

THE PREVIOUSLY UNKNOWN FEMALE OF *DELIAS ALBERTI TETAMBA* ARORA, (LEPIDOPTERA: PIERIDAE)

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The Pierid genus *Delias* Hübner [1819] contains a large number of brightly coloured butterflies, many of which have become well adapted to montane habitats. The genus reaches its easternmost distribution in the Solomon Islands, where four species are known. Three of these species, *D. schoenbergi* Rothschild, 1895, *D. alberti* Rothschild, 1904, and *D. messalina* Arora, 1983, are endemic to the Solomon Islands and Bougainville; *D. lytaea* Godman & Salvin, 1878, is also known from New Britain and New Ireland. A review of Solomons *Delias* was provided by Arora (1983).

Delias alberti was described from Choiseul island, with two new subspecies, *guava* and *tetamba*, described by Arora in 1983, from Bougainville and Santa Isabel respectively, based on specimens collected by the Royal Society Expedition to the Solomon Islands in 1965. Arora also described *D. messalina orientalis* from Santa Isabel and Guadalcanal, from Royal Society Expedition material.

The type locality of both *alberti tetamba* and *messalina orientalis* is Santa Isabel, where 8 males of the former and 1 male and 2 females of the latter were collected, apparently by native collectors, in village gardens at Tatamba, on the south-east coast of the island (Arora, 1983: 23). A third female of *D. messalina orientalis* was taken on or near the summit of Mount Popomanaseu, Guadalcanal, also by the Royal Society Expedition. So far as is known, no further material of either taxon has been obtained since the Royal Society Expedition and the female of *D. alberti tetamba* remained unknown.

In 1996, the author led an expedition to Mount Popomanaseu, Guadalcanal, in an unsuccessful attempt to find the unknown male of the Danaine butterfly *Tiradelphe schneideri* Ackery & Vane-Wright, 1984 (Tennent, 1996; 1998). A series of both sexes of *D. messalina orientalis* and *D. alberti tetamba* was obtained and the female of the latter is described and illustrated (Plate No. IV, Figs 7, 8) for the first time. Specimens have been deposited at The Natural History Museum, London.

DESCRIPTION

Females of *alberti guava* and *alberti alberti* are morphologically quite different (Arora, 1983). The female of *alberti tetamba* is intermediate, in that it resembles the former on the upper surface and the latter underneath. On the upperside, the basal and discal areas of both fore and hind wings are pale greenish-yellow in *guava*; in *tetamba*, this area is bright lemon-yellow on the hind wing and restricted to a few basal scales of the same colour on the fore wing. Sub-apical markings are white in *guava* and yellow in *tetamba*.

The underside resembles that of *alberti alberti*, a major difference between them being the discal and basal areas of the forewing, which are white, tinged with pale yellow in the cell in *alberti* and bright yellow in *tetamba*.

Arora (1983) presented couplets to incorporate new taxa in keys provided by Talbot in his generic revision of *Delias* (Talbot, 1928–1937), including the male of *alberti tetamba*. The following modification to Talbot's key (Talbot, 1928–1937: 17) will allow inclusion of the female:

Section 1A

- 38 Hindwing below with distal border reaching the costa 38a
- Hindwing below with distal border not reaching costa;
anal area with orange suffusion *multicolor*
- Hindwing below with distal border not reaching costa;
anal area without orange suffusion. Forewing below with
the two anterior apical spots yellow *sacha*
- 38a Hindwing below with yellow discal spot small and not
extending to wing base; submarginal orange spots small *alberti guava*
- Hindwing below with yellow discal area extending to wing
base; submarginal orange spots large. 38b
- 38b Wings above with submarginal markings white, large,
wedge-shaped *alberti alberti*
- Wings above with submarginal markings yellow, vestigial,
streaked *alberti tetamba*

DISCUSSION

The author stayed at Tatamba for several days in March 1997 in the hope of finding *D. alberti tetamba* but, despite a search of open and forested areas in the gardens of Tatamba and nearby Hukamoto villages, the only *Delias* specimen seen was a fresh male *Delias schoenbergi isabellae* Rothschild & Jordan, 1901.

It is remarkable that both *D. messalina orientalis* and *D. alberti tetamba* occur at sea level on Santa Isabel in disturbed cultivated habitat in secondary growth, and in a montane forest habitat between 1200 m and 2330 m on Guadalcanal, some 60 kilometres distant, without apparently occurring anywhere in between. Recent field work suggests that the butterfly fauna of the Solomon Islands is poorly known, although it may be said that a *Delias* occurring as a lowland (i.e. coastal) species on Guadalcanal, or on the western part of Florida, would be unlikely to have escaped attention.

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SHORT COMMUNICATION

A nest of the wasp *Odynerus spinipes* (L.) (Hymenoptera: Eumenidae) robbed by *Lasius niger* (L.) ants.—On a brief visit to Crow Wood and Meadow, a wildlife reserve of the Herefordshire Wildlife Trust at Turnastone, Herefordshire, SO340359, with a party from the Dipterists Forum and the Bees, Wasps and Ants Recording Society on 13.vi.1997, I came upon an active colony of the eumenid wasp *Odynerus spinipes* (L.) nesting in a floodcut vertical bank in alluvium above a small stream. The rubytailed wasps *Pseudospinolia neglecta* (Shuckard) and *Chrysis viridula* L. were active about the bank.

One wasp was seen affixing a pellet of wet mud to the latticework of the downwardly-curved 'chimney' outside its burrow, but there was no time to study the origin of the material used. Returning wasps entered their burrows directly, so that it would have been possible to photograph them only by selecting one burrow and waiting for its owner to return. Just one wasp got no further than putting its head and thorax into its chimney and then backed away, repeating this and finally sitting outside its nest on the vertical bank. The explanation became apparent after a minute or so, when a *Lasius niger* (L.) ant appeared from between the soil lattice of the chimney (Plate IV). Other ants emerged, then one carried a green weevil larva with which the nest had been provisioned. The wasp just sat and watched. Soon a trail of ants co-operated to carry off six weevil larvae in quick succession, 20 cm. up the bank to a hole resembling a wasp burrow that had lost its chimney. Some of the prey were removed between the network of mud particles of the chimney.

The ants had presumably gained access to the nest without having had to climb down the outside of the chimney and through its apical opening, as they would have to do in the case of the more solid-walled chimneys of *Odynerus reniformis* (Gmelin). What advantage the wasps gained by their flimsy construction I was unable to discover without being left behind to face the next shower beneath an even flimsier cover of leaves.

Other aculeates at this bank were: *Crossocerus megacephalus* (Rossius), *Dipogon variegatus* (L.), *Lasioglossum leucozonium* (Schrank) and *L. rufitarse* (Zett.), all females.—R. W. J. UFFEN, 4 Mardley Avenue, Welwyn, Herts. AL6 0UD.



Tennent, John. 1998. "The previously unknown female of *Delias alberti* tetamba Arora, (Lepidoptera: Pieridae)." *British journal of entomology and natural history* 11, 69–71.

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