

SUPPLEMENTARY ADDITIONS TO A RECENT CLASSIFICATION OF *DACUS* FABRICIUS (DIPTERA: TEPHRITIDAE: DACINAE), WITH NOTES ON THE *D. (NEODACUS) NEWMANI* GROUP

D.L. HANCOCK

PO Box 2464, Cairns, Qld 4870

Abstract

Seventeen newly described species of Afrotropical *Dacus* Fabricius are placed within a classification proposed for all species. In addition, variation within the species of the *Dacus* (*Neodacus*) *newmani* group in Australia is discussed.

Introduction

Increasing interest in molecular studies within the genus *Dacus* Fabricius (e.g. Virgilio *et al.* 2009) has demonstrated the continued need for up-to-date morphological classifications with which they can be compared. A recent paper by White and Goodger (2009), describing seventeen new taxa from Africa, appeared too late to be included in the update to the classification of Hancock and Drew (2006) provided by Hancock (2009). Accordingly, this supplement assigns these new species within that classification (Table 1), as an alternative to that of White (2006). It is hoped that further molecular studies will shed light on which, if either, of these current morphological classifications is best supported. Notes on variation within the Australian *Dacus* (*Neodacus*) *newmani* group of species are also provided, and their distributions summarised.

Table 1. Placement of newly described Afrotropical species of *Dacus* according to the classification of Hancock and Drew (2006). Note: W & G = White & Goodger.

As currently described	Suggested placement
<i>D. (Ambitidacus) luteovittatus</i> W & G	<i>D. (Dacus) fasciolatus</i> group
<i>D. (Ambitidacus) pseudomirificus</i> W & G	<i>D. (Leptoxyda) mirificus</i> group
<i>D. (Didacus) abruptus</i> W & G	<i>D. (Didacus) ciliatus</i> group
<i>D. (Didacus) albiseta</i> W & G	<i>D. (Psilodacus) mulgens</i> group
<i>D. (Didacus) insolitus</i> W & G	<i>D. (Psilodacus) mulgens</i> group
<i>D. (Leptoxyda) brunnalis</i> W & G	<i>D. (Mictodacus) lounsburyi</i> group
<i>D. (Leptoxyda) velutifrons</i> W & G	<i>D. (Leptoxyda) velutifrons</i> group
<i>D. (Leptoxyda) yaromi</i> W & G	<i>D. (Leptoxyda) eminus</i> group
<i>D. (Lophodacus) acutus</i> W & G	<i>D. (Psilodacus) brevis</i> group
<i>D. (Lophodacus) kurrensis</i> W & G	<i>D. (Psilodacus) binotatus</i> group
<i>D. (Lophodacus) magnificus</i> W & G	<i>D. (Leptoxyda) marshalli</i> group
<i>D. (Lophodacus) pseudapostata</i> W & G	<i>D. (Didacus) scaber</i> group
<i>D. (Lophodacus) senegalensis</i> W & G	<i>D. (Psilodacus) brevis</i> group
<i>D. (Lophodacus) transversalis</i> W & G	<i>D. (Didacus) scaber</i> group
<i>D. (Lophodacus) xanthinus</i> W & G	<i>D. (Psilodacus) brevis</i> group
<i>D. (Psilodacus) kaplanae</i> W & G	<i>D. (Leptoxyda) sphaerostigma</i> group
<i>D. (Psilodacus) vestigivittatus</i> W & G	<i>D. (Mictodacus) langi</i> group

The *Dacus* (*Neodacus*) *newmani* group

This group includes three Australian species (Hancock and Drew 2006): *D. bellulus* Drew & Hancock, *D. newmani* (Perkins) and *D. signatifrons* (May). *Dacus bellulus* is typically a Cape York Peninsula, Torres Strait islands and coastal Northern Territory species with distinct facial spots and no medial postsutural yellow spot on the scutum; however, occasional specimens occur which lack facial spots (e.g. Coen, Pormpuraaw) or have the scutal spot present (e.g. Horn Island). *Dacus newmani* is widespread in semi-arid regions of Australia west of the Great Dividing Range (excluding Cape York Peninsula) and typically has no facial spots and a distinct scutal spot; however, occasional specimens lacking the scutal spot occur (e.g. Blackwater, Qld). *Dacus signatifrons* is a coastal SE Queensland species (known as far north as Maryborough) which typically has a broader costal band, larger facial spots and no scutal spot; however, occasional specimens with a small scutal spot occur (e.g. Brisbane).

Along the east coast of Queensland, from Cairns to Bundaberg, specimens matching both typical *D. bellulus* and typical *D. newmani* occur, together with intermediates (both facial and scutal spots; no or reduced facial spots plus no or vestigial scutal spot), often with all variations occurring at the same locality (e.g. in Mackay). This suggests that a contact or hybrid zone exists along the Queensland coast east of the Great Dividing Range, with the result that specimens from this area cannot be reliably identified.

Specimens examined are in the collections of Queensland Primary Industries and Fisheries (QPIF) or Australian Quarantine and Inspection Service (AQIS), both located in Cairns.

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