

***Mictis difficilis*, a new species of mictini (Heteroptera: Coreidae) from Australia**

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ABSTRACT. One new species *Mictis difficilis* from Australia is described; *Pternistria macromera* (GUERIN) is recorded for the first time in Australia; key to the known Australian Mictini is included; dorsal habitus illustrations and drawings of pronotum and abdomen are provided.

KEY WORDS: Hemiptera, Heteroptera, Coreidae, Mictini, *Mictis*, new species, Australia.

INTRODUCTION

Previous to this paper three genera and four species of Mictini have been recorded from Australia (BRAILOVSKY 2002, CASSIS & GROSS 2002). The genus *Canungrantmictis* BRAILOVSKY, 2002 includes one species *C. morindana* BRAILOVSKY, 2002; *Mictis* LEACH, 1814 contains two species, *M. caja* STÅL, 1865 and *M. profana* (FABRICIUS, 1803); and *Pternistria* STÅL, 1873 includes one species, *P. bispina* STÅL, 1873. The present paper adds one new species of *Mictis* with four morphological features to distinguish it from other Australian *Mictis*: the humeral angles of pronotum produced laterally into short subacute expansions, abdominal sternite III of male and abdominal sternite II of female with tiny ventrolateral tubercles sometimes hardly visible, and clavus and corium almost unicolorous. *Pternistria macromera* (GUERIN 1831) is recorded for the first time in Australia.

A key to the known genera and species of Mictini from Australia is given.

Abbreviations

ANIC – Australian National Insect Collection, Canberra, Australia; CAS – California Academy of Sciences (Golden Gate Park, San Francisco, California, USA; QMBA – Queensland Museum, Brisbane, Australia; UNAM – Instituto de Biología, Universidad

Nacional Autónoma de México; USNM United States National Museum, Smithsonian Institution, Washington D.C., USA).

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SYSTEMATICS

Mictis difficilis sp. n.

(Figs 1, 4, 7)

Diagnosis

The new species is closely allied to *Mictis caja* STÅL, 1865 with trochanters unarmed, apex of scutellum flat, male hind tibia with inner surface at middle third expanded like triangular projection, pronotum steeply declivent, and abdominal sterna IV to VII lacking ventrolateral tubercles.

Nevertheless, *M. difficilis* sp. n. is easily recognizable by having the posterior margin of metathorax pale orange hazel, the anterolateral and posterolateral borders of pronotum black with spines large and stout, the humeral angles subacute (Fig. 1), the abdominal sternite III of male with tiny ventrolateral tubercles (hard to see), and the medial abdominal expansion between sternite III and IV projected as a medium sized conical expansion (Fig. 4). In *M. caja* the posterior margin of metathorax is pale whitish yellow, the anterolateral and posterolateral borders with small spines, usually orange hazel and never black, the humeral angles rounded (Fig. 2), the abdominal sternite III of male armed with a pair of large and stout ventrolateral tubercles, and abdominal expansion between sternite III and IV remarkably elevated (Fig. 5).

Description

Male. Dorsal coloration. Pale reddish brown; antennal segment I reddish brown with ventral face paler, and segments II to IV pale orange hazel; anterolateral and posterolateral borders, and apex of humeral angles of pronotum including the spines black; apex of scutellum dark orange hazel; anterior half of costal border of corium black, and posterior half pale reddish brown; hemelytral membrane dark brown; connexivum dark reddish brown to black, with upper anterior angle dirty yellow; dorsal abdominal segments dark orange with posterior margin of segment VII black.

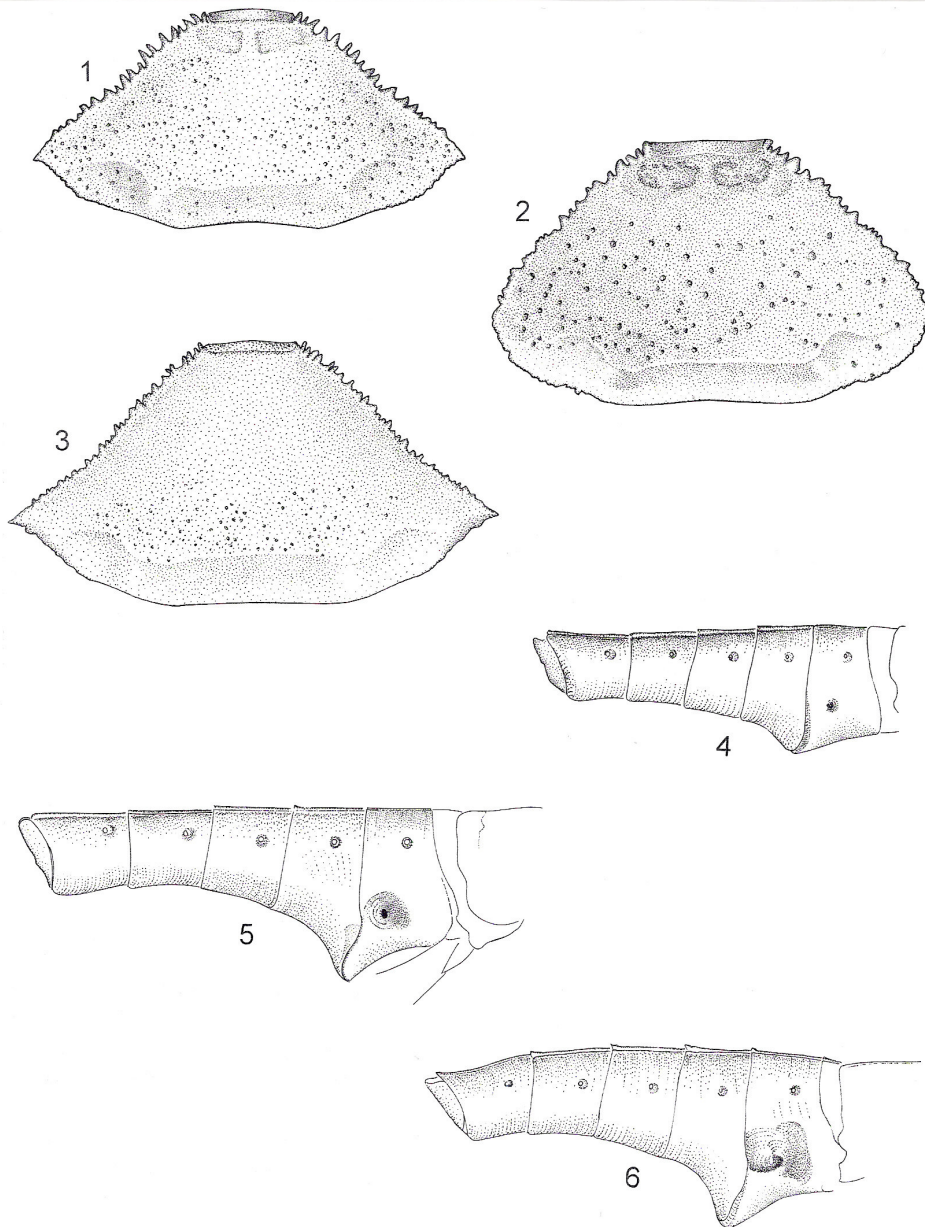
Ventral coloration. Head and thorax pale orange hazel; mesosternum and metasternum pale reddish brown; abdominal sterna and genital capsule reddish brown; rostral segments

dark orange hazel, with apex of rostral segment IV black; anterior and posterior lobe of metathoracic peritreme pale orange hazel; legs dark reddish brown, and tarsi dark orange hazel; rim of abdominal spiracles dark yellow.

Structure. Head. Rostrum reaching posterior margin of mesosternum. Thorax. Pronotum. Steeply declivent; collar wide; anterolateral borders obliquely straight, strongly and coarsely spinate to serrate, and each spine stout and well developed; frontal angles obtuse; humeral angles broadly subacute, and projected laterally; posterolateral borders sinuate, with upper half nodulose, and inner half smooth (Fig. 1). Legs. Trochanter unarmed; fore and middle femora relatively slender, ventrally armed with two acute subapical spines; hind femur markedly incrassate, not attaining the apex of abdomen, reaching at most the middle third of abdominal sternite VII; ventral surface of hind femur minutely tuberculate, with large quadrate subapical expansion; fore and middle tibiae unarmed, sulcate, slightly expanded at posterior third; hind tibiae large, recurved, outer surface sulcate, and not dilated, inner face at middle third expanded, like triangular projection, and with a row of short spines at posterior half. Scutellum. Triangular, with apex flat. Hemelytra. Macropterous, reaching the apex of the last abdominal segment; anterior half of costal border dentate, and posterior half smooth. Abdomen. Connexival segments sulcate, with upper margin densely and irregularly nodulose, and posterior angles of segments III to VI projected on a large and stout conical tubercle; abdominal sternite III with a pair of tiny of ventrolateral tubercles hard to see; abdominal sternite III and IV projected on a medium sized conical expansion (Fig. 4). Genital capsule. Posteroventral border slightly sinuate at middle third.

Female. Color. Similar to male. Antennal segments II to IV shiny orange; connexival segments II to VII dark reddish brown, with upper anterior angle, and posterior border of connexival segment VII yellow; connexival segments VIII and IX black, with upper margin entirely yellow; dorsal abdominal segments III to VII shiny orange, and VIII and IX black; abdominal sterna pale orange hazel; rostral segments I to IV pale orange yellow (apex of IV black); tarsi pale orange yellow; genital plates orange yellow with external margin of gonocoxae I and paratergite VIII reddish brown to black; rim of abdominal spiracles pale yellow. Structure. Similar to male. Hind femur incrassate (less than in male), ventrally uniseriately spinated from base to apex, and with large subtriangular subapical spine; hind tibiae sulcate, slightly expanded at inner face, and biseriately nodulose; abdominal sternite II with tiny ventrolateral tubercles hard to see; abdominal sterna III and IV without medial expansion. Genitalia. Abdominal sternite VII with plica and fissura; gonocoxae I enlarged antero-posteriorly, in caudal view closed; paratergite VIII triangular, with spiracle visible; paratergite IX squarish, larger than paratergite VIII.

Measurements (in mm). Male and female respectively: body length 22.20, 24.52; head length (including the apex of the antenniferous tubercle) 1.70, 1.70; head width across eyes 2.30, 2.40; interocular space 1.35, 1.30; antennal segments: I, 5.10, 5.10; II, 4.60, 4.60; III, 4.10, 4.10; IV, 4.44, 4.48; pronotum length 4.60, 5.40; pronotum width across humeral angles 7.80, 9.60; scutellar length 3.10, 3.55; scutellar width 2.70, 3.10.



Figs 1-6. *Mictis* spp. 1-3. Pronotum. 1 – *M. difficilis* sp. n.; 2 – *M. caja* STÅL; 3 – *M. profana* (FABRICIUS). 4-6. Abdomen in lateral view (male). 4 – *M. difficilis* sp. n.; 5 – *M. caja* STÅL; 6 – *M. profana* (FABRICIUS).

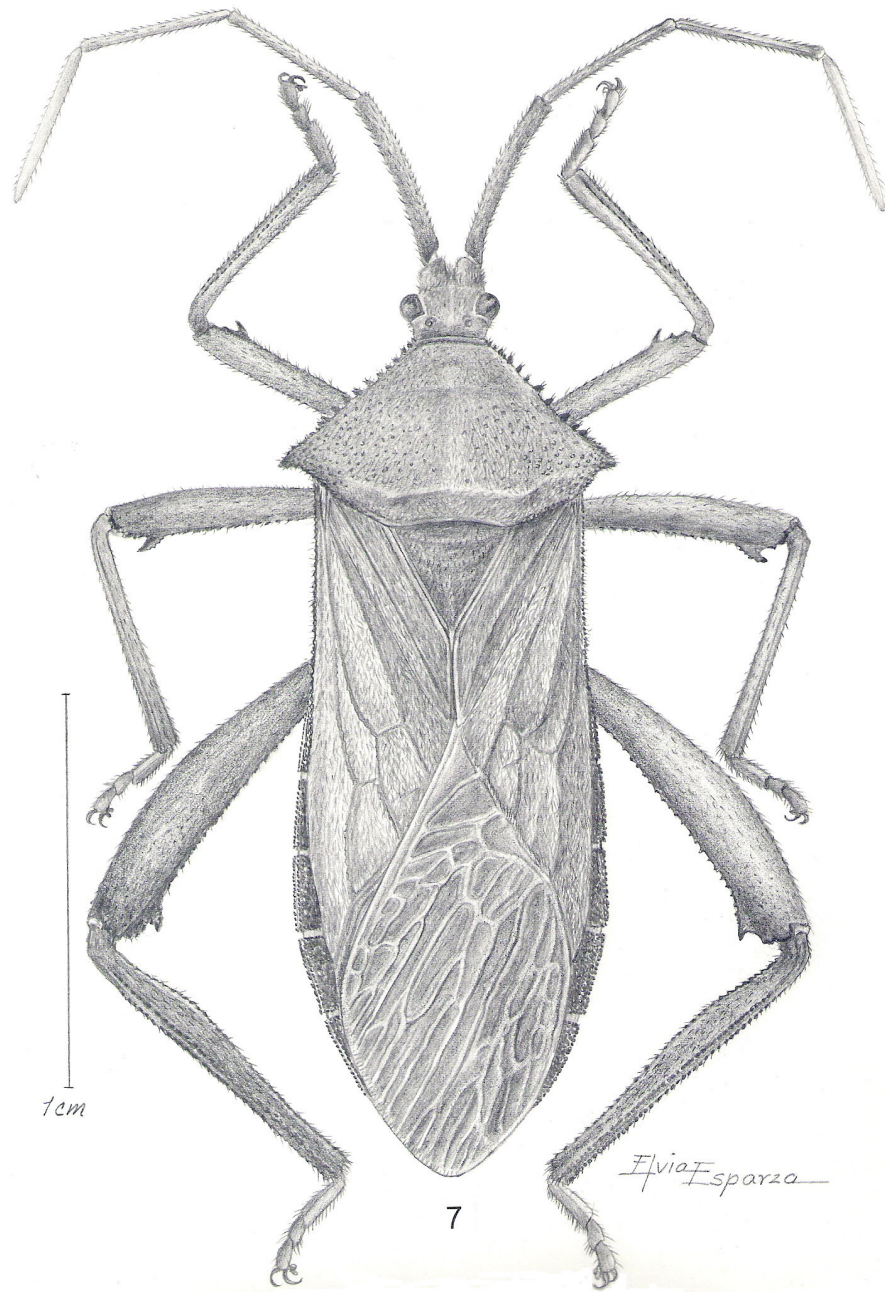


Fig. 7. Dorsal view of *Mictis difficilis* sp. n. (male).

Type material

Holotype male: [Australia: Queensland]: Marmor, 27 mi SSW of Rockhampton, 23°40.5'S 150°42'E, 13-XII-1968, Britton and Misko (ANIC).

Paratypes: 2 females: Same data as male holotype (ANIC, UNAM). 1 female: [Australia: Queensland]: 4 mi E Hatton Vale, 150m, 24-XI-1962, E. S. Ross and D. Q. Cavagnaro (CAS). 2 females: [Australia]: without data (CAS). 1 female: [Australia]: Townsville, 5-II-1945, B. Malkin (USNM).

Etymology

The name refers to the high grade of similarity in external characters to some related species, which makes distinction quite difficult.

Pternistria macromera (GUERIN)

The species was hitherto known only from New Guinea and Aru Island (HORVATH 1915). This has been so far the first record of that species from Australia.

Material examined. 1 male [Australia: North Queensland]: Lockerbie area, Cape York, 13-27-IV-1973, G. B. Monteith (QMBA). 3 males [Australia: North Queensland]: Dulhunty R., xing Cape York Pen., 27-28-IX-1974, G. B. Monteith (QMBA, UNAM). 1 female [Australia: North Queensland]: Bamaga, Cape York, 18-25-III-1987, G.B. Monteith (QMBA).

Key to the known Australian mictini

1. Apex of scutellum with small but distinct tubercle; humeral angles of pronotum strongly developed, elongated, turning upward, apically subacute, and almost reaching the apex of head *Canungrantmictis morindana* BRAILOVSKY.
- . Apex of scutellum flat; humeral angles of pronotum rounded or subacute, and never turning upward.....2.
2. Hind tibiae dilated ventrally and dorsally; abdominal sternite III and IV of male armed with a pair of sharply developed ventrolateral tubercles; antennal segment IV conspicuously longer than III..... *Pternistria* STÅL 3.
- . Hind tibiae dilated ventrally but not dorsally; abdominal sternite III of male armed with a pair of short or tiny ventrolateral tubercles; abdominal sternite IV of male unarmed; antennal segment IV subequal to III *Mictis* LEACH 4
3. Abdominal sternite III of male with a pair of medium sized ventrolateral tubercles; abdominal sternite IV of male lacking ventrolateral tubercles; antennal segments I to III robust, shiny orange; antennal segment IV pale yellow; fore and middle legs shiny orange; hind tarsi shiny orange..... *Pternistria bispina* STÅL.

- . Abdominal sternite III of male armed with a pair of remarkably elongate and stout ventrolateral tubercles; abdominal sternite IV of male armed with a pair of short conical and stout ventrolateral tubercles; antennal segments I to III more slender, orange hazel to shiny orange; antennal segment IV orange hazel; fore and middle legs dark yellow; hind tarsi pale yellow..... *Pternistria macromera* (GUERIN).
4. Humeral angles of pronotum rounded, not exposed (Fig. 2); posterior margin of metathorax pale whitish yellow..... *Mictis caja* STÅL.
- . Humeral angles of pronotum produced laterally into either sharp spine or short expansion (Figs. 1, 3); posterior margin of metathorax never pale whitish yellow5.
5. Clavus and apical margin of corium yellow to dark orange hazel, contrasting sharply with the rest of hemelytra to form a cross-shaped pattern; humeral angles of pronotum produced into acute spine directed backward (Fig. 3); abdominal sternite III of male armed with a pair of large and stout ventrolateral tubercles (Fig. 6); abdominal sternite II of female armed with a pair of ventrolateral tubercles *Mictis profana* (FABRICIUS).
- . Clavus and corium unicolorous, except the anterior half of costal border of corium usually black; humeral angles of pronotum produced laterally into short subacute expansion (Fig. 1); abdominal sternite III of male with tiny ventrolateral tubercles hard to see (Fig. 4); abdominal sternite II of female with tiny ventrolateral tubercles hard to see.....
..... *Mictis difficilis* sp. n.

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