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## A New Genus of Pseudophloeine Bugs from the Democratic Republic of the Congo (Heteroptera, Coreoidea)

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### ABSTRACT

A new genus, *Lancha*, is erected for *Myla schnelli* Villiers, 1950. It is differentiated from *Myla* Stål, 1865 and other closely related genera. The characteristics of the Pseudophloeinae are compared with those of the Stenocephalidae, Rhopalidae, Alydidae, and Coreidae.

### INTRODUCTION

Villiers (1950) described *Myla schnelli* from the Nimba Mountains, Liberia. A study of additional material of this species shows that it is quite distinct from related species and genera.

A new genus, *Lancha*, is here erected for *Myla schnelli*. It is described and compared in detail with *Myla* Stål. The characteristics of these genera are illustrated to help in the discussion of the peculiar characteristics of the subfamily Pseudophloeinae.

Lethierry and Severin (1893 [1894]) catalogued 18 genera under the subfamily Pseudophloeinae, including eight Ethiopian and Oriental and 10 Palearctic genera. The Ethiopian and Oriental genera are *Acanthomia* Stål, 1873, *Oncaspidia* Stål, *Clavigralla* Spinola, 1840, *Mevanidea* Reuter, 1882, *Mevaniomorpha* Reuter, 1882, *Mevania* Stål, 1865, *Myla* Stål, 1865,

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and *Hoplolomia* Stål, 1873. Distant (1902) described *Trallianus* from Assam (India) and worked out a key for the four genera from British India. Distant (1918) described another genus, *Neohoplolomia*, allied to *Hoplolomia* Stål. Recently, *Risbecocoris* was described by Izzard (1949), from Senegal (Africa) but it resembles Palearctic Pseudophloeinae in general appearance. The Palearctic Pseudophloeinae have thick antennal segments and the posterior part of the pronotum is slightly elevated posteriorly. The Oriental and Ethiopian Pseudophloeinae have slender antennal segments, and the posterior part of the pronotum is sharply elevated posteriorly. The new genus described here belongs to the group of Oriental and Ethiopian Pseudophloeinae.

#### FIGURE ABBREVIATIONS

##### Head:

AT,	antenniferous tubercle
B,	bucculae
C,	clypeus
E,	eye
GE,	gena
GU,	gula
J,	juga
LBR,	labrum
1 ST LS,	first labial segment
MX P,	maxillary plate

##### Hind wing:

1A, 2A,	first and second anal veins
CU,	cubitus
CU F,	cubital furrow
H,	hamus
M,	media
P CU1, P CU2, P CU3,	first, second, and third post cubital veins
R,	radius
SC,	subcosta

##### Figures 4-7, 9-23

AB,	apical bulb
BP,	basal plate
CON,	conjunctiva
DCMA,	dorsal conjunctival membranous appendage
FA,	frontal appendage
1 ST G,	first gonocoxa
L,	lip
LCMA,	lateral conjunctival membranous appendage
LCSA,	lateral conjunctival sclerotized appendage
LL,	lateral lobe
LP,	lateral prong
VIII LT,	eighth laterotergite

IX LT,	ninth laterotergite
P,	peritreme
PV,	pivot
RA,	ramus
S,	spiracle
T,	trichobothria
TH,	theca
V,	vesica
VBMA,	ventro-basal membranous appendage

### ***Lancha*, NEW GENUS**

**DIAGNOSIS:** First antennal segment about two-thirds again as long as head. Lateral pronotal angles with broad base produced anterolaterally and extending beyond eyes. Conjunctiva with one pair of frontal, one pair of lateral, and one pair of dorsal membranous appendages; vesica narrowly elongate and loosely coiled. Spermatheca a simple elongate tube narrowing toward apex. First gonapophysis without bristles on outer margin at apex.

**DESCRIPTION:** Genus of moderately elongate species. Body surface rough with sparse, minute bristles on outer margin at apex.

Head longer than wide; apex of head produced beyond antenniferous tubercles; median lobe (clypeus) passing beyond lateral lobes (jugae); antenniferous tubercle with outer lateral margin produced anteriorly; apex curving inward. Ocelli remote from inner margin of eyes; preocellar pits prominent. Bucculae broad, slightly longer than wide. Rostrum with basal and apical segments almost equal in length, third segment shortest, second slightly longer than third, apex of basal segment remaining far behind the base of head, apex of apical segment reaching mesocoxae. Antennae with basal segment longest, two-thirds again as long as head; second, third, and fourth segments subequal.

Pronotum slightly longer than head; lateral pronotal angles with broad base, produced anterolaterally and extending beyond eyes, with sharply pointed, dark apexes; anterior portion of lateral margins with pair of prominent tubercles, and also a few minute tubercles in center of forelobe of pronotum. Scutellum flat, not elevated, longer than wide. Scent gland ostiole minute, with kidney-shaped lateral prong, and without anterior and posterior prongs. Femur thickened toward apex; femora of first and second pair of legs without spines on inner margin toward apex; femur of hind leg bearing at apex on inner margin two large spines, anterior larger than posterior spine, space in between uniformly serrate; three gradually shortening denticles immediately following large anterior spine. Tibiae cylindrical. Basal tarsal segment longer than second and third segments

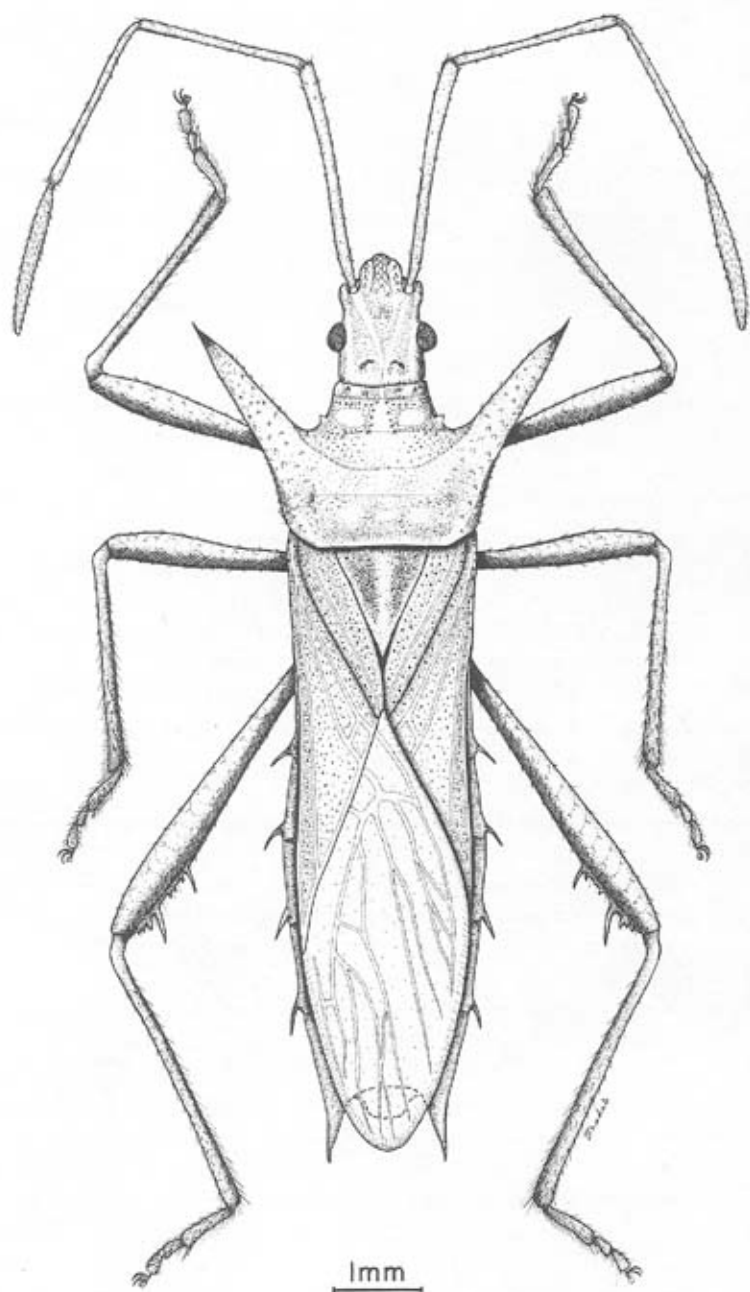


FIG. 1. *Lancha schnelli*, dorsal view.

combined. Veins on membrane of hemelytra tending to anastomose; hamus present in hind wing.

Abdomen slender; posterior angles of abdominal segments projecting posteriorly, outward and upward; projections spine-shaped, gradually increasing in length toward seventh segment. Abdominal spiracles quite close to lateral margins and almost equidistant from basal and apical margins. Trichobothria of fifth and sixth abdominal segments closer to lateral margins than to mid-ventral line of abdomen. Median longitudinal cleft of seventh abdominal sternum in female diverging laterally, slightly posterad; tenth abdominal segment in female not exposed ventrally.

Pygophore oval, with lateroposterior lobes and an apical broad convex lip. Paramere with narrow base, apical half broad with deep grooves and lobelike elevations provided with bristles. Phallus with theca sclerotized; conjunctiva with a pair of frontal, a pair of lateral and a pair of dorsal membranous appendages; vesica narrowly elongate, loosely coiled.

Spermatheca a simple elongate tube narrowing toward apex. First gonocoxa broad; first gonapophysis without bristles on outer margin near apex.

TYPE SPECIES BY MONOTYPY: *Lancha schnelli* (Villiers).

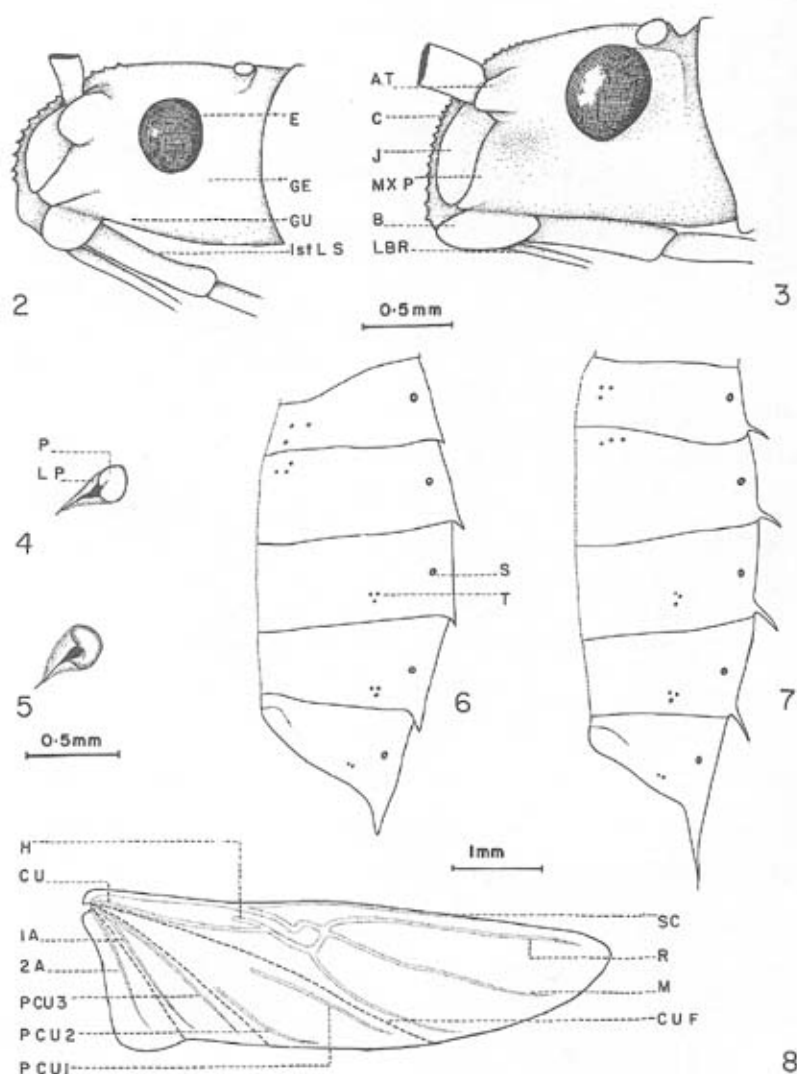
ETYMOLOGY: *Lancha* is named for collectors Herbert Lang and James P. Chapin, using the first three letters from each surname respectively.

DISTRIBUTION: Central and western Africa.

*Lancha* can be conveniently placed in the following key for the genera of the subfamily Pseudophloeinae from the Ethiopian and Oriental regions. Characters are taken from the keys by Stål (1873) and Distant (1902) and the descriptions of Reuter (1882).

#### KEY TO GENERA

1. Scutellum elevated, convex . . . . .
  - Clavigralla* Spinola, *Oncaspidia* Stål, *Acanthomia* Stål, *Mevanidea* Reuter
  - Scutellum flat but swollen and elevated at apex; second antennal segment thickened at apex . . . . . *Mevaniomorpha* Reuter
  - Scutellum not elevated . . . . . 2
- 2(1). Rostrum extending to mesocoxae; first antennal segment not shorter than head . . . . . 3
  - Rostrum extending to metacoxae; antennae with first segment shorter than head . . . . . 5
- 3(2). Antennae with first segment two-thirds again as long as head . . . . . *Lancha*, new genus
  - Antennae with first segment about equal in length to head . . . . . 4
- 4(3). Mesosternum obtusely sulcate . . . . . *Myla* Stål
  - Mesosternum and head beneath deeply sulcate . . . . . *Trallianus* Distant
- 5(2). Antenniferous tubercles with outer lateral walls not produced anteriorly . . . . . *Mevania* Stål



FIGS. 2-8. 2. *Lancha schnelli*, lateral view of head. 3. *Myla hoploxys*, lateral view of head. 4. *Lancha schnelli*, metathoracic scent gland ostiole. 5. *Myla hoploxys*, metathoracic scent gland ostiole. 6. Same, ventral half of abdomen. 7. *Lancha schnelli*, ventral half of abdomen. 8. Same, hind wing.

Antenniferous tubercles with outer lateral walls produced anteriorly and armed with a small incurved spine . . . . . *Hoplolomia* Stål

*Lancha* is very close to *Myla* Stål, which it resembles in the following morphological characters:

Body subelongate. Rostrum extending to mesocoxae. Pronotal angles acute, produced anterolaterally. Scutellum flat, not elevated. Hind femur bearing a row of large spines below, near apex. Abdominal spiracles quite close to lateral margins, equidistant from basal and apical margins. Trichobothria of fifth and sixth abdominal segments nearer to lateral margins than to mid-ventral line. Tenth abdominal segment in female not exposed ventrally.

*Lancha* can be immediately differentiated from *Myla* Stål, by the following morphological differences:

<i>Lancha</i> , new genus	<i>Myla</i> Stål
First antennal segment two-thirds again as long as head	First antennal segment as long as head
Ocelli remote from inner margin of eyes	Ocelli close to inner margin of eyes
Lateral pronotal angles greatly produced anteriorly, extending beyond eyes	Lateral pronotal angles slightly produced anteriorly, hardly reaching base of pronotum
Femur of first and second pair of legs without spines beneath near apex	Femur of first and second pair of legs with spines beneath near apex
Scutellum longer than wide	Scutellum as long as wide
Lip of pygophore extending beyond lateral lobes	Lip of pygophore not extending beyond lateral lobes
Paramere with outer margin smooth	Paramere with lobe on outer margin
Conjunctiva with three pairs of membranous appendages: frontal, lateral, and dorsal	Conjunctiva with five pairs of membranous appendages: one pair of frontal, ventro-basal, two pairs of lateral, and one pair of lateral sclerotized
First gonapophysis without bristles at apex	First gonapophysis with bristles at apex
Spermatheca simple, with a narrow elongate apical bulb	Spermatheca with a broad elongate apical bulb, followed by loosely coiled tube

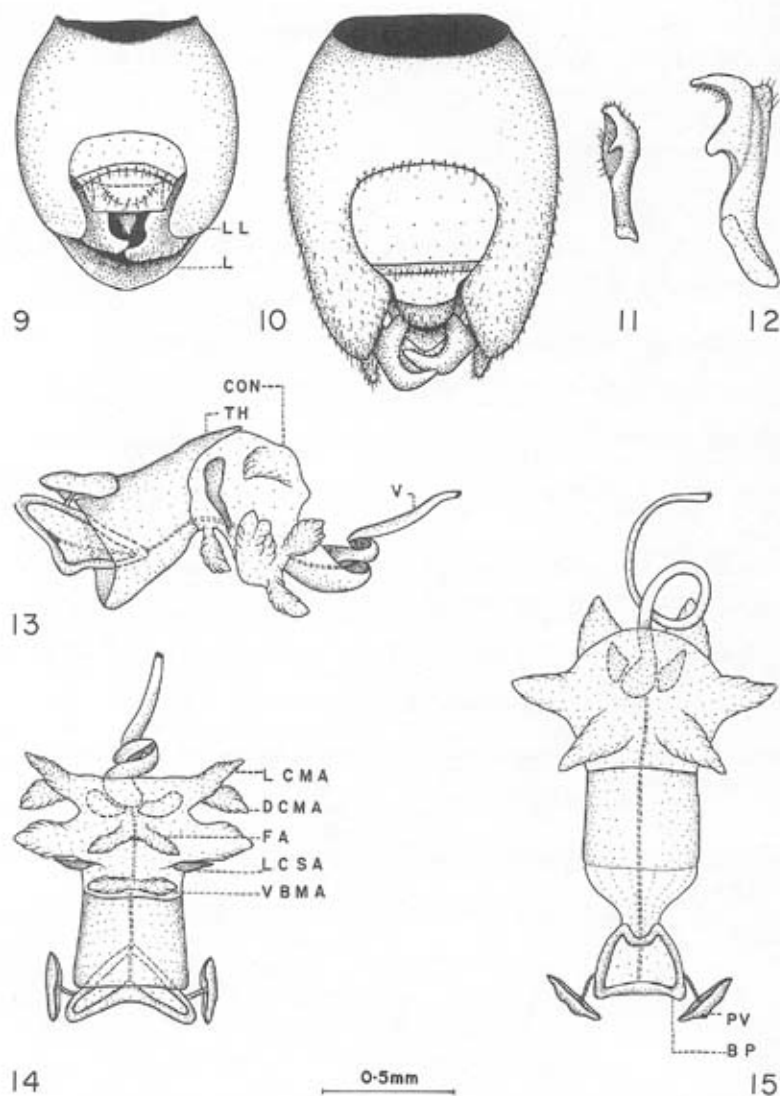
*Lancha schnelli* (Villiers)

Figures 1, 2, 4, 7-9, 11, 15, 17, 18, 20, 23

REDESCRIPTION: Uniformly pale brown, subelongate species; body, antennae, and legs covered with minute fine bristles.

Head, thorax, abdomen, antennae, legs, male and female genitalia as in generic description, and as illustrated.

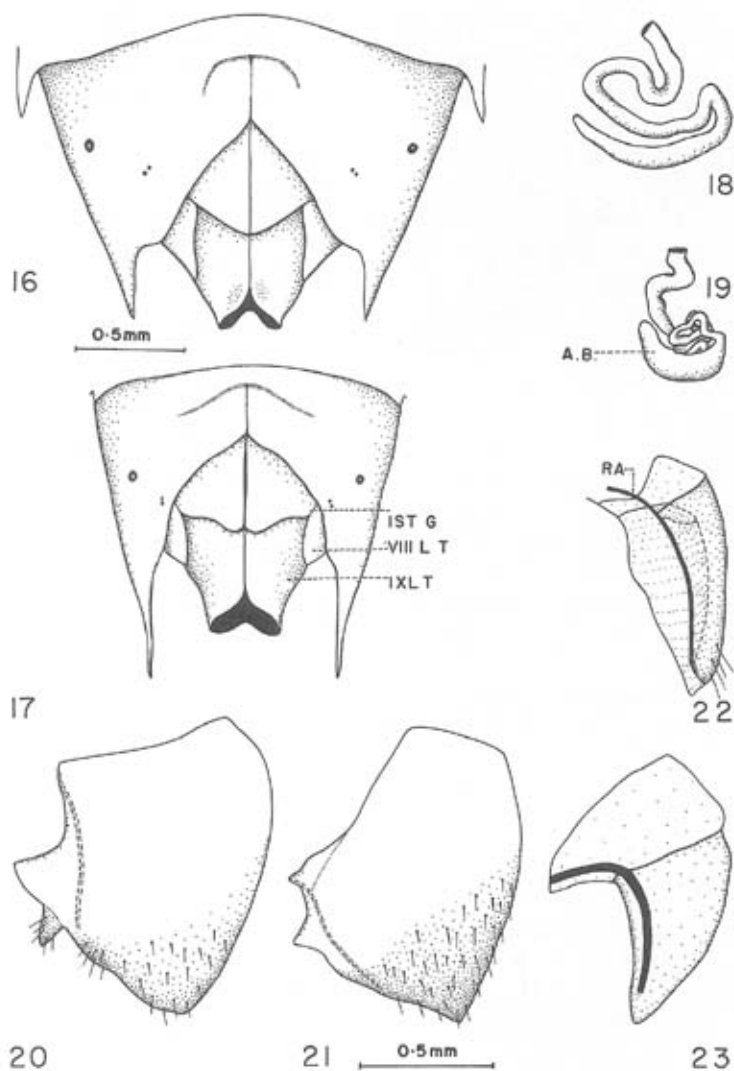
MEASUREMENTS (IN MM.): Seven males as follows: Body length 10.05–10.40; antennal segments: I. 2.50–2.60, II. 1.90–2.00, III. 1.90–2.00, IV. 1.85–1.90; labial segments: I. 0.90–1.00, II. 0.80–0.85, III. 0.60–0.65,



FIGS. 9-15. 9. *Lancha schnelli*, pygophore, dorsal view. 10. *Myla hoploxys*, pygophore, dorsal view. 11. *Lancha schnelli*, paramere. 12. *Myla hoploxys*, paramere. 13. Same, everted aedeagus, lateral view. 14. Same, everted aedeagus, ventral view. 15. *Lancha schnelli*, everted aedeagus, ventral view.

IV. 0.90-1.00; head length 1.45-1.50, width (including eyes) 1.25; pronotum length 1.65-1.75, width 2.20-2.25; scutellum length 1.10-1.20,





FIGS. 16-23. 16. *Myla hoploxys*, female terminalia, ventral view. 17. *Lancha schnelli*, female terminalia, ventral view. 18. Same, spermatheca. 19. *Myla hoploxys*, spermatheca. 20. *Lancha schnelli*, first gonocoxa. 21. *Myla hoploxys*, first gonocoxa. 22. Same, first gonapophysis. 23. *Lancha schnelli*, first gonapophysis.

width 1.00-1.10; distance apex scutellum to apex membrane 5.75-6.00.

Eight females as follows: Body length 10.45-11.30; antennal segments:

I. 2.50–2.90, II. 1.90–2.15, III. 2.00–2.25, IV. 1.70–1.90; labial segments: I. 1.00–1.10, II. 0.85–0.90, III. 0.70–0.75, IV. 0.90–1.00; head length 1.50–1.70, width (including eyes) 1.25–1.50; pronotum length 1.70–2.00; width 2.35–2.75; scutellum length 1.20–1.35, width 1.00–1.35; distance apex scutellum to apex membrane 5.80–6.50.

**MATERIAL EXAMINED:** Democratic Republic of the Congo: Faradje, latitude 30° 40' N, longitude 29° 40' E. January, 1913. (H. Lang and J. P. Chapin; the American Museum of Natural History.) Eight males and 11 females.

The above redescription agrees with the original description of *Myla schnelli*, the type specimens of which were in the Museum of Natural History, Paris, but are now misplaced and cannot be found (Villiers, personal commun.).

**DISCUSSION:** The most convenient external character, which at once separates the subfamily Pseudophloeinae from other subfamilies of Coreidae, is the presence of a minute scent gland ostiole with a lateral prong in the former and a large scent gland ostiole with anterior and posterior prongs in the latter. Although an obvious feature, it has not been used by previous workers. The other useful external characters, often cited in the literature and also mentioned by Schaefer (1965), are the presence of cylindrical tibiae and the body surface covered with small granules, each bearing a small setae.

The clypeus in the Pseudophloeinae invariably bears a row or cluster of denticles in many cases extending to the base of the head; this feature is also present in some Coreinae. The peculiar shape of the parameres seems to be constant in all the Pseudophloeinae; this shape is never found in other Coreidae but it is in most Alydidae (Ahmad, 1965; Shadab, ms) and invariably in Stenocephalidae (Lansbury, 1965; Shadab, ms). The shape of the spermatheca is another constant character: an apical oval or elongate bulb followed by a narrow tube, in some loosely coiled, with pump invariably absent; in the Coreidae this is shown only in *Hydara orientalis* Distant (Shadab, ms) and present in most Alydidae (Ahmad, 1965; Shadab, ms). The conjunctival appendages are extremely variable, from a simple condition of a pair of lateral membranous appendages in *Coriomeris denticulatus* Scopoli (Shadab, ms) to as many as five pairs of membranous and a pair of sclerotized appendages in *Myla hoploxys* Dallas (figs. 13, 14). Kumar (1965) studied the male genitalia of *Coriomeris scabricornis* Panzer and remarked that the Pseudophloeinae approach the Alydidae in the features of short vesica and conducting chamber. The vesica is usually short and thick in most Pseudophloeinae, as described by Schaefer (1965) but *Lancha schnelli* (fig. 15) has a narrow and quite elongate

vesica like that of *Hydara orientalis* Distant, also resembling the usual vesica structure in Rhopalidae: *Corizus* sp. and *Agraphopus lethierryi* Stål (Shadab, ms) and the Stenocephalidae (Lansbury, 1965; Shadab, ms). Schaefer (1965) mentioned that the absence of the eighth spiracle in the female in Pseudophloeinae is an extremely unusual condition for the Coreoidea.

From the above discussion it appears that the Pseudophloeinae holds an intermediate position between the Alydidae and Coreidae. It is clear that the status of the Pseudophloeinae needs to be reconsidered.

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