

A new subspecies of *Nacaduba cyanea* (CRAMER, 1775) from Woodlark Island, Milne Bay Province, Papua New Guinea (Lepidoptera, Lycaenidae)

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Abstract: A new subspecies of *Nacaduba cyanea* (CRAMER, 1775), *Nacaduba cyanea murua* ssp. n., from the island of Woodlark, Milne Bay Province, Papua New Guinea, is described and illustrated.

Keywords: Lepidoptera, Lycaenidae, *Nacaduba*, new taxon, Papua New Guinea, Milne Bay Province, Woodlark Island.

Eine neue Unterart von *Nacaduba cyanea* (CRAMER, 1775) von der Insel Woodlark, Provinz Milne Bay, Papua-Neuguinea (Lepidoptera, Lycaenidae)

Zusammenfassung: Eine neue Unterart von *Nacaduba cyanea* (CRAMER, 1775), *Nacaduba cyanea murua* ssp. n., von der Insel Woodlark, Provinz Milne Bay, Papua-Neuguinea, wird beschrieben und abgebildet.

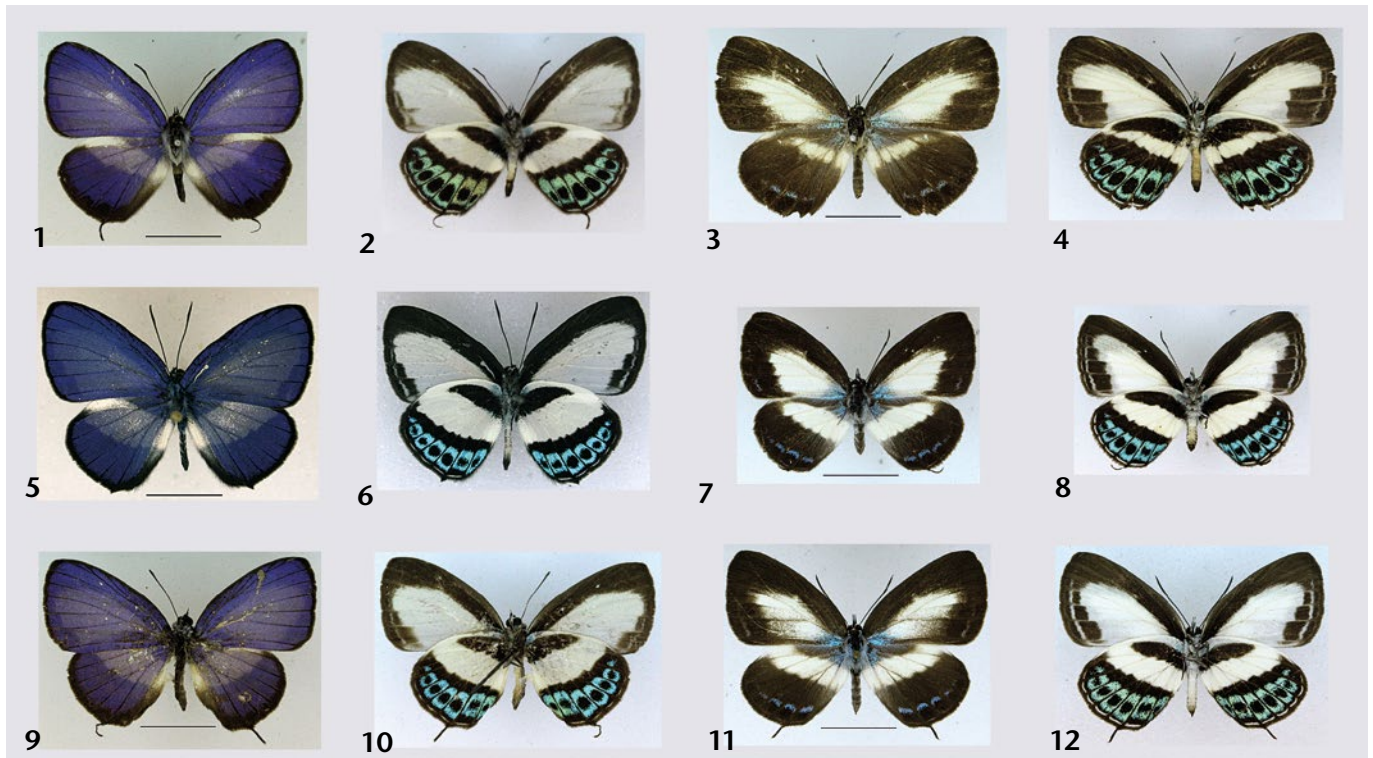
Introduction

The polyommataine lycaenid butterfly *Nacaduba cyanea* (CRAMER, 1775) occurs from the Indonesian islands of Flores and Tanimbar, through the Moluccas and New Guinea, to the Bismarck, Solomons and Louisiade archipelagos and northeastern Australia. PARSONS (1998: 425) recognised four subspecies of *N. cyanea* in Papua New Guinea: *N. c. epicoritus* BOISDUVAL, 1832 (type locality [TL]: “New Guinea”); = *stephani* GROSE SMITH & KIRBY, 1896; = *manto* GROSE SMITH & KIRBY, 1896; = *spherchius*

FELDER & FELDER, 1860; = *arinides* FRUHSTORFER, 1915); *N. c. rosselana* BETHUNE-BAKER, 1908 (TL: Rossel Island); *N. c. hamilcar* GROSE SMITH, 1894 (TL: New Britain; = *coroneia* FRUHSTORFER, 1915; = *intermedius* RIBBE, 1899; = *pseudochromia* RIBBE, 1899); and *N. c. chromia* DRUCE, 1891 (TL: Fauro, Shortland Island). The last is a distinctive form that occurs only in the Solomons Archipelago.

The author has carried out extensive fieldwork on the islands of Milne Bay Province, at the eastern end of New Guinea, where *N. cyanea* is generally encountered singly or in small numbers. The mainland form, *N. c. epicoritus*, which PARSONS (1998: 425) recorded from the D’Entrecasteaux islands and Woodlark, was also found to occur on islands of the western Louisiades – since these islands are in effect an extension of the central New Guinea cordillera, this was predictable. The most easterly race, *N. c. rosselana*, recorded only from the eastern Louisiade island of Rossel (PARSONS 1998: 425), and from Rossel and Sudest (TENNENT 2006: 44) was also found on islands of the Calvados chain, west of Sudest. Historical specimens from Misima were also found in the BMNH.

Further material collected on Woodlark Island, together with a series of two males and three females collected



Figs. 1–12: *Nacaduba cyanea* from the islands of Milne Bay, Papua New Guinea. — **Figs. 1–4:** *N. c. epicoritus* (Fergusson Island); 1: ♂ ups., 2: uns.; 3: ♀ ups., 4: uns. — **Figs. 5–8:** *N. c. rosselana* (5–6: Rossel Island, 7–8: Misima Island); 5: ♂ ups., 6: uns.; 7: ♀ ups., 8: uns. — **Figs. 9–12:** *N. c. murua* ssp. n. (Woodlark Island); 9: holotype ♂ ups., 10: uns.; 11: paratype ♀ ups., 12: uns. — Scale bars = 1 cm; i.e., specimens at approx. natural size; undersides less exactly matching natural size.

on Woodlark by BRANDT in 1957, now in the Australian National Insect Collection (ANIC), suggests that a distinct subspecies of *N. cyanea* occurs on that island.

Nacaduba cyanea murua ssp. n.

(Figs. 9–12.)

Holotype ♂: Papua New Guinea, Milne Bay Province, Woodlark Island, Woodlark, III./IV. [18]97, (A. S. MEEK) / Rothschild bequest B. M. 1939-1 (BMNH).

Paratypes (in total 4 ♂♂, 10 ♀♀): 3 ♀♀, same data as holotype. 1 ♂, 2 ♀♀, Woodlark, [18]95, (A. S. MEEK) / ROTHSCHILD bequest B.M. 1939-1. 1 ♀, Woodlark, MEEK, [18]95 / ROTHSCHILD bequest B.M. 1939-1. 1 ♀, Trobriands [sic], Woodlark I[island], A. S. MEEK, 99-32. 1 ♂, Papua New Guinea, Milne Bay Province, Woodlark Island (central), Kulumadau village and area, 60–100 m, 2. XII. 2010, John TENNENT (all BMNH). 2 ♂♂, 3 ♀♀, Woodlark Island, Kulumadau, 20. I.–6. V. 1957, W. W. BRANDT (Australian National Insect Collection, Canberra).

Etymology: Murua is a native name for Woodlark.

Diagnosis

Male forewing length (holotype) 18 mm; upperside like other subspecies of *N. cyanea*, forewing plain, dark blue (lacking the discoidal white scales usually present in *N. c. epicoritus*); marginal border narrow, brown; hindwing plain blue with filamentous tail at tornus (tails on Figs. 3–6 are missing); brown marginal border broader at tornus; underside forewing with broad white median band occupying most of inner margin, tapering to blunt point at subapex, leaving broad costal, apical and irregular postmedian dark border; hindwing white median band broad (broader in *N. c. rosselana*; narrower in *N. c. epicoritus*); basal black streak prominent (less extensive in *N. c. rosselana*); blue metallic submarginal spots angular, enclosing large, round, black spots (metallic markings blue-green, more extensive, less angular, spots elongated in *N. c. epicoritus*).

Female distinctive; forewing white band poorly defined, clouded with brown scales, especially along veins (more extensive, clear white in *N. c. rosselana*; distinctly shaped, with white area extending to submargin in *N. c. epicoritus*); hindwing white band prominently crossed by veins (very narrow in *N. c. epicoritus*); underside like other subspecies in region; forewing white band broad, clear (usually slightly narrower in *N. c. rosselana*; much narrower, sometimes incomplete in *N. c. epicoritus*).

Range: Woodlark Island, Papua New Guinea (Milne Bay Province).

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