

## A new *Jamides* HÜBNER, 1819 from the islands of North Maluku, Indonesia (Lepidoptera: Lycaenidae)

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**Abstract:** *Jamides titei* sp. n. is described from the North Moluccan islands, Indonesia. Nominate *J. titei* is described from Halmahera and Morotai; *J. t. pseudocyta* ssp. n. from Bacan and Mandioli. Provenance of material of the latter taxon labelled as being from the island of Obi is questioned. Male holotypes of both taxa are deposited in BMNH, London. *J. cyta amphissa* FELDER & FELDER, 1860 (Bacan) is illustrated for comparison.

**Keywords:** Lepidoptera, Lycaenidae, *Jamides*, new taxa, *titei*, *pseudocyta*, Indonesia, Maluku.

### Ein neuer *Jamides* HÜBNER, 1819 von den nördlichen Molukkeninseln, Indonesien (Lepidoptera: Lycaenidae)

**Zusammenfassung:** Die neue Art *Jamides titei* sp. n. wird von den nördlichen Molukkeninseln, Indonesien, beschrieben. Die nominotypische *J. titei* ist bekannt von Halmahera und Morotai; die Subspezies *J. t. pseudocyta* ssp. n. kommt

von Bacan und Mandioli. Etikettenangaben für *pseudocyta* von der Insel Obi sind fraglich. Die männlichen Holotypen beider Taxa befinden sich im BMNH, London. *J. cyta amphissa* FELDER & FELDER, 1860 von Bacan wird zum Vergleich mit abgebildet.

### Introduction

The polyommatine lycaenid genus *Jamides* HÜBNER, 1819, is a large Oriental, Australian and Pacific genus of 60+ species. It contains some complex species groups presenting some fundamental identification difficulties, and has never been revised systematically (HIROWATARI 1992). Although more than 60 species have been described, there is little doubt that others await discovery or description (VANE-WRIGHT & DE JONG 2003).



**Figs. 1–11:** *Jamides titei* sp. n. — **Figs. 1–7:** *Jamides titei titei* ssp. n. **Figs. 1–2:** ♂ holotype, 1: upperside (ups.), 2: underside (uns.). **Figs. 3–4:** ♀ paratype, 3: ups., 4: uns. **Figs. 5–7:** ♂ paratype, genitalia; 5: phallus removed, lateral view, rotated slightly to show valve features; 6: valvae, dorsal view; 7: phallus. — **Figs. 8–11:** *Jamides titei pseudocyta* ssp. n. **Figs. 8–9:** ♂ holotype, 8: ups., 9: uns. **Figs. 10–11:** ♀ paratype, 10: ups., 11: uns. — **Figs. 12–15:** *Jamides cyta amphissa*. **Fig. 12–13:** ♂ (Bacan), 12: ups., 13: uns. **Figs. 14–15:** ♀ (Bacan), 14: ups., 15: uns. — Specimens not exactly to the same size; scale bars (where present) = 1 cm.

In examining species of *Jamides* HÜBNER, 1819 in the Natural History Museum (BMNH), London, two apparently undescribed taxa from the islands of North Maluku, Indonesia were seen in association with a handwritten note: “sp. n.? No ♂ genitalia. to await further specimens. ssp. A: ♀ with white patch on f. w. below – Obi, & Batchian. ssp. B: ♀ without white patch. Halmahera?”. The note was written by lycaenid specialist G. E. TITE (1904–1987) who reviewed and revised a number of lycaenid butterfly groups during his employment at the BMNH (TITE 1959, 1960, 1963a, b, 1966 etc.).

As TITE noted, the short series comprised two distinct phenotypes and, although both sexes of both phenotypes were and are present in the Museum (for details, see below), the series includes only one ♂ of each and neither has an abdomen. Further material of these distinctive butterflies has since been received by the second author, including intact males of each form and specimens from adjacent islands. These have been dissected and found to represent, as TITE correctly believed, forms of an undescribed *Jamides* species, which we place with the *J. cyta* BOISDUVAL, 1832 species-group, one from Halmahera and Morotai; the other from Bacan and Mandioli. The presence of *J. titei* on the island of Obi, claimed on accompanying individual data labels and on TITE’s note, seems rather unlikely (see discussion).

### *Jamides titei* sp. n.

(Figs. 1–7)

**Holotype** ♂: Indonesia, S[outh] E[ast] Halmahera [Halmahera], Patani, December 1929 (F. SHAW-MAYER), ROTHSCHILD bequest B.M. 1939-1 (BMNH).

**Paratypes** (in total 2 ♂♂, 4 ♀♀): 1 ♂, Halmahera, Baru, iv. 2002 (JT gen. prep. [GP] 863); 2 ♀♀, Halmahera [Halmahera] / JOICEY bequest Brit. Mus. 1934-120; 1 ♀, Halmahera [Halmahera], viii. 1892, W. DOHERTY / ex coll. Hamilton DRUCE, 1919 / JOICEY bequest Brit. Mus. 1934-120; 1 ♀, Gilolo [Halmahera] s[outh], / HEWITSON coll. 79-69 / *Lycaena cyta* (all BMNH). 1 ♂, Morotai, Daeo, viii. 2003 (coll. RAWLINS).

**Etymology:** Named for the late Gerald Edward TITE, who did much work on Pacific lycaenid butterflies, and who recognised the presence of this undescribed taxon in the Moluccas.

**Diagnosis:** Male fwl 22 mm (holotype). Upperside (ups) very similar to *J. cyta amphissa* FELDER & FELDER, 1860, which occurs on both Halmahera and Bacan; slightly paler, shining silvery blue; hindwing submarginal dark brown spot in space 2 large, round, prominent; smaller submarginal spots present in spaces 3–5, more diffuse, largely overlaid with pale blue scales basad; subternal pale irregular mark, bordered brown; underside very similar to *J. cyta amphissa*, ground colour dark brown, with typical *Jamides* arrangement of white lines; forewing with series of white submarginal markings broken by veins; a second row distinctly sagittate; a third, postmedian series less so; median markings comprised of double series of discrete marks, forming broken “tram lines”; the pair nearest inner margin curved or angled (unlike most other *Jamides* species); hindwing similar to *J. cyta amphissa* and other *Jamides* species (e.g., *J.*

*aetherialis* BUTLER, 1884), with postmedian series of dark brown spots large and prominent; orange markings extensive, centred basad of large spot in space 2 (orange extended in *J. cyta* to form irregular line).

Male genitalia distinctive (Fig. 5), typical lycaenid, but unlike other *Jamides* species; vinculum narrow, sharply curved; valve large, with simple, blunt, costal process; posterior of valve slightly thickened. Female upperside similar in all significant respects to that of *J. cyta amphissa*, dark borders extensive, basal areas pale silvery blue; underside forewing like male, white markings larger, more extensive; pair of postmedian white markings nearest inner margin large, inner mark poorly defined, appearing “smudged” (present on all females examined, not observed on any female of *J. cyta* examined); hindwing similar to male.

**Distribution:** Halmahera and Morotai.

### *Jamides titei pseudocyta* ssp. n.

(Figs. 8–11)

**Holotype** ♂: Indonesia, Batchian [Bacan], Mar[ch] 1892, W. DOHERTY / ROTHSCHILD bequest B.M. 1939-1 (BMNH).

**Paratypes** (in total 1 ♂, 5 ♀♀): 1 ♂, Bacan, Makian, 9. xi. 2006 (JT GP 862). 1 ♀, same data as holotype. 1 ♀, Batchian [Bacan] / JOICEY bequest Brit. Mus. 1934-120 (all BMNH). 1 ♀, Bacan, south slopes of Mount Sibela, 5 km south of Makian, 500–750 m, v. 2008 (coll. Stefan SCHRÖDER, Köln, Germany). 1 ♀, Bacan, v. 2005. 1 ♀, Mandioli, Waya, 11. xi. 2006 (coll. RAWLINS).

**Etymology:** The name *pseudocyta* is derived from the similarity between this subspecies and *Jamides cyta* forms outside Maluku.

**Diagnosis:** Male fwl 21 mm (holotype); ♂ probably indistinguishable from nominate *titei* on either surface; genitalia like nominate *titei*; ♀ upperside like nominate *titei*; underside forewing like nominate *titei* but with large white patch on inner margin extending through spaces 1a, 1b and 2 to base of discal pair of stripes, mostly overwhelming postmedian markings.

**Distribution:** Bacan and Mandioli. Specimens in the BMNH labelled as being from Obi are discounted (see discussion).

### Discussion

The prominent unh submarginal chevrons of *Jamides titei* bear some superficial resemblance to several other Indo-Pacific *Jamides* species, and the extensive underside hindwing orange tornal markings are reminiscent of *J. cyta* elsewhere in its range. The extensive white patch of ♀ *titei pseudocyta* also appears superficially similar to the ♀ of some races of *J. cyta*. Female phenotypes of *J. cyta* outside the Moluccas, from Sulawesi to the islands of Milne Bay Province, Papua New Guinea, typically have uppersides with narrower wing borders and extensive white markings dusted basally with pale silvery blue. It is interesting that *J. cyta amphissa* (Figs. 12–15) from the Moluccas has much darker uppersides than elsewhere

and that the upper surfaces of both sexes of *J. cyta amphissa* and *J. titei* are virtually indistinguishable from each other. Placement of the underside hindwing orange markings of both sexes of *J. titei*, the very distinctive underside forewing markings of the female, and the structure of the male genitalia of *J. titei* are diagnostic.

Within the Moluccas, *J. cyta amphissa* is known from Halmahera, Bacan, Ternate (BMNH), Morotai, Kasiruta and Mandioli (RAWLINS, unpublished data). *J. c. megdora* FRUHSTORFER, 1916, a very distinctive taxon, is restricted to its type locality, Obi. There are, in the BMNH, 5 ♂♂ and 1 ♀ typical *J. cyta amphissa* each labelled “Obi, ex J. WATERSTRADT 1904, ex OBERTHÜR Coll. Brit Mus. 1927-3” to which has been added a typed note by an unknown author: “Locality Incorrect. Probably”. Elsewhere in the Museum collections, there is a pair of typical *J. titei pseudocyta*, with identical data labels, which TITE accepted as being from Obi in his handwritten note (see introduction). Unless or until persuasive evidence is received to the contrary, the pair of *J. titei pseudocyta* said to be from Obi are regarded as being erroneously labelled – as the WATERSTRADT *J. cyta amphissa* specimens clearly are – and are not included in the type series.

It might be regarded as unusual that such a distinctive lycaenid taxon was overlooked by the likes of HEWITSON, DRUCE, ROTHSCHILD and JOICEY, through whose collections many of the available specimens have passed, and who between them described a large number of butterfly species in the late 19<sup>th</sup> and early 20<sup>th</sup> centuries. A superficial resemblance to *J. cyta*, and the fact that avail-

able material was spread throughout different collections until it was amalgamated in the BMNH and eventually collated by TITE, might account for *J. titei* being previously unrecognised.

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