# Contributions to the Fauna and Systematics of the Stenopelmatoidea (Orthoptera) of Indochina and Some Other Territories: VIII

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**Abstract**—Material on the Indo-Malayan Gryllacridinae (Stenopelmatinae) of the genera *Zalarnaca* Gor., *Dinolarnaca* gen. n., *Phryganogryllacris* Karny, *Neanias* Br.-W., and *Aancistroger* B.-Bien. is considered. A new genus, a new subgenus, 17 new species, and 2 new subspecies are described. Some insufficiently known taxa are redescribed. Systematic position of several species and subspecies is clarified.

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Communication VIII of the present study concerns some Stenopelmatoidea of the genera *Zalarnaca* Gor., *Dinolarnaca* gen. n., *Phryganogryllacris* Karny, *Neanias* Br.-W., and *Aancistroger* B.-Bien. (Stenopelmatidae, Gryllacridinae). The previous communications (Gorochov, 1998–2007) were dealt with other representatives of the same subfamily and the families Anostostomatidae (= *Mimnermidae*) and Rhaphidophoridae.

The study is based on examination of the material from the Zoological Institute, Russian Academy of Sciences, St. Petersburg (ZIN) and the Natural History Museum, London (NHM).

### FAMILY STENOPELMATIDAE.

Subfamily GRYLLACRIDINAE Genus **ZALARNACA** Gorochov, 2005

Type species Zalarnaca aculeata Gorochov, 2005 (Vietnam).

Examination of a new material from ZIN and the type material from NHM has shown that the genus *Zalarnaca* is widely distributed in southeastern Asia and consists of two species-groups sharply differing in habitus and, probably, in the mode of life. These groups deserve the subgeneric status. *Zalarnaca* comprises species with the following characteristic structure of the copulatory organ: male abdominal tergite IX with 1 pair of hook-shaped processes enclosing 1 pair of small approximate prominences in middle of tergite X; apices of these processes contacting or almost contacting (Figs. 1, 4, 7, 9, 10, 12, 20); genital

plates simple in both sexes, with more or less angular apical emargination in female; apex of female abdominal sternite VII with back-directed process or its traces (Figs. 2, 3, 5, 6).

Subgenus Glolarnaca Gorochov, subgen. n.

Type species Zalarnaca (Glolarnaca) ornatula sp. n.

**Description.** Body size small for the subfamily. Coloration rather variegated. Head wide, epicranium nearly hemispheric, width frons between antennal cavities great (2.1–2.3 times width of scape). Structure of thorax usual for the subfamily; legs rather short; in addition to 1 pair of apical spurs (longest one 0.5–0.8 mm), fore and middle tibiae bearing 4 pairs of rather short spines; hind femur very robust (2.7–3.1 times as long as wide), with numerous strong spines along outer lower margin and with sparser and smaller spines along inner one; hind tibia slightly arcuate, with sparse minute dorsal spines.

**Species included.** Type species, *Gryllacris globiceps* Karny, 1929 (Cambodia) (was later placed by Karny (1937) in the genus *Borneogryllacris* Karny), and *Z.* (*G.*) *pulcherrima* sp. n.

**Zalarnaca (Glolarnaca) ornatula** Gorochov, sp. n. (Figs. 1, 51, 52, 51–69)

Material. Vietnam, Gia Lai Prov.: 20 km N of Kannack Vill., near Buon Luoi Vill., 700–800 m, primary forest, at night, on a branch, 1–10.V.1995, 1 ♂ (holotype) (A. Gorochov) (ZIN); 40 km N of Kannack Vill.,

near Tram Vill., 800–900 m, primary forest, at night, on a branch, 20–24.IV.1995, 1  $\circlearrowleft$  (paratype) (A. Gorochov) (ZIN).

**Description.** Male (holotype). Body small, yellowish, with the following areas dark brown: spot of characteristic shape on upper part of head, 6 fine spots on face, 1 pair of slightly larger marks on upper part of clypeus, section of distal part of mandible, 4 fine spots and 1 pair of slightly larger spots on pronotal disc (Figs. 51, 52), distal halves of spines of hind femur and apices of spines of hind tibia; slightly paler: spots at apices of all femora, at bases of all tibiae, at apex of fore tibia, and on outer side of hind femur (latter spot in form of longitudinal stripe in lower half of femur, beginning near base and almost reaching distal darkening). Hind wings hyaline. Frons between antennal cavities 2.2 times as wide as scape. Hind femur 2.8 times as long as wide. Apices of hind wings reaching apices of stretched hind tibiae; elytral apices slightly not reaching apices of folded hind wings posteriorly. Abdominal tergite IX very convex, bearing relatively large hooks with apices directed upward and backward; abdominal tergite X with 1 pair of small, slightly approximate, rounded tubercles; genital plate with rather long and fine styli and with posterior margin not deeply emarginate between styli (Fig. 1).

Variations. In the paratype, some dark spots merged; 1 pair of additional, weak small darkened spots present at inner corners of antennal cavities; distinct darkened spot lying near middle of anterior margin of pronotum; elytra pale brownish gray.

### Female unknown.

Length (mm). Body 17.5–18.5, body with wings 23–34, pronotum 3.9–4.2, elytra 16–16.5, hind femora 7.8–8.0.

**Comparison.** The differences of *Z. ornatula* from *Z. globiceps* are listed in a below description of its new subspecies.

# **Zalarnaca (Glolarnaca) globiceps gialai** Gorochov, subsp. n. (Figs. 2, 3, 53, 54, 61)

Material. Vietnam, Gia Lai Prov., 20 km N of Kannack Vill., near Buon Luoi Vill., 700–800 m, primary forest, at night, on shrub leaf, 1–10.IV.1995, 1 ♀ (holotype) (A. Gorochov) (ZIN).

**Description. Female** (holotype). Body larger than that in the preceding species. Coloration (Figs. 53, 54) similar to that of *Z. ornatula*, except for following

details: upper part of head entire blackish, mandibles darker, face above mandibles only with 4 dark brown small spots and with 1 pair of obsolete small darkened areas above clypeus, pronotum almost entirely yellowish, antennae pale brown (nearly rufescent), darkened areas on legs smaller and paler, and elytra darker (brownish gray). From between antennal cavities 2.1 times wider than scape. Hind femur 3.1 times as long as wide. Apices of hind wings projecting slightly beyond apices of stretched hind tibiae, elytral apices not reaching apices of folded hind wings. Genital plate with 1 pair of large posterior lobes and 1 pair of small lobes at sides of large ones, abdominal sternite VII with small, nearly hook-shaped process at apex (Figs. 2, 3), ovipositor arcuate, i.e., rather sharply curved upward, with nearly pointed apex (Fig. 61).

#### Male unknown.

Length (mm). Body 20.5, body with wings 30, pronotum 4.3, elytra 22, hind femora 9.5, ovipositor 9.7.

**Comparison.** The new subspecies differs from the nominotypical one in the pale labrum and in the more strongly darkened and shorter elytra, and from *Z. ornatula*, in the distinctly larger body and in the details of coloration listed above.

# **Zalarnaca (Glolarnaca) pulcherrima** Gorochov, sp. n. (Figs. 4–6, 55, 56, 62)

**Material.** Vietnam, Hoa Binh Prov., Mai Chau Distr., Pa Co Vill., 20°45′N, 104°54′E, 1100 m, 19–21.IV.2002, 1 ♂ (holotype), 1 ♀ (paratype) (S. Belokobylskii) (ZIN).

Description. Male (holotype). Body size average for the subgenus. Coloration (Figs. 55, 56) very noticeable: head and pronotum yellowish, with 7 small blackish spots on upper part of head, 9 on face, and 8 on pronotal disc; labrum and spots on mandibles brown; minute brownish spot lying in middle of anterior margin of pronotum, black wide stripe running along its posterior margin; antennae brown, blackish in proximal part, and with yellowish upper, outer, and lower parts of scape and outer and lower parts of pedicel; legs blackish, with yellowish tarsi (except for brownish tarsal pulvilli), apices of hind femur and hind tibia (except for darker apical part, dorsal spots near base, and spines); elytra brown, with yellowish-whitish apical area; abdomen blackish, with pale brown proximal sternites, cerci, and most hooks of tergite IX. Frons between antennal cavities 2.3 times as wide as

scape. Hind femur 2.7 times as long as wide. Apices of wings projecting slightly beyond apices of hind femora; apices of hind wings almost not projecting from under elytra posteriorly. Abdominal tergite IX similar to that of *Z. ornatula*, but with less strongly curved hooks and with deeper emargination between them; abdominal tergite X more strongly widened medially than that of *Z. ornatula*, bearing 1 pair of approximate gentle prominences, instead of tubercles characteristic of the latter species; genital plate also similar to that of *Z. ornatula*, but with deeper emargination between styli (Fig. 4).

**Female** similar to male, but mandibles and labrum paler, pale brown; scape yellowish, with dark spot at base of median part; elytra with slightly darkened apices (darker than those in holotype, but paler than rest of elytra); genital plate colored as proximal abdominal sternites. Genital plate differing from that of *Z. globiceps* in less marked lateral lobes (situated at sides of larger lobes); abdominal sternite VII of female only bearing small tubercle (instead of hook-shaped process) and small median posterior lobe (Figs. 5, 6); ovipositor distinctly shorter (Fig. 62).

Length (mm). Body:  $\circlearrowleft$  19,  $\hookrightarrow$  16; body with wings:  $\circlearrowleft$  20,  $\hookrightarrow$  19; pronotum:  $\circlearrowleft$  4.5,  $\hookrightarrow$  4.4; elytra:  $\circlearrowleft$  14.0,  $\hookrightarrow$  13.2; hind femora:  $\circlearrowleft$  8.0,  $\hookrightarrow$  7.5; ovipositor 7.5.

**Comparison.** The new species clearly differs from the other species of the subgenus in the characteristic pattern on the head and pronotum, dark coloration of the femora and elytra, and listed details of the structure of the abdominal apex.

### Subgenus Zalarnaca s. str.

This subgenus differs from the preceding one in the much more slender habitus: head significantly narrower, with epicranium not appearing hemispheric, and with frons rather narrow between antennal cavities (slightly narrower than scape); legs longer; spines of fore and middle tibiae long (longest one 2–3 mm); hind femur slender (more than 4 times as long as wide), with less numerous spines along outer lower margin; hind tibia straight, with spines slightly varying in size.

**Species included.** Type species; *Gryllacris separata* Karny, 1925 (Malacca); *G. teuthroides* Karny, 1925 (Borneo); *G. simalurensis* Karny, 1931 (Silamur Island near Sumatra); *Z. kerinci* sp. n.; *Z. udovitshenkoi* sp. n.; *Z. sotshivkoi* sp. n.; and probably also *G. simalurensis xiphidiopsis* Karny, 1931 (Nias Island

near Sumatra), which is most likely a separate species [the listed species and subspecies of this author were subsequently included by him in the genus *Phryganogryllacris* (Karny, 1937)] and *Z.? lobata* Gorochov, 2005 (Vietnam).

# **Zalarnaca (Zalarnaca) kerinci** Gorochov, sp. n. (Figs. 7, 8)

**Material.** Sumatra, Jambi Prov., 35 km N of Sungaipenuh, "Kerinci-Seblat" National Park, Kerinci Mt., 1500–2000 m, primary forest, at night, on a shrub leaf, 18–22.XI.1999, 1 ♂ (holotype) (A. Gorochov) (ZIN).

Description. Male (holotype). Body small, almost uniformly yellowish, but with hyaline hind wings and with following parts more or less brown (not dark): lateral lobes of pronotum (except for rather narrow stripe along lower margin), inconspicuous spot at elytral base, apices of spines of hind legs, and hooks of abdominal tergite IX. Frons between antennal cavities 1.1 times narrower than scape. Hind femur 4.5 times as long as wide. Apices of both pairs of wings in repose projecting slightly beyond apices of hind femora; elytral apices projecting slightly beyond apices of hind wings. Abdominal tergite IX with hooks similar to those of Z. ornatula, but distinctly finer in proximal half; tubercles of abdominal tergite X rather large, strongly convex, rounded, contacting (Fig. 7); styli on genital plate nearly lost, merged with plate, remaining as angular posterolateral lobes; margin of plate gently undulate between styli (Fig. 7); genitalia with 1 pair of very weakly sclerotized structures connected by slightly thickened crosspiece (Fig. 8).

### Female unknown.

Length (mm). Body 13; body with wings 15; pronotum 1.9; elytra 11; hind femur 8.5.

**Comparison.** The new species is similar to *Z. separata* (Fig. 10; its holotype from NHM was briefly examined), *Z. teuthroides* (Karny, 1925a: fig. 1b), and *Z. simalurensis* (Karny, 1931: fig. 4) in structure of the hooks on male abdominal tergite IX, but clearly differs from these and most of the other congeners in the styli merged with the genital plate of the male. The new species differs from *Z.? lobata* in the yellowish coloration, small body size, and significantly shorter wings.

### Zalarnaca (Zalarnaca) udovitshenkoi Gorochov, sp. n. (Fig. 9)

Material. Northern Borneo, Sabah State, approxi-

mately 05°33′N and 116°31′E, Trus Madi Mt., about 1000 m, primary forest, at light: 1-7.X.2005,  $1 \circlearrowleft$  (holotype) (P. Udovitshenko) (ZIN), 13-24.I.2007,  $1 \circlearrowleft$  (paratype) (A. Sotshivko) (ZIN); 13-25.V.2007,  $4 \circlearrowleft$  (paratypes) (A. Gorochov) (ZIN).

**Description.** Male (holotype). Body size average for the subgenus. Coloration uniformly pale brownish, but with vague traces of slightly darker spots on rostrum and between antennal cavities and also with weakly darkened apices of spines of hind legs and hooks of abdominal tergite IX. Hind wings hyaline. Frons between antennal cavities as that in Z. kerinci. Hind femur 4.3 times as long as wide. Apices of both pairs of wings not projecting beyond one other, but projecting slightly beyond apices of stretched hind tibiae. Abdominal tergite IX with hooks nearly straight in view from below and slightly behind (Fig. 9), but with apices slightly curved upward in posterior view; proximal halves of these hooks not thickened; tubercles of abdominal tergite X medium sized but strongly convex, rounded, contacting; genital plate with not reduced styli and with large, nearly angular emargination between them (Fig. 9); genitalia almost entirely membranous.

**Variations.** In some paratypes, distal part of genital plate (including area between bases of styli) insignificantly narrower.

**Female** similar to male, but wings slightly shorter (only reaching apices of stretched hind tibiae). Abdominal sternite VII with flat, apically rounded process about 1.5 times as wide and half as long as that in *Z. aculeata*; genital plate angularly rounded apically; ovipositor rather strongly curved upward (main curve situated in its proximal part), with minute oblique costae along dorsal margin of its distal part.

**Comparison.** The new species differs from most of the congeners in the straight (in view from below and slightly behind) hooks of male abdominal tergite IX, not thickened proximal halves of these hooks, and in the male genital plate with a deep median emargination at the posterior margin and with not reduced styli. The new species differs from *Z.? lobata* in the pale brownish body, distinctly shorter pronotum, and in the apically rounded genital plate and much narrower process of abdominal sternite VII of the female.

**Etymology.** The species is named after A. Sotshivko, one of the collectors of the species.

**Zalarnaca (Zalarnaca) sotshivkoi** Gorochov, sp. n. (Figs. 12–15)

**Material.** Northern Borneo, Sabah State, approximately 05°33′N and 116°31′E, Trus Madi Mt., about 1000 m, primary forest, at light: 13–24.I.2007, 2 ♂ (holotype and paratype), 1 ♀ (paratype) (A. Sotshivko) (ZIN); 13–25.V.2007, 4 ♂ (paratypes) (A. Gorochov) (ZIN).

Description. Male (holotype). Body size average for the subgenus. Coloration uniformly pale brownish, except for whitish, not very small spot at place of median ocellus, somewhat spotty distal halves of antennae, 1 pair of slightly darkened and vague longitudinal stripes at sides of pronotal disc, hyaline hind wings, and darkened apices of spines of hind legs and hooks of abdominal tergite IX. Frons between antennal cavities as that in two preceding species. Hind femur 4.8 times as long as wide. Wings very long, projecting rather far beyond apices of stretched hind tibiae; apices of hind wings projecting slightly beyond elytral apices. Abdominal tergites IX and X (Fig. 12), nearly as those in Z. kerinci, Z. separata, Z. teuthroides, and Z. simalurensis; genital plate with normal (not merged) styli, posterior margin convex between them, with small emargination medially (Fig. 13); genitalia with rather large, weakly sclerotized structures much more distinct than those in Z. kerinci (Fig. 14).

**Variations.** Stripes on pronotum in some paratypes occasionally somewhat darker than in holotype, but not visible or hardly visible in the others paratypes.

**Female** similar to palest males in coloration, but wings slightly shorter (extending slightly beyond apices of stretched hind tibiae). Apex of abdomen as that in *Z. udovitshenkoi*, but apical process of abdominal sternite VII about 1.5 times narrower than that in *Z. udovitshenkoi* (and nearly half as long as that in *Z. aculeata*), and ovipositor with smooth dorsal margin.

**Comparison.** The new species differs from *Z. aculeata*, *Z. udovitshenkoi*, *Z. separata* (Fig. 11), *Z. simalurensis* (Fig. 17), and *Z.? xiphidiopsis* (Fig. 18) in the male genital plate with a small (narrow and shal-

low) median emargination, from *Z. teuthroides* (Fig. 16), in the presence of this emargination, from *Z. kerinci*, in the separate styli of the male genital plate, and from *Z.? lobata*, in the coloration of the body and shape of the genital plate of the female and in the narrow process of its abdominal sternite VII.

**Etymology.** The species is named after A. Sotshivko, one of the collectors of the species.

# **Zalarnaca (Zalarnaca) abbreviata** Gorochov, sp. n. (Figs. 19–22)

Material. Northern Borneo, Sabah State: approximately 05°33′N and 116°31′E, Trus Madi Mt., about 1000 m, primary forest, at light, 13–24.I.2007, 1 ♂ (holotype) (A. Sotshivko) (ZIN); same data, but 13–25.V. 2007, 1 ♀ (paratype) (A. Gorochov) (ZIN); Coco Mt. Range, near "Gunung Arab" National Park, about 1500 m, primary forest, at night, on a tree leaf in undergrowth, 26–27.V.2007, 1 ♂ (paratype) (A. Gorochov) (ZIN).

Description. Male (holotype). Body size average for the subgenus. Coloration uniformly pale brownish, with 1 pair of small orange spots at places of lateral ocelli, tiny orange puncture at place of median ocellus, somewhat spotty distal parts of antennae, hyaline hind wings, and dark apices of spines of hind legs and hooks of abdominal tergite IX. Frons between antennal cavities as that in two preceding species. Hind femur 4.3 times as long as wide. Wings slightly shortened, distinctly not reaching apices of stretched hind tibiae; apices of hind wings projecting slightly beyond elytral apices. Abdominal tergites IX and X as those in Z. sotshivkoi (Fig. 20), but apices of hooks of tergite IX more strongly curved forwards (cf. Fig. 15 and Fig. 19); genital plate differing from that of Z. sotshivkoi in widely rounded lobes projecting farther backward between styli (Fig. 21); genitalia with weakly sclerotized structures similar to those of Z. sotshivkoi, but larger and slightly differing in shape (Fig. 22).

Variations. In paratype, lobes of apex of genital plate slightly less rounded (almost roundly angular), and emargination between them slightly deeper and narrower.

**Female** similar to male, but wings relatively shorter (significantly not reaching apices of stretched hind tibiae). Abdominal sternite VII with short, rather wide, rounded process appearing as slightly roundly-angularly attenuate apical part of sternite; genital plate

and ovipositor nearly as those in Z. sotshivkoi.

Length (mm). Body: 3 14.5–16, 9 18; body with wings: 3 22–23, 9 24; pronotum: 3 3.4–3.6, 9 3.7; elytra: 17.5–18.5, 9 17.5; hind femora: 9.5–10.3, 9 11; ovipositor 8.

**Comparison.** The new species differs from the other species of the subgenus in the uniform coloration of the pronotum, length of the wings, rather narrow emargination of the posterior margin of the male genital plate, shape of its lobes between styli, and structure of the male genitalia and the female abdominal sternite VII.

#### Genus **DINOLARNACA** Gorochov, gen. n.

Type species *Dinolarnaca furcilla* sp. n.

The appearance, including coloration, of the new genus resembles that of the genus Otidiogryllacris Karny: body small, pale, with dark spots between eyes, at bases of antennae, and on spines of hind legs; frons between antennal cavities 1.1-1.3 times as wide as scape (Figs. 57, 58); legs rather short (hind femur about 3.5 times as long as wide); wings projecting slightly beyond apices of hind femora or shortened; ovipositor arcuately curved upward (Fig. 63). The new genus differs from Otidiogryllacris and all the other genera of the subfamily in the characteristic structure of the copulatory structures: abdominal tergite IX of male with 1 pair of processes posteriorly and 1 pair of small lobiform prominences below them; these prominences directed forward or and partly downward, each bearing small spine at or near apex (Figs. 23, 24, 27); paraprocts of male simple, without any processes; male genital plate transverse, with developed and separate styli (Figs. 23, 27), that of female (at least, in the type species) almost triangular, with transverse fold at base ventrally and with characteristic median uvula between its base and abdominal sternite VII (Fig. 26); male genitalia partly membranous, but with weakly sclerotized structure only on dorsal lobe (Figs. 25, 28); whereas in Otidiogryllacris (at least, in O. peraki Gor.), male genitalia with even less strongly sclerotized structures situated on both dorsal and ventral lobes (Fig. 29).

**Species included.** Type species; *D. deinura* sp. n.; some of the species placed by Karny (1937) in the genus *Otidiogryllacris* may turn to be representatives of the genus described.

Dinolarnaca furcilla Gorochov, sp. n.

(Figs. 23-26, 57, 63)

Material. Sumatra, Jambi Prov., 35 km N of Sungaipenuh, "Kerinci-Seblat" National Park, Kerinci Mt., 1500–2000 m, primary forest, at night, on leaves of shrubs, 18–22.XI.1999, 2 ♂ (holotype and paratype), 1 ♀ (paratype) (A. Gorochov) (ZIN).

Description. Male (holotype). Body small. Coloration almost uniformly yellowish, with brownish (not very dark) transverse spots at apex of rostrum and between dorsal margins of eyes, rings at apex and base of scape, apices of mandibles (Fig. 57), and spines of hind legs, and also with hyaline hind wings and pale brownish pattern on abdominal tergite IX (Figs. 23, 24). Frons between antennal cavities slightly wider than scape. Fore and middle tibiae with 4 pairs of not very long spines and 1 pair of short spurs; hind femur robust, 3.5 times as long as wide. Wings slightly shortened; apices of both pairs of wings reaching apex of abdomen, but slightly not reaching apices of hind femora. Abdominal tergite IX not oblong, with 1 pair of rather long, digitate processes posteriorly, 1 pair of tiny spines between these processes, and 1 pair of short lobiform prominences (directed forward and downward) below them; each of these prominences with small spine at apex; genital plate with hook-shaped styli (Figs. 23, 24); genitalia as in Fig. 25.

**Variations.** In paratype, darkened areas of head somewhat larger, hind femur with very weak small darkening near apex on outer side, and wings slightly shorter, insignificantly not reaching apex of abdomen.

**Female** similar to males, but darkened area on rostrum narrower, and that between dorsal parts of eyes wider; hind femora colored as those in male (paratype), but wings even shorter, far not reaching apex of abdomen. Genital plate and uvula between plate and abdominal sternite VII as in Fig. 26; ovipositor short, typically curved and nearly pointed at apex (Fig. 63).

Length (mm). Body: 3.4-15, 9.17.5; pronotum: 3.5-3.7, 9.3.7; elytra: 9.5-10.0, 9.0; hind femora: 8.5-8.7, 9.3; ovipositor 5.8.

**Comparison.** The new species differs from species with insufficiently examined copulatory structures, included in the genus *Otidiogryllacris*, in the small body combined with the shortened wings, details of coloration listed above, characteristic structure of tergite IX of the male, shape of the genital plate in both sexes, and in the ovipositor distinctly curved upward.

**Dinolarnaca deinura** Gorochov, sp. n.

(Figs. 27, 28, 58)

**Material.** Sumatra, West Sumatra Prov., 35 km N of Padang, botanical garden, primary forest, 16–17.IV.2004, 1 ♂ (holotype) (M. Berezin) (ZIN).

**Description.** Male (holotype) similar to male of D. furcilla, but differing in following characters: body larger; head only with dark brown transverse stripe at apex of rostrum; antennae with additional weak darkened area at base of pedicel (Fig. 58); hind femur without any darkened areas on outer side; frons between antennal cavities wider. 1.3 times as wide as scape; wings longer, apices of both pairs of wings projecting slightly beyond apices of abdomen and hind femora; abdominal tergite IX slightly oblong, with 1 pair of swollen posterior processes directed backward and slightly upward, and with 1 pair of elongate, forward-directed lobiform prominences below them; each of these prominences bearing fine elongate spine near apex; genital plate with normal styli (Fig. 27); genitalia as in Fig. 28.

#### Female unknown

Length (mm). Body 21, body with wings 23, pronotum 5, elytra 16, hind femora 11.7.

**Comparison.** The new species clearly differs from *D. furcilla* and the other similar species in the characters listed above.

# **Phryganogryllacris trusmadi** Gorochov, sp. n. (Fig. 30)

Material. Northern Borneo, Sabah State, approximately 05°33′N and 116°31′E, Trus Madi Mt., about 1000 m, primary forest, at light, 1–10.V.2006, 1 ♂ (holotype) (P. Udovitshenko) (ZIN).

**Description. Male** (holotype). Body size average for the genus. Coloration uniformly pale brownish, but with 3 whitish spots of moderate size at places of ocelli, grayish brown nearly all tarsal pulvilli, smokygrayish hind wings, and brown apices of spines of hind legs and hooks of abdominal tergite IX. Frons between antennal cavities 1.2 times as wide as scape. Length of spines of fore and middle tibiae 1.3–4.0 mm; hind femora 4.5 times as long as wide. Wings very long, projecting significantly beyond apices of stretched hind tibiae; hind wings slightly projecting from under elytra posteriorly. Abdominal tergite IX not very large and not very convex; hooks strongly remote from one another, directed sideways, elongate and narrowed toward apices, but with apices slightly widened, heav-

ily sclerotized, and bearing 2 small, and 1 larger teeth (Fig. 30); genital plate narrowed in distal part, with very gently emarginate apex and without styli (Fig. 30).

### Female unknown.

Length (mm). Body 23, body with wings 38, pronotum 3.8, elytra 32, hind femur 12.

**Comparison.** The new species clearly differs from all the congeners in the structure of male abdominal tergite IX and shape of its hooks, and also in the loss of styli of the male genital plate.

# *Phryganogryllacris vinhphuensis minuscula* Gorochov, subsp. n. (Figs. 31, 32)

**Material.** Vietnam, Quong Tri Prov., Huong Hoa Distr., Huong Lap Vill., Ban Kup commune, 16°55′863″N, 106°35′361″E, 400 m, V.2005, 1  $\circlearrowleft$  (holotype) (N. Orlov) (ZIN).

Description. Male (holotype) similar to male of Ph. v. vinhphuensis Gor. from Vinh Phu Prov. (Vietnam), but differing as follows: body small, uniformly yellowish (only with brownish distal parts of spines of hind legs and hooks of abdominal tergite IX; in the nominotypical subspecies, in addition, pink spots present on pronotum, and ultimate abdominal tergite of male and hooks of male tergite IX darkened, reddish brown), dorsal inner spur of hind tibia situated otherwise (its apex not reaching apex of tibia), structure of its dorsal outer spur usual (Fig. 31) (in both subspecies of Ph. vinhphuensis, dorsal inner spur large, thickened, slightly curved at base, remote from apex of tibia; distal part of this spur with blade-shaped dorsal and ventral margins, dorsal margin partly shifted onto inner side of spur in proximal part; in the nominotypical subspecies, dorsal outer spur of similar structure, but smaller and with dorsal blade-shaped margin, as in Fig. 33), emargination at apex of male genital plate slightly shallower, median margins of posterior lateral lobes of this plate slightly more convex, and styli at apices of these lobes short (Figs. 32, 34).

#### Female unknown.

Length (mm). Body 16, body with wings 29, pronotum 3.4, elytra 25.5, hind femora 9.9.

# *Phryganogryllacris? discus* Gorochov, sp. n. (Figs. 35, 69)

**Material.** Thailand, northern part of Malacca, Phetchaburi Prov., 60–70 km SW of Phetchaburi, near

"Kaeng Krachan" National Park at the border with Burma, about 800 m, primary forest, at night, on a tree leaf. 1–3.VIII.1996, 1 ♀ (holotype) (A. Gorochov) (ZIN).

Description. Female (holotype). Body size small for the genus. Coloration uniformly pale brownish, with inconspicuous, small, slightly paler spots at places of ocelli, pinkish spots on pronotal disc (wide spots in anterior and posterior part and 1 narrow spot in median part), and slightly darkened almost all tarsal pulvilli and apices of spines of hind legs. Frons between antennal cavities 1.35 times as wide as scape. Length of spines of fore and middle tibiae varying from 0.7 to 2.0 mm, hind femora 4.7 times as long as wide. Wings long, projecting slightly beyond apices of stretched hind tibiae; hind wings slightly projecting from under elytra posteriorly. Genital plate or abdominal sternite VII (?) with 1 pair of large sclerotized discoidal structures separated by narrow, more or less membranous area, and with semi-membranous lobe distal to these structures (Fig. 35) (latter lobe crumpled and proximal half of abdomen strongly deformed because of drying, which does not allow more exact analysis of structure of abdomen); ovipositor nearly straight (very weakly and smoothly curved upward), with narrowly rounded apex (Fig. 69).

#### Male unknown.

Length (mm). Body 17.5; body with wings 33, pronotum 3.6, elytra 27.5, hind femora 11, ovipositor 9.0.

**Comparison.** The new species clearly differs from all the congeners, in which females are known, in the peculiar structure of the abdominal apex: presence of one pair of sclerotized discoidal structures on the ventral side, and from the other similar species, in the size and proportions of parts of the body and in details of the coloration.

## Genus NEANIAS Brunner-Wattenwyl, 1888

Type species *N. squamosus* Brunner-Wattenwyl, 1888 (Sri Lanka).

The author placed in this genus four species and one subspecies, all distributed in southeastern Asia and the nearest islands and characterized by the strongly shortened (lobiform) wings not contacting in repose on the body dorsum and by the rather long ovipositor, and also one species from Taiwan, with the short ovipositor (Karny, 1937); the latter may belong to the genus *Metriogryllacris* Karny (*N. magnus* Mats, et Shir.).

The copulatory structures of all these species are insufficiently studied, which does not allow a more detailed description of the genus. However, the five new species conditionally referred here to this genus are characterized by the following features: male abdominal tergite IX without any large or hook-shaped processes (one species only with brush formed by great number of short spines; Fig. 36); 1 pair of short, upward-directed hooks present on male abdominal tergite X (Figs. 36, 39, 41, 43, 45); structure of paraprocts, epiproct, and male and female genital plates simple; female abdominal sternite VII without any specializations (Figs. 38, 40); ovipositor rather long, straight or weakly curved (Figs. 64–68).

Neanias erinaceus Gorochov, sp. n. (Figs. 36-38, 64)

Material. Thailand, Phetchaburi Prov., about 50 km SW of Phetchaburi, near the administrative centre of "Kaeng Krachan" National Park, 400 m, secondary forest at storage pond, at night, on branches of shrubs, 30.VII–5.VIII.1996, 6 ♂ (holotype and paratypes), 8 ♀ (paratypes) (A. Gorochov) (ZIN).

**Description.** Male (holotype) Body size average for the genus. Coloration uniformly pale brown (nearly yellowish), but with small whitish spots at places of ocelli, weakly darkened (brownish) narrow stripes along posterior margin of abdominal tergites I-VI and spot on abdominal tergite IX, and also with slightly darker (brown) apices of spines of hind legs and hooks of abdominal tergite X. Frons between antennal cavities 1.5 times as wide as scape. Length of spines of fore and middle tibiae varying from 0.9 to 1.7 mm, hind femora 4.1 times as long as wide. Elytra more or less oval, small (but in position of adults), slightly extending behind mesonotum and only concealing its lateral areas; hind wings even smaller (but also being in position of adults), distinctly projecting behind elytra and only concealing anterior half of lateral areas of metanotum. Abdominal tergite IX with shallow median depression near posterior margin and gentle triangular prominence in its middle; this prominence bearing group of short spines with apices directed downward (Fig. 36); abdominal tergite X with hooks distinctly remote from one another (Fig. 36); genital plate with styli 4.5 times shorter than cerci and with nearly angular shallow median emargination at posterior margin (Fig. 36); genitalia membranous.

**Variations.** Spines of brush of abdominal tergite IX occasionally somewhat varying in number; genital plate occasionally with slightly longer styli and

rounded emargination between them (Fig. 37).

**Female** similar to male, but median ocellus less noticeable, elytra slightly longer, and abdominal tergite IX only with 1 pair of small darkened areas at sides. Genital plate and apex of abdominal sternite VII as in Fig. 38; ovipositor nearly pale brown, long, very weakly curved upward, but its apex pointed and significantly more strongly curved upward (Fig. 64).

Length (mm). Body:  $3 \cdot 16-18$ ,  $9 \cdot 17-21$ ; pronotum: 4.2-4.5,  $9 \cdot 4.6-4.9$ ; elytra: 1.6-1.8, 1.7-2; hind femora: 11.0-12.5, 11.5-13.5; ovipositor 14.5-16.0

**Comparison.** The new species differs from all the other similar species in the following features: male abdominal tergite IX with brush of short spines, hooks of male abdominal tergite X remote from one another, styli of male genital plate short, female genital plate truncate apically, and length and shape of ovipositor different.

Neanias amplus Gorochov, sp. n. (Figs. 39, 40, 65)

**Material.** Sumatra, Jambi Prov., 35 km N of Sungaipenuh, near "Kerinci-Seblat" National Park, Kerinci Mt., 1500–2000 m, primary forest, at night, on branches of shrubs, 18–22.XI.1999, 2 ♂ (holotype and paratype), 2 ♀ (paratypes) (A. Gorochov) (ZIN).

Description. Male (holotype). Body insignificantly larger than that in *N. erinaceus*. Head dark brown; minute spots at places of lateral ocelli and 1 larger spot at place of median ocellus whitish; scapes, clypeus, labrum, and mandibles brown; antennae in distal halves, maxillae, labium, and their palps pale brown; pronotum and apical abdominal tergites dark brown; elytra, pterothorax, and other parts of abdomen brown; legs pale brown, with all femora gradually darkened toward apices, fore and middle tibiae (including spines) also gradually darkened toward bases, and hind tibia and its spines dark brown. Frons between antennal cavities 1.4 times as wide as scape. Length of spines of fore and middle tibiae varying from 1.0 to 1.8 mm, hind femur 4.3 times as long as wide. Elytra similar to that of N. erinaceus, but distinctly larger, slightly projecting behind metanotum, concealing lateral areas of meso- and metanotum and hind wings. Abdominal tergite IX with narrow longitudinal depression near posterior margin and without brush of spines (Fig. 39); abdominal tergite X with approximate hooks (Fig. 39); genital plate with slightly larger styli 2.6 times shorter than cerci and with gently undulate posterior margin between styli (Fig. 39); genitalia membranous.

**Variations.** In paratype, elytra darker, dark brown.

**Female** similar to the holotype, but proximal halves of antennae entirely brown, elytra dark brown, abdominal sternites in one of females also nearly dark brown. Genital plate and apex of abdominal sternite VII as in Fig. 40; ovipositor darkened, long, slightly curved downward, with straight and nearly pointed apex (Fig. 65).

Length (mm). Body: 321-23, 22-25; pronotum: 35.2-5.5, 5.2-5.5; elytra: 3.6-3.4, 3.2-3.4; hind femora: 14-15, 15-16; ovipositor 18.5-19.5.

**Comparison.** The new species differs from *N. erinaceus* in the coloration, structure of male abdominal tergites IX and X, not truncate apex of the female genital plate, and straight apex of the ovipositor. *N. amplus* is similar to *N. subapterus* Karny, 1924, also described from Sumatra, but differs in the dark hind tibiae and in the short styli of the male genital plate, which are more than twice shorter than the cerci.

Neanias medius Gorochov, sp. n. (Figs. 41, 42, 66)

**Material.** Sumatra, Jambi Prov., 35 km N of Sungaipenuh, near "Kerinci-Seblat" National Park, Kerinci Mt., 1500–2000 m, primary forest, at night, on branches of shrubs, 18–22.XI.1999, 2 ♂ (holotype and paratype), 1 ♀ (paratype) (A. Gorochov) (ZIN).

**Description. Male** (holotype) very similar to the holotype of *N. amplus*, but somewhat smaller, whitish spots at places of ocelli slightly larger. Pedicel brown, fore and middle femora almost entirely pale brown, hind femur with sharp border between darkened apex and pale brown other part (except for darkened ventral spines), posterior abdominal tergites brown, elytra slightly not reaching apices of metanotum and hind wings, hind wings slightly projecting from elytra posteriorly and reaching apex of metanotum, abdominal tergite IX with rounded prominence at posterior margin, shape of abdominal tergite X somewhat different (Fig. 41), styli of genital plate longer (1.2 times shorter than cerci).

**Variations.** Paratype slightly paler; its pronotum with vague, pale brownish stains; thorax, elytra, and abdomen nearly pale brown.

**Female** similar to the holotype; genital plate with rather wide and gentle apical emargination (Fig. 42); ovipositor nearly as that of *N. amplus*, but distinctly

shorter and not curved downward (Fig. 66).

Length (mm). Body:  $3 \cdot 17-19$ ,  $9 \cdot 17.5$ ; pronotum:  $3 \cdot 4.6-4.8$ ,  $9 \cdot 5.0$ ; elytra:  $3 \cdot 2.3-2.5$ ,  $9 \cdot 2.1$ ; hind femora: 12.5-13.0, 13.5; ovipositor 13.

**Comparison.** The new species is very similar to the sympatric *N. amplus*, but clearly differs in the characters listed above, differs from *N. subapterus* in the coloration of the hind tibiae (very similar to that of *N. amplus*) and in the styli of the male genital plate, which are distinctly less than twice shorter than the cerci.

Neanias parvus Gorochov, sp. n. (Figs. 43, 44, 67)

Material. Sumatra, Jambi Prov., 35 km N of Sungaipenuh, near "Kerinci-Seblat" National Park, Kerinci Mt., 1500–2000 m, primary forest, at night, on branches of shrubs, 18–22.XI.1999, 1 ♀ (holotype), 1 ♂ (possibly, a late-instar larva), (paratype) (A. Gorochov) (ZIN).

**Description. Female** (holotype) similar to females of *N. amplus* and *N. medius*, but smaller, paler (pale brown, with epicranium in lower and lateral parts, pronotum, tibia-femoral joints, and apices of spines of hind leg brown); elytra tiny (but being in position of adults), only reaching apex of mesonotum and not concealing hind wings; hind wings obviously not reaching apex of metanotum; genital plate with apical emargination distinctly deeper than that in *N. amplus* and distinctly narrower than that in *N. medius* (Figs. 40, 42, and 44); ovipositor similar to that of *N. medius*, but shorter (distinctly shorter than hind femora) and pale brown (Fig. 67).

Male (possibly, late-instar larva) similar to the holotype, but pronotum pale brown with darker (brown) vague spots, and spines of hind leg almost entirely pale. Abdominal tergite IX as that in N. medius, but lower margin of median prominence near its posterior margin angular (vertex of angle with small tubercle) (Fig. 43); abdominal tergite X, styli of genital plate, and genitalia nearly as those in N. medius [distinctly smaller and paler body, as compared with that of female, and absence of visible paired additional glands in genitalia suggest that this specimen is immature; however, mature position of remains of its elytra, good development of its copulatory structures (abdominal tergite IX cup-shaped, and tergite X with pointed hooks; genital plate large and with normal styli; genitalia with very soft lobes similar to those of adults and separated by large genital cavity), and small (and, 10 GOROCHOV

therefore, hardly visible) additional glands even in males of larger-sized species do not allow me to solve the question unambiguously].

Length (mm). Body:  $\lozenge$  14.5,  $\lozenge$  19; pronotum:  $\lozenge$  3.7–4.2; elytra:  $\lozenge$  0.9,  $\lozenge$  1.0; hind femora:  $\lozenge$  10.5,  $\lozenge$  12; ovipositor 9.7.

**Comparison.** The new species differs from *N. amplus* and *N. medius* (both are sympatric with it) in the smaller body, pale coloration of the hind tibiae, shape of the posterior margin of the female genital plate, shorter ovipositor, and, probably, in the shape of the posterior median prominence of male abdominal tergite IX. It differs from *N. subapterus* in the smaller body and, probably, ratio of the length of styli of the male genital plate to the length of cerci (similar to that of *N. medius*).

### Neanias pliginskyi Gorochov, sp. n. (Fig. 45)

**Material.** Central Vietnam, "Song Dinh, Annam," 9.VIII.1909, 1 ♂ (holotype) (V. Pliginsky) (ZIN).

**Description.** Male (holotype). Body size about as that in N. parvus. Coloration uniformly pale brown, with darkened distal halves of spines of hind legs and tubercles of abdominal tergite X. Frons between antennal cavities 1.6 times as wide as scape. Length of spines of fore and middle tibiae varying from 0.7 to 1.4 mm, hind femur 3.8 times as long as wide. Elytra similar to that of N. parvus, and hind wings almost lost. Abdominal tergite IX with prominence similar to that of *N. erinaceus*, but covered in lower part with minute tubercles, instead of distinct spines; abdominal tergite X bearing strong approximate tubercles (instead of hooks inherent to the preceding species) with angular, nearly pointed apices (Fig. 45); styli of genital plate usual, 6.5 times shorter than the long cerci (length of cerci 6 mm); posterior margin of this plate between styli nearly straight, only with tiny median emargination (Fig. 45); genitalia membranous.

### Female unknown.

Length (mm). Body 14.7, pronotum 3.8, elytra 1.2, hind femora 10.5.

**Comparison.** The new species differs from all the species described here in the characteristic structure of male abdominal tergite X and in the long cerci. It differs from the other similar species in the size and coloration of the body and in the length ratio of the styli of genital plate to the cerci of the male.

Etymology. The species is named after V. Pligin-

skyi, who collected it.

**Neanias? angustipennis** Gorochov, sp. n. (Figs. 46–48, 59, 60, 68)

**Material.** Vietnam, Gia Lai Prov., 50–60 km N of Kannack Vill., Kon Cha Rang locality, 1000–1200 m, primary forest, at night, on leaves of shrubs, 14–20.IV.1995, 3 ♀ (holotype and paratypes) (A. Gorochov) (ZIN).

Description. Female (holotype). Body sizes about as that in N. parvus and N. pliginskyi. Coloration yellowish, but with numerous darkened areas (Figs. 59, 60): 1 pair of dark brown oblique stripes on upper part of head; brown spots on genae and below antennal cavities; darkened median margins of these cavities and 1 pair of spots between them; weakly darkened distal half of antenna; 4 large dark brown spots at sides of pronotal disc (1 pair in anterior part, and 1 pair in posterior part); darkened bases of all tibiae and weakly darkened areas at apices of all femora and fore and hind tibiae; brownish curved longitudinal spot on outer side of hind femur in basal 2/3; very weakly darkened tarsi; brownish median (anal) halves of elytra and 1 pair of wide longitudinal stripes at sides of posterior part of body (extending from metanotum to abdominal tergite VIII); pale brown ovipositor. Frons between antennal cavities 1.5 times as wide as scape. Length of spines of fore and middle tibiae varying from 0.6 to 0.9 mm. Hind femur very robust (2.5 times as long as wide). Hind tibia slightly S-curved (in dorsal view); its distal outer spine large, separate, and directed medially (this spine similar to apical spurs, but separated from them by marked interval); 2 rows of not separate spines present proximal of this spine; interval between these spines and spur at outer margin of tibia very wide (Fig. 48). Elytra reaching base of abdominal tergite II, rather narrow, narrower in apical 1/4, entirely concealing rudimentary hind wings (Figs. 47, 60). Abdominal sternite VII simple; genital plate transverse, with 1 pair of rounded posterior lobes (slightly deflected downward), shallow emargination between lobes, and prominences at sides (each of these prominences with small oval pit on underside) (Fig. 46); ovipositor distinctly curved upward, with typically narrowed apical part (Fig. 68).

**Variations.** Antennal flagellum entirely weakly darkened in one paratype, and its coloration in the other paratype is intermediate between that of the holotype and the first paratype.

Male unknown.

Length (mm). Body 12–17, pronotum 3.7–4.1, elytra 3–4, hind femora 7.8–9.0, ovipositor 7.5–8.2.

**Comparison.** The new species clearly differs from all the similar species in the characteristic coloration, shape of the elytra, structure of the hind tibia and female genital plate, and shape of the ovipositor. The presence of one pair of remote pits on the genital plate of the female supposes that its copulatory structures are fixed during copulation in a way somewhat different from that in the preceding species included here in the genus *Neanias*; therefore, this species may to belong to another genus.

Aancistroger similis Gorochov, sp. n. (Figs. 49, 50)

**Material.** Vietnam, Kon Tum Prov., Kon Plong Distr., Mang Canh Vill., 1200 m, III–IV.2005, 1 ♀ (holotype) (N. Orlov, S. Ryabov) (ZIN).

**Description.** Female (holotype) very similar to female of A. vietus Gor. (Gorochov, 2004: 830) from Lam Dong Prov. (Vietnam) in uniformly yellowish body, with only apices of spines of hind leg weakly darkened, and in structure of hind tibia (Fig. 50), but differing as follows: both pairs of wings longer, projecting significantly beyond apices of stretched hind tibiae (hind wings not projecting from under elytra posteriorly); ovipositor long, very weakly curved upward; structure of abdominal apex different: sternite VII with concave posterior margin and with membranous proximal half remaining as only small median sclerite in form of tubercle bearing rounded pit posteriorly and surrounded with membranes from all sides; genital plate with slightly deeper posterior emargination and with slightly more convex lateral areas of base of this plate (Fig. 49).

### Male unknown.

Length (mm). Body 16, body with wings 34, pronotum 3.5, elytra 30, hind femora 9.7, ovipositor 12.5.

**Comparison.** The new species is most closely related to *A. vietus*, but differs from this species in the characters listed above, and from the other congeners, in the very long inner dorsal spur of the hind tibia and in the structure of female abdominal sternite VII.

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**Figs. 1–22.** Zalarnaca Gor.: (1) Z ornatula sp. n. (holotype); (2, 3) Z globiceps gialai subsp. n.; (4–6) Z pulcherrima sp. n. [(4) holotype]; (7, 8) Z. kerinci sp. n.; (9) Z udovitshenkoi sp. n. (holotype);

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(10, 11) *Z. separata* Karny [holotype; (11) after: Karny, 1925b]; (12–15) *Z. sotshivkoi* sp. n. (holotype); (16) *Z. teuthroides* Karny (after: Karny, 1925a); (17) *Z. simalurensis* Karny (after: Karny, 1931); (18) *Z. xiphidiopsis* Karny (after: Karny, 1931); (19–22) *Z. abbreviata* sp. n. Apex of abdomen of male, posterior view and view slightly from below, and its genital plate, ventral view (1); the same, but apex of abdomen in ventral view and in view slightly from behind (4, 7, 9); genital plate of female and its abdominal sternite, ventral (2, 6) and lateral (3, 5) view; sclerotized parts of male genitalia, dorsal or ventral view (8, 14, 22); hooks of abdominal tergite IX and tubercles of tergite X of male, ventral view and view slightly from behind (10, 12, 20); genital plate of male (13, 21) and its distal part (11, 16, 17, 18), ventral view; apex of hooks of abdominal tergite IX of male, median view (15, 19).

Figs. 23–35. Dinolarnaca gen. n, Otidiogryllacris Karny, and Phryganogryllacris Karny: (23–26) D. furcilla sp. n. (holotype), (27, 28) D. deinura sp. n., (29) O. peraki Gor. (holotype), (30) Ph. trusmadi sp. n., (31, 32) Ph. vinhphuensis minuscula subsp. n., (33, 34) Ph. v. vinhphuensis Gor. (holotype), (35) Ph.? discus sp. n. Apex of abdomen of male in posterior view and its genital plate in ventral view (23, 30); the same, but apex of abdomen in ventral view (27); apex of abdomen, dorsal view (24); sclerotized parts of male genitalia (25, 28, 29); genital plate and apex of abdominal sternite VII of female, ventral view (26); dorsal side of apex of left hind tibia (31, 33); genital plate of male (32) and its distal part (34), ventral view; copulatory structures of apex of female abdomen, ventral view (35).

**Figs. 36–50.** Neanias Br-W. and Aancistroger B.-Bien.: (36–38) N. erinaceus sp. n. [(36) holotype]; (39, 40) N. amplus sp. n. [(39) holotype], (41, 42) N. medius sp. n. [(41) holotype]; (43, 44) N. parvus sp. n.; (45) N. pliginskyi sp. n., (46–48) N.? angustipennis sp. n. (holotype); (49, 50) N. similis sp. n. Apex of abdomen, in posterior view and in view slightly from below, and its genital plate or distal part of this plate, ventral view (36, 39, 41, 43, 45); genital plate of male, ventral view (37); genital plate of female with apex of abdominal sternite VII (38, 40, 46) and with sternite VII and apex of abdominal sternite VIII (49), ventral view; distal part of genital plate of female, ventral view (42, 44); elytra (47), dorsal side of right hind tibia (48) and its apex (50).

**Figs. 51–60.** Zalarnaca Gor., Dinolarnaca gen. n., and Neanias Br.-W.: (51, 52) Z. ornatula sp. n. (holotype); (53, 54) Z. globiceps gialai sp. n.; (55, 56) Z. pulcherrima sp. n. [(56) holotype]; (57) D. furcilla sp. n. (holotype); (58) D. deinura sp. n.; (59, 60) N.? angustipennis sp. n. (holotype). Head, front view (51, 53, 55, 57–59); anterior part of body, dorsal view (52, 54, 56, 60).

**Figs. 61–69.** Ovipositor, lateral view: (61) Zalarnaca globiceps gialai subsp. n., (62) Z. pulcherrima sp. n., (63) Dinolarnaca furcilla sp. n., (64) Neanias erinaceus sp. n., (65) N. amplus sp. n., (66) N. medius sp. n., (67) N. parvus sp. n., (68) N. angustipennis sp. n. (holotype), (69) Phryganogryllacris? discus sp. n.