

NOTUCHUS HOWENSIS SP. N. (HOMOPTERA: FULGOROIDEA: DELPHACIDAE) FROM LORD HOWE ISLAND

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Abstract

Notuchus howensis sp. n. is described and illustrated from Lord Howe Island.

Introduction

Fennah (1969) described *Notuchus* for the type species, *N. risioides* Fennah, 1969, from New Caledonia. In 1973 he described *N. monticola* from the summit of Mt Gower, Lord Howe Island and Donaldson (1979) added *N. rotundifacies*, *N. kurandae* and *N. palmerstonensis* from northeastern Australia. A second species from Lord Howe Island is described below.

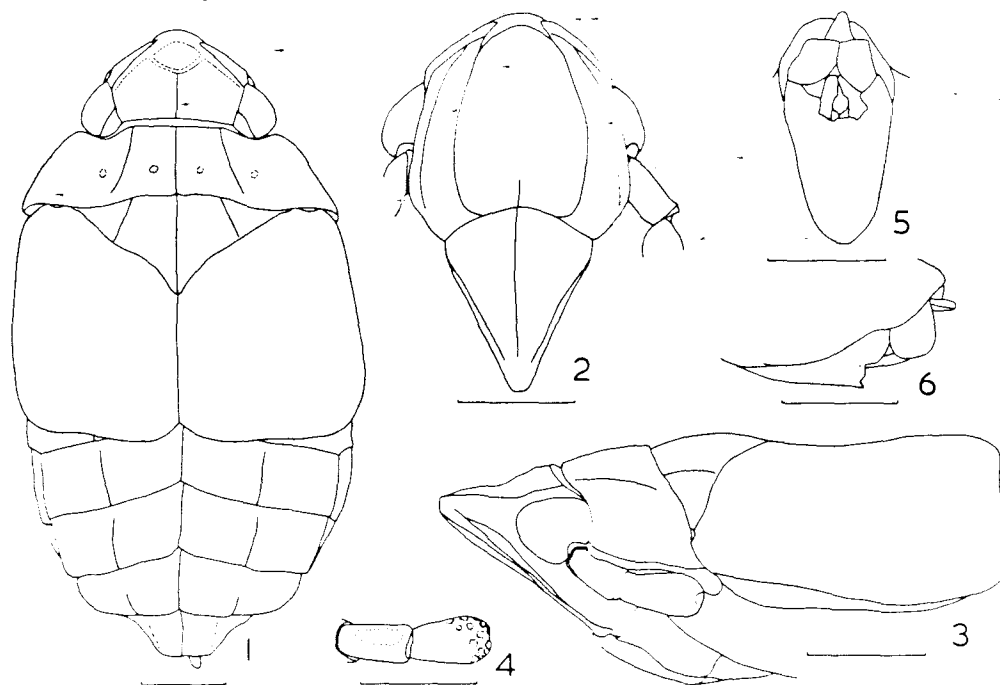
Abbreviations: AM, Australian Museum, Sydney; QM, Queensland Museum, Brisbane.

Notuchus Fennah

Notuchus Fennah, 1969:32; Donaldson, 1979:181—Type species: *Notuchus risioides* Fennah, 1969:32-33.

Notuchus howensis sp. n. (Figs 1-6)

Types—LORD HOWE ISLAND: *holotype* ♂, labelled "Lord Howe Island, Transit Hill, north slope, 18 Nov. 1979, G. B. Monteith" (QM, Berlesate No. 151, Volcanic soil, 100 m, Pickard Veg: CFlq, sieved litter" in QM (T.10.064); *paratypes*: 1 ♀, North Bay, west end, 19.xi.1979, 20 m, No. 155; 4 ♂♂, 2 ♀♀, North Bay, Nos 405, 406, 423, 438, 446 (AM); 2 ♂♂, 1 ♀, The Clear Place, 22.xi.1979, 30 m, No. 157; 1 ♂, The Clear Place, No. 141 (AM); 1 ♀, West base of Transit Hill, 4.xi.1979, 5 m, No. 118; 1 ♀, Transit Hill, north slope, 18.xi.1979, 100 m, No. 151; 3 ♀♀, Transit Hill, south slope, 18.xi.1979, 90 m, No. 152; 3 ♂♂, 2 ♀♀, Transit Hill, Nos 269, 282, 290 (AM); 2 ♂♂, Eddies Cave on Gower track, 16.xi.1979, 550 m, No. 146; 1 ♀, Goat House track, 11.xi.1979, 250 m, No. 138; 1 ♂, Beyond Goat House, 11.xi.1979, 400 m, No. 140; 1 ♂, Below Goat House, 11.xi.1979, 380 m, No. 139; 2 ♂♂, Behind Leanda-Lei, 6.xi.1979, 50 m, No. 126; 1 ♂, 1 ♀, Erskine Creek crossing, 22.xi.1979, 200 m, No. 159; 1 ♀, Erskine Valley, south side, 24.xi.1979, 340 m, No. 165; 1 ♂, 1 ♀, Erskine Valley, Nos 468, 485 (AM); 1 ♀, Smoking Tree Ridge, east face, 23.xi.1979, 140 m, No. 163; 1 ♀,



Figs 1-6 —*Notuchus howensis*: (1) body, dorsal view; (2) frons and clypeus; (3) head, pronotum, mesonotum and tegmen, lateral view; (4) antenna; (5-6) ♂ genitalia: (5) ventral view; (6) lateral view (Scale = 0.5 mm).

Summit of Dawson Point Ridge, 5.xi.1979, 150 m, No. 120; 1 ♀, Summit of Dawson Point Ridge, 7.xi.1979, 150 m, No. 128; 4 ♂♂, 3 ♀♀, Dawson Ridge, Nos 506, 508, 518, 519, 537, 547 (AM); 1 ♀, Stevens Reserve, 13.xi.1979, 10 m, No. 143; 1 ♂, 4 ♀♀, Stevens Reserve, Nos 169, 176, 178, 182, 189 (AM); 2 ♂♂, 1 ♀, Little Slope, Nos 357, 385, 394 (AM); 1 ♀, Gully at Catalina Crash, 25.xi.1979, 20 m, No. 169; 1 ♀, Anderson Road, south end, 16.xi.1979, 40 m, No. 149. All in QM except as indicated. Registration numbers of QM specimens T.10.065-T.10.068, T.10.177-T.10.197. All specimens in QM collected by G. B. Monteith and collection numbers give access to extra data on soil type, vegetation type and sample type; these can be obtained from QM.

Colour—Frons dark brown to almost black with 4-5 small pale spots just inside lateral margins. Remainder of body extremely variable ranging from pale brown to dark brown although most commonly mottled light and dark brown.

Head—Vertex strongly produced in front of eyes, length in midline 0.6-0.8 times width at base, widest just behind anterior margins of eyes; apex acutely rounded; lateral margins straight, raised and converging towards base; posterior margin transverse to slightly concave, carinate; anterolateral carinae very strong, from anterior ends of lateral margins to apex, slightly convex in lateral view; marginal carinae strong, visible anterior to and just below anterolateral carinae; Y-shaped carina with upper arms weak and nearly as long as basal stem. Frons concave in lateral view, length in midline 0.8-0.9 times greatest width, greatest width adjacent to lower edges of antennal bases; sublateral carinae present from just apical of greatest width and meeting marginal carinae about one-third to one-half from inner ends; mediolateral carinae strong, positioned *ca* one-third to one-half from lateral margins to midline, apical ends slightly curving inwards to meet apical margin *ca* one-half to two-thirds from mid-point; raised median area with length in midline 1.3-1.5 times greatest width; median carina absent or present in apical third only. Segment 1 of antennae 1.8-2.3 times longer than broad, longitudinal ridge on dorsal surface; segment 2 sub-equal in length to segment 1, expanded apically.

Legs—Hind legs with length of tibia 1.3 times length of femur.

Tegmen—Tegmen subquadrate, reaching at least mid-length of abdominal tergite 4; posterior margin slightly concave; venation coarsely reticulate, no longitudinal veins or claval suture discernible.

Abdomen—Abdominal tergites strongly carinate along midline, mediolateral carinae strong on tergites 4-7, weak on tergite 8. Anal segment of ♂ *ca* as long as broad, collar-like. Pygofer with lateral angles subacute, ventral margin produced with apex broadly rounded or truncate. Genital styles in ventral view with basal half widely separated and subparallel; inner margins straight and subparallel in basal half, very strongly curved outwards apical of mid-point, straight and converging in apical third; outer margins smoothly convex; apices broadly rounded.

Dimensions—♂: length of body 3.5-4.4 mm, length of tegmen 1.2-1.4 mm; ♀: length of body 4.0-4.6 mm, length of tegmen 1.3-1.5 mm.

Diagnosis

In the author's (1979) key to species of *Notuchus*, this species will run to *N. rotundifacies* in couplet 2 and can be distinguished by inserting a new couplet, 2a:

- 2a. Frons with raised median area distinctly oval in outline; vertex distinctly depressed anterior to eyes **rotundifacies** Donaldson
 Frons with raised median area more triangular in outline; vertex only slightly depressed anterior to eyes **howensis** sp. n.

Notuchus howensis is distinguished from *N. monticola* by having the vertex less strongly produced in front of the eyes (less than 2 × length of an eye; more than 2 × in *N. monticola*) and by having the anterior marginal carina of the vertex visible from above.

Notes

Although *N. howensis* is widespread on Lord Howe Island it has not been collected on the Mt Gower Summit Plateau despite extensive collecting. Only 3 specimens of *N. monticola* are known (Donaldson 1979, 1983) and all were collected on the summit of Mt Gower, thus there appears to be a distinct altitudinal separation of the 2 species.

There also appears to be a distinct habitat separation with *N. howensis* occurring in the ground litter and *N. monticola* possibly associated with moss since all 3 specimens were collected either in moss (holotype) or by pyrethrum knockdown in moss forest.

Acknowledgments

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References

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