

A New Species of the Monotypic Genus *Anaxyrina* Meyrick (Lepidoptera, Lecithoceridae, Torodorinae)

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ABSTRACT

A new species of *Anaxyrina* Meyrick, *A. albicostalis* sp. nov. (Lepidoptera, Lecithoceridae, Torodorinae) is described from Thailand and the Philippines. The genus has been known only by the type species, *A. cyanopa* Meyrick from N. India. Image of adult, forewing venation and illustrations of the male genitalia with aedeagus for the new species are provided.

Key words: Taxonomy, Lepidoptera, Lecithoceridae, *Anaxyrina*, new species, Thailand, Philippines

INTRODUCTION

The family Lecithoceridae (Lepidoptera) comprises approximately 900 species of over 85 genera. The subfamily Torodorinae of Lecithoceridae includes more than 250 species belonging to 35 genera, which more than 90% of the known species, except *Crocantbes* Meyrick which is endemic genus in the Australian Region, are distributed in the Oriental Region (Park, 1999; Park and Lee, 1999). Of them, 18 genera are monotypic with no additional species to date. The genus *Anaxyrina* Meyrick, 1918 is one of these, which was established based on *A. cyanopa* Meyrick from N. India. As a part of results for the review of the family Lecithoceridae of the Philippine Islands and Thailand, an additional species of the genus *Anaxyrina* is described.

MATERIALS AND METHODS

Specimens examined are based on loaned material from the Osaka Prefecture University, Osaka (OPU), Japan, which were collected in Thailand; and from the Zoological Museum, Copenhagen (ZMUC) and from the Museum für Naturkunde, Humboldt-Universität, Berlin (ZMHB), which were collected in the Philippines. Along with examination of external characters, the male genitalia of the species were dissected and examined. All types are deposited in the above museums. The color standard for the adult description follows Korerup and Wanscher (1978).

SPECIES ACCOUNTS

Genus *Anaxyrina* Meyrick, 1918

Anaxyrina Meyrick, 1918, Exotic Microlepidoptera, 2: 98; Clarke, 1965, Type Spec. Microlep. Brit. Mus. 1965: 14; Gozmány, 1978, Microlep. Palaeractic: 50 (Key). Type species: *Anaxyrina cyanopa* Meyrick, 1918: 99, by monotypy. TL: N. Coorg.

This genus is characterized by the forewing with distinct markings; apex round; termen not concave; venation with R_5 absent, CuA_1 and CuA_2 coincident, and the hind wing with M_2 absent. The spinous zones of the abdominal tergites are well presented. The male genitalia are related to those of *Torodora* Meyrick. Several related genera with *Torodora* Meyrick are often not well defined by the structure of the male genitalia, for example, *Thubana* Walker and *Deltoplastis* Meyrick. They are differentiated by the combination of the wing venations and the male genital structure, or spinous zones of the abdominal tergites.

Anaxyrina albicostalis Park, sp. nov. (Fig. 1A-G)

Type. HOLOTYPE ♂, Thailand, Nakhon Nayok, Khao Yai 800 m, 10 VIII 1987 (Moriuti, Saito, Arita, and Yoshiyasu), gen. prep. no. CIS-5411/Park. PARATYPES: 1 ♂, same data as the holotype; 1 ♂, Thailand, Chanthanaburi, Khao Soi Dao, ca 400 m, 24-25 VIII 1987 (Moriuti, Saito, Arita, and Yoshiyasu), gen. prep. no. CIS-5412.; 1 ♂, Thailand, Chiang Mai, Doi Pakia 1,500 m, 5-7 IX 1987 (Moriuti, Saito, Arita, and Yoshiyasu); 2 ♂, Philippine Islands, Palawan, Mantalingajan, Tegembung 1,150 m, 17 & 18 IX 1961, Noona Dan. Exp. 61-62. caught by mercury light, gen. prep. no. CIS-5496/Park; 1 ♂, Philippine Islands, Palawan, Mi St

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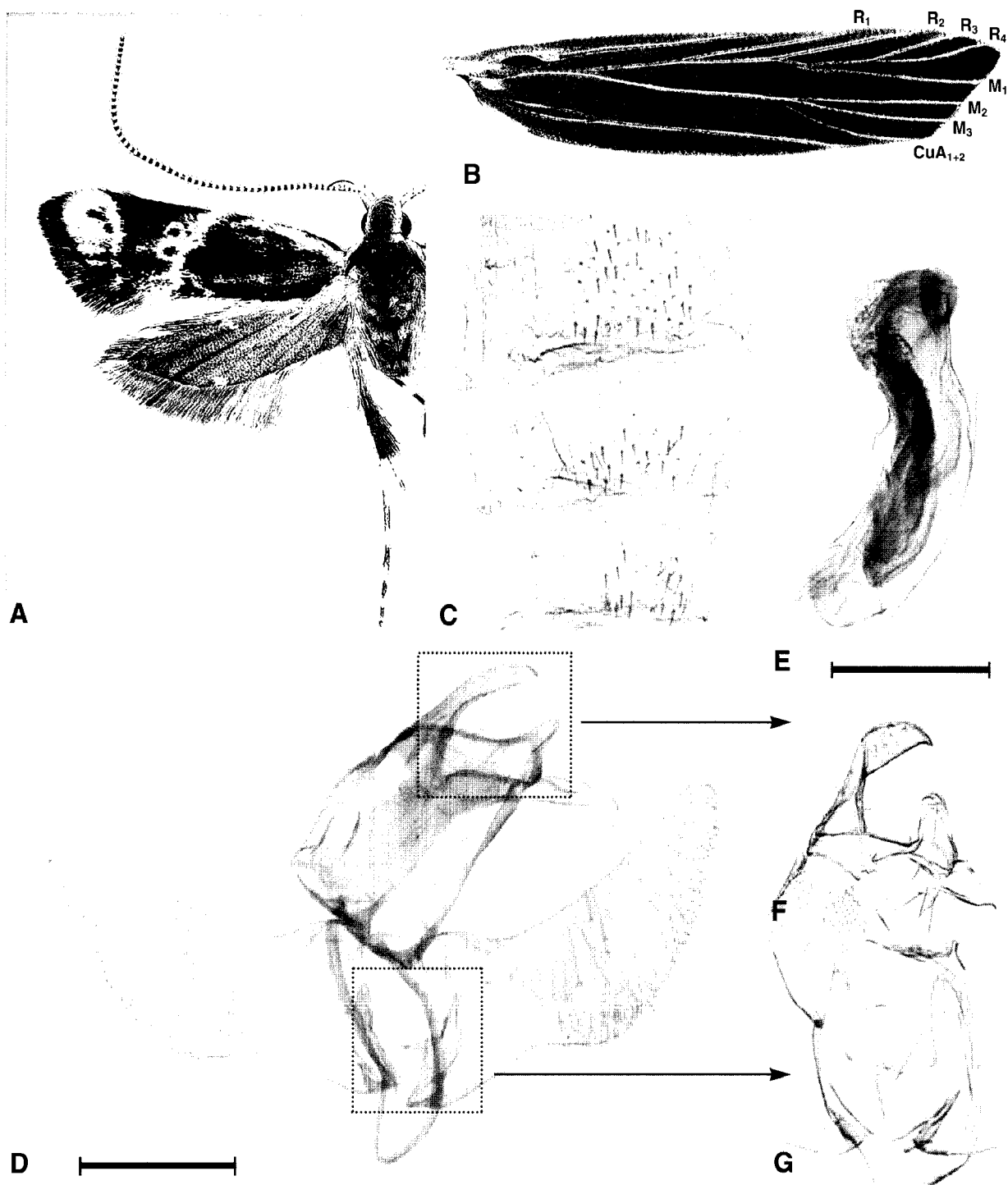


Fig. 1. *Anaxyrina albicostalis* sp. nov.: A, Adult, holotype; B, Forewing venation; C, Spinous zones of abdomen; D, Male genitalia, paratype, gen. prep. No. CIS-5417; E, Aedeagus, paratype gen. prep. No. CIS-5417; F, Part of uncus, gen. prep. No. CIS-5412; G, Part of juxta, gen. prep. No. CIS-5412. Scale bars=0.5 mm (D, E).

Paul, 5-6 IV 1995 (W. Mey), gen. prep. no. CIS-5418/Park; 1♂, Philippine Islands, Pansy Antique, 9-10 IV 1995 (W. Mey), gen. prep. no. CIS-5417/Park; 1♂, Philippine Islands, Samar, Concord, Cadacan, 22-24 IV 1997, 1,500 m (W. Mey & Spiedel), gen. prep. no. CIS-5499/Park.

Diagnosis. *Anaxyrina albicostalis* is easily separable from *A.*

cyanopa Meyrick, the type species of the genus, by having a well-developed broad, dark-brown basal zone with a white band along costa of the forewing, and the valva of the male genitalia triangularly extended with gently concave costa, while that of *A. cyanopa* Meyrick with strongly concave costa.

Description. Male. Forewing, 6.0-7.0 mm. Head orange gray, smooth, with creamy white scales laterally. Scape of antenna yellowish white dorsally; flagellum creamy white, with dark brown annulations. Second segment of labial palpus slightly thickened, brownish on basal 2/3, shining white on apical third; 3rd segment slender, longer than 2nd, dark brown ventrally. Tegula brown anteriorly, white medially, brownish in posterior half. Thorax brown. Forewing divided into three zones: basal zone dark brown, occupied about half of wing, with convex outer margin followed by creamy white, broad median band which is slightly oblique, with a broad creamy white band along costa; median zone reversed trapezoidal, upper 1/3 dark brown with a black spot surrounded by creamy white scales and lower 2/3 creamy white suffused with brownish scales, with a larger blackish spot below the smaller one, followed by creamy white concave subterminal line; terminal zone nearly semi-ovate, upper half creamy white, orange scales along costa, with two longitudinal orange bands medially, and a black streak with a small blackish spot below, lower half with two longitudinal dark brown patches; apex obtuse; termen oblique, almost straight, with black scales along margin; fringe with dark brown subbasal band, leaden metallic brown beyond and orange at apical 1/5. Venation with R_2 arising from near upper corner of cell; R_3 and R_4 stalked before middle; R_5 absent; M_1 close to R_{4+5} at base; M_2 close to M_3 at base; CuA_1 and CuA_2 coincident; apex round; termen slightly concave medially (Fig. 1B), with black scales along termen; fringe brown with pale orange subbasal line, yellowish white apically. Hindwing gray; R_s and M_1 separated well beyond end of cell; M_2 absent; M_3 and CuA_1 stalked before middle. Front tibia dark brown with white scales at middle and apex dorsally; hind tibia yellowish white with dark brown bands near 1/3 and 2/3. Abdominal tergites with broad spinous zones, bearing sparse arrangement of short spines (Fig. 1C).

Male genitalia (Figs. 1D-G). Uncus long, broad, with sharply pointed apex. Gnathos relatively broad, with pointed apex. Valva narrowed towards apex, more or less triangular-shaped; outer margin oblique, almost straight; ventral margin concave at basal 1/3, thence convex. Juxta with long, digitate latero-caudal lobes, slightly bent inward, with round apex. Aedeagus (Fig. 1E) stout, slightly shorter than valva, bent beyond middle, attenuated to apex; with weakly sclerotized spatulate plate apically; vesica containing numerous spinules.

Female. unknown.

Distribution. Thailand and the Philippines.

Etymology. The specific epithet is derived from the Latin, *albus*, meaning white, and referring to a white band on costa of the forewing.

Remarks. The forewing venation of *Anaxyrina albicostalis* slightly differs from that of *A. cyanopa* Meyrick, with R_3 and R_4 stalked, whereas they are free in the latter. However, this new species is placed in the genus *Anaxyrina* Meyrick, because the variation of venations within a genus is often found in the family Lecithoceridae (Park, 2000, 2002; Park and Byun, 2008).

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