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***Dolichopeza reidi* nov.sp., a new crane fly species from Lord Howe Island, New South Wales, Australia (Diptera: Tipulidae)**

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A b s t r a c t : *Dolichopeza reidi* nov.sp. (male only) is described from Lord Howe Island, New South Wales, Australia. The new species is compared with its most similar congeners and probably closest allies *Dolichopeza dorrigenis* ALEXANDER and *D. bickeli* THEISCHINGER.

K e y w o r d s : Tipulidae, *Dolichopeza*, new species, Lord Howe Island, Australia.

Introduction

DOBROTWORSKY (1974) recorded 28 species of *Dolichopeza* CURTIS from Australia, including 2 species known only from female. THEISCHINGER (1993), in a comprehensively illustrated revision, added 18 more species, described the males of the 2 species previously known only from female and, based on characters of the male genitalia, established 11 species groups. Five more species were described by Theischinger (1999, 2000). OOSTERBROEK (2015) mentioned the resulting total of 51 Australian species but listed only 50, probably omitting *D. zenta* THEISCHINGER, 1993 by accident.

Very recently, in 2017, on The Australian Museum's Lord Howe Island Expedition, a unique *Dolichopeza* male was collected. This specimen, the first record of the genus from Lord Howe Island, was found to be of an undescribed species. Below this 52nd Australian species of *Dolichopeza* is described as new and illustrated, and its affinities are discussed.

Material and methods

The material discussed here is housed at the Australian Museum, Sydney (AM) and the Australian National Insect Collection at CSIRO, Canberra (ANIC). The descriptive terminology follows COLLES & MCALPINE (1991) and THEISCHINGER (1993).

Systematics

Dolichopeza reidi nov.sp. (Figs 1-5)

Type material: Holotype ♂: LORD HOWE IS (=Australia, NSW, Lord Howe Island), Lidgbird, E shelf 31:33.826S 159:05.271E 486 m FIT/malaise; 9-16.ii.2017, C. Reid LHI2017Feb16_C62; Australian Museum K377386 (AM).

Description:

Male (Figs 1-5)

Head. Largely pale greyish brown, including rostrum, basal segments of palpus and scape; distal segment of palpus, pedicel, flagellum and vertex medium to blackish grey.

Thorax. Anterior pronotum and propleuron blackish grey, posterior pronotum pale yellow. Tergites of synthorax yellowish to dark grey; pleura largely pale greyish to yellowish white with two black longitudinal stripes, one extending between mesopleuron and mesopostphragma just ventral to wing base and halter base, the other from base of procoxa across part of the ventral portion of sternopleuron and base of mesocoxa into meron. Legs with coxae and throchanters dull yellowish white with dark markings in pro- and mesocoxa (as mentioned above), with femora pale to dark grey with apex dull yellowish white, with tibiae dull yellowish white at extreme base and otherwise dark to pale grey with approximately apical 1/4 of pro- and mesotibia and approximately apical 1/2 of metatibia dull yellowish white, and with tarsi grey in basal 1/3 to 1/2, pale greyish to yellowish white in the remainder.

Wings (Fig. 1). Membrane tinged with pale brownish grey; venation and pterostigma blackish grey. Halter with stem and knob dark grey.



Figs 1: *Dolichopeza reidi* nov.sp., male, wings, body and part of legs, dorsal.

Abdomen (Fig. 1). Tergite 1 blackish grey with pair of small ill-defined whitish yellow lateral patches; tergite 2 largely blackish grey with pair of narrow pale lateral patches in anterior 3/5 and pair of broad pale dorso-lateral patches in posterior 2/5; tergites 3-7 dull whitish to brownish yellow with base and apex greyish black and connected trapezoidally along midline, this connection narrow in tergite 3, wider and ill-defined in tergites 4 and 5, wide and better defined in tergite 6 and very wide and well-defined in tergite 7; tergite 8 almost completely black; tergite 9 greyish to brownish yellow with only apical lobes black. Sternites pale to dark greyish yellow.

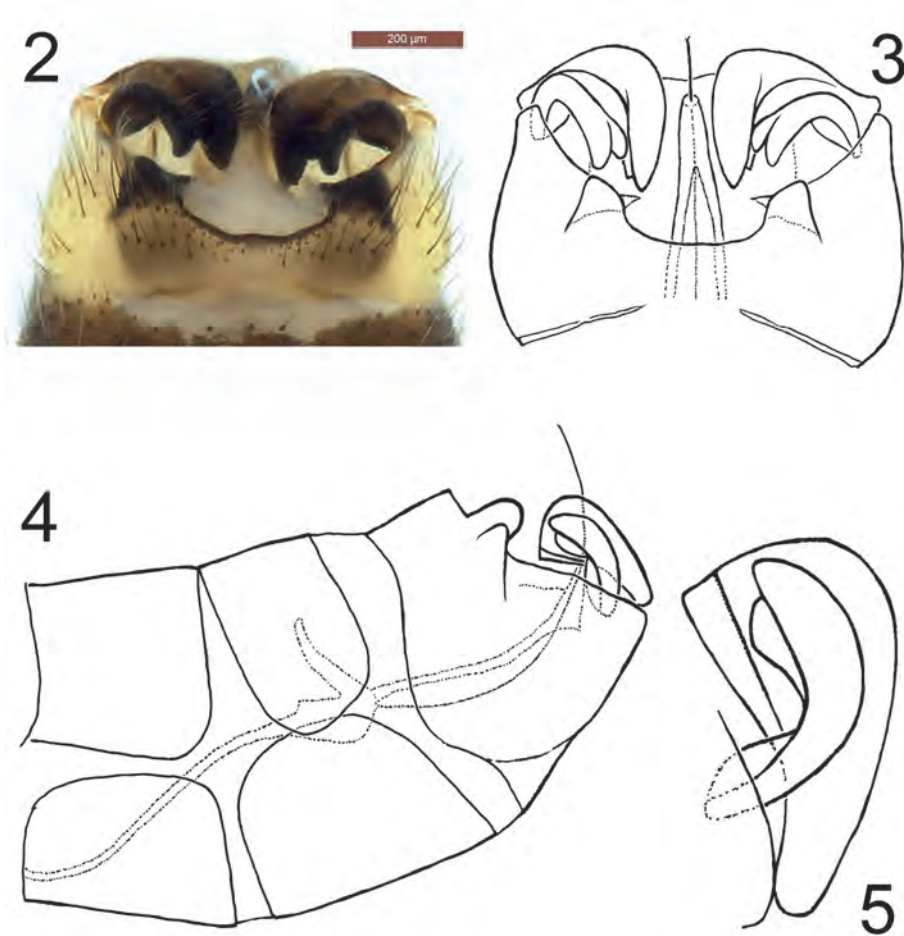
Genitalia (Figs 2-5). Tergite 9 distinctly bilobed; outer gonostylus bifid; inner gonostylus apically distinctly enlarged; aedeagus long, thin, tubular with curvature not rigid and apex not profoundly bifid, ad-

miniculum well developed; sternite 9 not produced into distinct pair of lobes.

D i m e n s i o n s . Wing length 9.3 mm; body length 9.0 mm.

Female unknown.

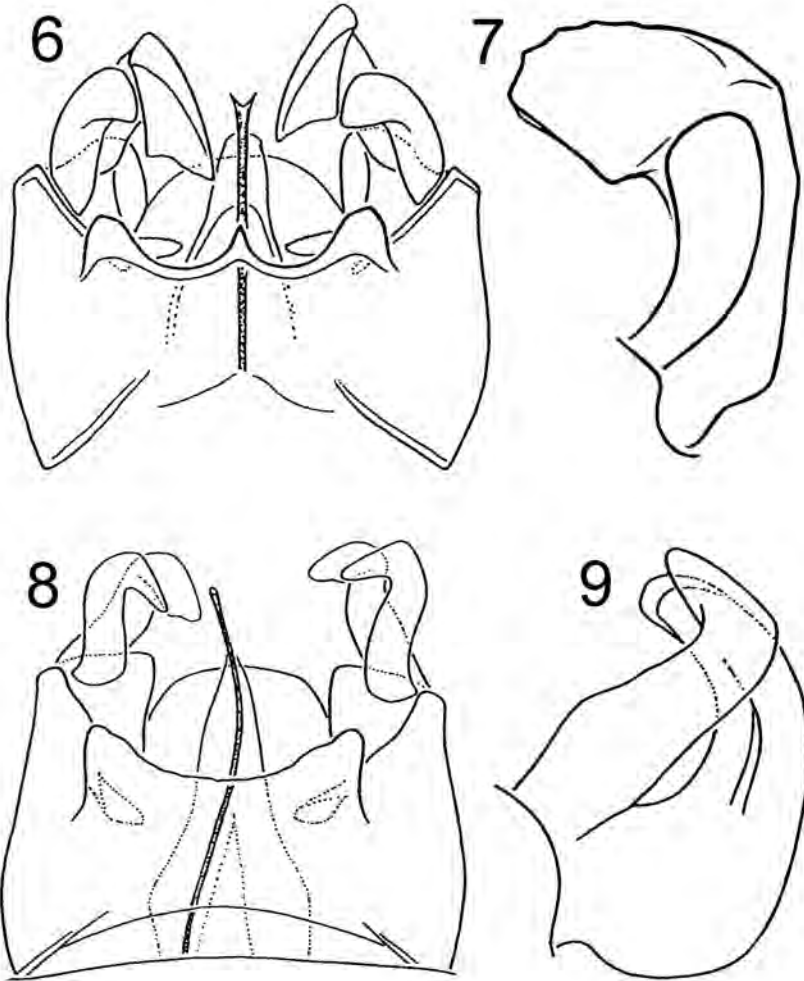
E t y m o l o g y . The species is dedicated to its collector Dr. Chris Reid (Australian Museum).



Figs 2-5: *Dolichozepea reidi* nov.sp., male: (2, 3) hypopygium, dorsal; (4) posterior abdominal segments, lateral; (5) left gonostyli, lateral.

Discussion

Male characters and character states like outer gonostylus not flattened and smaller than inner gonostylus; aedeagus long, thin, tubular with curvature not rigid and apex not profoundly bifid, adminiculum well developed and sternite 9 not produced into distinct pair



Figs 6-9: *Dolichopeza* spp., males: (6, 7) *D. dorrigenis* ALEXANDER: (6) hypopygium, dorsal; (7) left gonostyli, lateral; (8, 9) *D. bickeli* THEISCHINGER: (8) hypopygium, dorsal; (9) left gonostyli, lateral.

of lobes, place *Dolichopeza reidi* nov.sp. in the *D. annulipes* group of THEISCHINGER (1993). This group includes now *D. annulipes* SKUSE, *D. bickeli* THEISCHINGER, *D. dorrigenis* ALEXANDER, *D. geometrica* THEISCHINGER, *D. kurandensis* ALEXANDER, *D. monticola* SKUSE, *D. oresitropha* ALEXANDER, *D. reidi* THEISCHINGER, *D. spetai* THEISCHINGER, *D. subannulipes* ALEXANDER and *D. tropica* THEISCHINGER. The male of *Dolichopeza reidi* (Figs 1-5) can be distinguished from the other species of the *D. annulipes* group by the very distinctly and strongly bilobed tergite 9 (Figs 2, 3), the bifid outer gonostylus and the apically markedly enlarged inner gonostylus (Fig. 5). It shares the - even though less distinctly - bilobed tergite 9 with *D. annulipes*, *D. bickeli*, *D.*

geometrica, *D. subannulipes* and *D. tropica* and the apically markedly enlarged inner gonostylus with only *D. dorrigenensis*, whereas the bifid outer gonostylus is apparently unique to *D. reidi*. In spite of its trifid tergite 9 (Fig. 6) *D. dorrigenensis* which has the side lobes of tergite 9 very strongly developed, appears, ahead of *D. bickeli* which does not have an apically enlarged inner gonostylus (Fig. 9), to be the closest ally of *D. reidi*. It is not surprising that the apparently closest allies of the new, possibly endemic island species are two species sharing or including the same latitudinal distribution on mainland Australia.

Acknowledgements

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Zusammenfassung

In vorliegender Arbeit wird das Männchen von *Dolichocheza reidi* nov.sp. (Diptera: Tipulidae) von Lord Howe Island, New South Wales, Australien, beschrieben. Es ist dies die erste *Dolichocheza* Art von Lord Howe Island. Die neue Art wird mit ihren möglicherweise nächsten Verwandten *D. dorrigenensis* ALEXANDER and *D. bickeli* THEISCHINGER verglichen.

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