

Taxonomic Status of *Delias aestiva smithersi* Daniels, 2012 (Lepidoptera: Pieridae) comb. nov. from the Gulf Country of Northern Australia, with Description of the Female

MICHAEL F. BRABY

Department of Land Resource Management, PO Box 496, Palmerston NT 0831, Australia; and
Research School of Biology, The Australian National University, Canberra ACT 0200, Australia
michael.braby@nt.gov.au

ABSTRACT. The female of *Delias aestiva smithersi* Daniels, 2012 comb. nov. from northern Australia is illustrated and described for the first time. The subspecies is diagnosed and its taxonomic status clarified. Several unique character states concerning wing colour pattern elements of *D. aestiva smithersi*, together with evidence of the male genitalia, support the hypothesis that the subspecies belongs to *D. aestiva* Butler, 1897 and not to *D. mysis* (Fabricius, 1775). The taxon appears to have a restricted geographical range, being limited to the eastern Gulf of Carpentaria on the western side of Cape York Peninsula, Queensland (from Weipa to Karumba), where it occurs in mangrove habitats in coastal lowland areas. *Delias aestiva smithersi* and the nominate subspecies, *D. aestiva aestiva* Butler, 1897 from the “Top End”, Northern Territory, are allopatric and geographically separated by the Gulf of Carpentaria, suggesting that this biogeographical barrier (the Carpentarian Gap) has facilitated differentiation within the species, either through vicariance or dispersal.

BRABY, MICHAEL F. 2014. Taxonomic status of *Delias aestiva smithersi* Daniels, 2012 (Lepidoptera: Pieridae) comb. nov. from the Gulf Country of northern Australia, with description of the female. *Records of the Australian Museum* 66(5): 241–246.

The *Delias mysis* (Fabricius, 1775) complex is restricted to mainland New Guinea and its adjacent islands, through the Aru Islands to northern and north-eastern Australia (Talbot, 1928–1937; Yagishita *et al.*, 1993). The complex currently includes five largely allopatric species (Davenport & van Mastrigt, 2009; Braby, 2012), namely: (1) *D. mysis*, with three subspecies (from Aru Islands, through south-eastern West Papua of mainland New Guinea to northeastern Australia); (2) *D. lara* (Boisduval, 1836), with five subspecies (throughout mainland New Guinea and its adjacent islands); (3) *D. doylei* Sanford & Bennett, 1955 (montane areas of the central cordillera of Papua New Guinea); (4) *D. euphemia* Grose-Smith, 1894 (Biak and Supiori); and (5) *D. aestiva* Butler, 1897 (coastal areas of the

‘Top End’ of northern Australia). The last mentioned species, *D. aestiva*, is perhaps the most remarkable member of the complex, and indeed the genus, because of its unusual, and apparently unique, occurrence in tropical mangrove habitats where the larvae specialise on foliage of the tree *Excoecaria* (Euphorbiaceae) (Braby, 2012) rather than the typical aerial/root hemiparasites in the Loranthaceae, Santalaceae and Viscaceae (Braby, 2006).

More recently, specimens belonging to the *D. mysis* complex have been discovered from western Cape York Peninsula in the Gulf of Carpentaria of northern Australia, including Weipa (Braby, 2000; Hancock & Monteith, 2004), Kowanyama and Karumba, Queensland (Daniels, 2012). Specimens (3♂♂) from the last two mentioned locations