Genus *Promalactis* Meyrick (Lepidoptera: Oecophoridae) in northern Vietnam, Part III: seven new species and four newly recorded species

Sora Kim^a, Kyu-Tek Park^b, John B. Heppner^b and Seunghwan Lee^{a*}

^aDivision of Entomology, School of Agricultural Biotechnology, Research Institute for Agriculture and Life Sciences, Seoul National University, Seoul, Korea; ^bMcGuire Center for Lepidoptera and Biodiversity, Florida Museum of Natural History, University of Florida, Gainesville, FL, USA

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This article is the third part of a series on the genus *Promalactis* (Lepidoptera: Oecophoridae) in northern Vietnam. Seven new species, *Promalactis acanthiana* Kim and Park, sp. nov., *Promalactis albinparata* Kim and Park, sp. nov., *Promalactis asperiola* Kim and Park, sp. nov., *Promalactis caperatiella* Kim and Park, sp. nov., *Promalactis curtifasciata* Kim and Park, sp. nov., *Promalactis gigaspinata* Kim and Park, sp. nov. and *Promalactis reniformis* Kim and Park, sp. nov. are described, and four species, *Promalactis basifasciaria* Wang, *Promalactis kalimantana* Lvovsky, *Promalactis tauricournis* Du, Li and Wang and *Promalactis tricuspidata* Wang and Li are reported for the first time from Vietnam. Illustrations of adults and genitalia of the species are provided.

<http://zoobank.org/urn:lsid:zoobank.org:pub:75F7CC58-F8CD-4B50-A0DA-D0D6544AA65A>

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Introduction

The genus *Promalactis* Meyrick of the family Oecophoridae (Lepidoptera, Gelechioidea) is one of the most diverse genera of the family. The genus is distributed primarily in the Oriental and Palaearctic Regions, comprising more than 160 species (Meyrick 1908a, 1908b; Lvovsky 1976, 1985, 1986, 1988, 1997, 2000a, 2000b; Park 1981; Park and Park 1998; Fujisawa 2002; Wang 2006; Du et al. 2009; Wang et al. 2009; Kim et al. 2010, 2012; Du et al. 2011). However, it is assumed that the actual number might be more than twice the known species.

Promalactis species are superficially characterized by the brownish-yellow to yellowish-brown forewing ground colour with variable markings, and the wing venation with radius IV and radius V stalked.

So far, more than 40 species have been recognized from the Oriental Region including India, Indonesia, Malaysia, Myanmar, Philippines and Vietnam (Meyrick 1908a, 1908b; Lvovsky 1988, 1997, 2000a, 2000b, 2007; Kim et al. 2010, 2012). In Vietnam, 19 species of the genus are known (Lvovsky 1988, 1997, 2007; Kim et al. 2010, 2012).

*Corresponding author. Email: seung@snu.ac.kr

Material and methods

Material examined for the present study is based on specimens collected in three different national parks, Ba Be (1080 m), Cuc Phuong (155 m, 196 m and 200 m), and Tam Dao (1108 m, 1000 m and 950 m) in the northern part of Vietnam, from April to August during 2005–2009 by a sweeping net during daytime, and by light traps and bucket traps at night (from 7–8 p.m. to 1 a.m.).

Specimens were examined under a microscope and photographs were taken from digital images using the software, Image Lab version 2.2.4.0 by MCM Design (Hillerød, Denmark). The colour standard for the description of adults follows Kornerup and Wanscher (1978). All types are deposited in the McGuire Center for Lepidoptera and Biodiversity, Florida Museum of Natural History, University of Florida, USA, on indefinite loan from Vietnam.

Systematic accounts

Genus *Promalactis* Meyrick, 1908

Promalactis Meyrick, 1908a, J. Bombay Nat. His. Soc., 18: 806.

Type species: *Promalactis holozona* Meyrick, 1908. Type locality: Coorg, S. India.

Promalactis acanthiana Kim and Park, sp. nov.

(Figures 1A, B, 2A, and 3A–D)

Diagnosis

This species is externally similar to *Promalactis albisquama* Kim and Park, and *Promalactis clavata* Du, Li and Wang, by having an oblique band-like marking and a semi-circular costal patch in forewing pattern, but can be distinguished by the male genitalia with a long cornutus of the aedeagus.

Description

Adult (Figure 1A, B). Head (Figure 2A): Frons shiny whitish-yellow, vertex deep yellowish-brown. Antenna with scape entirely white, as long as diameter of eye; flagellum white basally and mixed with dark brown alternately from one-third along to apex. Labial palpus dark brown except basal part of third segment entirely white; third segment almost same length as second segment. Thorax: Thorax yellowish-brown; tegula darker than thorax. Wing expanse 8.0–8.5 mm. Forewing ground colour yellowish-brown; two white markings surrounded by fuscous scales presented; one oblique, from one-third costal margin transverse to one-half of posterior margin, band-like and the other costal patch at two-thirds of costa of forewing; fringes white at termen, speckled with fuscous scales, partly greyish-brown fringes beyond apex and before tornus. Hindwing more or less lanceolate; fringes greyish-brown. Leg: hind leg pale yellowish-brown ventrally, except dark brown medial to fifth segment of tarsus.

Male genitalia (Figure 3A–D). Uncus bell-shaped, wide at base. Gnathos tongue-like, as long as uncus. Valva more or less broad; costa densely setose from one-third beyond apex to apical sacculus; apex thumb-like. Juxta with a pair of symmetrical lobes, extremely long, slightly shorter than valva. Saccus wide at base, as long as

Figure 1-1. Adult. (A) *Promalactis acanthiana* sp. nov.; (B) *Promalactis acanthiana* sp. nov., wing pattern; (C) *Promalactis albinparata* sp. nov.; (D) *Promalactis albinparata* sp. nov., wing pattern; (E) *Promalactis asperiola* sp. nov.; (F) *Promalactis asperiola*, wing pattern; (G) *Promalactis basifasciaria*; (H) *Promalactis basifasciaria*, wing pattern.

Figure 1-2. Adult. (I) *Promalactis caperatiella* sp. nov.; (J) *Promalactis caperatiella* sp. nov., wing pattern; (K) *Promalactis curtifascia* sp. nov.; (L) *Promalactis curtifascia* sp. nov., wing pattern; (M) *Promalactis gigaspina* sp. nov.; (N) *Promalactis gigaspina* sp. nov., wing pattern; (O) *Promalactis kalimantana*; (P) *Promalactis kalimantana*, wing pattern.

Figure 1-3. Adult. (Q) *Promalactis reniformis*; (R) *Promalactis reniformis*, wing pattern; (S) *Promalactis tauricournis*; (T) *Promalactis tauricournis*, wing pattern; (U) *Promalactis tricuspidata*; (V) *Promalactis tricuspidata*, wing pattern.

tegumen. Aedeagus long, straightly developed, as same length as juxta; cornutus placed apically, one-quarter length of aedeagus.

Female genitalia. Unknown.

Holotype

Male, Tam Dao Nat. Park, Vietnam, 1000 m, 5 May 2005, KT Park and S Kim, slide gen. no. SNU-9273/S Kim; Paratype. One male, Tam Dao Nat. Park,

Figure 2-1. Head. (A) *Promalactis acanthiana* sp. nov.; (B) *Promalactis albinparata* sp. nov.; (C) *Promalactis asperiola* sp. nov.; (D) *Promalactis basifasciaria*; (E) *Promalactis caperatiella* sp. nov.; (F) *Promalactis curtifasciata* sp. nov.

Vietnam, 1000 m, 4 May 2005, KT Park and S Kim, slide gen. no. SNU-9276/S Kim.

Distribution

Oriental: Vietnam (North).

Figure 2-2. Head. (G) *Promalactis gigaspinata* sp. nov.; (H) *Promalactis kalimantana*; (I) *Promalactis reniformis*; (J) *Promalactis tauricornis*; (K) *Promalactis tricuspadata* sp. nov.

Etymology

The specific name is derived from the Latin, *acanth -i* (= spine) plus a Latin suffix *-ana*, referring to spine-like cornutus of the male genitalia.

***Promalactis albinparata* Kim and Park, sp. nov.**

(Figures 1C, D, 2B, and 3E, F)

Figure 3. Male genitalia. (A) *Promalactis acanthiana* sp. nov.; (B) aedeagus; (C) gnathos and uncus; (D) apical part of valva; (E) *Promalactis albinparata* sp. nov.; (F) *Promalactis albinparata* sp. nov., aedeagus; (G) *Promalactis tricuspidata*; (H) *Promalactis tricuspidata*, aedeagus. Scale bar 0.5 mm.

Diagnosis

This species is superficially similar to *Promalactis jezonica* (Matsumura) in the wing pattern, but can be distinguished by the irregularly shaped white markings and fuscous scales crossing the apical spot of the forewing.

Description

Adult (Figure 1C, D). Head (Figure 2B): Frons white; vertex dark brown. Antenna with white scape entirely, as long as diameter of eye; flagellum white and dark brown alternately. Labial palpus dark brown, except white apical and basal part of third segment; second segment 1.5 times longer than third segment. Thorax: Thorax and tegula dark brown dorsally. Wing expanse 7.0–7.5 mm. Forewing ground colour dark brown; two white bands oblique surrounded by fuscous scales: one near to wing base, the other at one-sixth of costal margin, not reaching to posterior margin; one white costal patch at two-thirds, somewhat triangular-shaped, surrounded by fuscous scales; another white apical patch surrounded and crossed by fuscous scales, except outer margin above apex; two white short streaks rarely surrounded by fuscous scales under medial vein: one between second band and costal patch, the other one under costal patch; fringes yellowish-brown, tinged with greyish-brown from apex to half of outer margin. Hindwing more or less lanceolate; fringes greyish-brown. Legs: hind leg pale yellowish-brown, except apical parts of fifth and third segments and basal parts of first and second segment of tarsus.

Male genitalia (Figure 3E, F). Uncus bell-like, wide at base, gradually narrowed to apex; caudal margin of apex sclerotized. Gnathos thumb-like, wide at base, shorter than uncus. Valva symmetric; cucullus clavate with sclerotized, setose, flattened apex; processes of sacculus wide to apex, caudal margin of apex incised medially and setose. Aedeagus cylindrical, wide, shorter than sacculus; cornutus about half length of aedeagus.

Female genitalia. Unknown.

Holotype

One male, Cuc Phuong Nat. Park, Vietnam, 200 m, 1–2 July 2008, JB Heppner, slide gen. no. SNU-9334/S Kim. Paratype. One male, same locality, 1–2 July 2008, JB Heppner, slide gen. no. SNU-9052/S Kim.

Etymology

The specific name is derived from the Latin, *alb-* (= white) plus *inpar* (= irregular or uneven), referring to white irregular-shaped markings of the forewing.

Distribution

Oriental: Vietnam (North).

***Promalactis asperiola* Kim and Park, sp. nov.**
(Figures 1E, F, 2C, and 4A–C)

Figure 4-1. Female genitalia. (A) *Promalactis asperiola* sp. nov.; (B) *Promalactis asperiola* sp. nov.; surface of seventh sternite in detail; (C) *Promalactis asperiola* sp. nov., signum; (D) *Promalactis basifasciaria*; (E) *Promalactis basifasciaria*, signum; (F) *Promalactis caperatiella* sp. nov.; (G) *Promalactis caperatiella* sp. nov., signum; (H) *Promalactis curtifasciata* sp. nov.; (I) *Promalactis curtifasciata* sp. nov., ductus bursa in detail. Scale bar 0.5 mm.

Figure 4-2. Female genitalia. (J) *Promalactis gigaspinata* sp. nov.; (K) *Promalactis gigaspinata* sp. nov., lamella antevaginalis; (L) *Promalactis gigaspinata* sp. nov., basal spine of ductus bursa; (M) *Promalactis gigaspinata* sp. nov., medial spine of ductus bursa; (N) *Promalactis kalimantana*; (O) *Promalactis kalimantana*, basal part of ductus bursa; (P) *Promalactis kalimantana*; signum; (Q) *Promalactis reniformis* sp. nov.; (R) *Promalactis reniformis* sp. nov., lamella antevaginalis and antrum; (S) *Promalactis reniformis* sp. nov., basal spines of ductus bursa; (T) *Promalactis tauricournis*; (U) *Promalactis tauricournis* signum. Scale bar 0.5 mm.

Diagnosis

This species is similar to *Promalactis suzukiella* (Matsumura) in the wing pattern, but can be distinguished by the rough surface of seventh sternite and a ring-shaped signum in the female genitalia.

Description

Adult (Figure 1E, F). Head (Figure 2C): Frons greyish-brown; vertex dark brown. Antenna with scape white entirely; flagellum white dorsally. Labial palpus dark brown, except second segment, which is yellowish-brown ventrally; third segment same length as second segment. Thorax: Thorax and tegula yellowish-brown dorsally. Wing expanse 7.5–8.0 mm. Forewing ground colour yellowish-brown. White markings surrounded by fuscous scales, except apical margin; two oblique bands, one at near base, the other from one-third costal margin transverse to posterior margin, another white costal patch at two-thirds of forewing; two fuscous patches, one under costal patch mixed with pale grey, the other at sub-apical margin of forewing; fringes yellow from apex to tornus, followed by the outer margin, tinged with dark-brown scales near tornus. Hindwing more or less lanceolate; fringes greyish-brown. Legs: hind leg dark brown ventrally, except apical and basal parts of fifth, basal part of fourth and first segment of tarsus white.

Male genitalia. Unknown.

Female genitalia. (Figure 4A–C). Apophysis posterioris more than 2.5 times length of apophysis anterioris. Lamella postvaginalis incised medially on caudal margin with setose. Lamella antevaginalis incised medially on saw-like caudal margin. Surface of seventh sternite not smooth (Figure 4B). Antrum funnel-shaped, almost same length as papilla anales. Ductus bursae twisted once at two-thirds width. Corpus bursae with a doughnut-like signum.

Holotype

Female, Ba Be Nat. Park, Vietnam, 26–28 July 2006, Park, Chae and Cuong, slide gen. no. SNU-9047/S Kim. Paratype. One female, same locality, 26–28 July 2006, Park, Chae and Cuong, slide gen. no. SNU-9046/S Kim.

Etymology

The specific name of the new species is derived from the Latin, *asper* -i (=rough) plus -ola (a Latin diminutive suffix), referring to rough surface of seventh sternite of female genitalia.

Distribution

Oriental: Vietnam (North).

Promalactis basifasciaria Wang 2006
(Figures 1G, H, 2D, and 4D, E)

Promalactis basifasciaria Wang 2006, Science press, 19–20.

Diagnosis

This species is externally close to *Promalactis autoclina* Meyrick in the wing pattern, but it is differentiated by the fuscous patch before the tornus in the forewing, the antrum trapezoidal, the duscus bursae with a long spine, and the corpus bursae with diamond-like signum in the female genitalia.

Material examined

One male, Tam Dao Nat. Park, Vietnam, 950 m, 31 July 2006, Park, Chae and Cuong; one female, same locality, 450 m, 30 July 2006, Park, Chae and Cuong; one female, same locality, 950 m, 24 May 2007, KT Park, slide gen. no. SNU-9004/S Kim.

Distribution

Oriental: Vietnam (North), China (Southwest; Wang 2006).

Promalactis caperatiella Kim and Park, sp. nov.
(Figures 1I, J, 2E, and 4F, G)

Diagnosis

This species is similar to *P. suzukiella* (Matsumura) in the wing marking, but it can be easily differentiated by the presence of fuscous scales under the white costal patch before the tornus.

Description

Adult (Figure 1I, J). Head (Figure 2E): Frons greyish-brown; vertex white. Antenna with white scape entirely, as long as diameter of eye; flagellum white and dark brown alternately. second segment of labial palpus yellowish-brown; third segment dark brown entirely, except white basal part; third segment shorter than second segment. Thorax: Thorax and tegula dark brown dorsally. Wing expanse 7.0–7.5 mm. Forewing ground colour dark brown at basal and apical parts, and yellow at middle part. White marking surrounded by fuscous scales: two oblique bands presented: one near base, the other one-third from costal margin transverse to one half posterior margin; one semi-circular costal patch at two-thirds; two fuscous patches: one before tornus; the other before apex; fringes yellow followed by the outer margin, dark brown dense before the tornus. Hindwing more or less lanceolate; fringes greyish-brown. Legs: hind leg dark brown dorsally.

Male genitalia. Unknown.

Female genitalia (Figure 4F, G). Papilla anales setose. Apophysis posterioris more than 1.5 times length of apophysis anterioris. Lamella postvaginalis weakly developed. Lamella antevaginalis marginally folded on seventh sternite. Antrum tulip-shaped, longer than papilla anales. Ductus bursae broad, wrinkled vertically, spinous at basal and lateral margin. Corpus bursae pear-like, without a signum.

Holotype

Female, Tam Dao Nat. Park, Vietnam, 950 m, 26 April 2006, Park, Kim and Kang, slide gen. no. SNU-9045/S Kim. Paratypes. One female, Tam Dao Nat. Park, Vietnam, 950 m, 31 July 2006, Park, Chae and Cuong, slide gen. no. SNU-9268/S Kim; one female, same locality, 24 May 2007, slide gen. no. SNU-9006/S Kim.

Etymology

The specific name is derived from the Latin, *caperat* -i (= wrinkled) plus -ella (a Latin diminutive suffix), referring to distinctly wrinkled ductus bursa of female genitalia.

Distribution

Oriental: Vietnam (North).

***Promalactis curtifasciata* Kim and Park, sp. nov.**
(Figures 1K, L, 2F, and 4H, I)

Diagnosis

This species is externally close to *Promalactis odaiensis* Park in the wing pattern, but it can be easily differentiated by the dark brown ground colour, from wing base to three-fifths of length, and tinged with yellow to apex in forewing and the absence of signum in the female genitalia.

Description

Adult (Figure 1K, L). Head (Figure 2F): Frons and vertex dark brown. Scape of antenna entirely white, except dark brown laterally, as long as diameter of eye; flagellum white and dark brown alternately. Labial palpus dark brown entirely, except white at basal and apical parts of third segment; second segment 1.5 times longer than third segment. Thorax: Thorax and tegula brown dorsally. Wing expanse 9.0–9.5 mm. Forewing ground colour dark brown from wing base to three-fifths of length, tinged with yellow to apex; white markings: three short streaks from posterior margin and surrounded by fuscous scales: first at near base, second at one-sixth, third at two-sixths; one costal patch at middle; one apical spot after dense fuscous scales; fringes yellow beyond costal patch to apex followed by outer margin, dense and greyish-brown at half of posterior margin. Hindwing lanceolate; fringes greyish-brown. Legs: hind tibia pale yellowish-brown; tarsus pale yellowish-brown, but white at basal and apical parts of fifth, basal part of fourth and third segments.

Male genitalia. Unknown.

Female genitalia (Figure 4H, I). Apophysis posterioris twice as long as the apophysis anterioris. Lamella postvaginalis largely developed, incised at middle and setose. Lamella antevaginalis deeply incised, “U”-shaped. Antrum same length as papillae analis. Ductus bursae coiled, spinous anteriorly, vertical lined from two-thirds to corpus bursae. Corpus bursae pear-shaped, without signum.

Holotype

One female, Ba Be, Vietnam, 1080 m, 19–20 July 2010, JB Heppner, slide gen. no. SNU-9338/S Kim.

Etymology

The specific name of the new species is derived from the Latin, *curti* (= short) plus *fascia* (= band), referring to three short band-like markings on the forewing.

Distribution

Oriental: Vietnam (North).

***Promalactis gigaspinata* Kim and Park, sp. nov.**
(Figures 1M, N, 2G, and 4J–M)

Diagnosis

This species is differentiated from congeners by having two white markings at two-thirds length of the forewing and the distinct lamella antevaginalis in the female genitalia.

Description

Adult (Figure 1M, N). Head (Figure 2G): Frons white; vertex greyish-brown. Antenna with entirely white scape, as long as diameter of eye; flagellum white and dark brown alternately. Labial palpus pale yellowish-brown ventrally; second segment dark brown dorsally, longer than third segment; third segment white dorsally except basal and apical part dark brown. Thorax: Thorax and tegula dark brown dorsally. Wing expanse 6.0–6.5 mm. Forewing ground colour yellowish-brown; white markings surrounded by fuscous scales: one oblique band near at base, two short streaks oblique in the opposite direction and connected at one-quarter; one short streak from one-third posterior margin, oblique; one costal patch at two-thirds, the other short streak under the costal patch; one apical spot somewhat triangular-form; fuscous scales dense before the costal patch and tornus; fringes yellow from four-fifths costal margin to tornus, partly mixed with fuscous scales on vein radius IV and before tornus. Hindwing lanceolate; fringes greyish-brown. Leg: hind tibia pale-yellowish-brown with pale-yellowish-brown fringes, apical spurs more than twice as long as

basal spurs; tarsus of hind leg dark brown except white at basal parts of fifth, fourth and third and apical part of second segment.

Female genitalia (Figure 4J–M). Papilla anales missing. Apophysis posterioris and anterioris absent. Ostium deeply incised, U-like. Lamella antevaginalis distinct, setose and roundly margined as in Figure 4K. Ductus bursae almost five times longer than seventh sternite, bearing six spines, gradually narrowed to three-fifths and coiled at four-fifths. Corpus bursae weakly developed without signum.

Holotype

One female, Tam Dao Nat. Park, Vietnam, 750 m, 15 August 2005, KT Park, MY Kim and MY Chae, slide gen. no. SNU-9286/S Kim.

Etymology

The specific name of the new species is derived from the Latin, *giga* (= giant) plus *spina* (= spine), referring to large spines in female genitalia.

Distribution

Oriental: Vietnam (North).

Promalactis kalimantana Lvovsky, 2000
(Figures 1O, P, 2H, and 4N–P)

Diagnosis

This species is similar to *Promalactis thiasitis* Meyrick in the wing pattern, but can be distinguished by the ductus bursae bearing spines basally, and the corpus bursae with distinct signum in the female genitalia.

Material examined

One female, Cuc Phuong Nat. Park, Vietnam, 300 m, 30 April–1 May 2005, KT Park and S Kim, slide gen. no. SNU-9281/S Kim.

Distribution

Oriental: Vietnam (North), Indonesia (Northeast, West; Lvovsky 2000a).

Promalactis reniformis Kim and Park, sp. nov.
(Figures 1Q, R, 2I, and 4Q–S)

Diagnosis

This species is superficially close to *Promalactis tricuspidata* Wang and Li in the wing pattern, but can be easily distinguished by the female genitalia with a large, reniform lamella postvaginalis, deeply incised at middle.

Description

Adult (Figure 1Q, R). Head (Figure 2I): Frons and vertex white mixed with greyish-brown. Scape of antenna entirely white, except dark brown apex dorsally, as long as diameter of eye; flagellum white and dark brown alternately. Second segment of labial palpus dark brown dorsally, pale brown ventrally, gradually darker to apex, longer than third segment; third segment dark brown, except white at basal and apical parts. Thorax: Thorax and tegula brown dorsally. Wing expanse 7.0–7.5 mm. Forewing ground colour yellowish-brown; white markings irregularly shaped and rarely surrounded by fuscous scales: one band-like, near at base; two spots connected at middle of one-third forewing; second band-like one, short and oblique from one-third posterior margin; third band-like one, short and oblique from one-half posterior margin, connecting to the other short band-like one, extending to before the tornus by fuscous scales; one reniform costal patch at two-thirds of costa; two apical spots surrounded by fuscous scales: smaller one at vein radius VI and large one at apex; fringes yellow from two-thirds of costal margin to two-thirds of outer margin. Hindwing lanceolate; fringes greyish-brown. Leg: hind tibia pale yellowish-brown densely with pale greyish-brown fringes; tarsus pale yellowish-brown, except white at basal parts of fifth and fourth segments.

Male genitalia. Unknown.

Female genitalia (Figure 4Q–S). Apophysis posterioris more than 1.5 times length of apophysis anterioris. Lamella postvaginalis large, reniform, incised deeply, setose on caudal margin with numerous orbicular sclerites laterally. Lamella antevaginalis small and trapezoid-shaped. Antrum hexagonal-like. Ductus bursae wide at base, membranous, gradually narrowed to one-third, then swollen forming a balloon-like part from one-third. Corpus bursae ovate; signum absent.

Holotype

One female, Cuc Phuong Nat. Park, Vietnam, 196 m, 3–4 July 2008, JB Heppner, slide gen. no. SNU-9039/S Kim.

Etymology

The specific name of the new species is derived from the Latin, *reni* (=kidney) plus *forma* (*form -is*) (= form), referring to lamella postvaginalis reniform of female genitalia.

Distribution

Oriental: Vietnam (North).

Promalactis tauricornis Du et al., 2011
(Figures 1S, T, 2J, and 4T, U)

Promalactis tauricornis Du et al., 2011, Zootaxa, 3044: 49–64.

Diagnosis

This species is superficially close to *P. asperiola* sp. nov. in the wing pattern, but it can be differentiated by the female genitalia with sclerotized, cylindrical ductus bursae and the wrinkled seventh sternite laterally.

Material examined

One female, Tam Dao Nat. Park, Vietnam, 1108 m, 16–19 June 2008, JB Heppner, slide gen. no. SNU-9048/S Kim.

Remark

According to the original description (Du et al. 2011) of the species, the forewing has white scales mixed with the fuscous scales before the tornus, but the Vietnamese specimen has no such white scales. A further study is needed when additional specimens are available.

Distribution

Oriental: Vietnam (North), China (South; Du et al. 2011).

Promalactis tricuspidata Wang and Li, 2004
(Figures 1U, V, 2K, and 3G, H)

Promalactis tricuspidata Wang and Li, 2004, Oriental. Insects, 38: 2.

Diagnosis

This species externally similar to *P. reniformis* sp. nov. in the wing pattern, but it is differentiated by the trapezoidal antrum and the short ductus bursae in female genitalia.

Material examined

Three males, Cuc Phuong Nat. Park, Vietnam, 200 m, 1–2 July 2008, JB Heppner, slide gen. no. 9051, 9040, 9278/S Kim; one male, same locality, 155 m, 4–7 May 2009, JB Heppner, slide gen. no. SNU-9333/S Kim.

Distribution

Oriental: Vietnam (North), China (Southwest; Wang 2006).

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