

THREE NEW SPECIES OF *GMINATELLUS* MILLER FROM NORTHERN AUSTRALIA (HETEROPTERA: REDUVIIDAE)

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Abstract

Malipatil, M.B., 1991. Three new species of *Gminatellus* Miller from northern Australia (Heteroptera: Reduviidae). *Memoirs of the Museum of Victoria* 52: 355–359.

Three new species of *Gminatellus* Miller are described: *G. elegans* sp. nov. (Northern Territory and Queensland including the Torres Strait Islands), *G. fasciatus* sp. nov. (Queensland) and *G. maculatus* sp. nov. (Queensland). A key to the species of *Gminatellus* is given.

Introduction

The harpactorine reduviid genus *Gminatellus* was described by Miller (1957) to include his new species, *G. debilis* from Queensland. The present paper describes three new species from the Northern Territory and Queensland including the Torres Strait Islands.

Unless otherwise indicated measurements, in millimetres, are of the holotype male followed by ranges for paratypes in parentheses. Specimens are lodged in the Australian Museum, Sydney (AM), Australian National Insect Collection, Canberra (ANIC), the Natural History Museum, London (BMNH), Queensland Museum, Brisbane (QM), South Australian Museum, Adelaide (SAM), and the University of Queensland Insect Collection (UQIC).

Gminatellus Miller

Gminatellus Miller, 1957: 70–71.

Type species. *Gminatellus debilis* Miller, 1957, by original designation.

Remarks. The following minor alterations to the original generic description and redescription (Malipatil, 1991) must be made to accommodate the new species:

Body length 8.0–13.0.

Head subequal to or slightly longer than pronotum. Antennal segment 1 subequal to or shorter than head and pronotum together. Labial segment 1 shorter than 2 and 3 together.

The genus is related to *Gminatus* Stal from which it differs in having the abdominal margin with its posterior area of at least the fourth visible segment produced to a point.

Key to *Gminatellus* species

1. Corium with a conspicuous circular, white, wax-covered spot *G. maculatus* sp. nov.
- Corium without a white spot 2
2. Femora and dorsum of abdomen without fuscous areas *G. debilis* Miller, 1957
- Femora and dorsum of abdomen with fuscous areas 3
3. Dorsum of visible abdominal segments 2–6 fuscous *G. elegans* sp. nov.
- Dorsum of lateral margins of only fourth and fifth visible abdominal segments fuscous *G. fasciatus* sp. nov.

Gminatellus debilis Miller

Gminatellus debilis Miller, 1957: 70–71.

Type. Holotype male, Australia, Queensland (no precise locality), F.P.Dodd (B.M.1904-284), in BMNH.

Other material examined. Northern Territory, Port Darwin, W.D. Dodd (SAM 1 male, 1 female).

Remarks. Nothing needs to be added to the original description.

***Gminatellus elegans* sp. nov.**

Figures 1–3, 10–14

Types. Holotype male, Dividing range, 15 km W of Captain Billy Creek, Cape York Peninsula, Queensland, 5–12 Feb 1976, G. Monteith (QM T11875).

Paratypes. Queensland, same data as holotype (QM 1 male); Iron Range, Cape York Peninsula, 13 Apr 1961, I.F.B. Common and M.S. Upton (ANIC 1 female); same locality, 5–10 May 1968, G.B. Monteith (UQIC 1 female); same locality, 11–17 May 1968 (UQIC 2 males, 1 female); same locality and collector, 26–31 May 1971 (UQIC 1 female); same locality and collector, 1–9 Jun 1971 (UQIC 1 female); Lockerbie Area, Cape York, 13–27 Apr 1973, G.B. Monteith (QM 2 males); West Claudie River, Iron Range, rainforest, 50 m, 3–10 Dec 1985, G. Monteith and D. Cook (QM 1 female).

Other material examined. Torres Straits, Moa Is., J.W. Schomberg (SAM 1 female); Eet Hill vicinity, Moa (Banks) Is., 9–13 Jun 1977, G. Monteith and D. Cook (QM 1 female).

Northern Territory, Radon Creek (12°45'S, 132°53'E), rainforest, 14–16 Jul 1979, G. Monteith and D. Cook (QM 1 female).

Description. Ground colour orange with red tinge, with following fuscous: eyes, most of antenna, apices of labium, tarsi and tibia, hind femur, distal half–two-thirds of fore- and mid-femora, apices of pronotal spines, distal five-sixths of hemelytra, wings and most of distal five-sixths of abdominal dorsum.

Body and legs subshiny, densely covered with short, golden yellow setal hairs.

Body 11.20 (11.20–12.60); maximum width 3.50 (2.60–3.78).

Head. Length 2.50 (2.38–2.58), width across eyes 1.12 (1.18–1.25), interocular space 0.63 (0.60–0.68), interocellar space 0.42 (0.38–0.45), eye-ocellar space 0.28 (0.22–0.23); eye length 0.57 (0.52–0.54), eye width 0.30. Length of antennal segments: I, 4.12 (3.98–4.48); II, 1.33 (1.26–1.33); III, 1.47 (1.40–1.47); IV, strongly curved. Labium extending to anterior quarter of prosternum, length of segments: I, 1.33 (1.19–1.33); II, 1.26 (1.12–1.15); III, 0.42 (0.35–0.36), labrum short, one-eighth as long as first labial segment.

Thorax. Pronotum with dorsal spines long and acutely produced (fFig. 1), length 2.52 (2.24–2.52), width anterior margin 1.26 (1.12–1.26), maximum width 2.74 (2.55–2.94). Scutellum with apex acutely pointed and upcurved, length 0.84 (0.88–0.98), width 1.12 (1.32–1.40). Legs with tarsi 3 segmented, distal segment subequal to proximal 2 segments together. Hemelytra exceeding abdomen by one-quarter their length, length 7.28 (6.72–8.26), length corium 5.18 (4.48–5.46), width membrane 2.38 (2.20–2.80).

Abdomen. Lateral margins gradually widened to posterior margin of fourth visible segment and gradually narrowed to posterior end; connexiva at posterior margins of third and fourth visible segments produced to point, those of latter segment more prominent (e.g., fig. 8). Three minute dorsal scent gland scars distinct between visible terga II–III, III–IV and IV–V.

Genitalia. Male: Pygophore posterior margin produced medially (fig. 10). Paramere (fig. 11) slender, slightly curved in middle. Aedeagus with flap on dorsal surface sclerotised (fig. 12), ventral surface with 2 opposable median rows of long spines and 2 batches of lateral sclerotised spinules exterior to spines in pattern (fig. 13), and distal end of endosoma with numerous fine setal spines.

Female: First valvula (VII) and first valvifer (VfI) (fig. 14), styloid apically modified to a tube like structure, tergite 9 (t9) (fig. 14), tergite 10 (t10) narrow, flap-like, folded under.

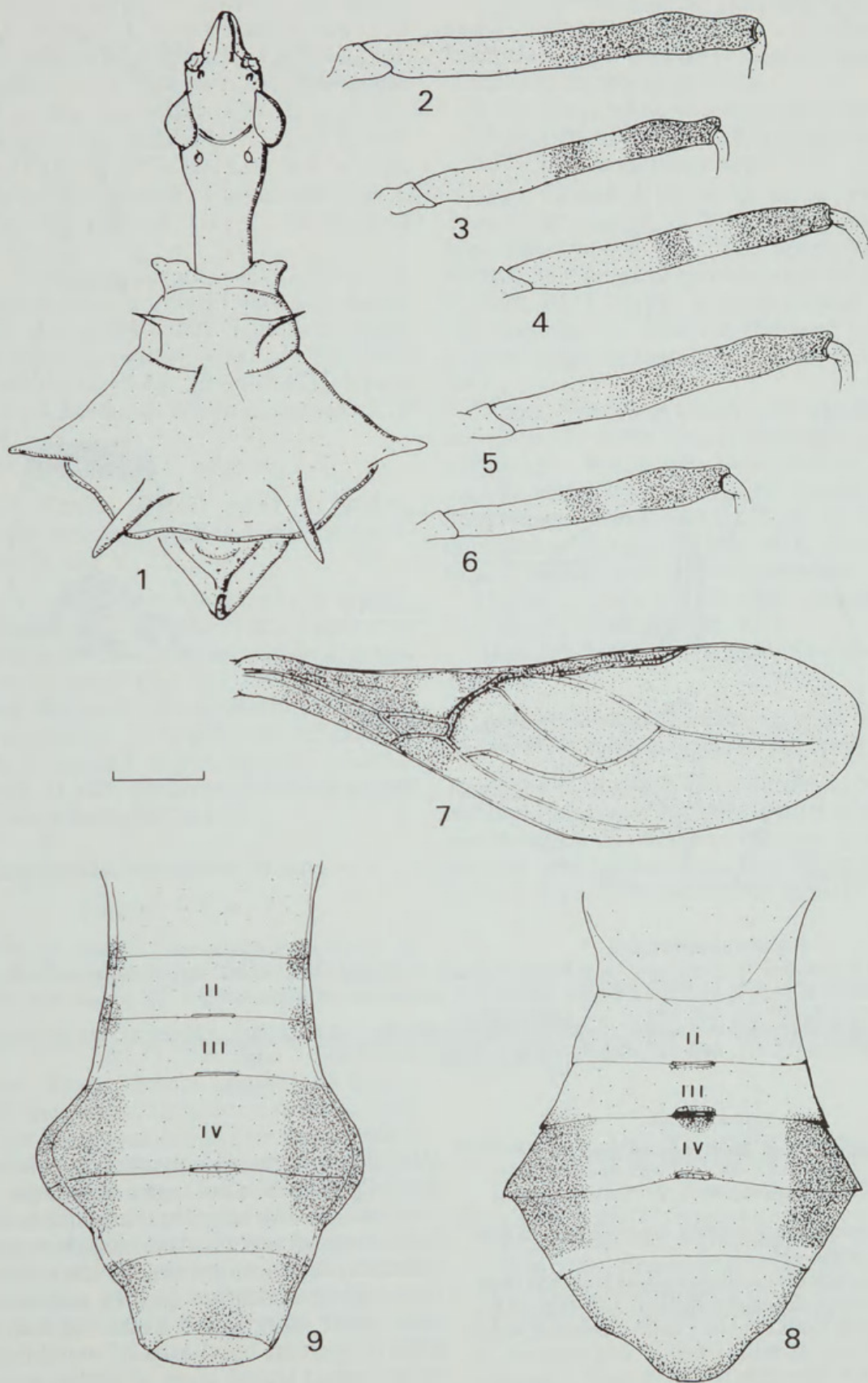
Remarks. *Gminatellus elegans* can be easily distinguished from the type species, *G. debilis*, by the presence of fuscous areas on the femur and the dorsum of abdomen, and the more acutely produced apex of scutellum.

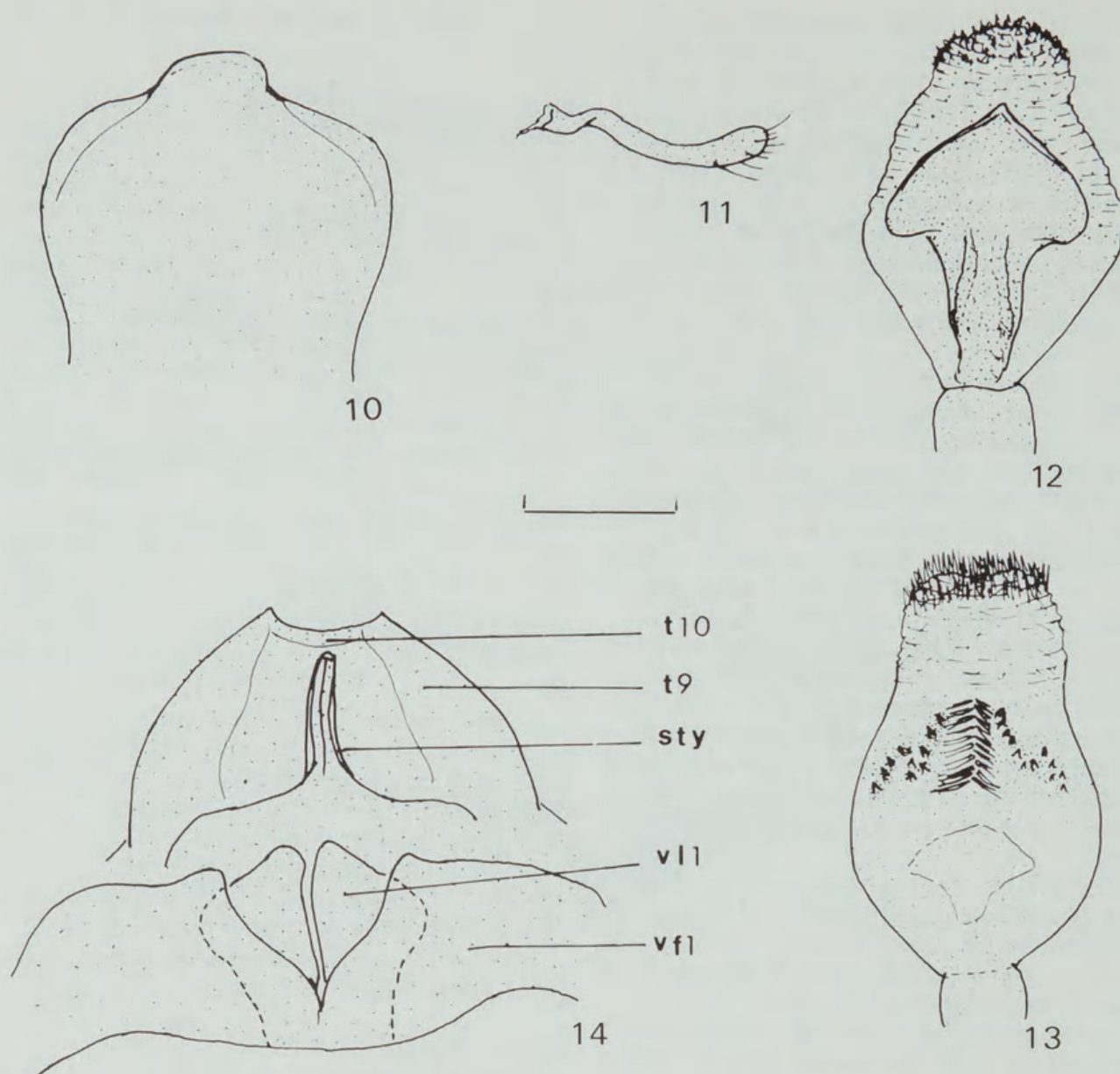
There is considerable variation in coloration in the type series. In some paratypes (e.g., Iron Range, 5–10 and 11–17 May 1968) most of the mid-femur is fuscous. The Northern Territory specimen is small (8.96) and narrow (2.10) and has fore- and mid-femora with narrow annular fuscous band at about midlength and about distal quarter uniformly fuscous (fig. 3).

Figures 1–3. *Gminatellus elegans* sp. nov. Holotype: 1, head, pronotum and scutellum, dorsal view; 2, fore-femur. Specimen from Radon Creek, N.T.: 3, fore-femur.

Figures 4, 5, 8. *Gminatellus fasciatus* sp. nov. Paratype male, Kuranda, Qld: 4, fore-femur; 8, abdomen, dorsal view. Specimen from West Normanby River, Qld: 5, fore-femur.

Figures 6, 7, 9. *Gminatellus maculatus* sp. nov. Paratype female: 6, fore-femur; 7, hemelytra; 9, abdomen, dorsal view. Abbreviations: II, III, IV, etc., abdominal segments. Scale line 1.0 mm.





Figures 10–13. *Gminatellus elegans* sp. nov. Paratype male: 10, pygophore, dorsal view of posterior part; 11, right paramere, lateral view; 12, aedeagus, dorsal aspect; 13, same, ventral aspect.

Figure 14. *Gminatellus elegans* sp. nov. Paratype female genitalia, posterior view. Abbreviations: sty, styloids; t9, t10, tergites 9 and 10; vl1, first valvifer; vl1, first valvula. Scale line 0.5 mm.

Gminatellus fasciatus sp. nov.

Figures 4, 5, 8

Types. Holotype male, Kuranda, Queensland, 18 Sep 1955, J.G. Brooks, AM.

Paratypes. Queensland, same data as holotype (AM 1 male); Almaden, Chillagoe district, Jun–Sep 1929, W.D. Campbell, K60927 (AM 1 male, 1 female); West Normanby River, 40 mi (64 km) W of Cooktown, 5 May 1970, G.B. Monteith (UQIC 1 male, 1 female); same locality and collector, 7 May 1970 (UQIC 1 female).

Description. Ground colour dirty yellow, with the following fuscous: apex of labium, broad proximal, middle and distal areas of first, distal half of second, and third and fourth segments of antennae; distal quarter and narrow annular ring near middle of femora (fig. 4), and tibiae and tarsi; inner margin and distal third excluding apex of corium, basal area of membrane, and wings; broad lateral areas of visible abdominal terga IV and V, and narrow margin of VI, as in fig. 8.

Body 9.80 (10.22–11.48); maximum width 3.36 (2.94–3.65).

Head. Length 2.24 (2.24–2.45), width across eyes 1.10 (1.00–1.17), interocular space 0.53 (0.52–0.64), interocellar space 0.41 (0.41–0.53), eye–ocellar space 0.23 (0.19–0.23), eye length 0.49 (0.46–0.52), eye width 0.30 (0.23–0.30). Length of antennal segments: I, 3.49 (3.90–4.06); II, 1.14 (1.19–1.33); III, 1.06 (1.12–1.25); IV, strongly curved. Length of labial segments: I, 1.21 (1.25–1.33); II, 1.14 (1.17–1.19); III, 0.41 (0.38–0.55).

Thorax. Pronotum length 2.03 (2.10–2.45), width anterior margin 0.90 (0.98–1.05), maximum width 2.38 (2.45–2.80). Scutellum length 0.56 (0.59–0.81); width 0.90 (1.19–1.40). Length hemelytra 5.88 (6.44–7.42), length corium 4.20 (4.34–5.04). Width membrane 2.20 (2.10–2.66).

All other details as in *G. elegans*.

Etymology. *Fascia* (Latin) band or stripe, alludes to the fuscous bands on visible abdominal tergites IV and V.

Remarks. *Gminatellus fasciatus* may be readily distinguished from *G. elegans* by its conspicuous broad fuscous lateral bands on visible abdominal tergites IV and V (fig. 8).

The West Normanby River specimens exhibit considerable colour variations, particularly in having the distal half of the femora uniformly fuscous (fig. 5) and the postocular part of the head dorsally also lightly fuscous.

Gminatellus maculatus sp. nov.

Figures 6, 7, 9

Types. Holotype female, Clermont, Queensland, 29 Sep 1929, Dr K.K. Spence, K 62425, AM. Distal 3 segments of right and fourth segment of left antennae missing.

Paratypes. Same data as holotype (AM 3 females).

Description. Ground colour orange with brown tinge, with the following fuscous: most of head dorsally including eyes, broad proximal, middle and distal areas of first, second and part of third antennal segments; apices of pronotal spines, small area near base of spines on disc of anterior lobe; distal quarter and small indistinct annular band near middle of femora, in addition mid- and hind-femora with an additional indistinct proximal band, and tibia and tarsi; most of

corium except for a circular white spot near middle (fig. 7); dorsum of abdomen (fig. 9), contiguous subventral areas of visible segments IV and V, connexiva; abdominal venter irregularly lightly fuscous except for sutural areas and small circular spots which are pale.

Body shiny, without conspicuous hairs

Measurements are of holotype female.

Body 9.95; maximum width 2.80.

Head. Length 2.10, width across eyes 1.10, interocular space 0.57, interocellar space 0.45, eye–ocellar space 0.30, eye length 0.52, eye width 0.34. Length of antennal segments: I, 3.29; II, 0.98; III, 1.19; IV, strongly curved. Labium just reaching to anterior third of prosternal groove, length of segments: I, 1.32; II, 0.95; III, 0.41.

Thorax. Pronotum length 2.03, width anterior margin 0.98, width posterior margin 2.38. Scutellum apex less acutely pointed than in other species, length 0.63, width 1.05. Hemelytra well exceeding abdomen, length 6.30, corium with conspicuous circular white wax covered area (fig. 7), length 4.40, width membrane 2.10.

Abdomen. Lateral margins conspicuously explanately produced (fig. 9).

Genitalia. Male unavailable. Female as in *G. elegans*.

Etymology. *Macula* (Latin) spot or mark, alludes to the white circular spot on the corium.

Remarks. *Gminatellus maculatus* can be readily distinguished from all other species of the genus by the white circular wax covered spot on the corium, and the conspicuously explanate margins on the visible abdominal terga IV and V.

Acknowledgements

I thank the curators of the above-mentioned institutions for the loan of the material, and Dr G. B. Monteith for commenting on the manuscript.

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