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Original article

Eucosmogastra sirindhornae Pinkaew and Leadprathom (Lepidoptera: Tortricidae), a new species from south Thailand

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ABSTRACT:- *Eucosmogastra sirindhornae*, sp. nov., is described from a single male specimen collected from evergreen forest at Hala-Bala Wildlife Research Station, Narathiwat Province. This new species is named in honor of The Princess Maha Chakri Sirindhorn.

KEY WORDS: Hala-Bala Wildlife Research Station, Olethrutinae, Enarmoniini

INTRODUCTION

The genus *Eucosmogastra* was established in 1975 by Diakonoff to include *Eucosmogastra anthochroa* as the type species. This genus is characterized by the following characters: medium size; hindwing blackish with yellowish or whitish patches in basal half; forewing elongate-subrectangular with diversely patterned and iridescent bluish or purplish blotches or with an irregular band along the basal half of the dorsum; chorda and M-stem well developed; and all vein present and separate beyond the cell in the forewing. Male genitalia of *Eucosmogastra* are characterized by a ventrally bristled uncus; conspicuously modified socii set with flattened, hand-shaped process; a weakly sclerotized, band-shaped gnathos with median spines, bristles, or scobination; and a slender valva with a sacculus ending in a broad tooth or a short serrate blade. Currently, there are eight described species of *Eucosmogastra* recorded from India, New Guinea, Australia, and Vietnam (Brown, 2005; Razowski, 2009). Field work to document the diversity of olethreutine moths in Thailand was conducted in Hala-Bala Wildlife Research Station, Narathiwat Province, in 2012. A single specimen of a species of *Eucosmogastra* was collected in evergreen forest that proved to be new to science and first species of the genus in Thailand. This new species is named in honor of the Princess Maha Chakri Sirindhorn.

MATERIALS AND METHODS

Specimens used in the present work are deposited in the Kasetsart Kamphaengsaen Insect Collection, Nakhon Pathom, Thailand (KKIC). A Leica MZ95 stereomicroscope was used for specimen examination and measurements, and a Leitz Dialux 20 compound microscope was used to examine the characters of genitalia. Forewing length was measured from the outer edge of the tegula at the wing base to the outermost edge of the fringe scales at the apex. Genitalia preparation

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methods were adapted from Common (1990). Terminology for forewing pattern and genital structures follows Horak (1991, 2006).

RESULTS

Eucosmogastra sirindhornae sp. nov. (Figs 1, 2)

Diagnosis. This species is clearly related to *Eucosmogastra poetica*; the two share a grey-blue forewing pattern and a bipartite clump of heavy spines on the medial process of the gnathos. *Eucosmogastra sirindhornae* can be distinguished by the valva being narrow at the base and strongly widened medially with a sinuate, greatly projecting costa, and a distal thorn at the pointed apex.

Description. Head: Upper frons light brown; lower frons with short, appressed, pale brown scales; vertex with raised scales, brown mixed with dark brown; labial palpus upcurved, slender, with short basal segment, pale brown; second segment curved, uniform in width throughout, pale brown with dark brown marks ventrally; and with the terminal segment short, stout, brown. Antenna long rather short, greyish brown.

Thorax. Pronotal collar brown; mesonotum smooth, pale brown, with two dark brown, curved, transverse bands, joined medially, reaching pronotal collar, brown posteriorly with patch of raised scale tufts; tegulae bluish grey mixed with brown and dark brown; legs unmodified. Forewing length 7.0 mm in male (n=1) (Fig. 1), elongate, subrectangular, costa curved at base and before apex with remainder slightly curved, with brown strigulae separated by small blackish streaks, termen oblique; ground color brown, with irregular, iridescent bluish grey blotches alternated with irregular blackish marks. Underside brown with a long, narrow yellow line on costa from near wing base to R3, with three yellow patches, first a subrectangular patch at wing base between costa and base of Sc, second an irregular, elongate patch at discal call, and third a small, elongate patch on dorsum at wing base. Hindwing dark brown to blackish, with yellowish orange patch extending as narrow strip from wing base, slightly larger to large patch at midwing then curved upward to Sc+R1; anal area with narrow yellowish line along 3A from wing base to margin, area between anal margin and 3A basally covered with yellowish white scales; fringe scales yellow except blackish from wing apex to between Rs and M1. Underside brown, with two yellow patches, first large, extending from wing base to mid wing and curved to Sc+R1, second smaller, along anal area between anal margin to between 3A and 1A+2A.

Abdomen: Blackish alternated with yellow transverse strips. Male genitalia (Fig. 2) with tegumen ovate, tapering to subtriangular apex, with moderately dense scale sockets laterally; pudunculi broad, weakly sclerotized, with a group of dense, setae sockets and two long setae behind the top of the tegumen representing remnants of uncus; vinculum short; socii large, with long stalk, widest at base and tapering to apex, with dense, large, hand-shaped, scale-like structure at tip; gnathos weakly sclerotized, indistinct, with a bipartite clump of heavy spines medially; valva a narrow at base, strongly widened medially with a sinuate, greatly projecting costa, a pointed apex with a distal thorn, and an outwardly curved ventral margin, concave near base; distal half of valva with dense bristles on inner suface; juxta small, caulis short; anellus surrounding base of phallus; phallus rather short, wide at base, tapering toward oblique apex, cornuti deciduous and lost, evidenced by the presence of sockets.

Holotype: ♂, Thailand, Narathiwat Province, Hala-Bala Wildlife R. St., 05°47'50"N 101°43'56"E, ca 180 m, 23–29 May 2012, N. Pinkaew. np 6544, ♂ genitalia slide NP 2311. Deposited in KKIC.

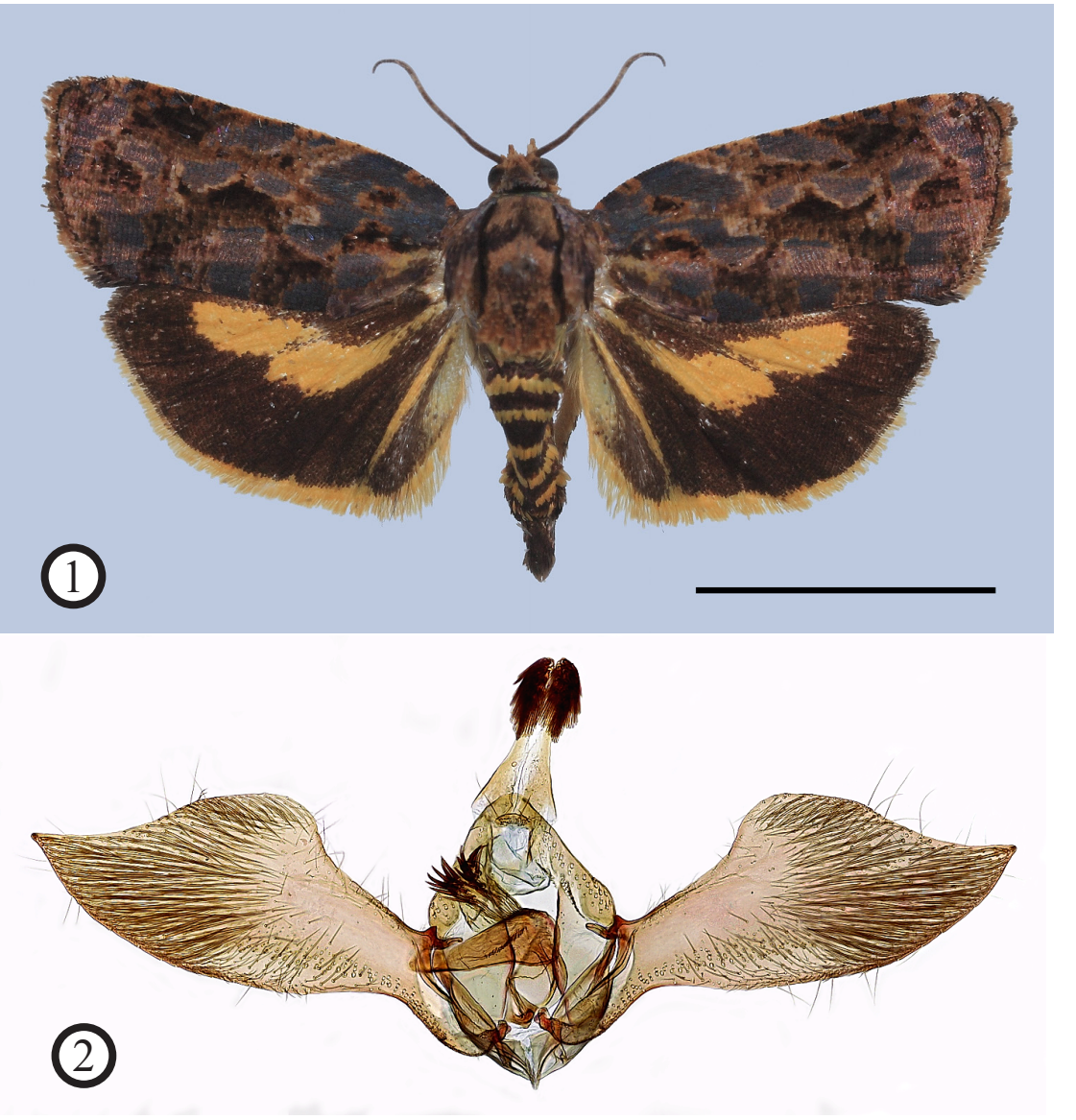

Figure 1-2. *Eucosmogastra sirindhornae* sp. nov. (scale bar=5 mm) 1) adult male (holotype) , 2) male genitalia (holotype).

Etymology: The specific epithet *sirindhornae* is a patronym for the Princess Maha Chakri Sirindhorn.

Distribution: Thailand.

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