

The New Zealand native bee *Leioproctus (Leioproctus) otautahi* Donovan (Hymenoptera: Apoidea: Colletidae) is synonymous with *Leioproctus (Leioproctus) launcestonensis* (Cockerell) from Australia.

BARRY J. DONOVAN¹, GLYNN V. MAYNARD².

¹Donovan Scientific Insect Research, Private Bag 4704, Christchurch, New Zealand. Ph. 64 3 3256400, Fax 64 3 3252074.

E-mail: barry.donovan@plantandfood.co.nz

²Glynn V. Maynard, Australian Government Department of Agriculture, Fisheries and Forestry, GPO Box 858, Canberra, Australia.

ABSTRACT

Morphological comparison of the New Zealand holotype male of the colletid bee *Leioproctus (Leioproctus) otautahi* with a male of *Leioproctus (Leioproctus) launcestonensis* from Australia shows that the two are conspecific. Hence this is a new synonymy, with *L. (L.) launcestonensis* having priority. Because no further specimens are known from New Zealand since the collection of the single male 50 years ago, the species is almost certainly not established, and the number of species of *Leioproctus* known from New Zealand is reduced by one to 17.

KEYWORDS

Leioproctus (Leioproctus) otautahi, New Zealand, native bee, *L. (L.) launcestonensis*, Australia, new synonymy.

INTRODUCTION

Leioproctus (Leioproctus) otautahi Donovan was described from one male from Christchurch Mid Canterbury, New Zealand, collected by E. S. Gourlay, 16-18 December 1959 (Donovan 2007). The male is unworn, and because of characters that differ from those of all other New Zealand species of *Leioproctus* such as tessellation over the entire clypeus and supraclypeus, the relatively short scape, the golden orange-yellow coloration of the tegula and wing base, the large size of the basal surface of the propodeal triangle compared to the posterior surface, and the form of the 7th metasomal sternum, it was thought that nevertheless the species probably belonged to the subgenus *Leioproctus*, or if not, to a different subgenus found in Australia. From the description, Glynn Maynard (who has revised most of the Australian *Leioproctus*, but yet has to publish this work) recognised that the characters of *L. otautahi* matched those of *L. launcestonensis*, which was described as *Paracolletes launcestonensis* from Tasmania by Cockerell (1914).

COMPARATIVE MORPHOLOGY

A comparison of the New Zealand specimen with a male from Cement Creek, Victoria, Australia, taken on 31 January 1953 by an unnamed collector, and identified by Glynn Maynard as *Leioproctus launcestonensis*, shows that the two are conspecific, although the tessellation of the clypeus of the Australian bee is a little less obvious and is absent from the lower third of the clypeus. The vestiture is matted throughout but otherwise appears similar to that of the New Zealand specimen.

The specifically distinctive spines on the apical lobes of the 7th metasomal tergum of the New Zealand specimen were said by Donovan (2007) to number five on each lobe, but on re-examination one lobe has four. The lobes of the Australian specimen have just three spines each, but the base of a 4th spine is visible on both, which indicates that spines can be easily broken off.

The holotype female of *L. (L.) launcestonensis* was collected by F. M. Littler at Launceston, Tasmania, on 25 January 1914 (Cockerell 1914), and is number 17a 185 in the Natural History Museum, London. A female examined by us which has the same collection data except that it was taken on 18 January 1914, has similar clypeal tessellation to the male from Cement Creek, Victoria. Two other females of *L. (L.) launcestonensis*, one with the same collection data as the male we examined from Victoria from the collection of A. N. Burns, and one from Cheltenham, New South Wales on 10 January 1950, are conspecific with the female from Tasmania.

BIBLIOGRAPHY AND SYNONYMY

Leioproctus (Leioproctus) launcestonensis (Cockerell)

Paracolletes launcestonensis Cockerell, 1914: 305 (description of female). ---- 1934: 13, 15 (key), 28 (brief description of female).

Leioproctus (Leioproctus) launcestonensis (Cockerell): Michener, 1965: 51 (new combination). Maynard, 1992: 94, 95 (key), 99-100 (description), 108

(drawing of male genitalia), 109 (distribution). Cardale, 1993: 27 (list, catalogue data, distribution, references).

Leioproctus (Leioproctus) otautahi Donovan, 2007: 37 (key to male in New Zealand), 59-60 (description of one male from Christchurch, New Zealand), 202 (photographs of holotype), 240 (drawings of holotype), 276 (map of distribution in New Zealand).

New synonymy. Apart from collection dates and localities, there are no biological data.

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Maynard G.V. 1992. Systematic studies on Australian *Leioproctus* Smith (Hymenoptera: Colletidae). PhD thesis, University of Queensland, Brisbane, 429 pp.

DISCUSSION

If females were to be found in New Zealand, the clypeal tessellation character alone separates this species from the females of all other species of *Leioproctus* in New Zealand. An even more definitive character is that the inner metatibial spur of females from Australia has about 11 moderately spaced, medium length teeth (Maynard 1992), whereas the inner metatibial spurs of females of all New Zealand species are ciliate (Donovan 2007).

In Australia *L. (L.) launcestonensis* has been collected from Tasmania, NE coastal and SE coastal Queensland, New South Wales and Victoria (Maynard 1992, Cardale 1993). The means by which a sole male of this ground-nesting bee occurred in Christchurch 50 years ago can only be speculated on. A relative of Mr. E. S. Gourlay said that to his knowledge, Mr. Gourlay never collected in Australia, so mis-labelling seems unlikely. The lack of any other specimens during half a century suggests that the species is not established in New Zealand. If this is true, the number of species of *Leioproctus* known to occur in New Zealand is reduced by one to 17, all of which are endemic, and the total number of species of bees from the New Zealand subregion is reduced to 40.

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