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RESEARCH ARTICLE

New and little-known taxa of the tribe Diestramimini (Orthoptera: Rhaphidophoridae: Aemodogryllinae) from Southeast Asia. Part 2

Новые и малоизвестные таксоны трибы Diestramimini (Orthoptera: Rhaphidophoridae: Aemodogryllinae) из Юго-Восточной Азии. Часть 2

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Abstract. The genera *Megadiestramima* Stor. et Gor. and *Mimadiestra* Stor. et Dawwrueng are considered. *Megadiestramima* is here divided into three subgenera: *Megadiestramima* s. str.; *Leodiestramima* Stor. (in 2014, this subgenus was raised up to generic rank by Storozhenko & Dawwrueng, but in 2015, it was restored in original subgeneric rank by Gorochov & Storozhenko); *Neodiestramima* **subgen. nov.** Seven new species and subspecies of this genus are described from Vietnam, Thailand and Cambodia: *M.* (*M.*) *borealis* **sp. nov.**; *M.* (*M.*) *abramovi* **sp. nov.**; *M.* (*M.*) *bilobata* **sp. nov.**; *M.* (*M.*) *centralis* **sp. nov.**; *M.* (*N.*) *orlovi lata* **subsp. nov.**; *M.* (*N.*) *o. khmerica* **subsp. nov.**; *M.* (*N.*) *brevispina* **sp. nov.** Keys to subgenera and species of *Megadiestramima* s. l. and *Mimadiestra* as well as keys to subgenera of *Diestramima* Stor. and *Adiestramima* Gor. are given. Eight additional new taxa of the latter genera and of the genus *Tamdaotettix* Gor. are described from Laos, China and Vietnam: *Baculitettix* **subgen. nov.** and *Excisotettix* **subgen. nov.** in *Diestramima* s. l.; *D.* (*B.*) *propria apicalis* **subsp. nov.**; *Hamatotettix* **subgen. nov.** and *Ulterotettix* **subgen. nov.** in *Adiestramima* s. l.; *A.* (*Adiestramima*) *originalis* **sp. nov.**; *T.* (*Tamdaotettix*) *ailaoshanicus* **sp. nov.**; *T.* (*T.*) *minipullus* **sp. nov.** New data on distribution of some species are also given.

Резюме. Рассмотрены роды *Megadiestramima* Stor. et Gor. и *Mimadiestra* Stor. et Dawwrueng. *Megadiestramima* здесь подразделена на три подрода: *Megadiestramima* s. str.; *Leodiestramima* Stor. (в 2014 г. Стороженко и Давруенг повысили ранг этого подрода до уровня рода, но в 2015 г. Горохов и Стороженко восставили для него подродовой ранг); *Neodiestramima* **subgen. nov.** Из Вьетнама, Таиланда и Камбоджи описаны семь новых видов и подвидов этого рода: *M.* (*M.*) *borealis* **sp. nov.**; *M.* (*M.*) *abramovi* **sp. nov.**; *M.* (*M.*) *bilobata* **sp. nov.**; *M.* (*M.*) *centralis* **sp. nov.**; *M.* (*N.*) *orlovi lata* **subsp. nov.**; *M.* (*N.*) *o. khmerica* **subsp. nov.**; *M.* (*N.*) *brevispina* **sp. nov.** Составлены ключи для определения подродов и видов *Megadiestramima* s. l. и *Mimadiestra*, а также ключи для определения подродов родов *Diestramima* Stor. и *Adiestramima* Gor. Восемь дополнительных новых таксонов из последних родов и рода *Tamdaotettix* Gor. описаны из Лаоса, Китая и Вьетнама: *Baculitettix* **subgen. nov.** и *Excisotettix* **subgen. nov.** в *Diestramima* s. l.; *D.* (*B.*) *propria apicalis* **subsp. nov.**; *Hamatotettix* **subgen. nov.** и *Ulterotettix* **subgen. nov.** в *Adiestramima* s. l.; *A.* (*Adiestramima*) *originalis* **sp. nov.**; *T.* (*Tamdaotettix*) *ailaoshanicus* **sp. nov.**; *T.* (*T.*) *minipullus* **sp. nov.** Приведены также новые данные по распространению некоторых видов.

Key words: rhaphidophorids, taxonomy, Indochina, China, Orthoptera, Rhaphidophoridae, Aemodogryllinae, Diestramimini, new taxa

Ключевые слова: пещерники, таксономия, Индокитай, Китай, Orthoptera, Rhaphidophoridae, Aemodogryllinae, Diestramimini, новые таксоны

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Introduction

This paper is the second communication of an article on the taxonomy and distribution of the tribe Diestramimini Gorochov, 1998 from the Indo-Malayan rhaphidophorid subfamily Aemodogryllinae Jacobson, 1902. In the previous communication (Gorochov & Storozhenko, 2015), the following genera of this tribe were considered: *Tamdaotettix* Gorochov, 1998; *Gigantettix* Gorochov, 1998; *Diestramima* Storozhenko, 1990; *Adiestramima* Gorochov, 1998. A new subgenus, 19 new species and two new subspecies were described in the latter paper. The present communication is devoted to the genera *Megadiestramima* Storozhenko et Gorochov, 1992 and *Mimadiestra* Storozhenko et Dawwrueng, 2014 as well as some new taxa from the genera *Diestramima*, *Adiestramima* and *Tamdaotettix*.

The material studied (including holotypes and paratypes of new species) are deposited at the following institutions: Zoological Institute of the Russian Academy of Sciences, St Petersburg (ZIN); Federal Scientific Center of the East Asia Terrestrial Biodiversity, Far Eastern Branch of the Russian Academy of Sciences, Vladivostok (EATB) [former Institute of Biology and Soil Science]; Kasetsart University, Bangkok (KUB); Thailand Natural History Musem (THNHM). To describe the location of spines and spurs on the tibiae and tarsi, a special "armament formula" is used here; this formula is sufficiently explained in the first communication of this article (Gorochov & Storozhenko, 2015: fig. I). All the specimens are dry and pinned; photographs of their morphological structures were made with a Leica M216 stereomicroscope. The internet-catalogue Orthoptera Species File (Cigliano et al., 2019) is here cited as OSF.

Systematics

Tribe **Diestramimini** Gorochov, 1998

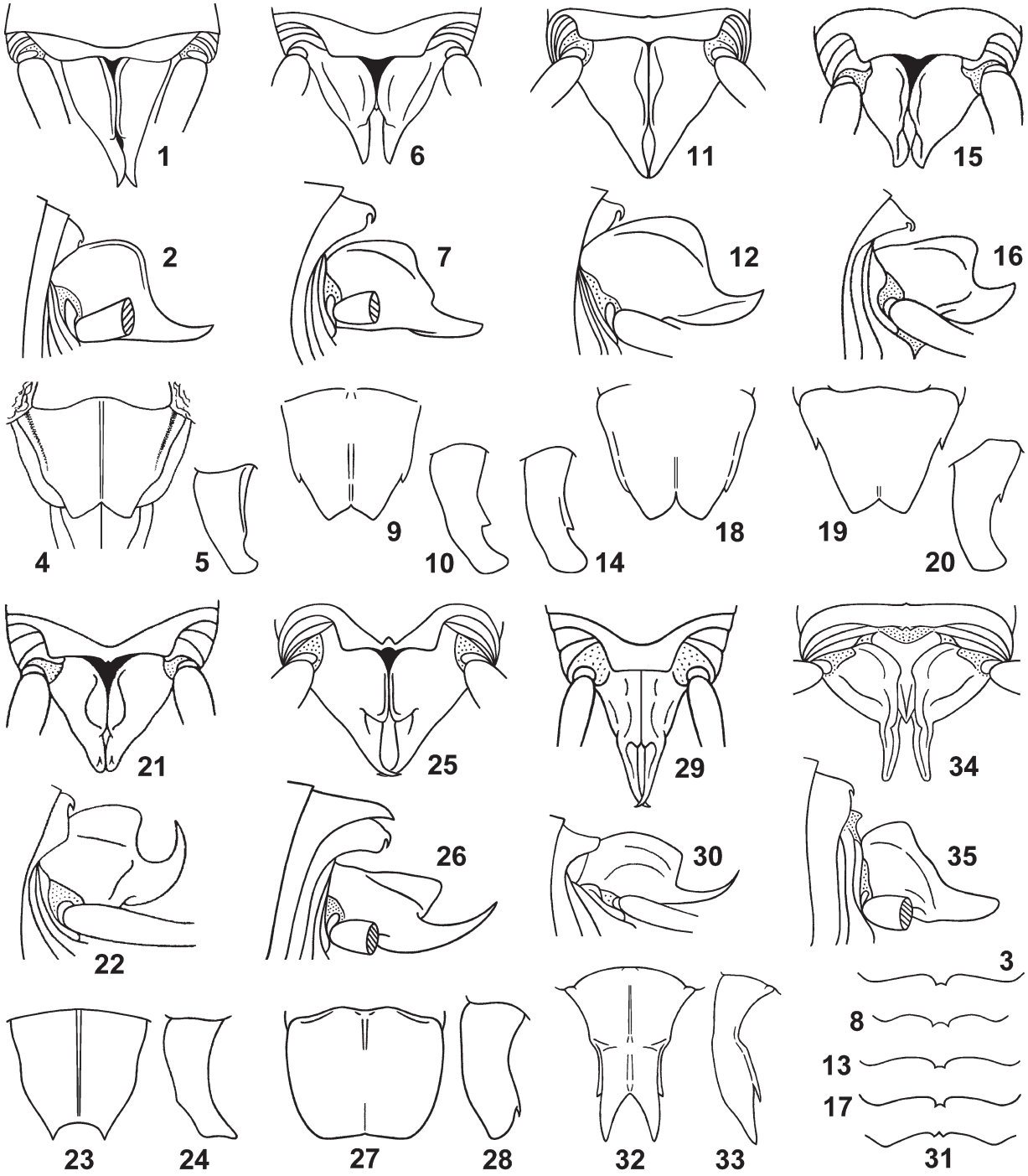
Note. This tribe is distributed in Indochina including Malay Peninsula, southern part of China, Bhutan and eastern part of India. It includes six genera: *Diestramima* Storozhenko, 1990; *Megadiestramima* Storozhenko et Gorochov, 1992; *Tamdaotettix* Gorochov, 1998; *Gigantettix* Gorochov, 1998; *Adiestramima* Gorochov, 1998; *Mimadiestra* Storozhenko et Dawwrueng, 2014. The taxon *Leodiestramima* Storozhenko, 2009, originally described as a subgenus in *Megadiestramima* but later considered as a separate genus, is again placed in *Megadiestramima* as one of its subgenera (Gorochov & Storozhenko, 2015). In the communication cited, the key for these genera is also published.

Genus ***Megadiestramima*** Storozhenko et Gorochov, 1992

Type species: *Megadiestramima intermedia* Storozhenko et Gorochov, 1992, by original designation.

Note. This genus includes large representatives of Diestramimini having the following diagnostic characters (see also the generic key in Gorochov & Storozhenko, 2015): in male, the posteromedian process of seventh abdominal tergite is more or less short (almost truncate or spine-like) and covering only the proximal part of paraprocts from above (Figs 1, 6, 11, 15, 21, 25, 29, 34, 58, 62, 66, 75); in female, this process is smaller or almost undeveloped, usually widely rounded but sometimes tubercle-like or with a very small apical notch; each male paraproct is rather high, plate-like, having a large rounded dorsal (dorsoproximal) lobe and narrower ventroapical process or hook (Figs 2, 7, 12, 16, 22, 26, 30, 35, 59, 63, 67, 72, 76); in female, each paraproct less high, roundly triangular, and with a small apical tubercle; the male genitalia have a few dorsal sclerites (one larger Y-shaped sclerite and a pair of smaller ribbon-like sclerites; Figs 36–48) or only rudiments of such sclerites (Fig. 49), but in some species, these genitalia lack sclerites (Figs 51–57); female genital plate is rather diverse in shape (Figs 4, 5, 9, 10, 14, 18–20, 23, 24, 27, 28, 32, 33, 61, 65, 70, 73, 77, 78); ovipositor is long, narrow, barely curved upwards, acute at the apex, and lacking distinct drilling teeth or tubercles (Fig. 50).

Megadiestramima contains 14 previously described and new species and subspecies which are distributed in Northern, Central and Southern Vietnam, Central and Southern Thailand as well as Cambodia. The genus is here divided into three subgenera: *Megadiestramima* s. str.; *Leodiestramima* Storozhenko, 2009; *Neodiestramima* **subgen.**



Figs 1–35. *Megadiestramima* (*Megadiestramima*): **1–5**, *M. intermedia* Stor. et Gor.; **6–10**, *M. borealis* **sp. nov.**; **11–14**, *M. abramovi* **sp. nov.**; **15–20**, *M. extensa* Gor.; **21–24**, *M. darevskyi* Gor.; **25–28**, *M. bilobata* **sp. nov.**; **29–33**, *M. vera* Gor.; **34**, **35**, *M. centralis* **sp. nov.** Male abdominal apex without both ventral part and most part of cerci from above (1, 6, 21, 29), from above and slightly behind (11, 15, 25, 34), and from side (2, 7, 12, 16, 22, 26, 30, 35); posteroventral edge of posteromedian process of seventh abdominal tergite in male from behind (3, 8, 13, 17, 31); female genital plate from below (4, 9, 18, 19, 23, 27, 32) and from side (5, 10, 14, 20, 24, 28, 33). [1, 2, 4, 15, 16, 21–23, 29, 30, 32, after Gorochov & Storozhenko (1992) and Gorochov (1998, 2002), modified.]

nov. It is necessary to note that *Leodiestramima* was originally described as a subgenus in *Megadiestramima* (Storozhenko, 2009) on the base of absence or presence of sclerites in the male genitalia as well as on some differences in the shape of female genital plate; but later, this taxon was considered as a separate genus (Storozhenko & Dawwrueng, 2014). However, the new material shows that the differences between all species of *Megadiestramima* s. l. are less distinct than differences between this genus and other genera of Diestramimini: *M. centralis* **sp. nov.** has the male genitalia with only rudiments of sclerites (Fig. 49); the previously unknown female of *M. orlovi* Gorochov, 1994 (a species included by Storozhenko in *Leodiestramima*) has the genital plate clearly different from that of *Leodiestramima* type species (for comparison see Figs 65 and 70, 73). These subgenera and species are characterized in the key given below.

1. Male: posteromedian process of seventh abdominal tergite widely truncate at apex but with posteromedian edge having a pair of very small hooks or tubercles located near each other and directed downwards and/or backwards (Figs 1, 3, 6, 8, 11, 13, 15, 17, 21, 25, 29, 31, 34); paraproct with simple or hook-like ventroapical process directed upwards and/or backwards (Figs 2, 7, 12, 16, 22, 26, 30, 35); genitalia with Y-shaped median sclerite (Figs 36–48) or its rudiments (Fig. 49). Female: seventh abdominal tergite with short and rather widely rounded posteromedian projection or almost without such projection; genital plate with distinctly notched or almost truncate apex, and usually with small lateral spinules or tubercles (Figs 4, 5, 9, 10, 14, 18–20, 23, 24, 27, 28, 32, 33). Subgenus ***Megadiestramima*** s. str. 2
– Male: posteromedian process of seventh abdominal tergite diverse in shape; but if it widely truncate, then without paired hooks or tubercles in posteromedian part (Figs 58, 60, 62, 64, 66, 69, 71, 75); paraproct with ventroapical process almost S-shaped in profile (Figs 59, 63) or having thin apical spinule directed backwards/downwards (Figs 67, 72, 76); genitalia without sclerites (Figs 51–57). Female: seventh abdominal tergite as in *Megadiestramima* s. str. or with short and narrow posteromedian process; genital plate diverse but without lateral spinules. 9
2. Male: sixth abdominal tergite with very short posteromedian lobe significantly not reaching apex of posteromedian process of seventh abdominal tergite; latter process moderately short and wide (Figs 1, 6, 11, 15); ventroapical process of paraproct always strong and more or less acute, as well as slightly arcuate or almost straight in profile (Figs 2, 7, 12, 16); dorsal lobe of paraproct not projected backwards (Figs 2, 7, 12), but if this lobe projected backwards, ventroapical process of paraproct rather short (Fig. 16). Female: genital plate with distinct (but not deep) angular notch at apex (Figs 4, 9, 18, 19) 3
– Male: sixth and seventh abdominal tergites with posteromedian projections rather diverse (Figs 21, 25, 29, 34); ventroapical process of paraproct rather thin (not strong; Fig. 30) or apically rounded (not acute; Fig. 35), or this process strongly curved upwards (Fig. 22), or paraproct with long ventroapical process and simultaneously with dorsal lobe projected backwards (Fig. 26). Female: genital plate with apical notch rounded (Fig. 23) or deep (Fig. 32), or with apex almost truncate (slightly concave; Fig. 27). 6
3. Male: paraproct with long ventroapical process (distance from cercal base to apex of paraproct 2–2.3 times as long as this process; Figs 2, 7); Y-shaped median sclerite in genitalia with distal unpaired part longer than a pair of proximal parts (Figs 36, 37, 39) 4
– Male: paraproct with short ventroapical process (distance from cercal base to apex of paraproct approximately 2.6 times as long as this process; Figs 12, 16); Y-shaped median sclerite in genitalia with distal (unpaired) part almost equal to a pair of proximal parts in length or shorter than these proximal parts (Figs 45–47) 5
4. Male: posteromedian process of seventh abdominal tergite wider (distal part of this process about 3.5 mm in width; Fig. 1); paraproct with ventroapical process slightly curved in profile, and without distinct convexity between base of this process and dorsal lobe (Fig. 2); genitalia with Y-shaped sclerite having distal (unpaired) part distinctly longer than a pair of proximal parts, and with rather small membranous lobes (Figs 36–38) . . . . ***M.* (*M.*) *intermedia***
– Male: posteromedian process of seventh abdominal tergite narrower (distal part of this process about 2 mm in width; Fig. 6); paraproct with ventroapical process almost straight, and with distinct convexity between base of this process and dorsal lobe (Fig. 7); genitalia with Y-shaped sclerite having distal (unpaired) part slightly longer than a pair of proximal parts, and with rather large membranous lobes (Fig. 39) . . . . ***M.* (*M.*) *borealis* sp. nov.**

5. Male: paraproct rather high and with dorsal lobe not projected backwards (Fig. 12); genitalia with distal (unpaired) part of Y-shaped median sclerite almost equal a pair of its proximal parts in length (Fig. 47) . . . . . ***M.* (*M.*) *abramovi* sp. nov.**
– Male: paraproct less high and with dorsal lobe distinctly projected backwards (Fig. 16); genitalia with distal (unpaired) part of Y-shaped median sclerite clearly shorter than a pair of its proximal parts (Figs 45, 46) . . . . . ***M.* (*M.*) *extensa*** Gorochov, 1998
6. Male: sixth abdominal tergite with moderately short posteromedian lobe not reaching apex of posteromedian process of seventh abdominal tergite (Figs 21, 29); paraproct with acute and hooked ventroapical process as well as with dorsal lobe not projected or almost not projected backwards (Figs 22, 30). Female: genital plate with distinct posteromedian notch (Figs 23, 32) 7
– Male: sixth abdominal tergite with moderately long posteromedian lobe reaching apex of posteromedian process of seventh abdominal tergite or even slightly protruding beyond this apex (Figs 25, 26), or almost without such lobe (Fig. 34); paraproct with straight and apically rounded ventroproximal process (Fig. 35), or with dorsal lobe clearly projected backwards (Fig. 26). Female unknown or with genital plate almost truncate (slightly concave) at apex (Fig. 27) 8
7. Male: posteromedian process of seventh abdominal tergite moderately short and wide (width of its distal part 3.5–4 mm; Fig. 21); paraproct with ventroapical process strong, short and strongly curved upwards (Fig. 22). Female: genital plate with rounded and not deep apical notch (Fig. 23) . . . . . ***M.* (*M.*) *darevskyi*** Gorochov, 1998
– Male: posteromedian process of seventh abdominal tergite somewhat longer and narrower (width of its distal part 2–2.5 mm; Fig. 29); paraproct with ventroapical process thin, long and moderately curved upwards (Fig. 30). Female: genital plate with deep and angular apical notch (Fig. 32) . . . . . ***M.* (*M.*) *vera*** Gorochov, 2002
8. Male: sixth abdominal tergite with moderately long posteromedian lobe reaching apex of posteromedian process of seventh abdominal tergite or even slightly protruding beyond this apex (Figs 25, 26); posteromedian process of seventh abdominal tergite moderately long (Figs 25, 26); paraproct with acute and hooked ventroapical process as well as with dorsal lobe clearly projected backwards (Fig. 26); genitalia with median sclerite clearly Y-shaped (Fig. 48). Female: genital plate almost truncate (slightly concave) at apex (Fig. 27) . . . . . ***M.* (*M.*) *bilobata* sp. nov.**
– Male: sixth abdominal tergite almost without posteromedian lobe (Fig. 34); posteromedian process of seventh abdominal tergite very short (Figs 34, 35); paraproct with apically rounded and straight ventroapical process as well as with dorsal lobe clearly not projected backwards (Fig. 35); genitalia with a pair of slightly sclerotized ribbons (Fig. 49) instead Y-shaped median sclerite. [Female unknown] . . . . . ***M.* (*M.*) *centralis* sp. nov.**
9. Male: posteromedian process of seventh abdominal tergite more or less wide and apically truncate (Figs 58, 62); paraproct in profile with shortly S-shaped ventroapical process (Figs 59, 63). Female: genital plate very short and with angular posteromedian part (Figs 61, 65). Subgenus ***Leodiestramima*** [Type species: *Megadiestramima exculta* Gorochov, 1998, by original designation] 10
– Male: posteromedian process of seventh abdominal tergite narrow (almost spine-like) and with rather diverse apex (Figs 66, 69, 71, 75); paraproct in profile with ventroapical process not S-shaped but having thin apical spinule directed backwards/downwards (Figs 67, 72, 76). Female: genital plate diverse in length but with notched or almost truncate apical part (Figs 70, 73, 78). Subgenus ***Neodiestramima* subgen. nov.** [Type species: *Megadiestramima orlovi* Gorochov, 1994. Etymology: from generic name *Diestramima*] 11
10. Male: posteromedian process of seventh abdominal tergite rather wide and distinctly truncate (Fig. 58); paraproct with comparatively elongate ventroapical process which distinctly S-shaped in profile (Fig. 59); genitalia with membranous lobes rather short (Figs 53, 54). Female: genital plate with short (not spine-like) apical tubercle (Fig. 61); ovipositor long (hind femur approximately 1.4 times as long as ovipositor) . . . . . ***M.* (*L.*) *lecta*** Gorochov, 1998
– Male: posteromedian process of seventh abdominal tergite clearly narrower and roundly truncate (Fig. 62); paraproct with ventroapical process somewhat shorter and less S-shaped in profile (Fig. 63); genitalia with membranous lobes longer (Figs 51, 52). Female: genital plate with apical tubercle less short, almost spine-like (Fig. 65); ovipositor distinctly shorter (hind femur 2.1–2.2 times as long as ovipositor) . . . . . ***M.* (*L.*) *exculta*** Gorochov, 1998
11. Male: posteromedian process of seventh abdominal tergite rather long (paraproct 1.5–2 times as long as this process; Figs 66, 67, 72). Female: genital plate with rather wide apex having shallow or very shallow posteromedian notch (Figs 70, 73) 12
– Male: posteromedian process of seventh abdominal tergite much shorter (paraproct almost 3.5 times as

long as this process; Figs 75, 76). Female: genital plate with rather narrow apex having very shallow notch or lacking any notch (Fig. 78) . . . . . ***M.* (*N.*) *brevispina* sp. nov.**

12. Lateral ocelli small (Fig. 68); posteromedian process of seventh abdominal tergite in male with rather narrow basal part (Fig. 66); male paraproct long, approximately two times as long as above-mentioned process (Fig. 67). [Female unknown] . . . . . ***M.* (*N.*) *orlovi orlovi*** Gorochov, 1994

– Lateral ocelli large (Fig. 74); posteromedian process of seventh abdominal tergite in male with diverse basal part (Figs 69, 71); male paraproct shorter, approximately 1.5 times as long as above-mentioned process (Fig. 72) 13

13. Male: posteromedian process of seventh abdominal tergite with rather narrow basal part (Fig. 69). Female: genital plate with apical part narrower and having very shallow posteromedian notch (Fig. 70) . . . . . ***M.* (*N.*) *orlovi khmerica* subsp. nov.**

– Male: posteromedian process of seventh abdominal tergite with rather wide basal part (Fig. 71). Female: genital plate with apical part wider and having shallow posteromedian notch (Fig. 73) . . . . . ***M.* (*N.*) *orlovi lata* subsp. nov.**

Megadiestramima (*Megadiestramima*) *intermedia* Sorozhenko et Gorochov, 1992
(Figs 1–5, 36–38)

Material examined. **Northern Vietnam**: 5 males (holotype and paratypes), 3 females (paratypes), Quang Ninh Prov., Bai Tu Long Bay, Fong Vong I., forest, 11–12.X.1990, V. Kuznetsov (ZIN, holotype and 1 female; EATB, 4 males, 2 females); 2 males (paratypes), same province and bay, Thanh Lam I., forest, 18.X.1990, V. Kuznetsov (EATB); 5 females, same province, "Bai Tu Long I. and National Park", X.2008, S. Ryabov, N. Orlov (ZIN).

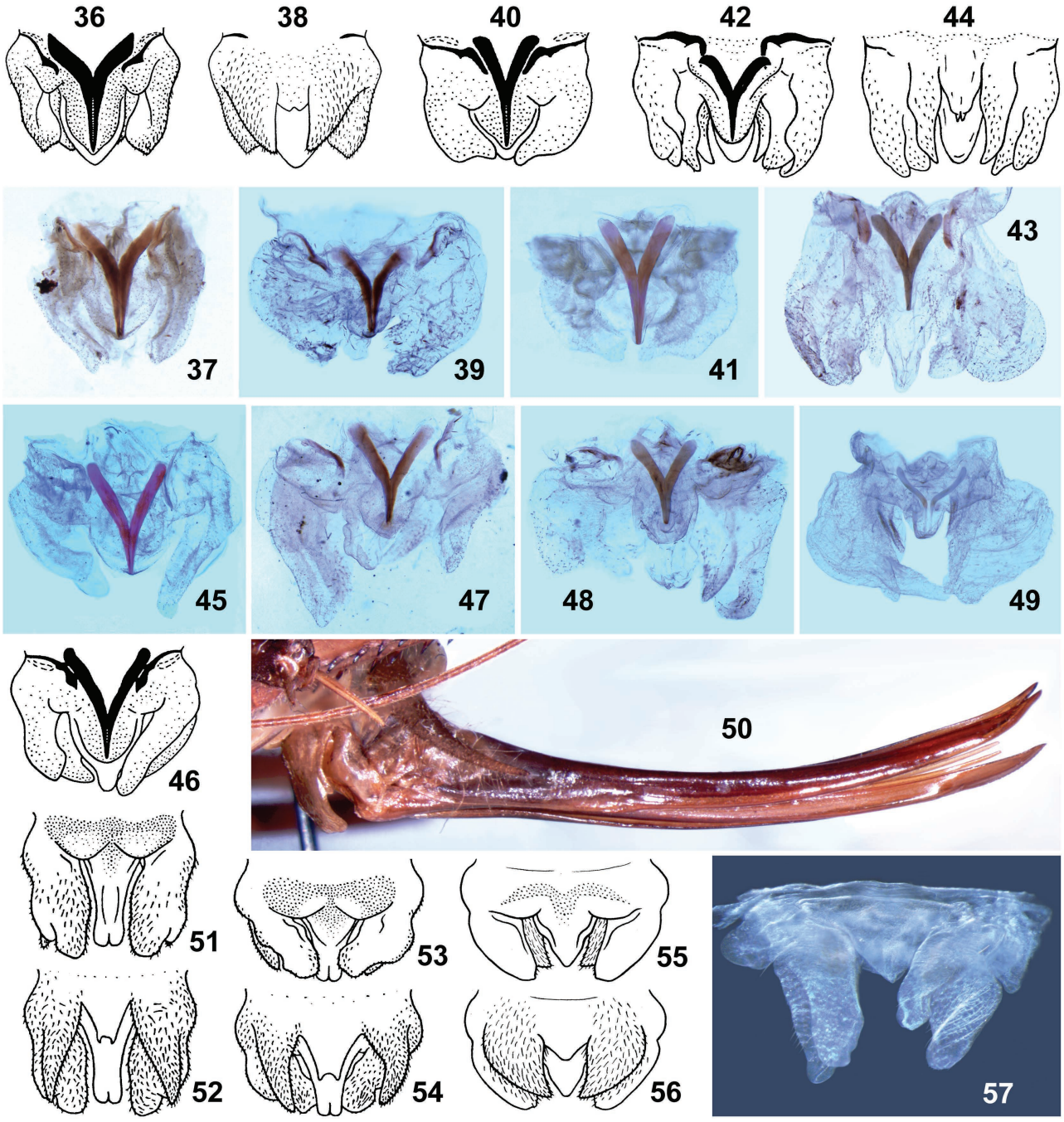
Note. This species is sufficiently described by Gorochov & Storozhenko (1992). Here it is recorded from a new point nearest to its type locality, but all the specimens from this point are females somewhat darker than the type specimens, and thus, these determinations are not very exact. Moreover, the genital plates of these females are similar in shape but not identical: some of them have a pair of small lateral spinules in the distal half (approximately as in Figs 9, 10, 14), but others are without such spinules (Figs 4, 5); sometimes, there is a spinule on one lateral edge of this plate only (almost as in Fig. 18). These differences may be individual variability. The paratype of this taxon from southern part of China is a nymph, and its belonging to this species is very problematic.

Megadiestramima (*Megadiestramima*) *borealis* sp. nov.
(Figs 6–10, 39)

Holotype. Male, **Northern Vietnam**, Lang Son Prov., Huu Lien Reserve, 200 m, primary forest, 23–30.VII.2003, N. Orlov (ZIN).

Paratypes. One male, 1 female, same data as for holotype (ZIN).

Description. Male (holotype). General appearance similar to that of *M.* (*M.*) *intermedia*. Colouration almost as in light specimens of this species, but with following peculiarities: most part of body light brown with large dark brown areas under eyes reaching lateral parts of clypeus, brown epicranial dorsum (behind rostral tubercles), pronotum, mesonotum and dorsal part of eight subsequent tergites (including metanotum); legs also light brown but with dark brown both apical area on each femur (except for light brown spurs) and dorsal area on proximal half of hind femur as well as with several poorly distinct darkish spots and areas on other parts of legs. Structure of body typical of this genus, however: head with rostral tubercles rather narrow (their base laterally as wide as distance between each rostral tubercle and nearest eye); apical segment of maxillary palpus almost equal to half of fore femur in length; right coxa with short spine, but left one with very short spine; hind femur with nine inner ventral non-articulated spinules and a pair of small apical denticles; armament formula of tibiae and of hind basitarsus characteristic [dea, v~2, v2, v3a / d2a, v~2, v2, v3a / d30e-27i (d30e-28i), d2sa, 6a / d1c, dac]; inner dorsal spur of hind tibia barely protruding beyond apex of dac [= unpaired (central) dorsoapical spur of hind basitarsus]; sixth abdominal tergite with very short posteromedian lobe; posteromedian process of seventh abdominal tergite moderately short, i.e. similar to that of *M.* (*M.*) *intermedia* but less wide (its width in distal part approximately two mm, but this width in *M. intermedia* about 3.5 mm; for comparison see Figs 1 and 6); paraproct with moderately long ventroapical process (space from cercal base to apex of paraproct about 1.8 times as long as this process; in *M. intermedia*, this process longer, and



Figs 36–57. *Megadiestramima*: **36–38**, *M.* (*Megadiestramima*) *intermedia* Stor. et Gor.; **39**, *M.* (*M.*) *borealis* **sp. nov.**; **40**, **41**, *M.* (*M.*) *darevskyi* Gor.; **42–44**, *M.* (*M.*) *vera* Gor.; **45**, **46**, *M.* (*M.*) *extensa* Gor.; **47**, *M.* (*M.*) *abramovi* **sp. nov.**; **48**, *M.* (*M.*) *bilobata* **sp. nov.**; **49**, *M.* (*M.*) *centralis* **sp. nov.**; **50**, *M.* (*M.*) *borealis*; **51**, **52**, *M.* (*Leodiestramima*) *exculta* Gor.; **53**, **54**, *M.* (*L.*) *lecta* Gor.; **55**, **56**, *M.* (*Neodiestramima*) *orlovi orlovi* Gor.; **57**, *M.* (*N.*) *brevispina* **sp. nov.** Male genitalia from above (36, 37, 39–43, 45–49, 51, 53, 55, 57) and from below (38, 44, 52, 54, 56). [36, 38, 40, 42, 44, 46, 51–56, after Gorochov & Storozhenko (1992) and Gorochov (1994, 1998, 2002).]

this ratio almost equal to two) and small but distinct convexity between base of this process and widely rounded dorsal lobe (in *M. intermedia*, this convexity indistinct; see Figs 2 and 7); genitalia with median sclerite well developed and distinctly Y-shaped, with distal (unpaired) part of this sclerite slightly longer than a pair of its proximal parts (i.e. this distal part slightly shorter than in

M. intermedia), and with membranous lobes larger than in this species (see Figs 37 and 39).

Variations. Colouration of second male with longer darkened apical portion of femora and more distinct (almost brown) spots on rest part of fore and middle femora; this male also with short (identical) spines on both coxae; armament of legs very weakly variable.

Female. Colouration and structure of body similar to those of holotype, but size somewhat larger, coloration barely darker but with brown apical part of each femur and dorsal surface of proximal half of middle and hind femora as well as poorly distinct darkish spots and areas on rest parts of legs, armament of legs in limits of variability in males but with slightly more numerous non-articulated dorsal spinules on hind tibia, sixth abdominal tergite almost without posteromedian lobe, seventh abdominal tergite with very short and rounded posteromedian lobe, paraproct smaller and roundly triangular as well as with small ventroapical tubercle. Genital plate indistinguishable from that of female of *M.* (*M.*) *intermedia* in shape, with small but distinct lateral denticles (non-articulated lateral spinules) located in distal half of this plate (Figs 9, 10); ovipositor as in Fig. 50.

Length in mm. Body: male 17.5–23, female 24; pronotum: male 6.5–8, female 8.4; fore femur: male 13.7–17.5, female 16.7; hind femur: male 28–35, female 33; hind tibia: male 33–41, female 39; hind basitarsus: male 5.5–7, female 6.5; ovipositor 19.

Comparison. The new species is most similar to *M.* (*M.*) *intermedia* in the structure of male abdominal apex (including median sclerite of male genitalia) and may be only a subspecies of the latter species. Differences of *M. borealis* from all the other congeners are given above, in the key and description.

Etymology. This species name is the Latin word "borealis" (northern), because it is given the species described from the most northern localities of *Megadiestramima* s. l.

Megadiestramima (*Megadiestramima*) *abramovi* sp. nov.

(Figs 11–14, 47)

Holotype. Male, **Northern Vietnam**, Hai Phong Prov., Cat Ba I. in Tonkin Bay, Cat Ba National Park, ~10 km NW of Cat Ba City, 20°47'56''N, 106°59'47''E, X.2011, A. Abramov (ZIN).

Paratypes. One male, 1 female, same data as for holotype (ZIN); 1 male, 3 females, same island and park, but IX.2008, S. Rjabov, N. Orlov (ZIN).

Description. Male (holotype). General appearance similar to that of *M.* (*M.*) *intermedia* and *M.* (*M.*) *borealis*. Colouration as in holotype of latter species, but base of rostral tubercles brown, mesonotum with small light brown marks along its anterolateral edges, light brown areas on lateral parts of eight subsequent tergites rather small, dorsal surface of hind femur almost not darkened, and poorly distinct darkish spots and areas on rest parts of legs undeveloped (but femoral apical parts darkened almost as in this specimen). External structure of body also similar to that of *M.* (*M.*) *borealis*; however, armament of tibiae and of hind basitarsus slightly different [d2a, v~2 (v2), v~2, v3a / d2a, v~2, v2, v3a / d40-33i, d2sa, 6a / d2c, dac], inner dorsal spur of hind tibia barely not reaching apex of dac, posteromedian lobe of sixth abdominal tergite with very small apical notch (Fig. 11), and posteromedian process of seven abdominal tergite as well as paraproct similar to those of *M.* (*M.*) *intermedia* but with ventroapical process of paraproct distinctly shorter (space from cercal base to apex of paraproct about 1.5 times as long as this process; *vs.* this ratio almost equal to two; Fig. 12). Genitalia with median sclerite clearly Y-shaped, but its distal (unpaired) part shorter than a pair of its proximal parts (Fig. 47).

Variations. Sometimes body with lightish stripe running along dorsomedial edge of each eye and behind it, with light brown spots on pronotum near its ventral edges, and with dorsal area on proximal half of hind femur barely darkened; armament of legs very weakly variable.

Female. Colouration and structure of body similar to those of males, but darkened apical portions of femora longer, poorly distinct darkish spots and area on rest parts of legs developed, and tergites and paraprocts as in female of *M.* (*M.*) *borealis* (however, sixth abdominal tergite with very small posteromedian notch similar to that of males). Genital plate (Fig. 14) and ovipositor practically indistinguishable from those of female of *M.* (*M.*) *borealis*.

Length in mm. Body: male 23–26, female 22–27; pronotum: male 8.5–9, female 9–9.5; fore

femur: male 17.5–18.5, female 18–19; hind femur: male 34–38, female 37–39; hind tibia: male 38–44, female 41–46; hind basitarsus: male 7–7.5, female 7.4–7.8; ovipositor 18.3–18.8.

Comparison. The new species is most similar to *M.* (*M.*) *extensa* in the structure of male genitalia. It also may be only a subspecies of the latter species, and its differences from all the other congeners are given in the key above.

Etymology. This species is named after A.V. Abramov, a well-known researcher of Vietnamese mammals who collected these interesting insects.

Megadiestramima (*Megadiestramima*) *extensa* Gorochov, 1998
(Figs 15–20, 45, 46)

Material examined. **Northern Vietnam**: 1 male (holotype), Hoa Binh [former Ha Son Binh] Prov., Cuc Phuong National Park, 200 m, forest, at night, 15.X.1994, I. Darevsky (ZIN); 1 male, 3 females, same locality, but 13.XI.2008, V. Bezborodov (ZIN, 2 females; EATB, 1 male, 1 female).

Note. The species was described from a single male (Gorochov, 1998) in details. Later, Storozhenko (2009) on the base of the above-mentioned material described previously unknown females of this species. These females are very similar to each other, but their genital plates are somewhat different: in one female, the lateral edges of this plate are not convex in the middle part and with distinct lateral spinules in the proximal half (Figs 19, 20); in other females, these lateral edges are clearly convex in the middle part and with lateral spinules in the distal half (but one of the latter females is without right lateral spinule on this plate; Fig. 18). These differences show either strong variability in this character, or the belonging of these females to different sympatric species.

Megadiestramima (*Megadiestramima*) *darevskyi* Gorochov, 1998
(Figs 21–24, 40, 41)

Material examined. **Northern Vietnam**: 2 males (holotype and paratype), 1 female (paratype), Nghe An Prov. [former Nghe Tinh Prov.], 20–25 km W of Con Cuong near Ka River, 400 m, primary forest, at night, 22–30.X.1994, I. Darevsky (ZIN).

Note. This species, sufficiently described from the above-mentioned specimens, is characteristic in the male paraproct short, strong and strongly curved upwards (Fig. 22), as well as in the female genital plate having a distinct (but not deep) and rounded apical notch (Fig. 23).

Megadiestramima (*Megadiestramima*) *bilobata* sp. nov.
(Figs 25–28, 48)

Holotype. Male, **Central Vietnam**, Quang Binh Prov., 35 km NW of Dong Hoi, Phong Nha – Ke Bang National Park, ~600 m, IX–X.2003, N. Orlov (ZIN).

Paratypes. Four males, 2 females, same data as for holotype (ZIN); 1 male, same province and park, but 23 km W of Phong Nha Vill., 17°38'16''N, 106°05'38''E, 300 m, 2007, A. Abramov (ZIN).

Description. Male (holotype). General appearance similar to that of congeners previously considered here. Colouration and external structure of body as in *M.* (*M.*) *borealis* but with following differences: dorsum of head behind rostral tubercles dark brown; pterothoracic and abdominal tergites coloured as in *M.* (*M.*) *abramovi*; legs coloured as in female of *M.* (*M.*) *borealis* described above (except for hind femur coloured as in male of *M. borealis*); hind femora with 9–10 inner ventral denticles; armament formula of tibiae and of hind basitarsus slightly different [dea, v2, v2, v3a / d2a, v2, v2, v3a / d32e-27i (d28e-27i), d2sa, 6a / d1c, dac]; inner dorsal spur of hind tibia distinctly protruding beyond apex of dac; sixth abdominal tergite with moderately long posteromedian lobe reaching apex of posteromedian process of seventh abdominal tergite and having small apical notch (Figs 25, 26); latter process with small posteromedial hooks located somewhat further from each other (Fig. 25); paraproct with dorsal lobe clearly projected backwards, and with ventroapical process strong, long, acute and moderately curved upwards (Fig. 26). Genitalia with Y-shaped median sclerite as in Fig. 48.

Variations. Colouration slightly variable: some males with slightly lighter dorsum of head and more spotted body, i.e. having small lightish marks among dark parts of thoracic tergites and larger spots among dark parts of abdominal tergites as well as brown to dark brown apical parts of femora and dorsal area on proximal half of hind femur. Armament of legs very weakly variable.

Female. Colouration and structure of body similar to those of males, but darkened parts of head

dorsum and of tergites almost uniformly brown, legs coloured approximately as in holotype or with brown dorsal area on proximal half of hind femur, and abdominal tergites and paraprocts as in female of *M.* (*M.*) *abramovi* (however, sixth abdominal tergite with posteromedian lobe slightly more distinct and lacking apical notch, and posteromedian lobe of seventh abdominal tergite with small apical notch). Genital plate with almost truncate (slightly concave) posterior part and with lateral non-articulated spinules developed but located in more distal position than in all previous congeners (Figs 27, 28).

Length in mm. Body: male 22–25, female 24–25; pronotum: male 7.8–8.9, female 8.3–8.5; fore femur: male 14–16.5, female 14.5–16.5; hind femur: male 27–32, female 28–31; hind tibia: male 29–36, female 33–36; hind basitarsus: male 5.5–6.5, female 6.3–7; ovipositor 17–19.

Comparison. The new species differs from all the other known species of this subgenus in the sixth abdominal tergite in male having a rather long posteromedian lobe (see also the key above).

Megadiestramima (*Megadiestramima*) *vera* Gorochov, 2002
(Figs 29–33, 42–44)

Material examined. **Central Vietnam**: 7 males (holotype and paratypes), 4 females (paratypes), Gia Lai Prov., Ka Bang Distr., Krong Pa Vill., primary forest, at night, IX.1997, N. Orlov (ZIN); 1 male, Kon Tum Prov., Kon Plong Distr., Mang Canh Vill., 1100–1350 m, 11.XII.2018, N. Orlov, L. Ioganssen (ZIN).

Note. The species is sufficiently described from the above-mentioned specimens (Gorochov, 2002). It is distinctly differs from all the previous congeners in the ventroapical process of male paraproct long, thin and moderately curved upwards (Fig. 30), and in the female genital plate long, narrow and with a deep posteromedian notch (Fig. 32). Here this species is firstly recorded from a nearest province.

Megadiestramima (*Megadiestramima*) *centralis* sp. nov.
(Figs 34, 35, 49)

Holotype. Male, **Central Vietnam**, Thua Thien Hue Prov., 40 km SE of Hue Town, Bach Ma National Park, 1300 m, X.2003, N. Orlov (ZIN).

Description. Male (holotype). General appearance similar to that of all previous congeners. Colouration light brown with almost dark brown large areas under eyes (reaching lateral parts of clypeus) and small areas on dorsomedial parts of rostral tubercles, brown areas behind eyes, most part of tergites, apical parts of femora, hind tibia, paraproct, epiproct and genital plate, as well as intermediate in colour (between brown and light brown) rest of head dorsum, ventrolateral areas on metanotum and on seven anterior abdominal tergites, more posterior tergites, cerci, fore and middle legs, hind tarsus and dorsal surface of hind femur. Rostral tubercles rather thick (their base laterally almost 1.5 time as wide as distance between each rostral tubercle and nearest eye); apical segment of maxillary palpus somewhat shorter than half of fore femur (this femur approximately 2.2 times as long as this segment); both fore coxae with very short spine; hind femur with 8–9 inner ventral non-articulated spinules; armament formula of tibiae and hind tarsus characteristic [dea, v2, v2, v3a / d2a, v~2 (ve), v2 (vi), v3a / d32e-30i (d33e-29i), d2sa, 6a / d1c, dac]; inner dorsal spur of right hind tibia distinctly protruding beyond apex of dac (in left leg, such spur much shorter, possibly restored); sixth abdominal tergite without distinct posteromedian lobe but with very small posteromedian notch; seventh abdominal tergite with very short posteromedian process (shorter than in all previous congeners; Figs 34, 35); paraproct with dorsal lobe not projected backwards, with ventroapical process moderately long, strong, straight and having more or less rounded (nort acute) apex, and with slight convexity between these lobe and process (Fig. 35); genitalia with a pair of narrow sclerotized ribbons (rudiments or traces of partly reduced Y-shaped median sclerite; Fig. 49).

Female unknown.

Length in mm. Body 25; pronotum 9.2; fore femur 18; hind femur 36; hind tibia 39; hind basitarsus 7.3.

Comparison. The new species is most characteristic among *Megadiestramima* s. str., because its seventh abdominal tergite in male has a shortest posteromedian process, its male paraproct is with straight ventroapical process having the apex not acute, and its male genitalia are with rudiments

or traces of Y-shaped median sclerite (see also the key above).

Etymology. This species name is the Latin word "centralis" (central), because the new species was collected in the central part of Vietnam.

Megadiestramima* (*Leodiestramima*) *lecta
Gorochov, 1998
(Figs 53, 54, 58–61)

Material examined. **Central Thailand**: 3 males (holotype and paratypes), 1 female and 1 nymph (paratypes), Malay Peninsula, Phetchaburi Prov., 60–70 km SW of Phetchaburi City, environs of Kaeng Krachan National Park near border with Myanmar, ~800 m, primary forest, on rotten wood and on forest floor at night, 1–3.VIII.1996, A. Gorochov (ZIN).

Note. This species is sufficiently described (Gorochov, 1998) and characterized by the following features: posteromedian process of seventh abdominal tergite in male is distinctly truncate and rather wide (distal width of this process is about 3.5 mm; Fig. 58); ventroapical process of each male paraproct is clearly S-shaped in profile (Fig. 59); male genitalia are completely membranous and have rather short lobes (Figs 53, 54); female genital plate is short and with the apex angularly tubercle-like (Fig. 61); ovipositor is moderately long (hind femur is about 1.4 times as long as ovipositor).

Megadiestramima* (*Leodiestramima*) *exculta
Gorochov, 1998
(Figs 51, 52, 62–65)

Material examined. **Southern Thailand:** 2 males (holotype and paratype), 2 females and 5 nymphs (paratypes), Malay Peninsula, Surat Thani Prov., 40 km SW of Phanom Town, environs of Khao Sok National Park, primary forest, on bark of trees near soil and on leaves of low bushes as well as in small ground burrows near forest road at night, 20–29.VII.1996 (all collected as nymphs, imago VIII–IX.1996), A. Gorochov (ZIN).

Note. The species is also sufficiently described (Gorochov, 1998). It is characterized by the posteromedian process of seventh abdominal tergite in male roundly truncate and moderately narrow (distal width of this process is about 1.8 mm; Fig. 62), ventroapical process of each male paraproct somewhat shorter than in *M*. (*L*.) *lecta* and barely S-shaped in profile (Fig. 63), male genitalia similar to those of this species but with rather long lobes (Figs 51, 52), female genital plate also similar to that of this species but with the apex almost spine-like (Fig. 65), and ovipositor moderately short (hind femur is about 2.1–2.2 times as long as ovipositor).

Megadiestramima* (*Neodiestramima*) *orlovi orlovi Gorochov, 1994
(Figs 55, 56, 66–68)

Material examined. **Central Vietnam:** 1 male (holotype), Gia Lai Prov., Tai Nguyen Plateaux, 20 km N of Kannack Town, environs of Buon Luoi Vill., primary forest, on forest road at night, 15–19.XI.1993, N. Orlov (ZIN).

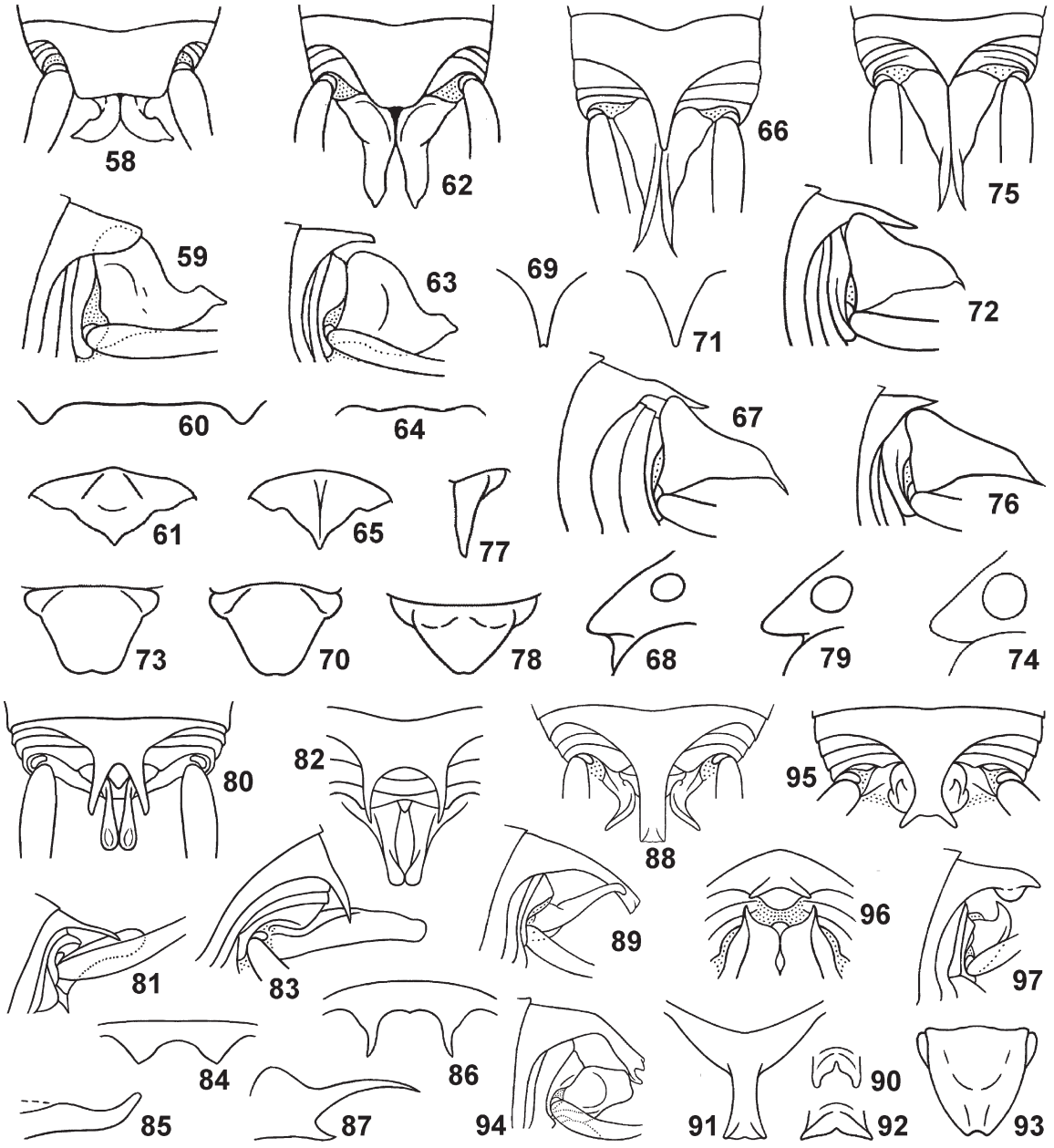
Note. This subspecies was described as a species but in detail (Gorochov, 1994). It is characterized by the rather light (generally light brown but partly almost yellowish) colouration of body, lateral ocelli small (Fig. 68), median spine on the posterior edge of seventh abdominal tergite in male rather long and narrow (Fig. 66), male paraproct rather long and of characteristic shape (Fig. 67), and male genitalia completely membranous and with rather short lobes (approximately as in *M. lecta*; see Figs 53, 54 and 55, 56).

***Megadiestramima* (*Neodiestramima*) *orlovi lata* subsp. nov.**
(Figs 71–74)

Holotype. Male, **Central Thailand**, Nakhon Ratchasima Prov., environs of Khao Yai National Park, 500–1000 m, secondary forest, among dry leaves on forest floor at night, 26.X–4.XI.2000, A. Gorochov, L. Anisyutkin (ZIN).

Paratypes. Six males, 9 females, same data as for holotype; 1 female, **Central Thailand**, Trat Prov., Chang I. in Siam Bay (=Gulf of Siam), low mountains with primary forest near sea, on stones near brook at night, 5–20.XI.2000, A. Gorochov, L. Anisyutkin (ZIN).

Description. Male (holotype). Colouration and structure of body very similar to those of nominotypical subspecies but with some small differences. General colouration darker, light brown with almost brown dorsal half of body: anterior part of head under eyes and antennae with three pairs of larger greyish brown marks (large medial areas



Figs 58–97. Diestramimini: **58–61**, *Megadiestramima* (*Leodiestramima*) *lecta* Gor.; **62–65**, *M.* (*L.*) *exculta* Gor.; **66–68**, *M.* (*Neodiestramima*) *orlovi orlovi* Gor.; **69**, **70**, *M.* (*N.*) *o. khmerica* **subsp. nov.**; **71–74**, *M.* (*N.*) *o. lata* **subsp. nov.**; **75–79**, *M.* (*N.*) *brevispina* **sp. nov.**; **80**, **81**, *Mimadiestra biloba* Stor. et Dawwrueng; **82**, **83**, *M. sirindhornae* Dawwrueng et al.; **84**, **85**, *M. gracila* Zhu et al.; **86**, **87**, *M. dicha* Zhu et al.; **88–90**, *Diestramima propria* Gor. et Stor.; **91–93**, *D. p. apicalis* **subsp. nov.**; **94**, *D. austrosinensis* Gor.; **95–97**, *Adiestramima originalis* **sp. nov.** Male abdominal apex without both ventral part and most part of cerci from more or less above (58, 62, 66, 75, 80, 88, 95) and from side (59, 63, 67, 72, 76, 81, 83, 89, 94, 97); posteroventral edge (60, 64) and apical part (90, 92) of posteromedian process of seventh abdominal tergite in male from behind; this process from above (69, 71); female genital plate from below (61, 65, 70, 73, 78, 93) and from side (77); rostral tubercle with lateral ocellus from side (68, 74, 79); median part of abdominal apex (82, 96) and of seventh abdominal tergite (84, 86, 91) in male from more or less above (82, 84, 86, 91) and from more or less behind (96); male paraproct without base from side (85, 87). [58, 59, 61–63, 65–67, 88–90, 94, after Gorochov (1994, 1998) and Gorochov & Storozhenko (2015), modified; 80, 81, after Storozhenko & Dawwrueng (2014), modified; 84–87, after photographs of Zhu et al. (2018), modified.]

reaching lateral parts of clypeus and having light spot near each antennal cavity, oblique stripe on each gena not interrupted near eye, and small spot between these marks); head dorsum and tergites brown with poorly distinct small lightish marks; legs with greyish brown apical portions of femora and darkish marks on rest parts of femora and on tibiae (in *M. o. orlovi*, latter darkish marks developed only on hind legs). Lateral ocelli very large, their diameter almost twice as great as in nominotypical subspecies (for comparison see Figs 68 and 74); hind femur with 11 inner ventral denticles (except for a pair of apical ones); armament formula of tibiae and hind basitarsus more or less similar to that of this subspecies [dea, v~2, v~2, v3a / d2a, v~2, v~2, v3a / d91e-92i (d84e-95i), 2sa, 6a / d1c, dac]; inner dorsal spur of hind tibia almost reaching apex of dac (in *M. o. orlovi*, this spur somewhat not reaching it); posteromedian process (spine) of seventh abdominal tergite similar to that of nominotypical subspecies in length and in shape of apical part (narrowly rounded, almost acute), but this process having wider proximal part (Fig. 71); paraprocts somewhat shorter than in *M.* (*N.*) *o. orlovi*, approximately 1.5 times as long as posteromedian process of seventh abdominal tergite (Fig. 72); genitalia practically indistinguishable from those of this subspecies.

Variations. Sometimes apical portions of femora dark brown, and distal half of hind femur almost completely greyish brown with narrow lightish ring separating darker (apical) portion. Armament of legs also very slightly variable.

Female. Body very similar to that of males in colouration and structure of body, but sixth abdominal tergite with very short posteromedian lobe (this lobe in male moderately short), seventh abdominal tergite also with distinctly shorter but spine-like posteromedian process having apex narrowly rounded or truncate, and paraprocts more similar to those of previously decribed females of *Megadiestramima* s. str. Genital plate with apical part rather widely and roundly truncate but with shallow or small posteromedian notch (this notch varied from angular to almost rounded; Fig. 73); ovipositor rather similar to that shown in Fig. 50.

Length in mm. Body: male 24–29, female 25–27; pronotum: male 7.5–8.5, female 8–9.5; fore femur: male 20–22, female 19–23; hind femur: male 35–38, female 36–42; hind tibia: male 40–44, female 41–47; hind basitarsus: male 7.3–8, female 7.5–8.5; ovipositor 19–24.

Comparison. Differences of this subspecies from nominotypical one are given in the key above.

Etymology. This subspecies name is the Latin word "lata" (wide) given in connection with the characteristic shape of the posteromedian process of seventh abdominal tergite in male.

Megadiestramima (*Neodiestramima*) *orlovi khmerica* subsp. nov.

(Figs 69, 70)

Holotype. Male, **Cambodia**, southern part of Elefan Mts, Phnom-Bokor Mt, Bokor National Park, 700–1000 m, on small road in primary forest, at night, 15–17.IX.2003, A. Gorochov, L. Anisyutkin (ZIN).

Paratypes. One male, 2 females, same data as for holotype (ZIN); 5 males, 1 female, same data but 18–22.IX.2003, A. Gorochov, M. Berezin (ZIN); 1 male, 1 female, same country, but northern part of Elefan Mts, Kiri-Rom National Park in 130 km NNE of Sihanoukville Town, 300–500 m, secondary forest, on forest floor at night, 27.IX–1.X.2003, A. Gorochov, M. Berezin (ZIN); 1 female, same park (Kiri-Rom) in 150 km NNE of Sihanoukville Town, 600–800 m, secondary forest, 7–10.X.2003, A. Gorochov, M. Berezin (ZIN).

Description. Male (holotype). General appearance (including structure of body) as in *M.* (*N.*) *o. lata* but with some differences: colouration lighter (generally light brown, almost as in *M. o. orlovi*) and with a few small brown marks on anterior and dorsal parts of epicranium, barely darkened pronotum and most part of mesonotum, a few small brown spots on other tergites along their posterior edges (but 7–10th abdominal tergites more uniform), and almost completely light fore and middle legs as well as hind tibia and tarsus (but apical parts of all femora darkened almost as in both previous subspecies); posteromedian process of seventh abdominal tergite with narrower proximal part (almost as in *M. o. orlovi*) and small apical notch (Fig. 69); ratio of lengths of this process and paraproct similar to that of *M.* (*N.*) *o. lata*.

Variations. Colouration slightly variable: sometimes almost without darkened marks on head, tergites and most part of hind femur. Posteromedian spine of seventh abdominal tergite with apex often truncate but sometimes even rounded.

Female. Colouration and structure of body as in males; however, structure of abdominal apex (including ovipositor) as in *M.* (*N.*) *o. lata* with differences only in shape of apex of posteromedian spine of seventh abdominal tergite which usually notched (but sometimes truncate), and in shape of genital plate having distinctly narrower apical part (see Figs 70 and 73).

Length in mm. Body: male 22–26, female 24–28; pronotum: male 7.5–8, female 8–8.7; fore femur: male 18–21, female 18–20; hind femur: male 33–38, female 34–37; hind tibia: male 37–42, female 38–43; hind basitarsus: male 6.5–7.2, female 6.3–7; ovipositor 19–21.

Comparison. Differences of this subspecies from two other ones are also given in the key above.

Etymology. This species is named after the Khmer people, the main nationality of Cambodia.

Megadiestramima (*Neodiestramima*) *brevispina* sp. nov.

(Figs 57, 75–79)

Holotype. Male, **Southern Vietnam**, Dong Nai Prov., Vinh Cuu Distr., Hieu Liem Area, Chien Khu D Forest Station, 11°15'53''N, 106°59'16''E, 85 m, forest, 28.XI.2010, L. Anisyutkin, A. Anichkin, A. Abramov, S. Kruskop (ZIN).

Paratypes. One male, same data as for holotype (ZIN); 1 male, same province and district, Vinh Cuu Nature Reserve (= Ma Da Forest) in 6 km N of Ba Hao Vill., 11°18'34''N, 107°04'43''E, 80 m, forest, 21–27. XI.2010, L. Anisyutkin, A. Anichkin (ZIN); 1 male, 1 female, same nature reserve, but TW Cuc Forest Station, 11°22'51''N, 107°03'44''E, 75 m, forest, 21–29. XI.2010, L. Anisyutkin, A. Anichkin, A. Abramov, S. Kruskop (ZIN); 1 male, same province, Cat Tien [= Nam Cat Tien] National Park, forest, XII.2002, A. Abramov (ZIN); 1 female, same data, but 15–20. XI.2010, L. Anisyutkin, A. Anichkin (ZIN); 1 female, same country, Lam Dong Prov., environs of Long Lanh, Bi Doup – Nui Ba Natural Reserve, 12°10'N, 108°40'E, 1400–1900 m, 1–22.IV.2008, D. Fedorenko (ZIN).

Description. Male (holotype). General appearance similar to that of *M.* (*N.*) *orlovi*. Colouration light brown with four pairs of brown spots on head (large area under eye reaching lateral part of clypeus, oblique stripe on gena under eye, spot behind eye, and slight stripe along dorsal edge of eye) and one brown median spot under rostral tubercles, a pair of small darkish marks located near each other along anterior edge of pronotum, a pair of similar marks but widely separated from each other along posterior edges of six anterior tergites (more posterior tergites almost uniform), brown apical parts of all femora, and reddish brown antennal flagellum. Lateral ocelli more or less intermediate in size between those of *M.* (*N.*) *o. orlovi* and *M.* (*N.*) *o. lata* (Fig. 79); hind femur with ten inner ventral denticles and a pair of apical ones; armament formula of tibiae and hind basitarsus similar to that of previous species of *Neodiestramima* [d2a, v2, v~2, v3a / d2a (dia), v~2, v~2, v3a / d126e-123i (d122e-125i), d2sa, 6a / d1c (d0c), dac]; inner dorsal spur of hind tibia slightly not reaching apex of dac; sixth abdominal tergite without posteromedian lobe; seventh abdominal tergite with short spine-like posteromedian process which looking as small angular projection (such process in *M. orlovi* almost twice as long as this process; for comparison see Figs 66, 69, 71 and 75); paraproct long (almost as in *M. o. orlovi* in length) but slightly narrower and with apical spinule directed more backwards (paraproct approximately 3.5 times as long as posteromedian process of seventh abdominal tergite; Fig. 76); genitalia with somewhat longer lateral membranous lobes and slightly shorter dorsomedian lobe (Fig. 57).

Variations. Colouration sometimes without distinct marks on tergites or with darkish spots on dorsal surface of hind femur. Armament of legs and size of lateral ocelli slightly variable: some specimens with these ocelli intermediate in size between those pictured in Figs 74 and 79.

Female. Colouration and structure of body as in males. However: one female with more numerous darkened marks along posterior edges of tergites, darker (almost greyish brown) spots on dorsal surface of hind femur and sparse darkish marks on light parts of legs; all females with abdominal apex almost as in *M.* (*N.*) *orlovi*, but apex of spine-like process of their seventh abdominal tergite narrowly rounded, angular or slightly notched, as well as genital plate with apical part clearly narrower and from barely notched (practically truncate; Figs 77, 78) to distinctly rounded [in female from Lam Dong Prov. (nearest to Dong Nai Prov.), this plate with somewhat wider apex (almost as in Fig. 70), but its lateral edges convex as in Fig. 78].

Comparison. This species differs from the nearest one in the posteromedian process of seventh abdominal tergite of male clearly shorter (see also the key above).

Etymology. The species name consists of the Latin words "brevis" (short) and "spina" (spine), because male of this species has the posteromedian process (spine) of seventh abdominal tergite short.

Genus ***Mimadiestra*** Storozhenko et Dawwrueng, 2014

Type species: *Mimadiestra biloba* Storozhenko et Dawwrueng, 2014, by original designation.

Note. This genus is characterized by the following features: body is medium-sized; seventh abdominal tergite of male has a pair of posterodorsal spines or angular projections (Figs 80, 82, 84, 86); this tergite in female has a pair of posterodorsal tubercles significantly shorter than these spines; paraproct is elongate (stick-like or bifurcate; Figs 81, 83, 85, 87) in male and usual (but having apical tubercle) in female; male genitalia are completely membranous and having six lobes (Figs 117, 146); ovipositor is normal but having its apical part weakly denticulated.

The genus includes four species: type species (Thailand); *M. sirindhornae* Dawwrueng, Storozhenko et Artchawakom, 2016 (Thailand and Cambodia); *M. gracila* Zhu, Wu et Shi, 2018 (South China); *M. dicha* Zhu, Wu et Shi, 2018 (South China). A key to these species are given below.

1. Male: seventh abdominal tergite with a pair of elongate posterior spines located rather far from each other (Figs 82, 86); paraprocts diverse (Figs 83, 87). Female: ovipositor without any dorsal notch near apex, or female unknown 2
– Male: seventh abdominal tergite with a pair of elongate posterior spines located near each other (Fig. 80), or with a pair of rather short triangular posterior projections (Fig. 84); paraprocts more or less stick-like (not bifurcate; Figs 80, 81, 85). Female: ovipositor with shallow dorsal notch near apex, or female unknown 3
2. Male: seventh abdominal tergite without small posteromedian tubercle between posterior spines (Fig. 82); paraproct stick-like (not bifurcate; Figs 82, 83). Female: ovipositor without any dorsal notch near apex. . . . . ***M. sirindhornae***
– Male: seventh abdominal tergite with small posteromedian tubercle between posterior spines (Fig. 86); paraproct with rounded dorsoproximal lobe and bifurcate distal part (dorsal branch spine-like and distinctly longer than tooth-like ventral branch; Fig. 87). Female unknown . . . . . ***M. dicha***
3. Male: seventh abdominal tergite with a pair of elongate posterior spines located near each other (Fig. 80); paraproct stick-like and with somewhat bulbose apex (Figs 80, 81). Female unknown . . . . . ***M. biloba***
– Male: seventh abdominal tergite posteriorly with a pair of short triangular projections (Fig. 84); paraproct also stick-like but with rather narrow apical part slightly curved upwards (Fig. 85). Female: ovipositor with shallow dorsal notch near apex . . . . . ***M. gracila***

Mimadiestra biloba Storozhenko et Dawwrueng, 2014 (Figs 80, 81, 117)

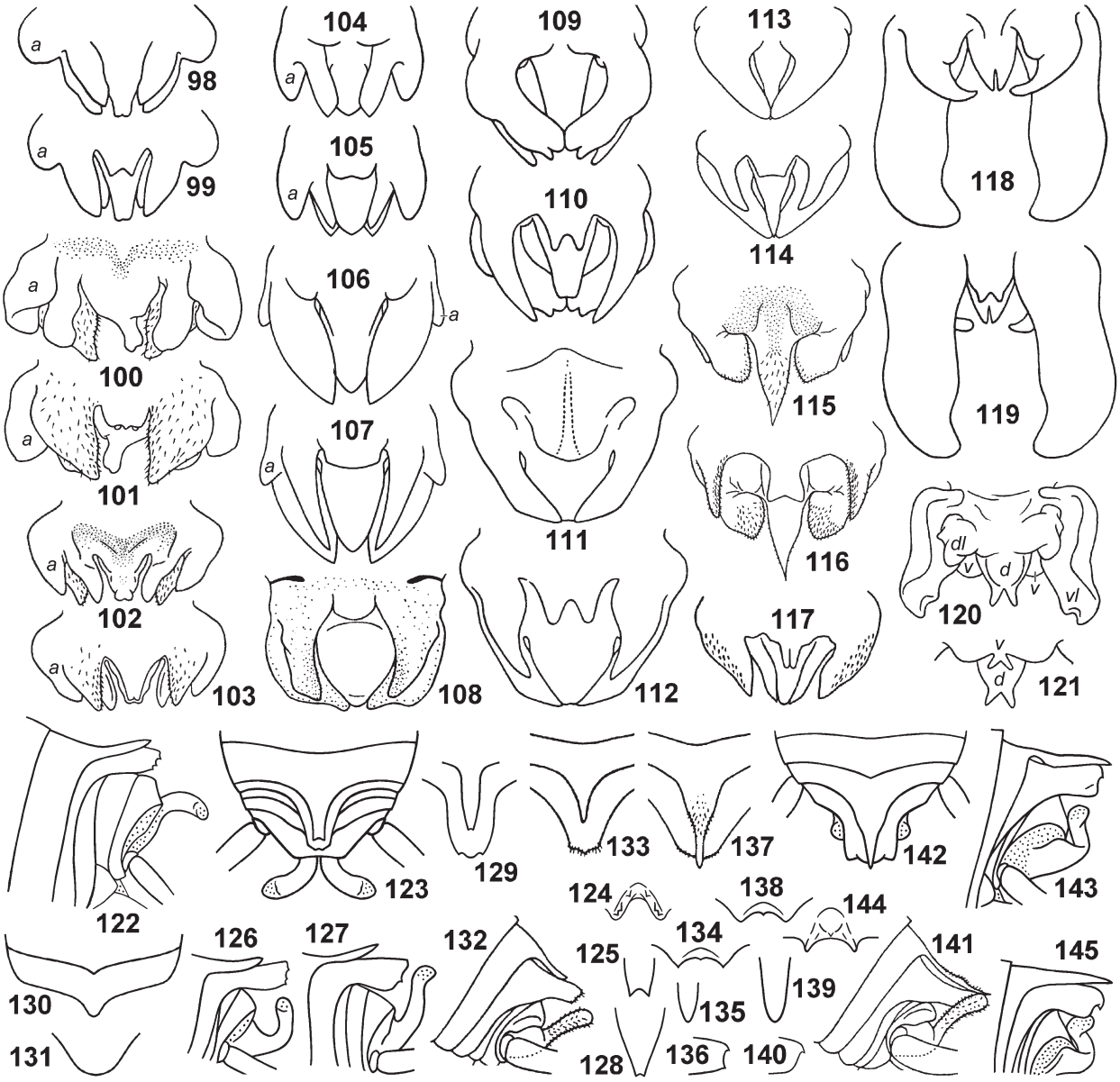
Material examined. **Central Thailand**: 1 male (holotype), Kamphaeng Phet Prov., Klong Lan Distr., 1200–1350 m, 5.X.2013, P. Pawangkhanant (KUB).

Note. This species was described from a single male but in detail (Storozhenko & Dawwrueng, 2014). It is characterized by the body moderately arcuate in profile, a pair of distinct posteromedian spines on the seventh abdominal tergite of male which diverge almost from one point and form a V-shaped fork directed backwards (Fig. 80), and moderately elongate (stick-like) male paraprocts having somewhat bulbose apex (Figs 80, 81); the male genitalia are as in Fig. 117.

Mimadiestra sirindhornae Dawwrueng, Storozhenko et Artchawakom, 2016 (Figs 82, 83, 146)

Material examined. **Central Thailand**: 1 male (holotype), 1 female (paratype), Nakhon Ratchasima Prov., Sakaerat Environmental Research Station, "alongside a main road", 350–450 m, 14.IX.2014, P. Dawwrueng (THNHM). **Cambodia**: 1 male, northern part of Elefan Mts, Kiri-Rom National Park in 130 km NNE of Sihanoukville Town, 300–500 m, secondary forest, on leaf of low bush at night, 27.IX–1.X.2003, A. Gorochov, M. Berezin (ZIN).

Note. This species was described without comparison of its male genitalia with those of the previous congener (Dawwrueng et al., 2016). It dif-



Figs 98–145. Diestramimini: **98–101**, *Diestramima* (*Baculitettix*) *major* Gor.; **102**, **103**, *D.* (*Diestramima*) *austrosinensis* Gor.; **104**, **105**, *Megadiestramima* (*Megadiestramima*) *vera* Gor.; **106**, **107**, *M.* (*M.*) *borealis* **sp. nov.**; **108**, *M.* (*M.*) *darevskyi* Gor; **109**, **110**, *M.* (*Leodiestramima*) *exculta* Gor.; **111**, **112**, *Gigantettix minusculus* Gor.; **113–116**, *Tamdaotettix* (*Tamdaotettix*) *dilutus* Gor.; **117**, *Mimadiestra biloba* Stor. et Dawwrueng; **118**, **119**, *Adiestramima* (*Adiestramima*) *multa* (Gor.); **120**, **121**, *A.* (*A.*) *originalis* **sp. nov.**; **122–131**, *T.* (*T.*) *ailaoshanicus* **sp. nov.**, holotype (122–124) and paratypes (125–131); **132–136**, *T.* (*T.*) *dilutus*; **137–141**, *T.* (*T.*) *pullus* Gor.; **142–145**, *T.* (*T.*) *minipullus* **sp. nov.**, holotype (142–144) and paratype (145). Male genitalia in protonymph (98, 99, 104, 105), imago (100–103, 108, 115–117, 120) and deutonymph (106, 107, 109–114, 118, 119) from above (98, 100, 102, 104, 106, 109, 111, 113, 115, 118, 120) and from below (99, 101, 103, 105, 107, 108, 110, 112, 114, 116, 117, 119), and their posteromedian part in imago from below (121); male abdominal apex without lower part from side (122, 126, 127, 132, 141, 143, 145) and from above (123, 142); posteromedian processes of sixth and seventh abdominal tergites in male (129, 133, 137) and female (130) from above; male, apex in first of these processes from above (125, 128, 135, 139) and in second of them from behind (124, 134, 138, 144) and from side (136, 140); female genital plate without base from below (131). Abbreviations: *a*, additional (paired) lateral lobe; *d*, dorsomedian (unpaired) lobe; *dl*, dorsolateral (paired) lobe; *v*, ventromedian (unpaired) lobe; *vl*, ventrolateral (paired) lobe. [98–103, 108–116, 118, 119, 132, 133, 137, 141, after Gorochov (1998), modified; 117, after Storozhenko & Dawwrueng (2014).]

fers from this congener (*M. biloba*) in the anterior half of body strongly arcuate in profile, a pair of spines on the seventh abdominal tergite of male more widely separated from each other (Fig. 82), and male paraproct longer and not bulbose at the apex (Figs 82, 83); the male genitalia are very similar to those of *M. biloba* (Fig. 146). The male from Cambodia is somewhat lighter than the above-listed specimens from Thailand; here, this species is recorded from Cambodia for the first time.

Genus ***Diestramima*** Storozhenko, 1990

Type species: *Diestrammena palpata* Rehn, 1906, by original designation.

Note. The genus was considered in the first communication of this article where the key to its species and subspecies was also published (Gorochov & Storozhenko, 2015). Later, two additional papers with descriptions of new representatives of this genus appeared (Qin et al., 2016; Zhu & Shi, 2018). From the both genera previously discussed in this communication (*Megadiestramima* and *Mimadiestra*), *Diestramima* differs in the presence of only posteromedian process of seventh abdominal tergite in male which is significantly longer, completely covering paraprocts and their processes (*vs.* there are a pair of posterior spines or projections on this tergite, or the above-mentioned posteromedian process is distinctly shorter than paraprocts and almost not covering them or covering the paraproctal bases only; for comparison see Figs 1, 2, 6, 7, 11, 12, 15, 16, 21, 22, 25, 26, 29, 30, 34, 35, 58, 59, 62, 63, 66, 67, 72, 75, 76, 80–83 and 88, 89, 94), as well as in the male genitalia having additional lateral membranous lobes distinct also in proto- and deutonymphs (Figs 98–103) [probably, it is a unique character for imago of this genus (compare with Figs 111–120), but in *Megadiestramima*, protonymphs may be with similar additional lobes (Figs 104, 105) which are partly or strongly reduced in older nymphs (Figs 106, 107, 109, 110) and indistinct in imago (Fig. 108)]. Here, the genus *Diestramima* is divided into three subgenera which are in partial accordance to the first and second groups of this genus established by Gorochov (1998): *Diestramima* s. str.; *Baculitettix* **subgen. nov.**; *Excisotettix* **subgen. nov.** However, some species of this genus described by Gorochov & Storozhenko (2015), Qin et al. (2016), Zhu & Shi (2018) and listed in OSF are here not included in any subgenera, because these species are in need of an additional study. Differences between these three subgenera are given below, in the subgeneric key of *Diestramima* s. l.

1. Male: paraproct stick-like (i.e. rather long and thin) but with slightly or moderately higher proximal part (Figs 88, 89). Female: distal part of genital plate from roundly truncate to almost angular, or with small posteromedian notch (Fig. 93). . . . . .***Baculitettix* subgen. nov.**
[Type species: *Diestramima major* Gorochov, 1998. Etymology: this subgeneric name consists of the Latin word "baculum" (stick) and generic name *Tamdaotettix*. Other species included: *Diestrammena cryptopygia* Chopard, 1918; *D. tsongkhapa* Würmli, 1973; *Diestramima minor* Gorochov, 1998; *D. propria* Gorochov et Storozhenko, 2015; *D. beybienkoi* Qin, Wang, Liu et Li, 2016; *D. tibetensis* Qin, Wang, Liu et Li, 2016; *D. subtilis* Zhu et Shi, 2018; possibly *D. distincta* Gorochov, 2010, *D. triangulata* Qin, Wang, Liu et Li, 2016 and *D. cycla* Zhu et Shi, 2018]

– Male: paraproct rather short and usually high (plate-like), with distal part truncate (Fig. 94), angular or having hooks and/or teeth (spinules); or paraproct moderately short, almost S-shaped in profile, with proximal and distal parts more or less equal to each other in height, and with angular or almost spinose apex. Female: genital plate diverse. 2

2. Male: paraproct rather short and usually high (plate-like), with distal part truncate (Fig. 94), angular or having hooks and/or teeth (spinules). Female: genital plate almost as in *Baculitettix* (see thesis 1). . . . . ***Diestramima*** s. str.
[Included species: type species; *Diestramima vietnamensis* Gorochov, 1998; *D. austrosinensis* Gorochov, 1998; *D. hainanensis* Gorochov et Storozhenko, 2015; *D. bispinosa* Gorochov et Storozhenko, 2015; *D. hamata* Gorochov et Storozhenko, 2015; *D. excavata* Qin, Wang, Liu et Li, 2016]

– Male: paraproct moderately short, almost S-shaped in profile, with proximal and distal parts more or less equal to each other in height, and with angular or almost spinose apex. Female: genital plate with rather large posteromedian notch and angular projections around this notch . . . . . .***Excisotettix* subgen. nov.**
[Type species: *Diestramima intermedia* Liu et Zhang, 2001. Etymology: this subgeneric name consists of the Latin word "excisus" (with notch) and generic name *Tamdaotettix*. Other included species:

D. subrectis Qin, Wang, Liu et Li, 2016; *D. guangxiensis* Qin, Wang, Liu et Li, 2016; *D. acutiapicis* Zhu et Shi, 2018; possibly *D. bina* Zhu et Shi, 2018]

Diestramima (*Baculitettix*) *propria apicalis* subsp. nov.
(Figs 91–93)

Holotype. Male, **Northern Laos**, Luong Nam Tha Prov., Nam Thua Distr., Nam Kong Vill., 600 m, X.2017, N. Orlov, L. Ioganssen (ZIN).

Paratypes. Two females, same data as for holotype (ZIN).

Description. Male (holotype). General appearance similar to that of nominotypical subspecies (Gorochov & Storozhenko, 2015), but body somewhat larger. Colouration greyish brown with almost light greyish brown head having dark brown dorsum and a few darkish marks on rest part (a pair of vertical stripes on epicranium under antennal cavities, two vertical stripes on each gena under eye, lateral areas on clypeus), greyish brown tergites having almost dark brown dorsal part of pronotum and light brown lateral parts of all tergites as well as a few small dark brown marks along posterior edges of these tergites (except for pronotum), and rest of body light greyish brown but with following marks: apical portions of all femora dark brown; hind femur additionally with greyish brown dorsolateral longitudinal area, located on second third of this femur, and with small darkish marks along its ventral outer keel; proximal half of tibia slightly darkened in fore and middle legs but dorsally spotted in hind leg (i.e. with darkened marks between spines); spines of hind tibia also darkened; apex of posteromedian process of seventh abdominal tergite with small light dorsomedian triangle. Rostral tubercles well developed, rather large, with rounded apices and very narrow, deep and long fissure between them; lateral ocelli moderately large (almost intermediate between those pictured in Figs 68 and 79); hind femur with 15–16 ventral inner spinules (except for a pair of small apical denticles); armament of tibiae and tarsi distinguished from that of holotype of *D.* (*B.*) *p. propria* Gorochov et Storozhenko, 2015 mainly by six dorsal denticles on hind basitarsus; abdominal apex (including genitalia) very similar to that of nominotypical subspecies, but posteromedian process of seventh abdominal tergite with somewhat widened apical part having lateral lobules directed more aside (in nominotypical subspecies, this apical part practically not widened, and these lobules directed downwards; for comparison see Figs 88, 90 and 91, 92).

Female. Colouration and structure of body similar to those of male, but mandibles with lateral darkenings, tergites and legs also slightly darker (with pterothorax and anterior half of abdomen dorsally almost dark brown, and with legs having somewhat more numerous darkish spots), armament of legs insignificantly varied, seventh abdominal tergite with angular posteromedian tubercle, and paraproct rather simple (i.e. not large, almost triangular and with apical tubercle). Genital plate elongately triangular, with rather narrow apex having small (but not shallow) rounded notch and convex lateral edges of most part of this plate (its basal part with rather small lateral lobules separated from main body of this plate by folds; Fig. 93); ovipositor more or less as in *Megadiestramima* s. l. but rather long (hind femur approximately 1.5 times as long as ovipositor).

Length in mm. Body: male 32, female 32–34; pronotum: male 9.5, female 9.5–10; fore femur: male 22, female 21–23; hind femur: male 38, female 39–42; hind tibia: male 42, female 43–45; hind basitarsus: male 7.5, female 7.5–8; ovipositor 25–27.

Comparison. The new subspecies differs from *D.* (*B.*) *p. propria* mainly in the characters of seventh abdominal tergite of male listed above (in its description). The both subspecies of this species are known from only their type localities situated in different provinces of Northern Laos: Luong Nam Tha and Xieng Khouang. These provinces are located rather far from each other.

Genus **Adiestramima** Gorochov, 1998

Type species: *Diestramima multa* Gorochov, 1994, by original designation.

Note. This genus was also considered in the first communication of this article with the key to its species and subspecies (Gorochov & Storozhenko, 2015). From all the other genera of Diestramimini, *Adiestramima* differs in the following unique character: its male genitalia have six membranous lobes (as in the other genera of Diestramimini, except for *Diestramima* s. l. and

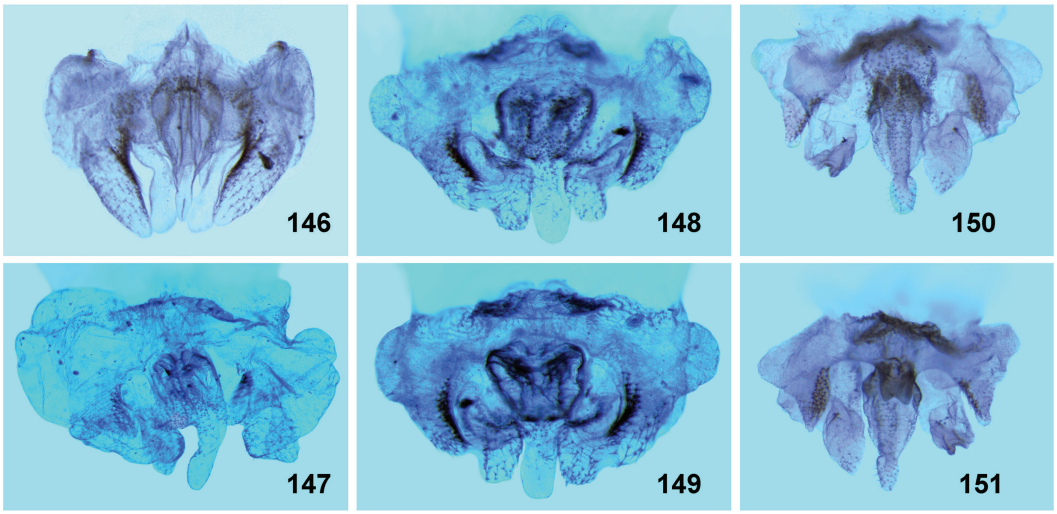
some nymphs of *Megadiestramima* s. l.), but their ventrolateral lobes are very long (much longer than the other lobes; Fig. 120). The latter character is also distinct in old nymphs of this genus (Figs 118, 119). There are some additional characters allowing us to give more or less clear generic determination for females of *Adiestramima*: the rostral tubercles are usually more acute (angular) than in related genera and directed almost forwards (not forwards/downwards); pronotum has the dorsal edge almost straight or slightly concave in profile; female paraproct has spine-like to tubercle-like apical process (projection). The shape of paraprocts and of posteromedian process of seventh abdominal tergite in male is rather diverse and allow us to divide this genus into three subgenera: *Adiestramima* s. str.; *Hamatotettix* **subgen. nov.**; *Ulterotettix* **subgen. nov.** (see key to subgenera below).

1. Male: posteromedian process of seventh abdominal tergite distinctly bifurcate at apex and with distal part directed more or less backwards (Figs 95, 97); paraproct plate-like with apical hook directed upwards (Fig. 96, 97). Female: paraproct with long spine-like process at apex .... ***Adiestramima*** s. str. [Included species: type species; *Diestramima proxima* Gorochov, 1994; *A.* (*A.*) *originalis* **sp. nov.**]
– Male: posteromedian process of seventh abdominal tergite not bifurcate or almost not bifurcate at apex, and with distal part more or less truncate or strongly curved downwards (sometimes downwards/forwards); paraproct diverse in shape. Female: parapoct also rather diverse in shape 2
2. Male: each ventrolateral part of ninth abdominal tergite with distinct posterior hook; paraproct rather complicate in shape but not plate-like and with distal part slightly curved upwards. Female: paraproct with long to short spine-like apical process................. ***Hamatotettix*** **subgen. nov.** [Type species: *Adiestramima adunca* Gorochov et Storozhenko, 2015. Etymology: from the Latin word "hamatus" (hooked, with hook) and generic name *Tamdaotettix*. Other included species: *A. bella* Gorochov et Storozhenko, 2015; *A. elongata* Gorochov et Storozhenko, 2015; possibly *A. bicolor* Gorochov, 2002]
– Male: ventrolateral parts of ninth abdominal tergite without hooks; paraproct plate-like with apical part obtusely angular or having straight finger-like projection. Female: paraproct with tubercle-like projection or possibly without it.................. .... ***Ulterotettix*** **subgen. nov.** [Type species: *Adiestramima perfecta* Gorochov, 2002. Etymology: from the Latin word "ulterior" (opposite, very distant) and generic name *Tamdaotettix*. Other included species: *Diestramima modesta* Gorochov, 1992; possibly *D. citrea* Gorochov, 1992]

***Adiestramima* (*Adiestramima*) *originalis* sp. nov.**
(Figs 95–97, 120, 121)

Holotype. Male, **Southern Laos**, Champasak Prov., Bolaven Plateau, 14 km SE of Muang Paxong, Ban Houayteuay, 1200 m, 15°4.655'N, 106°16.848'E, traps, 6.XII.2007–6.V.2008, S. Tarasov (ZIN).

Description. Male (holotype). Body moderately small for this genus. Colouration light brown (almost yellowish) with four brown longitudinal bands on head dorsum (medial bands reaching rostral apices; lateral bands fused with more or less darkened lateral areas behind eyes, but these areas separated from eyes by yellowish stripe along posterior edge of each eye), four somewhat lighter (brownish grey) vertical stripes under eyes and antennal cavities (latter stripes reaching lateral parts of clypeus), reddish brown proximal part of antennal flagellum and small dorsal spot on scape, darkish (barely visible) areas on lateral parts of six anterior tergites, and brown to brownish grey spots on fore and middle femora, tibiae and tarsi (hind legs missing). Rostral tubercles moderately short, directed mainly forwards and with almost angular apices; lateral ocellus large, its length slightly greater than distance between it and rostral apex; pronotum with dorsal edge slightly concave in anterior half and slightly convex in posterior half; armament formula of fore and middle tibiae characteristic [d2a, v2, v2, v3a / d2a, (v2), v2, v3a]; abdominal tergites simple, but seventh one with moderately long and not narrow posteromedian process having subapical narrowing, a pair of apical lobules (these lobules almost spine-like but with rounded apices) and one ventrosubapical semiglobular inflation (Figs 95–97); paraproct short, with short and strong hook directed upwards, and with ventrolateral (posterolateral) keel-like ridge running from this hook to almost base of cercus (Fig 96, 97); genitalia with dorsomedian lobe moderately large (long) and having large dorsal inflation and a pair of small apical lobules, with ventromedian lobe wide and



Figs 146–151. Diestramimini: 146, *Mimadiestra sirindhornae* Dawwrueng et al.; **147–149**, *Tamdaotettix* (*Tamdaotettix*) *ailaoshanicus* **sp. nov.**, holotype (147) and paratype (148, 149); **150**, **151**, *T.* (*T.*) *minipullus* **sp. nov.** Male genitalia from above (146–148, 150) and from below (149, 151).

short but somewhat concave posteriorly and having posteromedian fork-like lobule, with a pair of short dorsolateral lobes, and with a pair of very large ventrolateral lobes which clearly longer than all other lobes (Figs 120, 121).

Female unknown.

Length in mm. Body 14.5; pronotum 4; fore femur 13.2.

Comparison. The new species is distinguished from similar *A.* (*A.*) *multa* and *A.* (*A.*) *proxima* by the posteromedian process of seventh abdominal tergite of male somewhat narrower before its apical part and with the apical lobules thinner, this process also with a semiglobular subapical inflation on the ventral surface, and male paraproct distinctly lower and with the apical hook acute. From *A.* (*H.?*) *bicolor* and *A.* (*U.?*) *citrea* with unknown males, the new species differs in the body significantly smaller or in the colouration distinctly less variegate, respectively.

Etymology. This species name is the Latin word "originalis" (original), because this species has a peculiar structure of the male abdominal apex.

Genus ***Tamdaotettix*** Gorochov, 1998

Type species: *Tamdaotettix dilutus* Gorochov, 1998, by original designation.

Notes. The genus was discussed in the previous communication (Gorochov & Storozhenko, 2015). It was divided into two subgenera: *Tamdaotettix* s. str. and *Laotettix* Gorochov et Storozhenko, 2015. The key to species and subgenera of *Tamdaotettix* s. l. was also given in the above-mentioned paper. Here, two new species of this genus are described only.

***Tamdaotettix* (*Tamdaotettix*) *ailaoshanicus* sp. nov.**

(Figs 122–131, 147–149)

Holotype. Male, **Southern China**, Yunnan Prov., Ailaoshan Mountain Range, W of Shuitangzhen Town, "24 08 31 N / 101 23 52 E", 2555 m, 4.VI.2011, I. Belousov, I. Kabak, N. Korolev (ZIN).

Paratypes. One male, 2 females, same data as for holotype (ZIN); 1 male, same province, but SSE of Shuangjiang Town, "23 25 01 N / 99 57 01 E" and "23 25 10 N / 99 57 24 E", 2425–2570 m, 20.VI.2011, I. Belousov, I. Kabak, N. Korolev (ZIN).

Description. Male (holotype). Body typical of *Tamdaotettix* s. str. but rather small. Colouration moderately spotted: head light brown with six brown spots on dorsum (lateral spots occupying also upper parts of lateral surfaces of head behind eyes); thoracic tergites brown with light brown lower parts, characteristic yellowish dots and stripes along lateral edges of dorsum and several yellowish dots between them; thoracic pleurites, legs and abdominal tergites almost uniformly light greyish brown but with distal two thirds of hind femur and processes of sixth and seventh

abdominal tergites darker (almost brown), with poorly distinct darkish or lightish spots on distal parts of all femora and on fore and middle tibiae, and with barely distinct small darkish marks on tergites; other parts of body (including cerci, paraprocts and genital plate) almost yellowish. Body distinctly horseshoe-shaped in profile; head with rostral tubercles finger-like, contacting with each other from bases to apices, and directed more downwards than forwards; thoracic tergites shiny (except for their lower parts), but all abdominal tergites matt (not shiny); pronotum with convex dorsal edge in profile; femora practically unarmed, i.e. with apical spurs on fore and middle legs typical of Aemodogryllinae, and with one very small inner apical denticle on hind femur only; armament of tibiae and hind basitarsus characteristic [dea, v2, v~2, v3a (v2a) / d2a, ve, v2, v3a / d56e-58i (d59e-63i), d2sa, 6a / d1c, dac]; dorsal inner spur of hind tibia reaching apex of dac; sixth and seventh abdominal tergites with rather long posteromedian processes (first of these processes thin, spine-like and with a pair of angular denticles at apex; second of them significantly wider, with apex V-shaped (reversed) from behind and having three pairs of very small denticles, and somewhat protruding beyond apex of previous process; Figs 122–124); paraproctal processes finger-like, moderately short and arcuately curved aside (Figs 122, 123); genitalia with membranous lobes rather long (except for ventromedian one), and with dorsomedian lobe having oval apical part (Fig. 147).

Variations. Other male from same locality with only insignificant differences in armament of legs and in shape of processes of sixth and seventh abdominal tergites (Figs 125, 126); apparent differences in shape of paraproctal processes probably only result of movability of paraprocts (see Figs 122 and 126). However, male from another locality distinguished by slightly longer process of seventh abdominal tergite having a pair of distinct apical denticles only, by narrower apex of process of sixth abdominal tergite, and by somewhat less arcuate shape of paraproctal processes (Figs 127–129); but it similar to holotype in shape of male genital lobes (Figs 148, 149).

Female. General appearance as in males, but processes of sixth and seventh abdominal tergites clearly shorter and not spine-like (Fig. 130), and paraprocts simple (without processes); genital plate widely rounded in distal part (Fig. 131); ovipositor moderately long and thin, with distal part in profile gradually narrowing to narrowly acute apex, and without distinct denticles.

Length in mm. Body: male 12–14, female 12–13; pronotum: male 4–4.8, female 4.2–4.4; fore femur: male 6–6.5, female 5.8–6; hind femur: male 13.8–15.5, female 13.6–14; hind tibia: male 14–16, female 13.8–14.2; hind basitarsus: male 2.7–2.9, female 2.5–2.7; ovipositor 8.5–9.

Comparison. The new species is most similar to *T.* (*T.*) *dilutus* Gor. in the shape of male abdominal apex, but its body is significantly smaller and with only thoracic tergites shiny (in *T. dilutus*, four anterior tergites shiny), process of sixth abdominal tergite in male has a pair of apical denticles (no such denticles in *T. dilutus*; Figs 133, 135), process of seventh abdominal tergite in male is with the apex more V-shaped (less transverse) from behind (see Figs 124 and 134) and having paired (from two to six) apical denticles (*vs.* having three apical denticles; Figs 134, 136), and male genitalia are with oval apex of dorsomedian lobe (*vs.* with narrowly angular apex of this lobe; Figs 115, 116).

Etymology. The new species is named after the Ailaoshan Mountain Range.

Tamdaotettix (*Tamdaotettix*) *minipullus* sp. nov.

(Figs 142–145, 150, 151)

Holotype. Male, **Northern Vietnam**, Cao Bang Prov., Phia Oac – Phia Den National Park, eastern slope of Phia Oac Mt, 40 km W of Cao Bang Town, 22°36'27''N, 105°52'00''E, 1600–1800 m, 22.V–6.VI.2018, L. Anisyutkin, A. Abramov (ZIN).

Paratypes. One male, 11 nymphs (4 males, 7 females), same data as for holotype (ZIN).

Description. Male (holotype). Body similar to that of *T.* (*T.*) *ailaoshanicus* but with following differences: colouration darker, greyish brown with dark brown tergites (four anterior tergites with lower parts greyish brown, and with yellowish marks on dorsum almost as in thoracic tergites of *T. ailaoshanicus*), almost dark brown two thirds of hind femur, and light brown tarsi and venter of body (except for brown genital plate) as well as spots on fore and middle femora and on all tibiae; rostral tubercles with more an-

gular apices; four anterior tergites shiny, but two posterior ones with matt lower parts; hind femur with 5–6 ventral inner spinules and with apical denticle as in *T.* (*T.*) *ailaoshanicus*; armament of tibiae and hind basitarsus characteristic [dea, v2, v2, v3a / d2a, ve, v~2, v3a / d53e-50i (d49e-54i), d2sa, 6a / d5c (d6c), dac]; sixth abdominal tergite with posteromedian process very long (somewhat protruding beyond apex of posteromedian process of seventh abdominal tergite), distally spine-like, lacking a pair of apical denticles, and with widening in proximal half (Figs 142, 143); seventh abdominal tergite with rather long and moderately wide posteromedian process having characteristic apex (this apex with one small median denticle and a pair of rounded ventral lobules as well as with rather high and almost semiglobular inflation located above this denticle; Figs 142–144); paraproctal process short, strongly and angularly curved upwards at base (Fig. 143); genitalia with dorsomedian lobe having also oval apical part which somewhat more separated from rest of this lobe (Figs 150, 151).

Variations. Second male with armament of legs and shape of tergal processes and paraprocts insignificantly different (Fig. 145).

Nymphs. Nymphs similar to imago in general appearance, but body slightly smaller, processes of tergites and paraprocts in male nymphs slightly shorter (process of sixth abdominal tergite reaching apex of process of seventh abdominal tergite but not projected behind it), these processes almost undeveloped in female nymphs, male genitalia with more or less angular apex of dorsomedian lobe, and female genital plate shorter than in adult female of *T.* (*T.*) *ailaoshanicus* and with widely truncate distal part.

Length in mm (male). Body 10.5–12; pronotum 4.5–5.1; fore femur 6.7–7.2; hind femur 14–15.5; hind tibia 15.2–17; hind basitarsus 3–3.4.

Comparison. The new species is most similar to *T.* (*T.*) *pullus* Gor. in the structure of male abdominal apex (especially in the shape and length of process of sixth abdominal tergite) (see Figs 137, 139–141 and 142, 143, 145), but it differs from the latter species in the body much smaller, apex of process of seventh abdominal tergite in male higher (less transverse) from behind (see Figs 138 and 144), male paraproct with shorter and strongly curved process (this process almost straight in *T. pullus*; see Figs 141 and 143, 145), and dorsomedian lobe of imaginal male genitalia with rounded (not angular) apex.

Etymology. The new species name consists of the Latin prefix "mini-" (small) and species name *T. pullus*, because the new species is very similar to the latter congener but having much smaller body.

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