ON THE PLUME MOTHS (LEPIDOPTERA, PTEROPHORIDAE) OF VIETNAM

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INTRODUCTION

The present article is a continuation of studies in the Pterophoridae fauna of Vietnam. The first survey article was published in 2009 [Ustjuzhanin & Kovtunovich, 2009]. In the present article, new material is presented, collected by the Russian entomologists. Two new species are described: Ochyrotica zolotuhini sp. n. and Heptaloba tanglong sp. n. Three synonyms have been revealed: Alucita chionadelpha Meyrick, 1929 and Pterophorus attenuatus Hao, Kendrick, Li, 2008 syn. n., Pterophorus maolanensis Li, 2002 syn. n. To the fauna of Pterophoridae of Vietnam, another two (2) species, previously unknown, have been added: Platyptilia chosokeiella Strand and Pterophorus elaeopus (Meyrick).

RESULTS

Ochyrotica yanoi Arenberger, 1988

Ochyrotica yanoi Arenberger, 1988: 276. (Type locality: Japan).


Distribution: Japan, China, Vietnam, Taiwan, Philippines, China, India, Indonesia.

Ochyrotica zolotuhini sp. n.


External characters. (Col. pl. I: 1, 2). The head is covered with brown upright hair. The labial palps are thin, straight, 1.5 times longer than the eye diameter. The antennae are slender, pale brown. The thorax is glossy silver. The wingspan is 16-18 mm (holotype - 16 mm). On the forewings there is a brown red band, broadening closer to the apex, where it forms a red trapezoid. On the border of the distal and the middle third of the wing, there is a dark red shade. The costal edge of the wing is brown. The hindwings are uniform brown. The fringe on both wings is brown. On the abdomen segments, there are glittering silver areas (Fig. 2). The hind legs are pale brown and bright white ringed.

Male genitalia. (Col. pl. I: 3). The valvae are symmetric, narrow. The harpae are slightly concave, about to reach the valvae apices. The saccus has a well-developed sclerotized process, directed towards the valva base. The uncus is thin, pointed towards the apex. The saccus has an excavation on the inner edge. The aedeagus is long, arcuate, with a hook-like appendix extending from its base.

Female genitalia. (Col. pl. I: 4). Papillae anales are narrow, in the form of oblong triangles. Apophyses posteriores are thin, narrow; apophyses anteriores are short. The antrum is short, tubulated. The plate on the VII sternite is V-shaped, with well-developed horn-like processes. The ductus is narrow, have been added: Platyptilia chosokeiella Strand and Pterophorus elaeopus (Meyrick).
relatively broad and short, with a broad pigmented plate at the base. The bursa copulatrix is large, oval. The signum is large, has a form of oblong leaf-shaped plate.

**Diagnosis.** By external characteristics and by the structure of the genitalia of both sexes, the new species is close to *Ochryrotica celebica* Arenberger, 1988. In male genitalia, the new species differs from *Ochryrotica celebica* by longer harpae and a different shape of aedeagus. In female genitalia, the new species is distinguishable by a V-shaped VII sternite and shorter apophyses anteriores.

**Etymology.** The species is named after noted Russian lepidopterologist, Vadim Zolotukhin (Russia, Ulyanovsk), who studied the fauna of insects of Vietnam in many expeditions to this country.

*Heptaloba tanglong sp. n.*


**External characters** (Col. pl. I: 5, 6). The head, thorax, and tegulae are brown. The antennae are pale brown. The wingspan is 15 mm. The forewings are reddish-brown. The forewing is split in four (4) lobes. The cleft between the first and the second lobes is not deep, slightly less than 1/3 of the wing. The cleft between the second and the third lobes is deep; it goes beyond the middle of the wing. The cleft between the third and the fourth lobes equals 1/3 of the wing. Along the costal edge, in the distal part of the wing, there are 4 pale spots. The hindwings are monotonous pale brown. The third lobe is framed with dark oblong scales; at the apex of the third lobe, these scales form a broad area. The legs are pale brown, darkened at the base of spurs. The spurs are thin and long. The abdomen is reddish-brown, with a pattern of triangles and rectangles.

**Male genitalia** (Col. pl. I: 7). The uncus is narrow, oblong. (The valvae description is impossible, for they have been damaged). The plate of VIII sternite is narrow, oblong, split at the end. The aedeagus is thin, poker-like bent at the apex; in the basal part slightly bent in the direction opposite to that at the apex.

**Diagnosis.** By external characteristics and male genitalia, the new species resembles *Heptaloba argyriodactyla* (Walker, 1864), (Col. pl. I: 8-13), but differs well by the shape of aedeagus and the plate of VIII sternite.

**Ecology.** The moth has been collected in long-boled forest with the predominance of *Lagerstroemia* sp., various legumes (*Fabaceae sensu lato*) including *Afzelia xylocarpa* (Kurz) Craib.

**Notes.** The only representative of genus *Heptaloba*, with the forewings split in four lobes, was known only from Sri Lanka Island (Ceylon). The discovery of the new species on the Continent is a very interesting scientific fact, proving the common origin of the faunas of Hindustan and Indo-China peninsulas.

**Etymology.** In Vietnamese mythology: (thăng) – to fly, (long) – dragon. Literally – “flying dragon”.

*Platyptilia chosokeiella* Strand, 1922

*Platyptilia chosokeiella* Strand, 1922: 15. (Type locality: Taiwan).

**Material:** C. Vietnam, Thua Thien Hue Prov., A Ruang, 663 m, 16°04′N, 107°29′E, 24-29.04.2009, 2 ♀♂, A. Gurkovich leg.

**Distribution.** Taiwan, Vietnam, Cambodia.

**Notes.** Recorded for the first time for the fauna of Vietnam.

*Platyptilia ? eberti* Gielis, 2003

**Material:** N. Vietnam, Cao Bang Prov., Phi Oak Mt. Nguyen Binh Distr. Phia Den Vill., 1030m, 22°34′N, 105°52′E, 11.11.2009 – 1 ♂, 1 ♀, V. Zolotukhin leg.

**Notes.** Our specimens bear resemblance with *Platyptilia eberti* Gielis, 2003, both in habitus and in female genitalia. However, the species of genus *Platyptilia* are very similar in habitus and genitalia structure, therefore the question of their generic status requires special studies and additional material and data.

**Stenoptilodes? tabronannes** (Felder & Rogenhofer, 1875)

*Amblyptilia tabronannes* Felder & Rogenhofer, 1875: Pl. 140, fig. 54. (Type locality: Sri Lanka).

*Platyptilia brachymorpha* Meyrick, 1888: 240. (Type locality: India).

*Platyptilia seeboldi* Hofmann, 1898: 33. (Type locality: Syria).

*Platyptilia terlizzii* Turati, 1926: 67. (Type locality: Libya).

*Amblyptilia zatavaitii* Hartig, 1953: 67. (Type locality: Italy).

*Platyptilia legrandi* Bigot, 1962b: 86. (Type locality: Seychelles).

**Stenoptilodes vittata** Service, 1966: 11. (Type locality: Nigeria).


**Distribution.** Everywhere in tropical and subtropical regions.

*Lantanophaga pusillidactyla* (Walker, 1864)

*Oxyptilus pusillidactyla* Walker, 1864: 933. (Type locality: Jamaica).

*Platyptilia tecnition* Zeller, 1877: 13. (Type locality: Virgin Islands).

*Platyptilia hemimetra* Meyrick, 1886: 18. (Type locality: Reunion Isl.).

*Platyptilia amphiloga* Meyrick, 1909: 365. (Type locality: Western Cape, Rep. S. Africa.).

*Platyptilia lantanata* Busck, 1914: 103. (Type locality: Hawaii Islands).

*Platyptilia teleactna* Meyrick, 1932: 250. (Type locality: Indonesia, Java).

*Platyptilia lantanadactyla* Amsel, 1951a: 66. (Type locality: Reunion Isl.).
locality: Morocco).

**Stenodacma wahlbergi** (Zeller, 1852)


**Material:** N. Vietnam, Vinh Phuc Prov., Me Linh Biolgical station, 60 m, 21°23' N, 105°52'E, 11.11.2009 – 1 ♂, V. Zolotukhin leg.

**Distribution.** Everywhere in tropical and subtropical regions.

**Oxyptilus**

**Notes.** When comparing the lectotype of *Oxyptilus wahlbergi*, found out, that the latter are junior synonyms.

**Stangeia xerodes** (Meyrick, 1886)


**Material:** N. Vietnam, Vinh Phuc Prov., Me Linh Biolgical station, 60 m, 21°23' N, 105°52'E, 11.11.2009 – 2 ♂♂, V. Zolotukhin leg.

**Distribution.** Hawaii, Japan, China, Indonesia, Sri Lanka, India, Taiwan, Thailand, Laos, Malaysia, Vietnam.

**Sphenarches anisodactylus** (Walker, 1864)

*Oxyptilus anisodactylus* Walker, 1864: 934. (Type locality: Sri Lanka).

**Material:** N. Vietnam, Vinh Phuc Prov., Me Linh Biolgical station, 60 m, 21°23' N, 105°52'E, 11.11.2009 – 1 ♀, V. Zolotukhin leg.

**Distribution.** Japan, China, Indonesia, Sri Lanka, Australia, New Guinea, Fiji Islands.

**Pterophorus elaeopus** (Meyrick, 1908)

*Alucita elaeopa* Meyrick, 1908: 490. (Type locality: India: Khasi Hills).


**Distribution.** Vietnam, India, Thailand, Laos, Malaysia, Indonesia.

**Notes.** Recorded for the first time for the fauna of Vietnam.

**Pterophorus chosokeialis** (Strand, 1922)

*Alucita chosokeialis* Strand, 1922:15. (Type locality: Taiwan).

**Material:** C. Vietnam, Thua Thien Hue Prov., A Lubi, 460 m, 16°16'N, 107°14'E, 23.04.2009, 1 ♂, A. Gurkovich leg.; C. Vietnam, Quang Binh Prov.

**Distribution.** Vietnam, Thailand, Laos, Malaysia, Indonesia.

**Notes.** When comparing the holotype of *Alucita chosokeialis* Strand with *Alucita chionadelpha* Meyrick and *Pterophorus attenuatus* Hao, Kendrick, Li, it has been found out, that the latter are junior synonyms.

**Pterophorus leucadactylus** (Walker, 1864)

*Acipitius leucadactylus* Walker, 1864: 949. (Type locality: Sri Lanka (Ceylon)).

**Material:** C. Vietnam, Thua Thien Hue Prov., A Lubi, 460 m, 16°16'N, 107°14'E, 23.04.2009, 1 ♀, V. Zolotukhin leg.; N. Vietnam, Vinh Phuc Prov. Me Linh biol station, 60 m, 21°23'N, 105°52'E, 1-4-05.2009 – 1 ♀, V. Zolotukhin leg.

**Distribution.** Sri Lanka, India, Indonesia, China, Vietnam, Thailand.

**Notes.** When comparing the lectotype of *Acipitius leucadactylus* Walker with *Pterophorus maolanensis* Li, the latter has been found out to be a junior synonym.
ACKNOWLEDGEMENTS

The authors are grateful to their colleagues, who have provided the material: V. Zolotukhin, A. Gurkovich, S. Nedoshivina (Russia, Ulyanovsk), P. Kvartalnov, V. Sinyaev (Russia, Moscow), A. Lastukhin (Russia, Cheboksary). We would also like to thank the curator of museum (MNHU, Berlin), Dr. Wolfram May, for being so kind as to provide us with the photos of the required types of Pterophoridae.

REFERENCES

A plume moths: 1-4 – Ochrotchta zolotuhini sp. n.; 5-7 – Heptaloba tanglong sp. n.; 8-13 – Heptaloba argyriodactyla. 1, 5, 8, 11 – imago; 2 – abdomen; 3, 7, 12 – male genitalia; 13 – plate of VIII sternite; 4, 9 – female genitalia; 6 – photo in nature; 1, 3, 5-7 – holotype; 4 – paratype; 8, 9, 10 – lectotype; 10 – labels.

Пальцекрылки: 1-4 – Ochrotchta zolotuhini sp. n.; 5-7 – Heptaloba tanglong sp. n.; 8-13 – Heptaloba argyriodactyla. 1, 5, 8, 11 – имаго; 2 – брюшко; 3, 7, 12 – гениталии самца; 13 – пластинка VIII стернита; 4, 9 – гениталии самки; 6 – фото в природе; 1, 3, 5-7 – гольф; 4 – паратип; 8, 9, 10 – лектотип; 10 – этикетки.