

TWO NEW SPECIES OF *NEOHAVINTHUS* MALIPATIL (HETEROPTERA: REDUVIIDAE)

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Abstract

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Two new species of *Neohavinthus* Malipatil, *N. pronotalis* sp. nov. and *N. trochanteralis* sp. nov., are described from Queensland. A key to the species of *Neohavinthus* is given.

Introduction

The monotypic harpactorine reduviid genus *Neohavinthus* was erected by Malipatil (1991) to include *Harpactor pentatomus* Herrich-Schaeffer from mainland Australia. The present paper describes two new species from Queensland.

In the following descriptions measurements are in millimetres. Unless otherwise indicated, measurements in species descriptions are of the holotype male, followed by ranges of other specimens examined in parentheses.

Specimens are lodged in the Australian Museum, Sydney (AM), Australian National Insect collection, CSIRO, Canberra (ANIC), Museum of Victoria, Melbourne (NMV), Naturhistoriska Riksmuseet, Stockholm (NRS), New South Wales Agriculture, Rydalmere (NSWDA), Queensland Department of Primary

Industry, Indooroopilly (QDPI), Queensland Museum, Brisbane (QM), South Australian Museum, Adelaide (SAM), University of Queensland Insect Collection, St Lucia (UQIC), Western Australian Museum, Perth (WAM), Zoologisches Museum, Berlin (ZMB).

Neohavinthus Malipatil

Neohavinthus Malipatil, 1991: 946.

Type species. Harpactor pentatomus Herrich-Schaeffer, 1852 (original designation).

Remarks. The following minor alterations to the original generic description (Malipatil, 1991) must be made to accommodate the new species: antennal segments 1–3 subdivided at proximal ends; paramere well developed or greatly reduced.

Key to species of *Neohavinthus*

1. Pronotum fuscous with humeral angles yellow . . . *N. pronotalis* sp. nov.
- Pronotum entirely fuscous 2
2. Legs fuscous with trochanters and bases of femora yellow; labium ending before prosternum *N. pentatomus* Herrich-Schaeffer, 1852
- Legs entirely fuscous; labium touching or almost touching prosternum *N. trochanteralis* sp. nov.

Neohavinthus pentatomus (Herrich-Schaeffer)

Harpactor pentatomus Herrich-Schaeffer, 1852: 125.

Neohavinthus pentatomus. — Malipatil, 1991: 946.

Types. Lectotype (designated here) male, “Adelaide”, “*Harpactor pentatoma* H. Sch.”, “2644”, “?Typus”, ZMB.

Paralectotypes: 1 male, 1 female, “Nov. Holland Coll. Germ.”, “8135”, “?Typus”, ZMB.

Other material examined. Queensland, Atherton,

6 Apr 1948, W.A. Smith, under bark (QDPI, 1 male); Eidsvold (ANIC, 2 nymphs); Bymount via Roma, 17 Aug 1963, T.E. Woodward (UQIC, 1 male). New South Wales, Lightning Ridge, 13 Jul 1977, J.C. LeSouef (SAM, 1 male, 1 female); Watercourse, Moree, Nov 1933, A. Musgrave (AM, 1 male); Dubbo, Oct 1931, J. Armstrong (AM, 1 female); Bogan River, J. Armstrong (AM, 2 males); Bundeeena, 7 Aug 1950, G.J. Shanahan, (NSWDA, 1 female); Nymagee, 7 Sep 1976, J. Grigg (ANIC, 1 female). Victoria, Hattah, J.E. Dixon (NMV, 2 males, 1 female); L. Hattah, J.E. Dixon (NMV, 4 males, 9 females); Wimmera, 22 Apr 1916, J.E. Dixon (NMV, 2 females); Kiata, Oct 1928,

F.E. Wilson (NMV, 2 females); Gunbower (NMV, 1 male); Victoria, J.E. Dixon (NMV, 2 females). South Australia, 37 km W of Kimba, 30 Aug 1965, G.F. Gross (SAM, 1 male); Bundaleer (SAM, 1 male); Burnside, 21 Oct 1885, B. Tepper (SAM, 1 female); Mt Lofty, 11 Sep 1883, Tepper (SAM, 1 male); Goolwa, 30 Dec 1962, N.M. Blessing (SAM, 1 female); Scott Creek near Morgan, 12 Apr 1984, H. Mincham (SAM, 1 female); Gammon Ra NP, Arcoona Ck Wild Ass Ck Jn, 6 May 1989, J.A. Forrest, under *Eucalyptus* bark (SAM, 11 males, 11 females). Western Australia, Katanning (WAM 2 males, 2 females); Bold Park, Perth, 26 Oct 1974, R.P. McMillan (1 male), Jun 1975, R.P. McMillan (WAM 1 male); Wannaroo, 12 Oct 1969, E.A. Jefferys and M. Archer (WAM, 1 male); Newman Rocks, 32°07'S, 123°11'E, 1 Apr 1986, R.P. McMillan (WAM, 1 male); Kalamunda, 19 Jun 1963, J. Dell (WAM, 1 male, 1 female); Bickley Valley, 17 Apr 1966, G. Kowtoolas (WAM, 2 females); ca 2 km W of Lake Cronin, 32°23'S, 119°46'E, 19–26 Sep 1981, T.F. Houston et al. (WAM, 1 male); 70–75 km ENE of Norseman, 10–16 Nov 1978, T.F. Houston et al. (WAM, 1 male); Rockingham, 23 Oct 1974, R.P. McMillan (WAM, 1 female); Cadoux, 27 Oct 1981, R.P. McMillan (WAM, 1 female); Nukarni, "36-1646" (WAM, 1 female); Marner, 1909, W.W. Froggatt (ANIC, 1 female); Beverley, 1913, "D.B.?" (ANIC, 1 female); 4 km WSW of Mt Ragged, 33°28'S, 123°26'E, 27–29 Oct 1977, J.F. Lawrence (ANIC, 1 female); Koonalda, 29 Aug 1947, RTMP (NMV, 1 male, 1 female); Wembley, 13 Nov 1947, AB (NMV, 1 male).

Description. Generally fuscous (see fig. 94 of Malipatil, 1991), except for the following yellow: trochanter and bases of femora, distal parts of scutellum, one small area of connexivum and adjoining tergum of each segments 4, 6 and 7 alternating with fuscous areas.

Measurements are of lectotype male first, followed by those of paralectotype female in parentheses.

General body shape as in fig. 94 of Malipatil (1991). Total length 11.39 (13.94); maximum width 3.57 (4.08).

Head. Length 2.38 (2.88); width across eyes 1.53 (1.53); interocular space 0.72 (0.90); interocellar space 0.54 (0.63); eye-ocellar space 0.18 (0.22); eye length 0.54 (0.72). Length of antennal segments I 1.62 (1.89); II 0.94 (0.99); III 0.99 (0.99); IV 1.44 (1.44). Length of labial segments: I not measured in lectotype (1.03–1.33); II (1.12–1.26); III (0.35–0.36).

Thorax. Pronotum median length 2.55 (2.88); width posterior margin 2.97 (3.33). Scutellum length 0.90 (0.90); width 1.26 (1.35). Femora rather abruptly constricted apically, fore femora ventrally with spinules in addition to tubercles, not arranged in distinct rows, fore femur sub-

equal in length to fore tibia. Length hemelytra 6.46 (7.82); length corium 4.59 (5.61); width membrane 2.21 (2.89).

Male genitalia. Parameres reduced. Other details as in generic description given by Malipatil (1991).

Female genitalia. First valvifer broad, styloids inconspicuous (e.g., fig. 4).

Remarks. The Helena Valley (WA) specimen has the antennae and most of fore legs uniformly pale. The Nukarni (WA) specimen exhibits variation in the colouration of legs particularly femora which have broad pale areas.

Neohavinthus pronotalis sp. nov.

Figures 1–4

Types. Holotype male, Mornington Island Mission, Queensland, 8 Jun 1960, P. Aitken and N. Tindale, SAM.

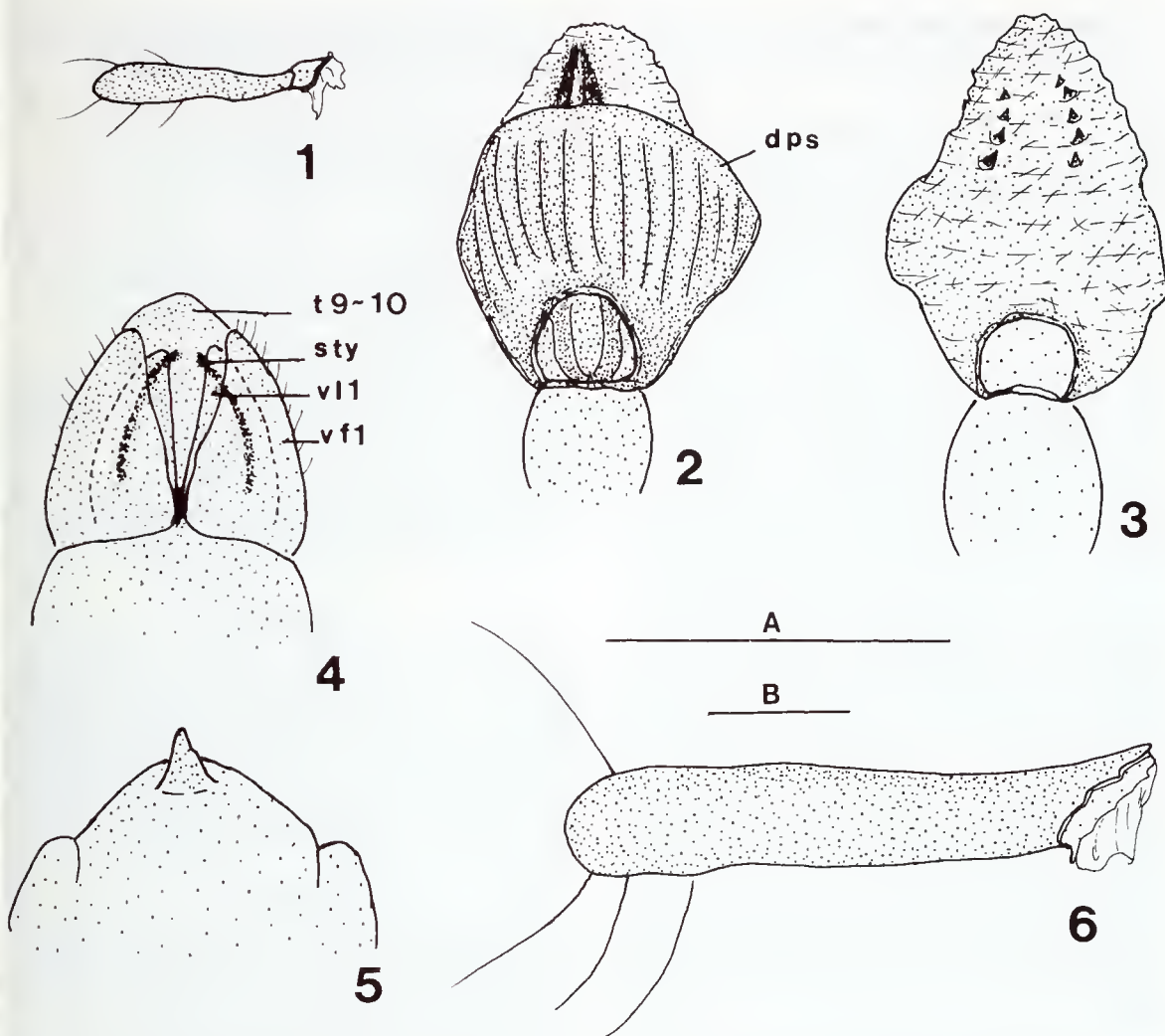
Paratypes. Queensland, same data as holotype except 3 Apr 1960 (SAM, 1 female); Almaden, W.D. Campbell (AM, 1 female); Escott Stn, Burketown, 3 Nov 1930, T.G. Campbell (ANIC, 1 female); Mackay, 20 Jan 1934, M. Powell (QM, 1 male); Kuranda, F.P. Dodd (SAM, 1 male); Brocks Ck, 5 May 1932 (ANIC, 1 male); Peak Downs (NRS, 1 male); Inkerian, 5 Sep 1950, E.F. Riek (ANIC, 1 male); Queensland, 27 Jan 1929, K.K. Spence (AM, 1 male).

Description. Generally fuscous, apices of coxae, trochanters, 2 broad areas one on each humeral angle of pronotum, 3 broad bandlike areas on connexiva, and base of venter of abdomen yellow.

Body and appendages shiny with short bristly hairs in addition to pubescence. Total length 9.66 (8.40–10.78); maximum width 2.52 (2.15–3.40).

Head. Length 2.24 (1.98–2.64); width across eyes 1.18 (1.10–1.25); interocular space 0.53 (0.49–0.57); interocellar space 0.30 (0.30); eye-ocellar space 0.11 (0.14–0.19); eye length 0.60 (0.49–0.60); eye width 0.34 (0.30–0.34). Length of antennal segments I 1.37 (1.25–1.56); II 0.91 (0.76–0.95); III 1.06 (0.91–1.06); IV missing (0.95–1.14). Labium short, ending well before prosternum, length of segments I 0.95 (0.87–0.95); II 1.03 (0.79–1.06); III 0.31 (0.27–0.34).

Thorax. Pronotum median length 2.10 (2.01–2.40); width maximum width 2.45 (2.28–2.69). Fore femora slightly rugulose, ventrally with a few distinct minute spines: 3–6 inner and 2–4 outer indistinct rows, fore tibiae with spinules which are more distinct in female than in male. Scutellum length 0.66 (0.53–0.65); width 1.21 (1.10–1.25). Length hemelytra 5.46 (4.90–6.10);



Figures 1–4. *Neohavintus pronotalis* sp. nov. 1–3, paratype male: 1, paramere, lateral view; 2, aedeagus, apical part, dorsal view; 3, aedeagus, apical part, ventral view; 4, paratype, female genitalia, ventral view. Abbreviations: dps, dorsal phallothecal sclerite; sty, styloids; t9–10, tergites 9 and 10; vf1, first valvifer; vl1, first valvula.

Figures 5, 6. *Neohavintus trochanteralis* sp. nov. Paratype male: 5, pygophore, apical part, ventral view; 6, paramere, lateral view. Scale line 0.50 mm. Figs 1–3, 6 to scale A; Figs 4, 5 to scale B.

length corium 3.57 (2.94–3.90); width membrane 1.89 (1.54–2.24).

Male genitalia. Pygophore without a distinct projection on posterior end. Paramere weakly developed, slightly curved in middle (Fig. 1). Aedeagus with dorsal phallothecal sclerite broad, fanlike (Fig. 2); endosomal dorsal surface pigmented in oval area in pairs; ventral surface with 2 rows (1 pair) of almost regular sclerotized spinules (Fig. 3).

Female genitalia. As in Fig. 4.

Remarks. *Neohavintus pronotalis* differs from *N. pentatomus* in having a broad yellow area on humeral angles of pronotum; and fore femora with distinct spinules in two indistinct rows and also spinules on fore tibia more distinct in female than in male.

The species name, *pronotalis*, alludes to the pronotum with broad yellow areas on its humeral angles – a major diagnostic character of the species.

***Neohavinthus trochanteralis* sp. nov.**

Figures 5, 6

Types. Holotype male, Maryborough, Queensland, SAM.

Paratypes. Queensland, Millstream Falls via Raven-shoe, 10 Dec 1966, B. Cantrell (UQIC, 1 female); Rockhampton (NRS, 1 female); Maryborough (SAM, 1 female); Carnarvon Range, Dec 1941, N. Geary (AM, 1 male); Biggenden, Mt Walsh NP, Bluff Range, 12 Aug 1971, H. Frauca (ANIC, 1 female).

Description. Generally fuscous with tibia, antenna and lateral area of corium paler. Following yellow: bases of hemelytra and wings, lateral areas of scutellum; connexiva with alternate fuscous and yellow areas.

Body and appendages except hemelytra and wings densely covered with bristly hairs in addition to pubescence; also patches of scalelike white pubescence near pronotal constriction, on lateral areas of scutellum and yellow areas of connexivum. Total length 10.22 (10.90–13.02); maximum width 3.04 (2.70–3.50).

Head. Length 2.69 (2.81–3.19); maximum width 1.44 (1.40–1.52); interocular space 0.66 (0.60–0.64); interocellar space 0.45 (0.38–0.44); eye-ocellar space 0.19 (0.19–0.21); eye length 0.67 (0.61–0.76); eye width 0.30 (0.42–0.44). Length antennal segments I 1.78 (1.60–2.12); II 0.98 (0.79–0.83); III 1.06 (0.87–1.14); IV segment strongly curved, measurements only approximate 1.82 (1.60–2.35). Labium almost touching prosternum, length of segments I 1.29 (1.30–1.52); II 1.52 (1.45–1.78); III 0.38 (0.45–0.49).

Thorax. Pronotum median length 2.43 (2.36–2.66); maximum width 2.73 (2.81–3.11). Femora granulate, fore femora in addition with

minute spicules not in regular rows; also fore tibia in male unarmed, in female with minute spinules. Scutellum length 0.69 (0.72–0.75); width 1.21 (1.33–1.50). Length hemelytra 5.88 (6.33–7.42); length corium 4.06 (4.34–4.76); width membrane 2.00 (2.00–2.38).

Male genitalia. Pygophore with a distinct median projection on posterior end (Fig. 5). Paramere well developed, almost straight (Fig. 6). Aedeagus as in *N. pronotalis* sp. nov.

Female genitalia. As in *N. pronotalis* sp. nov., except first valvifer narrower.

Remarks. *Neohavinthus trochanteralis* differs from *N. pronotalis* in having a well developed paramere; and the humeral angles of pronotum and bases of femora not yellow.

The species name, *trochanteralis*, alludes to the trochanter which is fuscous as rest of the leg – a diagnostic character of the species.

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