

Memoirs of the Queensland Museum | **Nature**

58

Bicentenary of Ludwig Leichhardt: Contributions to Australia's Natural History in honour of his scientific work exploring Australia

Edited by Barbara Baehr

© The State of Queensland, Queensland Museum 2013

PO Box 3300, South Brisbane 4101, Australia
Phone 06 7 3840 7555
Fax 06 7 3846 1226
Email qmlib@qm.qld.gov.au
Website www.qm.qld.gov.au

National Library of Australia card number
ISSN 0079-8835

NOTE

Papers published in this volume and in all previous volumes of the *Memoirs of the Queensland Museum* may be reproduced for scientific research, individual study or other educational purposes. Properly acknowledged quotations may be made but queries regarding the republication of any papers should be addressed to the Director. Copies of the journal can be purchased from the Queensland Museum Shop.

A Guide to Authors is displayed at the Queensland Museum web site www.qm.qld.gov.au

A Queensland Government Project
Typeset at the Queensland Museum

New species and records of the molycriine ground spider genus *Wyndundra* (Araneae: Prodidomidae) from northern Australia

Norman I. PLATNICK

Division of Invertebrate Zoology, American Museum of Natural History, New York NY 10024 USA.
E-mail: platnick@amnh.org

Barbara C. BAEHR

Queensland Museum, PO Box 3300, South Brisbane QLD 4101; SCER, School of Environmental and Life Sciences, University of Newcastle, Callaghan, NSW 2308, Australia.
E-mail: barbara.baehr@qm.qld.gov.au

Citation: Platnick, N.I. & Baehr, B.C. 2013 10 10 New species and records of the molycriine ground spider genus *Wyndundra* (Araneae: Prodidomidae) from northern Australia. *Memoirs of the Queensland Museum — Nature* 58: 95–105. Brisbane. ISSN 0079–8835.

ABSTRACT

Five new species of the molycriine prodidomid genus *Wyndundra* are described: *W. camooweal*, *W. leichhardti*, *W. chillagoe*, and *W. gilliat* from northern Queensland, and *W. alexandria* from the Northern Territory. Several new species groups are established within the genus, and new records are provided for nine previously described species. □ *Molycriinae*, *Prodidomidae*, *Wyndundra*, *ground spiders*, *Queensland*, *Northern Territory*.

The ground spider family Prodidomidae currently contains 304 species placed in 31 genera (Platnick 2013). Seven of those genera, and 137 species, occur in Australia (Platnick & Baehr 2006). Three subfamilies are recognized: the Prodidominae, Theuminae, and Molycriinae (Platnick 1990; Platnick & Baehr 2006). Most of the Australian prodidomids belong to the Molycriinae, and can easily be recognized by their greatly elongated anterior lateral spinnerets, which originate far in advance of the other four spinnerets (Platnick & Baehr 2006: figs 12–17). Outside Australia, only five molycriine species are known: *Wyndundra voc* (Deeleman-Reinhold, 2001), recorded only from Perhentian Island off the east coast of Malaysia and Lonthoir Island in the Moluccas, and four species from Namibia and Angola assigned to *Namundra* Platnick & Bird (2007).

The most diverse of the molycriine genera is *Wyndundra* Platnick & Baehr, 2006, which (aside from *W. voc*) currently includes 40 species found throughout Australia (except for Victoria and Tasmania), all of which were first described by Platnick & Baehr (2006). These relatively large animals are characteristic elements of the north-

ern Australian spider fauna, and it is therefore fitting that we present an update to our knowledge of them in this volume celebrating the bicentenary of Ludwig Leichhardt, a pioneer in the biological exploration of northern Australia.

MATERIAL AND METHODS

Specimens were collected with pitfall traps on Queensland Museum Expeditions to the Gulf of Carpentaria conducted by Robert Raven, Senior Curator at the QM, from June–September 2006, and to northern Queensland conducted by Geoff Monteith from September 2006–February 2007.

All specimen measurements are in millimeters, but users should note that in gnaphosoids size is not a useful character, as some specimens can be twice the size of their conspecifics; scale bars are therefore not included for the illustrations, as only the shape differences depicted there are biologically and taxonomically relevant. All specimens are deposited in the Queensland Museum (QM). The format of the descriptions follows that of Platnick & Baehr (2006), and standard abbreviations of morphological terms follow those of Platnick &

Shadab (1975); the anterior lateral spinnerets are abbreviated as ALS. Eight informal species groups are newly established here; they encompass most, but not all, of the described members of the genus.

SYSTEMATICS

Family PRODIDOMIDAE Simon, 1884

Subfamily MOLYCRIINAE Simon, 1897

Wyndundra Platnick & Baehr, 2006

Wyndundra Platnick & Baehr, 2006: 106 [type species by original designation *Wyndundra osbourne* Platnick & Baehr, 2006].

Diagnosis. Members of *Wyndundra* can easily be separated from the other molycriines by their widely separated anterior lateral spinnerets (Fig. 1C; Platnick & Baehr 2006: fig. 13), which are separated at their base by at least their diameter (and often by two or more times their diameter), and usually (but not always) by the presence of extremely tiny denticles on the lateral margins of the carapace (Fig. 1A, B; Platnick & Baehr 2006: fig. 6).

THE WYDUNDRA OSBOURNE GROUP

This group contains those species described by Platnick & Baehr (2006) in which the epigynum has a pair of anteriorly directed projections: *Wyndundra osbourne*, *W. fitzroy*, *W. windsor*, *W. percy*, *W. gully*, and *W. newcastle* from Queensland, *W. carinda* from New South Wales and South Australia, *W. gunbiyarrmi* and *W. jabiru* from the Northern Territory, and *W. solo* and *W. drysdale* from Western Australia, plus the new species *W. camooweal*, *W. leichhardti*, and *W. alexandria*.

Wyndundra osbourne Platnick & Baehr, 2006

Wyndundra osbourne Platnick & Baehr, 2006: 111, figs 248–252 [type locality, Osbourne Mines, Queensland].

Material examined. NORTHERN TERRITORY: QM-S81180, ♂, Tablelands Highway, near One Mile Creek, 17°30'25.8"S, 135°40'10.0"E, 283 m, R. Raven, B. Baehr, A. Amey, 8 Jul–22 Sep 2006, pitfall. QUEENSLAND: QM-S81198, ♂, 10 km E Camooweal by road, 19°55'09.3"S, 138°12'30.0"E, 252 m, R. Raven, B. Baehr, A. Amey, 30 Jun–9 Sep 2006, pitfall; QM-S81184, ♀, Leichardt Falls, E on Burketown–Normanton Road, at radio tower, 18°09'14.2"S,

140°05'47.4"E, 62 m, R. Raven, B. Baehr, A. Amey, 5 Jul–12 Sep 2006, pitfall; QM-S81207, ♂, Riversleigh D site, 18°59'24.7"S, 138°40'58.9"E, 159 m, R. Raven, B. Baehr, A. Amey, 1 Jul–10 Sep 2006, pitfall; QM-S81200, ♂, S81201, ♀, 5 km W Riversleigh turnoff on Gregory Downs–Camooweal Road, 19°07'25.9"S, 138°57'10.6"E, 182 m, R. Raven, B. Baehr, A. Amey, 1 Jul–10 Sep 2006, pitfalls; QM-S81183, ♂, ♀, 1 km S Wills Road, Gregory River gate turnoff, 18°36'02.9"S, 138°35'36.3"E, 126 m, R. Raven, B. Baehr, A. Amey, 2 Jul–11 Sep 2006, pitfall.

Distribution. Previously known only from mid-western Queensland; the new records indicate that the range extends into north-western Queensland and eastern parts of the Northern Territory.

Wyndundra windsor Platnick & Baehr, 2006

Wyndundra windsor Platnick & Baehr, 2006: 113, figs 257–261 [type locality, Windsor Tableland, Queensland].

Material examined. QM-S81354, ♀, Lolworth National Park site 2, Qld, 19°49.7'S, 146°05.4'E, 270 m, QM group, 28 Sep–12 Dec 2006, pitfall, dry vine scrub; QM-S76836, ♂, Toomba site 2, Qld, 19°58.0'S, 145°34.8'E, 400 m, G. Monteith, D. Cook, 15 Dec 2006–13 Feb 2007, pitfall, vine scrub on basalt.

Distribution. Known only from north-eastern Queensland.

Wyndundra percy Platnick & Baehr, 2006

Wyndundra percy Platnick & Baehr, 2006: 117, figs 262–266 [type locality, South Percy Island, Queensland].

Material examined. QM-S81202, ♀, Blackwood NP, Qld, 21°28'03.5"S, 146°40'55.8"E, 239 m, R. Raven, B. Baehr, A. Amey, 14 Jul–29 Sep 2006, pitfall; QM-S81169, ♀, Mazeppa National Park site 4, Qld, 22°16'23.7"S, 147°15'50.6"E, 249 m, R. Raven, B. Baehr, A. Amey, 14 Jul–29 Sep 2006, pitfall.

Distribution. Known only from mid-eastern Queensland.

Wyndundra camooweal sp. nov.

(Fig. 4A, B)

Material examined. HOLOTYPE: QM-S81187, ♀, Camooweal, NE at first floodway on Gregory Downs–Camooweal Road, Qld, 19°47'38.3"S, 138°12'03.5"E, 252 m, R. Raven, B. Baehr, A. Amey, 30 Jun–23 Sep 2006, pitfall. OTHER MATERIAL: QM-S75268, ♀, same data as holotype; QM-S81208, ♀, just NW Burke Developmental Road, at 1st jumpup, Qld, 19°02'54.7"S, 140°24'41.6"E, 61 m, R. Raven, B. Baehr, A. Amey, 2 Jul–11 Sep 2006, pitfall.

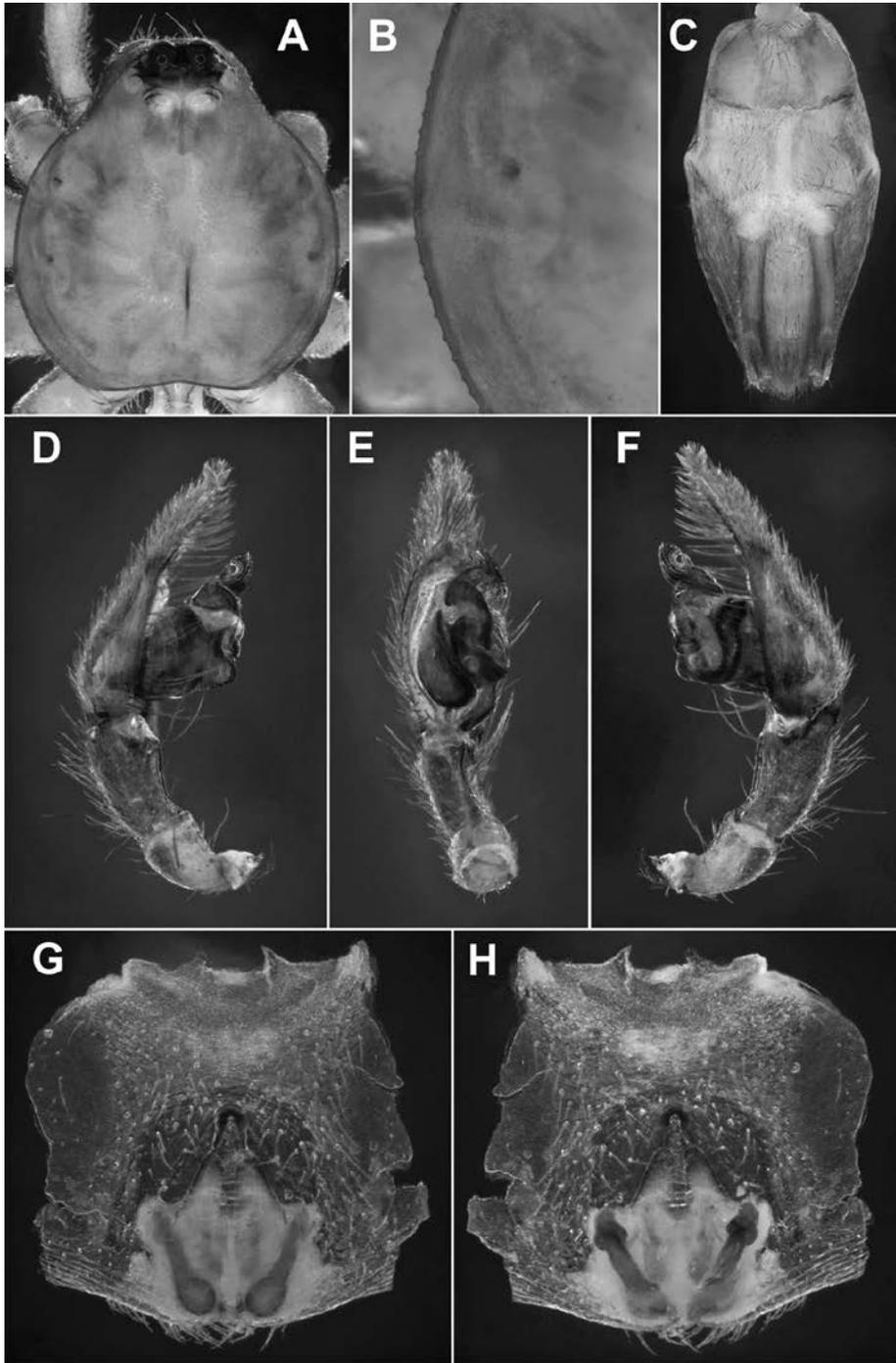


FIG. 1. *Wyndundra leichhardti* sp. nov., male (A-F) and female (G-H). **A**, carapace, dorsal view; **B**, lateral margin of carapace, dorsal view; **C**, abdomen, ventral view; **D**, left palp, prolateral view; **E**, same, ventral view; **F**, same, retrolateral view; **G**, epigynum, ventral view; **H**, same, dorsal view.

Diagnosis. Females resemble those of *W. percy* in having relatively wide anteriorly directed projections on the epigynum but have those projections much farther from the anterior epigynal margin (Fig. 4A).

Description. *Male* unknown. *Female.* Total length 2.58. Carapace 0.98 long, 0.88 wide, cl/cw 1.11, 0.26 high; sternum 0.56 long, 0.52 wide, sl/sw 1.08; abdomen 1.60 long, 0.94 wide; coxa I 0.60 long; relative length of coxae I–IV 1.00:1.00:0.87:1.20. Prosoma, legs orange; endites, labium distally pale; abdomen gray, venter pale. AME large, elevated, PME largest, egg-shaped; eye group width 0.68 of caput width; AME 0.17; ALE 0.16; PME 0.22; PLE 0.16; AME-AME 0.04; AME-ALE 0.04; PME-PME 0.06; PME-PL 0.04; ALE-PL 0.04; eye group AME-PME 0.42; AME-AME 0.38; PME-PME 0.5. Clypeus 0.08 high. Abdomen covered with dark gray recumbent scales; ALS 0.34 of abdominal length, more than their diameter apart. Female palpal femur with 4–7 strong, ventral setae. Epigynum (Fig. 4A, B) with inverted v-shaped anterior epigynal hood; anterior margin wide; posterior margin with short, triangular, anteriorly blunt projections; epigynal ducts coiled; spermathecae less than their diameter apart, globular.

Etymology. The specific name is a noun in apposition taken from the type locality.

Distribution. Known only from north-western Qld.

Wyndundra newcastle Platnick & Baehr, 2006

Wyndundra newcastle Platnick & Baehr, 2006: 127, figs 287–291 [type locality, Newcastle, Queensland].

Material examined. QM-S76724, ♂, Footprint Scrub site 1, Qld, 19°41.3'S, 146°26.4'E, 320–363 m, G. Monteith, D. Cook, 8 Dec 2006–10 Feb 2007, pitfall, vine scrub; QM-S81345, ♀, Gregory Development Road, 1.5 km E Marble Creek, Qld, 19°06.2'S, 145°16.6'E, 456 m, QM party, 27 Sep–17 Dec 2006, pitfall, open forest; QM-S76713, Rochford Scrub site 3, Qld, 20°07.0'S, 146°37.8'E, 280 m, G. Monteith, D. Cook, 11 Dec 2006–11 Feb 2007, intercept trap, lancewood/bendee vine scrub.

Distribution. Known only from northern Qld.

Wyndundra leichhardti sp. nov.

(Figs 1, 2)

Material examined. HOLOTYPE: QM-S81181, ♂, 25 km N of Thornton on Gregory Downs-Camooweal

Road, Qld, 19°17'07.6"S, 138°58'55.1"E, 247 m, R. Raven, B. Baehr, A. Amey, 1 Jul–23 Sep 2006, pitfall. ALLOTYPE: QM-S75267, ♀, same data as holotype. OTHER MATERIAL: QM-S81203, ♂, Camooweal Caves National Park, Qld, 19°59'35.3"S, 138°09'01.5"E, 244 m, R. Raven, B. Baehr, A. Amey, 30 Jun–9 Sep 2006, pitfall; QM-S81199, ♂, 5 km W Riversleigh turnoff on Gregory Downs-Camooweal Road, Qld, 19°07'25.9"S, 138°57'10.6"E, 182 m, R. Raven, B. Baehr, A. Amey, 1 Jul–10 Sep 2006, pitfall.

Diagnosis. This species seems to be the eastern sister species of *W. alexandria*, sharing with it a small, hook-shaped median apophysis on the male palp and greatly elongated epigynal projections. Males have a much simpler embolar tip (Figs 1D–F, 2A–C); females have shorter projections at the tip of the spermathecae (Figs 1H, 2E).

Description. *Male.* Total length 2.26. Carapace 1.00 long, 0.96 wide, cl/cw 1.04, 0.36 high; sternum 0.52 long, 0.50 wide, sl/sw 1.04; abdomen 1.26 long, 0.76 wide; coxa I 0.68 long; relative length of coxae I–IV 1.00:1.00:0.88:1.18. Prosoma, legs orange, endites, labium distally pale; abdomen gray, dorsally with weak orange scutum, venter pale. AME large, elevated, PME largest, egg-shaped; eye group width 0.74 of caput width; AME 0.22; ALE 0.16; PME 0.24; PLE 0.16; AME-AME 0.04; AME-ALE 0.04; PME-PME 0.02; PME-PL 0.04; ALE-PL 0.04; eye group AME-PME 0.56; AME-AME 0.48; PME-PME 0.50. Clypeus 0.10 high. Abdomen covered with dark gray, recumbent scales; ALS 0.48 of abdominal length, more than their diameter apart. Male palp (Figs 1D–F, 2A–C): cymbium long, at least 2.2 times longer than wide, tip conical, retrolaterally straight, with two apical spines and dorso-apical scopula; conductor absent; median apophysis small, hook-shaped; terminal apophysis absent; embolus corkscrew-shaped, with blunt, indented tip, embolar base separated from tegulum, situated prolaterally; tibia about 1.8 to 2 times as long as wide, retrolateral tibial apophysis triangular.

Female. Total length 2.70. Carapace 1.20 long, 0.98 wide, cl/cw 1.22, 0.44 high; sternum 0.66 long, 0.56 wide, sl/sw 1.18; abdomen 1.50 long, 0.84 wide; coxa I 0.76 long; relative length of coxae I–IV 1.00:1.00:0.89:1.16. Coloration as in male. Eye as in male but eye group width 0.71 of caput width; ALE 0.18; PME 0.26; PLE 0.18; eye group AME-PME 0.5; PME-PME 0.54.

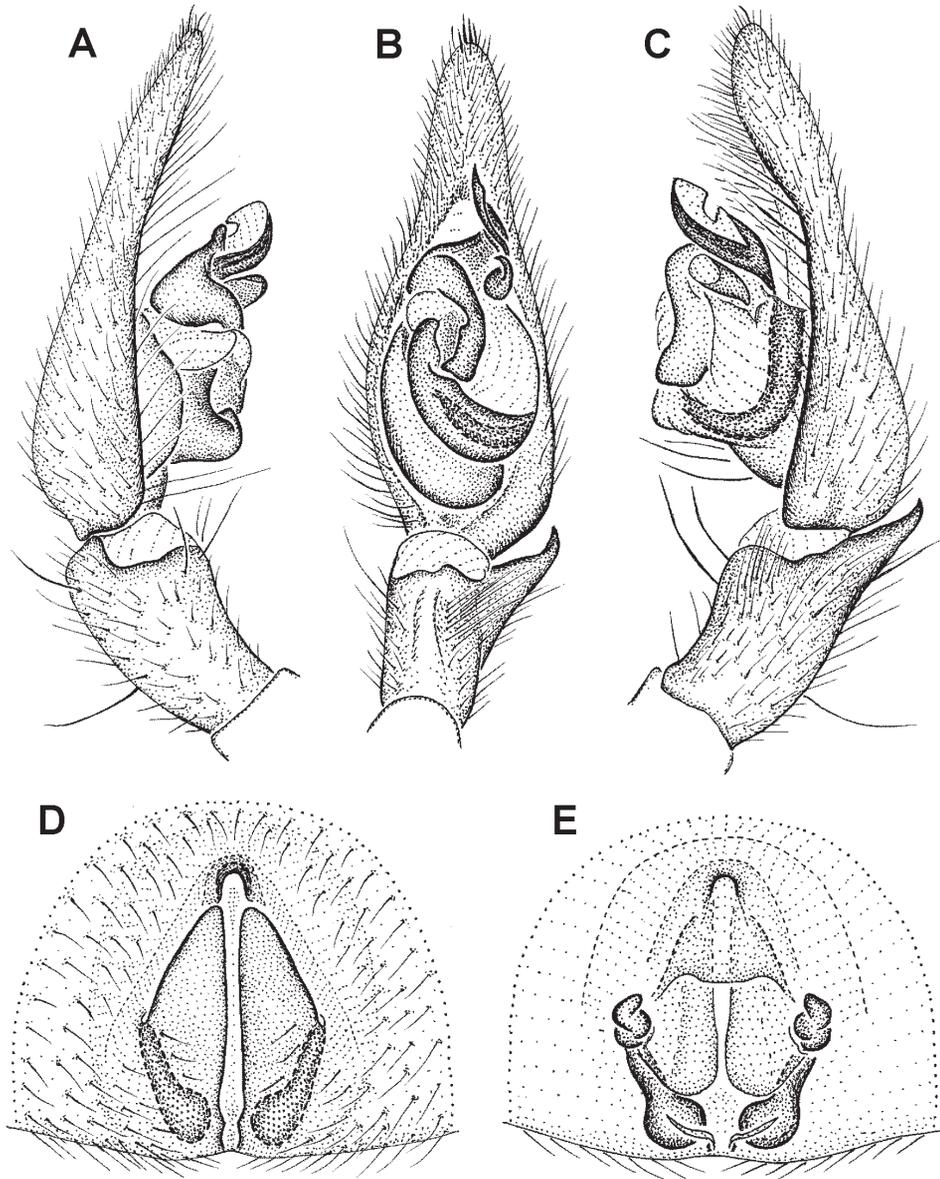


FIG. 2. *Wyndundra leichhardti* sp. nov., male (A-C) and female (D-E). **A**, left palp, prolateral view; **B**, same, ventral view; **C**, same, retrolateral view; **D**, epigynum, ventral view; **E**, same, dorsal view.

Clypeus 0.08 high. Abdomen ALS 0.47 of abdominal length. Female palpal femur with 9–11 long, ventral setae. Epigynum (Figs 1G, H; 2D, E) with inverted, v-shaped anterior epigynal hood; anterior margin narrow, rounded; posterior margin with long, anteriorly blunt projections; epigynal ducts in v-shaped

position, originating on lateral sides of atrium; spermathecae about their diameter apart, globular, with short anterior projections.

Etymology. The specific name is a patronym in honor of Ludwig Leichhardt.

Distribution. Known only from north-western Queensland.

Wydundra alexandria sp. nov.

(Fig. 3A–E)

Material examined. HOLOTYPE: QM-S75271, ♂, N of Alexandria Station at Mittlebah Range, Northern Territory, 19°01'48.6"S, 136°39'14.0"E, 240 m, R. Raven, B. Baehr, A. Amey, 9 Jul–22 Sep 2006, pitfall. ALLOTYPE: QM-S75272, ♀, same data as holotype. OTHER MATERIAL: QM-S81197, 9 ♂♂, 2 ♀♀, same data as holotype; QM-S81193, 2 ♂♂, ♀, Stoney Creek, W Gregory River on Wills Road, NT, 18°35'51.9"S, 138°53'14.9"E, 98 m, R. Raven, B. Baehr, A. Amey, 2 Jul–11 Sep 2006, pitfall; QM-S81204, ♂, Tablelands Highway, S Calvert Road crossing at rise after flood plain, NT, 18°01'39.0"S, 135°36'26.4"E, 216 m, R. Raven, B. Baehr, A. Amey, 8 Jul–22 Sep 2006, pitfall; QM-S81194, ♀, Tablelands Highway, near One Mile Creek, NT, 17°30'25.8"S, 135°40'10.0"E, 283 m, R. Raven, B. Baehr, A. Amey, 8 Jul–22 Sep 2006, pitfall.

Diagnosis. This species seems to be the western sister species of *W. leichhardtii*, sharing with it a small, hook-shaped median apophysis on the male palp and greatly elongated epigynal projections. Males have an elaborate, comb-shaped embolar tip (Fig. 3A–C); females have longer projections at the tip of the spermathecae (Fig. 3E).

Description. *Male.* Total length 2.06. Carapace 0.98 long, 0.88 wide, cl/cw 1.11, 0.3 high; sternum 0.64 long, 0.56 wide, sl/sw 0.14; abdomen 1.08 long, 0.66 wide; coxa I 0.60 long; relative length of coxae I–IV 1.00:1.00:0.87:1.20. Prosoma, legs orange; endites, labium distally pale; abdomen gray, venter pale, epigastric area orange. AME large, elevated, PME largest, egg-shaped; eye group width 0.73 of caput width; AME 0.20; ALE 0.14; PME 0.22; PLE 0.14; AME-AME 0.04; AME-ALE 0.04; PME-PME 0.02; PME-PLA 0.04; ALE-PLA 0.04; eye group AME-PME 0.42; AME-AME 0.44; PME-PME 0.46. Clypeus 0.08 high. Abdomen covered with gray recumbent scales; ALS 0.48 of abdominal length, about their diameter apart. Male palp (Fig. 3A–C): cymbium long, at least 2.2 times longer than wide, tip conical; retrolaterally straight, with dorso-apical scopula; conductor absent; median apophysis small, hook-shaped; terminal apophysis absent; sperm duct u-shaped; embolus corkscrew-shaped with blunt, indented tip, prolateral part comb-shaped; embolar base separated from tegulum, situated prolaterally; tibia about 1.8 to 2 times as long as wide, retrolateral tibial apophysis long, triangular, with bent tip.

Female. Total length 2.60. Carapace 1.04 long, 1.00 wide, cl/cw 1.04, 0.38 high; 0.6 wide, sl/sw 1.08; abdomen 1.56 long, 0.8 wide; coxa I 0.74 long; relative length of coxae I–IV 1.00:1.00:0.84:1.08. Colouration as in male. Eyes as in male but eye group width 0.67 of caput width; PME-PME 0.04; eye group AME-PME 0.48; PME-PME 0.48. Clypeus 0.1 high. Abdomen ALS 0.45 of abdominal length. Female palpal femur with 9–11 long, ventral setae. Epigynum (Fig. 3D, E) with inverted v-shaped anterior epigynal hood; anterior margin narrow, rounded; posterior margin with long, anteriorly pointed projections; spermathecae widely separated, more than their diameter apart, globular, with long projections at tip.

Etymology. The specific name is a noun in apposition taken from the type locality.

Distribution. Known only from eastern parts of the Northern Territory.

THE WYDUNDRA COOPER GROUP

This group contains those species described by Platnick & Baehr (2006) in which the epigynum has a median septum extending posteriorly from its anterior margin, and males have a deeply bifid retrolateral tibial apophysis: *Wydundra cooper* from New South Wales and South Australia, and *W. kalamurina* and *W. moolooloo* from South Australia.

THE WYDUNDRA NEINAUT GROUP

This group contains those species described by Platnick & Baehr (2006) in which both the external and internal elements of the epigynum have a single, medial, anteriorly directed projection: *Wydundra neinaut*, *W. octomile*, and *W. normanton* from Queensland, plus the new species *W. chillagoe* and *W. gilliat*.

Wydundra neinaut Platnick & Baehr, 2006

Wydundra neinaut Platnick & Baehr, 2006: 135, figs 312–316 [type locality, Moranbah, Queensland].

Material examined. QM-S81190, ♂, Karumba, W at junction of Burke Development Road to Chillagoe, Qld, 17°27'46.8"S, 141°10'58.6"E, 14 m, R. Raven, B. Baehr, A. Amey, 4 Jul–25 Sep 2006, pitfall; QM-S75337, S79022, ♂, 4 ♀♀, Lolworth National Park site 2, Qld, 19°49.7'S, 146°05.4'E, 270 m, QM party, 28 Sep–12 Dec 2006, pitfall, dry vine scrub; QM-S81170,

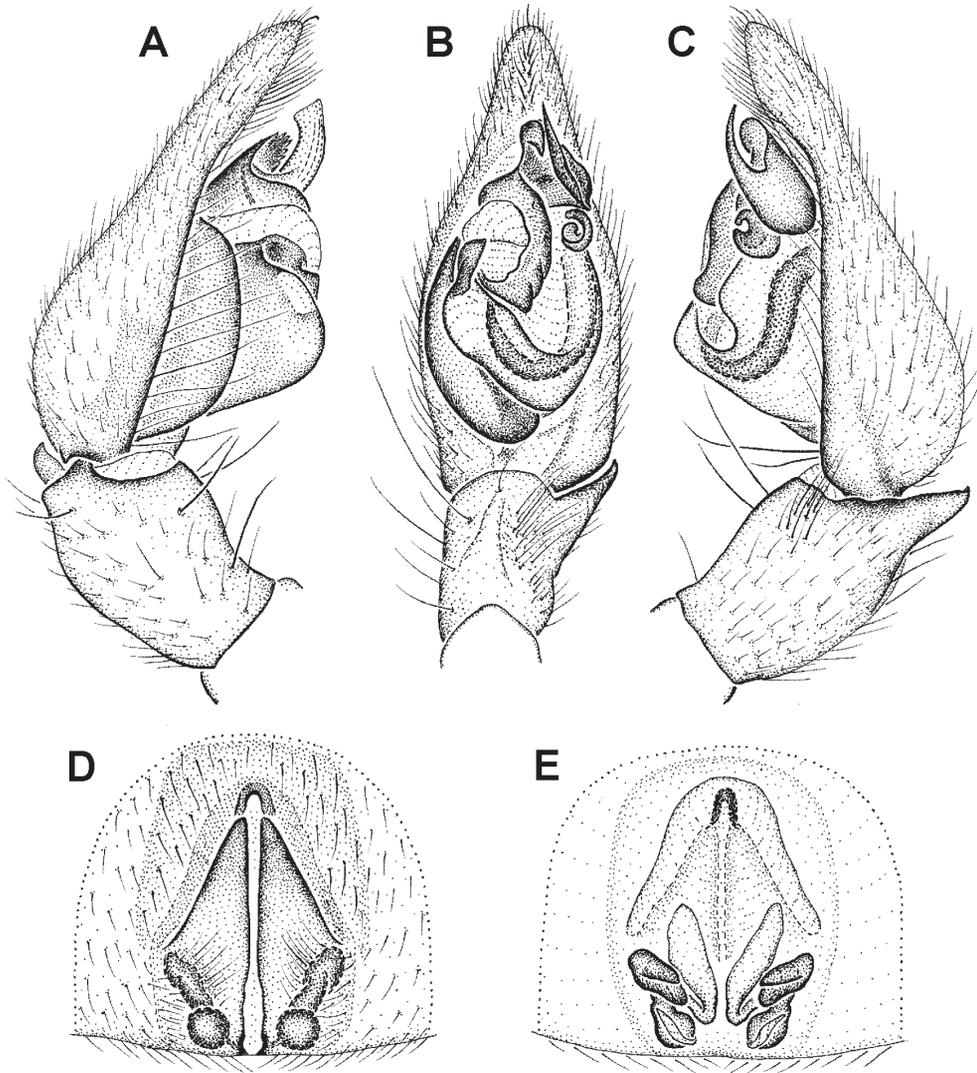


FIG. 3. *Wydundra alexandria* sp. nov., male (A–C) and female (D–E). A, left palp, prolateral view; B, same, ventral view; C, same, retrolateral view; D, epigynum, ventral view; E, same, dorsal view.

♀, Mazeppa National Park site 4, Qld, 22°16'23.7"S, 147°15'50.6"E, 249 m, R. Raven, B. Baehr, A. Amey, 14 Jul–29 Sep 2006, pitfall; QM-S81344, ♂, 4.4 km SSW Red Falls, Qld, 19°57.7'S, 145°43.1'E, 360 m, QM party, 28 Sep–17 Dec 2006, pitfall, open forest; QM-S75358, ♂, Toomba Homestead site, Qld, 19°58'04.2"S, 145°34'49.1"E, 395 m, R. Raven, 17 Dec 2006–13 Feb 2007, pitfall, open forest on basalt ridge with *Brachychiton*.

Distribution. Previously known only from north- and mid-eastern Queensland; now also recorded from north-western Queensland.

***Wydundra octomile* Platnick & Baehr, 2006**

Wydundra octomile Platnick & Baehr, 2006: 136, figs 317–321 [type locality, Eight Mile Creek, Qld].

Material examined. QM-S76995, S78034, S81320, 2 ♂♂, 3 ♀♀, Gregory Development Road, 1.5 km E Marble Creek, Qld, 19°06.2'S, 145°16.6'E, 456 m, QM party, 27 Sep–17 Dec 2006, pitfall, open forest; QM-S81346, ♀, Gregory Development Road, 1.5 km W Marble Creek, Qld, 19°06.2'S, 145°02.6'E, 456 m, QM party, 27 Sep–17 Dec 2006, pitfall, open forest.

Distribution. Northeastern Queensland.

Wyndundra chillagoe sp. nov.

(Fig. 4C, D)

Material examined. HOLOTYPE: QM-S81189, ♀, SW Chillagoe, along alternate Savannah Way, Qld, 17°29'29.8"S, 144°36'52.9"E, 460 m, R. Raven, B. Baehr, A. Amey, 13 Jul–27 Sep 2006, pitfall.

Diagnosis. Females can easily be distinguished from the other members of the *neinaut* group by the narrow anterior epigynal hood and the much larger anteriorly directed projection on the epigynum (Fig. 4C).

Description. *Male* unknown. *Female.* Total length 2.04. Carapace 0.80 long, 0.80 wide, cl/cw 1, 0.34 high; sternum 1.04 long, 0.96 wide, sl/sw 1.08; abdomen 1.24 long, 0.70 wide; coxa I 0.58 long; relative length of coxae I–IV 1.00:0.97:0.79:1.10. Prosoma, legs pale orange, endites, labium distally pale; abdomen pale gray, venter pale, booklungs orange. PME largest, egg-shaped; eye group width 0.75 of caput width; AME 0.15; ALE 0.14; PME 0.18; PLE 0.14; AME-AME 0.06; AME-ALE 0.04; PME-PME 0.02; PME-PLE 0.04; ALE-PLE 0.04; eye group AME-PME 0.38; AME-AME 0.36; PME-PME 0.38. Clypeus 0.06 high. Abdomen covered with gray slender recumbent scales; ALS 0.44 of abdominal length, more than their diameter apart. Female palp missing. Epigynum (Fig. 4C, D) with narrow anterior epigynal hood; anterior margin narrow, rounded; posterior margin with one inverted u-shaped projection; epigynal ducts n-shaped; spermathecae contiguous, oval, oriented transversely.

Etymology. The specific name is a noun in apposition taken from the type locality.

Distribution. Known only from the type locality in north-eastern Queensland.

Wyndundra gilliat sp. nov.

(Fig. 5)

Material examined. HOLOTYPE: QM-S75269, ♂, just W of Gilliat Creek, 25 km SE McKinlay, Qld, 21°24'17.6"S, 141°31'59.9"E, 202 m, R. Raven, B. Baehr, A. Amey, 29 Jun–8 Sep 2006, pitfall. ALLOTYPE: QM-S75270, ♀, same data as holotype. OTHER MATERIAL: QM-S81195, 2 ♂♂, 9 ♀♀, same data as holotype; QM-S81192, 2 ♂♂, ♀, 11 km W Barcaldine, Qld, 23°32'47.9"S, 145°10'26.8"E, 267 m, R. Raven, B. Baehr, A. Amey, 28 Jun–7 Sep 2006, pitfall; QM-S81182, 19 km NW Winton by road, Qld, 22°16'10.9"S, 142°55'34.3"E, 212 m, R. Raven, B. Baehr, A. Amey, 29 Jun–7 Sep 2006, pitfall.

Diagnosis. Males resemble those of *Wyndundra normanton* in having a distally notched retrolateral tibial apophysis, but have a much larger median apophysis (Fig. 5A–C); females resemble those of *W. neinaut* but have a larger basal protrusion on the epigynum and unfused spermathecal ducts (Fig. 5D, E).

Description. *Male.* Total length 1.92. Carapace 0.82 long, 0.82 wide, cl/cw 1, 0.34 high; sternum 0.50 long, 0.48 wide, sl/sw 1.04; abdomen 1.10 long, 0.62 wide; coxa I 0.58 long; relative length of coxae I–IV 1.00:1.00:0.90:1.07. Prosoma, legs pale yellow; abdomen gray, dorsally with weak orange scutum and small, pale spot in front of spinnerets, venter pale gray; epigastric area orange. AME large, elevated, PME largest, egg-shaped; eye group width 0.75 of caput width; AME 0.14; ALE 0.14; PME 0.19; PLE 0.14; AME-AME 0.04; AME-ALE 0.04; PME-PME 0.02; PME-PLE 0.04; ALE-PLE 0.04; eye group AME-PME 0.34; AME-AME 0.32; PME-PME 0.4. Clypeus 0.08 high. Abdomen covered with dark slender recumbent scales; ALS 0.47 of abdominal length, about their diameter apart. Male palp (Fig. 5A–C): cymbium long, at least 2.2 times longer than wide, tip conical; conductor spatulate, originating distally; median apophysis large, ventrally excavated, with two distal tips; terminal apophysis absent; sperm duct weakly u-shaped; embolus long, flattened with blunt, indented tip; embolar base separated from tegulum with long basal embolar projection, situated prolaterally; tibia about 1.8 to 2 times as long as wide, dorsally excavated, retrolateral tibial apophysis long, triangular, with notched tip.

Female. Total length 2.00. Carapace 0.86 long, 0.86 wide, 0.38 high; sternum 0.52 long, 0.50 wide; abdomen 1.14 long, 0.72 wide; coxa I 0.56 long; relative length of coxae I–IV 1.00:1.00:0.89:1.14. Coloration as in male but without abdominal scutum. Eyes as in male but eye group width 0.67 of caput width; eye group AME-PME 0.4. Clypeus 0.06 high. ALS 0.53 of abdominal length. Palpal femur with 4–7 strong, ventral setae, tarsus with small claw. Epigynum (Fig. 5D, E): atrium large; anterior margin widely arched; posterior margin with two large, transverse, projecting epigynal ledges; epigynal ducts broadly fused anteriorly.

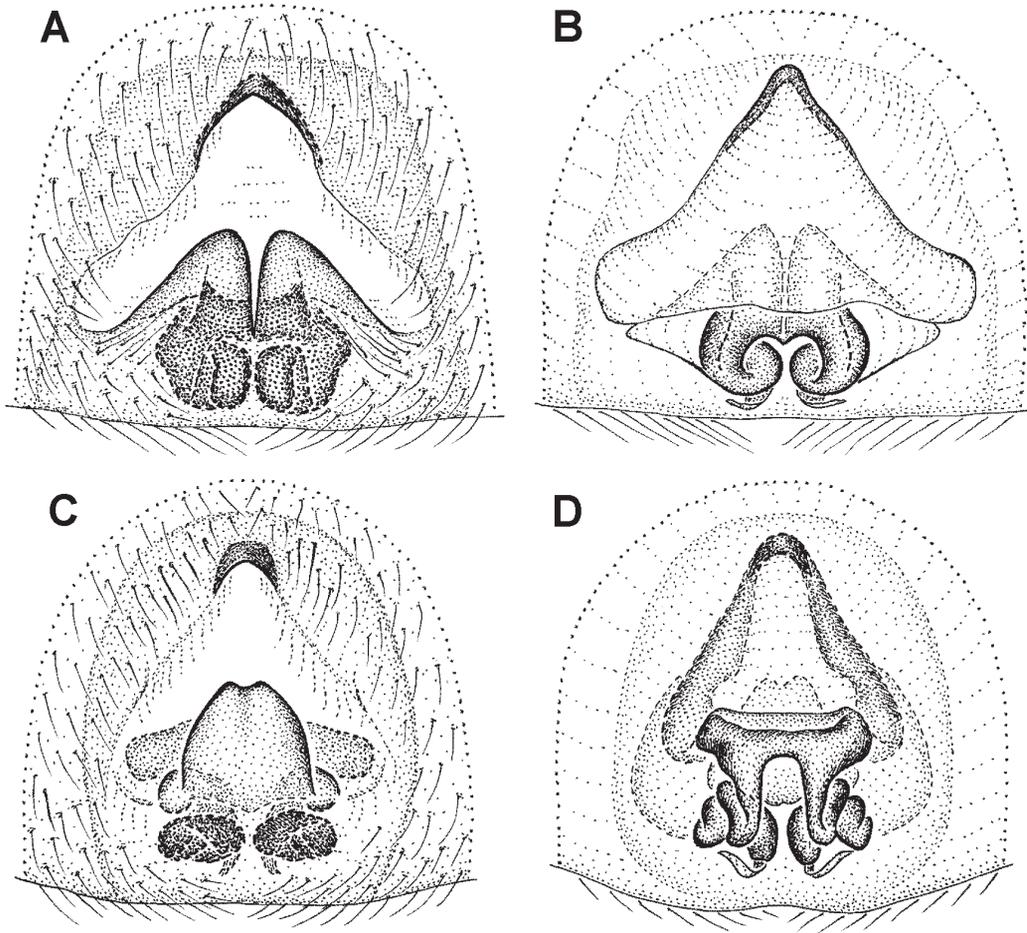


FIG. 4. *Wydundra camooweal* sp. nov. (A, B) and *W. chillagoe* sp. nov. (C, D), females. Epigynum: A, C, ventral view; B, D, dorsal view.

Etymology. The specific name is a noun in apposition taken from the type locality.

Distribution. Known only from central Qld.

THE WYDUNDRA WEBBERAE GROUP

This group contains those species described by Platnick & Baehr (2006) in which the epigynum has a rectangular atrium occupying the anterior two-thirds of the length, and the spermathecal ducts are elongated paramedially: *Wydundra webberae* from the Northern Territory, and *W. undara* and *W. garnet* from Queensland. A fourth species from Queensland, *W. kohi*, may also belong to this group, as the male palp resembles that of *W. garnet*, but the female genital atrium is

posteriorly much wider than in the other species, and the spermathecal ducts are differently arranged.

Wydundra undara Platnick & Baehr, 2006

Wydundra undara Platnick & Baehr, 2006: 140, figs 332–336 [type locality, Undara National Park, Qld].

Material examined. QM-S76982, S81336, 3 ♀♀, Gregory Development Road, 5.5 km SE Clarke River, Qld, 19°14.5'S, 145°28.4'E, 420 m, QM party, 27 Sep–17 Dec 2006, pitfall, open forest; QM-S76629, ♂, 3 km NNE Mt. Tregaskis, Qld, 19°15.5'S, 145°29.2'E, 411 m, G. Monteith, D. Cook, 17 Dec 2006–15 Feb 2007, dung pitfall, open forest.

Distribution. Known only north-eastern Qld.

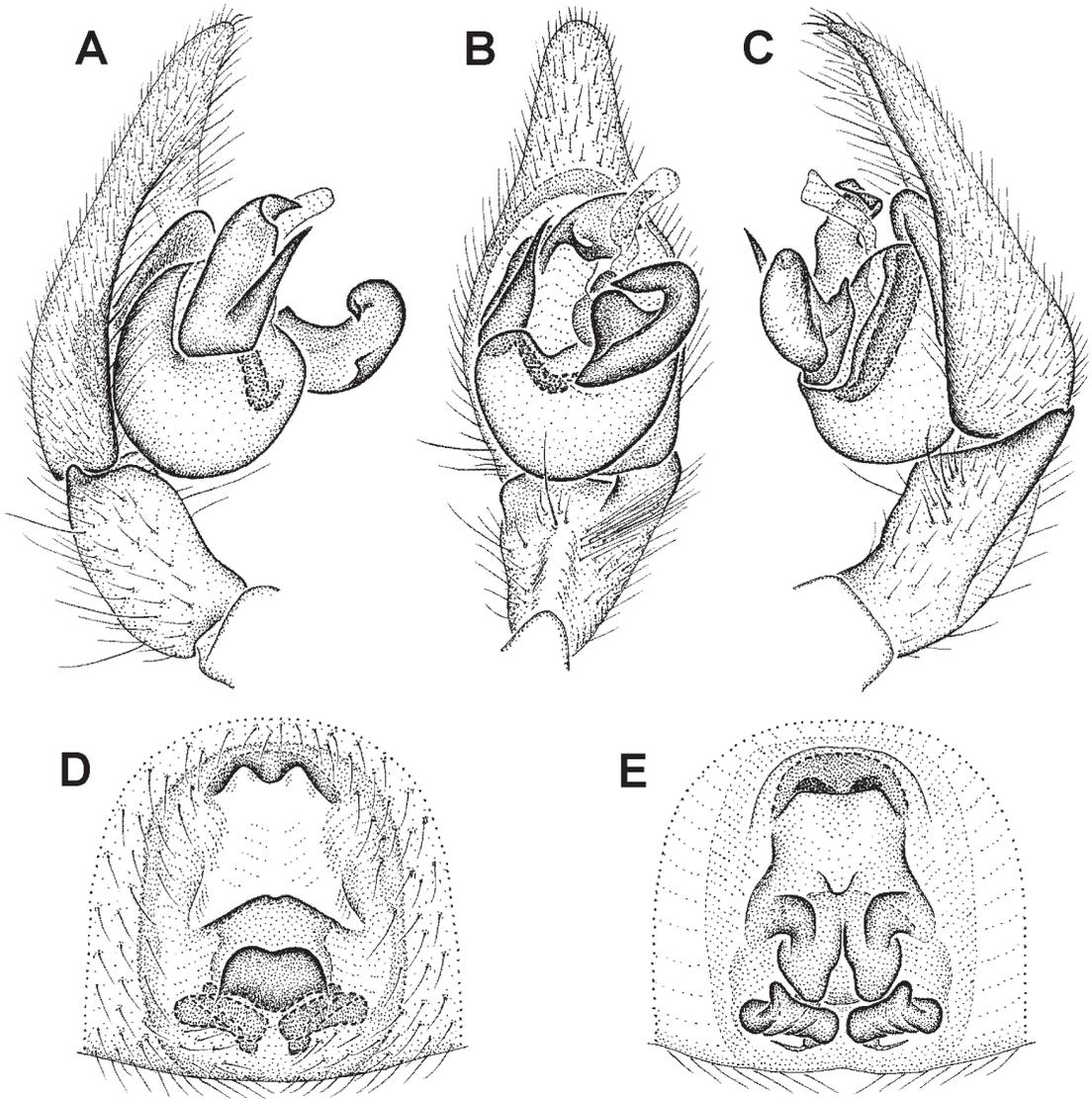


FIG. 5. *Wydundra gilliat* sp. nov., male (A–C) and female (D, E). A, left palp, prolateral view; B, same, ventral view; C, same, retrolateral view; D, epigynum, ventral view; E, same, dorsal view.

***Wydundra kohi* Platnick & Baehr, 2006**

Wydundra kohi Platnick & Baehr, 2006: 145, figs 342–346 [type locality, Davies Creek Nat. Park, Qld].

Material examined. QM-S81302, ♀, 13 km NW Burketown Development Road, Highbury, Qld, on ridge, 16°31'12.2"S, 143°23'17.1"E, 117 m, R. Raven, B. Baehr, A. Amey, 12 Jul–26 Sep 2006, pitfall.

Distribution. Known only from north-eastern Queensland.

THE WYDUNDRA FLATTERY GROUP

This group contains two species, *Wydundra flattery* Platnick & Baehr from northern Queensland and *W. voc* Deeleman-Reinhold from Malaysia (Perhentian Island, off the east coast) and the Moluccas (Lonthoir Island), united by having a highly elongated retrolateral tibial apophysis and a separate dorsal tibial apophysis.

THE WYDUNDRA ETHABUKA GROUP

Wydundra ethabuka is known only from males taken in the Northern Territory and south-western Queensland; the palpal morphology is odd, with an extremely narrow terminal apophysis, but the narrow, elongated median apophysis suggests that the species may be closely related to *W. moondarra* from Queensland and *W. churchillae* from the Northern Territory. Those two species are apparently sister taxa, sharing a wide but short, anteriorly situated epigynal atrium, as well as very similar male palps.

THE WYDUNDRA GIBB GROUP

This group contains those species described by Platnick & Baehr (2006) in which the male embolus is elongate and is wide throughout its length: *Wydundra gibb* from Western Australia and the Northern Territory, *W. charnley* from Western Australia, and *W. daunton* from Queensland. A fourth species known only from females from New South Wales, *W. morton*, apparently belongs to this group as well, as it shares with *W. daunton* a unique pair of triangular, medially directed projections situated posterolaterally on the epigynum.

Wydundra daunton Platnick & Baehr, 2006

Wydundra daunton Platnick & Baehr, 2006: 151, figs 6, 13, 363–367 [type locality, Daunton, Queensland].

Material examined. QM-S81206, ♂, Bang Bang jumpup, Qld, 18°31'24.8"S, 140°39'47.9"E, 38 m, R. Raven, B. Baehr, A. Amey, 10 Jul–23 Sep 2006, pitfall, rocky hillside; QM-S81186, ♂, ♀, near Bishop Creek, 23 km ESE Cloncurry, Qld, 20°47'04.8"S, 140°42'48.9"E, 210 m, R. Raven, B. Baehr, A. Amey, 29 Jun–9 Sep 2006, pitfall; QM-S81209, ♂, just NW Burke Development Road, at 1st jumpup, Qld, 19°02'54.7"S, 140°24'41.6"E, 61 m, R. Raven, B. Baehr, A. Amey, 2 Jul–11 Sep 2006, pitfall; QM-S81185, ♂, Leichardt Falls, E on Burketown-Normanton Road, at radio tower, Qld, 18°09'14.2"S, 140°05'47.4"E, 62 m, R. Raven, B. Baehr, A. Amey, 5 Jul–12 Sep 2006, pitfall; QM-S81205, ♂, Pack Saddle Creek, 30 km W Barcaldine, Qld, 23°32'09.8"S, 144°59'14.0"E, 269 m, R. Raven, B. Baehr, A. Amey, 28 Jun–7 Sep 2006, pitfall; QM-S75348, ♀, just W Toomba eastern boundary, Qld, 19°57'43.8"S, 145°43'03.2"E, 360 m, R. Raven, A. Amey, 17 Dec 2006–13 Feb 2007, pitfall, open forest.

Distribution. Widespread from mid-western to mid-eastern Queensland.

THE WYDUNDRA LENNARD GROUP

Wydundra lennard, known only from the male holotype from the Kimberley region of Western Australia, has a bizarrely corkscrew-shaped embolus. It is possible that *W. clifton* from South Australia and *W. cunderlin* from Western Australia form a group with *W. lennard*; they are known only from females but have long, curved spermathecal ducts that may match the corkscrew-shaped embolus of their unknown males.

ACKNOWLEDGMENTS

We thank Mohammad Shadab for providing the drawings, Lily Berniker for providing the photographs, Steve Thurston for composing the plates, Robert Raven, Geoff Monteith, Andrew Amey, and Doug Cook for collecting the material on their expeditions to northern Queensland and the Northern Territory, and Mark Harvey, Robert Raven, and Helen Smith for helpful comments on the manuscript.

LITERATURE CITED

- Deeleman-Reinhold, C.L. 2001. *Forest Spiders of South East Asia*. (Brill: Leiden).
- Platnick, N.I. 1990. Spinneret morphology and the phylogeny of ground spiders (Araneae, Gnaphosoidea). *American Museum Novitates* **2978**: 1–42.
2013. *The world spider catalog, version 13.5*. American Museum of Natural History, New York. <http://research.amnh.org/iz/spiders/catalog>. DOI: 10.5531/db.iz.0001.
- Platnick, N.I. & Baehr, B.C. 2006. A revision of the Australasian ground spiders of the family Prodidomidae (Araneae: Gnaphosoidea). *Bulletin of the American Museum of Natural History* **298**: 1–287.
- Platnick, N.I. & Bird, T.L. 2007. On the first African spiders of the subfamily Molycriinae (Araneae: Prodidomidae). *American Museum Novitates* **3552**: 1–8.
- Platnick, N.I. & Shadab, M.U. 1975. A revision of the spider genus *Gnaphosa* (Araneae: Gnaphosidae) in America. *Bulletin of the American Museum of Natural History* **155**: 1–66.

