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First report of a butterfly species *Yoma sabina vasuki* Doherty, 1886 (Lepidoptera: Nymphalidae) from Himalaya, mainland India

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Abstract

The present communication reveals the range extension of a butterfly species *Yoma sabina vasuki* Doherty, 1886 from the Islands to the Himalayas, mainland India for the first time. The information is based on the investigation of a historical specimen collected during the nineteenth century and is housed in the National Zoological Collection of Zoological Survey of India, Kolkata.

Keywords: Nymphalidae, *Yoma sabina*, distribution, Sikkim, India

Abbreviations

NZCZSI - National Zoological Collection of Zoological Survey of India
RN - Registration number
Coll. - Collected by

Introduction

The genus *Yoma* Doherty, 1886 (Nymphalinae) is known by two species, *Y. algina* (Boisduval, 1832) and *Y. sabina* (Cramer, 1780) globally. Of these, *Y. algina* is restricted to New Guinea and surrounding Islands (Win *et al*., 2016). Whereas *Y. sabina* commonly known as the 'Lurcher' butterfly, is widely distributed in South East Asia and Australia (Lambkin & Kendall, 2016; Win *et al*., 2016). Both species can be separated from each other based on their wing character and male genital armature (Lambkin & Kendall, 2016). The subspecies *Y. s. vasuki* Doherty, 1886 is reported from south Myanmar, Andamans, Thailand, Laos, Vietnam, Langkawi, West Malaysia, Hainan, South China and Taiwan (Abrera, 1984; Inayoshi, 1996-2023). During the recent work on the cataloguing of 'Nymphalid butterflies' housed in the National Zoological Collection of Zoological Survey of India, Kolkata we found an unidentified specimen collected from Sikkim, which is herein identified as *Yoma sabina vasuki* Doherty, 1886. Recording of *Y. s. vasuki* from Sikkim is its first record from Himalaya, mainland India. The updated distributional data of this species is provided in this communication.

Systematic Account

Order LEPIDOPTERA Linnaeus, 1758

Superfamily PAPILIONOIDEA Latreille, 1802

Family NYMPHALIDAE Rafinesque, 1815

Subfamily NYMPHALINAE Swainson, 1827

Tribe JUNONIINI Reuter, 1896

Yoma sabina vasuki Doherty, 1886

1886. *Yoma vasuki* Doherty, *J. asiat. Soc. Bengal* (Part II), **55** (3): 259.

1984. *Yoma sabina vasuki*: D'Abrera, *Butt. Ori. Reg*.: 283.

Description: Wings dark vinous brown with obscure dark submarginal lines, a broad pale ochreous band runs through the discal area which is incurved near the costa of fore wing, two prominent white discal spots and three ochreous apical spots present on the upper side of fore wing, the middle one of apical spots being prominent and outer ones being obscure, discal band on the upper side of the hind wing is immaculate and narrows down near

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abdominal margin with an obscure ocellus visible as black spot outside the band, the band on the upper side is visible as paler fascia from the underside. *Male Genitalia*: valvae broad, bifurcated and apically tapered to form v-shaped, uncus slender and curved downward, tegumen broader, phallus apically pointed (Figure 1 a, b, c).

Diagnosis: Hitherto seven subspecies of the species *Y. sabina* (Cramer, 1780) have been reported (Savela, 1999-2023). Of which *Y. s. vasuki* is closely similar to its nominate subspecies *Y. s. sabina* (Fruhstorfer, 1912). But the latter differs from the former by having a broader and maculate band on the upper side of the hindwing, male genitalia with a somewhat u-shaped apex of valvae, less broad tegumen and more protruded gnathos (Lambkin & Kendall, 2016; Parsons, 1998).

Remarks: Gasse (2013) remarked on the status of *Y. s.*

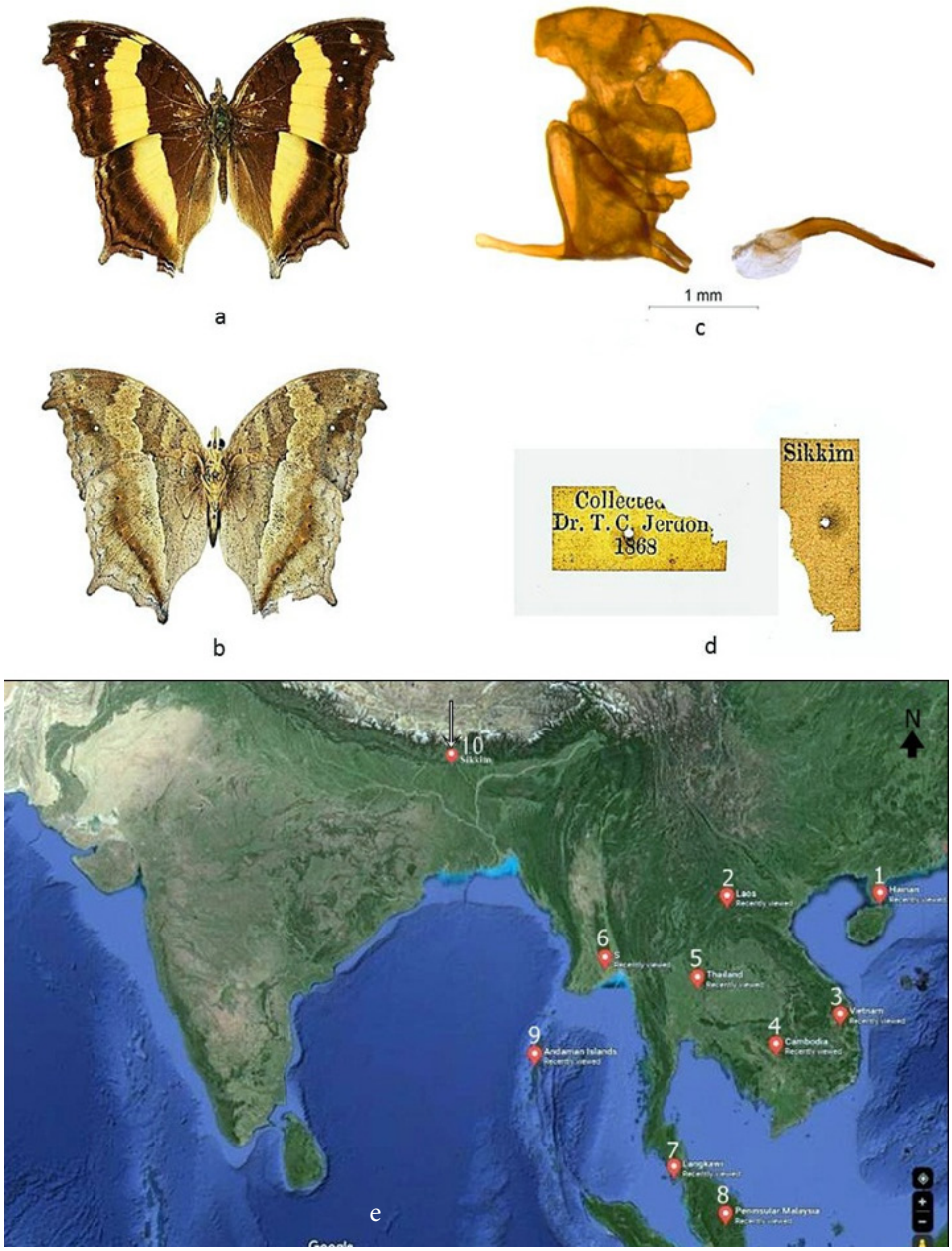

Figure 1. **(a, b)** Adult Male (Dorsal & Ventral View) **(c)** Male Genitalia (showing a lateral view of Uncus, Valvae and Phallus) **(d)** Labels (Collector name and Locality) **(e)** Indicative distribution map of *Y.s. vasuki* reproduced from Google imagery (1-10 indicates distributional areas in Southeast Asia and India, 10 marked with arrow indicates new distributional record from Sikkim).

vasuki Doherty, 1886 as "Not Rare". It is interesting to note here that the specimen under study was collected from Sikkim well before the establishment of subspecies *Y. s. vauki* by Doherty in the year 1886 (Figure 1 d). However, the distribution of this species/subspecies in Sikkim has remained unnoticed to date (Haribal, 1992; Gupta, 2003). Also, the examined specimen lacked any sub-locality data other than labelled as 'Sikkim' (pre-independent). Besides, the subspecies as studied herein is up till now recorded from Indo-China but not from the Indian mainland. Therefore, the distribution of *Y. s. vasuki* Doherty, 1886 could now be remarked as from Sikkim, in addition to the Andaman Islands in India (Figure 1 e).

Material examined: 01 ex. (1♂), Sikkim, 1868, Coll. Dr. T.C. Jerdon (NZCZSI RN- 33333 H/9); 11 exs. (5♂♂♂♂♂, 6♀♀♀♀♀♀), 26.vii.1915, Coll. De Niceville (NZCZSI RN-14566 H/9 to 14576 H/9); 03 exs. (1♂, 2♀♀), Andamans, 26.vii.1915, Coll. De Niceville (NZCZSI RN- 14577 H/9 to 14579 H/9).

Distribution: Sikkim (present study), Andaman Island (Varshney & Smetack, 2015), South Myanmar, Thailand, Laos, Vietnam, Langkawi, West Malaysia, Hainan, South China and Taiwan (Abrera, 1984; Inayoshi, 1996-2023).

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