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A new Hyblaeidae species from Solomon Islands.

Studies of Hyblaeidae 4

(Insecta: Lepidoptera)

U. Buchsbaum & M.-Y. Chen

Summary

The species *Hyblaea solomonensis* Buchsbaum & Chen, sp. n. is described from the Solomon Islands. The species is to be placed in the *Hyblaea constellata* Guenée, 1852 - species group due to its similarity in the external morphological features, as well as in the genital structures. The new species differs from all other species in this group.

KEY WORDS: Insecta, Lepidoptera, Hyblaeidae, *Hyblaea solomonensis*, distribution, taxonomy, Solomon Islands.

Eine neue Hyblaeidae - Art von den Solomon Inseln. Studien zu Hyblaeidae 4

(Insecta: Lepidoptera)

Zusammenfassung

Die Art *Hyblaea solomonensis* Buchsbaum & Chen, sp. n. wird von den Salomon-Inseln beschrieben. Die Art ist wegen ihrer Ähnlichkeit sowohl in den äußeren morphologischen Merkmalen als auch in den Genitalstrukturen in die *Hyblaea constellata* Guenée, 1852 - Artengruppe zu stellen. Die neue Art unterscheidet sich äußerlich und in den Genitalien von allen anderen Arten dieser Artengruppe.

SCHLÜSSELWORTE: Insecta, Lepidoptera, Hyblaeidae, *Hyblaea solomonensis*, Verbreitung, Taxonomie, Solomon Inseln.

Una nueva especie de las Islas Salomón. Estudios de Hyblaeidae 4

(Insecta: Lepidoptera)

Resumen

Se describe de las Islas Salomón la especie *Hyblaea solomonensis* Buchsbaum & Chen, sp. n. La especie debe de situarse en *Hyblaea constellata* Guenée, 1852 grupo de las especies se agrupan debido a su semejanza tanto en las características morfológicas, como en la estructura de la genitalia. La nueva especie difiere de las otras especies en este grupo.

PALABRAS CLAVE: Insecta, Lepidoptera, Hyblaeidae, *Hyblaea solomonensis*, distribución, taxonomía, Islas Salomón.

Introduction

The Solomon Islands are situated south-east from New Guinea in the Pacific Ocean. The new species was collected in the Guadalcanal Island which is the island where the Capital of the Solomon

Islands is situated. Information about the biogeography is given by CARVAJAL & ADLER (2005), KEPPEL *et al.* (2010) and LUCKY & SARNAT (2010).

Not much is known about the Pacific Islands Insect fauna (e. g. YANO, 1963; ROBINSON, 1975; FILARDI *et al.*, 1999; TENNET, 1999). A new Arctiinae species of the genus *Eugoa* Walker, 1858 (Erebidae: Arctiinae) was recently described by BUCSEK & RINDOS (2018).

HYBLAEIDAE

The genus *Hyblaea* Fabricius, 1793 is known with about 20 species (DE FREINA & BUCHSBAUM, 2012; BUCHSBAUM *et al.*, 2012, 2019) and some more undescribed species. Some species were synonymised by BERIO (1967) without giving any reason and with no exact explanation.

A further species, *Hyblaea constellata* Guenée, 1852 is recorded from Guadalcanal Island and wrong spelled as *Hyblaea onstellata* (*sic*) Guenée, 1852 (KODA & KUSIGEMATI 1985). The figures show that this is a species of the *H. constellata* species group. Several species of the *H. constellata* species group are known from the neighboring islands like New Guinea. BUCHSBAUM *et al.* (2019) described *H. behouneki* Buchsbaum, Speidel & Chen 2019 which belongs to the *H. puera* (Cramer, 1777) species group. DE FREINA & BUCHSBAUM (2012) described another species of the *H. puera* species group from the Island Mauritius in the Indian Ocean: *H. mauricea* de Freina & Buchsbaum, 2012.

Hyblaea solomonensis Buchsbaum & Chen, sp. n. (Figs 1-3)

Holotype: 1 ♀, S. Pacific. SOLOMON ISL.; Guadalcanal I. 50-80 m; Lunga riv. Env., 2-10 km S; of Barana, Honiara reg.; 23-IX-18-XII-2016; Sr. Jákł et Vlad. Gurko. Holotype in Collection Ulf Buchsbaum, Kranichfeld (CUBK), later to be deposited in Coll. Zoologische Staatssammlung München (ZSM). No Paratypes.

Description and differential diagnose

Wingspan: 38 mm, Forewing length: 17 mm. Ground colour of body and wings brown. Abdomen ends with dark orange tip. Forewings brown with white antemedian and subterminal fasciae from dorsum antemedian to inner margin. Postdiscal region paler brown. Hindwings dark brown with 4 orange spots at dorsum in the median region and at basal angle.

Underside of forewings brown. At dorsum pale yellow. From costa two wide orange stripes. Base orange. Hindwings orange with dark brown discal spot underlined with a brown stripe and brown marked terminal shade. From tornus to apex on the hindwing [underside] a brown waved line along termen. No other species and no specimens in the *H. constellata* group and also in all other *Hyblaea* species have such markings, this waved line and the large “underlined” discal spot.

Female genitalia: Papillae anales sclerotized and hairy, narrow, long. Anterior apophyses short. Ductus bursae long, wide, weakly sclerotized with same length as corpus bursae. Corpus bursae oval with a single pointed arrow-like signum. Other species similar to *H. constellata* with two signa and ductus bursae longer and thinner.

Distribution: Only known from the type locality on the Solomon Islands, Guadalcanal.

Biology: unknown.

Etymology: The species is called *H. solomonensis* after the locality where this species was collected, the Solomon Islands.

Discussion

The similarity in the external morphological and the genitalia characteristics place this species in the *H. constellata* species group. The species groups were suggested by CHANDRASEKHAR *et al.*

(2008) based on their DNA analyses of Hyblaeidae species from all over the world. The sister species group *H. puera* has constantly two signa in the female genitalia. No other species in the *H. constellata* species group has a discal spot as described above. *H. constellata* Guenée, 1852 is described from Bengal (India) without indication of the exact locality and figured in BOISDUVAL & GUENÉE (1852) on plate 13, figure 6 which shows that this species is totally different from the here described new species.

The *H. puera* species group is based on the type species and type locality in Surinam (South America) with several more species in South and North America. The *H. constellata* species group is only known from Asia, with the type locality and type species from Bengal without indication of exact locality but the members of the group are widespread in whole Asia until New Guinea and Australia. It contains many species.

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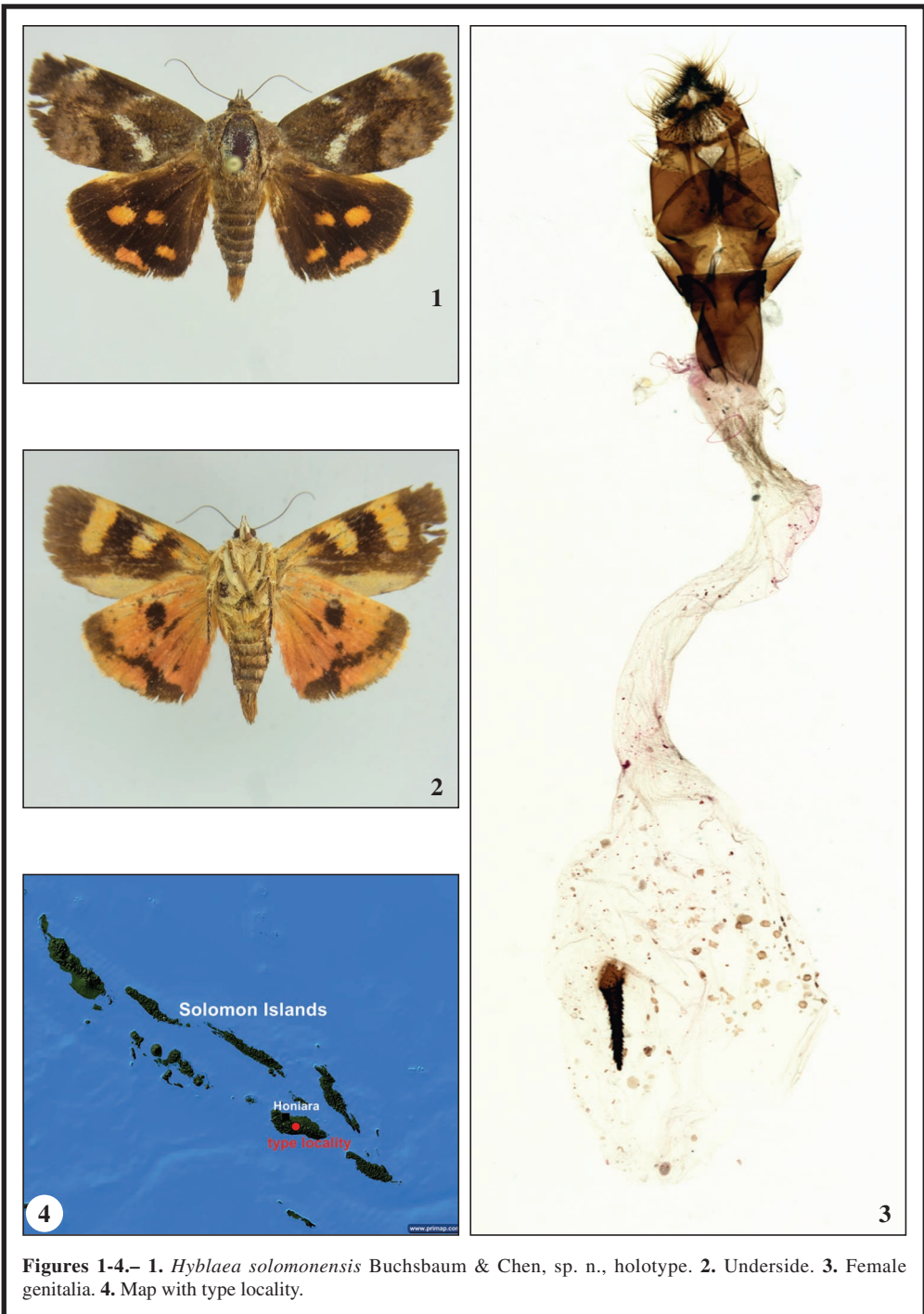
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Figures 1-4.– 1. *Hyblaea solomonensis* Buchsbaum & Chen, sp. n., holotype. 2. Underside. 3. Female genitalia. 4. Map with type locality.