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ON THE SYSTEMATIC POSITION OF LETHAEASTER WITH DESCRIPTIONS OF A NEW GENUS AND FOUR NEW SPECIES OF ANTILLOCORINI (HEMIPTERA: LYGAEIDAE)¹

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Abstract. The systematic position of Lethaeaster is discussed and the genus is transferred from the rhyparochromine tribe Targaremini to the Antillocorini. Lethaeaster helvipennis and L. anthocoroides are redescribed, and a lectotype is designated for the former. L. anthoccoroides is reported from Australia and Sabah for the first time. Lethaeaster oenonotum is described as a new species from New Guinea. Baeocoris is described as a new genus containing 3 new species, molliculus from Sarawak (Borneo) as type-species, sulawesii from Sulawesi (Celebes), and woodwardi from Sarawak. Illustrations of the abdomen, genitalia, and dorsal views are included as is a key to the species of each genus.

Lethaeaster Breddin

Lethaeaster Breddin, 1905, Mitt. Naturhist. Mus. Hamburg 22: 124-125.

This genus was originally described in the Lethaeini (sensu lato) for *L. anthocoroides*, a new species from Java. *Antillocoris helvipennis* Bergroth from the Philippines was subsequently placed here by Scudder (1962).

Ashlock (1964) placed *Lethaeaster* in his new tribe Targaremini because of the linear position of the trichobothria on abdominal sterna 5. In the Targaremini the middle trichobothrium is placed as close to the anterior as to the posterior trichobothrium and all 3 trichobothria are placed anterior to the spiracle. Ashlock's characterization of the Targaremini also included the presence of a "Y-suture" on the nymphal abdomen, a straight apical corial margin, hooklike parameres with a well-developed blade and with the various species often having a distinct "drymine facies." Ashlock noted that *Lethaeaster* was an exception in that there was a distinct concavity on the mesal portion of the apical corial margin.

Lethaeaster is evidently a member of the Antillocorini rather than the Targaremini. Nymphs are unknown, hence the presence or absence of a Y-suture cannot be determined. The concave apical corial margin might at first glance seem to be a weak character to suggest a change in tribal relationship. However, it is found as a derived character in most Antillocorini exactly as it occurs in *Lethaeaster*. Species of *Lethaeaster* have a distinct antillocorine rather than targaremine "facies," the dorsal abdominal

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scent gland scars are as in most other antillocorines and the paramere is of the slender "reduced" type found in many Antillocorini.

Slater et al. (1977) have pointed out the probable importance of the position of the spiracles on abdominal sterna 2, 3, and 4 in analyzing the systematic relationships of such Neotropical antillocorines as *Bathydema* Uhler, *Caeneusia* Strand, and *Antillodema* Slater (the latter treated as a "group" within *Bathydema* by Slater et al. 1977). Slater et al. (1977) suggest that antillocorine taxa that have 3 anterior spiracles placed on the "sternal shelf" are plesiomorphic for this condition. All species of *Lethaeaster* have these spiracles so placed (Fig. 3).

Baeocoris molliculus, n. gen., n. sp., described below, has the middle trichobothrium of sternum 5 placed much closer to the posterior than to the anterior trichobothrium and the latter is placed behind the spiracle (Fig. 4). This is a "typical" antillocorine feature. *Baeocoris*, n. gen., also has other antillocorine characteristics, as discussed below. The various species of *Lethaeaster* and *Baeocoris* all have an anteriorly rounded pruinose basal ½ to the dorsal surface of the head. This appears to be a synapomorphy relating the 2 genera. Since *Baeocoris* is a rather conventional antillocorine, it is further evidence that *Lethaeaster* is also an antillocorine.

Thus, the only feature that would appear to relate *Lethaeaster* to the Targaremini is the position of the trichobothria on abdominal sternum 5 relative to one another and to the spiracle. However, the positions of the trichobothria of the 5th abdominal sternum used by Ashlock (1964) to establish tribal relationships are much more variable in the Antillocorini than was earlier thought to be the case (Slater 1980).

The removal of *Lethaeaster* from the Targaremini to the Antillocorini strengthens an interpretation of the Targaremini as an ancient group that now occurs chiefly in New Zealand, New Caledonia, and adjacent Pacific islands and removes it as a component of the fauna of the Sunda Shelf.

Dr M. Malipatil (pers. commun.), who is studying Australian antillocorines, agrees with the preceding interpretation and is of the opinion that *Tomocoris* Woodward, which is represented by species in Japan and the Philippines as well as in New Guinea, Australia, and New Zealand, also is not a member of the Targaremini.

All measurements herein are in millimetres. Those given in the descriptions of new species are of the holotype.

KEY TO THE SPECIES OF Lethaeaster

1.	Corium with a broad dark transverse fascia extending completely across hemelytra at	
	level of claval commissure; apex of corium with a large dark macula present; very	
	small species, less than 2.75 anthocoroid	es
	Corium pale yellow with at most an incomplete dark transverse fascia; apex of corium	
	with at most a very small inconspicuous dark spot; larger species over 3.25	2
2.	Labial segment I considerably longer than interocular space; scutellum largely dark	

Lethaeaster helvipennis (Bergroth)

Antillocoris helvipennis Bergroth, 1918, Philipp. J. Sci. 13: 86. Lethaeaster helvipennis Scudder, 1962, Can. Entomol. 94: 769.

L. helvipennis was originally described from "Taguna, Mount Maquiling" Luzon, Philippines. Bergroth indicates a male and a female in the type series.

Scudder (1962) placed *helvipennis* in *Lethaeaster* and indicated that he had seen type material. He did not fix a lectotype. In the Zoological Museum of the University of Helsinki, Finland, is a single female bearing a series of labels as follows: 1) "Mt. Makiling Luzon, Baker"; 2) "Antillocoris helvipennis Bergr." (probably in Bergroth's handwriting); 3) "Mus-Zool. H:Fors Spec. typ. No. 11299 Antillocoris helvipennis Berg"; 4) "Mus. Hels. N:o 3560." This specimen is here formally designated as the lectotype and an appropriate label attached.

Bergroth's original description states that the basic color is black; it is actually dark reddish brown. The femora are said to be piceous; in the lectotype the femora are reddish brown, becoming pale distally.

Measurements of the lectotype are as follows: Head: length 0.56; width 0.76; interocular space 0.48. Pronotum: length 0.80; width 1.44. Scutellum: length 1.12; width 0.84. Claval commissure length 0.22. Midline distance apex clavus-apex corium 0.60. Midline distance apex corium-apex membrane 0.74. Length of labial segments: I 0.40; II 0.56; III 0.52 (approx.); IV 0.36 (approx.). Length of antennal segments: I 0.36; II 0.56; III 0.42; IV missing. Total body length: 3.72.

L. helvipennis is very closely related to *oenonotum*, n. sp.; the differences are discussed under the latter.

I have examined an additional male from Luzon: International Rice Institute Farm, X.1972, light trap (A.D. Pawar).

Lethaeaster oenonotum Slater, new species

Fig. 1, 3, 7, 9

Head and pronotum wine red, former becoming paler anteriorly. Scutellum chiefly dark chocolate brown with apex and distal ³/₄ of lateral margins testaceous and concolorous with clavus and greater part of corium. Corium (and membrane) of a somewhat golden luster marked with suffuse darker maculae as follows: an elongate macula along lateral margin extending mesad to radial vein at level of claval commissure; a small spot at extreme inner end of apical corial margin; a broad dark apex of corium. Central area of corium and entire membrane hyaline. Legs, labium, and antennal segment I orange-yellow. Antennal segments II, III, and IV dark red-brown, terminal segment slightly paler than preceding. Ventral and pleural surfaces bright red-brown. Dorsal surface lacking upstanding hairs, but with scattered inconspicuous decumbent hairs, those on shining anterior portion of head abundant and directed anteriorly. A number of relatively elongate hairs arising from each compound eye. Pronotum and scutellum completely pruinose. Posterior portion of dorsal surface of head pruinose as an

anteriorly convex arc beginning at posterior 1/8 of inner margin of compound eye; head anteriorly contrastingly strongly shining. Head finely and irregularly punctate. Posterior pronotal lobe coarsely punctate; areas of calli smooth. Head nondeclivent, acuminate. Tylus extending well beyond middle of 1st antennal segment. Vertex moderately convex. Ocelli large, placed closer to compound eyes than to meson. Head: length 0.58; width 0.64; interocular space 0.38. Pronotum very broad across humeri, strongly tapering anteriorly; transverse impression complete but shallow and inconspicuous; anterior collar strongly defined; posterior lobe more elevated than anterior; lateral margins of anterior lobe obtusely "carinate"; posterior margin straight. Pronotum: length 0.66; width 1.30. Scutellum elevated mesally but lacking a distinct carina. Scutellum: length 0.82; width 0.72. Hemelytra with lateral corial margins shallowly sinuate, apical margin concave basally. Clavus with 2 complete rows of punctures and a partial additional inner row. Claval commissure very short, length 0.20. Midline distance apex clavusapex corium 0.86. Midline distance apex corium-apex membrane 0.60. Metathoracic scent gland auricle slender, strongly curved posteriorly in a scimitar-shaped arc. Evaporative area covering only inner $\frac{1}{2}$ of metepisternum and posterior $\frac{1}{2}$ of mesoacetabulum, the outer margin slightly convex. Abdomen with spiracles of segments 2, 3, and 4 located on "sternal shelf." Trichobothria of sternum 5 placed in a linear sequence with posterior trichobothria anterior to spiracle 5 (Fig. 3). Abdominal tergum with well-developed scent gland scars between terga 3-4, 4-5, and 5-6, the intersegmental sutures of these segments conspicuously scalloped. Inner laterotergites well-developed on segments 4, 5, and 6 (Fig. 9). Fore femora slender, mutic. Labium elongate, extending posteriorly onto abdominal sternum 3 (2nd visible). Length of labial segments: I 0.42; II 0.54; III 0.52; IV 0.36. Length of antennal segments: I 0.38; II 0.56; III 0.42; IV 0.48. Total body length: 3.68.

ô. Genital capsule produced posteriorly with a strong dorsal "lip" (Fig. 7) and a median ridge on posterior surface. Paramere with short sharp blade, strongly rounded, projecting outer lobe and truncate inner lobe (Fig. 1).

Holotype & (врвм 12,932), PNG: NEW GUINEA (SE): S Highlands: ridge W of Dimifa, S of Mt Giluwe, 2350 m, 11.X.1958 (J.L. Gressitt), in Bernice P. Bishop Museum. Paratypes. 1&,2?, same data as holotype. NEW GUINEA (NE): 1&,1?, NW Kepilam, 2400 m, 20–22.VI.1963, light trap (J. Sedlacek). In Bishop Museum, P.D. Ashlock and J.A. Slater collections.

L. oenonotum is very closely related to helvipennis (Bergroth), the 2 agreeing in most details of color and structure. L. oenonotum may be readily distinguished from helvipennis by its relatively narrower head, i.e., oenonotum has labial segment I appreciably longer than the interocular space (42:38 male, 50:42 female); in the lectotype of helvipennis the reverse is true (40:48). In oenonotum the head width is considerably less than $2\times$ as great as the length of the antennal segment I (66:42 male, 64:36 female), whereas in helvipennis the reverse is true (76:36). In oenonotum the scutellum is largely dark red-brown with only the lateral areas of the distal $\frac{2}{3}$ pale, whereas in helvipennis only the anterior $\frac{1}{3}$ of the scutellum is dark. In oenonotum the pronotum appears to narrow more strongly from the humeral angles to the anterior margin and the labium is relatively longer, but study of a series of helvipennis will be necessary to establish whether these latter differences are really significant.

I have examined a single female from South India (Anamalai Hills, Cinchona, 1067 m, IV.1959, P.S. Nathan) that may represent an undescribed species. It resembles *oenonotum* in having labial segment I longer than the interocular space, in having an



FIG. 1-10. 1, Lethaeaster oenonotum, paramere. 2, Baeocoris molliculus, paramere. 3, L. oenonotum, abdomen, lateral view. 4, B. molliculus, abdomen, lateral view. 5, B. molliculus, sperm reservoir, dorsal view. 6, B. molliculus, sperm reservoir, lateral view. 7, L. oenonotum, genital capsule, lateral view. 8, B. molliculus, genital capsule, lateral view. 9, L. oenonotum, abdomen, dorsal view. 10, B. molliculus, 5th instar nymph, dorsal view.

incomplete dark transverse fascia on the corium, and in its chiefly dark scutellum, but it differs in having the width of the head $2\times$ as great as the length of antennal segment I, which is dark red-brown and concolorous with the succeeding segments. Further material seems necessary to establish the status of this specimen.

Lethaeaster anthocoroides Breddin

Lethaeaster anthocoroides Breddin, 1905, Mitt. Naturhist. Mus. Hamburg 22: 124-125.

This, the type-species of *Lethaeaster*, is readily recognizable by its very small size (2.60+) and by the broad, complete dark fascia across the middle of the hemelytra. It also has a less acuminate head, less prominently produced humeral angles and a much shorter and broader metathoracic scent gland auricle than do the other species.

L. anthocoroides was originally described from Java. I have examined 3 specimens as follows: MALAYSIA: SABAH: 13, R[iv] Karamuak, 11.26 km SSE of Telupio 61 m, 1–7.IX.1977 (M.E. Bacchus); AUSTRALIA: Queensland, 13, Palmerston Natl. Park, Henrietta Crk, 5.XII.1965 (G. Monteith); 13, Cape York, Lockerbie area, 13– 27.IV.1973 (G. Monteith). In University of Queensland, British Museum (Natural History), and J.A. Slater collections.

Baeocoris Slater, new genus

Body very small, dorsally depressed. Head shining anteriorly, with a large pruinose semicircular area basally on vertex. Pronotum and scutellum pruinose. Hemelytra including membrane subshining, latter translucent. Body clothed with semidecumbent silvery hairs.

Head nondeclivent, vertex strongly convex. Ocelli small, placed far laterad, as far as inner margins of compound eyes, latter almost in contact with anterolateral pronotal angles. Pronotum trapezoidal; posterior lobe not strongly elevated; transverse impression complete; lateral margins deeply sinuate; humeri evenly rounded; posterior pronotal margin deeply concave. Scutellum lacking a median elevation, much longer than claval commissure. Clavus with 3 distinct rows of punctures. Apical corial margin only very slightly concave on inner 1/3 (Fig. 11). Metathoracic scent gland auricle elongate, very strongly and abruptly curved posteriorly. Evaporative area covering inner ²/₃ of metapleuron; its outer edge slightly convex. Mesosternum with a median carina. Fore femora only slightly enlarged, mutic. Antennae stout, all segments somewhat swollen or fusiform. Abdominal tergum with well-developed inner laterotergites and well-developed scent gland openings between terga 3-4, 4-5 and 5-6. Trichobothria of sternum 5 placed in linear fashion, anterior and middle trichobothria placed much further apart than latter is from posterior trichobothrium; posterior trichobothrium placed well behind abdominal spiracle 5 (Fig. 4). Sterna 6 and 7 each with apparently only a single posterior trichobothrium (Fig. 4). All spiracles ventral, those of sterna 2, 3, and 4 all placed on sternal "shelf" (Fig. 4). Suture between sterna 4 and 5 fused, curving strongly anteriorly to almost reach suture between sterna 3 and 4 (Fig. 4). Paramere acutely triangulate, lacking welldeveloped inner or outer projections (Fig. 2). Sperm reservoir with well-developed circular bulb and outwardly narrowing but well-developed down-curved wings (Fig. 5, 6).

Type-species: Baeocoris molliculus, n. sp.

Baeocoris appears to be most closely related to Lethaeaster among Australasian antillocorines. The basally pruinose, anteriorly shining dorsal surface of the head is 1983

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probably a synapomorphy (although the condition is also found in some Neotropical antillocorines). Differing from *Lethaeaster*, species of *Baeocoris* have a much more flattened dorsal surface, a complete transverse pronotal impression, and much smaller ocelli that are not placed mesad of the inner margin of the compound eyes; they lack a median elevation on the posterior $\frac{1}{2}$ of the scutellum, and have a concave posterior pronotal margin, a metapleural evaporative area that occupies the inner $\frac{2}{3}$ of the metapleuron, a posterior trichobothrium on abdominal sternum 5 that is placed posterior to the 5th spiracle, and a much shallower concavity along the inner portion of the apical corial margin and with only a single posteriorly located trichobothria on abdominal sterna 6 and 7.

In general habitus *Baeocoris* is similar to species of the New World genus *Antillocoris*, but the latter lacks a well-developed scent gland between abdominal terga 3 and 4 and has the 2 posterior trichobothria of sternum 5 located somewhat dorsoventrad of one another.

KEY TO THE SPECIES OF Baeocoris

1.	Head, pronotum and scutellum uniformly dark chocolate brown sulawesii, n. sp. Pronotum with anterior 1/2 to 2/3 light yellow, strongly contrasting with dark posterior portion of pronotum; head and scutellum often pale yellow to dusky, not dark
	chocolate brown 2
2.	Fourth antennal segment white or nearly so; metathoracic scent gland auricle curving posteriorly in a distinct angle; over 1.75 in length (brachypters only known)
	Fourth antennal segment brown or gray, sometimes somewhat lighter than preceding
	segments but never white or very pale yellow; metathoracic scent gland auricle curving posteriorly in an even arc; less than 1.75, at most only slightly longer than 1.50 (macropters only known) molliculus, n. sp.

Baeocoris molliculus Slater, new species

Fig. 2, 4–6, 8, 10, 11

General coloration dark reddish brown to chocolate brown. Anterior pronotal lobe and anterior ¹/₂ of posterior lobe a contrasting orange-yellow. Clavus and anterior (basal) ¹/₃ of corium pale testaceous, nearly white, strongly contrasting with rich dark brown of distal portion of corium. Antennal segments I, II, and III dark brown, segment IV slightly paler. Legs, labium, and pleural and ventral surfaces pale yellow. Head finely punctate. Pronotal calli smooth, impunctate; area before and between calli, posterior pronotal lobe, and scutellum with distinct discrete punctures. Clothed above with numerous semierect hairs.

Head with vertex strongly convex; tylus reaching approximately to middle of antennal segment I. Head: length 0.24; width 0.34; interocular space 0.22. Pronotum with lateral margins strongly sinuate and obtusely "carinate" along anterior lobe; transverse impression shallow but complete; posterior margin evenly concave. Pronotum: length 0.26; width 0.58. Scutellum smooth, lacking a median carina. Scutellum: length 0.26; width 0.30. Hemelytra with lateral corial margins nearly straight, slightly sinuate at level of apex of scutellum. Claval commissure length 0.18. Midline distance apex clavus–apex corium 0.32. Midline distance apex corium–apex membrane 0.28. Metathoracic scent gland auricle slender, fingerlike, strongly curving posteriorly to nearly reach posterior margin of evaporative area, latter with outer



FIG. 11. Baeocoris molliculus, dorsal view.

margin evenly convex, covering only inner $\frac{1}{2}$ of metapleuron and extending onto posterior $\frac{1}{2}$ of mesacetabulum. Fore femora mutic. Labium extending between metacoxae. Length of labial segments: I 0.18, II 0.23, III 0.18, IV 0.10. Length of antennal segments: I 0.22, II 0.22, III 0.17, IV 0.26. Total body length: 1.52.

8. Genital capsule truncate posteriorly (Fig. 8), inner projections of lateral margin of dorsal

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opening elongate and tapering. Paramere with straight shaft, blade pointing upward on same plane as shaft (Fig. 2). Sperm reservoir as in Fig. 5, 6.

Holotype &, E MALAYSIA: SARAWAK: Siar Beach, via Lunder, 7.XII.1977, ex litter, trees, and shrubs (T.E. Woodward & V.B. Hoe). In Queensland Museum collection. Paratypes. 28,19, same data as holotype. [MALAYSIA:] SABAH: 18,19, Tawera, Quoin Hill, 229 m, rainforest, 16–19.VI.1969, leaf mold berlesate (R.W. Taylor acc. 68.613); 19, same but "acc. 68.620." In University of Queensland, Australian National Museum and J. A. Slater collections.

I have examined a single male from the mainland of Malaysia that may represent a distinct species. It is very similar to *molliculus* but somewhat larger, has a completely chocolate brown pronotum, and almost completely darkened hemelytra. The pronotal width is also relatively greater. It seems prudent to withhold description until more material is available for study. The data label reads "Peninsular Malaysia: Cameron Highlands, 15.I.1978, T.E. Woodward, ex litter, rainforest." In T.E. Woodward collection.

Fifth instar nymph (Sabah, Quoin Hill) (Fig. 10). Head, pronotum, mesothoracic wing pads, prescutellum and metanotum, quadrate patches about abdominal scent gland orifices, and antennae nearly uniformly brown. Abdomen pale, translucent. Legs whitish infuscated with pale brown proximally on femora. Pronotum and wing pads impunctate.

Head only slightly declivent anteriorly; tylus extending only to proximal $\frac{1}{3}$ of antennal segment I. Epicranial stem very short, arms nearly straight. Head: length 0.32; width 0.38. Pronotum subquadrate. Pronotum: length 0.26; width 0.44. Mesothoracic wing pads short and broad scarcely reaching abdominal tergum 2. Wing pad length 0.30. Abdominal scent gland openings broad, of equal width between terga 3-4, 4-5, and 5-6, associated sclerotized areas broader anterior to openings than posterior. Abdomen length 0.90. Length of labial segments: I 0.18, II 0.26, III 0.22, IV 0.14. Length of antennal segments: I 0.23, II 0.22, III and IV missing. Total body length: 1.90.

This nymph is apparently a female, which accounts for the somewhat larger size than the adult holotype male.

Baeocoris sulawesii Slater, new species

Similar in habitus to *molliculus*. Head, pronotum, scutellum and posterior $\frac{1}{2}$ of corium uniformly chocolate brown. Clavus and anterior $\frac{1}{2}$ of corium a strongly contrasting pale yellow to almost white. Antennae pale yellowish brown. Legs light yellow to white. Punctation, pruinosity, and pubescence as in *molliculus*.

Structurally much as in *molliculus* but with antennal segment II relatively more elongate and more strongly narrowed to proximal end. Head: length 0.26; width 0.38; interocular space 0.24. Pronotum: length 0.30; width 0.66. Scutellum: length 0.32; width 0.36. Claval commissure length 0.20. Midline distance apex clavus–apex corium 0.38. Midline distance apex corium–apex membrane 0.28. Length of labial segments: I 0.20, II 0.28, III 0.20, IV 0.16. Length of antennal segments: I 0.22, II 0.30, III 0.20, IV 0.30. Total body length: 1.78.

Holotype ², [INDONESIA:] SULAWESI TENGAH: Solato R[iv] Taronggo, 1°45'S, 121°40'E, 27–30.III.1980, lowland rainforest, forest floor litter (M.J.D. Brendell, B.M. 1980). In British Museum (Natural History). Paratype. 1², same data as holotype. In J.A. Slater collection.

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Fig. 12

This species is very similar to and obviously closely related to *B. molliculus*. It may be most readily recognized by the completely dark chocolate brown pronotum but also differs in having a relatively much longer and more slender 2nd antennal segment. In *sulawesii* segment II is much longer than segment I and subequal in length to antennal segment IV and also to the length of the pronotum. In *molliculus* antennal segments I and II are subequal in length and segment II is much shorter than segment IV and shorter than the pronotal length. There is no appreciable difference between the holotype and paratype in either color or structure.

Baeocoris woodwardi Slater, new species

General coloration bright orange-yellow with antennae and legs paler. Posterior pronotal lobe, scutellum, an elongate stripe on each hemelytron adjacent to lateral margins and midway between base and distal end, a diffuse area along distal and inner margins of hemelytron dark chocolate brown. Meso- and metapleuron and extensive areas on abdomen chestnut brown. (Areas about trichobothria a strongly contrasting bright yellow as are abdominal connexiva except for a very narrow dark brown marginal edge). Head granulose. Pronotal punctures small and closely set anteriorly to form a "collar-like" area. Similar punctures present on entire posterior lobe. Hemelytral punctures very large and coarse. Clothed above with inconspicuous silvery semidecumbent hairs.

Head anteriorly slightly declivent; tylus extending over basal ½ of 1st antennal segment; vertex strongly convex. Compound eyes small, nearly in contact with anterolateral pronotal angles. Ocelli vestigial. Head: length 0.32; width 0.38; interocular space 0.28. Pronotum subquadrate; calli very large, occupying most of anterior pronotal lobe, which is much larger and more elevated than posterior lobe. Lateral pronotal margins slightly sinuate, only moderately narrowed anteriorly. Pronotum: length 0.32; width 0.56. Scutellum: length 0.22; width 0.26. Clavus and corium indistinguishably fused into wing pads which extend only onto anterolateral areas of abdominal tergum 4. Apical corial margin slightly convex, angled cephalomesad from lateral margin to meson. Membrane reduced to a very narrow "rim" along apical margin of coriaceous wing pad. Length median commissure 0.18. Lateral length wing pad 0.50. Metathoracic scent gland auricle sharply angled caudolaterad. Evaporative area occupying inner ¾ of metapleuron, convex along outer margin. Labium obscured, probably attaining metacoxae. Length of labial segments: I 0.22, IV 0.32. Total body length: 1.84.

Holotype & E MALAYSIA: SARAWAK: Semongok Forest Reserve, 18.XI.1977, from litter in primary rain forest (T.E. Woodward). In Queensland Museum. Paratype: 1&, SARAWAK, Semongoh (sic) For. Reserve, 17.7 km SW of Kuching, 28–31.V.1968 (R.W. Taylor accession 68, leaf mold berlesate, rainforest RWT 68-200). In J.A. Slater collection.

Although it is known only from brachypterous specimens, *woodwardi* differs from *B. molliculus* (and *sulawesii*) in many respects. Antennal segment I is relatively more elongate. The metathoracic scent gland auricle curves posteriorly at a distinct angle in *woodwardi* but curves evenly posteriorly in the other species. The latter may have the 4th antennal segment somewhat paler than the dark preceding segments but never appearing to be very light yellow or nearly white, whereas in *woodwardi* antennal segment IV is completely white or at most has a slightly yellowish tinge. Other features

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such as the much more convex vertex, smaller eyes, reduced posterior pronotal lobe, and even the relatively shorter scutellum may be associated with brachyptery.

It is of interest to find a brachypterous lygaeid in a lowland tropical rainforest. It is an unusual phenomenon in the Lygaeidae and suggests a long stable history of rainforest in the area.

It is a distinct pleasure to dedicate this handsome little species to Dr T.E. Woodward of the University of Queensland for his many contributions to Australasian Hemipterology.

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