

The Cicadidae (Homoptera, Auchenorrhyncha)
from East and Central Nepal
(Part I)^{1,2)}

By

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(Communicated by Tadashige HABE)

Little has hitherto been reported on the cicadid fauna of Nepal north of India. WESTWOOD (1842-'45) and ATKINSON (1884) newly described and/or recorded several species from Nepal. Towards the beginning of this century, DISTANT recorded 8 species from Nepal or the Himalayas in the "Fauna of British India — Rhynchota, Vols. 3, 6 (1906 a, 1916)". Since then, no more papers have been issued except for some fragmentary ones.

Recently, NARUSE (1973) published a list of cicadas (13 species) collected from Central Nepal by "the Hokkaido University Scientific Expedition to Nepal Himalaya 1968", including some new records.

Fortunately, I was able to examine many specimens of the Cicadidae collected from East and Central Nepal in the collection of the Biological Laboratory, College of General Education, Kyushu University, National Science Museum (Nat. Hist.), Tokyo, etc. In this paper, I will record 36 species under 23 genera including 3 new species and 14 species new to Nepal. The descriptions of the male genitalia for most of the species and taxonomic notes of the generic level for some species are given.

In the enumeration of the specimens examined, the following abbreviations are used:

KUFBiological Laboratory, College of Education, Kyushu University,
Fukuoka (collection made by "Kyushu University Scientific Expedition
to the Nepal Himalaya, 1971 and 1972").

MHprivate collection of M. HAYASHI.

NSMT . . . National Science Museum (Nat. Hist.), Tokyo.

TASYprivate collection of Messrs. T. AOKI and S. YAMAGUCHI.

TFprivate collection of Dr. T. FUJIOKA (one of the members of "the

1) Contribution from the Entomological Laboratory, Faculty of Agriculture, Kyushu University, Fukuoka (Ser. 3, No. 31).

2) Results of the Kyushu University Scientific Expedition to the Nepal Himalaya. Homoptera 1.

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Lepidopterological Research Expedition to Nepal Himalaya, 1963”).

First of all, I must express my hearty thanks to Prof. Syôiti MIYAMOTO (Junior College of Chikushi Jogakuen) and Prof. Yoshihiro HIRASHIMA (Kyushu University) for reading the manuscript with many valuable suggestions. My cordial thanks are due to Professors Takashi SHIRÔZU and Toyohei SAIGUSA (Kyushu University), Dr. Tomoo FUJIOKA (Tokyo), Dr. Yoshihiko KUROSAWA (National Science Museum, Tokyo), and Messrs. Toshiaki AOKI and Shuhei YAMAGUCHI (Tokyo) for the loan of specimens. I am also greatly indebted to Prof. Akinori NAKANISHI, Mr. Hiroshi SHIMA, Mr. Hiroshi MAKIHARA (Kyushu University), Mr. Jun EMOTO (Nanzan University), Prof. Rokuro KANO (Tokyo Medical and Dental University) and Mr. Toshiro HARUTA (Tokyo; a member of “the Lepidopterological Research Expedition to Nepal Himalaya”) for their kind help in the course of this study.

Subfamily Cicadinae

Genus *Pycna* AMYOT et SERVILLE, 1843

Pycna AMYOT et SERVILLE, 1843, Hist. Nat. Ins., Hém., p. 463 (type-species: *Cicada strix* BRULLÉ).

Pycna repanda (LINNÉ, 1758)

(Figs. 1, 4)

Cicada repanda LINNÉ, 1758, Syst. Nat., Hem., 1: 436.

Tettigonia repanda: FABRICIUS, 1781, Ryngota, 2: 267.

Fidicina? repanda: WALKER, 1850, List Hom., 1: 90.

Oxypleura repanda: DOHRN, 1859, Cat. Hem., Hom., 1859: 72.

Platypleura repanda: SIGNORET, 1881, Bull. Soc. ent. Fr., (6), 1: xlii.

Pycna repanda: DISTANT, 1906, Fn. Brit. Ind., Rhynch., 3: 71.

Platypleura phalaenoides WALKER, 1850, List Hom., 1: 4.

Platypleura interna WALKER, 1852, List Hom., Suppl., 4: 1119.

Platypleura congrex BUTLER, 1874, Cist. Ent., 1: 186.

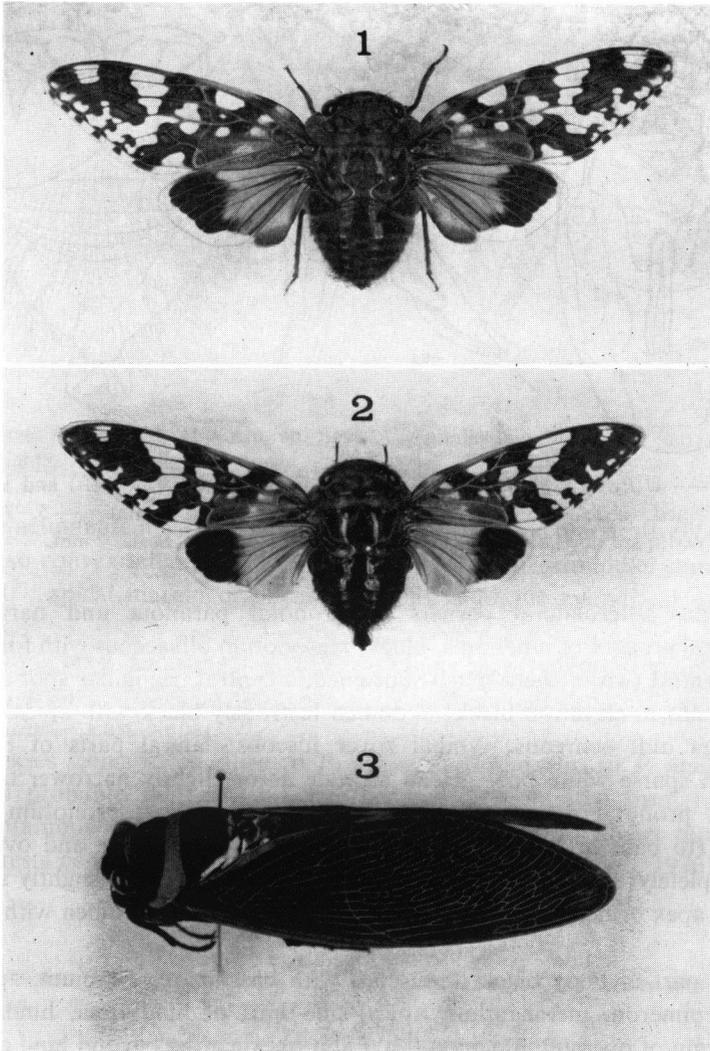
Specimens examined. 2 ♂♂, unnamed place (3,830 m), Namche Bazar (3,400 m) ~ Khumjung (4,000 m), E. Nepal, 9. ix. 1971, Y. YAMAGATA leg. (NSMT & MH); 1 ♂, Okaldhunga (1,800 m), E. Nepal, 19. ix. 1971, Y. YAMAGATA leg. (MH); 1 ♂, Okaldhunga, C. Nepal, 19. ix. 1971, K. ITOH leg. (NSMT); 1 ♂, Dobang Kharka (2,400 m), C. Nepal, 8. x. 1971, A. NAKANISHI leg. (light trap) (KUF); 1 ♂, Dobang Kharka, C. Nepal, 20. x. 1971, A. NAKANISHI leg. (KUF).

Male genitalia (Fig. 4): Pygophore ellipsoidal with tip acuminate, widened near middle; uncus robust, with the lobes curved inwardly at about 130° and fused basally; the base of uncus raised laterally; aedeagus cylindrical and flattened horizontally at apex.

Pycna montana M. HAYASHI, sp. nov.

(Figs. 2, 5-6)

Holotype: ♂, Kambachen (3,900 m) ~ Lhonak (4,550 m), E. Nepal, 16. vii. 1963,



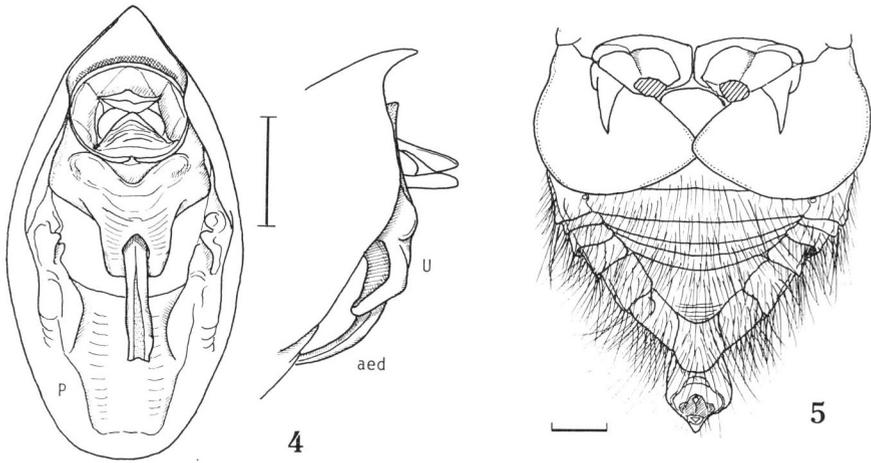
Figs. 1-3. — 1. *Pycna repanda* (LINNÉ), ♂. — 2. *P. montana* M. HAYASHI, sp. nov., ♂ (holotype). — 3. *Polyneura ducalis* WESTWOOD, ♀. Obliquely dorsal view.

T. FUJIOKA leg. (NSMT).

Paratopotype: 1 ♂, Kambachen~Lhonak, E. Nepal, 16. vii. 1963, T. FUJIOKA leg. (TF).

Type depository. National Science Museum (Nat. Hist.), Tokyo.

Markings of body and wings closely similar to *P. repanda*. Head and pronotum greenish ochreous with a transverse fascia on vertex, including ocelli-area, posterior margin of frontoclypeus, a central longitudinal fascia on pronotum which is widened



Figs. 4-5. — 4. *Pycna repanda* (LINNÉ), ♂ genitalia in ventral view (left) and lateral view (right). aed: aedeagus, p: pygophore, u: uncus. Scale, 1 mm. — 5. *P. montana* M. HAYASHI, sp. nov., abdomen in ventral view (holotype). Scale, 2 mm.

in both ends, anterolateral corners of pronotal paranota and narrow fasciae along diagonal grooves of inner area, black; mesonotum olivaceous with four obconical markings, central two of them much shortened, a central triangular spot and anterior angle of cruciform elevation black; abdomen lustrously black with apical margins of 3rd-5th terga dull ochreous; tymbal cover fuscous; lateral parts of 8th segment covered with sparse white pile. Head as wide as or slightly narrower than base of mesonotum; pronotal paranota (dilated) isosceles-triangular; pronotum as long as mesonotum (to base of cruciform elevation); tymbal cover large and oval, covering tymbal completely; abdomen comparatively short, as long as or slightly shorter than length from apex of head to cruciform elevation; head and abdomen with thick black long hairs.

Ventral part of body black or fuscous with basal part of labium, apical end of femur, mesepimeron, meracanthus, apical one-third of hind tibia, hind tarsus and extreme margin of operculum ochreous. Labium extending beyond hind coxa but not beyond operculum; base of meracanthus covered with thick white pile; operculum oval, a little overlapped at middle with the opposite one, beyond 2nd abdominal segment (Fig. 5). Ventral part of body covered with thick black hairs.

Wings similar to those of *P. repanda*, but longer and narrower, ratio of the length to width of forewing about 3.0 (cf. about 2.7 in *P. repanda*). Costal membrane of forewing less developed and less arched; anterior and outer margins of forewing nearly rectilinear; fuscous markings of forewing almost the same as in *P. repanda*, but the markings along 1st, 2nd and 3rd cross veins larger; color and markings of hindwing also similar to those in *P. repanda*.

Male genitalia (Fig. 6): Pygophore ellipsoidal in ventral view, widened near

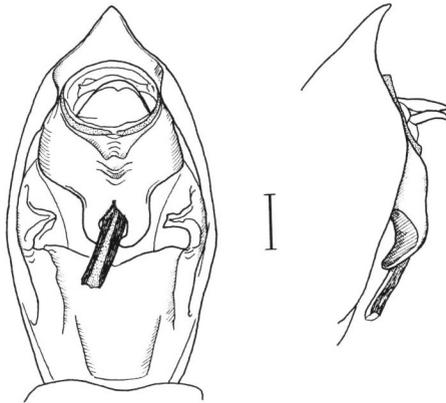


Fig. 6. *Pycna montana* M. HAYASHI, sp. nov., ♂ genitalia in ventral view (left) and lateral view (right). Scale, 0.5 mm.

middle, with acuminate apex (beak); posterior lobe (uncus) comparatively slender, and its base not so convex laterally as in *P. repanda*; uncus, near middle, curved inwardly at about 120°; apical margin of uncus rounded; aedeagus cylindrical and not thin even at apex.

Body length (excl. forewing): ♂, 19.8–21.5 mm; length of forewing: 29.2–31.2 mm; expanse of forewing: 61.5–67.3 mm.

Distribution. East Nepal.

This species seems to be allied to *Pycna repanda* and also to *P. minor* LIU from India. It is probable that *montana* has become differentiated from *repanda* at a higher mountainous area of East Nepal. This cicada inhabits higher mountains and dwells in forests composed of the rhododendron trees (HARA *et al.*, 1970).

Genus *Polyneura* WESTWOOD, 1845

Polyneura WESTWOOD, 1845, Archan. Ent., 1: 92 (type-species: *Polyneura ducalis* WESTWOOD).

Polyneura ducalis WESTWOOD, 1845

(Figs. 3, 7–9)

Polyneura ducalis WESTWOOD, 1845, Archan. Ent., 1: 92.

Specimens examined. 1 ♂, Biratnagar (150 m)~Dharan (500 m), E. Nepal, 23. vi. 1963, T. HARUTA leg. (NSMT); 2 ♂♂, Dhankuta (1,200 m)~Mure (2,150 m), E. Nepal, 27. vi. 1963, T. FUJIOKA & A. HARA leg. (TF); 1 ♂, Mure~Chitrei (2,420 m), E. Nepal, 28. vi. 1963, T. FUJIOKA leg. (TF); 1 ♂, Taplejung (1,800 m), E. Nepal, 5. vii. 1963, T. FUJIOKA leg. (TF); 1 ♂, Taplejung~Andewa (1,100 m), E. Nepal, 7. vii. 1963, A. HARA leg. (TF); 7 ♂♂, 7 ♀♀, Chowki (1,600m)~Lelep (1,550 m), E. Nepal, 30. vii. 1963, T. FUJIOKA leg. (NSMT & TF); 55 ♂♂, 20 ♀♀, 8 exuviae, Goldiagong (2,080 m)

~Lhawn Pokri (2,850 m), 4. viii. 1963, T. FUJIOKA leg. (NSMT & TF); 6 ♂♂, 1 ♀, Towlegawn (2,600 m)~Mure, E. Nepal, 6. viii. 1963, T. FUJIOKA leg. (TF); 1 ♀, The Tombol Bridge (350 m)~Darapane (1,000 m)~The Sanguridara Pass (1,350 m)~Churibass (1,000 m)~Dharan (600 m), 8. viii. 1963, T. FUJIOKA leg. (TF); 1 ♀, Nepal, 6. viii. 1969, S. WATANABE leg. (NSMT); 1 ♂, Okaldhunga (1,800 m), E. Nepal, 1. viii. 1971, K. ITOH leg. (MH); 2 ♂♂, Okaldhunga, E. Nepal, 5. viii. 1971, K. ITOH leg. (NSMT & MH); 1 ♀, Okaldhunga, E. Nepal, 14. viii. 1971, K. ITOH leg. (MH); 1 exuvia, Gupa Pokari (2,900 m)~Gurza (2,100 m), E. Nepal, 23. vi. 1972, H. MAKIHARA leg. (KUF); 1 ♂, 2 exuviae, Linba (1,200 m)~Tank (1,900 m), E. Nepal, 28. vi. 1972, H. MAKIHARA leg. (KUF); 1 ♂, Papun (2,100 m)~Narbu (1,200 m), E. Nepal, 12. vii. 1972, J. EMOTO leg. (KUF); 12 exuviae, Papun, E. Nepal, 15. vii. 1972, Y. NISHIDA leg. (KUF); 2 ♂♂, Papun~Chanlung (1,250 m), E. Nepal, 18. vii. 1972, H. SHIMA leg. (KUF); 2 ♂♂, Papun~Chanlung, E. Nepal, 18. vii. 1972, H. MAKIHARA leg. (KUF); 1 ♂, Papun~Chanlung, E. Nepal, 18. vii. 1972, T. B. SERCHAND leg. (KUF); 5 ♂♂, Basantapur (2,300 m), E. Nepal, 19. vii. 1972, J. EMOTO leg. (KUF); 1 ♂, Ponktable (1,900 m)~Buze (2,800 m), E. Nepal, 22. vii. 1972, H. SHIMA leg. (KUF); 1 ♂, 1 exuvia, Ponktable~Buze, E. Nepal, 22. vii. 1972, Y. NISHIDA leg. (KUF); 4 ♂♂, Basantapur, E. Nepal, 25. vii. 1972, A. B. LIMBOO leg. (KUF); 1 ♂, Basantapur~Hile (2,100 m), E. Nepal, 31. vii. 1972, H. MAKIHARA leg. (KUF); 1 ♀, Basantapur~Hile, E. Nepal, 31. vii. 1972, T. B. SERCHAND leg. (KUF); 1 ♂, Hile~Leutifedi (450 m), E. Nepal, 1. viii. 1972, H. SHIMA leg. (KUF); 1 ♀, Okaldhunga, E. Nepal, 10. viii. 1972, K. ITOH leg. (MH); 3 ♂♂, 1 ♀, Okaldhunga, E. Nepal, 21. viii. 1972, K. ITOH leg. (MH); 1 ♂, Okaldhunga, E. Nepal, 17. x. 1972, K. ITOH leg. (MH); 2 ♂♂, Hile, E. Nepal, 22. viii. 1974, T. AOKI & S. YAMAGUCHI leg. (TASY); 1 ♂, Dobhan (800 m), E. Nepal, 30. viii. 1974, T. AOKI & S. YAMAGUCHI leg. (TASY).

Male genitalia (Fig. 7): Pygophore oblong, widened near middle; uncus robust, swollen ventrally at base, with two short and stout lobes which are divergent apically.

Exuvia (Figs. 8–9): Body lustrous and ochreous with vertex, antenna, lateral and

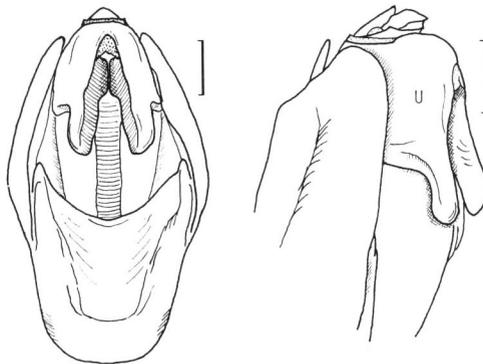


Fig. 7. *Polyneura ducalis* WESTWOOD, ♂ genitalia. Left: ventral view; right: obliquely lateral view. Scale, 1 mm.

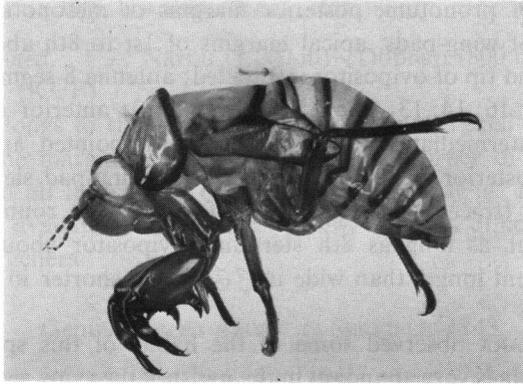


Fig. 8. Exuvia of *Polyneura ducalis* WESTWOOD, in lateral view.

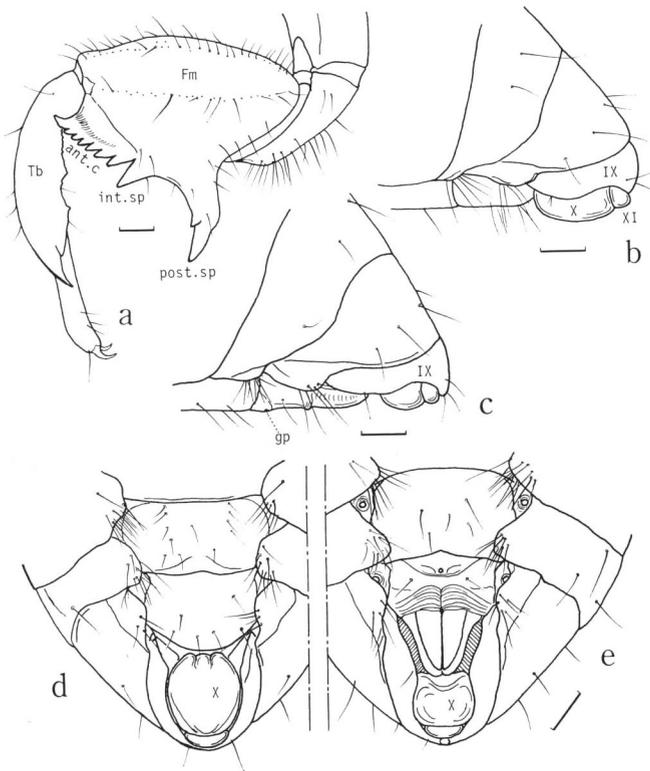


Fig. 9. Exuvia of *Polyneura ducalis* WESTWOOD. a: left fore leg; b, c: apex of abdomen in lateral view (b: ♂, c: ♀); d, e: caudal part of abdomen in ventral view (d: ♂, e: ♀). ant. c: anterior comb; Fm: femur; gp: genital opening; int. sp: intermediate spike; post. sp: posterior spike; IX, X and XI: 9th, 10th and 11th segment, respectively. Scales, 1 mm.

posterior margins of pronotum, posterior margins of mesonotum and metanotum, legs, anal margins of wing-pads, apical margins of 1st to 8th abdominal terga, inner margins of pleura and tip of ovipositor infuscated; antenna 8-segmented, with the ratio of about 13: 11: 19: 16: 14: 13: 8.5: 8.5 ($1=1/16$ mm); anterior comb of fore femur with 7 teeth; an intermediate spike triangular with pointed apex, continued from anterior comb; a posterior spike slightly basal; forewing-pad slender with numerous longitudinal carinae (trace of venation); tip of 9th tergum rounded, not projecting; ♂ 10th segment oval, as long as 8th sternum; ovipositor about 1/2 length of 8th sternum; 10th segment longer than wide in ♂♂, while shorter in ♀♀. Body length, 26.3–32.7 mm.

Mr. H. MAKIHARA observed some of the habits of this species as follows: In East Nepal, this cicada is very abundant in the midst of the rainy season (middle of July) and inhabits rather sparse woods at open land than dark bushes and forests. The cicadas dwell in some kinds of broadleaved trees, and crowd mostly on twigs of these trees. Hundreds of cicadas suddenly begin to sing in chorus on a large scale whenever it stops raining and begins to shine brightly. Exuviae are mainly found on grasses and leaves, lower than 2 m in height.

Genus *Tosena* AMYOT et SERVILLE, 1843

Tosena AMYOT et SERVILLE, 1843, Hist. Nat. Ins., Hém., p. 462 (type-species: *Tettigonia fasciata* FABRICIUS).

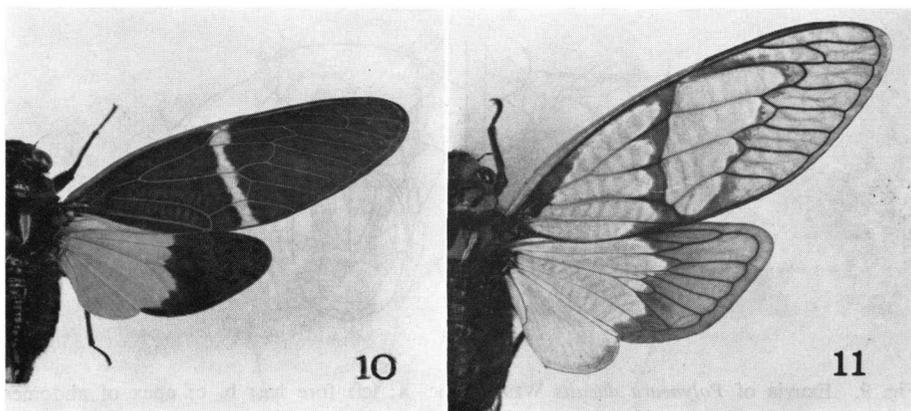
Tosena dives (WESTWOOD, 1842)

(Fig. 10)

Cicada dives WESTWOOD, 1842, Ann. Mag. nat. Hist., (1), 9: 118.

Gaeana dives: AMYOT et SERVILLE, 1843, Hist. Nat. Ins., Hém., p. 464.

Tosena dives: WALKER, 1850, List Hom., 1: 46.



Figs. 10–11. — 10. *Tosena dives* (WESTWOOD), right wings. — 11. *Gaeana sulphurea* (WESTWOOD), right wings.

Huechys transversa WALKER 1858, List Hom., Suppl., 1858: 40.

Specimen examined. 1 ♀, Narbu (1,200 m)~Dobhan (800 m), E. Nepal, 13. vii. 1972, P. NORBU leg. (KUF).

This species belongs to the genus *Tosena*, but the marginal vein of the forewing becomes close to the margin near the posterolateral corner of the forewing. This character appears in all the species of the genus *Gaeana* (Fig. 10). As none of the male specimens are available for this study, however, it is difficult to determine the relation of the two genera.

Genus *Gaeana* AMYOT et SERVILLE, 1843

Gaeana AMYOT et SERVILLE, 1843, Hist. Nat. Ins., Hém., p. 463 (type-species: *Cicada maculata* DRURY).

Gaeana sulphurea (WESTWOOD, 1839)

(Figs. 11–12)

Cicada sulphurea WESTWOOD, 1839, Ent. Himalaya & Ind., 1: liv.

Gaeana sulphurea: WHITE, 1846, Ann. Mag. nat. Hist., (1), 17: 332.

Cicada pulchella WESTWOOD, 1839, Illust. Nat. Hist. Himalaya, 2, pl. 10.

Specimens examined. 2 ♀♀, Godavari (1,600 m), Kathmandu, C. Nepal, 8. vi. 1963, S. A. AE & T. FUJIOKA leg. (NSMT & TF); 1 ♀, Godavari, Kathmandu, C. Nepal, 2. v. 1974, T. AOKI & S. YAMAGUCHI leg. (TASY).

Male genitalia⁴⁾ (Fig. 12): Pygophore large and oblong in ventral view, widened in apical half, with lateral projection subapical; uncus comparatively small and short; two uncus lobes completely fused; aedeagus, situated behind uncus, with apical membranous spatula-like projection.

Genus *Balinta* DISTANT, 1905

Balinta DISTANT, 1905, Ann. Mag. nat. Hist., (7), 15: 383 (type-species: *Cicada octonotata* WESTWOOD).

Balinta octonotata (WESTWOOD, 1845)

(Fig. 13)

Cicada 8-notata WESTWOOD, 1845, Hom. East Ind., 2: 34.

Huechys octonotata: WHITE, 1846, Ann. Mag. nat. Hist., (1), 17: 332.

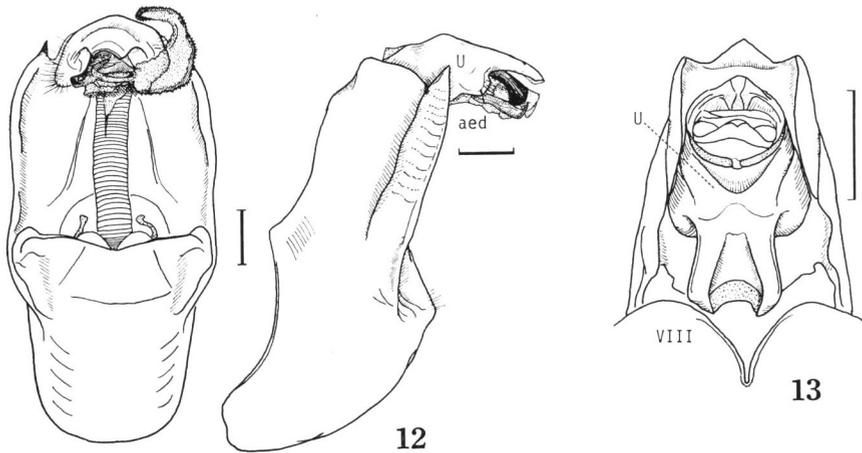
Gaeana octonotata: ATKINSON, 1884, J. Asiat. Soc. Bengal, 53: 221.

Balinta octonotata: DISTANT, 1905, Ann. Mag. nat. Hist., (7), 15: 383.

Huechys picta WALKER, 1858, Ins. Saundersiana, Hom., 1858: 28.

Specimens examined. 2 ♂♂, Ratanpur (less than 100 m), Bara, C. Nepal, 10. vi.

4) No male specimen was collected from Nepal, but in this study 1 ♂ specimen from Bhutan (NSMT) was used for the description and drawings of the male genitalia.



Figs. 12-13. — 12. *Gaeana sulphurea* (WESTWOOD), ♂ genitalia. Ventral view (left) and lateral view (right). Anus is removed. Scales, 1 mm. — 13. *Balinta octonotata* (WESTWOOD), ♂ genitalia in ventral view. VIII: 8th abdominal sternum. Scale, 1 mm.

1964, R. KANO leg. (NSMT).

Male genitalia (Fig. 13): Pygophore similar to that in *Gaeana* spp., but differing in having triangular tip. Uncus lobes united, gradually widened to apex and their inner parts weakly sclerotized and membranous at apex.

According to Dr. R. KANO (pers. comm.), this cicada begins to sing in chorus all together at the dusk, mainly on tree trunks in jungles.

This species is recorded from Nepal for the first time.

Genus *Cryptotympana* STÅL, 1861

Cryptotympana STÅL, 1861, Ann. Soc. ent. France, (4), 1: 613 (type-species: *Tettigonia pustulata* FABRICIUS).

Cryptotympana intermedia (SIGNORET, 1849)

(Figs. 14-15)

Cicada intermedia SIGNORET, 1849, Rev. Mag. Zool., 1: 407.

Fidicina intermedia: WALKER, 1850, List Hom., 1: 90.

Cryptotympana intermedia: STÅL, 1861, Ann. Soc. ent. France, (4), 1: 613.

Fidicina immaculata: WALKER, 1850 (nec OLIVIER, 1790), List Hom., 1: 90.

Specimens examined. 4 ♂♂, 2 ♀♀, 2 exuviae, The Tombol Bridge (350 m) ~ Darapani (1,000 m) ~ Sanguridara Pass (1,350 m) ~ Churibass (1,000 m) ~ Dharan (500 m), E. Nepal, 8. viii. 1963, T. FUJIOKA leg. (NSMT & TF); 1 ♂, Phasku Sunkosi, Nepal or., 4. viii. 1971, S. TAKAGI leg. (NSMT); 1 ♂, Phasku Sunkosi, E. Nepal, 4. viii. 1971, Y. YAMAGATA leg. (MH); 1 ♂, Hilepani, E. Nepal, 5. viii. 1971, Y. YAMAGATA leg. (MH); 1 ♂, Leoti (300 m), E. Nepal, 7. ix. 1974, T. AOKI & S. YAMAGUCHI leg. (TASY).

Male genitalia (Fig. 14): Pygophore, in ventral view, oblong with triangular tip, widened near middle; uncus slender, evenly curved, and the two lobes completely fused, with obtuse apex; aedeagus embraced by the uncus, and with a pair of sclerotized hooks at apex, which are projecting underside.

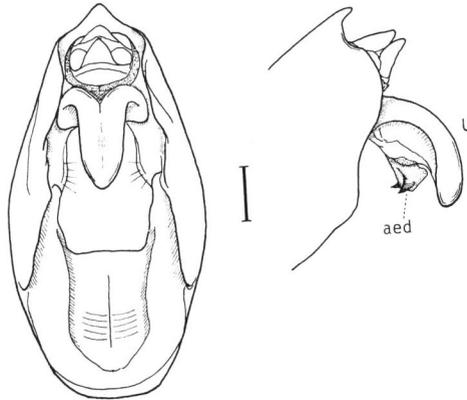


Fig. 14. *Cryptotympana intermedia* (SIGNORET), ♂ genitalia. Left: ventral view; right: lateral view of apical part. Scale, 1 mm.

Exuvia (Fig. 15): Body large and nearly ellipsoidal, and light brown with slight reflection; antenna 8-segmented, with the ratio of about 20: 14: 13: 13: 13: 10: 6: 5.5 (1=1/16 mm); pronotum as long as mesonotum in median length; fore femur furnished with anterior comb composed of 6 teeth, a small intermediate spike and a posterior spike with a small tooth on inner surface near the base. Body length, 33.4–34.2 mm.

This species, new to Nepal, seems to be allied to *C. takasagona* KATO of Taiwan.

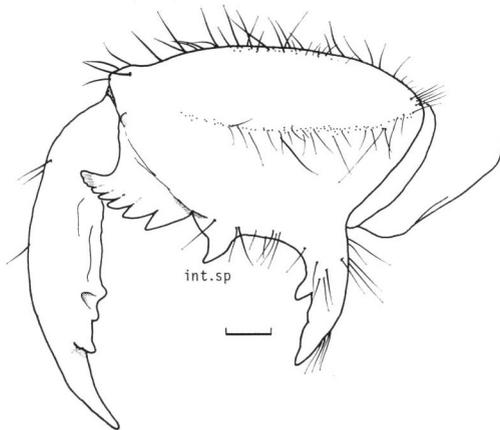


Fig. 15. Exuvia of *Cryptotympana intermedia* (SIGNORET), left fore leg. Scale, 1 mm.

Genus *Pomponia* STÅL, 1866

Pomponia STÅL, 1866, Hem. Afr., 4: 6 (type-species: *Cicada fusca* OLIVIER).

Pomponia linearis (WALKER, 1850)

(Fig. 16)

Dundubia linearis WALKER, 1850, List Hom., 1: 48.

Pomponia linearis: STÅL, 1866, Berlin. ent. Z., 10: 171.

Cicada fusca OLIVIER, 1790, Enc. Méth., 5: 749.

Dundubia cinctimanus WALKER, 1850, List Hom., 1: 49.

Dundubia ramifera WALKER, 1850, *ibid.*, 1: 53.

Dundubia urania WALKER, 1850, *ibid.*, 1: 65.

Specimens examined. 1 ♂, Godavari (1,600 m), Kathmandu, C. Nepal, 9. vi. 1963, T. FUJIOKA leg. (TF); 1 ♂, Dharan (500 m), E. Nepal, 23. vi. 1963, T. FUJIOKA leg. (TF); 2 ♂♂, Goldiagong (2,080 m)~Dumuhan (800 m), E. Nepal, 3. vii. 1963, T. FUJIOKA leg. (NSMT & TF); 22 ♂♂, 8 ♀♀, 5 exuviae, Lelep (1,550 m)~Taplejung (1,580 m), E. Nepal, 31. vii. 1963, T. FUJIOKA leg. (NSMT & TF); 1 ♀, Dumuhan~Goldiagong, E. Nepal, 3. viii. 1963, T. FUJIOKA leg. (TF); 1 ♀, Goldiagong~Lhawn Pokri (2,850 m), E. Nepal, 4. viii. 1963, T. FUJIOKA leg. (TF); 2 ♂♂, 1 exuvia, Taplejung (1,800 m)~Handhrung (800 m), E. Nepal, 26. vi. 1972, H. MAKIHARA leg. (KUF).

Compared with the specimens from Taiwan and the Ryukyus, Japan, those from Nepal are slightly more slender and smaller. The abdomen of the latter is slender, gradually narrowing to the apex (Fig. 16-A), but a male specimen from Kathmandu, Central Nepal, differs in the following points: Body somewhat large; head comparatively narrow; abdomen long, wide and barrel-shaped; forewing hyaline, tinged with yellow (in the other specimens from Nepal, the forewing is hyaline without tinge) (Fig. 16-B). It is, however, impossible to find out differences in the male genitalia. Here, this male specimen is treated as *Pomponia linearis*, but it should be examined in detail.

Male genitalia were previously illustrated by the author (HAYASHI, 1974).

Pomponia secreta M. HAYASHI, sp. nov.

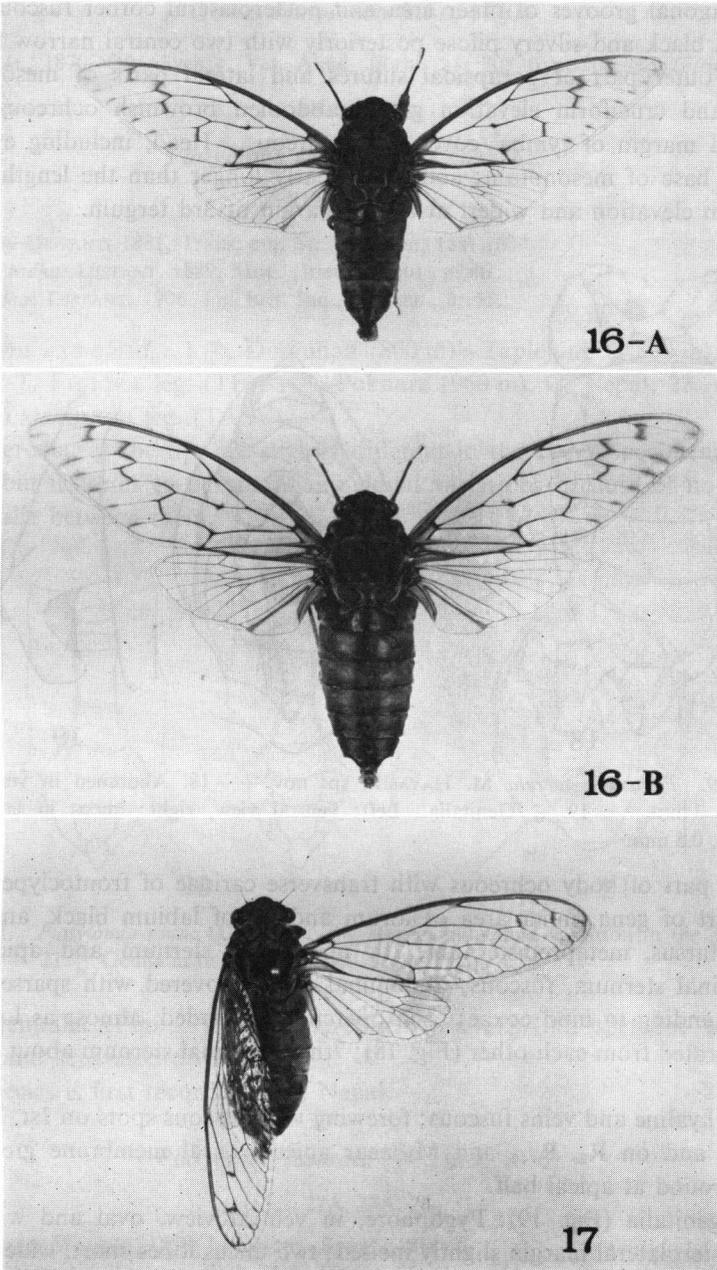
(Figs. 17-19)

Holotype: ♂, Tatopani (1,200 m), C. Nepal, 11. v. 1974, T. AOKI & S. YAMAGUCHI leg. (NSMT).

Type depository. National Science Museum (Nat. Hist.), Tokyo.

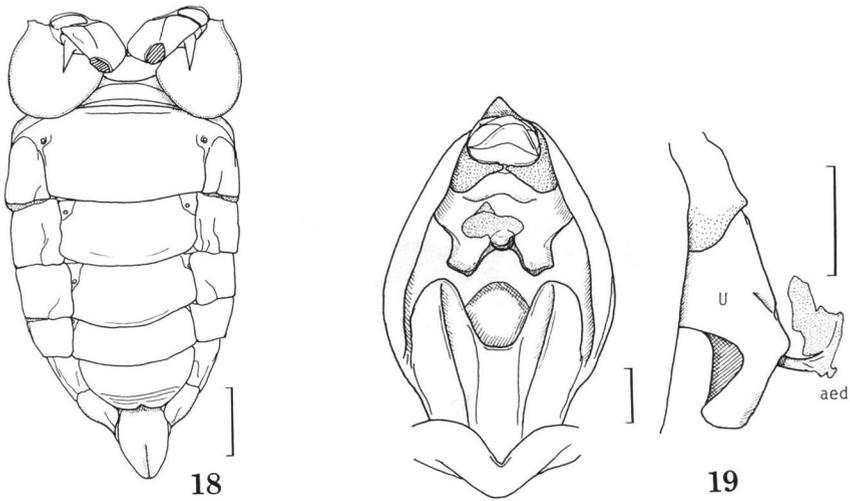
Closely allied to *P. surya* DISTANT in coloration and markings, but differing in widely separated opercula.

Head black with tip of frontoclypeus dark olivaceous; pronotum olivaceous green with two central longitudinal fasciae, widened and united anteriorly and pos-



Figs. 16-17. — 16-A: *Pomponia linearis* (WALKER), ♂ from E. Nepal; 16-B: ditto, 1 ♂ from Kathmandu, C. Nepal. — 17. *Pomponia secreta* M. HAYASHI, sp. nov., ♂ (holotype).

teriorly, diagonal grooves of inner area and posterolateral corner fuscous or black; mesonotum black and silvery pilose posteriorly with two central narrow fasciae, two fasciae on outer part of parapsidal sutures and lateral parts of mesonotum dull ochreous, and cruciform elevation green; abdomen brownish ochreous with grey pilosity and margin of tymbal cover pale ochreous. Head, including eyes, slightly wider than base of mesonotum; abdomen clearly longer than the length from head to cruciform elevation and widest at apical margin of 3rd tergum.



Figs. 18–19. *Pomponia secreta* M. HAYASHI, sp. nov. — 18. Abdomen in ventral view. Scale, 3 mm. — 19. ♂ Genitalia. Left: ventral view, right: uncus in lateral view. Scales, 0.5 mm.

Ventral part of body ochreous with transverse carinae of frontoclypeus, clypeus, anterior part of gena, inner area of lorum and tip of labium black, and with fore tibia, mid tarsus, metaprepisternum, 7th abdominal sternum and apical part of 8th abdominal sternum, fuscous; abdominal pleura covered with sparse white pile. Labium extending to hind coxae; each operculum rounded, almost as long as wide, widely separated from each other (Fig. 18); 7th abdominal sternum about 2.5 times as wide as long.

Wings hyaline and veins fuscous; forewing with fuscous spots on 1st, 2nd and 3rd cross veins and on R_3 , R_{4+5} and M_1 near apices; basal membrane grey; forewing somewhat round at apical half.

Male genitalia (Fig. 19): Pygophore, in ventral view, oval and widened near middle; posterolateral margin slightly incised; two uncus lobes short, widely separated and curved inwardly at about 90° .

Body length (♂): (Excl. forewing) 28.5 mm, (incl. forewing) 38.2 mm; length of forewing: 32.0 mm; expanse of forewing: about 71 mm.

Distribution. Central Nepal.

Genus *Platylomia* STÅL, 1870

Platylomia STÅL, 1870, Öfv. Svensk. Vet. Akad. Förh., 27: 708 (type-species: *Tettigonia spinosa* FABRICIUS).

Platylomia radha (DISTANT, 1881)

(Figs. 20–21)

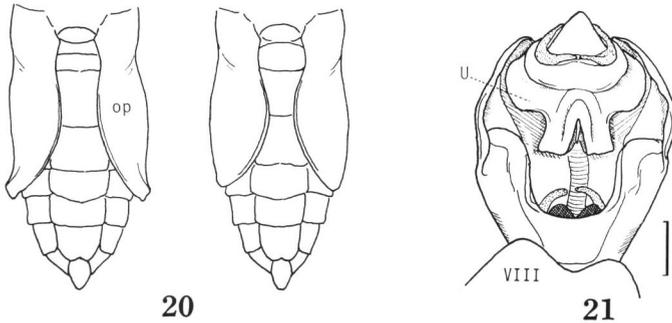
Dundubia radha DISTANT, 1881, Trans. ent. Soc. London, 1881: 634.

Cosmopsaltria radha: DISTANT, 1889, Mon. Orient. Cicad., p. 46.

Platylomia radha: DISTANT, 1906, Fn. Brit. Ind., Rhynch., 3: 55.

Specimens examined. 1 ♂, Dumuhan (800 m)~Taplejung (1,800 m), E. Nepal, 4. vii. 1963, T. FUJIOKA leg. (TF); 1 ♂, Pokhara (960 m), C. Nepal, 23. vi. 1974, T. AOKI & S. YAMAGUCHI leg. (TASY).

The opercula, at the tip, are slightly different in the 2 ♂♂ specimens as shown in Fig. 20, but it seems to be one of individual variations because of no differences in the genitalia between them.



Figs. 20–21. *Platylomia radha* (DISTANT). — 20. An individual variation in the ♂ opercula (op). — 21. ♂ Genitalia in ventral view. Scale, 1 mm.

Male genitalia (Fig. 21): Pygophore nearly oval; 10th segment wide; uncus lobes short and separated divergent.

This species is first recorded from Nepal.

Platylomia saturata (WALKER, 1858)

(Figs. 22A, 23A, 24–25)

Dundubia saturata WALKER, 1858, List Hom., Suppl., 1858: 6.

Cosmopsaltria saturata: DISTANT, 1891, Mon. Orient. Cicad., p. 54.

Platylomia saturata: DISTANT, 1906, Fn. Brit. Ind., Rhynch., 3: 105.

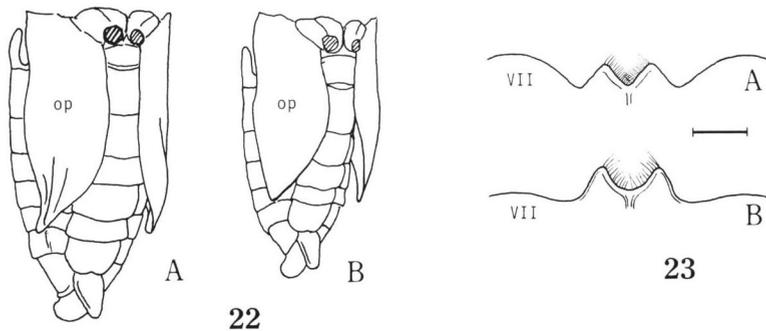
Macrosemia saturata: KATO, 1932, Mon. Cicad., p. 166.

Meimuna saturata: OUCHI, 1938, J. Shanghai Sci. Inst., 3, 4: 92.

Dundubia obtecta: WALKER, 1850 (nec FABRICIUS, 1803), List Hom., 1: 47.

Specimens examined. 1 ♂, Chitrei (2,420 m)~Golddiagong (2,080 m), E. Nepal, 2. vii. 1963, T. FUJIOKA leg. (TF); 3 ♂♂, Dumuhan (800 m) ~Golddiagong, E. Nepal, 3. viii. 1963, T. FUJIOKA leg. (NSMT & TF); 1 ♂, The Tombol Bridge (350 m)~Darapani (1,000 m)~Sanguridara Pass (1,350 m) ~Churibass (1,000 m)~Dharan (500 m), E. Nepal, 8. vii. 1963, T. FUJIOKA leg. (TF); 1 ♀, Godavari (1,600 m), Kathmandu, C. Nepal, 11. viii. 1963, T. FUJIOKA leg. (TF); 1 ♂, Gokarna, Kathmandu, C. Nepal, 15. viii. 1963, T. FUJIOKA leg. (TF); 2 ♂♂, Godavari, Kathmandu, C. Nepal, 17. viii. 1963, T. FUJIOKA leg. (NSMT & TF); 1 ♂, Gurza (2,100 m)~Gupa Pokari (2,900 m), E. Nepal, 15. vii. 1972, J. EMOTO leg. (KUF); 1 exuvia, Papun (2,100 m), E. Nepal, 15. vii. 1972, Y. NISHIDA leg. (KUF); 1 ♂, Basantapur (2,300 m), E. Nepal, 27. vii. 1972, J. EMOTO leg. (KUF); 1 ♂, 1 ♀, Basantapur, E. Nepal, 27. vii. 1972, P. NIMA leg. (KUF); 1 ♂, Basantapur, E. Nepal, 28. vii. 1972, P. NIMA leg. (KUF); 1 exuvia, Godavari, Kathmandu, C. Nepal, 15. viii. 1972, H. MAKIHARA leg. (KUF); 1 ♂, Chowki (1,620 m), E. Nepal, 24. viii. 1974, T. AOKI & S. YAMAGUCHI leg. (TASY); 1 ♂, Gurza, E. Nepal, 27. viii. 1974, T. AOKI & S. YAMAGUCHI leg. (TASY).

The ♂ operculum extends to near terminal abdominal segments, having the tip narrowed and pointed, and curved upwards (Fig. 22-A). The apical margin of the ♀ 7th sternum is sinuate and triangularly incised at middle (Fig. 23-A). The ovipositor sheath projects slightly beyond the beak of the 9th abdominal segment.



Figs. 22-23. *Platyloimia saturata* (WALKER) (A) and *P. brevis* DISTANT (B). — 22. ♂ Abdomen in obliquely ventral view. — 23. Apical margin (near middle) of ♀ 7th abdominal sternum (VII). Scale, 1 mm.

Male genitalia (Fig. 24): Pygophore oval, widened behind middle; 10th segment much developed, extending apically beyond pygophore, and anus opened rather dorsally; uncus lobes completely fused, much widened at apex.

Exuvia (Fig. 25): (♀) Body slender and brown with slight reflection; each tergum of abdomen with infuscated band along apical margin; frontoclypeus much swollen anteriorly; antenna 8-segmented, with the ratio of about 22: 14: 19: 16: 14: 14: 11: 10 (1=1/16 mm); fore femur furnished with anterior comb composed of 8 teeth (8th one considerably small), an intermediate spike, which continues to anterior comb and

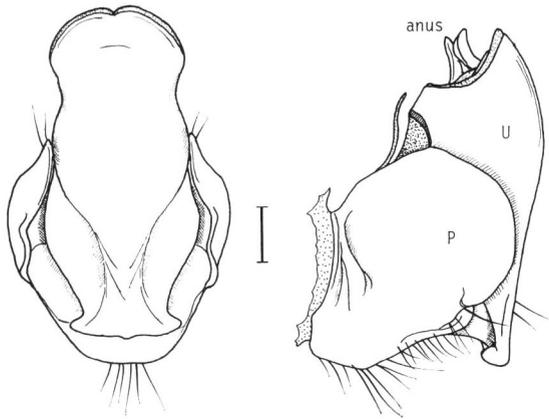


Fig. 24. *Platylomia saturata* (WALKER), ♂ genitalia in ventral view (left) and lateral view (right). Scale, 1 mm.

has an appearance of one of the teeth, and a posterior spike with wide base and narrow triangular apex; 9th abdominal tergum with long cuneate beak; 10th segment oval with anterior margin slightly raised laterally. Body length, 36.8–39.0 mm.

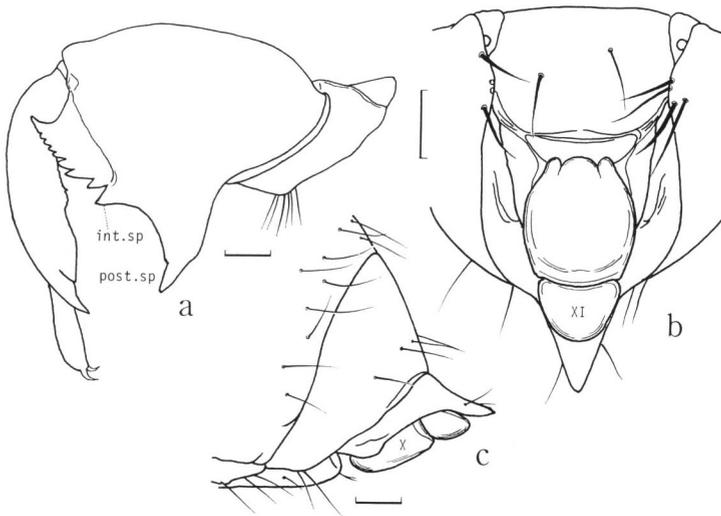


Fig. 25. Exuvia of *Platylomia saturata* (WALKER). a: left fore leg; b, c: apex of abdomen (♂) in ventral view (b) and in lateral view (c). Scales, 1 mm.

***Platylomia brevis* DISTANT, 1912**

(Figs. 22B, 23B, 26)

Platylomia brevis DISTANT, 1912, Fn. Brit. Ind., Rhynch., 6: 182.

Specimens examined. 2 ♂♂, 1 ♀, Godavari (1,600 m), Kathmandu, C. Nepal, 16. viii. 1963, T. FUJIOKA leg. (TF); 1 ♂, Godavari, Kathmandu, C. Nepal, 18. viii. 1963, T. FUJIOKA leg. (NSMT).

Male genitalia (Fig. 26): Very similar to those of *saturata*; 10th segment (uncus) much developed apically, and comparatively slender in dorsal view; uncus lobes not so widened at base; in lateral view, outline of 10th segment more loosely curved at subapical part.

This species is so closely allied to *P. saturata* in the color pattern and the shape of male genitalia, that it is difficult to discriminate them in these points. However, *brevis* differs from *saturata* in the following points: Body slightly smaller; male operculum, extending to near terminal abdominal segment, not curved upwards at tip (Fig. 22-B); 1st, 2nd and 3rd terga with a pair of white pile spots on lateral part near middle; apical margin of female 7th sternum protruding rotundate at middle, roundly broken at the top (Fig. 23-B); ovipositor sheath not extending beyond beak of 9th abdominal segment.

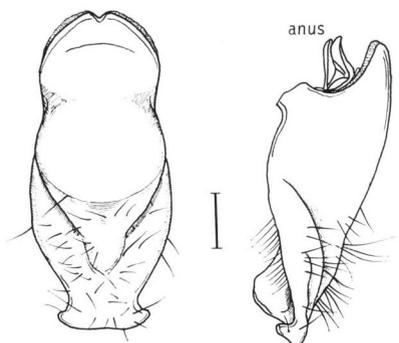


Fig. 26. *Platylomia brevis* DISTANT, uncus (10th segment) of ♂ genitalia. Left: ventral view; right: lateral view. Scale, 1 mm.

According to DISTANT's description (1916), the operculum of this species is short and narrow, extending slightly beyond the 3rd segment. The operculum in the specimens at my hand extends to the terminal abdominal segment, but coincides in shape with that in the description.

Platylomia umbrata (DISTANT, 1888)

Cosmopsaltria umbrata DISTANT, 1888, Ann. Mag. nat. Hist., (6), 1: 293.

Platylomia umbrata: DISTANT, 1905, *ibid.*, (7), 15: 65.

Specimen examined. 1 ♀, Taplejung (1,580–1,800 m), E. Nepal, 1. viii. 1963, T. FUJIOKA leg. (TF).

Only 1 ♀ specimen of this cicada is available for this study. The abdomen is slightly shorter than the length from the head to the mesonotum. The ovipositor

sheath does not extend beyond the 9th abdominal segment.

Body length (excl. forewing): ♀, 40 mm; expanse of forewing: 119 mm.

This species is new to Nepal.

Platylomia sp.

Specimen examined. 1 exuvia, Gokarna forest, Kathmandu, C. Nepal, 28. viii. 1971, A. NAKANISHI & K. MORIBE leg. (KUF).

Only an exuvia is available. Although it cannot be identified, it probably belongs to the genus *Platylomia*.

Genus *Haphsa* DISTANT, 1905

Haphsa DISTANT, 1905, Ann. Mag. nat. Hist., (7), 15: 64 (type-species: *Dundubia nicomache* WALKER).

Haphsa nicomache (WALKER, 1850)

(Fig. 27)

Dundubia nicomache WALKER, 1850, List Hom., 1: 67.

Cosmopsaltria nicomache: DISTANT, 1891, Mon. Orient. Cicad., p. 57.

Haphsa nicomache: DISTANT, 1905, Ann. Mag. nat. Hist., (7), 15: 64.

Cicada delineata WALKER, 1858, Ins. Saundersiana, 1858: 17.

Specimens examined. 4 ♂♂, 3 ♀♀, Dobhan (800 m), E. Nepal, 3. vii. 1963, T. FUJIOKA leg. (NSMT & TF); 1 ♂, detailed data unknown, MIYASHITA leg. (TASY); 3 ♂♂, Pokhara~Dana, C. Nepal, 1. vi. 1969, T. MIYASHITA leg. (NSMT); 1 ♀, Dobhan, E. Nepal, 21. v. 1972, H. SHIMA leg. (KUF); 1 ♂, Dobhan~Taplejung (1,800 m), E. Nepal, 27. v. 1972, T. B. SERCHAND leg. (KUF); 1 ♂, Annapurna, C. Nepal, 9. vi. 1973, D. UEMURA leg. (MH).

Male genitalia (Fig. 27): Pygophore obovate, widened behind middle; uncus

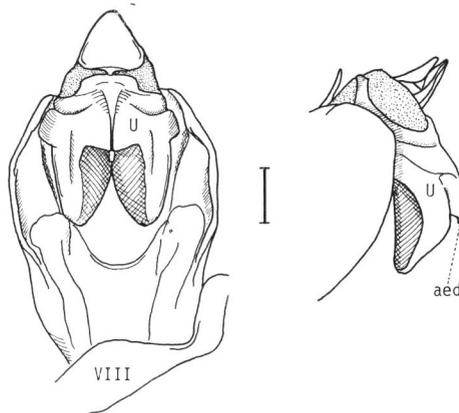


Fig. 27. *Haphsa nicomache* (WALKER), ♂ genitalia. Left: ventral view; right: lateral view in apical part. Scale, 0.5 mm.

robust with base raised at middle; uncus lobes wide and thick laterally, slightly curved inwardly, and with obtuse tips.

The genus *Haphsa* is separated from the genus *Meimuna* DISTANT by the abdomen shorter than the length from head to mesonotum (DISTANT, 1906 a), but in *Haphsa nicomache*, the abdomen is longer by individuals. Therefore, the relationship of these two genera should be investigated in detail.

Genus *Oncotympana* STÅL, 1870

Oncotympana STÅL, 1870, Öfv. Svensk. Vet. Akad. Förh., 27: 710 (type-species: *Oncotympana pallidiventrtris* STÅL).

Oncotympana expansa (WALKER, 1858)

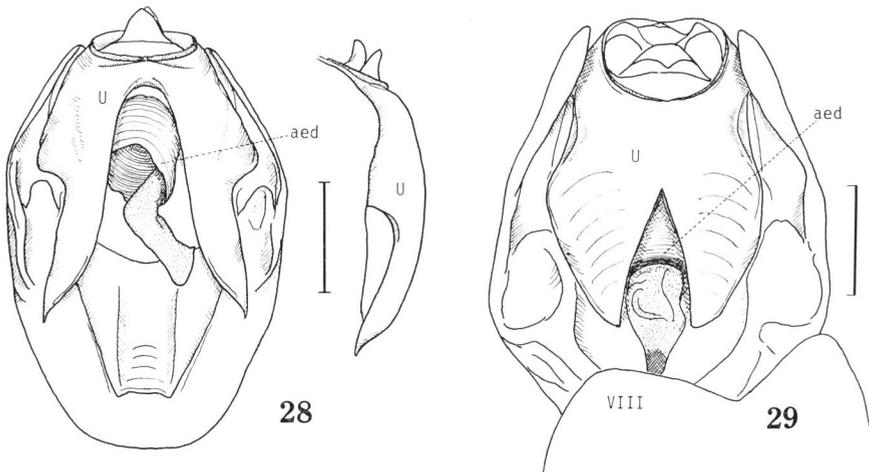
(Fig. 28)

Carineta expansa WALKER, 1858, Ins. Saundersiana, 1858: 26.

Pomponia expansa: STÅL, 1866, Berlin. ent. Z., 10: 171.

Oncotympana expansa: BUCKTON, 1898, Home Univ. Mag., 1: 306.

Specimens examined. 1 ♂, 1 ♀, Goldiagong (2,080 m)~Dumuhan (800 m), E. Nepal, 3. vii. 1963, T. FUJIOKA leg. (TF); 3 ♂♂, 1 ♀, Taplejung (1,580 m)~Andewa (1,100 m), E. Nepal, 7. vii. 1963, T. FUJIOKA leg. (NSMT & TF); 3 ♂♂, 1 ♀, The Tombol Bridge (350 m)~Sanguridara Pass (1,350 m)~Dharan (600 m), E. Nepal, 8. viii. 1963, T. FUJIOKA leg. (TF); 1 ♂, Trisuli, Nepal, 25. viii. 1969, S. WATANABE leg. (NSMT); 3 ♂♂, Darapani (1,000 m), E. Nepal, 8. ix. 1974, T. AOKI & S. YAMAGUCHI leg. (TASY).



Figs. 28–29. — 28. *Oncotympana expansa* (WALKER), ♂ genitalia. Left: ventral view; right: lateral view of uncus. Scale, 1 mm. — 29. *O. obnubila* (DISTANT), ♂ genitalia in ventral view. Scale, 1 mm.

Male genitalia (Fig. 28): Pygophore nearly elliptical; uncus lobes long and flat with pointed apices, extending beyond middle of pygophore, and separated from each other from near base.

Oncotympana obnubila (DISTANT, 1888)

(Fig. 29)

Pomponia obnubila DISTANT, 1888, Ann. Mag. nat. Hist., (6), 1: 296.

Oncotympana obnubila: DISTANT, 1906, Fn. Brit. Ind., Rhynch., 3: 117.

Specimens examined. 3 ♀♀, Walunchung (3,050 m)~Chowki (1,620 m), E. Nepal, 28. vii. 1963, T. FUJIOKA leg. (TF); 1 ♀, Walunchung~Chowki, E. Nepal, 29. vii. 1963, T. FUJIOKA leg. (NSMT); 1 ♂, 5 ♀♀, Dobang Kharka (2,400 m), C. Nepal, 23. ix. 1971, A. NAKANISHI leg. (KUF); 1 ♂, 1 ♀, Ponktable (1,900 m)~Buze (2,800 m), E. Nepal, 22. vii. 1972, H. MAKIHARA & J. TENZING leg. (KUF).

Male genitalia (Fig. 29): Pygophore elliptical and wide; uncus lobes wide with outer margins convexly sinuate and inner margins nearly straight; two lobes separated from middle of uncus.

According to Mr. H. MAKIHARA (pers. comm.), this mountain cicada dwells in shrubs composed of rhododendron trees and is found in the moss on tree trunks, less than 2 m in height, and sings in chorus early in the morning (5–6 a.m.) and again in the evening (7: 30–8 p.m.). This species is often attracted to light.

This species is new to Nepal.

Oncotympana stratoria DISTANT, 1905

(Fig. 30)

Oncotympana stratoria DISTANT, 1905, Ann. Mag. nat. Hist., (7), 16: 559.

Specimen examined. 1 ♂, Papun (2,100 m)~Chanlung (1,250 m), E. Nepal, 18. vii. 1972, H. SHIMA leg. (KUF).

Male genitalia (Fig. 30): Similar to those of *O. expansa*. Uncus curved inwardly with round apex; two uncus lobes separated and parallel.

This species was originally recorded from Yunnan, China, and is new to Nepal.

Genus ***Mata*** DISTANT, 1906

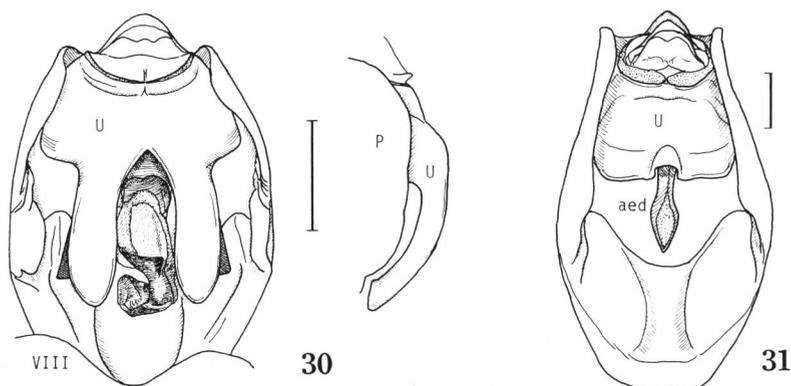
Mata DISTANT, 1906, Fn. Brit. Ind., Rhynch., 3: 119 (type-species: *Pomponia kama* DISTANT).

Mata kama (DISTANT, 1881)

(Fig. 31)

Pomponia kama DISTANT, 1881, Trans. ent. Soc. London, 1881: 643.

Mata kama: DISTANT, Fn. Brit. Ind., Rhynch., 3: 120.



Figs. 30–31. — 30. *Oncotympana stratoria* DISTANT, ♂ genitalia. Left: ventral view; right: lateral view of uncus. Scale, 1 mm. — 31. *Mata kama* (DISTANT), ♂ genitalia in ventral view. Scale, 0.5 mm.

Specimen examined. 1 ♂, Dumuhan (800 m)~Goldiagong (2,080 m), E. Nepal, 3. viii. 1963, T. FUJIOKA leg. (TF).

Male genitalia (Fig. 31): Pygophore oval; uncus wide and flat with truncate apex, which is incised at middle; aedeagus widened near apex and with acute apex.

Genus *Leptopsaltria* STÅL, 1866

Leptopsaltria STÅL, 1866, Hem. Afr., 4: 5.

Leptopsaltria tuberosa (SIGNORET, 1847)

(Fig. 32)

Cicada tuberosa SIGNORET, 1847, Ann. Soc. ent. Fr., (2), 5: 299.

Dundubia tuberosa: WALKER, 1850, List Hom., 1: 78.

Leptopsaltria tuberosa: STÅL, 1866, Berlin. ent. Z., 10: 170.

Specimens examined. 1 ♂, Dharan (500 m), E. Nepal, 26. vi. 1963, T. HARUTA leg. (NSMT); 4 ♂♂, Taplejung (1,580 m)~Andewa (1,100 m), E. Nepal, 7. vii. 1963, T. FUJIOKA leg. (NSMT & TF); 1 ♀, Changma (2,000 m), Kathmandu~Namche Bazar, E. or C. Nepal, 3. vii. 1973, K. KANO leg. (MH).

Male genitalia (Fig. 32): Pygophore oval, widened near middle seen from below; uncus lobes completely fused, curved inwardly near base, with triangularly incised apex; aedeagus cylindrical with the apical part exposed from the caudal which is formed by fusion of uncus lobes.

Genus *Tanna* DISTANT, 1905

Tanna DISTANT, 1905, Ann. Mag. nat. Hist., (7), 15: 61 (type-species: *Pomponia japonensis* DISTANT).

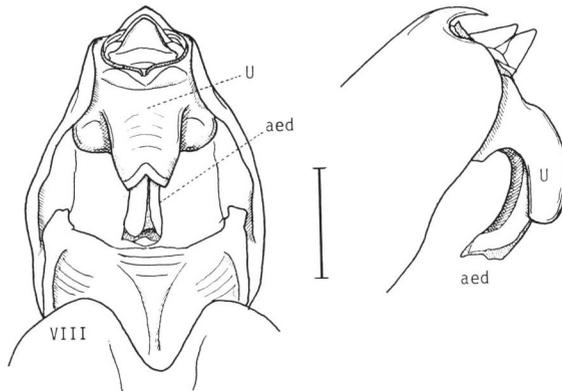


Fig. 32. *Leptopsaltria tuberosa* (SIGNORET), ♂ genitalia. Left: ventral view; right: lateral view in apical part. Scale, 1 mm.

Neotanna KATO, 1927, Trans. nat. Hist. Soc. Formosa, 17: 26 (type-species: *Tanna viridis* KATO). (*Syn. nov.*)

Tanna bhutanensis DISTANT, 1912

(Fig. 33)

Tanna bhutanensis DISTANT, 1912, Ann. Mag. nat. Hist., (8), 9: 182.

Neotanna bhutanensis: KATO, 1932, Mon. Cicad., p. 161.

Specimens examined. 4 ♂♂, Goldiagong (2,080 m)~Dumuhan (800 m), E. Nepal, 3. vii. 1963, T. FUJIOKA leg. (NSMT & TF); 4 ♂♂, 1 ♀, Taplejung (1,580 m)~Andewa (1,100 m), E. Nepal, 7. vii. 1963, T. FUJIOKA leg. (NSMT & TF); 4 ♂♂, Andewa~Lelep (1,550 m), E. Nepal, 8. vii. 1963, T. FUJIOKA leg. (TF); 10 ♂♂, 1 ♀, Lelep, E. Nepal, 9. vii. 1963, T. FUJIOKA leg. (TF); 1 ♀, Chowki (1,620 m)~Lelep, E. Nepal, 30. vii. 1963, T. FUJIOKA leg. (NSMT); 1 ♂, Chiliwa (1,350 m)~Sibku (2,100 m), E. Nepal, 7. vi. 1972, Y. NISHIDA leg. (KUF); 1 ♂, Gurza (2,100 m)~Anbote (900 m), E. Nepal, 24. vi. 1972, H. MAKIHARA leg. (KUF); 1 ♂, Papun (2,100 m)~Chanlung (1,250 m), E. Nepal, 18. vii. 1972, Y. NISHIDA leg. (KUF).

Male genitalia (Fig. 33): Similar in general to those of *Leptopsaltria tuberosa*. Pygophore slightly slender; lateral lobe of 10th segment swollen laterally; uncus lobes completely fused, slightly curved at base, with apex slightly incised.

This species has been known only from Bhutan, and it is new to Nepal.

Tanna thalia (WALKER, 1850)

(Figs. 34, 36)

Dundubia thalia WALKER, 1850, List Hom., 1: 72.

Pomponia thalia: STÅL, 1866, Berlin. ent. Z., 10: 171.

Neotanna thalia: NARUSE, 1973, Proc. Jap. Soc. syst. Zool., (9): 37.

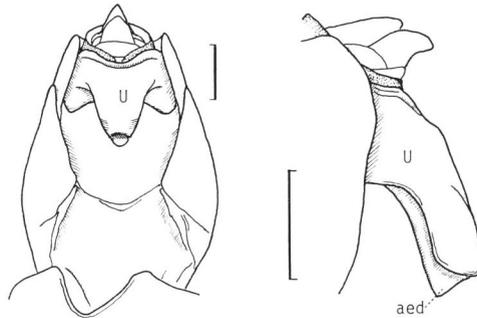


Fig. 33. *Tanna bhutanensis* DISTANT, ♂ genitalia. Left: ventral view; right: lateral view in apical part. Scales, 0.5 mm.

Specimens examined. 2 ♂♂, Kathmandu (1,350 m), C. Nepal, 7. vi. 1963, S. IGARASHI & A. HARA leg. (TF); 2 ♂♂, Godavari (1,600 m), Kathmandu, C. Nepal, 10. vi. 1963, T. FUJIOKA & A. HARA leg. (NSMT); 3 ♂♂, Godavari, Kathmandu, C. Nepal, 11. vi. 1963, A. HARA & T. FUJIOKA leg. (TF); 1 ♂, Godavari, Kathmandu, C. Nepal, 11. vi. 1963, S. IGARASHI leg. (TF); 1 ♂, Godavari, Kathmandu, C. Nepal, 11. vi. 1963, S. A. AE leg. (TF); 4 ♂♂, Mt. Mahadeo Pokhari (2,170 m), Kathmandu, C. Nepal, 12. vi. 1963, T. HARUTA & T. FUJIOKA leg. (TF); 1 ♂, Godavari, Kathmandu, C. Nepal, 21. v. 1969, T. MIYASHITA leg. (NSMT); 1 ♀, Kathmandu, C. Nepal, 19. vi. 1971, K. KANO leg. (MH); 2 ♂♂, Tatopani (1,320 m), C. Nepal, 11. v. 1974, T. AOKI & S. YAMAGUCHI leg. (TASY); 2 ♂♂, Ghasa (2,300 m), C. Nepal, 3. vi. 1974, T. AOKI & S. YAMAGUCHI leg. (TASY); 2 ♂♂, 1 ♀, Hinku (2,640 m), C. Nepal, 16. vi. 1974, T. AOKI & S. YAMAGUCHI leg. (TASY).

Each lateral surface of the male 3rd abdominal sternum possesses a tubercle-like projection, and the corresponding area of the male 4th sternum is strongly sclerotized, not discernible as a projection.

Male genitalia (Fig. 36): Pygophore elliptical, widened near middle; uncus wide at base, narrowed apically, with the apex deeply incised; aedeagus exposed from near apex of uncus, with apically bifurcated endotheca which is sclerotized at each tip.

Tanna minor M. HAYASHI, sp. nov.

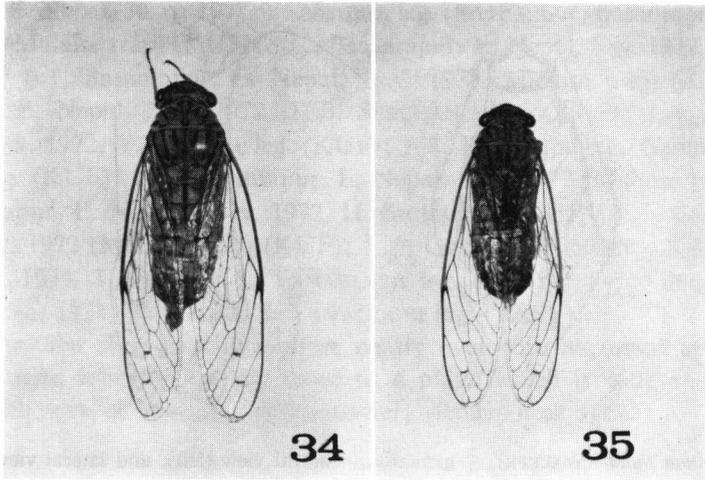
(Figs. 35, 37)

Holotype: ♂, Dana (1,600 m), C. Nepal, 5. vi. 1974, T. AOKI & S. YAMAGUCHI leg. (NSMT).

Paratype: 1 ♀, Hinku (2,640 m), C. Nepal, 16. vi. 1974, T. AOKI & S. YAMAGUCHI leg. (NSMT).

Type depository. National Science Museum (Nat. Hist.), Tokyo.

This species is closely allied to *T. thalia* (WALKER), but smaller. Head and thorax olivaceous green with anterior transverse fascia on vertex, including ocelli-area,



Figs. 34–35. — 34. *Tanna thalia* (WALKER), ♂. — 35. *T. minor* M. HAYASHI, sp. nov., ♂ (holotype).

anterolateral margins of frontoclypeus, two central longitudinal fasciae which are widened and united anteriorly and posteriorly, diagonal grooves of pronotal inner area, posterolateral corners of pronotum, a central longitudinal fascia of mesonotum, on each side of which is a short inwardly curved fascia, a lateral fascia of mesonotum, widened posteriorly, and two small spots on base of cruciform elevation, black; abdomen brownish ochreous slightly tinged with green laterally, with a spot on every lateral margin of 3rd–7th terga, ♂ 8th tergum, except for apical margin and base of ♀ 9th segment black. Head as wide as base of mesonotum; abdomen longer than length from head to mesonotum; tymbal mostly concealed with tymbal cover, but exposed laterally; ovipositor not extending beyond 9th segment.

Ventral part of head and thorax light green with a central longitudinal fascia of frontoclypeus, tip of labium, tibiae and tarsi black or fuscous; ventral part of abdomen ochreous with ♂ 7th pleuron, a pair of small spots on ♀ 7th sternum and tip of ovipositor sheath black. Labium extending beyond hind coxae; ♂ operculum small and rounded with outer margin straight, not beyond 2nd abdominal segment; lateral surface of ♂ 3rd abdominal sternum with a tubercle-like projection.

Wings hyaline and veins olivaceous green at basal half, fuscous at apical half; 1st, 2nd and 3rd cross veins of forewing more or less infuscated.

Male genitalia (Fig. 37): Similar to those of *T. thalia*, but differing in pygophore with wider apex and thicker and shorter lobe. Pygophore, in ventral view, oval and slightly slender; uncus wide and short, and widened apically in lateral view; aedeagus not entirely concealed with uncus and with bifurcated apex nearly in *T. thalia*.

Body length: (excl. forewing) ♂ 19.7 mm, ♀ 15.5 mm, (incl. forewing) ♂ 28.9 mm, ♀ 27.5 mm; length of forewing: 23.8–24.4 mm.

Distribution. Central Nepal.

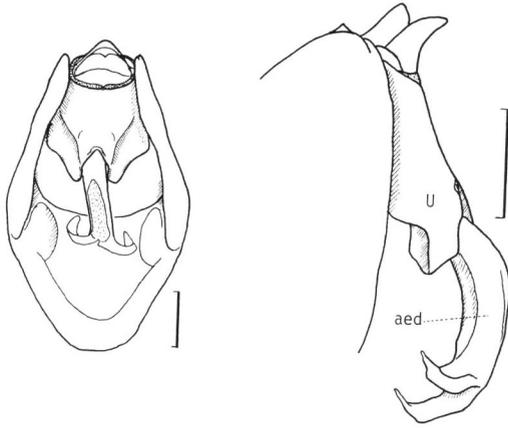


Fig. 36. *Tanna thalia* (WALKER), ♂ genitalia. Ventral view (left), and lateral view in apical part (right). Scales, 0.5 mm.

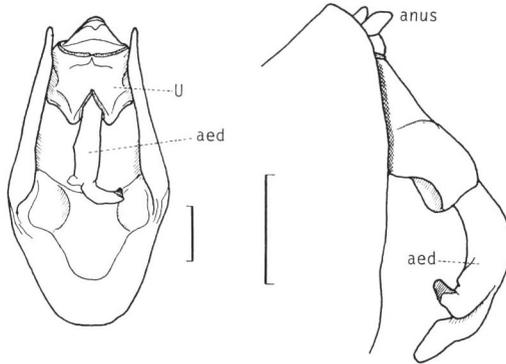


Fig. 37. *Tanna minor* M. HAYASHI, sp. nov., ♂ genitalia. Ventral view (left) and lateral view (right). Scales, 0.5 mm.

Genus *Terpnosia* DISTANT, 1892

Terpnosia DISTANT, 1892, Ann. Mag. nat. Hist., (6), 9: 325 (type-species: *Dundubia psecas* WALKER).

Terpnosia andersoni DISTANT, 1892

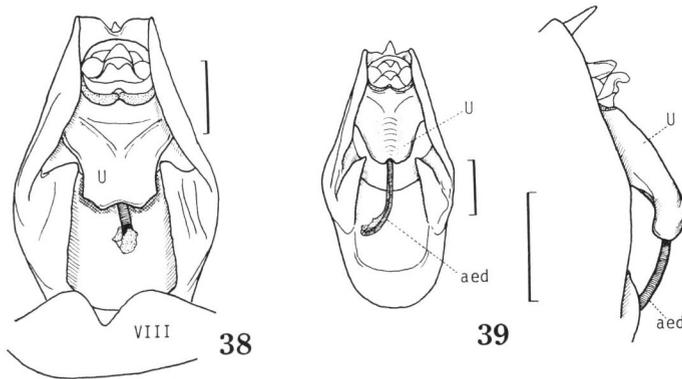
(Fig. 38)

Terpnosia andersoni DISTANT, 1892, Mon. Orient. Cicad., p. 141.

Specimens examined. 1 ♂, Chaura~Hire, near Tatopani (1,320 m), E. Nepal, 10. vi. 1971, K. KANO leg. (MH); 1 ♂, Basantapur (2,300 m), E. Nepal, 24. iv. 1972, J. EMOTO leg. (KUF); 1 ♂, Basantapur, E. Nepal, 26. iv. 1972, Y. NISHIDA leg. (KUF); 1 ♂, Basantapur, E. Nepal, 27. iv. 1972, H. SHIMA leg. (KUF); 1 ♂,

Basantapur, E. Nepal, 30. iv. 1972, Y. NISHIDA leg. (KUF); 1 ♂, Basantapur, E. Nepal, 30. iv. 1972 (Malaise trap) (KUF); 1 ♂, Basantapur, E. Nepal, 1. v. 1972, Y. NISHIDA leg. (KUF); 1 ♂, Basantapur, E. Nepal, 1. v. 1972 (Malaise trap) (KUF); 2 ♂♂, Basantapur, E. Nepal, 2. v. 1972, T. B. SERCHAND leg. (KUF); 1 ♂, Basantapur, E. Nepal, 3. v. 1972, Y. NISHIDA leg. (KUF); 1 ♂, Basantapur, E. Nepal, 5. v. 1972, J. EMOTO leg. (KUF); 1 ♀, Basantapur, E. Nepal, 8. v. 1972 (Malaise trap) (KUF); 1 ♂, Basantapur, E. Nepal, 10. v. 1972, H. SHIMA leg. (KUF); 1 ♂, Basantapur, E. Nepal, 10. v. 1972 (Malaise trap) (KUF); 1 ♂, Godavari (1,600 m), Kathmandu, C. Nepal, 2. v. 1974, T. AOKI & S. YAMAGUCHI leg. (TASY); 1 ♂, Ghasa (2,300 m), C. Nepal, 4. vi. 1974, T. AOKI & S. YAMAGUCHI leg. (TASY).

Male genitalia (Fig. 38): Pygophore nearly oval with narrowed apex, widened at middle; uncus lobes completely fused to a plate, which is wide and flat dorso-ventrally, with apex of W-shape; aedeagus very slender near apex.



Figs. 38–39. — 38. *Terpnosia andersoni* DISTANT, ♂ genitalia in ventral view. Scale, 0.5 mm.
— 39. *Terpnosia clio* (WALKER), ♂ genitalia in ventral view (left) and lateral view (right). Scales, 0.5 mm.

Terpnosia clio (WALKER, 1850)

(Fig. 39)

Dundubia clio WALKER, 1850, List Hom., 1: 73.

Terpnosia clio: DISTANT, 1892, Mon. Orient. Cicad., p. 141.

Specimens examined. 1 ♂, Godavari (1,600 m), Kathmandu, C. Nepal, 11. vi. 1963, T. FUJIOKA leg. (NSMT); 1 ♂, Godavari, Kathmandu, C. Nepal, 14. vi. 1963, T. FUJIOKA leg. (TF).

Male genitalia (Fig. 39): Very similar to those of *T. andersoni*. Uncus with round apex, incised triangularly at middle.

Terpnosia collina (DISTANT, 1888)*Pomponia collina* DISTANT, 1888, Ann. Mag. nat. Hist., (6), 1: 371.*Terpnosia collina*: DISTANT, 1892, Mon. Orient. Cicad., p. 142.

Specimen examined. 1 ♀, Kathmandu (1,350 m), C. Nepal, 7. vi. 1963, S. IGARASHI leg. (TF).

This species is new to Nepal.

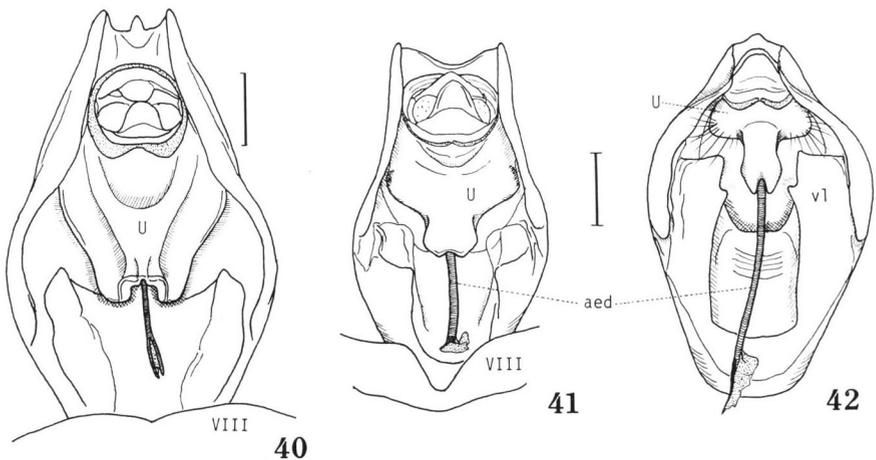
Terpnosia ganesa DISTANT, 1904

(Fig. 40)

Terpnosia ganesa DISTANT, 1904, Trans. ent. Soc. London, 1904: 675.

Specimen examined. 1 ♂, Godavari (1,600 m), Kathmandu, C. Nepal, 2. v. 1974, T. AOKI & S. YAMAGUCHI leg. (TASY).

Male genitalia (Fig. 40): Similar to those of *T. andersoni* in the shape of pygophore. Base of uncus semicircularly concave at middle; uncus of completely fused lobes and with a central longitudinal carina.



Figs. 40–42. Male genitalia in ventral view. — 40. *Terpnosia ganesa* DISTANT. Scale, 0.5 mm. — 41. *Terpnosia versicolor* DISTANT. — 42. *Euterpnosia crowfootii* (DISTANT). v1: ventral lobe of pygophore. Scale, 0.5 mm.

Terpnosia versicolor DISTANT, 1912

(Fig. 41)

Terpnosia versicolor DISTANT, 1912, Ann. Mag. nat. Hist., (8), 9: 462.

Specimens examined. 10 ♂♂, Ghasa (2,300 m), C. Nepal, 3. vi. 1974, T. AOKI & S. YAMAGUCHI leg. (TASY); 3 ♂♂, Ghasa, C. Nepal, 4. vi. 1974, T. AOKI &

S. YAMAGUCHI leg. (TASY); 1 ♂, Birthanti (1,150 m), C. Nepal, 12. vi. 1974, T. AOKI & S. YAMAGUCHI leg. (TASY).

Male genitalia (Fig. 41): Pygophore nearly oval; posterolateral margins of pygophore parallel-sided and extending apically; uncus wide but suddenly narrowed behind middle to form an apical lobule which is incised at apex.

This species is recorded from Nepal for the first time.

Genus *Euterpnosia* MATSUMURA, 1917

Euterpnosia MATSUMURA, 1917, Trans. Sapporo nat. Hist. Soc., 6: 203 (type-species: *Euterpnosia chibensis* MATSUMURA).

Euterpnosia crowfooti (DISTANT, 1912)

(Figs. 42–43)

Terpnosia crowfooti DISTANT, 1912, Ann. Mag. nat. Hist., (8), 10: 439.

Euterpnosia crowfooti: KATO, 1932, Mon. Cicad., p. 160.

Specimens examined. 2 ♂♂, 4 exuviae, Godavari (1,600 m), Kathmandu, C. Nepal, 9. vi. 1963, T. FUJIOKA leg. (TF); 2 ♂♂, 2 ♀♀, Godavari, Kathmandu, C. Nepal, 10. vi. 1963, T. FUJIOKA leg. (NSMT); 1 ♂, Godavari, Kathmandu, C. Nepal, 10. vi. 1963, S. A. AE leg. (TF); 2 ♂♂, Godavari, Kathmandu, C. Nepal, 11. vi. 1963, T. FUJIOKA leg. (TF); 1 ♀, 2 exuviae, Kathmandu (1,350 m), C. Nepal, 12. vi. 1963, T. FUJIOKA leg. (TF); 7 ♂♂, 4 ♀♀, Godavari, Kathmandu, C. Nepal, 14. vi. 1963, T. FUJIOKA leg. (NSMT & TF); 1 ♂, 2 ♀♀, Godavari, Kathmandu, C. Nepal, 16. vi. 1963, T. FUJIOKA leg. (TF); 1 ♂, 1 ♀, Godavari, Kathmandu, C. Nepal, 18. vi. 1963, T. FUJIOKA leg. (TF); 1 ♀, Godavari, Kathmandu, C. Nepal, 21. vi. 1963, T. FUJIOKA leg. (TF); 1 ♂, Dharan (500 m)~Churibass (1,000 m), E. Nepal, 24. vi. 1963, T. FUJIOKA leg. (TF); 20 ♂♂, Dumuhan (800 m)~Taplejung (1,800 m), E. Nepal, 4. vii. 1963, T. FUJIOKA leg. (TF); 6 ♂♂, 1 ♀, Taplejung, E. Nepal, 5. vii. 1963, T. FUJIOKA leg. (TF); 7 ♂♂, 1 ♀, Taplejung (1,580–1,800 m), E. Nepal, 6. vii. 1963, T. FUJIOKA leg. (TF); 2 ♂♂, Taplejung~Andewa (1,100 m), E. Nepal, 7. vii. 1963, T. FUJIOKA leg. (TF); 1 ♀, Taplejung, E. Nepal, 1. viii. 1963, T. FUJIOKA leg. (TF); 1 ♀, Okaldhunga, C. Nepal, 4. vi. 1972, K. ITOH leg. (NSMT); 1 ♀, Methirum (1,000 m)~Tiwa (1,400 m), E. Nepal, 29. v. 1972 (light trap) (KUF); 1 ♀, Tiwa ~Takwa (1,500 m), E. Nepal, 30. v. 1972, H. SHIMA leg. (KUF); 1 ♀, Ghorepani (2,970 m), C. Nepal, 7. vi. 1974, T. AOKI & S. YAMAGUCHI leg. (TASY); 1 ♂, Godavari, Kathmandu, C. Nepal, 29. vi. 1974, T. AOKI & S. YAMAGUCHI leg. (TASY); 1 ♂, Okaldhunga, C. Nepal, 12. vi. 1975, K. ITOH leg. (NSMT).

Male genitalia (Fig. 42): Pygophore oval, widened behind middle and much narrowed at apex; a pair of ventral lobes of pygophore large with a small subapical projection on each inner side; uncus lobes, completely united, narrow and slender, apex of which is sharply incised; aedeagus very much protruding from apical incision of uncus.

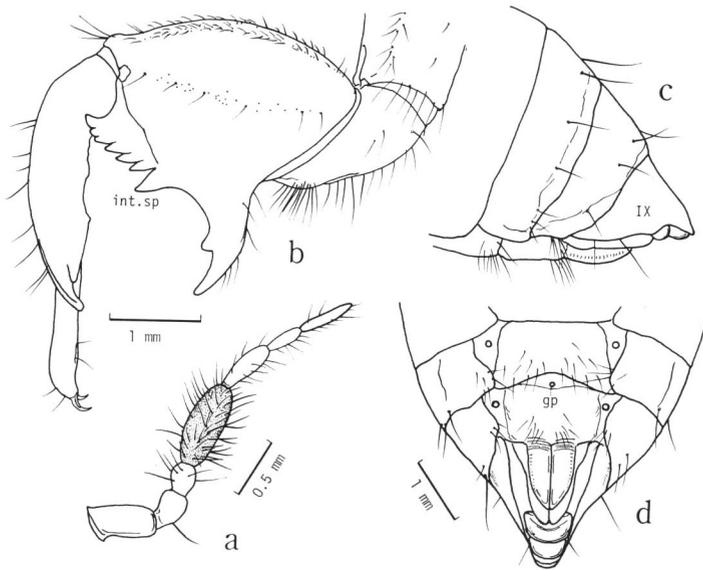


Fig. 43. *Euterpnosia crowfooti* (Distant), exuvia. a: right antenna; b: left fore leg; c, d: apical part of abdomen (♀) in lateral view (c), and ventral view (d).

Exuvia (Fig. 43): (♀) Body lustrous and pale ochreous with 4th segment of antenna, teeth of fore femur and apical part of fore tibia infuscated; antenna 7-segmented, with the ratio of about 7: 5: 3.5: 12: 7: 6: 8 (1=1/16 mm); 4th antennal segment considerably long and thick with dense setae; fore femur furnished with 7-toothed anterior comb, an intermediate spike, which is triangular and about twice as long as row of anterior comb, and with a posterior spike, which is curved forward near apex and provided with rather a wide tooth; 9th abdominal tergum slightly longer than 8th tergum, a little beyond 11th segment; ovipositor about 1/2 length of 8th sternum. Body length, 15.4–16.6 mm.

Genus *Rustia* STÅL, 1866

Rustia STÅL, 1866, Hem. Afr., 4: 8 (type-species: *Cicada dentivitta* WALKER).

Rustia dentivitta (WALKER, 1862)

(Fig. 44)

Cicada dentivitta WALKER, 1862, J. Ent., 1: 304.

Rustia dentivitta: DISTANT, 1892, Mon. Orient. Cicad., p. 125.

Rustia pedunculata STÅL, 1866, Berlin. ent. Z., 10: 383.

Specimens examined. 4 ♂♂, 1 ♀, Dharan (500 m), E. Nepal, 23. vi. 1963, T. FUJIOKA leg. (NSMT & TF); 2 ♂♂, Goldiagong (2,080 m)~Dumuhan (800 m), E.

Nepal, 3. vii. 1963, T. FUJIOKA leg. (TF).

A female specimen collected on June 23, 1963 is prominently black in color as follows: Head and thorax black with inner area of pronotum dull ochreous; abdomen black with lateral parts of 1st to 5th terga and apical margin of 7th tergum dull ochreous; ventral part of body also much infuscated.

Male genitalia (Fig. 44): Pygophore oval, widened before middle, and large in proportion to body size; posterolateral margins much developed caudally, becoming closer to each other; uncus wide at base, narrowed to apex and raised at central part; apex of uncus lobes rounded in lateral view; aedeagus thick with a triangular, much sclerotized piece near apex.

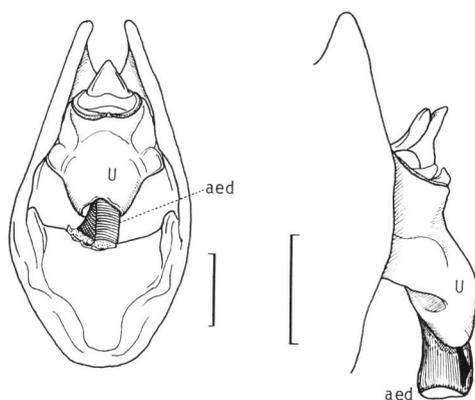


Fig. 44. *Rustia dentivitta* (WALKER), ♂ genitalia. Left: ventral view; right: lateral view in apical part. Scales, 0.5 mm.

According to Dr. T. FUJIOKA (pers. comm.), this cicada sings on a kind of silk-trees (*Albizzia* spp., Leguminosae).

Genus *Mogannia* AMYOT et SERVILLE, 1843

Mogannia AMYOT et SERVILLE, 1843, Hist. Nat. Ins., Hém., p. 467 (type-species: *Mogannia illustrata* AMYOT et SERVILLE).

Mogannia effecta DISTANT, 1892

(Figs. 45–46)

Mogannia effecta DISTANT, 1892, Ann. Mag. nat. Hist., (6), 9: 316.

Mogannia conica: NARUSE, 1973 (nec GERMAR, 1830), Proc. Jap. Soc. syst. Zool., (9): 39.

Specimens examined. 3 ♂♂, Dumuhan (800 m)~Taplejung (1,800 m), E. Nepal, 4. vii. 1963, T. HARUTA leg. (TF); 2 ♂♂, Taplejung, E. Nepal, 5. vii. 1963, T. FUJIOKA leg. (NSMT); 6 ♂♂, Taplejung (1,580–1,800 m), E. Nepal, 6. vii. 1963, T. FUJIOKA leg. (TF); 6 ♂♂, Andewa (1,100 m)~Lelep (1,550 m), E. Nepal, 8. vii. 1963, T. FUJIOKA

leg. (TF); 4 ♂♂, Pokhara~Dana, C. Nepal, 1. vi. 1969, T. MIYASHITA leg. (NSMT); 1 ♀, Dana~Lete, C. Nepal, 2. vi. 1969, T. MIYASHITA leg. (NSMT); 1 ♂, Chaura~Hire, near Tatopani (1,320 m), E. Nepal, 10. vi. 1971, K. KANO leg. (MH); 1 ♀, Lelep~Chiliwa (1,350 m), E. Nepal, 6. vi. 1972, Y. NISHIDA leg. (KUF); 1 exuvia, Linba (1,200 m)~Tank (1,900 m), E. Nepal, 28. vi. 1972, H. MAKIHARA leg. (KUF); 6 ♂♂, 1 ♀, Tatopani, E. or C. Nepal, 11. v. 1974, T. AOKI & S. YAMAGUCHI leg. (TASY); 2 ♂♂, 2 ♀♀, Dana (1,600 m), C. Nepal, 5. vi. 1974, T. AOKI & S. YAMAGUCHI leg. (TASY); 1 ♂, Ghorepani (2,970 m), C. Nepal, 7. vi. 1974, T. AOKI & S. YAMAGUCHI leg. (TASY); 1 ♂, Hinku (2,640 m), C. Nepal, 16. vi. 1974, T. AOKI & S. YAMAGUCHI leg. (TASY); 1 ♀, Pokhara (960 m), C. Nepal, 23. vi. 1974, T. AOKI & S. YAMAGUCHI leg. (TASY).

In the forewing, though the fuscous part of the basal half is not so variable, the color of the basal cell, the anal cell and the area along the nodal line is variable by individuals; hyaline — pale ochreous — orange — reddish orange — red (rouge). NARUSE (1973) recorded *M. conica* (GERMAR) from Nepal based on a female specimen, but according to my examination of the specimen preserved in Hokkaido University, it is doubtless a light-colored individual of *M. effecta* DISTANT.

Male genitalia (Fig. 45): Similar to those of *M. cyanea* WALKER (HAYASHI, 1976). Pygophore nearly oval, beak protruding upwards; lateral lobes of pygophore long, curved downwards and inwards at subapex; anterior lobes swollen at base, curved and pointed to form claws; aedeagus with 6 long spine-like processes.

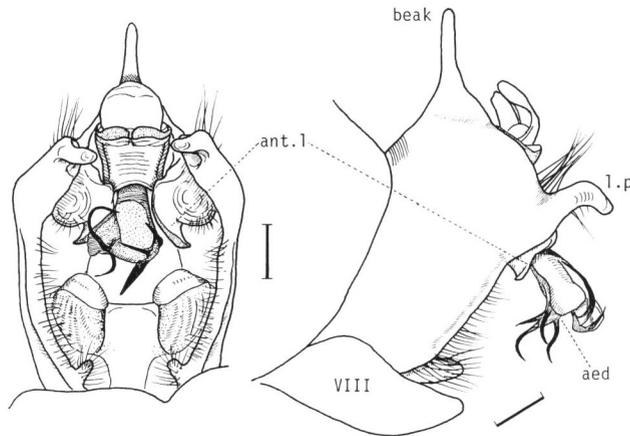


Fig. 45. *Mogannia effecta* DISTANT, ♂ genitalia. Ventral view (left) and lateral view (right). ant. l.: anterior lobe; l. p.: lateral lobe of pygophore. Scales, 0.5 mm.

Exuvia (Fig. 46): (♀) Body fuscous brown and cylindrical; frontoclypeus triangularly swollen anteriorly; antenna 9-segmented, and ratio of each segment about 11: 10: 13: 9: 8: 6.5: 4: 2: 3 (1=1/16 mm); fore femur rather slender, furnished with 4-toothed anterior comb, an intermediate spike and a long and slender posterior

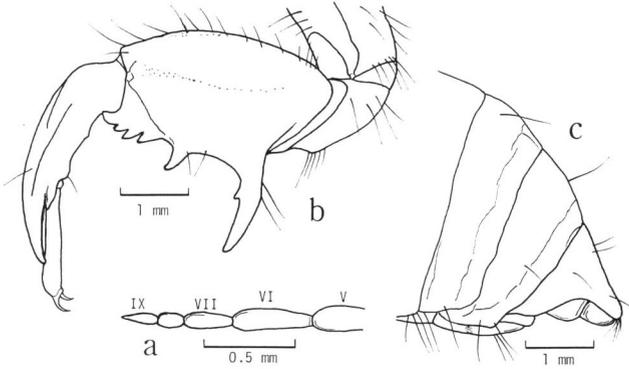


Fig. 46. Exuvia of *Mogannia effecta* DISTANT. a: apical half of antenna; b: left fore leg; c: apical part of abdomen (♀) in lateral view. V, VI, VII and IX: 5th, 6th, 7th and 9th antennal segment, respectively.

spike, which is originated from its basal surface; fore tibia relatively long, as long as the femur; abdominal tergum with transverse row of sparse setae; 9th abdominal tergum hardly extending beyond 11th segment; ventrolateral margins slightly dentate; ovipositor shorter than 1/2 length of 8th sternum. Body length, 15.8 mm.

