A contribution to the knowledge of the tribe Meconematini (Orthoptera: Tettigoniidae)

A.V. Gorochov

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8 new genera, 15 new subgenera, 24 new species of Meconematini from Asia and Africa are described. Lectotypes of 4 species are designated. New data on the systematic position and geographical distribution of several species are given.

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Introduction

The tribe Meconematini Burmeister, 1838 contains most meconematine genera from Beier's (1966) catalogue, all those described by Yamasaki (1982, 1983a, 1983b, 1983c) and Ingrish (1987), and several new genera described in this paper. All the representatives of these genera are distributed in the Old World. American genera (*Phlugis* Stål and its relatives) and several genera from the Old World missing from the above-mentioned catalogue (*Phisis* Stål and its relatives) are united by me into a second tribe of Meconematinae. This tribe differs from the Meconematini in more primitive venation and some other characters (Gorochov, 1988). The authors of the recently published book about these insects (Jin & Kevan, 1992) indicated for this tribe the correct name Phlugidini Eichler, 1938, but they preferred to divide it into 2 tribes: Phlugidini and Phisidini Jin, 1987.

There are still many problems in the systematics of Meconematini. The most significant problem is insufficient elaboration of the generic classification. Numerous species are included by many authors in one or two formal genera which have no clear differences from other genera. Moreover, different species of such a genus may be related to species of other genera more than to each other. The division of such genera into more clear genera was initiated by Beier (1965). He proposed the generic system of African Meconematini. Bey-Bienko began analogous work on Asiatic Meconematini, but published only the revision of the genus *Xiphidiopsis* Redt. (Bey-Bienko, 1971). In this paper he wrote that his other work, "Revision of Meconematinae of the Oriental Region and adjacent countries", is "now prepared for press". But the latter paper was not published, and no manuscript of it has been found. The material prepared for it is partly in the Zoological Institute of the Russian Academy of Sciences. Several specimens from this material are provided with labels showing that G.Ja. Bey-Bienko intended to describe new genera and species. Some remarks concerning these specimens will be given in the text below.

The central genus of Asiatic Meconematini – *Xiphidiopsis* – has remained heterogenous for a long time. This fact was noted already by Beier (1966). Bey-Bienko (1971) excluded some species from this genus, but left the position of most species unchanged. This was because of his opinion that genital characters are of little importance in generic taxonomy. I am of the opposite opinion. I think that the genus *Xiphidiopsis* is still heterogenous and several Bey-Bienko's groups of species are unrelated and corresponding in rank to genera of other Tettigoniidae.

Except *Thaumaspis castetsi* sp. n., all the types of new species described in this paper are deposited in the Zoological Institute, Russian Academy of Sciences, St.Petersburg. The lectotype of *Xiphidiopsis fallax* Redt. is also deposited in this Institute.

In figures, membranous areas are stippled (except Figs 272 and 275).

Genus Xiphidiopsis Redtenbacher, 1891

Type species *Xiphidiopsis fallax* Redtenbacher, 1891.

Description. Head normal, hypognathous, with undepressed rostrum and long last segment of maxillary palpi. Pronotum rather high and short, with weak notch between lateral lobes and hind part of disc. Acoustical opening fully exposed (Figs 1, 8, 12, 16, 24, 28, 36, 253). Tegmina and hind wings fully developed or slightly shortened. Fore and middle tibiae with long spines; femora without spines; external and internal tibial auditory foramina fully opened; apex of hind femora without spines. Last abdominal tergite of male with unpaired process in the middle of hind edge; cerci complicated, with processes; epiproct very small (Figs 2-4, 9-11, 13-15, 17-19, 25-27, 29-32, 37-39). Male genitalia entirely or almost entirely (Fig. 20) membranous (hagloid type) (Gorochov, 1984, 1988). Genital plate of female various (Figs 5-6, 21-22, 33-34, 254-255); cerci rather short; ovipositor rather long, feebly curved upwards, with small hook at apex of ventral valves (Figs 7, 23, 35, 256).

Comparison. This genus differs from other genera of this tribe by the unpaired process of the male last abdominal tergite, complicated male cerci, hagloid male genitalia, and some peculiarities of head, pronotum, acoustical opening, and tibial auditory foramina.

Subgenus Xiphidiopsis s. str.

Description. Wings extending to hind part of hind tibiae; tegmina slightly shorter than hind wings. Hind edge of male last abdominal tergite with large notch divided by wide unpaired process bearing asymmetrical lateral lobes; cerci usually also asymmetrical; genital plate normal, with rather long styli (Figs 2-4, 9-11, 13-15). Male genitalia entirely membranous. Hind edge of female genital plate with large median lobe (Figs 5-6).

Included species: *Xiphidiopsis fallax* Redtenbacher, 1891; *X. beybienkoi* sp. n.; *X. fischerwaldheimi* sp. n. and, possibly, *X. lita* Hebard, 1922.

Xiphidiopsis (Xiphidiopsis) beybienkoi sp. n. (Figs 8-11)

Holotype. ♂, Vietnam, *prov. Gialai-contum*, Buon Luoi, 15.XII.1988 (A.V. Gorochov).

Description. Male (holotype). Size medium for the genus. Greenish, unicolorous, with a pair of small blackish spots at apex of hind femora and dark spot on stridulatory field of tegmen only. Fore and middle legs with 6 external and 5 internal tibial spines. Hind edge of last abdominal tergite with very deep notch; unpaired processes rather long, with feebly isolated lateral lobes and without thorn; cerci asymmetrical, similar to those of *X. fallax*, but with their apices deeply bifurcated.

Female unknown.

Length. Body 14 mm; body with wings 25.5 mm; pronotum 4.3 mm; tegmina 20.5 mm; hind femora 11.7 mm.

Comparison. Very similar to *X. fallax*, can be distinguished from it by the last abdominal tergite of male with a long unpaired process bearing no thorn and by the peculiarities of the cerci. From other species of the genus it is distinguished by the size, coloration, and the shape of male abdominal apex.

Etymology. The species is named in memory of the famous orthopterist G.Ja. Bey-Bienko.

Xiphidiopsis (Xiphidiopsis) fischerwaldheimi sp. n. (Figs 12-15)

Holotype. ♂, Vietnam, *prov. Hasonbinh*, Hoabinh area, distr. Ky Son, Cao Phong, 250 m, 24-29.X.1990 (A.V. Gorochov).

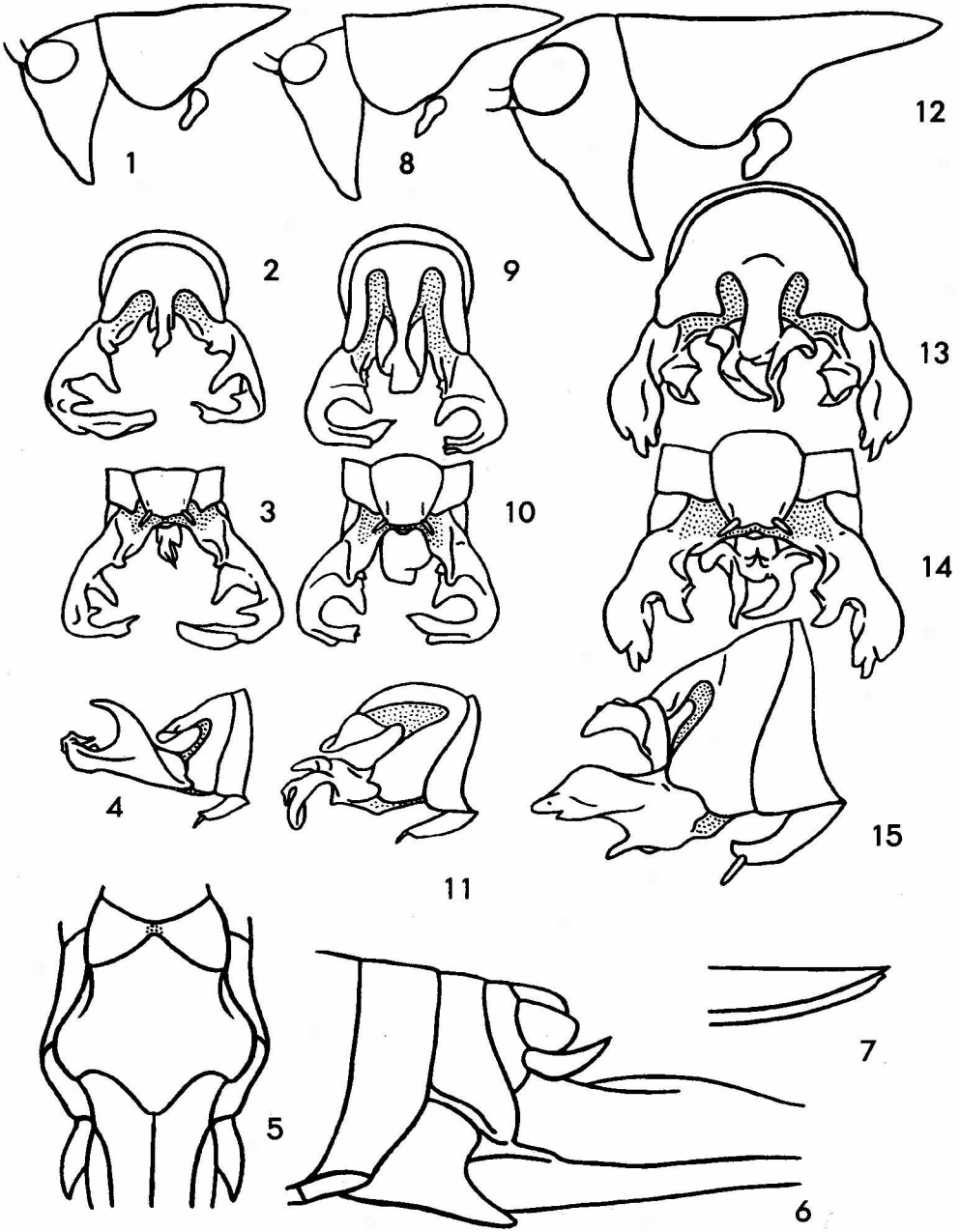
Description. Male (holotype). Size small. Yellowish green, relatively unicolorous, with blackish and dark spots as in *X. beybienkoi*. Spines of fore and middle legs as in *X. beybienkoi*. Hind edge of last abdominal tergite with rather deep notch; unpaired process rather short, with strongly isolated lateral lobes and with thorn on ventral part of this process; cerci symmetrical, with rather short processes.

Female unknown.

Length. Body 11 mm; body with wings 19 mm; pronotum 3.2 mm; tegmina 15 mm; hind femora 8.6 mm.

Comparison. The new species differs from *X. fallax* and *X. beybienkoi* in the shape of the unpaired process of male last abdominal tergite and symmetrical cerci with short processes. It is distinguished from *X. lita* and other species of the genus by the size, coloration, and the shape of male abdominal apex.

Etymology. The species is named in memory of G.I. Fischer von Waldheim, the author of the first monograph on Russian Orthoptera.



Figs 1-15. 1-7, *Xiphidiopsis (Xiphidiopsis) fallax* Redt.; 8-11 , *X. (X.) beybienkoi* sp. n.; 12-15, *X. (X.) fischerwaldheimi* sp. n. Head, pronotum and acoustical opening of male from the side (1, 8, 12); abdominal apex of male from above (2, 9, 13), from below (3, 10, 14) and from the side (4, 11, 15); abdominal apex of female from below (5) and from the side (6); apex of ovipositor from the side (7).

Xiphidiopsis (Xiphidiopsis) fallax Redtenbacher, 1891
(Figs 1-7)

This species was described from the material of the collection of C. Brunner-Wattenwyl. A part of this material, including 4 syntypes of this species from Java (1 male and 3 females), was bought by the Zoological Museum (now Institute) in St.Petersburg. The male with label "*X. fallax* Redt., Java, Brunner v. W. det." is designated here as **lectotype** and the females are labelled as paralectotypes. Other paralectotypes are kept in Austria (Naturhistorisches Museum, Wien).

Subgenus Euxiphidiopsis subgen. n.

Type species *Xiphidiopsis motshulskyi* sp. n.

Description. Wings as in the previous subgenus. Hind edge of male last abdominal tergite with large notch divided by wide unpaired process; this process symmetrical, without lateral lobes, with apical enlargement; cerci symmetrical; genital plate normal, with rather short styli (Figs 17-19). Male genitalia membranous, with small unpaired sclerite on dorsal surface (Fig. 20). Base of female genital plate embraced by a pair of characteristic folds of 8th abdominal tergite (Figs 21 -22, 254-255).

Included species: *Xiphidiopsis motshulskyi* sp. n. (type species), possibly also *X. platycerca* Bey-Bienko, 1962 and *X. eversmanni* sp. n.

Xiphidiopsis (Euxiphidiopsis) motshulskyi sp. n.
(Figs 16-23)

Holotype. ♂, **Vietnam**, *prov. Hasonbinh*, Hoabinh area, distr. Dabac, Tu Ly, 200 m, 16-23.X.1990 (A.V. Gorochov).

Paratypes. **Vietnam**, *prov. Hasonbinh*, Hoabinh area: 1 ♀, same data as holotype; 2 ♂, 1 ♀, distr. Ky Son, Cao Phong, 250 m, 24-29.X.1990 (A.V. Gorochov).

Description. Male (holotype). Size medium for the genus. Coloration yellowish green with the following blackish markings: numerous rings on antennae, spot behind eye, a pair of longitudinal stripes on pronotal disc, stripe along anal edge of tegmina, and a pair of small spots at apex of hind femora. Hind lobe of pronotum rather long. Spines of fore and middle legs as in the two previous species. Hind edge of last abdominal tergite with rather deep notch; apex of unpaired process with characteristic swelling; cerci with 3 lobes (dorsal lobe longer than other).

Variation. Sometimes blackish stripes of pronotum interrupted in the middle of disc.

Female. Similar to male. Genital plate with small notch in the middle of rounded hind edge. Ovipositor almost straight.

Length. Body: ♂12-14, ♀ 13-14 mm; body with wings: ♂21-24, ♀ 23-25 mm; pronotum: ♂3.6-3.8, ♀ 3.7-3.9 mm; tegmina: ♂17-19, ♀ 18-20 mm; hind femora: ♂9.5-10, ♀ 10-11 mm; ovipositor 10 mm.

Comparison. The species differs from *X. platycerca* in the shape of the apex of unpaired process of male last abdominal tergite and the shape of male cerci. It is distinguished from other species of the genus by the size, coloration, shape of pronotum, and peculiarities of abdominal apex.

Etymology. The species is named in memory of V.I. Motshulsky who described many interesting insects, including Orthoptera.

Xiphidiopsis (Euxiphidiopsis?) eversmanni sp. n.
(Figs 253-256)

Holotype. ♀, Vietnam, *prov. Hasonbinh*, Hoabinh area, distr. Dabac, Tu Ly, 200 m, 16-23.X.1990 (A.V. Gorochov).

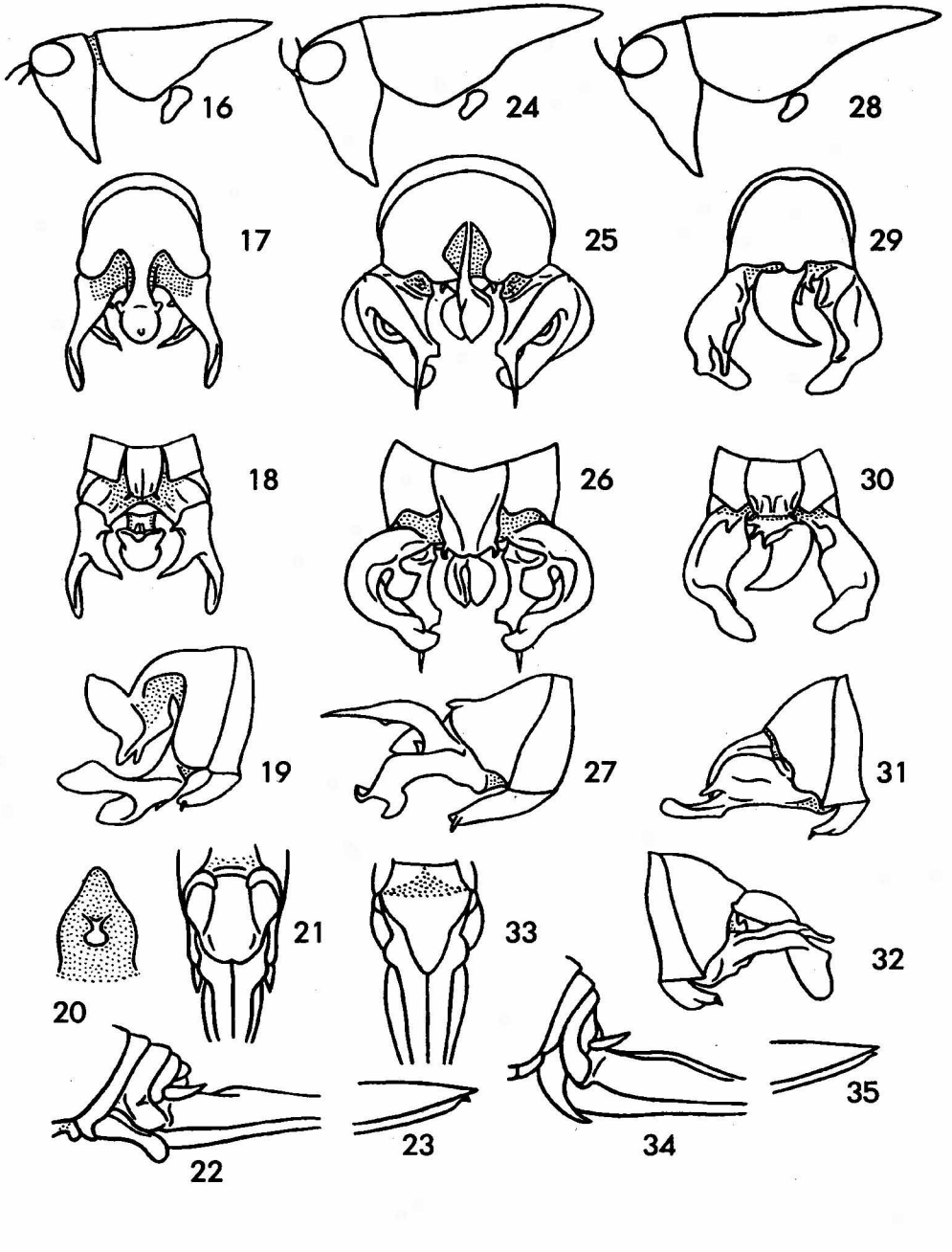
Description. Female (holotype). Size medium for the genus. Coloration greenish with blackish stripes and spots as in *X. motshulskyi* (pronotal blackish stripes interrupted in the middle of disc). Hind lobe of pronotum rather short. Spines of fore and middle legs as in *X. motshulskyi*. Genital plate with 3 acute lobes on hind edge (lateral lobes longer than median one). Ovipositor very similar to that of *X. motshulskyi*.

Male unknown.

Length. Body 14.5 mm; body with wings 25 mm; pronotum 3.8 mm; ovipositor 10 mm.

Comparison. The new species differs from *X. platycerca* by the presence of a dark stripe along anal edge of tegmina. From *X. motshulskyi* and other species of the genus, it differs in the shapes of pronotum and female genital plate; as well as in some other characters.

Etymology. The species is named in memory of E.A. Eversmann, one of the first orthopterists in Russia.



Figs 16-35. 16-23, *Xiphidiopsis (Euxiphidiopsis) motshulskyi* sp n.; 24-27, *X. (Paraxiphidiopsis) zubovskyi* sp. n.; 28-35, *X. (Zaxiphidiopsis) bazyluki* B.-Bien. Head, pronotum and acoustical opening of male from the side (16, 24, 28); abdominal apex of male from above (17, 25, 29), from below (18, 26, 30) and from the side (19, 27, 31, 32); genitalia of male from above (20); abdominal apex of female from below (21, 33) and from the side (22, 34); apex of ovipositor from the side (23, 35).

Subgenus **Paraxiphidiopsis** subgen. n.

Type species *Xiphidiopsis zubovskyi* sp. n.

Description. Wings extending to hind part of hind femora only; tegmina cover the hind wings completely. Hind edge of male last abdominal tergite with large notch divided by very narrow unpaired process; this process with a pair of large apical swellings; cerci symmetrical; genital plate normal, with rather short styli (Figs 25-27). Male genitalia entirely membranous.

Included species: type species only.

Xiphidiopsis (Paraxiphidiopsis) zubovskyi sp. n.
(Figs 24-27)

Holotype.♂, **Vietnam**, *prov. Vinhphu*, Tam Dao, 900-1000 m, 9-18.XI.1990 (A.V. Gorochov).

Paratype. ♂, same data as holotype.

Description. Male (holotype). Size medium for the genus. Coloration greenish with yellow cerci and with blackish pattern as in *X. motshulskyi* (but apex of hind femora with more numerous small blackish spots, similar spots also present at apex of fore and middle femora, spines of legs dark). Armature of fore and middle legs as in the same species. Hind edge of last abdominal tergite with slightly asymmetrical lobes at lateral corners of median notch; apical swellings of unpaired process slightly asymmetrical; cerci very complicated.

Variation. Pattern of paratype brownish (not blackish).

Female unknown.

Length. Body 12-16 mm; body with wings 15-17 mm; pronotum 4.5- 5 mm; tegmina 11.2-12 mm; hind femora 12-12.5 mm.

Etymology. The species is named in memory of the Russian orthopterist N.N. Zubovsky.

Subgenus **Zaxiphidiopsis** subgen. n.

Type species *Xiphidiopsis bazyluki* Bey-Bienko, 1971

Description. Wings as in the subgenus *Paraxiphidiopsis*. Hind edge of male last abdominal tergite without notch, with small prominence in the middle articulated with very asymmetrical large lobe; cerci asymmetrical too; genital plate normal, with rather short styli (Figs 29-32). Male genitalia entirely membranous. Female genital plate similar to that in the subgenus *Xiphidiopsis* (Figs 33-34).

Included species: type species only.

Xiphidiopsis (Zaxiphidiopsis) bazyluki Bey-Bienko, 1971
(Figs 28-35)

Material. **Vietnam**, *prov. Hanoi*: 6♂, 4♀, Ba Vi Nature Reserve, 400 m, 21-24.XI.1990 (A.V. Gorochov).

Description. Male (nov.). Similar to female, yellowish green, relatively unicolorous, but apex of hind femora with a pair of small blackish spots. Armature of fore and middle legs as in all the previous species. Apex of abdomen with triangular curved lobe articulated with last tergite; shape of cerci characteristic (see figures).

Females similar to holotype but slightly smaller.

Length. Body: ♂13-14, ♀ 9-14 mm; body with wings: ♂16-17, ♀ 16-19 mm; pronotum: ♂5-5.5, ♀ 4.5-5 mm; tegmina: ♂12-13, ♀ 12-13.5 mm; hind femora: ♂12-13, ♀ 11.5-13 mm; ovipositor 10- 11 mm.

Subgenus **Dinoxiphidiopsis** subgen. n.

Type species *Xiphidiopsis jacobsoni* sp. n.

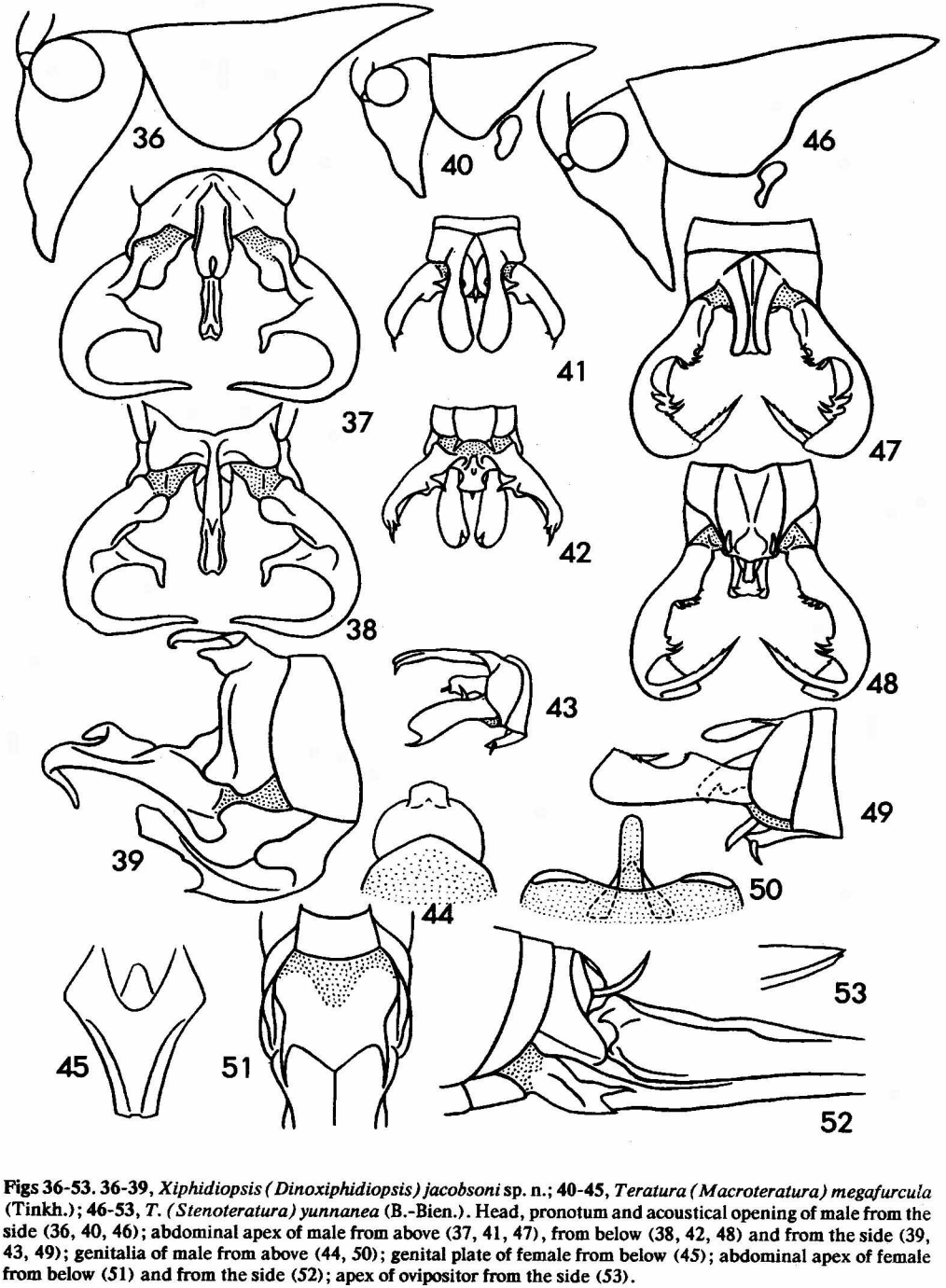
Description. Wings as in subgenera *Xiphidiopsis* and *Euxiphidiopsis*. Hind edge of male last abdominal tergite without notch, with symmetrical, rather complicated unpaired process in middle; cerci symmetrical too; genital plate with wide short base and narrow long distal part without styli (Figs 37-39). Male genitalia entirely membranous.

Included species: type species only.

Xiphidiopsis (Dinoxiphidiopsis) jacobsoni sp. n.
(Figs 36-39)

Holotype.♂, **Vietnam**, *prov. Vinhphu*, Tam Dao, 900-1000 m, 9-18.XI.1990 (A.V. Gorochov).

Description. Male (holotype). Size medium for the genus. Coloration greenish yellow with the following dark markings: numerous rings of antennae, a pair of small spots at apex of hind femora, spot at stridulatory field of tegmen, and spines of hind tibiae. Armature of fore and middle legs as in all the previous species. Unpaired process of hind edge of last abdominal tergite with 3 lobes; median lobe longer and with bifurcated apex; cerci very curved, with characteristic processes; long narrow hind part of genital plate curved and with ventral thorn.



Figs 36-53. 36-39, *Xiphidiopsis (Dinoxiphidiopsis) jacobsoni* **sp. n.; 40-45,** *Teratura (Macroteratura) megafurcula* **(Tinkh.); 46-53,** *T. (Stenoteratura) yunnanea* **(B.-Bien.). Head, pronotum and acoustical opening of male from the side (36, 40, 46); abdominal apex of male from above (37, 41, 47), from below (38, 42, 48) and from the side (39, 43, 49); genitalia of male from above (44, 50); genital plate of female from below (45); abdominal apex of female from below (51) and from the side (52); apex of ovipositor from the side (53).**

Female unknown.

Length. Body 13.5 mm; body with wings 21 mm; pronotum 3.7 mm; tegmina 17 mm; hind femora 10 mm.

Etymology. The species is named in memory of G.G. Jacobson, author of the first key to Orthoptera of Russia.

Xiphidiopsis? jinxiuensis Xia & Liu, 1988

Material. Vietnam, *prov. Hanoi*: 2 ♀, Ba Vi Nature Reserve, 400 m, 21-24.XI.1990 (A.V. Gorochov).

This species is recorded from Vietnam for the first time. Its generic position is unclear. All species of the former genus *Xiphidiopsis*, except those discussed in this paper, are in need of generic revision.

Xiphidiopsis? adelungi sp. n.
(Figs 257-260)

Holotype. ♀, Vietnam, *prov. Gialai-contum*, Kannack, 8-16.XI.1988 (A.V. Gorochov).

Description. Female (holotype). Size small. Greenish yellow, unicolorous, with a pair of weak, dark, very small spots at apex of femora. Peculiarities of head, pronotum, and acoustical opening, armature of legs as in the previous representatives of the genus *Xiphidiopsis*. Wings extending to hind part of posterior tibiae; tegmina slightly shorter than hind wings. Cerci short; genital plate large, with widely truncated hind edge. Ovipositor slightly curved upwards, rather long, with small hook at apex of ventral valves.

Male unknown.

Length. Body 11 mm; body with wings 19 mm; pronotum 3.3 mm; tegmina 15.3 mm; hind femora 9.3 mm; ovipositor 6.7 mm.

Comparison. The new species differs from all the similar species by the small size, coloration, and very characteristic truncated female genital plate. The generic position of this species is unclear.

Etymology. The species is named in memory of the orthopterist N.N. Adelung, who arranged the purchase of a part of C. Brunner von Wattenwyl's collection by the Zoological Museum in St. Petersburg.

Genus Teratura Redtenbacher, 1891

Type species *Teratura monstrosa* Redtenbacher, 1891.

Description. Head, pronotum, acoustical opening, wings, legs, and ovipositor similar to those of the genus *Xiphidiopsis* (Figs 40, 46, 53, 272, 274). Notch on hind edge of male last abdominal tergite almost divides this tergite into two; lateral corners of median notch usually with symmetrical processes; apex of cerci with wide dorsal lobe and narrow ventral one; epiproct large, with lobes and/or processes; genital plate normal, with rather long styli (Figs 41-43, 47-49). Genitalia of male with sclerotized areas (Figs 44, 50). Genital plate and cerci of female various (Figs 45, 51, 52, 273, 275).

Comparison. The genus differs from the genus *Xiphidiopsis* by the large complicated epiproct of male. From other genera of the tribe it differs in the same characters as the genus *Xiphidiopsis*.

Subgenus Macroteratura subgen. n.

Type species *Xiphidiopsis megafurcula* Tinkham, 1944.

Description. Wings extending to hind part of hind tibiae; tegmina much shorter than hind wings. Processes of male last abdominal tergite wide and long; cerci slightly curved, with non-denticulated internal edge; epiproct with lateral lobes and dorsal acute process at apex (Figs 41-43). Male genitalia with sclerotized distal half of dorsal lobe (of almost grylloid type – Gorochov, 1984, 1988) (Fig. 44). Female genital plate with long and narrow distal half (Fig. 45).

Included species: type species only.

Teratura (Macroteratura) megafurcula (Tinkham, 1944)
(Figs 40-45)

Material. Vietnam, *prov. Hasonbinh*: 1 ♂, Hoabinh area, distr. Ky Son, Cao Phong, 24-29.X.1990 (A.V. Gorochov).

This species is recorded from Vietnam for the first time.

Subgenus Stenoteratura subgen. n.

Type species: *Xiphidiopsis yunnanea* Bey-Bienko, 1957.

Description. Wings as in the subgenus *Macroteratura*. Processes of male last abdominal

tergite narrow and rather short; cerci strongly curved, with denticulated internal edge; apex of epiproct with lateral hooklike processes only (Figs 47-49). Male genitalia with 3 small sclerites on hind edge of dorsal lobe (Fig. 50). Female genital plate with short and wide distal half provided with 3 apical lobes (Figs 51-52).

Included species: *Xiphidiopsis yunnanea* Bey-Bienko, 1957 (type species), possibly also *X. janetscheki* Bey-Bienko, 1968 and *X. kryzhanovskii* Bey-Bienko, 1957. It is interesting that Bey-Bienko (1957) at first regarded *T. yunnanea* and *T. kryzhanovskii* as related species, but later he left *T. kryzhanovskii* and *T. janetscheki* in *Xiphidiopsis* sensu Bey-Bienko and removed *T. yunnanea* from it (Bey-Bienko, 1971).

Subgenus **Teratura** s. str.

Description. Differs from the 2 other subgenera of this genus by the reduction of processes of male last abdominal tergite, strongly curved male cerci with non-denticulated internal edge, apex of male epiproct with lateral lobes but without acute processes and hooks, male genitalia with a pair of sclerotized titillators (of tettigonioid type – Gorochov, 1984, 1988), and short wide distal half of female genital plate with rounded hind edge (Ingrisch, 1990: Figs 1-17; this paper: Fig. 273).

Included species: *Teratura monstrosa* Redtenbacher, 1891 (type species), *T. maculata* Ingrisch, 1990 and *T. darevskyi* sp. n.

Teratura (Teratura) darevskyi sp. n.
(Figs 272-275)

Holotype. ♀, Vietnam, *prov. Sonla*, Song Ma, 400-500 m, 3-14.V. 1986 (A.V. Gorochov).

Description. Female (holotype). Rather large, variegated. Head with long last segment of maxillary palpi, whitish with greenish spots at antennal base and near it, with the following dark markings: internal edge of antennal pocket, wide transverse band along inferior edge of epicranium, and sparse rings of antennal flagellum. Pronotum with rather long hind part, whitish with short dark band along inferior edge of lateral lobes and with brownish indistinct small spots on disc. Legs greenish white with the following dark areas: spots in middle and at apex of femora, spots near base of tibiae, distal half of fore and distal third of middle tibiae, distal two-thirds of hind tibiae (except light spots in their middle and at apex), and distal part of tarsi. Spines of fore and middle tibiae light and rather short; spines of hind tibiae dark. Tegmina yellowish grey with numerous indistinct brownish spots, short dark longitudinal spot at middle of base, greenish Sc, yellow other longitudinal veins, whitish transverse veinlets; apical part of hind wings greyish brown. Pterothorax whitish with dark spots. Abdomen yellowish with indistinct brownish spots, dark transverse band at base of 9th tergite, dark spots near white special rounded lobes of this tergite and at lateral parts of 10th tergite (under the last mentioned spots there are whitish spots); cerci rather long; genital plate with rounded hind edge slightly notched in middle; ovipositor rather long, slightly curved upwards, almost without apical hook; cerci, genital plate, and ovipositor light; base and apical third of ovipositor darkened.

Male unknown.

Length. Body 13 mm; body with wings 25 mm; pronotum 3.5 mm; tegmina 19 mm; hind femora 12 mm; ovipositor 7.6 mm.

Comparison. The new species differs from other species of the subgenus in the peculiarities of coloration and the presence of special lobes of 9th abdominal tergite of female.

Etymology. The species is named in honour of I.S. Darevsky, initiator of investigations of the Vietnamese fauna by the Zoological Institute of the Academy of Sciences of the USSR.

Genus **Kuzicus** gen n.

Type species *Teratura suzukii* Matsumura & Shiraki, 1908.

Description. Head, pronotum, acoustical opening, wings, legs, and ovipositor similar to those of the genera *Xiphidiopsis* and *Teratura* (Figs 54, 61-62, 67, 74-75, 82). Hind edge of male last abdominal tergite with large symmetrical processes at lateral corners of median notch; cerci strongly curved, with internal process at middle of their length and with various apex; epiproct very small; genital plate normal, with rather long styli (Figs 55-57, 63-65, 68-70, 76-78). Male genitalia with large sclerotized dorsal lobe (epiphallus of genitalia of grylloid type) and primitive button-like locking device (Gorochov, 1984, 1988) (Figs 58, 66, 71, 79). Female genital plate various; cerci

rather short (Figs 59-60, 72-73, 80-81).

Comparison. The new genus differs from the previous genera by the large paired processes of male last abdominal tergite, small male epiproct, and male genitalia with large epiphallus. It is distinguished from other genera of the tribe by the peculiarities of the head, pronotum, acoustical opening, tibial auditory foramina, and abdominal apex.

Etymology. The generic name is simply a combination of letters.

Subgenus **Kuzicus** s. str.

Description. Wings extending to hind part of hind tibiae; tegmina much shorter than hind wings. Hind edge of male last abdominal tergite with a pair of processes only (Figs 55-57, 63-65, 68-70). Epiphallus with long distal part, a pair of small denticulated apical lobes, and a pair of narrow articulated ventral processes with acute apex (Figs 58, 66, 71). Female genital plate with very narrow distal part and paired ventral processes; base of ovipositor with a pair of ventral processes too (Figs 59-60, 72-73).

Included species: *Teratura suzukii* Matsumura & Shiraki (type species), *Xiphidiopsis cerviercus* Tinkham, 1943 and *X. denticulata* Karny, 1926.

Kuzicus (Kuzicus) denticulatus (Karny, 1926)
(Figs 54-61)

Material. **Vietnam**: *prov. Gialai-contum*: 2♂, 1♀, Buon Luoi, 17.XI-15.XII.1988 (A.V. Gorochov); *prov. Hasonbinh*, Hoabinh area: 1♂, Mai Chau, 250 m, 30.X-4.XI.1990 (A.V. Gorochov); 1♂, distr. Ky Son, Cao Phong, 250 m, 24-29.X.1990 (A.V. Gorochov); 1♂, 4♀, distr. Dabac, Tu Ly, 200 m, 16-23.X.1990 (A.V. Gorochov & S.A. Belokobylskij).

This species is recorded from Vietnam for the first time.

Subgenus **Neokuzicus** subgen. n.

Type species *Kuzicus uvarovi* sp. n.

Description. Wings as in the subgenus *Kuzicus*. Hind edge of male last abdominal tergite with 2 pairs of processes (Figs 76-78). Epiphallus with short distal part, without denticulation and articulated processes (Fig. 79). Female genital plate with rather wide distal part and without ventral processes; base of ovipositor without ventral processes too (Figs 80-81)

Included species: type species only.

Kuzicus (Neokuzicus) uvarovi sp. n.
(Figs 75-82)

Holotype. ♂, **Vietnam**, *prov. Hanoi*, Ba Vi Nature Reserve, 400 m, 21-24.XI.1990 (A.V. Gorochov).

Paratypes. **Vietnam**: *prov. Hanoi*: 2 ♀, same data as holotype; *prov. Hasonbinh*, Hoabinh area: 1 ♂, 1 ♀, distr. Dabac, Tu Ly, 200 m, 16-23.X.1990 (A.V. Gorochov); 1 ♂, distr. Ky Son, Cao Phong, 24-29.X.1990 (A.V. Gorochov).

Description. Male (holotype). Size medium for the genus. Coloration yellowish green with the following brownish markings: very small part of internal edge of antennal pockets, short longitudinal stripes along lateral edges of rostrum, a pair of small spots at middle of pronotal disc, and spots of tegmen (all of them small, except one at stridulatory field); median ocellus and longitudinal median line of dorsal surface of head and pronotum whitish; lateral pronotal lobes and base of antennae with weak indistinct darkenings. Armature of fore and middle legs as in all previous species of the genus *Xiphidiopsis*. Internal paired processes of hind edge of last abdominal tergite long and with widening at apex; external ones short and narrow; distal part of cerci without processes and lobes. Genitalia with characteristic shape of epiphallus (see Fig. 87).

Variation. Brownish part of internal edge of antennal pockets sometimes larger than in holotype.

Female. As male. Tegmina with small brownish spots only. Genital plate with short median lobe of hind edge.

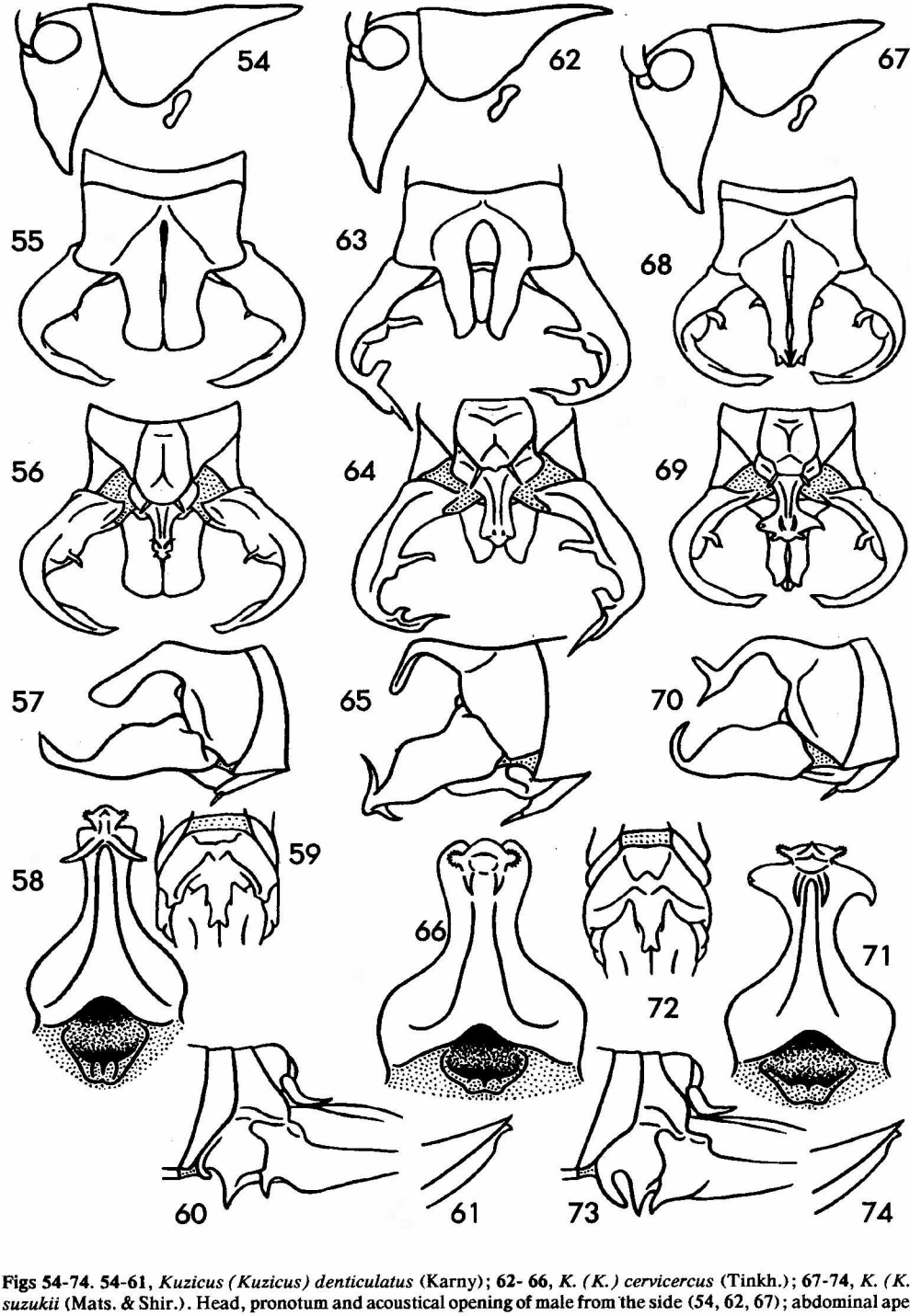
Length. Body: ♂12-15, ♀ 13-15 mm; body with wings: ♂23-25, ♀ 24-26 mm; pronotum: ♂3.4-3.8, ♀ 3.5-3.9 mm; tegmina: ♂15-17, ♀ 16-18.5 mm; hind femora: ♂ 9-11, ♀ 10.5-12.5 mm; ovipositor 7.5-8 mm.

Etymology. The species is named in memory of the famous orthopterist B.P. Uvarov.

Genus **Pseudokuzicus** gen. n.

Type species *Xiphidiopsis pieli* Tinkham, 1943.

Description. Head, pronotum, acoustical opening, legs, and ovipositor similar to these of the previous genera (Figs 91, 98). Wings



Figs 54-74. 54-61, *Kuzicus (Kuzicus) denticulatus* (Karny); **62- 66**, *K. (K.) cervicercus* (Tinkh.); **67-74**, *K. (K.) suzukii* (Mats. & Shir.). Head, pronotum and acoustical opening of male from the side (54, 62, 67); abdominal apex of male from above (55, 63, 68), from below (56, 64, 69) and from the side (57, 65, 70); genitalia of male from below (58, 66, 71); abdominal apex of female from below (59, 72) and from the side (60, 73); apex of ovipositor from the side (61, 74).

extending to apex of hind femora or base of hind tibiae; tegmina cover the hind wings completely. Hind edge of male last abdominal tergite without notch but with a pair of rather long symmetrical processes; cerci very long, narrow, curved, without any processes and lobes but feebly bifurcated at apex; epiproct very small; genital plate very large, with very short styli (Figs 92-94). Male genitalia with a pair of slightly asymmetrical large titillators (Fig. 95). Female genital plate divided by transverse fold; cerci rather short (Figs 96-97).

Included species: type species only.

Comparison. The new genus is similar to the genus *Kuzicus*, but distinct because of the different type of male genitalia (without epiphallus but with titillators). From the genus *Teratura* it differs by the small epiproct and from other genera of the tribe by peculiarities of head, pronotum, wings, acoustical opening, tibial foramina, and abdominal apex. Bey-Bienko (1971) excluded *P. pieli* from his *Xiphidiopsis*.

Genus **Anepitacta** Brunner von Wattenwyl, 1891

Type species *Anepitacta inconspicua* Brunner von Wattenwyl, 1891.

African *Xiphidiopsis*-like (Figs 83, 90) species with large paired processes of male last abdominal tergite were included in this genus by Beier (1965, 1966). The genus consists of 2 different groups of species regarded by me as subgenera.

Subgenus **Teratacta** subgen. n.

Type species *Anepitacta olsufievi* sp. n.

Description. This subgenus differs from the subgenus *Anepitacta* s. str. by the presence of 2 pairs of processes (large lobe-like median pair and small lateral one) of male last abdominal tergite, fusion of these median processes with rather large epiproct, rather simple shape of male cerci (hook-like with apical lobe) (Figs 84-86), characteristic shape of epiphallus (Fig. 87), and female genital plate with 3 acute projections of hind edge (Figs 88-89).

Included species: *Anepitacta olsufievi* sp. n. (type species), *A. nigerica* Beier, 1965, and *A. katangica* Beier, 1965, stat. n. (= *A. nigerica katangica*).

Etymology. The subgeneric name is formed by parts of the generic names *Teratura* (for similarity in size of epiproct), and *Anepitacta*.

Anepitacta (Teratacta) olsufievi sp. n. (Figs 83-90)

Holotype. ♂, **Burkina Faso** ("Haute Volta, Afr. Occ. Fr."), Poundou, VIII-XI.1927 (G.V. Olsufiev).

Paratypes. 2 ♂, 4 ♀, same data as holotype.

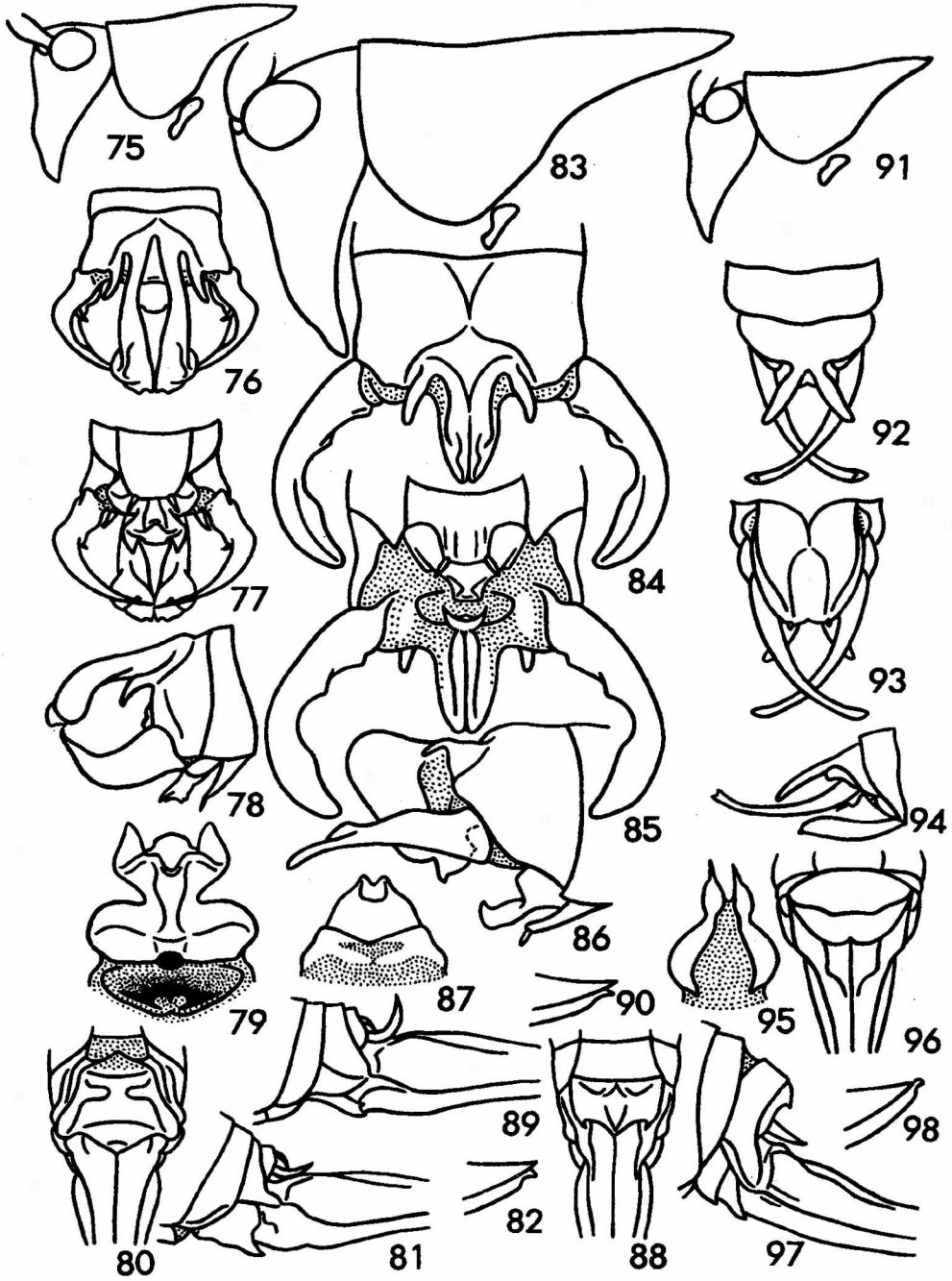
Description. Male (holotype). Medium-sized, yellowish green, unicolorous, with narrow brown longitudinal stripe at middle of dorsal surface of head (from apex of rostrum to hind part of vertex), with pairs of whitish yellow stripes along lateral sides of rostrum, along superior edge of eyes, and behind eyes, with brown spot at hind corner of pronotal disc and with whitish yellow stripes along lateral edges of disc. Fore tibiae with 6 external and 5 internal spines; middle tibiae with 6 external and 6 internal spines. Median large lobe-like process of last abdominal tergite with widely rounded apex; lateral small processes of this tergite with apex not curved or clavate; cerci arciform, rather long (length of cerci without apical lobe equal to length of large median processes of last abdominal tergite), with small triangular internal lobe at middle and lancet-like apical lobe. Epiphallus with transverse fold and narrow, rounded apex, turned upwards.

Variation. Sometimes whitish yellow stripes along lateral edges of disc almost inconspicuous and general coloration light brownish yellow.

Female. Similar to male. Genital plate with wide median hind projection and very narrow lateral hind projections.

Length. Body: ♂11-12.5, ♀ 12.5-14 mm; body with wings: ♂21-23, ♀ 23-25 mm; pronotum: ♂ 3.6-3.8, ♀ 3.6-3.8 mm; tegmina: ♂ 16-17, ♀ 18-19 mm; hind femora: ♂9.5, ♀ 10.5-11 mm; ovipositor 9.3-9.7 mm.

Comparison. The new species is very similar to *A. nigerica*, but is distinguished from it by the widely rounded apex of median processes of male last abdominal tergite and distinctly longer male cerci with triangular internal lobe at the middle. From *A. katangica* the new species differs by the lateral processes of male last abdominal tergite without widening at the apex and apical part of male cerci without large angulate projections.



Figs 75-98. 75-82, *Kuzicus (Neokuzicus) uvarovi* sp. n.; 83-90, *Anepitacta (Teratacta) olsufievi* sp. n.; 91-98, *Pseudokuzicus pieli* (Tinkh.). Head, pronotum and acoustical opening of male from the side (75, 83, 91); abdominal apex of male from above (76, 84, 92), from below (77, 85, 93) and from the side (78, 86, 94); genitalia of male from below (79) and from above (87, 95); abdominal apex of female from below (80, 88, 96) and from the side (81, 89, 97); apex of ovipositor from the side (82, 90, 98).

Genus Xizicus gen. n.

Type species *Xiphidiopsis fascipes* Bey-Bienko, 1955.

Description. Head, pronotum, acoustical opening, legs, and ovipositor similar to those of previous genera (Figs 99, 106, 107, 113, 125). Wings extending to hind part of hind tibiae; tegmina slightly or much shorter than hind wings. Last abdominal tergite of male with paired symmetrical processes (small or medium-sized) on hind edge; cerci rather simple, also symmetrical, with longer hooked external or ventral process and shorter internal or dorsal process; epiproct very small; genital plate various (Figs 100-102, 108-110, 114, 116, 118-120). Male genitalia entirely or almost entirely membranous (of hagloid type). Genital plate of female various; cerci rather short (Figs 104-105, 111-112, 115, 117, 121-124, 126).

Included species: these species will be enumerated after description of the 2 subgenera of this genus. *Xizicus ikonnikovi* sp. n. and possibly *Xiphidiopsis juxtafurca* Xia & Liu, 1988 are also representatives of this genus, but their subgeneric position is not clear (may be a third subgenus?).

Comparison. The new genus is distinguished from the genus *Xiphidiopsis* by the paired processes of male last abdominal tergite, from the genus *Teratura* by very small male epiproct, from genera *Kuzicus*, *Pseudokuzicus* and *Anepitacta* by the hagloid or almost hagloid male genitalia. From other genera of the tribe *Xizicus* differs in the same characters as the above mentioned five genera.

Etymology. The generic name is formed by parts of the generic names *Xiphidiopsis* (for similarity in male genitalia) and *Kuzicus* (for similarity in hind edge of male last abdominal tergite).

Subgenus Xizicus s. str.

Description. Paired processes of male last abdominal tergite in close proximity and hook-like; cerci with ventral and dorsal processes; genital plate normal, with long styli (Figs 100-102). Male genitalia with sclerotized apex of dorsal lobe (Fig. 103). Female genital plate with prominent apex (Figs 104-105).

Included species: type species of the genus only.

Subgenus Eoxizicus subgen. n.

Type species: *Xiphidiopsis kulingensis* Tinkham, 1943.

Description. Distinguished from the previous subgenus by more primitive characters: paired processes of male last abdominal tergite not very approximating and without hooks, male genitalia entirely membranous. Differs from it also by male cerci with external and internal processes, short or medium-sized styli of normal male genital plate (Figs 108-110, 114, 116, 118-120), female genital plate with concave apex (Figs 111-112, 115, 117, 121-122).

Included species: *Xiphidiopsis kulingensis* Tinkham, 1943 (type species), *X. rehni* Tinkham, 1956, *X. howardi* Tinkham, 1956, *X. tinkhami* Bey-Bienko, 1962, *X. coreana* Bey-Bienko, 1971, *X. megalobata* Xia & Liu, 1988, possibly *X. transversa* Tinkham, 1944, *X. kweichowensis* Tinkham, 1944, and *X. meridiana* Xia & Liu, 1988.

Xizicus (subgenus?) ikonnikovi sp. n. (Figs 123-125)

Holotype. ♀, **Vietnam**, *prov. Hasonbinh*, Hoabinh area, distr. Dabac, Tu Ly, 200 m, 16-23.X.1990 (A.V. Gorochov).

Paratypes. 2 ♀, same data as holotype.

Description. Female (holotype). Size small. Brownish yellow, light, unicolorous, with the following dark markings: numerous rings of antennae, spines of hind tibiae, and a pair of small spots at apex of hind femora. Fore and middle tibiae with 6 external and 5 internal spines. Tegmina slightly shorter than hind wings. Genital plate with enlargement at base; the rest of this plate feebly widening to apex, relatively flat, with transverse bend along frontal edge (lateral corners of this bend tubercle-

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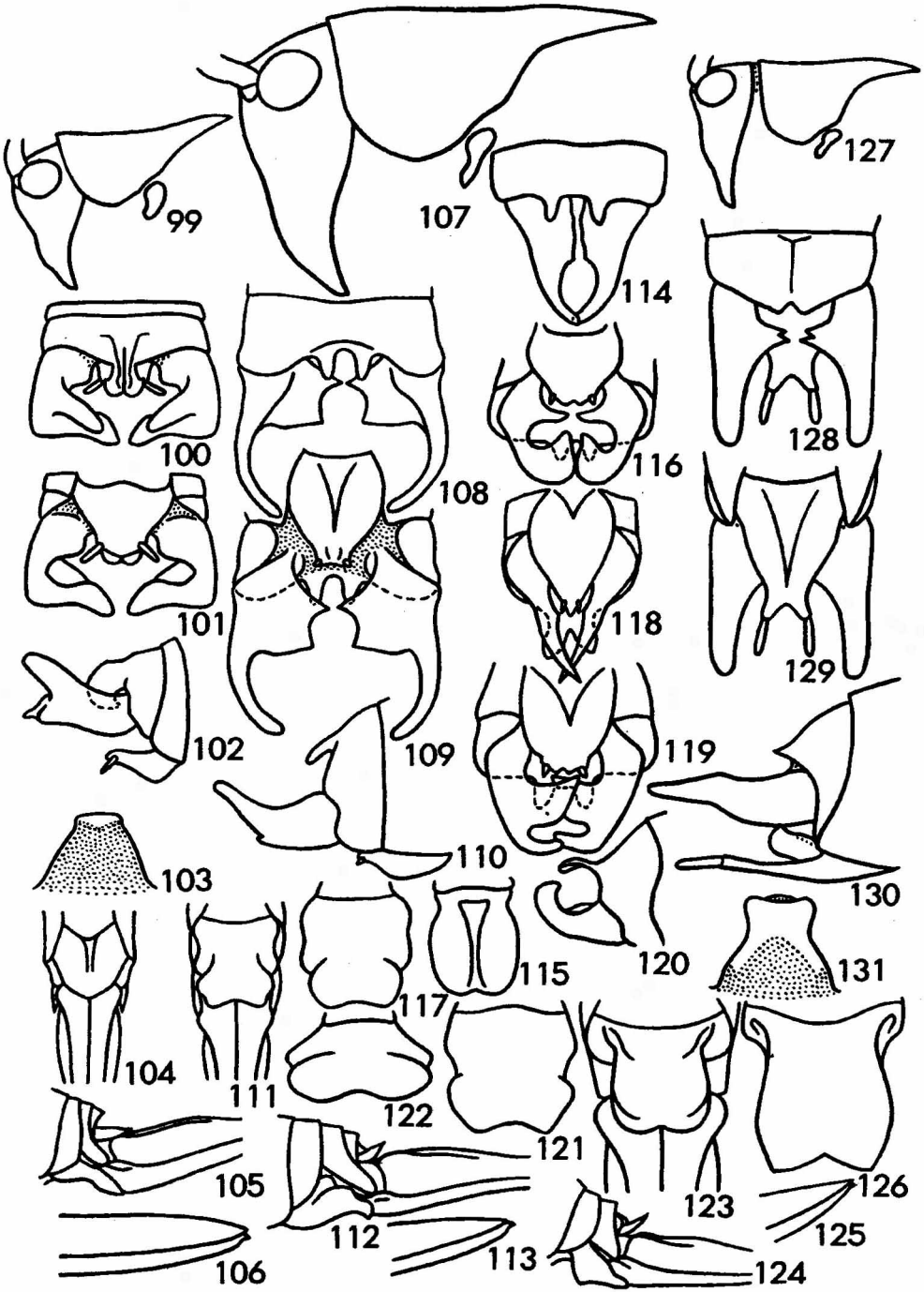
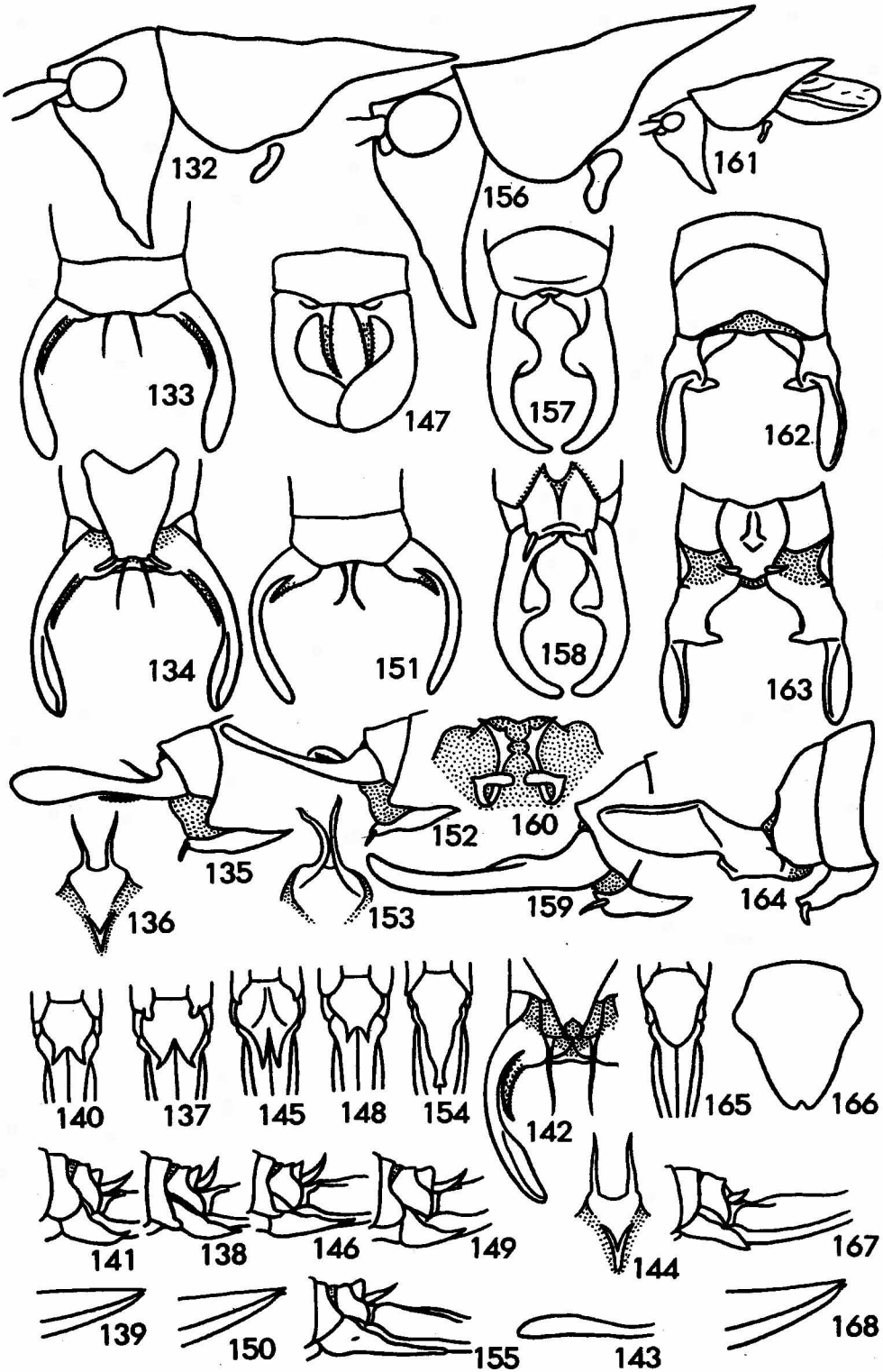
Figs 99-131. 99-106, *Xizicus (Xizicus) fascipes* (B.-Bien.); **107-113,** *X. (Eoxizicus) kulingensis* (Tinkh.); **114-115,** *X. (E.) meridianus* (Xia & Liu); **116-117,** *X. (E.) coreanus* (B.-Bien.); **118,** *X. (E.) kweichowensis* (Tinkh.); **119-121,** *X. (E.) megalobatus* (Xia & Liu); **122,** *X. (E.) transversus* (Tinkh.); **123-125,** *X. (?) ikonnikovi* sp. n.; **126,** *X. (?) juxtafurca* (Xia & Liu); **127-131,** *Proamytta (Archamytta) simillima* Beier. Head, pronotum and acous-



tical opening of male from the side (99, 107, 127); abdominal apex of male from above (100, 108, 114, 128), from below (101, 109, 116, 118, 119, 129) and from the side (102, 110, 120, 130); genitalia of male from above (103, 131); abdominal apex of female from below (104, 111, 123) and from the side (105, 112, 124); genital plate of female from below (115, 117, 121, 122, 126); apex of ovipositor from the side (106, 113, 125).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like) and with a pair of rounded lobes at hind edge.

Variation. In one of paratypes, a very weak darkish stripe present along proximal part of anal edge of tegmina.

Male unknown.

Length. Body 11-11.5 mm; body with wings 21-22 mm; pronotum 3.2-3.5 mm; tegmina 17-18 mm; hind femora 9.5-10 mm; ovipositor 7.5-8 mm.

Comparison. The new species is similar to *X. juxtafurca*, but distinguished from it by the rounded lobes of hind edge of female genital plate [female genital plate of *X. juxtafurca* with angulate apex of these lobes (Fig. 126)]. From other similar species it is distinguished by the characteristic shape of female genital plate and coloration.

Etymology. The species is named in memory of the Russian orthopterist N.F. Ikonnikov.

Genus **Proamytta** Beier, 1965

Type species *Amytta straminea* Sjöstedt, 1912.

African *Xiphidiopsis*-like (Fig. 127) species with rather simple apex of male abdomen were included in this genus by Beier (1965, 1966). There are essential differences between many of them. These differences suggest that the genus consists of several subgenera. One of them is described here.

Subgenus **Archamytta** subgen. n.

Type species *Proamytta simillima* Beier, 1965.

Description. Differing from the subgenus *Proamytta* s. str. by the primitive shape of male abdominal tergite which is provided with a pair of weak tubercles on hind edge (these tubercles are homologues of paired processes in the genera *Kuzicus*, *Pseudokuzicus*, *Anepitacta*, and *Xizicus*), by the position of internal process of male cerci near their base, rather narrow bifurcated distal part of male genital plate, and characteristic shape of epiphallus (Figs 128-131).

Included species: *Proamytta simillima* Beier, 1965 (type species), *P. eburnea* Beier, 1965, and possibly *P. kamerunensis* Beier, 1965.

Proamytta (Archamytta) simillima (Beier, 1965)
(Figs 127-131)

Material. **Burkina Faso** ("Haute Volta, Afr. Occ. Fr."): 1 ♂, Poundou, 30.IX.1927 (G.V. Olsufiev).

This species is recorded from Burkina Faso for the first time.

Genus **Decma** gen. n.

Type species *Decma stshelkanovtzevi* sp. n.

Description. Head, pronotum, acoustical opening, legs, and ovipositor similar to those of previous genera (Figs 132, 139, 150, 156). Wings similar to those of the genus *Xizicus*. Last abdominal tergite of male without large notch and large processes; cerci with wide base, curved, and with internal process or lobe; epiproct very small; genital plate normal, with long styli (Figs 133-135, 142-143, 147, 151-152, 157-159). Male genitalia with paired sclerotized titillators (Figs 136, 144, 153, 160).

Included species: these species will be enumerated after descriptions of the 2 subgenera of this genus.

Comparison. The genus differs from *Proamytta* by the tettigonioid titillators, from all other previous genera by the relatively simple last abdominal tergite of male.

Etymology. The generic name is formed by parts of the generic names *Decticus* (it has somewhat similar titillators) and *Meconema* (it has similar hind edge of male last abdominal tergite).

Subgenus **Decma** s. str.

Description. Hind edge male last abdominal tergite without small projection in middle; cerci with relatively narrow median part, lobe-like

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Figs 132-168. 132-139, *Decma (Decma) miramae* sp. n.; 140-144, *D. (D.) stshelkanovtzevi* sp. n.; 145-146, *D. (D.) predtetshenskyi* sp. n.; 147-150, *D. (D.) inversum* (Karny); 151–155, *D. (D.) bolivari* (Karny); 156-160, *D. (Idiodecma) birmanicum* (B.-Bien.); 161-168, *Chandozhinskia bivittata* (B.-Bien.). Head, pronotum and acoustical opening of male from the side (132, 156); the same with tegmen (161); abdominal apex of male from above (133, 147, 151, 157, 162), from below (134, 142, 158, 163) and from the side (135, 152, 159, 164); distal part of male cercus from the side (143); inner part of male genitalia from above (136, 144, 153, 160); abdominal apex of female from below (137,140, 145, 148, 154, 165) and from the side (138, 141, 146, 149, 155, 167); apex of ovipositor from the side (139, 150, 168); genital plate of female from below (166).

distal part, and shorter, very narrow, denticulated internal process at base; genital plate with feebly narrowed distal part (Figs 133-135, 142-143, 147, 151-152). Male genitalia with fused wide bases of titillators (Figs 136, 144, 153). Female genital plate with bifurcated apex; cerci rather short (Figs 137-138, 140-141, 145-146, 148-149, 154-155).

Included species: *Decma stshelkanovtzevi* sp. n. (type species), *Xiphidiopsis inversa* Karny, 1907, *X. bolivari* Karny, 1924, *D. miramae* sp. n. and *D. predtetshenskyi* sp. n.

Decma (Decma) stshelkanovtzevi sp. n. (Figs 140-144)

Holotype. ♂, **Vietnam**, *prov. Hasonbinh*, Hoabinh area, distr. Dabac, Tu Ly, 200 m, 16-23.X.1990 (A.V. Gorochov).

Paratypes. 1 ♂, 2 ♀, same data as holotype.

Description. Male (holotype). Size small. Greenish, unicolorous, with distinct yellowish lines along lateral edges of pronotal disc. Fore and middle tibiae with 6 external and 5 internal spines. Tegmina noticeably shorter than hind wings. Cerci long and rather narrow, with relatively narrow lobe-like distal part and strong hooked internal process. Narrow paired parts of titillators almost parallel.

Variation. Male paratype with yellowish lines of pronotum less distinct.

Female. Similar to male. Genital plate with not very deep notch at middle of hind edge and slightly curved, rather long, acute hind lateral projections; 8th abdominal tergite with rounded lobes at hind inferior corners. Apex of ovipositor with very weak apical ventral hook.

Length. Body: ♂10-11, ♀ 12-13 mm; body with wings: ♂19-20, ♀ 21-22 mm; pronotum: ♂3.2-3.4, ♀ 3.2-3.4 mm; tegmina: ♂ 14-15, ♀ 15.5-16.5 mm; hind femora: ♂9.5-10, ♀ 11-11.5 mm; ovipositor 6.5-6.8 mm.

Comparison. The new species differs from *D. inversum* by the long and narrow male cerci, from *D. bolivari* by the longer internal process of male cerci, and from both by the shape of female genital plate.

Etymology. The species is named in memory of the orthopterist Ja.P. Stshelkanovtzev.

Decma (Decma) miramae sp. n. (Figs 132-139)

Holotype. ♂, **Vietnam**, *prov. Thanh Hoa*, 65 km NW Thanh Hoa, Lang Tranh, 380 m, 22-25.I.1989 (B.A. Korotyaev).

Paratype. ♀, same data as holotype, except collector (E.S. Sugonyaev).

Description. Male (holotype). Very similar to holotype of *D. stshelkanovtzevi*. Differs from it by relatively wide lobe-like distal part of cerci, slender, almost straight internal process of cerci, shape of narrow paired parts of titillators (these parts approximating in proximal half and diverging in distal one).

Female. Similar to male. Genital plate with very deep notch at middle of hind edge and noticeably curved, rather long, acute hind lateral projections; 8th abdominal tergite with small processes at hind inferior corners. Apex of ovipositor as in the preceding species.

Length. Body: ♂11.5, ♀ 11.5 mm; body with wings: ♂19, ♀ 21 mm; pronotum: ♂3.2, ♀ 3.2 mm; tegmina: ♂14.5, ♀ 16 mm; hind femora: ♂9.7, ♀ 10.8 mm; ovipositor 6 mm.

Comparison. This species differs from other known species of the subgenus by the same characters as the preceding species.

Etymology. The species is named in memory of the famous orthopterist Mrs E.F. Miram.

Decma (Decma) predtetshenskyi sp. n. (Figs 145-146)

Holotype. ♀, **Vietnam**, *prov. Hasonbinh*, Hoabinh area, distr. Dabac, Tu Ly, 200 m, 16-23.X.1990 (A.V. Gorochov).

Description. Female (holotype). Similar to both preceding species, but coloration brownish yellow, unicolorous, with weak light yellowish lines along lateral edges of pronotal disc. Genital plate with very deep notch at middle of hind edge and almost straight, very long, acute hind lateral projections; 8th abdominal tergite with small processes at hind inferior corners. Apex of ovipositor with noticeable apical ventral hook [as in *D. inversum* (Fig. 150)].

Male unknown.

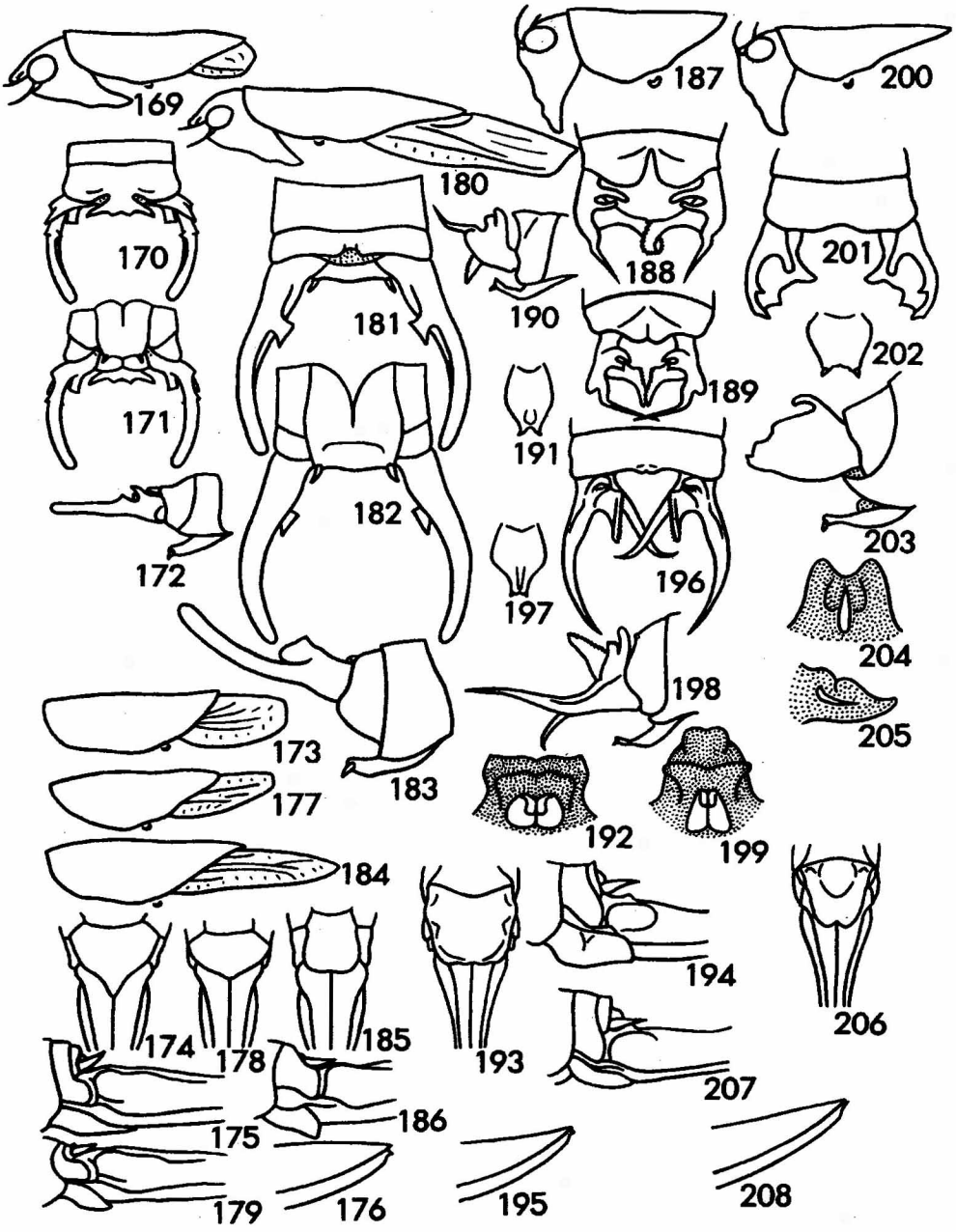
Length. Body 10.5 mm; body with wings 20.5 mm; pronotum 3.1 mm; tegmina 16 mm; hind femora 10.5 mm; ovipositor 6 mm.

Comparison. Distinguished from other species of the subgenus by the characteristic shape of female genital plate and coloration.

Etymology. The species is named in memory of the orthopterist S.A. Predtetchensky.

Subgenus **Idiodecma** subgen. n.

Type species *Xiphidiopsis birmanica* Bey-Bienko, 1971.



Figs 169-208. 169-176, *Thaumaspis (Thaumaspis) trigonura* Bol.; 177-179, *Th. (Th.) castetsi* sp. n.; 180-183, *Th. (Isothaumaspis) forcipata* Bol.; 184-186, *Th.* (?) *longipes* Bol.; 187-188, *Nicephora (Nicephora) trigonidioides* Bol.; 189- 195, *N. (N.) subulata* Bol.; 196-199, *N. (N.) mazerani* Bol.; 200-208, *N. (Dianicephora) mirabilis* Bol. Head, pronotum, acoustical opening and tegmen from the side (169, 180, male; 173, 177, 184, female); the same without tegmen (187, 200, male); abdominal apex of male from above (170, 181, 188, 189, 196, 201), from below (171, 182) and from the side (172, 183, 190, 198, 203); genital plate of male from below (191, 197, 202); inner part of male genitalia from above (192, 199, 204) and from the side (205); abdominal apex of female from below (174, 178, 185, 193, 206) and from the side (175, 179, 186, 194, 207); apex of ovipositor from the side (176, 195, 208).

Description. Hind edge of male last abdominal tergite with unpaired small projection at middle; cerci with not narrowed median part and not lobe-like distal part, with rounded internal lobe almost in middle of their length; genital plate with rather wide distal part (Figs 157-159). Titillators fully separated from each other and with rather narrow bases (Fig. 160).

Included species: type species only.

Genus **Chandozhinskia** gen. n.

Type species *Xiphidiopsis bivittata* Bey-Bienko, 1957.

Description. Similar to the genus *Decma* (Figs 161-164), but distinguished from it by the entirely membranous male genitalia (hagloid type). Wings fully developed or significantly shortened. Female genital plate narrowly rounded at apex (sometimes there is a very small notch at middle) (Figs 165-167).

Included species: type species only.

Comparison. From other genera of the tribe it differs as the genus *Decma*.

Etymology. The genus is named in memory of my grandfather I.I. Chandozhinskij who directed my attention to insect for the first time.

Chandozhinskia bivittata (Bey-Bienko, 1957) (Figs 161-168)

Material. Vietnam: *prov. Bacthai*: 1 ♂, 1 ♀, distr. Phu Luong, Quang Chu, 300 m, 15-23.IV.1986 (A.V. Gorochov); *prov. Sonla*: 1 ♂, Song Ma, 400-600 m, 3-14.V.1986 (A.V. Gorochov); *prov. Vinhphu*: 1 ♂, Tam Dao, 900-1000 m, 9-18.XI.1990 (A.V. Gorochov).

The species is recorded from Vietnam for the first time. 1 male from Tam Dao belongs to f. brachyptera (Fig. 161) (maybe analogous specimens were described as *Xiphidiopsis hastaticercus* Tinkham, 1936?). All others belong to f.macroptera. The males are identical with Chinese ones (Bey-Bienko, 1957), but the female has a very small notch at the apex of genital plate (Fig. 166) [genital plate of Chinese females is without any notch at the apex (Fig. 165)].

Genus **Thaumaspis** Bolivar, 1900

Type species *Thaumaspis trigonura* Bolivar, 1900.

Description. This genus is characterized by oblique opisthognathous head with undepressed rostrum, long last segment of maxillary palpi, low and long pronotum with weak notch between lateral lobes and hind part of disc, fully exposed acoustical opening, shortened wings (Figs 169, 173, 177, 180, 184), fully opened tibial auditory foramina, fore and middle legs with tibial spines only, very small epiproct of male, entirely membranous male genitalia, short female cerci (Figs 175, 179, 186), and almost straight ovipositor with small hook at apex of its ventral valves (Fig. 176). In my opinion, this genus consists of 2 groups of species or subgenera.

Subgenus **Isothaumaspis** subgen. n.

Type species *Thaumaspis forcipata* Bolivar, 1900.

Description. Pronotum very long. Wings moderately shortened; tegmina with truncated apex (Fig. 180). Hind edge of male last abdominal tergite without any processes; cerci rather simple (Figs 181-183).

Included species: type species only.

Thaumaspis (Isothaumaspis) forcipata Bolivar, 1900 (Figs 180-183, 264)

I examined 2 syntypes of this species (male and female). The male with labels "Holotipo", "Ind. Or., P. Castets", "*Th. forcipatus*", "*Thaumaspis forcipatus* Bol., Det. E. Morales, 1961" is designated here as **lectotype**. The female (Figs 177-179, 263) with labels "Paratipo", "Ind. Or., P. Castets", "*Thaumaspis forcipatus* Bol., Det. E. Morales, 1961" is labelled by me as paralectotype. Both are deposited in the Museo National de Ciencias Naturales, Madrid. E. Morales and I. Bolivar erred in identification of these specimens as belonging to one species. I believe that the female (paralectotype) is a representative of the subgenus *Thaumaspis* (see *Th. castetsi* sp. n. below).

Subgenus **Thaumaspis** s. str.

Description. Pronotum not very long. Wings strongly shortened; tegmina with truncated apex (Figs 169, 173, 177). Hind edge of male last abdominal tergite with unpaired process at middle; cerci complicated (Figs 170-172).

Female genital plate triangular (Figs 174-175, 178-179).

Included species: *Thaumaspis trigonura* Bolivar, 1900 (type species), *Th. castetsi* sp. n., *Th. montana* Bey-Bienko, 1957.

Thaumaspis (Thaumaspis) trigonura Bolivar, 1900
(Figs 169-176, 261-262)

I examined 2 syntypes of this species. One of them, male with labels "Holotipo", "Ind. Or., P. Castets", "*Thaumaspis trigonurus*", "*Thaumaspis trigonurus* I. Bol., Det. E. Morales, 1961", is designated here as **lectotype**. The other specimen, female with labels "Alotipo", "Ind. Or., P. Castets", "*Thaumaspis forcipatus* Bol., Det. E. Morales, 1961", is labelled by me as paralectotype. Both are deposited in the Museo National de Ciencias Naturales, Madrid. E. Morales's determination of the female is erroneous. I. Bolivar's identification of these specimens as belonging to one species is doubtful as shortened tegmina of the female are noticeably longer than in the male, which is not characteristic of this tribe.

Thaumaspis (Thaumaspis) castetsi sp. n.
(Figs 177-179, 263)

Holotype. ♀, **India** ("Ind. Or."), [Madure] (latter name is absent in the label, but it is indicated in the original description of *Th. forcipata*, of which the examined specimen is the paralectotype) (P. Castets).

Description. Female (holotype). Similar to *Th. trigonurus*. Yellowish, unicolorous. Rostrum of head narrow, almost cylindrical. Pronotum with oblique cephalic part of inferior edge of lateral lobes; hind part of pronotum (behind acoustical opening) rather long. Tegmina with feebly truncated apex and confused venation, slightly covering each other. Genital plate short and wide, transverse, with small rounded projection at middle of hind edge.

Male unknown.

Length. Body 11 mm; pronotum 3.7 mm; tegmina 2.4 mm; hind femora 7.5 mm; ovipositor 7 mm.

Comparison. The new species differs from other species of the genus by the characteristic shape of rostrum of head; other species have rather wide and conical rostrum (Figs 261-262, 264-265).

Thaumaspis (subgenus?) longipes Bolivar, 1900
(Figs 184-186, 265)

Possibly, this species is a representative of a third subgenus as its tegmina are non-truncated at apex, pronotum medium-sized, and female genital plate with relatively widely rounded hind edge. This species is known only from the holotype female. It is deposited in the Museo National de Ciencias Naturales, Madrid, and was examined by me.

Genus Nicephora Bolivar, 1900

Type species *Nicephora trigonidioides* Bolivar, 1900.

Description. The genus differs from all previous genera by short spines of fore and middle tibiae. It has shortened wings, as in the genus *Thaumaspis*. The rest of its body, except abdominal apex, similar to that of all the other previous genera (Figs 187, 200). Male last abdominal tergite various; cerci with numerous processes; genital plate relatively normal, with very short styli (Figs 188-191, 196-198, 201-203). Male genitalia with sclerites hidden by membranous folds. Female genital plate various; cerci rather short; ovipositor arciform, with small ventral apical hook (Figs 193-195, 206-208). This genus consists of 2 subgenera.

Subgenus Nicephora s. str.

Description. Pronotum rather short and high (Fig. 187). Hind edge of male last abdominal tergite with a pair of rounded lobes; cerci with a long, narrow apical process, 2 short, approximated dorsal processes, and large, denticulated internal process (Figs 188-190, 196, 198). Male genitalia with a pair of wide, curved sclerites (titillators) (Figs 192, 199). Female genital plate wide and truncated (Figs 193-194).

Included species: *Nicephora trigonidioides* Bolivar, 1900 (type species), *N. subulata* Bolivar, 1900, *N. mazerani* Bolivar, 1900.

Nicephora (Nicephora) subulata Bolivar, 1900
(Figs 189-195)

I examined 2 syntypes of this species (male

and female). The male with labels "Holotipo", "Indes, Kodikanel, P. Castets", "*Nicephora subulata*", "*Nicephora subulata* Bol., Det. E. Morales, 1961" is designated here as lectotype. The female with labels "Alotipo", "Indes, Kodikanel, P. Castets", "*Nicephora subulata* Bol., Det. E. Morales, 1961" is labelled by me as paralectotype. One of syntypes of *N. trigonidioides* (in poor condition) and holotype of *N. mazerani* were also studied by me. All these types are deposited in the Museo National de Ciencias Naturales, Madrid.

Subgenus **Dianicephora** subgen. n.

Type species *Nicephora mirabilis* Bolivar, 1900.

Description. Distinct from the subgenus *Nicephora* by the longer and lower pronotum (Fig. 200), male last abdominal tergite without lobes, cerci without long and denticulated processes (Figs 201, 203), male genitalia with unpaired narrow arciform sclerite (Figs 204-205), and rather narrow female genital plate with notch at apex (Figs 206-207).

Included species: type species only.

Nicephora (Dianicephora) mirabilis Bolivar, 1900 (Figs 200-208)

Material. **India** ("India Or."): 1 ♀.

Description. Female (nov.). Similar to male, brownish yellow, light, unicolorous. Tegmina extending to middle of 5th abdominal tergite; their apex narrowly rounded. Spines of fore and middle tibiae very weak. Genital plate with a pair of rounded apical lobes and concave part at base. Apex of ovipositor with very weak apical hook.

Length. Body 11.4 mm; pronotum 3.5 mm; tegmina 4.6 mm; hind femora 8.5 mm; ovipositor 5.5 mm.

Note. This specimen was determined by G.Ja. Bey-Bienko. I also examined the holotype (male) of this species kept in the Museo National de Ciencias Naturales, Madrid (see figures). Comparison of these specimens confirms the determination of female.

Genus **Cononicephora** gen. n.

Type species *Cononicephora tarbinskyi* sp. n.

Description. Related to the genus *Nicephora* in sclerites of male genitalia hidden by membranous folds, although partly (Figs 213, 219). Head intermediate between hypognathous and opisthognathous, with almost undepressed rostrum and rather long last segment of maxillary palpi (but shorter than the preceding one). Pronotum rather low and rather long, with weak notch between lateral lobes and hind part of disc. Acoustical opening fully exposed (Fig. 209). Wings shortened. Fore and middle tibiae with short spines; femora without any spines; external and internal tibial auditory foramina fully opened. Last abdominal tergite of male without processes, lobes, and large notch at hind edge; cerci long, simple, with internal lobe only; epiproct very small; genital plate normal, with long styli (Figs 210-212, 218). Genital plate of female roundly truncated at apex; cerci medium-sized; ovipositor rather short, arciform, with a small hook at apex of its ventral valves (Figs 215-217).

Included species: type species and *Cononicephora berezhkovi* sp. n.

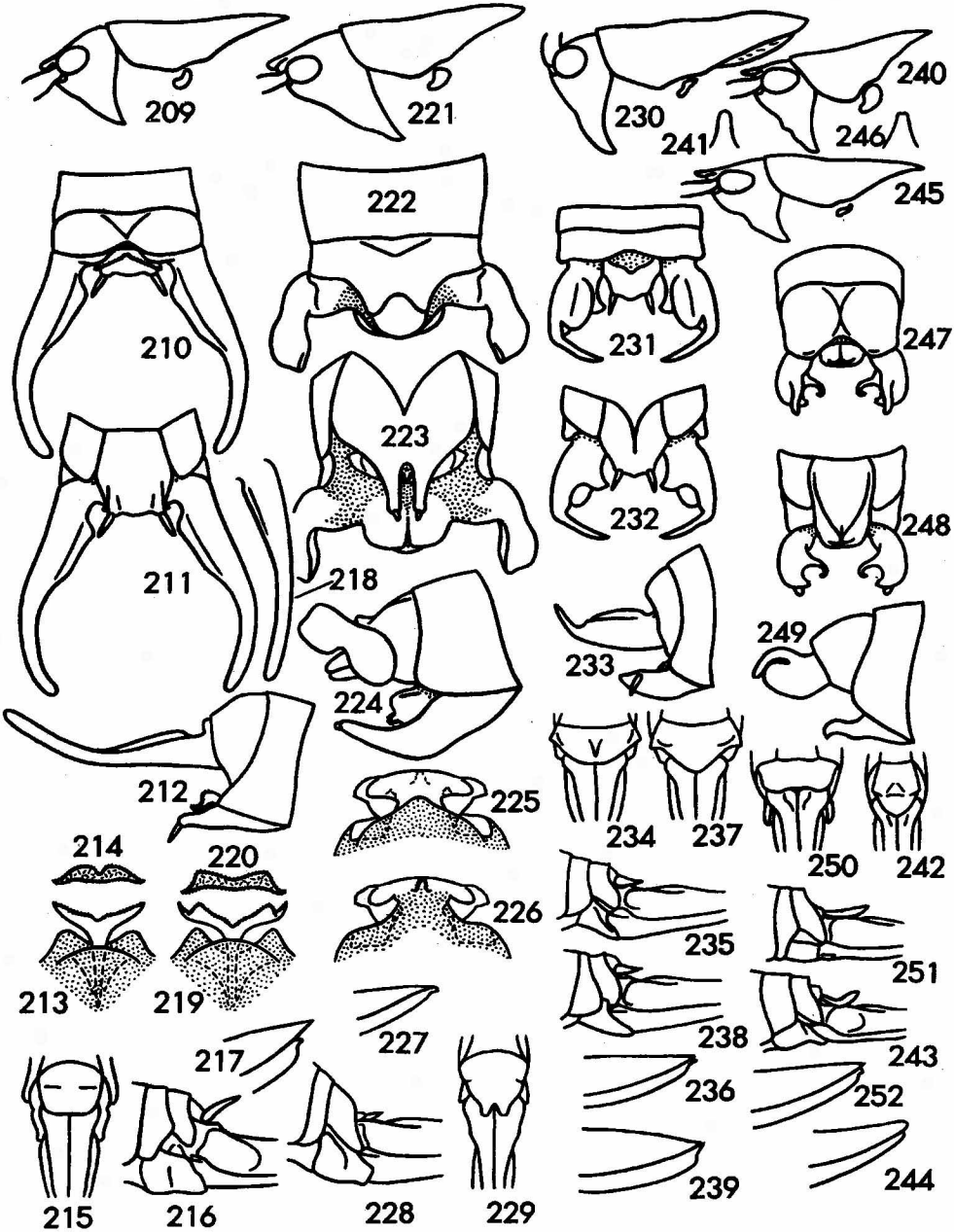
Comparison. The genus is distinguished from *Nicephora* in the shapes of head, pronotum, and male cerci, from other genera of the tribe by short spines of fore and middle tibiae, shape of male last abdominal tergite, presence of a sclerite in male genitalia, and some other characters.

Cononicephora tarbinskyi sp. n. (Figs 209-217)

Holotype. ♂, **Vietnam**, *prov. Vinhphu*, Tam Dao, 900-1000 m, 9-18. XI.1990 (A.V. Gorochov).

Paratype. ♀, same data as holotype.

Description. Male (holotype). Medium-sized, greenish with sparse dark rings of antennae, with brownish yellow longitudinal median line of pronotal disc, with a pair of small dark spots at hind corners of this disc, with brownish yellow stripe along anal edge of tegmina, and with sparse yellowish white spots on their lateral field. Legs long and thin; fore tibiae with 4 internal and 3 external, middle tibiae with 4 external and 2 internal very weak spines. Tegmina extending to apex of 5th abdominal tergite, narrowly rounded at apex. Hind edge of last abdominal tergite with weak notch in middle; cerci long, curved, with keel-like internal lobe near their base. Genitalia with



Figs 209-252. 209-217, *Cononicephora tarbinskyi* sp. n.; **218-220,** *C. berezhkovi* sp. n.; **221-229,** *Grigoriora dicata* sp. n.; **230-236,** *Acyrtaspis mistshenkoi* sp. n.; **237-239,** *A. grahami* (Tinkh.); **240-244,** *Leptoteratura (Leptoteratura) capreola* (Redt.); **245-252,** *L. (Rhinoteratura) sharovi* sp. n. Head, pronotum and acoustical opening from the side (209, 221, 245, male; 240, female); the same with tegmen (230, male); rostrum of head from above (241, female; 246, male); abdominal apex of male from above (210, 222, 231, 247), from below (211, 223, 232, 248) and from the side (212, 224, 233, 249); cercus of male from above (218); genitalia of male from above (213, 219, 225) and from below (226); hind part of titillator from behind (214, 220); abdominal apex of female from below (215, 229, 234, 237, 242, 250) and from the side (216, 228, 235, 238, 243, 251); apex of ovipositor from the side (217, 227, 236, 239, 244, 252).

unpaired T-shaped sclerite; hind surface of this sclerite denticulated, with a pair of approximating rounded prominences and a deep notch between them (Fig. 214).

Female. Similar to male, greenish yellow. Tegmina extending to base of 7th abdominal tergite. Genital plate slightly transverse (width/length = 1.2), widest in proximal half.

Length. Body: ♂15, ♀ 14.2 mm; pronotum: ♂ 4.2, ♀ 4.1 mm; tegmina: ♂5.5, ♀ 6.5 mm; hind femora: ♂10.5, ♀ 11.3 mm; ovipositor 5 mm.

Etymology. This species is named in memory of the famous orthopterist S.P. Tarbinsky.

Cononicephora berezhkovi sp. n. (Figs 218-220)

Holotype. ♂, **Vietnam**, *prov. Hanoi*, Ba Vi Nature Reserve, 400 m, 21-24.XI.1990 (A.V. Gorochov).

Paratypes. 2 ♂, 2 ♀, same data as holotype.

Description. Male (holotype). Very similar to *C. tarbinskyi*, but distinguished by longer tegmina extending to apex of 9th abdominal tergite, their almost acute apex, 3 internal spines of middle tibiae, cerci with indistinct internal keel-like lobe, hind surface of T-shaped sclerite of genitalia with a pair of distant, almost angulate prominences and without deep notch between them (Fig. 220).

Variation. Sometimes tegmina extending to apex of 7th abdominal tergite only and middle tibiae with 2 internal spines.

Female. As male, greenish yellow. Distinguished from *C. tarbinskyi* by the more transverse genital plate (width/length = 1.4), which is widest in distal half.

Length. Body: ♂ 12-14, ♀ 12-13 mm; pronotum: ♂ 4.2-4.8, ♀ 3.8- 4.1 mm; tegmina: ♂ 6.2-7, ♀ 6.7-7.2 mm; hind femora: ♂9.5-11, ♀ 10.5-11.5 mm; ovipositor 4.8-5 mm.

Etymology. This species is named in memory of the Russian orthopterist R.P. Berezhkov.

Genus Grigoriora gen. n.

Type species *Grigoriora dicata* sp. n.

Description. Head opisthognathous, with undepressed rostrum and long last segment of maxillary palpi (as long as the preceding one). Pronotum and acoustical opening as in *Cononicephora* (Fig. 221). Wings fully developed. Spines of fore and middle tibiae long; femora and tibial auditory foramina as in *Cononicephora*. Last abdominal tergite of male without notch, but with a pair of processes at hind edge; cerci short, simple, without large lobes and processes; epiproct rather large; genital plate with wide proximal part and narrow, bifurcated distal part; its styli short (Figs 222-224). Male genitalia with partly sclerotized, wide apical lobe (Figs 225-226). Genital plate of female with bifurcated apex; cerci short; ovipositor long, almost straight, with small ventral apical hook (Figs 227-229).

Included species: type species only.

Comparison. The new genus differs from other genera of the tribe by the shapes of head, male cerci, male and female genital plate, fully developed wings, male genitalia with sclerites, and some other characters.

Etymology. The genus is named in memory of Grigorij Ja. Bey-Bienko.

Grigoriora dicata sp. n. (Figs 221-229)

Holotype. ♂, **Vietnam**, *prov. Gialai-contum*, 20 km N Buon Luoi, Tram Lap, 21-30.XI.1988 (A.V. Gorochov).

Paratypes. 2 ♀, same data as holotype.

Description. Male (holotype). Medium-sized, brownish yellow, rather light, entirely unicolorous. Head and legs rather large; fore tibiae with 5 pairs of spines; middle tibiae with 5 external and 4 internal spines. Wings extending to proximal half of hind tibiae; tegmina completely covering hind wings, narrowly rounded at apex. Processes of last abdominal tergite short, triangular; epiproct rounded; genital plate with deep notch between its lateral apical lobes; cerci strongly curved, with widened distal part bearing a small keel-like ventral lobe. Partly sclerotized wide apical lobe of genitalia with heavily sclerotized denticulated lateral parts and small denticulated ventral process at middle.

Female. As male. Genital plate with concave median part and with a pair of weak lateral sulculi.

Length. Body: ♂14.5, ♀ 12-15.5 mm; body with wings: ♂17.5, ♀ 19-21 mm; pronotum: ♂ 4.3, ♀ 4.1-4.2 mm; tegmina: ♂13.5, ♀ 15-16.5 mm; hind femora: ♂ 10.5, ♀ 11-11.8 mm; ovipositor 10.5-11 mm.

Genus Acyrtaspis Bey-Bienko, 1955

Type species *Xiphidiopsis grahami* Tinkham, 1944.

Description. This genus is characterized by long pronotum covering the wings completely, by strongly shortened wings (Fig. 230), simple male last abdominal tergite (without processes, lobes and large notch), small male epiproct, rather simple cerci (but with processes and/or lobes) (Figs 231-233), and wide female genital plate with angulate lateral lobes (Figs 234-235, 237-238). The rest of body similar to that of the genus *Nicephora* (but spines of fore and middle tibiae rather long, styli of male genital plate also long, male genitalia membranous).

Acyrtaspis mistshenkoi sp. n. (Figs 230-236)

Holotype. ♂, Vietnam, *prov. Hasonbinh*, Hoabinh area, distr. Ky Son, Cao Phong, 250 m, 24-29.X.1990 (A.V. Gorochov).

Paratypes. Vietnam, *prov. Hasonbinh*, Hoabinh area: 1 ♂, same data as holotype; 1 ♀, distr. Dabac, Tu Ly, 16-23.X.1990 (A.V. Gorochov); *prov. Hanoi*: 1 ♀, Ba Vi Nature Reserve, 400 m, 21-24.XI.1990 (A.V. Gorochov).

Description. Male (holotype). Size small. Coloration light brownish with the following dark markings: spots an ventral surface of first and second antennal segments, sparse rings on the rest of antennae, internal edge of antennal pockets, triangular spot on dorsal surface of head, indistinct spots on pronotum, spots at apex of femora, longitudinal comb-like spot on external side of hind femora, spots near tibial auditory foramina, spines of fore and middle tibiae, apex of tibiae, small spot at apex of tegmina, and large spots on inferior parts of abdominal tergites. Fore and middle tibiae with 6 external and 5 internal spines. Hind edge of last abdominal tergite with weak median notch; cerci rather short, with narrow hooked apical process, wide curved internal lobe, and keel-like round dorsal lobe.

Variation. The triangular dark spot on head in male paratype with light brownish longitudinal median stripe.

Female. Similar to male. Genital plate with short, almost rounded median lobe on hind edge; its lateral lobes light brown and almost straight or dark brown and feebly curved (paratype from Ba Vi). Ovipositor rather long, with narrow apex.

Length. Body: ♂9.5-10.5, ♀ 9.5-10 mm; pronotum: ♂4.7-4.8, ♀ 4.5-5 mm; tegmina: ♂1.6-1.8, ♀ 1.4-1.5 mm; hind femora: ♂9.5-10, ♀ 10-10.5 mm; ovipositor 5-5.3 mm.

Comparison. The species differs from the second species of the genus (*A. grahami*) by the coloration of pronotum, more complicated male cerci, short hind median lobe of female genital plate, and narrow apex of ovipositor (see Figs 236, 239).

Etymology. This species is named in memory of the famous orthopterist L.L. Mistshenko.

Genus Cosmetura Yamasaki, 1983

Type species *Cosmetura ficifolia* Yamasaki, 1983.

The genus is characterized by strongly shortened wings partly covered by long pronotum. From *Acyrtaspis* it differs also by the large male epiproct. *Cosmetura* is very similar to the genera *Tettigoniopsis* Yamasaki, 1982 and *Allotettigoniopsis* Yamasaki, 1983, but distinct by other shape of male epiproct. G.Ja. Bey-Bienko was going to describe this genus in 1968.

Cosmetura fenestrata Yamasaki, 1983

Material. Japan: 1 ♂, Hokkaido, Sapporo (H. Yaku).

The species is recorded from Hokkaido for the first time. G.Ja. Bey-Bienko was going to describe it.

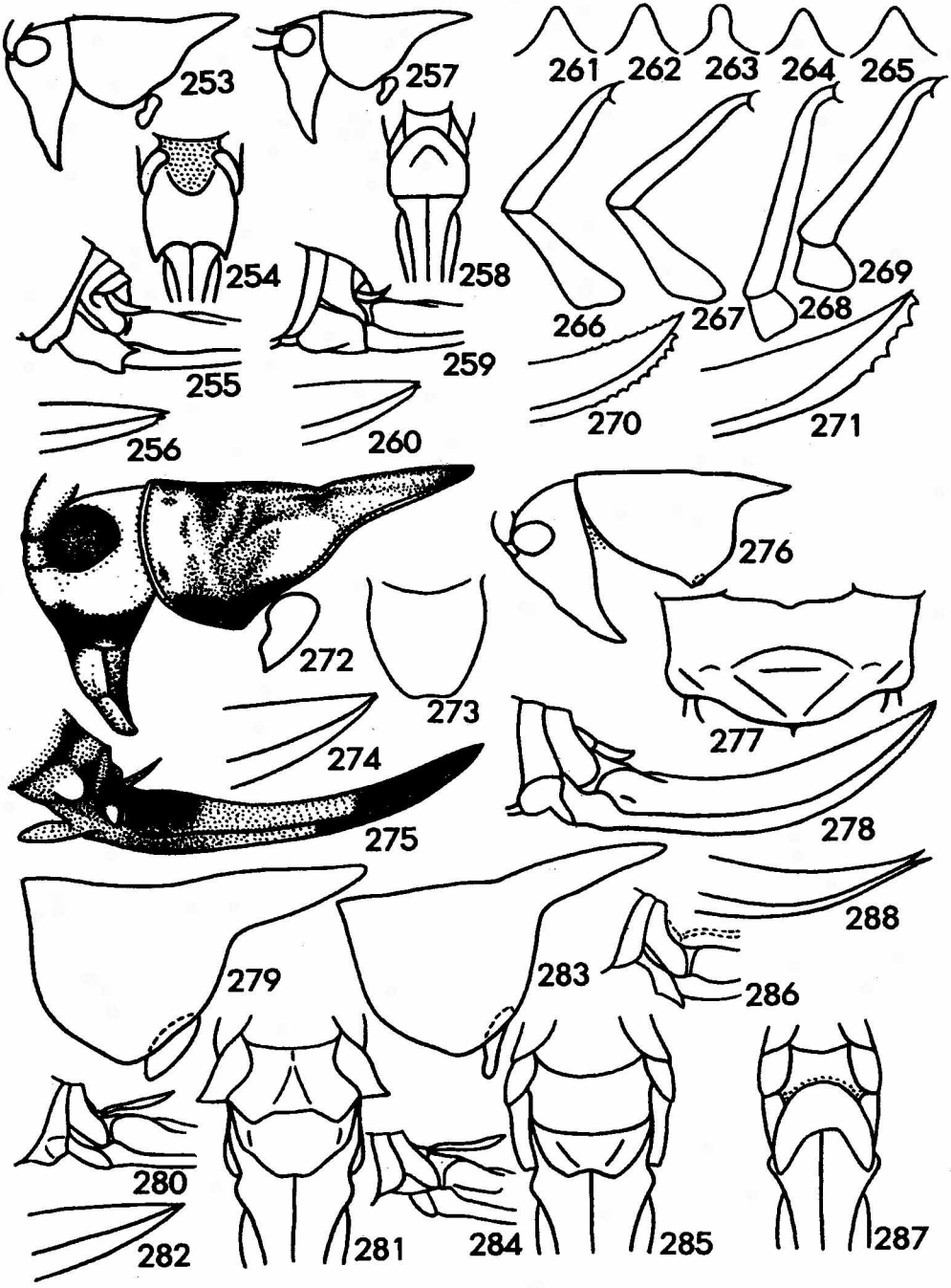
Genus Leptoteratura Yamasaki, 1982

Type species *Meconema albicorne* Motshulsky, 1866.

Description. The genus is characterized by strongly depressed rostrum of head (Figs 240, 245), rather long last segment of maxillary palpi (but shorter than the preceding one) (Figs 266-267), pronotum with weak notch between lateral lobes and hind part of disc, fully exposed acoustical opening (Figs 240, 245), fully developed wings, legs with short spines on tibiae only, opened auditory foramina, male last abdominal tergite without lobes, processes, and large notch, complicated male cerci, very small male epiproct (Figs 247-249), membranous genitalia of male, rather long female cerci (Figs 243, 251), and rather short arciform ovipositor. G.Ja. Bey-Bienko was going to describe this genus in 1971. The genus consists of 2 subgenera.

Subgenus Leptoteratura s. str.

Description. Head hypognathous or feebly opisthognathous; its rostrum with rounded



Figs 253-288. 253-256, *Xiphidiopsis (Euxiphidiopsis) eversmanni* sp. n.; 257-260, *X.? adelungi* sp. n.; 261-262, *Thaumaspis (Thaumaspis) trigonura* Bol.; 263, *Th. (Th.) castetsi* sp. n.; 264, *Th. (Isothaumaspis) forcipata* Bol.; 265, *Th.* (?) *longipes* Bol.; 266, *Leptoteratura (Leptoteratura) capreola* (Redt.); 267, *L. (Rhinoteratura) sharovi* sp. n.; 268, *Alloteratura bispina* sp. n.; 269, *A. stebaevi* sp. n.; 270, *Xiphidiola (Xiphidiola) serricauda* (Karny);

apex. Pronotum rather short and high; acoustical opening rather large (Figs 240-241). Male cerci asymmetrical; genital plate short, with short styli. Female genital plate long, with prominent hind edge (Figs 242-243). Ovipositor narrowly rounded at apex (without ventral hook) (Fig. 244) or acute and with small ventral apical hook.

Included species: *Meconema albicorne* Motshulsky, 1866 (type species), *Xiphidiopsis capreola* Redtenbacher, 1891, *X. omeiensis* Tinkham, 1956, possibly *Leptoteratura jona* Yamasaki, 1987, *L. digitata* Yamasaki, 1987, *L. yaeyamana* Yamasaki, 1987, and *L. taiwana* Yamasaki, 1987.

Subgenus **Rhinoteratura** subgen. n.

Type species *Leptoteratura sharovi* sp. n.

Description. Head strongly opisthognathous; its rostrum with truncated apex. Pronotum rather long and low; acoustical opening small (Figs 245-246). Male cerci symmetrical; genital plate long, with long styli partly covering each other (Figs 247-249). Female genital plate short, with almost truncated apex (Figs 250-251). Ovipositor acute, with small ventral apical hook (Fig. 252).

Included species: type species only.

Leptoteratura (Rhinoteratura) sharovi sp. n. (Figs 245-252, 267)

Holotype.♂, Vietnam, *prov. Vinhphu*, Tam Dao, 900-1000 m, 9-18.XI.1990 (A.V. Gorochov).

Paratypes. 3♂, 8♀, same data as holotype.

Description. Male (holotype). Small, greenish with the following yellowish markings: a spot behind eye, stripes along lateral edges of pronotal disc, and veins of tegmina. Last segment of maxillary palpi much shorter than preceding one. Wings extending to base of hind tibiae; tegmina narrowly rounded at apex, scarcely shorter than hind wings. Fore tibiae with 4 internal and 2 external spines, middle tibiae with 2 internal and 4 external spines. Last abdominal tergite with medium-sized notch at hind edge; cerci short, with characteristic processes and lobes; genital plate with median longitudinal fold.

Variation. Sometimes tegmina with brownish yellow stripe along their anal edge.

Female. As male. Genital plate transverse; its hind edge slightly concave; cerci feebly curved.

Length. Body: ♂10-11, ♀ 10-11 mm; body with wings: ♂14-15, ♀ 16-17 mm; pronotum: ♂4-4.3, ♀ 3.8-4 mm; tegmina: ♂ 10.5-11, ♀ 11.5-12 mm; hind femora: ♂8-8.5, ♀ 8.5-9 mm; ovipositor 4.8-5.2 mm.

Etymology. This species is named in memory of the famous palaeozoologist and orthopterist A.G. Sharov.

Genus **Xiphidiola** Bolivar, 1906

Type species *Anepitacta aliquantula* Karsch, 1893.

This genus is characterized by distinctly denticulated ovipositor (Figs 270-271) and by the head, pronotum, and wings similar to those in the genus *Anepitacta* and other resembling genera. It consists of 2 subgenera.

Subgenus **Xiphidiola** s. str.

Description. Small or medium-sized Meconematini. Length of last segment of maxillary palpi equal to length of the preceding one. Ovipositor relatively short, with denticulated dorsal and ventral valves (Fig. 270).

Included species: 8 species (including type species) enumerated in "Orthopterorum Catalogus" (Beier, 1966), *Xiphidiola pulchra* Beier, 1967 and, possibly, *Amytta serricauda* Karny, 1924. G.Ja. Bey-Bienko was going to describe a separate genus for the latter species. I cannot corroborate or refute his opinion as I had possibility to examine the female of this species only.

271, *X. (Megaconema) geniculata* (B.-Bien.); 272-275, *Teratura (Teratura) darevskyi* sp. n.; 276-278, *Afroconema pravdini* sp. n.; 279-282, *Alloteratura bispina* sp. n.; 283-285, *A. stebaevi* sp. n.; 286-288, *A. podgornajae* sp. n. Head, pronotum and acoustical opening of female from the side (253, 257, 272, 276); the same without head (279, 283); abdominal apex of female from below (254, 258, 281, 285, 287) and from the side (255, 259, 275, 278, 280, 284, 286); genital plate of female from below (273, 277); apex of ovipositor from the side (256, 260, 270, 271, 274, 282, 288); rostrum of head from above (261, 264, male; 262, 263, 265, female); distal segments of maxillary palpi of female from the side (266-269).

Subgenus **Megaconema** subgen. n.

Type species *Xiphidiopsis geniculata* Bey-Bienko, 1962.

Description. Size large for the tribe. Last segment of maxillary palpi appreciably longer than the preceding one. Ovipositor very long, with denticulated ventral valves only (Fig. 271).

Included species: type species only.

Etymology. This subgeneric name includes a part of the generic name *Meconema*.

Genus **Afroconema** gen. n.

Type species *Afroconema pravdini* sp. n.

Description. Head almost opisthognathous, with conical rostrum and unusually great distance between antennal pockets; last segment of maxillary palpi appreciably longer than the preceding one. Pronotum short and high, with large notch between lateral lobes and hind part of disc. Acoustical opening small, covered by angulate inferior projection of pronotal lateral lobes (Fig. 276). Legs rather short and thick; tibiae not inflated; auditory foramina of fore tibiae small, opened; spines of fore and middle tibiae strong; femora unarmed. Wings long, extending to distal part of hind tibiae; tegmina slightly shorter than hind wings, with normal width and venation; their apical part straight and narrowly rounded at apex. Female abdomen with rather short cerci and rounded apex of genital plate; ovipositor wide, curved upwards, without apical hooks (Figs 277-278).

Included species: type species only.

Comparison. In the new genus, the ovipositor is similar to that of *Brinckiella* Chopard, 1955, but its wings are developed and female genital plate is with rounded apex. From other genera of the tribe it is distinguished by the shapes of head, pronotum, tegmina, legs, and ovipositor, peculiarities of acoustical opening and tibial auditory foramina.

Etymology. The generic name includes a part of the generic name *Meconema*.

Afroconema pravdini sp. n.
(Figs 276-278)

Holotype. ♀, **Ethiopia**, 25 km W Abobo, 12-14.X.1987.

Description. Female (holotype). Medium-sized, yellowish green, unicolorous, with large yellow spots on pterothorax. Fore tibiae with 6 pairs of spines; middle tibiae with 6 external and 5 internal spines. Genital plate wide, with triangular concave part in middle. Ovipositor with very weak denticulation of dorsal and ventral valves in distal part.

Male unknown.

Length. Body 14 mm; body with wings 24 mm; pronotum 4.6 mm; tegmina 19.5 mm; hind femora 8.5 mm; ovipositor 7 mm.

Etymology. The species is named in memory of the famous orthopterist F.N. Pravdin.

Genus **Alloteratura** Hebard, 1922

Type species *Alloteratura bakeri* Hebard, 1922.

Description. According to Hebard (1922), this genus is characterized by "extremely short, conical last segment of the maxillary palpi" (Figs 268-269). The species with such palpi are also distinguished by hypognathous head with undepressed or almost undepressed rostrum, pronotum with large notch between lateral lobes and hind part of disc, large acoustical opening partly covered by lateral lobe of pronotum (Figs 279, 283), short spines of fore and middle tibiae, long cerci of female, almost straight ovipositor without denticulation and apical hooks (Figs 280, 282, 284, 288).

Alloteratura bispina sp. n.
(Figs 268, 279-282)

Holotype. ♀, **Indonesia**, *Sumatra*, Siak, Bamsal, 3.VI.1907 (O. John).

Description. Female (holotype). Medium-sized, brownish yellow, unicolorous, with dark spots on ventral surface of antennae, indistinct brown spot on dorsal surface of head, and darkish tibial spines. Rostrum of head undepressed. Pronotum rather high. Fore tibiae with 5 internal and 5 external spines; middle tibiae with 5 internal and 6 external spines. Wings long, extending to distal part of hind tibiae; tegmina slightly shorter than hind wings, rather narrow, with normal *RS* and rather widely rounded apex. 9th abdominal tergite with acute triangular lobes at hind inferior parts; these lobes turned in opposite directions; genital plate small, narrowing in hind part, with truncated apex. Ovipositor long, with acute apex.

Male unknown.

Length. Body 12.5 mm; body with wings 23.5 mm; pronotum 3.7 mm; tegmina 19.8 mm; hind

femora 11.3 mm; ovipositor 9.2 mm.

Comparison. This species differs from other species of the genus in the coloration, shape of pronotum, presence of acute triangular lobes of 9th abdominal tergite of female, genital plate of female with narrow truncated apex, and long ovipositor.

Note. G.Ja. Bey-Bienko was going to describe this species and a separate genus for it. The specific name is given by him. It seems to me that it is inexpedient to create a new genus for this species without the study of male.

Alloteratura stebaevi sp. n.
(Figs 269, 283-285)

Holotype. ♀, **Vietnam**, *prov. Vinhphu*, Tam Dao, 900-1000 m, 9-18.XI.1990 (A.V. Gorochov).

Description. Female (holotype). Small, greenish, unicolorous, with sparse darkish rings of antennae and very dark superior spines of hind tibiae. Rostrum of head slightly depressed. Pronotum and spines of fore and middle tibiae as in *A. bispina* . Wings also as in the latter species, but tegmina with narrowly rounded apex. 9th abdominal tergite without special lobes; genital plate small, transverse, with rounded notch at apex. Ovipositor rather short, slightly curved upwards; its apex acute as in the preceding species.

Male unknown.

Length. Body 10 mm; body with wings 20 mm; pronotum 3.5 mm; tegmina 16.5 mm; hind femora 9.5 mm; ovipositor 6 mm.

Comparison. The new species differs from other species of the genus in the coloration, shape of pronotum, simple 9th abdominal tergite of female, shape of female genital plate, and short slightly curved ovipositor.

Etymology. The species is named in honour of the famous orthopterist I.V. Stebaev.

Alloteratura podgornajae sp. n.
(Figs 286-288)

Holotype. ♀, **Indonesia**, Eastern Java ("Java Or.").

Description. Female (holotype). Small, brownish yellow, light, entirely unicolorous. Rostrum of head very slightly depressed. Pronotum and wings as in *A. stebaevi*. Fore tibiae with 4 external and 5 internal spines; middle tibiae with 6 external and 4 internal spines. 9th abdominal tergite without special lobes; genital plate medium-sized, with long angulate lateral projections on the hind edge and deep notch between them. Ovipositor medium-sized, with distal part curved upwards and very narrow acute apex.

Male unknown.

Length. Body 9.5 mm; body with wings 21.5 mm; pronotum 3.4 mm; tegmina 18.5 mm; hind femora 9.5 mm; ovipositor 6.8 mm.

Comparison. The species is distinguished from other species of the genus by the coloration, shape of pronotum, simple 9th abdominal tergite of female, shape of female genital plate, and very narrow apex of ovipositor.

Etymology. The species is named in honour of the orthopterist Mrs L.I. Podgornaja.

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