

Review of the genus *Argyartia* Kôda (Lepidoptera, Arctiidae)Обзор видов рода *Argyartia* Kôda (Lepidoptera, Arctiidae)V.V. Dubatolov*, Y. Kishida**
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Abstract. A review of all known species of the genus *Argyartia* Kôda is presented. The genus is divided into two subgenera. The nominotypical subgenus is endemic to Taiwan; it includes *A. fuscobasalis* Matsumura (the type species) and *A. reykoeae* Kishida. The subgenus *Fangalphaea* **subgen.n.** (type species *Argyartia flava* Fang) is so far known from Yunnan in China; it is characterized by presence of peniculi (branches of transtilla) in the male genitalia. *Argyartia flava* Fang, 1994 is synonymized with *Spilosoma seriseipennis* Rothschild, 1933, **syn.n.**

Резюме. Приводится обзор всех известных видов рода *Argyartia* Kôda, который разделяется на два подрода. Номинативный подрод эндемичен для острова Тайвань и включает *A. fuscobasalis* Matsumura (типовой вид) и *A. reykoeae* Kishida. Подрод *Fangalphaea* **subgen.n.** (типовой вид *Argyartia flava* Fang) пока известен только из Юньнани (Китай), он характеризуется наличием крупных пеникулов (ветвей транстиллы) в гениталиях самцов. *Argyartia flava* Fang, 1994 синонимизируется с *Spilosoma seriseipennis* Rothschild, 1933, **syn.n.**

The genus *Argyartia* Kôda, 1988 was described as related to *Alphaea* Walker, 1855 and, according to the original description, includes two species: *A. fuscobasalis* (Matsumura, 1930) (the type species) and *A. reykoeae* (Kishida, 1984). Several years later, Fang Chenglai [1984] found one more species of this genus, *Argyartia flava* Fang, 1984, and published a first key for the species, but in Chinese only. Unfortunately, she did not examine species described earlier from China by European lepidopterologists, and she would have not found that her species had already been described in another genus. This prompted us to review the genus.

Argyartia Kôda, 1988

Kôda, 1988; Tyô to Ga 39 (1): 32–36.

Type species *Diacrisia fuscobasalis* Matsumura, 1930, by original designation.**Diagnosis.** Male antennae bipectinate. Eyes large, hemispherical, naked. Proboscis not reduced, but not longer than

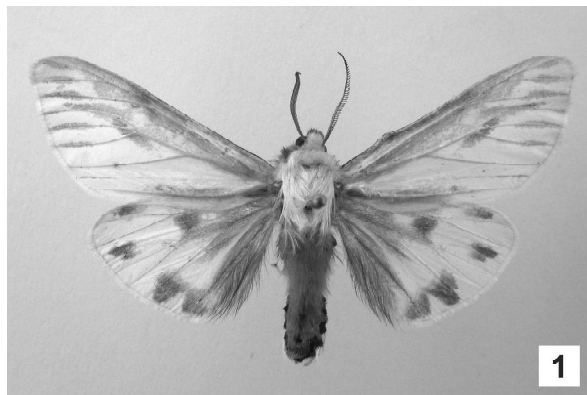
head width. Palpi small, porrect, not longer than dense hairs on frons. Fore tibiae simple, with apical spine on apex either small and broad or reduced. Middle tibiae with one pair of spurs, hind tibiae with two pairs. Claws with a slight incision at the middle. Paronychialia as long as claw. On forewings, vein R_2 stalked with R_{3+5} (venation type C [sensu Sotavalta, 1964]). Tympanum with small flattened impressions. Upper part of head white, underside dark. Forewings whitish on upper surface, with darkening along veins; hindwings whitish, with dark discal and a few submarginal spots and darkening at base and along some veins. The most remarkable feature of the genus is a strong darkening of the underside of the wings, mainly in the forewing cell and along the costa and veins. Male genitalia (Figs 1–3): broad triangular projection on each side of the tegumen absent, the two proximal processes of valva located closer to each other than to the apical one; the basal process on valva is keel-like and located transversely on the inner side of valva.

Species of the nominotypical subgenus are characterized by bright red abdomen dorsally and lack of peniculi (basal processes of the costa of valva).

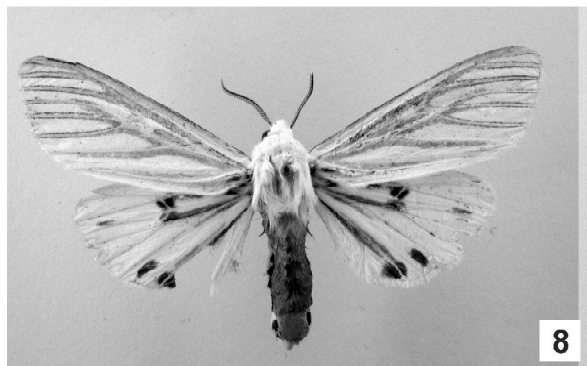
Argyartia fuscobasalis (Matsumura, 1930)

Figs 1–2.

Diacrisia fuscobasalis Matsumura, 1930: Insecta Matsumurana. Vol.5. Nos 1–2. P.33. Tab.1. Fig.12. Type locality: «Formosa ... Horisha».**Material.** CHINA, TAIWAN [=Formosa]: 1♂, Hualien Hsien, Tayuling, 2600 m, 2–4.V 1984, H. Yoshimoto leg. (Y. Kishida coll., Tokyo, Japan).**Distribution.** China: Taiwan.**Diagnosis.** Abdomen red dorsally, white ventrally. Forewings whitish on upperside, with a translucent underside pattern; on underside there is a broad grey area in cell and along costal margin, grey streaks on veins are visible only in external part of wing; hindwings with a broad grey basal darkening. Male genitalia (Fig. 10): two proximal processes of valva are well separated, middle one long, apical one narrow and tapering to apex. Aedeagus dorsally with a long narrow curved band-like area of sclerotization, covered with small teeth centrally. Vesica with one elongate field of small spine-like cornuti.



云南盈江铜壁关 1979. VII. 28. HOLOTYPE 7
1660m 采集者: 万邦





Figs 10–12. Male genitalia of the *Argyartia* species: 10 — *A. fuscobasdalis* (Matsumura), Taiwan; 11 — *A. reikoae* (Kishida), paratype, Taiwan; 12 — *A. sericeipennis* (Rothschild), Yunnan, Bingchuan.

Рис. 10–12. Гениталии самцов видов *Argyartia*: 10 — *A. fuscobasdalis* (Matsumura), Тайвань; 11 — *A. reikoae* (Kishida), паратип, Тайвань; 12 — *A. sericeipennis* (Rothschild), Юньнань, Бинчунань.

Argyartia reikoae (Kishida, 1984)

Figs 3–4.

Spilosoma reikoae Kishida, 1984: Tinea. Vol.11. No.23. P.199–200. Figs 1–3, 5. Type locality: «TAIWAN, Chiayi, Alishan».

Material. CHINA, TAIWAN [=Formosa]: 1♂ (paratype), Chiayi Hsien, Mt. Alishan, 2200 m, 2–5.VIII 1984, K. Yazaki leg. (Y. Kishida coll., Tokyo, Japan).

Distribution. China: Taiwan.

Diagnosis. Abdomen red dorsally, white ventrally. Forewings whitish on upperside, with a translucent underside pattern; on the underside there is a broad dark grey area along costa and on all veins; hindwings with a dark discal spot, two spots of the same colour near the tornal angle, and darkening along posterior vein of cell and vein A_2 . Male genitalia (Fig. 11): two proximal processes of valva located close to each other, subbasal one short, apical one not narrow, with a slight club on apex. On aedeagus dorsally, long narrow band-like sclerotization extends from bulbous enlargement covered with small teeth. Vesica with one elongate field of small spine-like cornuti.

Subgenus *Fangalphaea*

Dubatolov et Kishida, **subgen.n.**

Type species *Argyartia flava* Fang, 1994.

Diagnosis. Abdomen yellow dorsally, whitish ventrally. Male genitalia (Fig. 12): peniculi (basal processes of costa of valva) well developed.

Argyartia (Fangalphaea) sericeipennis (Rothschild, 1933), **comb.n.**

Figs 5–9.

Spilosoma sericeipennis Rothschild, 1933: The Annals and Magazine of Natural History Ser.10. Vol.11. No.62. P.174. Type locality: «Tali Haut, Yunnan».

= *Argyartia flava* Fang, 1994, **syn.n.**: Sinozoologia. No.11. P.97–99. Type locality: «Yingjiang, Yunnan, 1660 m».

Material. CHINA: 1♂ (holotype of *Argyartia flava* Fang), YUNNAN, Yingjiang, 1660 m, 28.VII 1979, Wangtong leg. (Institute of Zoology, Beijing, China); 1♂, YUNNAN (N), Bingchuan, Jijiaoshan, 3800 m, VII 2003, native collector leg., ex coll. P. Kautt. (Siberian Zoological Museum, Novosibirsk, Russia; received from Y. Kishida).

Distribution. China: Yunnan.

Diagnosis. In addition to the characters of the subgenus, it should be noted that the top of the uncus is narrow and elongate, the tegumen on each side has short broad rounded inflations; the peniculi are long, with noticeably club-like apices, the valva is broad from the base to a central broadening; the two proximal processes are located close to each other; the apical process is long and narrow. The aedeagus dorsally has a narrow band-like sclerotization covered with small teeth in its central part; the vesica lacks cornuti (Fig. 12).

Notes on systematics. The systematic position of *Spilosoma sericeipennis* Rothschild was unclear for a long time. Its description is as follows: «A most remarkable species, unlike any other *Spilosoma*. ♀. — Palpi black, head and thorax white, abdomen above brownish orange with white edging to anal segment, antennæ black. Fore wing white with intense satiny sheen with narrow black hair-lines each side of veins 3, 4, 5, 6, 7, and 8. Hind wing satiny white, costal and anal areas, an irregular patch beyond cell, the cell and a patch above vein 1 smeared densely with sooty brown-black; on each side of veins 3, 4, 5, 6, and 7 are black lines more intense and wider than on fore wing. Below wings much more strongly black; underside of abdomen white with chocolate cross-bands. Fore wing 31 mm. Expanse 68 mm». Unfortunately, the type is not preserved in the collection of The Natural History Museum, London (BMNH), (personal communication from Mr. Martin Honey). The late Mr. Werner Thomas wrote to Mr. Yasunori

Figs 1–9. The *Argyartia* species, moth images: 1–2 — *A. fuscobasdalis* (Matsumura), Taiwan; 3–4 — *A. reikoae* (Kishida), paratype, Taiwan; 5–9 — *A. sericeipennis* (Rothschild), holotype of *flava* Fang (5–6), its labels (7), Yunnan, Bingchuan (8–9). 1, 3, 5, 7 — upperside, 2, 4, 6, 9 — underside.

Рис. 1–9. Виды *Argyartia*, изображения бабочек: 1–2 — *A. fuscobasdalis* (Matsumura), Тайвань; 3–4 — *A. reikoae* (Kishida), паратип, Тайвань; 5–9 — *A. sericeipennis* (Rothschild), голотип *flava* Fang (5–6), его этикетки (7), Юньнань, Бинчунань (8–9). 1, 3, 5, 7 — верхняя сторона, 2, 4, 6, 9 — нижняя сторона.

Kishida that this species by W. Rothschild might be related to his *Argyartia reikoeae* Kishida, but the latter species does not occur on the Chinese mainland. The only *Argyartia* species from Yunnan (the type locality of *S. sericeipennis* Rothschild) is *A. flava* Fang, which was hitherto very poorly known, although figures of this moth and its genitalia were published by Fang [1994, 2000]. After studying the holotype of *A. flava* Fang and additional material from Yunnan, it became clear that a female of this species was described formerly as *S. sericeipennis* Rothschild. Both are characterized by: a yellow or orange abdomen; similar darkening along veins; a stronger dark pattern on the underside of the wings; identical size.

KEY TO SPECIES

1. Abdomen dorsally yellow or orange. Male genitalia: peniculi present. Continental China: Yunnan
..... *A. sericeipennis* Rothschild
— Abdomen dorsally bright red. Male genitalia: peniculi absent.
Taiwan 2
2. Dark pattern on wing underside not contrasted. Dark streaks along veins are short, narrow, restricted in submarginal zone and not coalesced with darkening along costa. Hindwing with anal darkening. Male genitalia: apical valva processus tapering at apex *A. fuscobasalis* Matsumura
— Dark pattern on wing underside contrasted. Dark streaks along veins are long, broad, coalesced with darkening along costa. Hindwing without anal darkening. Male genitalia: apical valva processus broadly rounded at apex
..... *A. reikoeae* Kishida

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