). External margin of phallobase with small tooth, strongly concave near the point of



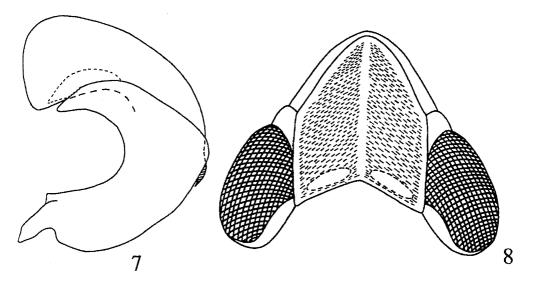
Figs 1-6. Mycterodus aspernatus sp. n., male. 1, anal tube, penis, connective, and style, lateral view; 2, style, dorsal view; 3, anal tube, dorsal view; 4, penis, ventral view; 5, penis, postero-dorsal view; 6, head, dorsal view.

bent of penis (lateral view). Style with a groove from head to base near the internal margin. Head of style elongate, flattened dorsoventrally; subapical tooth flattened laterally; apical tooth bent downwards. Anal tube widened near the middle (dorsal view), with gently rounded posterior margin and a notch at base. Anal style short. Body length 5.1-5.5 mm.

Female. Apex of anal tube black (specimens from Aibga Range) or anal tube entirely light brown (specimens from Bzybskiy Range).

Body length 5.6-5.8 mm.

Comparison. M. aspernatus sp. n. differs from the closely related M. sarmaticus Logv. in the transverse coryphe, strongly concave lat-



Figs 7-8. Mycterodus sarmaticus Logv., male (Krasnodar Territory, Goryachiy Klyuch). 7, penis, lateral view; 8, head, dorsal view.

eral margin of phallobase and long, swollen near the apex hooks of penis. In *M. sarmaticus*, the coryphe is longitudinal, 1.27 times as long as wide, lateral margin of phallobase not concave and hooks of penis very short (Figs 7-8).

*M. aspernatus* sp. n. and *M. sarmaticus* are closely related in the structure of the genitalia to species of the genus *Aconosimus* Dlabola, 1983.

*Etymology*. The species name is formed from the Latin verb aspernari – disregard.

## Family DELPHACIDAE

#### Chloriona vasconica Rib.

Russia, Krasnodar Terr.: 1 or, 1 9, Adler, 4.IX.2000, on *Phragmites* sp. (V.M. Gnezdilov).

## Florodelphax leptosoma (Flor)

Georgia, *Abkhazia*: 1 o<sup>\*</sup>, Lata, Kodori River, 19.VIII.1905 (M.F. Kalishevskiy).

## Family CICADELLIDAE

## Subfamily IDIOCERINAE

#### Acericerus rotundifrons (Kbm.)

**Russia**, *Stavropol Territory*: 1 of, Zheleznovodsk, Zheleznaya Mt., 16.III.1972, on snow (collector unknown).

## Subfamily TYPHLOCYBINAE

## Liguropia juniperi Leth.

Georgia (many o' and o, leg. A.K. Zaguljaev): *Abkhazia*, 20 km N Suchumi, Gul'ripshi, 16.VII.1978, 9.VII.1982; *Adzharia*, Batumi, 13.VIII.1976.

#### Kybos candelabricus Dlab.

**Russia**, *Krasnodar Territory*: many of and  $\varphi$ , Adler, 4.1X.2000, on *Salix* sp. (V.M. Gnezdilov).

#### Edwardsiana iranicola Zachv.

**Russia**, *Krasnodar Territory*: many  $\sigma$  and  $\varphi$ , Adler, 4.IX.2000, on *Platanus* sp. (V.M. Gnezdilov).

## E. pseudoplatani Logv.

**Russia**, *Krasnodar Territory*: many of and  $\varphi$ , eastern spur of Achishkho Mt., 1850 m, 3.IX.2000 (V.M. Gnezdilov).

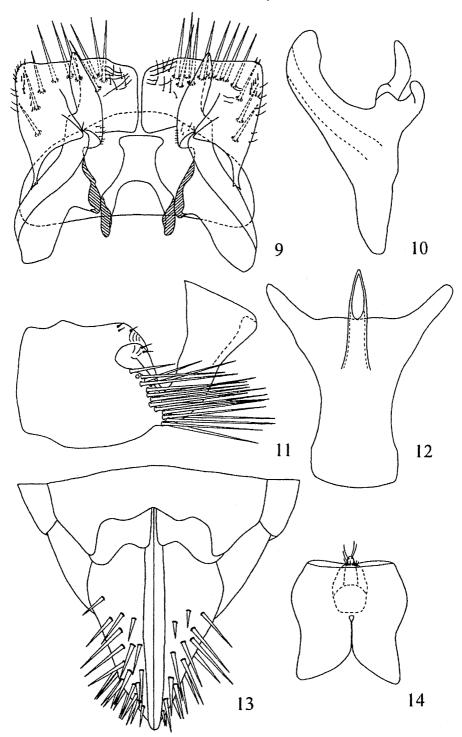
## Eupteryx thoulessi Edw.

Russia, Dagestan: 2 or, 2 9, Makhachkala, 13.X.1944 (M.A. Ryabov).

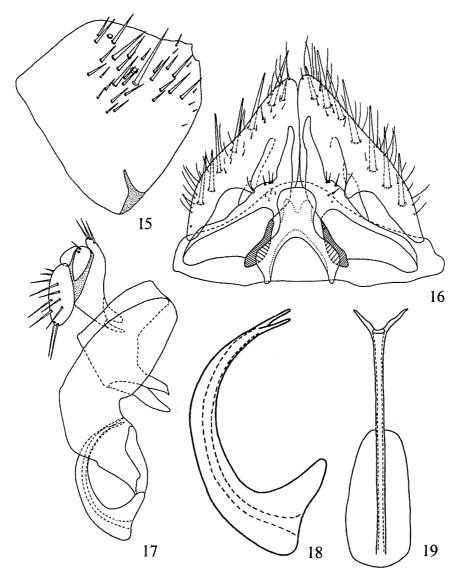
## Subfamily DELTOCEPHALINAE

#### Chiasmus conspurcatus (Perr.)

**Russia**, Krasnodar Territory: many  $\sigma'$  and  $\varphi$ , environs of Plastunka, bank of Sochi River, on Cynodon dactylon, 5.1X.2000 (V.M. Gnezdilov).



Figs 9-14. Allygidius caucasicus Mel., male (Azerbaijan, Lerik). 9, valve, genital plates, connective, and styli, dorsal view; 10, penis, lateral view; 11, pygofer, lateral view; 12, penis, ventral view; 13, female genital segments, ventral view; 14, anal tube, dorsal view.



Figs 15-19. *Laburrus kuznetsovi* Em., male (Krasnodar Territory, Anapa). 15, pygofer, lateral view; 16, valve, genital plates, connective, and styli, dorsal view; 17, penis, appendage of base of penis, and anal tube, lateral view; 18, penis, lateral view; 19, penis, ventral view.

## Allygidius (Dicrallygus) caucasicus Mel. (Figs 9-14)

Material. Azerbaijan: 1 of, 1 9, Nakhichevan, Disar near Ordubad, 19.VII.1933 (D.V. Znoiko); 3 of, 1 9, Lerik, 1.VII.1964 (A.K. Zaguljaev and M. Pastukhov).

Melichar (1914) described the species from one male collected in Georgia (Tiflis, now Tbilisi).

Description. Male. Anterior margin of vertex wedge-shaped. Vertex 1.5 times as wide as

long. Anteclypeus slightly enlarged at apex. Flagellum with 3 setae.

Head light brown. On the vertex dark brown: middle line; 2 transverse oblong spots on each side of middle line; 2 elongated spots between ocelli; 2 round specks on each side behind eyes. Two brown spots on hind margin of vertex. Frontoclypeus with brown transverse stripes on each side of middle line. Two dark brown spots on each side over antenna. Genae brown under antenna. Lorae with brown spots at base and apex. Pronotum light brown, with dark brown irregular spots. Scutum light brown, with 2 triangular spots in upper corners and 2 round spots on each side of middle line. Cells of fore wings with brown spots; veins light. Underside light brown. Sternites of abdomen sometimes brown. Legs with brown bases of setae.

Male genitalia. Hind margin of pygofer straight, with several dense rows of macrosetae. Lower margin of each lobe of pygofer with hammer-like appendage; ventral margin of appendage bent inward. X segment of anal tube with emargination of anterior margin dorsally; ventral side of X segment membranous. In lateral view, aedeagal shaft forms an acute angle with aedeagal base. Upper angles of the base of aedeagus horn-shaped. Distal part of aedeagal shaft flattened laterally to form a ridge. Gonopore subapical. Genital plates wide, truncate at apex, with submarginal row of macrosetae along apical and lateral margins. Valve wedge-shaped, with truncate apex. Styli tapering to apex, with a ventro-apical carina. Apical part of stylus adjoining to genital plate flattened. Connective with short base; branches form an acute angle.

Body length 6.6-7 mm.

Female. Similar to male. VII sternum with 3 semirounded emarginations. First valvifers project over VII sternum. Inner angles of first valvifers not projecting backwards.

Body length 6.6-6.8 mm.

## Laburrus (Laburrus) kuznetsovi Em.

(Figs 15-19)

The species is known only from Ukraine (Luganskaya Prov.; Crimea) (Emeljanov, 1962, 1964) and the maritime region of NW Caucasus (Anapa).

Description. Male. Vertex, genae, lorae, anteclypeus, pronotum, and scutum green-yellowish. Postclypeus light brown-yellowish with transverse dark brown stripes. Genae darkened under antennae. A brown speck on each side between eye and ocellus. A long, diffuse, brown spot present on the middle line and the base of anteclypeus. Fore wings yellowgreenish with dark brown spots. Underside yellow-greenish. Legs sometimes with dark brown or black stripes. Upper side of abdomen dark brown.

Male genitalia. Each lobe of pygofer with more or less straight hind margin, and rows of macrosetae in distal part. X and XI segments of anal tube represented by sclerites with long apodemes on ventral side. Aedeagal shaft flattened laterally, arc-shaped (lateral view); its apex with 2 processes. The appendage of penis base is partly membranous and partly sclerotized. Connective with narrow base; its branches diverge under acute angle. Styli narrowed to apex. Upper part of styli with comb of obtuse teeth. Triangular genital plates with submarginal row of 6-7 macrosetae. Valve wedge-shaped.

### Euscelis distinguendus (Kbm.)

**Russia**, *Krasnodar Territory*: many  $\sigma$  and  $\varphi$ , eastem spur of Achishkho Mt., 1850 m, subalpine meadow, 2.IX.2000 (V.M. Gnezdilov).

#### Mocydia aegea Abdul-Nour

Russia, Krasnodar Territory: 1 of, environs of Plastunka, Prokhladny Range, 150 m, 8.IX.2000 (V.M. Gnezdilov).

#### Cicadula intermedia (Boh.)

**Russia**, *Krasnodar Territory*, many of and  $\varphi$ , eastem spur of Achishkho Mt., 1850 m, subalpine meadow, 2.IX.2000 (V.M. Gnezdilov).

#### Recilia coronifer (Marsh.)

**Russia**, *Krasnodar Territory*: many of and  $\varphi$ , environs of Plastunka, Prokhladny Range, 150 m, 8.IX.2000 (V.M. Gnezdilov).

#### R. horvathi (Then)

**Russia**, Krasnodar Territory: many of and Q, environs of Plastunka, bank of Sochi River, on Cynodon dactylon, 5.1X.2000 (V.M. Gnezdilov).

#### Acknowledgements

I would like to thank A.F. Emeljanov, my superviser, for advice and V.I. Shchurov and A.A. Stekol'nikov for support during expedition. The study was supported by the Russian Foundation for Basic Research (grant No. 00-04-81093).

## References

- Emeljanov, A.F. 1962. Materials on taxonomy of Palaearctic leafhoppers (Auchenorrhyncha, Euscelinae). *Trudy zool. Inst. Akad. Nauk SSSR*, **30**: 156-184. (In Russian).
- Emeljanov, A.F. 1964. Suborder Cicadinea (Auchenorrhyncha). In: Bey-Bienko, G.Ya. (ed.). Opredelitel' nasekomykh evropeiskoi chasti SSSR [Keys to the insects of the European USSR], 1: 337-437. (In Russian).
- Melichar, L. 1914. Zweiter Beitrag zur Kenntniss der kaukasischen Homopterenfauna. Izv. Kavkaz. Muz., 8(1/2): 127-137.

Received 29 March 2000