

DENTISBLISSUS: A NEW GENUS OF BLISSINAE FROM NEW GUINEA (Hemiptera: Lygaeidae)¹

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The subfamily Blissinae is represented in Australasia by a number of species that show various bizarre morphological specializations. The present genus is described at this time to make the generic name available and to clarify specific synonymy so that a contemplated study of one of the species as a possible pest of sugar cane in New Guinea will not be inconvenienced.

The most striking feature of this genus is the remarkable development in the male of the ventral head surface into a pair of elongate, forward projecting tusks (fig. 2A). I know of no other case of this in the Lygaeidae although numerous genera have swollen areas and sometimes acute teeth on the ventral head surface.

It is a surprising fact that many of the Blissinae in the Oriental and Australian regions show strong sexual dimorphism, whereas in the Ethiopian and Neotropical regions it is little evident. Examples are the eyes of *Pirkimerus*, bucculae of *Iphicrates*, hind femora of *Bochrus* and pronotal shape of some *Macropes*.

In *Iphicrates* the males do have variously shaped forwardly directed head projections but these are formed by the bucculae which in *Dentisblissus* are small and unspecialized and have nothing to do with the tusk-like developments. The generic diagnosis is not entirely dependent upon the head projections but also illustrated by the unique combination of shining and pruinose bands on the pronotum and other characters noted in the following diagnosis.

Dentisblissus Slater, n. gen.

Elongate, robust, dorsally flattened; pronotum with alternating dull grey pruinose areas and shining transverse bands, shining bands present broadly across area of calli to occupy greater part of anterior lobe of pronotum and as complete band across humeral area (fig. 1); lateral pronotal margin nearly straight, not narrowed anteriorly until anterior 1/4; apical corial margin concave, lateral margin weakly sinuate; metathoracic scent gland orifice elongate and irregularly scalloped apically; mesosternal groove absent; fore coxa closed, remote from posterior margin of prosternum; head rugulose, shining, strongly sexually dimorphic: in ♂, area below eye and antenniferous tubercle produced forward beyond apex of antennal segment 1 as a thick upcurved, apically bifid tusk (fig. 2A), in ♀, same area swollen and slightly produced as a blunt thick projection but this not attaining base

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of antennal segment 1; labium remote from mesocoxae; fore femur strongly incrassate and armed below along greater part of length with a series of spines; mid and hind femora mutic; basal tarsal segment much larger than succeeding segments and bearing a thick brush of hairs below.

Type species: *Ischnodemus venosus* Breddin.

KEY TO SPECIES OF DENTISBLISSUS

Shining pronotal band across humerus remote from posterior margin, leaving a dull pruinose basal stripe; labium not attaining mesosternum (segment 4 much longer than segment 3)..... **venosus**
 Shining humeral pronotal band extending to base of pronotum for entire pronotal width; labium more elongate, extending onto anterior part of mesosternum (segments 3 and 4 subequal in length)..... **divisus**

Dentisblissus venosus (Breddin) Figs. 1, 2.

Ischnodemus venosus Breddin, 1900, Ent. Nachr. 26: 25.

Macropes humboldti Distant, 1903, Ann. Mag. Nat. Hist., ser. 7, 12: 251. NEW SYNONYMY.

General coloration grey pruinose; head and anterior shining area of pronotum black; posterior shining area of pronotum mahogany brown; hemelytron variegated brown and testaceous, marked with dark brown as follows: stripe on either side of claval suture, along apical corial margin, narrowly along at least posterior 1/2 of radial vein and all veins of membrane, usually also with a very large, dark central area on membrane and on apical 1/3 of corium; abdomen and legs red-brown; antennal segment 1 yellowish, 2 usually becoming red-brown, 3 and 4 black; scutellum with a smooth shining central carina; clothed above and below with inconspicuous silvery, decumbent pubescence becoming very sparsely scattered on head, pronotum and hemelytra but more numerous on venter and very thick on all surfaces of abdomen.

Body broad, robust, eye not strongly produced, projected away from anterior pronotal margin; antenniferous tubercle very prominent with anterolateral corner forming a sharp acute angle; buccula very slightly exceeding apex of tylus; antennal segment 1 exceeding apex of tylus by 1/2 its length; head length 0.75 mm, head width 1.00 mm, interocular space 0.65 mm; pronotum with a very shallow, broad transverse impression, lateral margin subsinuate, little narrowed until anterior 1/3, posterior margin very shallowly concave, pronotum length 1.70 mm, width 1.75 mm, scutellum length 0.70 mm; hemelytra with radial vein shining, remainder dull; lateral margin nearly straight, very slightly narrowing caudad, membrane reaching midway onto penultimate abdominal tergite, distance apex clavus—apex corium 1.20 mm, distance apex corium—apex abdomen 3.05 mm; connexivum very broad and upturned, completely exposed laterad of hemelytra for most of length, abdomen slightly tapering caudad; below with legs, acetabula and central area of mesosternum shining, remainder dull pruinose; labium slightly exceeding fore coxa but not attaining mesosternum, length of segments, I 0.52 mm, II 0.50 mm, III 0.38 mm, IV 0.45 mm; antenna relatively elongate, segment 4 very narrowly fusiform, segments 2 and 3 slightly enlarged toward apices, but scarcely having a clavate appearance, length of antennal segments, I 0.30 mm, II 0.65 mm, III 0.60 mm, IV 0.90 mm. Total length 7.75 mm.

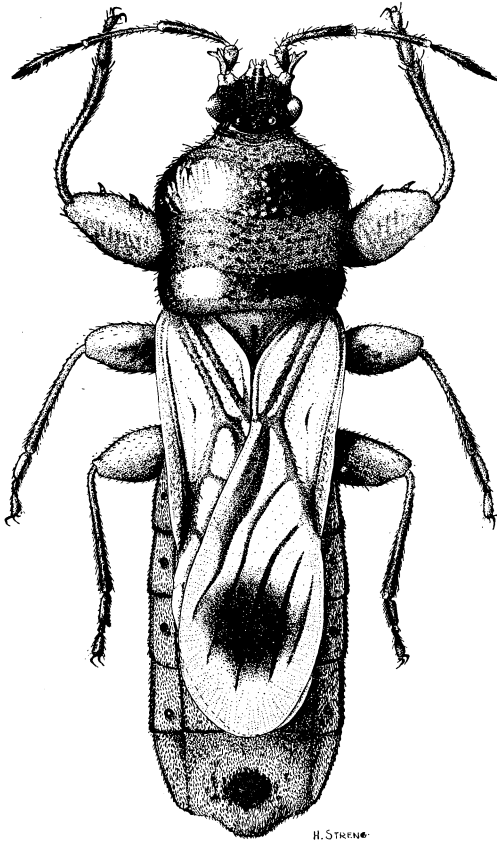


Fig. 1. *Dentisblissus venosus* (Breddin), dorsal view.

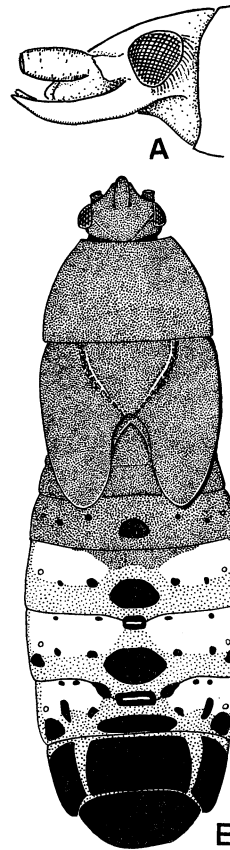


Fig. 2. *Dentisblissus venosus* (Breddin). A, head of ♂, lateral view; B, fifth instar nymph, dorsal view.

Fifth instar nymph (Fig. 2B).

General coloration of head, pronotum, scutellum, wing pad and legs uniform dark chocolate brown, sometimes with a pale transverse band across base of pronotum; antenna red brown, basal segment yellowish; abdomen extremely variegated, 3 basal segments dark brown, nearly unicolorous, with head and area of pronotum and wing pad, terga 4, 5 and 6 variegated with pale reddish posterior striping and pale yellow anterior patches, mesally with a series of large ovoid, elliptical black maculae, with scattered secondary black spots laterally, posterior segments composed of large black plates covering entire dorsal surface; abdomen below with black markings and reddish ground coloration.

Head relatively small, inserted in thorax nearly to eye, antennal segment 1 exceeding apex of tylus by 1/2 its length, head length 0.60 mm, width across eyes 0.90 mm, interocular space 0.65 mm; pronotum and wing pad nearly glabrous, strongly shining, former with lateral margins strongly curving from humeral angles, posterior margin straight, pro-

notum length 1.10 mm, width 1.65 mm; metathoracic wing pad barely attaining anterior margin of abdominal tergum 3, length of wing pad 1.60 mm; abdomen elongate with lateral margin moderately convex; labium reaching anterior portion of mesosternum; fore femur armed below with 1 major and 3-4 minor spines; antenna terete, segment 4 narrowly fusiform, length of antennal segments, I 0.25 mm, II 0.52 mm, III 0.55 mm, IV 0.80 mm. Total length 6.50 mm.

DISTRIBUTION: Malaya, New Guinea, New Britain.

Type data (*Ischnodemus venosus*): ♂ (DEUTSCHES ENT. INST.), "New Guinea Biro 96, Friedrich-Wilh-hafen, Coll. Breddin," and ♀ (D. E. I.), "New Guinea." Male here selected as lectotype and appropriately labelled.

Holotype (*Macropes humboldti*): ♀ (BMNH), "Humboldt Balay, May, Archipelago, 1903. 31, W. Doherty." Identical in all respects with *venosus*. Measurements given in description from this specimen.

Described from a pinned specimen from Madang, New Guinea (W. Loke; So. Austral. Mus.) and nymphs from Wareo Finsch Haven.

Additional material examined. NEW GUINEA: Wareo Finsch Haven, Rev. L. Wagner; Maprik, Terr. Papua, 26-X-1957, J. Smart; Huon Gulf, Morabe District, 22-V to 19-VI-1937, J. L. Froggatt; Njau-limon, S. of Mt. Bougainville, 90 m, II-1936, L. Cheesman; Bubia Lae, 26-I-60, on sugar cane, J. H. Ardley: "New Guinea" (Biro); Ifar, 200 m, 13-IX-1959, G. V. Heijningen (Netherlands New Guinea Expedition); Dutch Hollandia, I-1945, B. Malkin; Fly River, 22-VII to 6-VIII-1928, Jeswiet; Madang, W. Loke; Mt. Lamington, "N. E. Papua" (N. E. New Guinea), 400 to 450 m, C. T. McNamara; Manumbo, Madang Dist. NEW BRITAIN: Raboul, VII-1935, on foliage of *Pueraria javanica*, J. L. Froggatt. In Brit. Mus. (Nat. Hist.), R. H. Cobben Coll'n, Leiden Mus., Hungarian Nat. Mus., U. S. Nat. Mus., So. Austral. Mus. and author's coll'n.

Dentisblissus divisus (Walker)

Ischnodemus divisus Walker, 1872, Cat. Hem. Het. B. M. 5: 134.—Lethierry & Severin, 1894, Gen. Cat. Hem. 2: 163.

Macropes divisus Distant, 1901, Ann. Mag. Nat. Hist., ser. 7, 8: 467.

This species is thus far known only from extreme northern Australia. Unfortunately males are as yet unknown. However, *divisus* is closely related to *venosus* and it is to be expected that males will show some bizarre head modification in this species.

DISTRIBUTION: Australia.

Material examined. Holotype ♀, Victoria River Depot, N. Australia (BMNH). 3 ♀, Port Darwin; Daly R., N. Territory. In So. Austral. Mus. and author's coll'n.

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