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Grylloptera and Orthoptera s. str. from Nepal and Darjeeling in the Zoologische Staatssammlung München

By **Sigfrid Ingrisch**

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A list of 79 species and subspecies of Grylloptera and Orthoptera from Nepal and Darjeeling in the collection of the Zoologische Staatssammlung München is given. Most of the material has been collected during the Dierl-Forster-Schacht expeditions to Nepal in 1964, 1967, and 1973. One genus and seven species are new to science. Keys to the species of *Orthelimaea* and Gryllotalpidae of Nepal and India are provided.

New descriptions: *Teratura maculata*, spec. nov. (Meconematidae); *Elimaea (Orthelimaea) himalayana*, spec. nov., *Isopsera spinosa*, spec. nov., *Isopsera caligula*, spec. nov. (Phaneropteridae); *Gryllotalpa pygmaea*, spec. nov. (Gryllotalpidae); *Nepalocaryanda latifrons*, gen. nov. & spec. nov., *Chorthippus (Glyptobothrus) dierli*, spec. nov. (Acrididae).

New synonyms: *Serrifemora* Liu, 1981 = *Sikkimiana* Uvarov, 1940, *Serrifemora antennata* Liu, 1981 = *Sikkimiana darjeelingensis* I. Bolivar, 1914.

New combination: *Omocestus hingstoni* Uvarov, 1925 = *Chorthippus (Glyptobothrus) hingstoni* (Uvarov, 1925).

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Introduction

The present study is mainly based on material collected during the expeditions of Dr. Dierl, Dr. Forster, and Dr. Schacht to Nepal in 1964, 1967, and 1973. Some additional material derives from the Ebert-Falkner expedition in 1962 and from various collectors.

As most of the insects have been collected with a light trap, Tettigonioidea and Grylloidea are rather abundantly represented. In contrast, most species of Acridoidea agree with those recently recorded from Nepal by Chopard & Dreux (1966), Bey-Bienko (1968), Balderson & Yin (1987), and Ingrisch (1987). Tetrigidae are not included in the present study as the systematics of this family is confusing and a revision of generic and suprageneric classification needed.

Routes and localities of the 1962 and 1964 expeditions are described in Dierl (1966). Some of the collecting sites of 1967 and 1973 correspond with localities of 1964. A list of all localities at which orthopterous insects have been collected is given below. The spelling of local names is in accordance with Dierl (1966). Names of provinces have been updated.

List of localities

a) Nepal

Dierl-Forster-Schacht expeditions:
(The numbers in brackets refer to the locality number in Dierl 1966)

Province Bagmati:
D1, Kathmandu – Chauni, 1400 m (1)
D1a, 14. IV.–3. V. 1967
D1b, 23. V.–2. VII. 1967
D1c, 11. VIII.–3. IX. 1967
D1d, 19. IV.–2. V. 1973
D2, Kathmandu Valley, Godavari, 1600–1800 m (2)
D2a, 31. V.–11. VI. 1967
D2b, 7.–9. VIII. 1967
D3, Environs of Kathmandu, Pharping, 20. VIII. 1967
D4, Environs of Kathmandu, Banera, 30. VI. 1967
D5, Sun Kosi Valley, south of Barahbise, 1200 m 30. VI. 1967 (21)
D6, Pultschuk, 2300–2500 m, 14. VI. 1967 (3)
D7, Resangu, 1800 m, 27. III. 1964 (22)

Province Narayani:
D8, Rapti Valley, Monahari Khola, Belwa, 350 m, 7.–13. V. 1967
D9, Rapti Valley, Jhavani, 200 m, 15.–19. V. 1967
D10, Chisapani Garhi, 1600 m, 11.–15. VII. 1967
D11, Bhainse Dobhan, 730 m, 16.–20. VII. 1967

Province Janakpur:

D12, Jiri, 2000 m, 1.–13. IV. 1964 (4)
D13, Khimti Khola, east of Jiri, 2000 m, 14. IV. 1965
D14, Bhandar (below Thodung), 2200 m, 5. VIII. 1964 (6)

Province Sagarmatha:
D15, Jubing, 1600 m, 3.–13. V. 1964 (9)
D16, Khumjung, 3800 m, 30. VI. 1964 (14)

Ebert-Falkner expedition:
(The numbers in brackets refer to the numbers in figs 4–5 in Dierl 1966)

Province Bagmati:
E1, Kathmandu, 1400 m, 24. IX. 1962
E2, Kathmandu–Resangu, 5.–8. VIII. 1962
E3, Resangu, 2000 m, 5. VIII. 1962
E4, Indrawati Khola, Jaraetar (= Saretar), 1700 m, 26. IV. 1962 (5)
E5, Nawalpur (= Naulaphur), 1900 m, 28. IV. 1962
E6, Balephi Bazar, 29. IV. 1962
E7, Sun Kosi Valley, 2150 m, 2. V. 1962 (6)
E8, Sun Kosi Valley, Daulaghat (= Dolagard), 6. VIII. 1962

Province Narayani:
E9, Rapti Valley, ca 20 miles west of Hitaura, 300 m, 23.–27. III. 1962 (1)
E10, Rapti Valley, Megouli, 300 m, 29. III.–4. IV. 1962 (2)
E11, Bhimphedi, 400 m, 4.–7. IV. 1962 (3)

Province Janakpur:
E12, Jiri, 1900–2000 m, 17. V. 1962 (7)

Other collections:
G1, Tschianbas, 2200 m, 18. XII. 1960, Gruber
G2, Prov. Janakpur, Tamba Khola, 950–1600 m, 31. I. 1961, Gruber
G3, Prov. Janakpur, Liku Khola, 1500 m, 20. I. 1968, Gruber
G4, Prov. Bagmati, Loc-Thangot, south of Kathmandu, 1400 m, 23. IV. 1966
G5, Peta Khola, 1580 m
G6, Nepal, Loc-Shaodshi, north of Katmandu, 1400 m, 16. IV. 1966.

b) India:

I1, Environs of Darjeeling (without precise data)

Depositories and acknowledgements

The present paper is mainly based on the collection of the Zoologische Staatssammlung München (ZSM). For comparison some material of the following collections (with their abbreviations used in the text) was studied: British Museum of Natural History London (BMNH), Naturhistorisches Museum Wien (NHMW), Museo Civico di Storia Naturale di Genova (MSNG), collection F. Willemse Eygelshoven (CW), and my own collection (CI).

The material was made available by Dr. Baehr and Dr. Dierl (München) to whom I wish to express my gratitude. For the loan of material, advice, and useful information I am grateful to Dr. U. Aspöck and Dr. A. Kaltenbach (Wien), Dr. R. Poggi (Genova), Dr. D. R. Ragge (London), Dr. W. Thomas (Bad Nauheim), Dr. F. Willemse (Eygelshoven), and Dr. Yin (Xining).

Grylloptera

Tettigonioidea

Conocephalidae

Conocephalini

Conocephalus maculatus (Le Gouillou, 1841)

Le Gouillou, 1841: 294 *(Xiphidion)*
Karny 1912a: 11; Pitkin 1980: 344–345, figs 15, 31

Distribution: Tropical regions from Africa to Australia.
Localities: 1♂, 1♀, D8; 1♀, D9; 1♂, E11; 1♀, G3.

Copiphorini

Euconocephalus pallidus (Redtenbacher, 1891)

Redtenbacher, 1891: 414 *(Conocephalus)*
Karny 1912b: 35

Distribution: Oriental Region.
Locality: 1♀, D1d.

Discussion. The genus needs revision, which might probably lead to a significant reduction of the number of species. The female at hand agrees well with the description given by Redtenbacher (1891). Fastigium, tegmen and ovipositor are within the range of the measurements in the original description, while pronotum and femora are slightly smaller.

Pseudorhynchus annulatus Karny, 1907

Karny, 1907: 18
Karny 1912b: 25

Distribution: Sikkim.
Locality: 1 ♀, D2a.

Discussion. The species has been described after one female from Sikkim. The ♀ at hand is negleciably larger, but otherwise agrees perfectly well with the description given by Karny (1907).

Pyrgocorypha spec.

Locality: 1 ♀, D1c.

Discussion. The genus *Pyrgocorypha* is widespread in the Oriental Region. Two valid species are presently recognized (Redtenbacher 1891, Karny 1907, 1912). The ♀ at hand does not agree well with either of them. Since a modern revision of the genus is lacking, I hesitate to describe a new species from a single female.

Meconematidae

Xiphidiopsis denticulata Karny, 1926

Karny, 1926: 135–136, fig. 38
Bey-Bienko 1971: 474; Beier 1966: 267–268

Distribution: Oriental Region.
Locality: 1 ♀, E8.

Discussion. Females of this species are recognisable by the characteristic shape of the subgenital plate and the base of the ovipositor.

Xiphidiopsis lita Hebard, 1922 (?)

Hebard, 1922: 345, pl. 24, fig. 12–13
Bey-Bienko 1971: 476; Beier 1966: 270

Distribution: Oceania and Assam. The species is thought to reproduce parthenogenetically.
Localities: 1 ♀, D15; 1 ♀, E10.

Discussion. Both females have been collected as freshly moulted individuals and are thus in bad condition, that makes an exact determination difficult. They clearly belong to the lita-group of Bey-Bienko (1971). Within this group, the measurements – especially the ovipositor length – fit only with that of *lita*.

Xiphidiopsis spec. 3

Locality: 1 ♀, D8.

Discussion. This and the following species possibly represent undescribed forms. As the most reliable caracters for the separation of species in *Xiphidiopsis* are the male external genitalia, it seems unwise to describe new species only after females.

Xiphidiopsis spec. 4

Locality: 4 ♀, I1.

Teratura Redtenbacher, 1891

Redtenbacher, 1891: 333, 492
Karny 1912a: 3, 4; Beier 1966: 278
Typus generis: *Teratura monstrosa* Redtenbacher, 1891, by monotypy.

Discussion: The genus *Teratura* as now understood contained only one species, as forms subsequently described in this genus were later removed to *Xiphidiopsis* Redtenbacher, 1891, and *Alloteratura* Hebard, 1922. Only the type of *T. monstrosa,* a male from Burma, was previously known. Specimens from Nepal and Darjeeling are very similar in general appearance, the external and internal male genitalia however differ strikingly. The modification of the obscure male cerci follow the same general principle in *T. monstrosa* and the new species described below. Thus both are certainly congeneric. The range of the genus is thus extended and covers an area from the Central Himalaya to Indo-China.

Teratura monstrosa Redtenbacher, 1891 (figs 1–5)

Redtenbacher 1891: 492, fig. 79a, b
Karny 1912a: 4, pl. 1, fig. 1–2; Beier 1966: 278

Material studied. Holotype: ♂, Burma: Carin Ghecu, 1300–1400 m, L. Fea, II.–III. 1888 (MSNG).

Redescription

Measurements (length in mm): body 16.5; pronotum 5.1;fore wings 23; posterior femora 12.

For general morphology see descriptions in Redtenbacher (1891) or Karny (1912a). It should however be noticed that the description of females given by Karny (1912a) refers to *Xiphidiopsis suzukii* Matsumura & Shiraki, 1908.

Tenth tergite with hind margin semicircularly concave. Epiproct (sclerotised part of supra anal plate) tristellar, largely spaced from tenth tergite by membrane. Cerci arcuate, with a small basal tooth on ventro-internal margin, dorso-internal margin expanded behind circa basal third forming a plate bearing a small tooth on ventro-internal margin; subapically with a long, slender, acute, cranio-ventral process and with an additional ventral tooth. Apex of subgenital plate very slightly concave, almost truncate, with rather long styli. Titillators separate, basal parts very slender and parallel; apical parts upcurved, enlarged at base and narrowing to acute apex.

Teratura maculata, spec. nov.
(figs 6–17, 40)

Types. Holotype: ♂, Nepal: Rapti Valley, Monahari Khola, Belwa, 350 m, 7.–13. V. 1967, Dierl-Forster-Schacht (ZSM). – Allotype: ♀, same data as holotype (ZSM). – Paratypes: Nepal: 9♀, same data as holotype (ZSM); 1♀, Prov. Sagarmatha, Jubing, 1600 m, 3.–13. V. 1964, Dierl (ZSM); 1♂, Sun Kosi Valley, 2150 m, 2. V. 1962, Ebert-Falkner (ZSM); India: 1♂, Darjeeling, Mangpu, 1300 m, 2. IV. 1986, W. Thomas (CI).

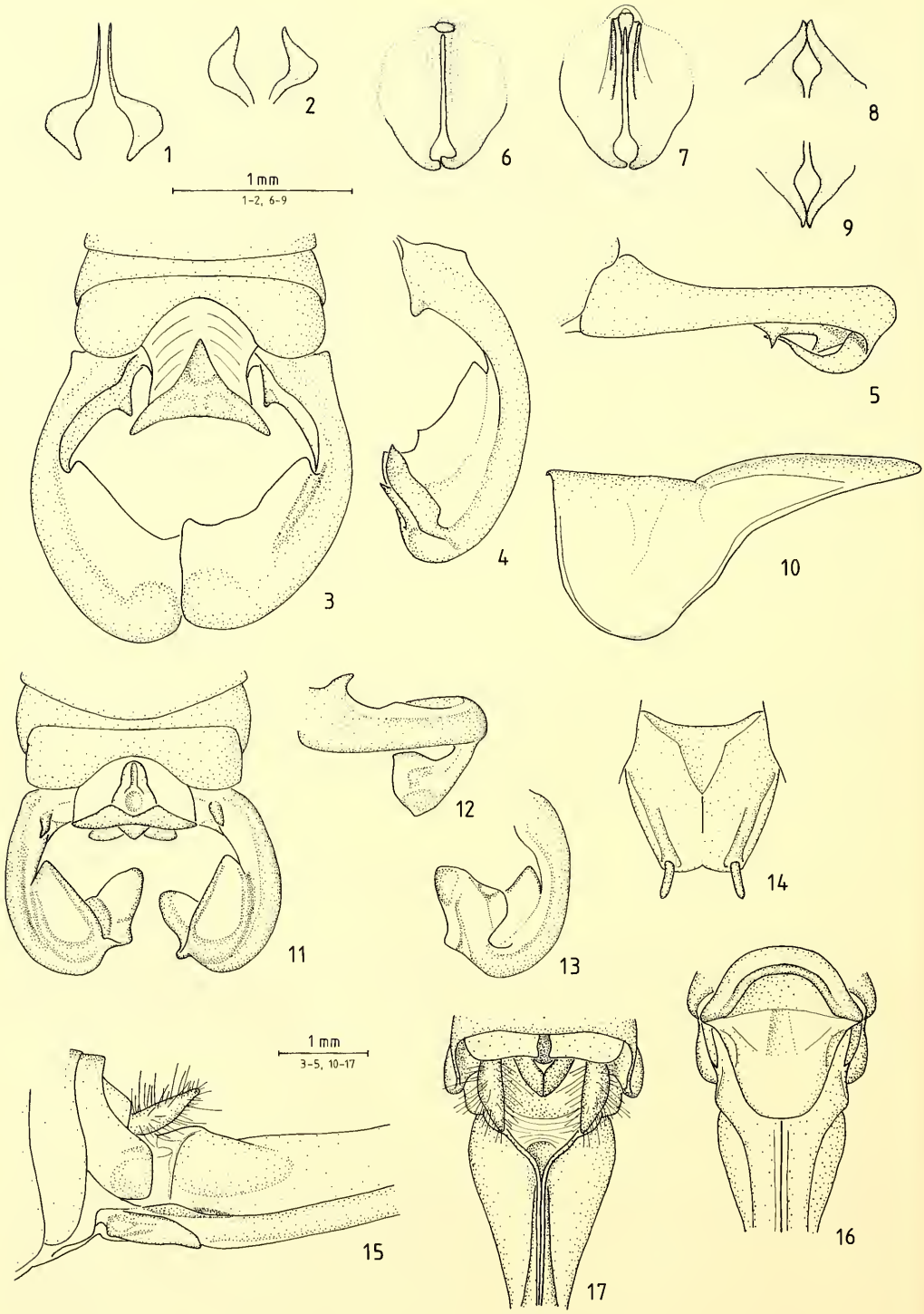
Type locality. Nepal, Rapti Valley, Belwa, 350 m (map in Dierl 1966, fig. 5).

Diagnosis. Very similar to *Teratura monstrosa* Redtenbacher, 1891 in general appearance. It differs however in male abdominal terminalia and titillators.

Description

Measurements (mm): body ♂ 14, ♀ 11–14; pronotum ♂ 3.9–4.5, ♀ 3.5–4.1; tegmen ♂ 18–21; ♀ 18–22; posterior femora ♂ 10–11, ♀ 10–12; ovipositor 7.0–8.5.

Male. Fastigium verticis acute-triangular, apex rounded, shallowly furrowed. Disc of pronotum convex in prozona, suddenly rised and flat in metazona; metazona with indication of a median keel and lateral shoulders, prolonged and almost completely covering stridulatory organ; ventral margin of paranota rounded. Prosternum unarmed. Tegmina slender, reaching or surpassing streched hind fe-



mora, hind wings 1–2.5 mm projecting. Femora and genicular lobi unarmed; anterior tibiae dorsally rounded, widened at the open tympana, with 4 ventro-internal and 5 ventro-external preapical spines and 1 apical spine each, the last external preapical and both apical spines very small; median tibiae somewhat widened and depress in ca. two basal thirds, ± rounded in apical third, spination as in anterior tibiae.

Tenth tergite at apex with a circa semicircular median concavity. Epiproct (sclerotised part of supra anal plate) spaced from the tenth tergite by membrane, divided into a smaller basal and a larger apical part, basal part furrowed, apical part (in apical view) with a median protuberance, longer dorsal and shorter ventral projections. Cerci arcuate, with a small basal tooth on dorso-internal margin, dorso-internal margin expanded, forming a basal ledge and an ovoid apical disc; apically with a large, expanding, cranio-ventral process. Subgenital plate slightly excised at apex, almost truncate, with comparatively long styli. Titillators at base fused, broad and hyalinous, however well slerotised on both sides of a median incision; apical part upcurved, slender, and obtusely pointed.

Female. General morphology as in male. Fastigium verticis only indistinctly furrowed. Pronotum with the sudden rise from prozona to metazona less pronounced, without median keel, metazona ovoid-triangular and less prolonged than in ♂.

Tenth tergite divided and both halves sub-rectangular. Cerci conical, very slightly arcuate, apex subacute. Subgenital plate rounded. Ovipositor slightly curved over the whole length, smooth, dorsal edge of ventral valves expanded at base.

Colouration. From uniformely light yellowish brown (green when alive?) to strongly mottled with dark brown or blackish markings and all transient forms.

Dark form. Antennae light brown annulated with black rings. Head yellowish brown with a dark dot on the cheeks between the eye and the clypeal suture and a smaller dot at the middle of the clypeal suture; fastigium and occiput medially dark. Disc of pronotum reddish brown borderd with black, paranota yellowish brown, blackish along ventral margin. Tergits yellowish brown or slightly infumated, the two apical tergits black; sternits yellowish brown. Cerci yellowish brown, in male external edge blackish. Ovipositor darkened apically. Femora of all legs yellowish brown, a postmedian ring and genicular area blackish. Tibiae of all legs blackish-brown with a median yellowish ring, hind tibiae with an additional yellowish ring at the very base; tarsi yellowish or with black markings. Tegmina and the protruding part of the hind wings brownish-hyalinous with dark brown spots; hind wings hyalinous.

Discussion. The name refers to the maculated appearance of the dark form.

Mecopodidae

Mecopoda elongata (Linné, 1758)

Linné, 1758: 429

Distribution: Oriental Region.
Localities: 1 ♂, 1 ♀, D1a; 1♀, D8; 2 ♂, I1.

Figs 1–17. 1.–5. *Teratura monstrosa* Brunner ♂ (holotype). 1. titillators in dorsal view; 2. do. in apical view; 3. apex of abdomen in dorsal view; 4. left cercus in ventral view; 5. do. in lateral view. – 6.–17. *Teratura maculata*, spec. nov. 6.–14. ♂ (holotype). 6.–9. titillators in 6. dorsal; 7. ventral; 8. apical; 9. cranial view; 10. pronotum; 11. apex of abdomen in dorsal view; 12. left cercus in lateral view; 13. do. in ventral view; 14. subgenital plate; 15.–17. ♀ (allotype), apex of abdomen and base of ovipositor in 15. lateral; 16. ventral, 17. dorsal view.

Pseudophyllidae

Sathrophyllia fuliginosa fuliginosa Stål, 1874

Stål, 1874: 70
Beier 1962: 200–201

Distribution: India and Indochina.
Locality: 1 ♀, D1c.

Phaneropteridae

Phaneroptera gracilis Burmeister, 1838

Burmeister, 1838: 690
Ragge 1956: 250–253

Distribution: Tropical regions from Africa to Australia.
Localities: 1 ♀, D8; 1 ♂, 1 ♀, I1.

Letana linearis Walker, 1869

Walker, 1869: 278
Kirby 1906: 400
Pyrrhicia nigrovittata Brunner v. W., 1878: 115, 117, pl. 2 fig. 18a, b

Distribution: Himalayan Range.
Localities: 1 ♂, D2a; 2 ♂, D5; 3 ♂, 1 ♀, D10.

Letana recticercis Chopard & Dreux, 1966

Chopard & Dreux, 1966: 603–604, fig. 1–2

Distribution: Nepal.
Localities: 2 ♂, D2a; 1 ♂, D15; 1 ♂, E11.

Letana atomifera (Brunner, 1878)

Brunner v. W., 1878: 115 (Pyrrhicia)

Distribution: India.
Localities: 3 ♂, D1c; 1 ♂, D2b; 1 ♂, E3.

Letana spec. 4

Locality: 7 ♂, D2a.

Discussion. The exact status of this and the following species will be settled in a forthcoming revision of the genus.

Letana spec. 5

Locality: 2 ♂, I1.

Himertula kinneari (Uvarov, 1923)

Uvarov, 1923: 651, pl. 1 fig. 5 *(Himerta)*

Distribution: India, Nepal.
Localities: 1 ♀, D5; 2 ♀, D8; 2 ♂, 2 ♀, D11; 1 ♀, E5; 1 ♂, E6; 1 ♂, 1 ♀, E8.

Elimaea Stål, 1874

Stål, 1874: 39
Brunner v. W. 1878: 90; Karny 1926: 19ff

The genus *Elimaea* comprises three subgenera (Karny 1926). The subgenus *Orthelimaea* Karny, 1926: 23–24, contains the species with straight fore femora. In both other subgenera they are curved as in phasmids. The collection of Nepalese orthopteroids contains two *Orthelimaea* species, one of which is new to science.

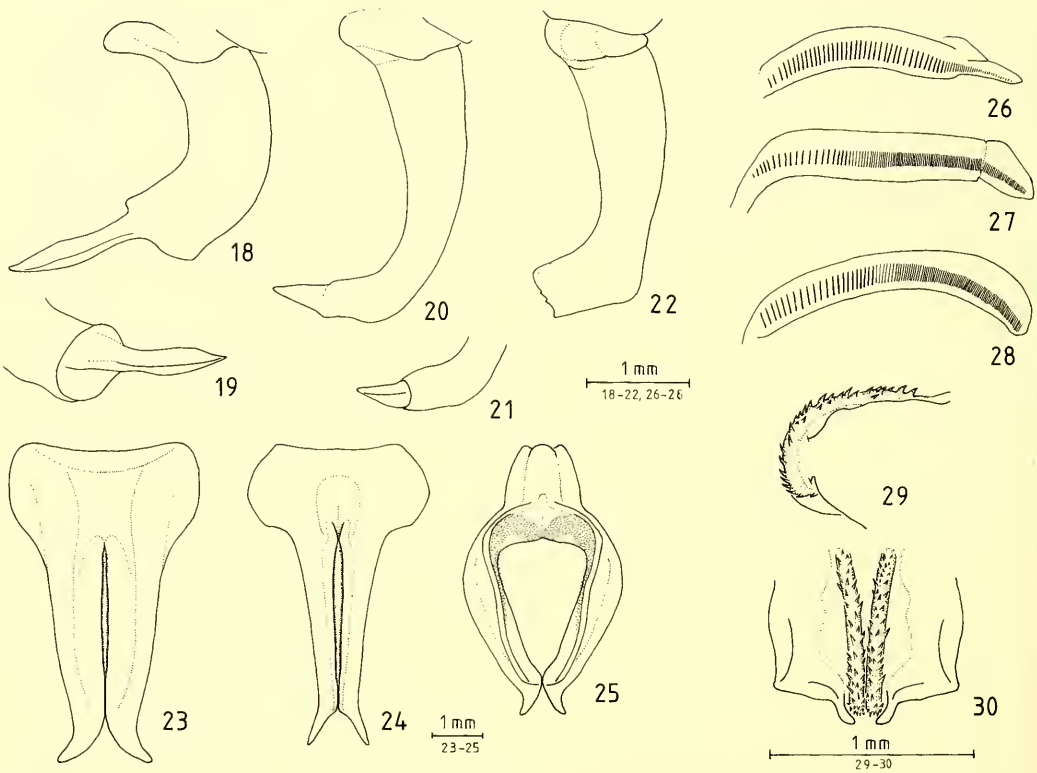
Tentative key to the species of the subgenus Orthelimaea (♂♂)

1. Vietnamese species. Tegmina with radial sector simply furcate. (This species is badly defined) . . . . . *klinkhardti*(Krausze, 1904)
– Other distribution. Radial sector of tegmina usually with 3 or 4 branches, in single individuals on one or rerely on both tegmina only with 2 branches 2
2. Smaller species: length of tegmina ‹ 24 mm. Cerci compressed and strongly curved dorsad, apex pointed. Subgenital plate fissing only in apical third (fig. 90 in Karny 1926). Thailand . . . . . *leeuwenii* Karny, 1926
– Lager species: length of tegmina › 29 mm. Cerci not strongly curved dorsad. Subgenital plate fissing for at least half of its length 3
3. Pronotum unicolourous (usually green) 4
– Pronotum with a fine, yellowish median carinula. The yellowish-brown colour may be extended to a broad band or not 5
4. Antennae black with white rings. Tegmina with stridulatory field moderately produced. Stridulatory file suddenly narrowing prior to posterior end (fig. 26), Cerci with apex excavated, dorsal apex with a long, pointed appendage (figs 18–19). India, Assam, Nepal, China . . . . . *insignis* (Walker, 1869)
– Antennae whitish with black rings. Tegmina with stridulatory field greatly extended. Cerci gracile, straight, pointed. Sulawesi . . . . . *inversa* Brunner, 1891
5. Cerci near apex suddenly inflexed, depressed and internal apex bidentate. Sri Lanka . . . . . *flavolineata* Brunner, 1878
– Cerci with apex securiform or with only one large tooth 6
6. Tegmina rather slender (ratio length: greatest width behind basal dilation of dorsal field 32–34: 5.5–6.0 mm). Stridulatory file with a break shortly before posterior end (fig. 27). Cerci securiform (fig. 22); lobes of suggenital plate widely separated in the middle (fig. 25). India, Simla, Sri Lanka . . . . . *securigera* Brunner, 1878
– Tegmina rather broad (ratio length: greatest width behind the basal dilation of dorsal field 35–40: 7–8 mm). Stridulatory file arcuate, uninterrupted (fig. 28). Cerci with apex slightly excavated, dorsal apex with a tooth (figs 20–21); lobes of subgenital plate almost parallel (fig. 24). Nepal . . . . . *himalayana*, spec. nov.

Elimaea (Orthelimaea) insignis (Walker, 1869) (figs 18, 19, 23, 26)

Walker, 1869: 344 *(Phaneroptera)*
Brunner v. W. 1878: 91–92, pl. 1 fig. 10a–d *(E. annulata);* Kirby 1906: 395; Uvarov 1927: 95

Distribution: India, Assam, Nepal, China.
Locality: 1 ♂, D11.



Figs 18.–30. *Elimaea (Orthelimaea)* ♂. 18.–22. right cercus (18., 20., 22. in dorsal; 19., 21. apex in ventral view) of 18.–19. *insignis* Walker (D11); 20.–21. *himalayana*, spec. nov. (holotype); 22. *securigera* Brunner (S. India. Kerala State. Thenmala); 23.–25. subgenital plate of 23. *insignis* Walker; 24. *himalayana*, spec. nov. (holotype); 25. *securigera* Brunner; 26.–28. stridulatory file (posterior margin of tegmen on right hand, base below) of 26. *insignis* Walker; 27. *securigera* Brunner; 28. *himalayana*, spec. nov. (paratype); 29.–30. phallus sclerites of *himalayana*, spec. nov. (paratype) in 29. lateral; 30. dorsal view.

Elimaea (Orthelimaea) himalayana, spec. nov.
(figs 20–21, 24, 28–30, 41)

Types. Holotype: ♂. Nepal, Prov. Narayani, Bhainse Dobhan, 730 m, 16.–20. VII. 1967, Dierl-Schacht (ZSM). – Paratypes: 1 ♂, same data as holotype (ZSM); 1 ♂, Kathmandu Valley, Godavari, 1600–1800 m, 9. VI. 1967, Dierl-Schacht (ZSM); 2 ♂, Resangu, ca 2000 m, 5. VIII. 1962, Ebert-Falkner (ZSM).

Type locality. Nepal, Prov. Narayani, Bhainse Dobhan, 730 m.

Diagnosis. The new species is similar to *E. insignis* (Walker, 1869) and *E. securigera* Brunner, 1878. The main differences are figured out in the key. An additional characters is the extension of a dark brown mark on the stridulatory field: in *E. insignis* it covers the whole area in front and behind of the stridulatory vein, in *E. himalayana* almost all of the area behind the stridulatory vein, and in *E. securigera* only the right (posterior) half of the stridulatory field.

Description

Measurements of males (mm): body 18–22; pronotum 5.0–5.8; tegmen 35–40, width behind dilation of dorsal field 7–8, posterior femur 24–28.

Male. Fastigium verticis very slender, dorsally furrowed, separated from fastigium frontis by a large gap. Pronotum with a fine median carina; humaral sinus distinct; paranota with rounded ventral margins. Tegmina with costal field widened in basal third; dorsal field dilated for 1/2.3 (1/2.1–1/2.5) of tegminal length; margins subparallel behind the dilation; radius sector branching from radius before middle of tegmen, trifurcate or rarely (1 ♂) only bifurcate; stridulatory file arcuate, stridulatory pegs dense and narrow in apical half. Anterior coxae with a small, obtuse spinule. Anterior femora dorsally rounded, straight, of equal width over the whole length. Anterior tibiae with internal and external tympana conchate.

Tenth tergite large, apex truncate to slightly concave. Supra anal plate subquadrate, apex slightly excised in the middle, apical angles rounded, a shallow median impression at base. Cerci behind basal swelling rounded, gradually narrowing and in apical half slightly, then strongly curved mediad, apical part somewhat compress, apex slightly excavated and dorsal margin prolonged into a tooth. Subgenital plate behind circa basal fourth suddenly narrowed and divided into two subparallel lobes, external apex of lobes subacute; median area of both lobes densely covered by small, strong spinules. Phallus with a pair of arcuate, toothed sclerites.

Colouration. Green with blackish-brown dots. Antennae (not well preserved) pale with indistinct, spaced, brown rings. Pronotum green with the following variable pattern on disc: (1) only median carina orange; (2) orange colour expanded into a band, indistinctly bordered with brown; or the orange median carina bordered laterally by (3) indistinct or (4) distinct and broad brown bands. Dorsal field of tegmina brown with green veins, stridulatory field with a large dark brown mark.

Female unknown.

Discussion. The name refers to the distribution of the new species.

Ducetia japonica (Thunberg, 1818)

Thunberg, 1818: 282
Ragge 1961: 182–186, figs 2, 3, 30, 51, 72, 79

Distribution: Oriental Region.
Localities: 2 ♂, D2a; 5 ♂, I1.

Isopsera spinosa, spec. nov.
(figs 31–35, 42, 50)

Types. Holotype: ♂, India: environs of Darjeeling (ZSM). – Allotype: ♀, same data as holotype. – Paratype: 1 ♂, Nepal, Kathmandu Valley, Godavari, 1600–1800 m, 9. VI. 1967, Dierl-Schacht (ZSM).

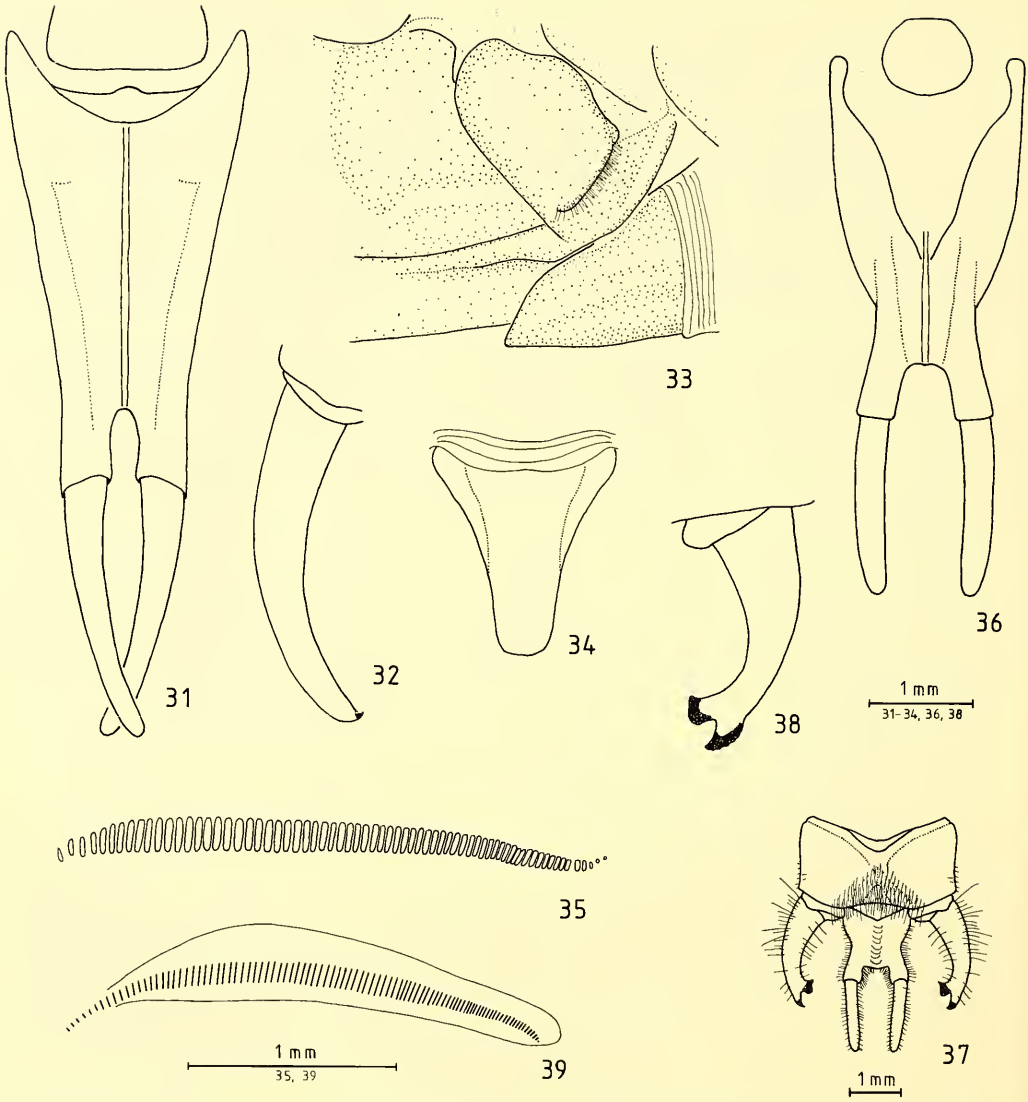
Type locality. Northern India, environs of Darjeeling.

Diagnosis. The new species is similar to *I. stylata* Brunner, 1878. It differs in the possession of spines on ventral margins of anterior and median femora, apex of cerci with a small tooth, and subgenital plate not tricarinate.

Description

Measurements (mm): body ♂ 22–25, ♀ 25; pronotum ♂ 6.0–6.5, ♀ 7; tegmen 43–46, ♀ 48, width of tegmen ♂ 9.5–10.0, ♀ 11.5; posterior femur ♂ 25–28, ♀ 30; ovipositor 8.

Fastigium verticis slightly widening anteriorly, circa 2/3 the width of scapus, shallowly sulcate, separated from fastigium frontis by a narrow gap. Disc of pronotum almost flat, very slightly widening



Figs 31.–39. 31.–35. *Isopsera spinosa*, spec. nov. 31. subgenital plate ♂ (holotype); 32. left cercus ♂; 33. base of ovipositor and subgenital plate ♀ (allotype) in lateral view; 34. subgenital plate ♀; 35. stridulatory file ♂ (holotype). – 36.–39. *Isopsera caligula*, spec. nov. ♂ (holotype). 36. subgenital plate; 37. apex of abdomen in dorsal view; 38. right cercus; 39. stridulatory file.

posteriorly, sulci and a median, longitudinal furrow little distinct; anterior margin concave, posterior margin convex, lateral margins rounded-angular, straight; paranota 1.1–1.2 times higher than long, ventral margin rounded, humeral sinus weak. Mesosternal lobes triangular, metasternal lobes rounded. Tegmina surpassing hind knees, translucent; radial and medial fields with regular parallel transverse veinlets, less regular in costal field, and with a network of irregular veinlets; radius sector branching before middle of tegmen, simply furcate; dorsal field flat, acute triangular, 0.28–0.35 times the length of tegmen, stridulatory vein little protruding; stridulatory file not elevated on a socklet, with large pegs over the whole length. Anterior coxae spined; anterior tibiae dorsally furrowed, typana

open on both sides. Ventral margins of anterior femora with 2–3 internal and 0–1 external spines, mesofemora without internal and with 2–4 external, posterior femora with 6–8 internal and 5–7 external spines. Hind knees with internal and external ventral lobes bispinose. Spination of tibiae (preapical + apical spines): anterior tibiae dorso-internally 0 + 0, dorso-externally 1 + 1, ventro-internally 3–4 + 1, ventro-externally 3 + 1; mesotibiae dorso-externally 0 + 0, dorso-internally 1–2 + 1, ventro-externally 5–7 + 1, ventro-internally 4–6 + 1.

Male. Tenth tergite large, shallowly depressed along midline, apex subtruncate or slightly produced in the middle. Cerci moderately curved and narrowing apically, apex obtuse and with a small tooth. Subgenital plate narrow, with a median keel, apically fissing, styli substraight, of about half the length of subgenital plate or slightly longer. Phallus completely membranous.

Female. Subgenital plate triangular, apex obtuse. Ovipositor sickle-shaped, dorsal and ventral margins near apex with fine, rounded teeth.

Colouration. Almost uniformely shining green; abdominal terga with base black in the middle; lateral margins of pronotal disc reddish brown.

Discussion. The name of the new species refers to the possession of preapical spines on dorso-external margin of anterior and dorso-internal margin of median tibiae. In this character it differs from all other members of the genus. As the other features agree, the possession of spines on the dorsal margins of the anterior or median tibiae should not be regarded as an important generic character.

Isopsera caligula, spec. nov.
(figs 36–39, 43, 51)

Types. Holotype: ♂, Nepal: Rapti Valley, Monahari Khola, Belwa, 350 m, 7.–13.V.1967, Dierl-Forster-Schacht (ZSM). – Paratype: 1 ♂, same data as holotype (ZSM).

Type locality. Nepal, Rapti Valley, Belwa, 350 m (map in Dierl 1966, fig. 5).

Diagnosis. The new species is easely recognisable by the characteristic shape of the male cerci, which are unique within the genus.

Description

Measurements of males (mm): body 21; pronotum 4.5; tegmen 28–29, width of tegmen 6.5; posterior femur 16.5–17.0.

Male. Fastigium verticis circa 2/3–4/5 the width of scapus, slightly widening in front, dorsally furrowed, separated from fastigium frontis by a narrow gap. Disc of pronotum flat, with a very fine, interrupted median furrow, sulci indistinct, anterior margin truncate to very slightly concave, posterior margin convex, lateral margins rounded-angular, almost parallel in front, very slightly widening behind; paranota 1.1–1.2 times higher than long, ventral margin rounded, humeral sinus distinct. Mesosternal lobes triangular, metasternal lobes rounded. Tegmina surpassing hind knees, translucent, between princible veins with roughly parallel transverse veins and with an irregular network of veinlets; radius sector branching before middle of tegmen, simply furcate; dorsal field flat, circa 1/3.5 of tegminal length, stridulatory vein hardly protruding; stridulatory file as in figs 39, 51. Hind wings 6 mm longer than tegmen. Anterior coxae with an acute spine; anterior and median tibiae sulcate above; tympana open on both sides. (In the holotype the left fore leg is a smaller regeneration lacking tympana). Hind knees with internal and external ventral lobes bispinose. Anterior femora with 3–4 ventro-internal, mesofemora with 2–4 ventro-external, and posterior femora with 5–6 ventro-external and 1–4 ventro-internal spines. Spination of tibiae (preapical + apical spines): anterior tibiae dorso-externally 0 + 1, dorso-internally 0 + 0, ventro-externally 2–3 + 1, ventro-internally 3–4 + 1; mesotibiae dorso-externally 0 + 0, dorso-internally 0 + 1, ventro-externally 5–6 + 1, ventro-internally 3–5 + 1.

Tenth tergite large, dorso-medially covered with long dense hair, depressed in the middle, apex subtruncate. Supra anal plate triangular, flat. Cerci wide at base, margins narrowing in ca. basal half, almost parallel in apical half; apex widened and divided into an external acute and an internal, apically rounded, medially pointed tooth. Subgenital plate narrowing apically, with a median, triangular, membraneous impression in basal half, and a median keel in apical half, apex divided into two short, tubular, diverging processes, interspace wide; styli substraight, about half as long as subgenital plate. Phallus completely membranous.

Colouration. Almost uniformely green; abdominal terga reddish along midline; antennae pale, annulated with black.

Female unknown.

Discussion: The name refers to the characteristic shape of the male cerci.

Gryllacrididae

Diaphanogryllacris postica (Walker, 1869)

Walker, 1869: 178 *(Gryllacris)*
Karny 1935: 316 *(Gryllacris);* 1937, p. 101–102

Distribution: India?, Bhutan.
Locality: 1 ♀, E4.

Discussion. The female agrees completely with the descriptions given in Karny (1935, 1937).

Diaphanogryllacris (?) spec.

Locality: 1 ♀, D8.

Discussion. The single female has a wing venation very similar to that of the preceding species, but a much slender appearance and lacks almost all black markings except a small spot in the basal half of the posterior tibiae. The tegminal veins are uniformely pale yellow, not dark as usually in *Diaphanogryllacris.* Pronotum and wing length are intermediate between *Diaphanogryllacris* and *Dictyogryllacris.* As a modern revision of the family is missing, I hesitate to describe a new species from a single female.

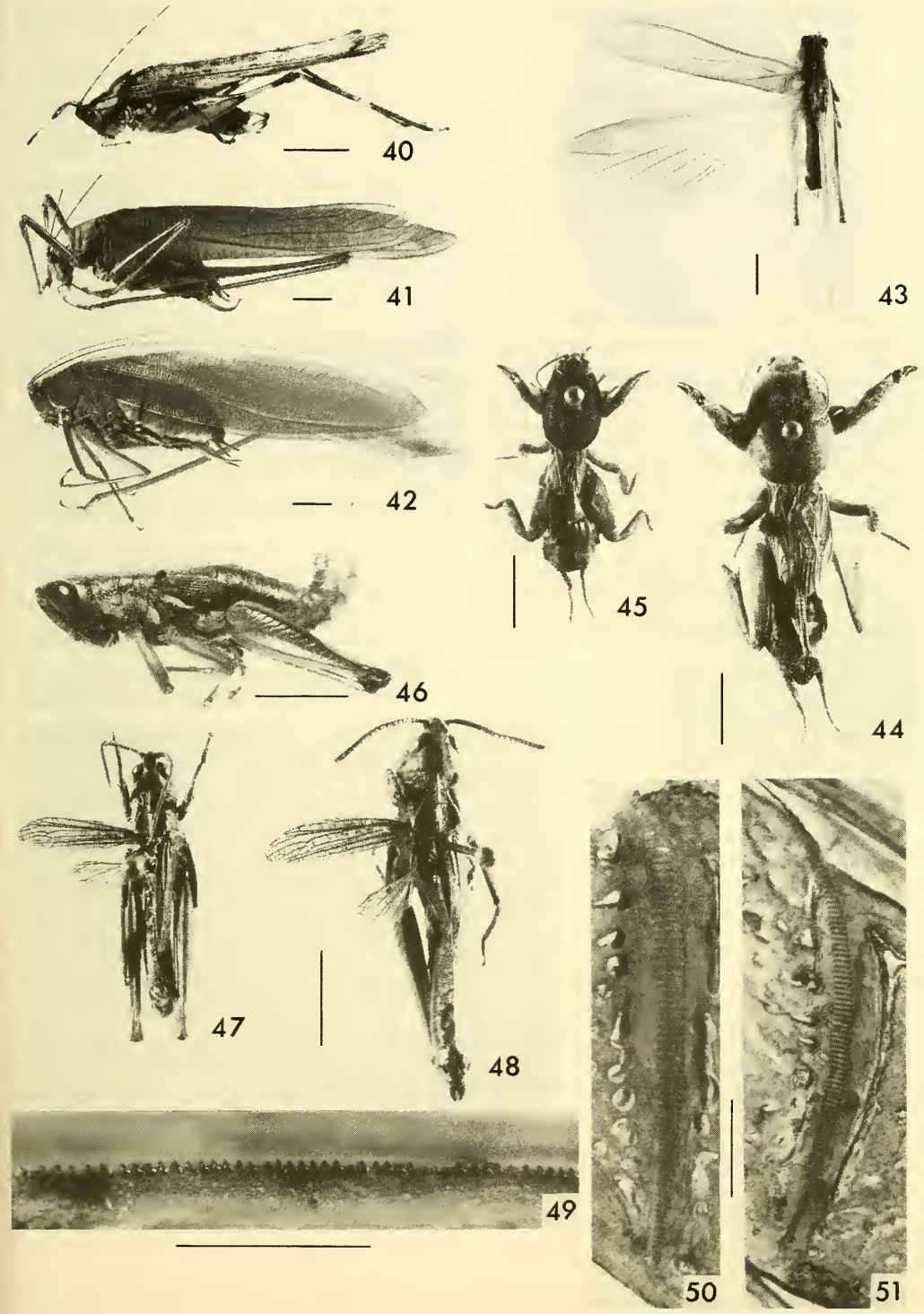
Gryllidae

Brachytrupinae

Tarbinskiellus portentosus (Lichtenstein, 1796)

Lichtenstein, 1796: 86 *(Acheta portentosa)*
Chopard 1967: 42–43 *(Brachytrupes);* 1969: 16–17 *(Brachytrypes);* Gorochov 1983: 320–321, figs 2, 12, 27–28, 30, 37–39

Figs 40.–51. 40. *Teratura maculata* nov. spec. ♂ (holotype); 41. *Elimaea (Orthelimaea) himalayana,* spec. nov. ♂ (holotype); 42. *Isopsera spinosa,* spec. nov. ♂ (holotype); 43. *Isopsera caligula,* spec. nov. ♂ (holotype); 44. *Gryllotalpa minuta* Burmeister (D12); 45. *Gryllotalpa pygmaea,* spec. nov. ♂ (holotype); 46. *Nepalocaryanda latifrons,* gen. nov. & spec. nov. ♂ (holotype); 47. *Chorthippus (Glyptobothrus) dierli,* spec. nov. ♂ (holotype); 48. *C. dierli* ♀ (allotype). Scale = 5 mm. – 49.–51. Stridulatory files of 49. *C. dierli* (section, paratype); 50. *I. spinosa* (paratype); 51. *I. caligula* (holotype). Scale = 0.5 mm.



Distribution: Oriental Region except Sunda islands.
Localities: 1 ♂, 3 ♀, D8; 3 ♂, 4 ♀, D9; 1 ♀, D10; 1 ♂, D11; 1 larve, E5.

Gryllinae

Gryllus bimaculatus De Geer, 1773

De Geer, 1773: 521, pl. 43, fig. 4
Chopard 1967: 49–52; 1969: 35–37

Distribution: South Europe, Africa, tropical Asia.
Localities: 1 ♀, D1b; 1 ♂, 6 ♀, D12; 1 ♂, 1 ♀, E11.

Teleogryllus occipitalis (Serville, 1838)

Serville, 1838: 339 *(Gryllus)*
Townsend 1980: 154–158
Teleogryllus mitratus, nec Burmeister, 1838, misidentification Chopard 1967: 98; 1969: 41 *(Gryllus)*

Distribution: Oriental Region.
Localities: 1 ♂, 5 ♀, D1a; 1 ♂, 2 ♀, D1b; 1 ♂ 1 ♀, E1.

Teleogryllus mitratus (Burmeister, 1838)

Burmeister, 1838: 734 *(Gryllus)*
Townsend 1980: 158–160
Gryllus testaceus Walker, 1869: 38; Chopard 1967: 99–100 *(Teleogryllus)*; 1969: 40–41

Distribution: Oriental Region.
Localities: 1 ♂, D1a; 1 ♂, D8; 1 ♀, D9.

Plebeiogryllus guttiventris (Walker, 1871)

Walker, 1871: 6 *(Gryllus)*
Chopard 1967: 94–95; 1969: 51 *(Gryllus)*

Distribution: India, Sri Lanka, Burma.
Locality: 2 ♂, 4 ♀, D1b.

Modicogryllus confirmatus (Walker, 1859)

Walker, 1859: 221 *(Acheta)*
Chopard 1967: 80–81; 1969: 58–60 *(Gryllus)*

Distribution: Tropical Asia from Israel to the Philippines.
Locality: 3 ♂, 10 ♀, D1a.

Melanogryllus chopardi Bey-Bienko, 1968

Bey-Bienko, 1968: 119, fig. 15–16

Distribution: Nepal, Namdu.
Locality: 1 ♂, 2 ♀, E12.

Discussion. Previously, the species was only known from the holotype (♂) collected near Namdu, 1400–1500 m. The material at hand has been collected 10–15 km (straight distance) from the type lo-

cality. The ♂ from Jiri has slightly shorter fore wings than the type, and a very small tympanum on the internal side of the anterior tibiae. Otherwise it agrees well with the original description.

Additional description

Measurements (mm): body ♂ 17, ♀ 15–17; pronotum ♂ 3.5, ♀ 3.3–3.8; tegmen ♂ 8.5, ♀ 3.5–4.5; posterior femur ♂ 11, ♀ 9.5–11; ovipositor 11–13.

Female. Similar to male except for sexual characters and wings. Head black, ocelli yellowish, one female with yellow lines along the inner margin of compound eyes prolonged on occiput, and occiput with indication of additional four yellowish lines, the other female only with yellow longitudinal spots laterodorsally of the lateral ocelli and occiput completely black. Micropterous, fore wings reaching to middle or apex of third abdominal tergite; dorsal field of fore wings yellowish brown, cubital veins yellowish, media and anal veins dark, lateral field black with 5 ± parallel veins (3 branches of subcosta and 2 of radius). Hind wings reduced to lateral pads. Anterior tibiae with a large, oval, external, and a very small internal tympanum. Anterior and median legs black; posterior femora brown, somewhat darker above; posterior tibiae blackish with 6 external and 6 internal subapical spines.

Supra anal plate somewhat narrowed before the middle, with indication of a large, clover-leaf-shaped depression bordered by folds. Subgenital plate short, transverse, apex slightly concave. Ovipositor long, apical valves lanceolate, slender, apex acute.

Gryllodes sigillatus (Walker, 1869)

Walker, 1869: 46 *(Gryllus)*
Chopard 1967: 108–109; 1969: 85–88.

Distribution: Cosmotropical, synanthropous.
Locality: 1 ♀, D3.

Velarifictorus aspersus (Walker, 1869)

Walker, 1869: 39 *(Gryllus)*
Chopard 1967: 122–123; 1969: 111–112 *(Scapsipedus)*

Distribution: Oriental Region.
Locality: 2 ♂, 4 ♀, D8.

Loxoblemmus equestris Saussure, 1877

Saussure, 1877: 252, pl. 13 (XVI), figs 4, 4a–c
Chopard, 1967: 126; 1969: 122–123

Distribution: Oriental Region and Indonesia to Celebes.
Locality: 1 ♂, 2 ♀, D8.

Discussion. The specimens at hand (especially the females) are slightly larger than the measurements given in Chopard (1969), the scapus lacks the short dentiform projection. Also Bhowmik (1985) indicates that the "scape" may be with or without a short dentiform projection. The male genitalia are the same as in specimens with a projection.

Measurements (mm): body ♂ 15, ♀ 13–15; pronotum ♂ 2.3, ♀ 2.8–3.0; tegmen ♂ 7, ♀ 8.5–9; posterior femur ♂ 8, ♀ 9–10; ovipositor 6.5–8.

Trigoniidae

Nemobiinae

Dianemobius (D.) fascipes (Walker, 1869)

Walker, 1869: 67 *(Eneoptera)*
Chopard 1967: 169–170 *(Pteronemobius);* 1969: 164–165 *(Pteronemobius);* Vickery 1973: 421; Gorochov 1981: 24

Distribution: Oriental Region.
Locality: 2♂, 8♀, D8.

Discussion. All specimens are parapterous.

Dianemobius (D.) csikii (I. Bolivar, 1901)

I. Bolivar, 1901: 248 *(Nemobius)*
Chopard 1967: 170 *(Pteronemobius);* 1969: 165 *(Pteronemobius);* Gorochov 1981: 24

Distribution: Sibiria, China, India, Sri Lanka.
Locality: 2♀ (parapterous), D8.

Oecanthidae

Oecanthus indicus Saussure, 1878

Saussure, 1878: 454
Chopard 1968: 432–433; 1969: 267

Distribution: Oriental Region, China, and Japan.
Localities: 1♂, 1♀, D8; 1♂, E11.

Gryllotalpidae

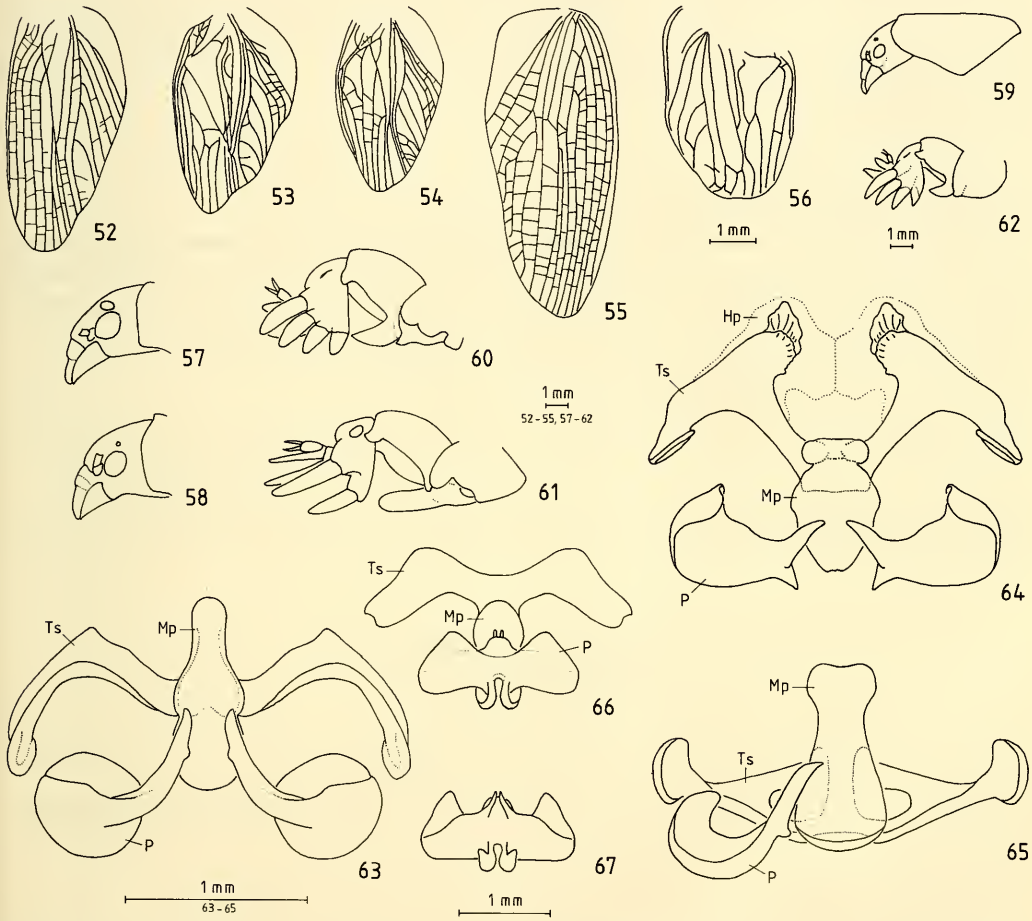
Tentative key to the species of Gryllotalpidae of Nepal and northern India

1. Anterior tibiae armed with 4 dactyls (fig. 60). *Gryllotalpa* 2
– Anterior tibiae armed with 2 dactyls (fig. 61). *Scapteriscus* 6
2. Hind wings abbreviated, shorter or slightly longer than tegmina, but not reaching tip of abdomen (figs 44–45). Ocelli small and not bulging 3
– Hind wings much longer than tegmina, always surpassing tip of abdomen. Ocelli variable in size 4
3. Size medium. Hind wings slightly longer than tegmina (fig. 44) ♂ genitalia as in fig. 63 .... *G. minuta* Burmeister
– Size small. Hinds wings completely hidden by tegmina (fig. 45), ♂ genitalia as in figs 64–65 .... *G. pygmaea*, spec. nov.
4. Slender. ♀: veins of tegmina very close, parallel, not deviated at base (fig. 52). ♂: genitalia as in fig. 9 in Chopard (1969) ..... *G. ornata* Walker
– More stout. ♀: veins of tegmina more distant and curved at base (fig. 54). ♂: genitalia different 5
5. Ocelli small and bulging. Discoidal cell of tegmen long and straight (5,5 × 2,2 mm, Chopard & Dreux 1966). ♂ genitalia as in fig. 5 in Chopard & Dreux (1966) ..... *G. obscura* Chopard & Dreux

– Ocelli large (fig. 57). Discoidal cell of fore wings 4 × 2 mm (Chopard & Dreux 1966). ♂ genitalia as in fig. 6 in Chopard (1969) . . . . . *G. orientalis* Burmeister

6. Ocelli large, separated in front by a space scarcely equal to their own length . *S. leptodactylus* Chopard

– Ocelli small, separated in front by a space almost double to their own length . . . . . *S. siangensis* Tandon & Shishodia



Figs 52.–67. *Gryllotalpa* and *Scapteriscus*. 52.–56. tegmen of 52. *G. ornata* Walker ♀ (D15); 53. *G. minuta* Burmeister ♂ (D12); 54. do. ♀ (D6); 55. *S. leptodactylus* Chopard ♂ (D8); 56. *G. pygmaea*, spec. nov. (holotype; twice as much enlarged as the preceding); 57.–59. head of 57. *G. orientalis* Burmeister ♂ (D1); 58. *G. minuta* Burmeister ♂; 59. *G. pygmaea*, spec. nov.; 60.–62. anterior leg in interior view of 60. *G. minuta* Burmeister ♂; 61. *S. leptodactylus* Chopard ♂; 62. *G. pygmaea*, spec. nov.; 63.–67. male internal genitalia of 63. *G. minuta* Burmeister (ventral view); 64.–65. *G. pygmaea*, spec. nov. (holotype, ventral and cranial view); 66.–67. *S. leptodactylus* Chopard (ventral and dorsal view). – Abbreviations: Hp, hyalinous plate; Mp, median prolongation of epiphallus; P, parameres; Ts, transversal sclerite of epiphallus.

Gryllotalpa orientalis Burmeister, 1838 (fig. 57)

Burmeister, 1838: 739
Chopard 1968: 450 (as synonym of *Gryllotalpa africana* Palisot de Beauvois, 1805: 229); Chopard 1969: 8–9 (*G. fossor* nec Scudder, misidentification); Townsend 1983: 185, figs 35, 57, 63

Distribution: Oriental Region.
Localities: 1 ♂, 4 ♀, D1a; 1 ♀, D1b; 1 ♂, D1d; 3 ♀, D8; 2 ♀, D9; 1 ♀, E2; 1 ♀, E4; 1 ♂, 1 ♀, G4.

Gryllotalpa minuta Burmeister, 1838 (figs 44, 53–54, 58, 60, 63)

Burmeister, 1838: 740
Chopard 1968: 451; Townsend 1983: 185, fig. 36

Distribution: Oriental Region.
Localities: 4 ♂, 1 larve in last instair, D12; 1 ♀, G6.

Discussion. This species is not included in Chopard (1969), although it is common in the Oriental Region. The male tegmina of the material at hand agree with the figure of the holotype in Townsend (1983). The number of stridulatory pegs on the male right stridulatory file varies between 57 and 71, which is also in accordance with the number (63) on holotype (see Townsend 1983).

Gryllotalpa ornata Walker, 1869 (fig. 52)

Walker, 1869: 5
Chopard, 1968: 452; 1969: 10–12

Distribution: India, Assam, Bhutan.
Localities: 1 ♀, D6; 1 ♀, D15.

Gryllotalpa pygmaea, spec. nov.
(figs 45, 56, 59, 62, 64–65)

Holotype. ♂, Nepal: Province Janakpur, Bhandar (below Thodung) 2200 m, 5. VIII. 1964, Dierl (ZSM).
Type locality. Nepal, Bhandar, 2200 m (see Dierl 1966: 154–156, figs 4, 9, 10).

Diagnosis. Very small for the genus with abbreviated tegmina and hind wings reduced to small pads. Differs from other Oriental species by smaller size, strongly reduced wings, and shape of ♂ genitalia.

Description

Measurements of male (mm): body 16; pronotum 5.5; tegmen 4; posterior femur 5.

Male. Ocelli small. Pronotum 1.3 times longer than broad, anterior margin concave, posterior margin rounded, inferior margin of lateral lobes triangularly rounded. Legs: Anterior femora short and stout, ventro-internal margin at base with a triangular, apically pointed process. Anterior tibiae with internal tympanum slit-shaped, tibial dactyls short and stout. Posterior tibiae with 4 internal preapical spines.

Tegminal venation as in fig. 56; harp (= discoidal cell) broad at base, suddenly constricted and with subparallel margins afterwards. Hind wings reduced to small pads, completely hidden by tegmina.

Colouration. Head, pronotum, and abdomen dark brown; pronotum with a pale, less hairy, longitudinal mark shaped as a "!". Mouthparts, tegmina, and legs light brown; dactyls dark.

Genitalia (nomenclature after Desutter 1987): Transversal sclerite of epiphallus with both halves T-shaped, median tip downcurved, lateral tip upcurved; median tips embedded in hyalinous, adjoi-

ning plates. Median prologation semicircularly curved. Parameres with 2 subacute median tips and lateral tips curved and rounded.

Female unknown.

Discussion. The name of the new species refers to its very small size.

Scapteriscinae

Scapteriscus leptodactylus Chopard, 1928 (figs 55, 66–67)

Chopard, 1928: 1, fig. 1–2
Chopard 1968: 459; 1969: 7

Distribution: India, Bangladesh.
Localities: 5 ♂, 2 ♀, D8; 1 ♀, D11.

Discussion. Only females of this species have previously been recorded. The description of the male is given below. The measurements of the females are also included, since they extend the range of variation in size given in Chopard (1969).

Additional description

Measurements (mm): body ♂ 28–30, ♀ 25–27; pronotum ♂ 8–9, ♀ 6.5–7; width of pronotum ♂ 6–6.5, ♀ 5–5.5; tegmen ♂ 12–13, ♀ 11–11.5; posterior femur ♂ 8–9, ♀ 7.5–8.

Male. Similar to ♀ but larger and less slender. The dark brown spot on the pronotum ± cross-shaped. Anterior leg and tegmen as in the ♀, tegmen with regularly parallel veins, without indication of a stridulatory organ, subcosta 5-branched.

Subgenital plate trilobate, with a smaller median and larger lateral lobes. Transversal sclerite of epiphallus broad, sinuate, its median prolongation short, rounded; parameres fused, shaped as in figs 66–67.

Orthoptera s. str.

Pyrgomorphidae

Atractomorpha crenulata (Fabricius, 1793)

Fabricius, 1793: 28 *(Truxalis crenulatus)*
Kevan 1969: 153; 1975: 99–108; 1977: 373–378

Distribution: India, Sri Lanka, Maldive Islands, East Nepal, Bangladesh to Indo-China.
Localities: 1 ♂, D8; 1 ♀, D9.

Atractomorpha angusta Karsch, 1888

Karsch, 1888: 333
Kevan 1969: 156; 1975: 114–118; 1977: 368–370

Distribution: Nepal and northeast India to Indochina, Malay Peninsula, Sumatra, Andaman Islands.
Localities: 1 ♂, 1 ♀, D11; 1 ♂, G1; 1 ♀, G5.

Chrotogonus trachypterus trachypterus (Blanchard, 1836)

Blanchard, 1836: 618, pl. 22, fig. 6
Kevan 1959: 147–163; 1977: 567–575

Distribution: Central and North India, Pakistan, Nepal, Bangladesh.
Localities: 1 ♀, D9; 1 ♀, D11; 1 ♀, E4.

Acrididae

Euthyminae (Hemiacridinae)

Spathosternum prasiniferum (Walker, 1871)

Walker, 1871: 65 *(Heteracris (?) prasinifera)*
C. Willemse 1955: 197–199

Distribution: Indian and Indo-Chinese Subregions.
Localities: 1 ♂, 1 ♀, D8; 1 ♀, D9; 1 ♀, D12; 1 ♀, D15.

Oxyinae

Oxya velox (Fabricius, 1787)

Fabricius, 1787: 239 *(Gryllus)*
Hollis 1971: 297–300

Distribution: Pakistan, Kashmir, India, Nepal, Bangladesh, China, Burma, Thailand.
Locality: 1 ♀, D9.

Oxya hyla hyla Serville, 1831

Serville, 1831: 287
Hollis 1971: 282–286

Distribution: Africa, Afghanistan, Pakistan, India, Sri Lanka, Nepal, Bangladesh.
Locality: 1 ♀, G1.

Discussion: Balderson & Yin (1987) recorded the eastern subspecies *O. hyla intricata* (Stål) from Nepal. Thus both subspecies meet in Nepal.

Nepalocaryanda, gen. nov.

Typus generis. *Nepalocaryanda latifrons*, spec. nov.

Diagnosis. In general appearance the new genus resembles Caryanda Stål, 1878. It differs in the following features: ventral genicular lobes of posterior femora unspined, distal sternits of abdomen without tufts of hairs, fastigium of vertex very broad and with indication of foveolae, epiphallus with only one pair of lophi, cingular valves not fused apically.

Description

Head conical, fastigium verticis (seen from above) circa triangular with rounded angles, wider than long, median longitudinal carinula absent to very weakly indicated, foveolae indicated by dotting. Eyes normal. Frontal ridge shallowly sulcate, carinae dorsally distinct, almost obsolete above clypeal suture. Prosternal process conical. Disc of pronotum weakly flattened, median carina weak, lateral carinae absent; weakly crossed by 3 transverse sulci. Mesosternal interspace longer than wide. Squamipterous. Tympana present. Lower genicular lobes of posterior femora acute but not spined; posterior

tibiae expanded apically, dorsal margins acute, external apical spine present. In male, tenth abdominal tergite with furculae; cerci compress; epiphallus with divided bridge and anterior projections larger than anchorae, only one pair of large, protruding lophi; oval sclerites large; ectophallic membrane bulging above phallus. Ovipositor valves long, external margins weakly toothed.

Discussion. The new genus is an abberant member of the Oxyinae. It does not posses the following very characteristic features of the subfamily: the apical spine of the ventral genicular lobes of the posterior femora, the tufts of hair on the distal abdominal sternits, and the apical fusion of the cingular valves of the phallus. It agrees with the Oxyinae in general appearance, the apical expansion of the hind tibiae, the divided bridge of ephiphallus, and in the peculiarities of the phallic complex except the fusion of the cingular valves. The key in Dirsh (1975) runs to Paraconophyminae. The phallic complex of the new genus however is quite different from the condition in that subfamily. The name refers to distribution and relationship to *Caryanda.*

Nepalocaryanda latifrons, spec. nov.
(figs 46, 68–82)

Types. Holotype: ♂, Nepal, Province Narayani, Chisapani Garhi, 1600 m, 11.–15.VII.1967, Dierl-Schacht (ZSM). – Allotype: ♀, same data as holotype (ZSM). – Paratype: 1♀, Kathmandu – Chauni, 1400 m, 24.VI.1967, Dierl-Forster-Schacht (ZSM).

Type locality. Nepal, Chisapani Garhi, 1600 m.

Diagnosis. The new species is similar to *Caryanda,* but lacks some typical Oxyinae characters (see generic diagnosis).

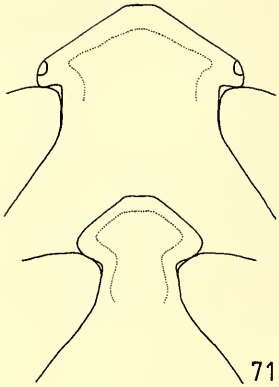
Description

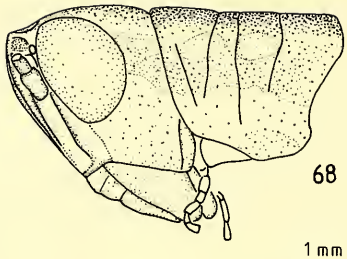
Measurements (mm): body ♂ 18, ♀ 22; pronotum ♂ 3.7, ♀ 5.1; tegmen ♂ 3.6, ♀ 4.2–4.4; posterior femur ♂ 9.5, ♀ – (lacking).

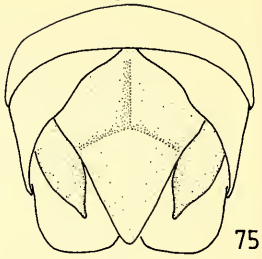
Fastigium laterally protruding in front of the eyes, transverse, apex (seen from above) obtuse. Foveolae indistinctly indicated in ♂, more or less absent in ♀. Pronotum with median carina very low, interrupted by the principle sulcus only; lateral carinae indistinct in ♂, extending to the principle sulcus; disc rugulose throughout, hind margin weakly emarginate, with emargination rounded to obtuse-angled. Paranota rugulose, less so in the dorsal half of prozona, with two shining spots at the dorsal margin. Prosternal spine conical, apex subacute. Mesosternal lobes transverse in both sexes, mesosternal interspace longer than broad. Metasternal lobes contiguous in ♂, separated in ♀. Tegmina lanceolate, coreaceous, slightly surpassing apex of first abdominal tergite. All femora thickened, especially in ♂. Hind femur with dorsal carina smooth, lobes of hind knee rounded. Hind tibia round, apically expanding, with 8 external and 9 internal preapical spines, external and internal apical spines present; internal spurs much longer than external. Metanotum and abdominal terga with a low median keel.

Male. Tenth tergite emarginate; furculae small, prominent. Supra anal plate trapezoidal, lateral angles obtuse, apex with a median, triangular extention, basally sulcated. Cerci compressed, high at base, apex pointed. Subgenital plate small, rounded. Epiphallus divided; anchorae small, anterior projections protruding; lophi protruding in a 90°-angle, curved-triangular; oval sclerites large, elongate. Ectophallic membrane voluminous and white above the phallus, slightly sclerotised in ventro-apical part. Rami slender, with a ventro-medial extension, covering the penis ventrally. Apices of cingular valves and apical penis valves obtuse. Basal and apical penis valves flexured.

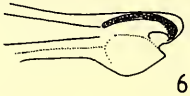
Females. Tenth tergite lateral. Supra anal plate circa triangular, divided by a transverse sulcus, apex obtuse. Subgenital plate with apex truncate but with a pair of triangular processes. Ovipositor with

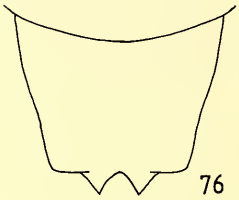




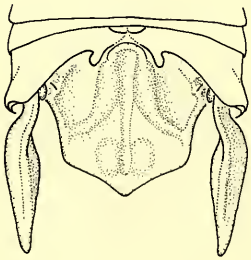


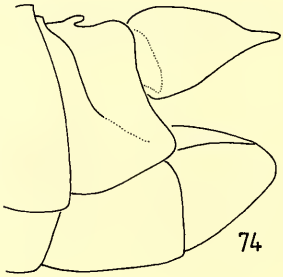
1 mm
68 - 69

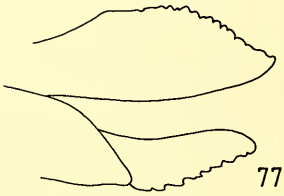


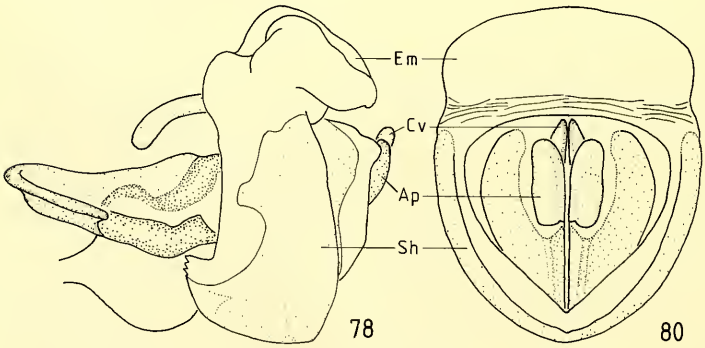


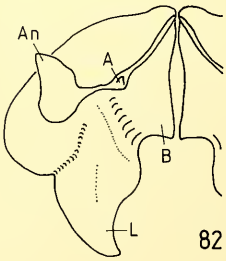
1 mm
70 - 77



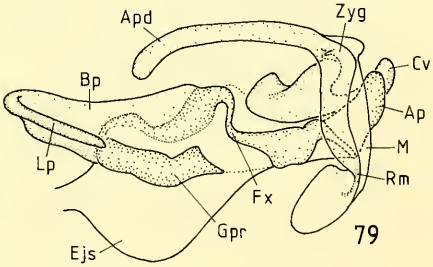


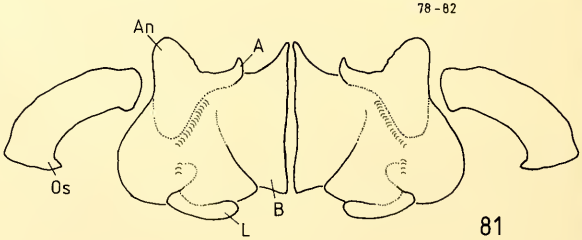






1 mm
78 - 82





dorsal valves slightly surpassing ventral valves, margins obtusely denticulated; ventral valves with a small tooth at apex of latero-basal sclerite.

Discussion. The name refers to the broad fastigium.

Coptacrinae

Coptacra minuta Bey-Bienko, 1968

Bey-Bienko, 1968: 124, fig. 17

Distribution: Endemic in eastern Nepal.
Locality: 1 ♂, 1 ♀, D12.

Discussion. Only the ♂ holotype was hitherto known. The specimens at hand have been collected close to the type locality. The male is slightly larger than the measurements given in Bey-Bienko (1968), and the tegmina are somewhat broader than the height of the hind femur.

Measurements: body ♂ 17.5, ♀ 25; pronotum ♂ 3.8, ♀ 5.5; tegmen ♂ 14, ♀ 19; hind femur ♂ 10.5, ♀ 14.

Eucoptacra praemorsa (Stål, 1860)

Stål, 1860: 330 *(Acridium [Catantops?] praemorsum)*
C. Willemse 1957: 444–445

Distribution: China, Taiwan, Thailand, Burma, Nepal, India.
Localities: 1 ♂, 1 ♀, D5; 2 ♂, D8; 1 ♀, D11; 1 ♀ D15.

Calliptaminae

Peripolus pedarius (Stål, 1878)

Stål, 1878: 75 *(Calliptamus)*
Kirby 1914: 261; Bhowmik & Halder 1985: 63–67, figs 1–12; Ingrisch 1987: 134

Distribution: Darjeeling, Sikkim, Assam, Nepal.
Locality: 2 ♀, I1.

Peripolus nepalensis Uvarov, 1942

Uvarov, 1942: 595
Shishodia & Gupta 1985: 59–61, figs A–F

Figs 68.–82. *Nepalocaryanda latifrons*, gen. nov. & spec. nov. 68. head and pronotum of ♂ (holotype); 69. apex of left hind femur ♂; 70. fastigium verticis of ♀ (allotype); 71. do. ♂; 72. prosternal spine in lateral view ♂; 73. apex of abdomen of ♂ in dorsal view; 74. do. in lateral view; 75. apex of abdomen of ♀ in dorsal view; 76. subgenital plate ♀; 77. ovipositor; 78.–82. phallus complex (♂ holotype); 78. phallus in lateral view; 79. do. ectophallic membrane removed; 80. phallus in apical view. 81. epiphallus in dorsal view; 82. do. in cranio-dorsal view. – Abbreviations: A, anchora; An, anterior projection; Ap, apical penis valve; Apd, apodeme; B, bridge; Bp, basal penis valve; Cv, valve of cingulum; Ejs, ejaculatory sac; Em, ectophallic membrane; Fx, flexure; Gpr, gonopore process; L, lophus; Lp, lateral plate of basal penis valve; M, membrane; Os, oval sclerite; Rm, ramus of cingulum; Sh, ectophallic sheath of penis; zyg, zygoma.

Distribution: Nepal and India (Uttar Pradesh).
Localities: 2♂ D10; 2♂, E8.

Euprepocnemidinae

Choroedocus robustus (Serville, 1839)

Serville, 1839: 647 *(Acridium robustum)*
Uvarov 1921: 109.

Distribution: Assam, Nepal (recorded as *Heteracris robusta* by Ingrisch 1987).
Localities: 1♂, E2; 3♀, I1.

Discussion. The species is very similar to *C. violaceipes* Miller, 1934. The separate status of both should be verified.

Cyrtacanthacridinae

Pachyacris vinosa (Walker, 1870)

Walker, 1870: 558 *(Acridium vinosum)*
C. Willemse 1957: 245–246

Distribution: Indian and Indo-Chinese Subregions.
Localities: 1♂, 2♀, D8; 1♀, D10.

Patanga japonica (I. Bolivar, 1898)

I. Bolivar, 1898: 98 *(Acridium japonicum)*
Uvarov, 1923: 364–365

Distribution: From Japan to northeastern Himalayas.
Locality: 1♀, D13.

Catantopinae

Stenocatantops splendens (Thunberg, 1815)

Thunberg, 1815: 71 *(Gryllus)*
F. Willemse 1968: 11–25

Distribution: Oriental Region and Indonesia.
Localities: 2♂, D5; 1♂, 1♀, D10; 2♀, D15.

Diabolocatantops innotabilis (Walker, 1870)

Walker, 1870: 629 *(Acridium innotabile)*
Dirsh 1956: 105 *(Catantops pinguis innotabilis);* Jago 1984: 371

Distribution: India, Sri Lanka, Nepal, Indo-China.
Localities: 1♀, D5; 1♀, D9; 1♂, G2.

Discussion. Until recently *innotabilis* was regarded a subspecies of *Catantops pinguis* Stål, 1860. Jago (1984) has divided the genus *Catantops* into several genera. He rises *D. innotabilis* as well as an-

other form, *D. signatipes* (Walker, 1870), from the synonymy in *C. pinguis* to the state of a distinct species. Unfortunatly he does not give any reason for doing so, nor does he give any information how to recognise the species. The key of Dirsh (1956) to separate the subspecies *pinguis* and *innotabilis* is also unsatisfactory.

Xenocatantops humilis humilis (Serville, 1839)

Serville, 1839: 662, 769 *(Acridium humile)*
Jago 1982: 454; Ingrisch 1987: 133

Distribution: South of Oriental Region and Indonesia. According to Jago (1982) it is replaced in the North of the Oriental Region by *X. brachycerus* (C. Willemse). Both subspecies occur in Nepal.
Localities: 2 ♀, D8; 1 ♀, E11.

Xenocatantops humilis brachycerus (C. Willemse, 1932)

C. Willemse, 1932: 106 *(Catantops)*
Jago 1982: 453

Distribution: China, Taiwan, Bhutan, Sikkim, Nepal, North India.
Localities: 1 ♂, 1 ♀, D2a; 1 ♂, 1 ♀, D15.

Discussion. Determination of the subspecies was done by comparison with type-material in the collection of F. Willemse. Jago (1982) rises the rank of *brachycerus* to specific level. However the differences he gives are not distinctive. According to the key in Jago (1982) all specimens should belong to typical *humilis*. Thus, *brachycerus* is better regarded as a smaller subspecies of *humilis* (F. Willemse 1968). This opinion is adopted here.

Phlaeobinae

Phlaeoba infumata Brunner v. W., 1893

Brunner v. W., 1893: 124–125
C. Willemse 1951: 85

Distribution: From China, Nepal, and India to Malaysia.
Localities: 1 ♂, 1 ♀, D1b; 1 ♂, 4 ♀, D8.

Phlaeoba sikkimensis Ramme, 1941

Ramme, 1941: 13

Distribution: Sikkim, Nepal.
Locality: 2 ♂, 1 ♀, D15.

Discussion. The specimens at hand are somewhat smaller than the measurements given in Ramme (1941). They were captured while newly moulted. Thus the hind wings are not infumated apically. Otherwise they agree well with the original description.

Measurements: body ♂ 22, ♀ 35; antenna ♂ 10, ♀ 11; pronotum ♂ 4.5, ♀ 6.4; tegmen ♂ 22–24, ♀ 30; hind femur ♂ 14, ♀ 20.

Sikkimiana darjeelingensis (I. Bolivar, 1914)

I. Bolivar, 1914: 77 *(Sjoestedtia)*
Uvarov 1940: 378; Ingrisch 1987: 296

Serrifemora antennata Liu, 1981: 90 syn. nov.
Yin 1984: 234, figs 502–506, pl. 33 figs 256–257; Balderson & Yin 1987: 296

Distribution: Northern India, Darjeeling, Sikkim, Assam, Nepal, Xizang (Tibet).
Localities: 3♂, 2♀, D11; 1♀, I1.

Discussion. *Serrifemora antennata* Liu, 1981, recently described from Xizang, is identic with *Sikkimiana darjeelingesis* as is clear from the description and figures in both Liu (1981) and Yin (1984). As *S. antennata* is the typus generis of the monotypic genus *Serrifemora* Liu, 1981, this genus becomes a synonym of *Sikkimiana* Uvarov, 1940. Dr. Yin (in lit.) kindly confirmed the above synonymy. Recently, Bhowmik (1985b) lists *Sikkimiana* under the synonymy of the African genus *Holopercna* Karsch, 1891, but gives no reason for doing so.

Acridinae

Acrida exaltata (Walker, 1859)

Walker, 1859: 222 *(Truxalis)*
Dirsh 1954: 149–151

Distribution: Sri Lanka, India, Assam, Kashmir, Nepal, Southeast Tibet, Pakistan, Afghanistan, Persia, Arabia.
Localities: 1♂, D1b; 1♂, 1♀, D2b; 1♂, 2♀, D4; 1♂, D5; 1♂, D8; 2♂, D11; 1 larve, E5; 1♀, E9; 1♀, E11; 1♂, 1♀, G1; 2♂, 3♀, I1.

Locustinae – Locustini

Locusta migratoria Linné, 1758

Linné, 1758: 431 *(Gryllus [Locusta])*
Uvarov 1936

Locality: 6♂, 9♀, I1.

Discussion. The specimen at hand fit best with the ssp. *migratoria* phasis *solitaria* Uvarov & Zol., 1929.

Gastrimargus africanus (Saussure, 1888)

Saussure, 1888: 39 *(Oedaleus [Gastrimargus] marmoratus* var. *africana)*
Ritchie 1982: 246–252

Distribution: The subspecies *africanus* has been reported from Africa to Pakistan, India, Sri Lanka, Nepal, Tibet, Burma, Thailand; the subspecies *parvulus* from China, Vietnam, Thailand, Burma, and Java.
Localities: 2♂, 1♀, D8; 3♀, D10; 2♂, 1♀, D11; 1♂, E8; 1♂, 3♀, I1.

Discussion. The material at hand agrees best with the var. *orientalis* Sjöstedt, 1928 (subspecies of subsequent authors). Ritchie (1982) synonymized this subspecies with typical *G. africanus africanus*. The specimens from Nepal and Darjeeling have the ventro-internal surface of the hind femora straw-colored and indistinctly suffused with blueish black. Both white transverse bands on the tegmen are distinct, and the base of the hind wings is bright yellow. The specimens are thus intermediate between *africanus* and *parvulus* Sjöstedt, 1928, the latter was regarded a separate species prior to Ritchies' revision. They also agree with specimens from northern Thailand, but are somewhat smaller.

Measurements (in mm): body ♂ 22–27, ♀ 35–37; pronotum ♂ 6.0–6.7, ♀ 7.9–8.9; tegmen ♂ 25–29, ♀ 36–39; hind femur ♂ 14–17, ♀ 19–22; height of hind femur ♂ 3.5–3.9, ♀ 4.8–5.1.

Oedaleus abruptus Thunberg, 1815

Thunberg, 1815: 233 *(Gryllus)*
Ritchie 1981: 104–107

Distribution: Pakistan, India, Sri Lanka, Nepal, Bangladesh, Burma, Thailand, China; West Malaysia (CI).
Localities: 1 ♀, D5; 2 ♂, 2 ♀, D8; 2 ♂, 1 ♀, D11.

Heteropternis respondens (Walker, 1859)

Walker, 1859: 223 *(Acrydium)*
Bhowmik 1985b: 34

Distribution: Oriental Region, China, and Indonesia.
Localities: 2 ♂, 1 ♀, D5; 1 ♂, 1 ♀, D8; 1 ♀, D9; 1 ♂, D10; 1 ♀, D12.

Pternoscirta caliginosa (DeHaan, 1842)

DeHaan, 1842: 161, pl. 21, fig. 11 *(Acridium [Oedipoda] caliginosum)*
F. Willemse 1965: 64

Distribution: Oriental Region and Indonesia.
Localities: 2 ♂, D2a; 1 ♂, 2 ♀, D8; 1 ♂, 4 ♀, D11; 1 ♀, D13; 2 ♂, 1 ♀, D15.

Sphingonotus longipennis Saussure, 1884

Saussure, 1884: 203

Distribution: Himalayan species, known from Afghanistan, North India, Assam, Darjeeling, Nepal, and China.
Localities: 2 ♂, 5 ♀, D8; 1 ♂, D9; 1 ♀, D10.

Pusana laevis (Uvarov, 1921)

Uvarov, 1921: 491–492 *(Pusa)*
Uvarov, 1940: 117; Bhowmik et al. 1984: 319

Distribution: Pusa (Bihar), Himchal Pradesh, Sikkim, Nepal.
Locality: 2 ♂, 1 ♀, D11.

Acrotylus humbertianus Saussure, 1884

Saussure, 1884: 189
Kirby 1914: 153

Distribution: Sri Lanka, India, Pakistan, Afghanistan, Nepal.
Locality: 1 ♂, 1 ♀, D8.

Trilophidia annulata (Thunberg, 1815)

Thunberg, 1815: 234 *(Gryllus annulatus)*
Hollis 1965: 251–253

Distribution: Oriental Region.
Localities: 1 ♀, D1b; 1 ♀, D2a; 1 ♀, D5; 1 ♀, D7; 2 ♂, 3 ♀, D8; 1 ♂, 1 ♀, D10; 1 ♂, 1 ♀, D12.

Aiolopus thalassinus (Fabricius, 1781)

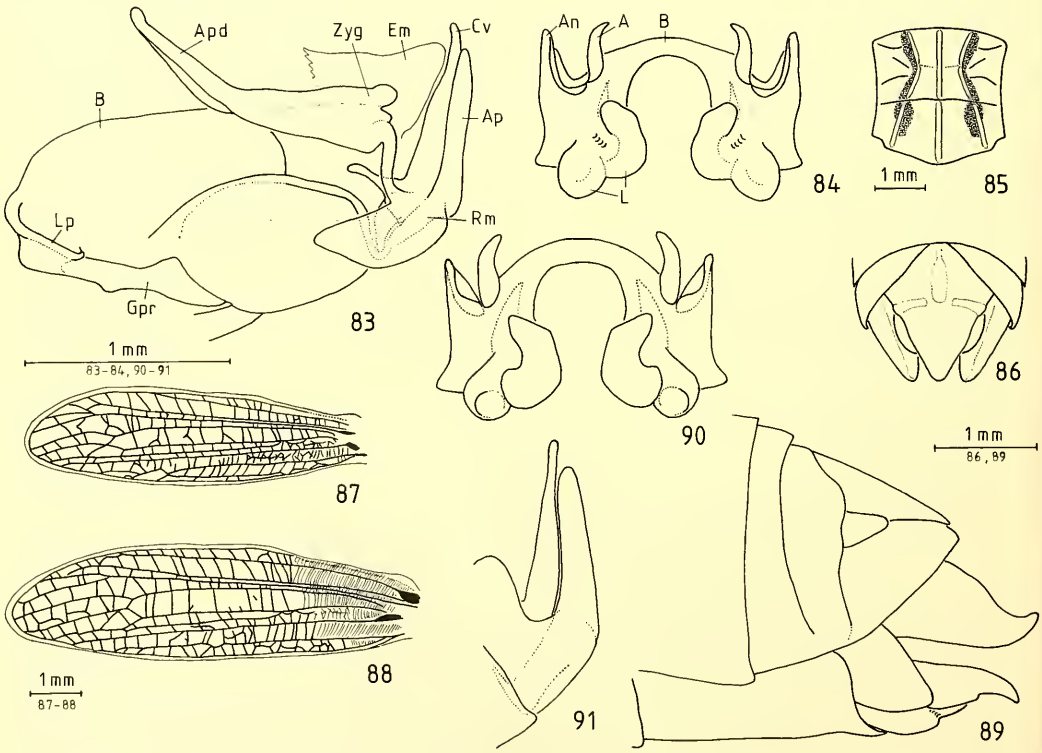
Fabricius, 1781: 367 *(Gryllus)*
Hollis 1968: 339–352

Distribution: The nominate subspecies is recorded from Europe and Africa to India and Nepal, the subspecies *tamulus* (Fabricius) occurs from India to Japan and Australia.
Localities: 4 ♂, D1a; 2 ♂, 1 ♀, D1b; 1 ♂, D4; 2 ♂, 1 ♀, D8; 1 ♀, D12.

Discussion. The specimens at hand are intermediate between both subspecies *thalassinus* and *tamulus*. The measurements of most specimens are too small for *tamulus* and at the lower end of the measurements given by Hollis (1968) for *thalassinus*. The fastigial folveolae agree with *tamulus*. The hind femora are stouter than in European *thalassinus*. The frontal ridge of most specimens is broad as in *thalassinus*, while in some males collected at lower altitude it is narrow as in *tamulus*. The hind tibiae are of a dirty straw colour.

Ceracris fasciata (Brunner v. W., 1893)

Brunner v. W., 1893: 127 *(Parapleurus fasciatus)*
Ingrisch 1989



Figs 83.–91. *Chorthippus (Glyptobothrus)*. 83.–89. *C. dierli*, spec. nov. 83.–87. ♂ (holotype). 83. phallus in lateral view; 84. epiphallus; 85. pronotum; 86. terminal tergites, supra anal plate and cerci; 87. left tegmen; 88.–89. ♀ (allotype); 88. left tegmen; 89. apex of abdomen in lateral view. – 90.–91. *C. hingstoni* (Uvarov) ♂ (holotype). 90. epiphallus; 91. apex of cingular valves and apical penis valves. – Abbreviations as in figs 68.–82.

Distribution: Burma, Thailand, China.
Locality: 2♂, D10.

Ceracris nigricornis nigricornis Walker, 1870

Walker, 1870: 791 *(Ceracris nigricornis)*
Uvarov 1925a: 13

Distribution: Central Himalaya to Thailand.
Localities: 2♂, 1♀, D2a; 1♂, D9.

Gomphocerinae

Chorthippus (Glyptobothrus) dierli, spec. nov.
(figs. 47–49, 83–89)

Types. Holotype: ♂, Nepal, Prov. Sagarmatha, Khumjung, 3800 m, 30. VI. 1964, Dierl (ZSM). – Allotype: ♀, same data as holotype (ZSM). – Paratypes: 15♂, 20♀, same data as holotype (ZSM).
Type locality. Nepal, Khumjung, 3800 m (see Dierl 1966: 161–164, figs. 16–18, map 1).

Diagnosis. Similar to *Chorthippus (Glyptobothrus) hingstoni* (Uvarov, 1925) comb. nov. (formerly *Omocestus)*. The most obvious differences are tegminal venation and size.

Description

Measurements (mm): body ♂ 12–14, ♀ 18–23; pronotum ♂ 2.4–2.8, ♀ 3.2–3.8; tegmen ♂ 5.8–7.0, ♀ 6.0–7.5; posterior femur ♂ 8–9, ♀ 10–11.

Males. Ratio smallest width of vertex: eye-length: length of subocular sulcus 0.70 : 1.38 : 0.97 mm (mean), 0.65–0.77 : 1.30–1.46 : 0.87–1.05 mm (variation). Fastigium verticis slightly acute- to right-angled, apex rounded; foveolae slightly to distinctly grooved; frontal ridge sulcated below antennae (rarely for almost the whole length or only from the median ocellus). Antennae longer than head and pronotum together. Lateral pronotal carinae constricted, constriction rounded. Principle sulcus in the middle of pronotal length (ratio prozona : pronotum length 0.49–0.54, $\bar{x}$ = 0.51). Mesosternal interspace 2.0–3.0 ($\bar{x}$ = 2.4 times broader than high; mesosteral lobes 1.4. – 1.9 ($\bar{x}$ = 1.6) times broader than high; metasternal lobes separate. Tegmina abbreviated, reaching fifth to eighth abdominal tergite (mostly sixth; in shrunken specimens almost to apex of abdomen); venation as in fig. 87; anterior margin with very weak subbasal dilation, almost straight; folded hind wings 1–2 mm shorter than tegmina. Tympanum 4–7 times longer than broad. Hind femora with 72–95 ($\bar{x}$ = 86) stridulatory pegs.

Tenth tergite lateral, without furculae. Supra anal plate circa triangular with a median longitudinal furrow and a transverse fold about in the middle of length. Epiphallus with ancorae and two pairs of lophi; anterior projections recurved. Rami of cingulum very slender above, widened to a plate below; cingular valves and apical penis valves slender; penis valves flexured.

Females. Ratio smallest width of vertex : eye-length : length of subocular sulcus 1.05 : 1.57 : 1.40 mm (mean), 0.96–1.15 : 1.49–1.64 : 1.33–1.52 mm (variation). Fastigium verticis circa right-angled, apex rounded; foveolae slightly to distinctly grooved; frontal ridge sulcated below median ocellus (in some specimens also a short distance above median ocellus). Antennae slightly longer or shorter than head and pronotum together. Lateral pronotal carinae constricted, constriction rounded. Principle sulcus in the middle of pronotal length (0.48–0.54,$\bar{x}$ = 0.51). Mesosternal interspace 1.7–2.7 ($\bar{x}$ = 2.3) times broader than high; mesosternal lobes 1.5–2.0 ($\bar{x}$ = 1.7) times broader than high; metasternal lobes separate. Tegmina abbreviated, reaching third to fifth (mostly fourth) abdominal tergite; venation as in fig. 88; anterior margin with subbasal dilation indistinct; folded hind wings shorter than

tegmina. Tympana 4 – 14 times longer than broad. Hind femora with 47–91 (± = 65) very flat stridulatory pegs.

Tenth tergite contiguous. Supra anal plate triangular, with a shallow longitutinal groove at base and an indistinct transverse fold behind the basal third; apex rounded. Subgenital plate with apex short, obtuse-angledly produced. Ovipositor short.

Colouration. General colour brown with the usual light and dark pattern; one ♀ with green dorsum, another female with head, paranota, pleurae and posterior femora green. Sternits yellowish-brown; apex of abdomen orange-red in males, in females only with red sternits. Posterior femora brownish (yellowish-brown when alive?) with 2–3 blackish stripes, which may be fused or indistinct; ventro-internal area (♀) or both ventral areas (♂) orange-red, in some males the whole femur orange-red with the above black markings; hind knees slightly darker brown than femur; hind tibiae orange-red, tarsi brownish.

Discussion. The extreme weak subbasal dilation of the anterior margin of tegmen leaves some doubt, if the new species is to be placed in *Chorthippus* or in *Omocestus*. Regarding the phallus complex, it is to be placed in *Chorthippus*. Interspecific differences of the phallus complex are small within the Gomphocerinae. However, in almost all of the European *Chorthippus* species the cingular valves are longer than the apical penis valves and the epiphallus carries two pairs of lophi; in *Omocestus* the apical penis valves are longer than the cingular valves or both are of equal length, and the epiphallus has only one pair of large lophi, but two pairs also occur in some species (see Harz 1975). The phallus complex of the new species agrees thus with the condition in *Chorthippus* (figs 83–84). The same applies to *C. hingstoni* (Uvarov) (figs 90–91).

The name of the new species is dedicated to Dr. Dierl, who collected most of the material presented.

Aulacobothrus spec.

Locality: 1 ♀, D1a.

Discussion. The single female comes close to *A. sinensis* Uvarov, 1925, previously recorded from Yunnan, Burma and Nepal. Taxonomy of this genus, however, is confusing, and without revision it is not possible to assign single specimens.

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