

NEW OR LITTLE KNOWN MOTHS FROM FORMOSA (2)

MASAO OKANO

台灣産蛾類の新知見(2)

岡野磨瑛郎

The present paper deals with thirteen Formosan species belonging to the families Geometridae, Drepanidae, Thyatiridae, Lymantriidae, Notodontidae and Sphingidae. Among them four species and seven subspecies are described as new to science and two species are newly added to the fauna of this island.

Before going further, I wish to express my gratitude to Mr. JÔZABURÔ ÔKURA and Mr. MASASUKE INOUE for their gift of valuable specimens. I am also indebted to Mr. HIROSHI INOUE for his advice.

All the specimens mentioned in this paper are preserved in my collection.

GEOMETRIDAE

Tanaorhinus reciprocata formosana subsp. nov.

♂. Closely similar to subsp. *confuciarica* WALKER from Honshu, Shikoku, Kyushu, Korea and North China, but usually separable from it in having a row of more enlarged white spots beyond postmedial line on both wings.

Length of forewings : 31—32 mm. (♂).

Habitat : Formosa.

Holotype ♂ : Puli, Central Formosa, April—May, 1957.

Paratype : 1 ♂, data as holotype.

Bapta inamata WALKER

Specimen examined : 1 ♂, Puli—Wushe, Central Formosa, May, 1958.

This species is new to the fauna of Formosa. It has hitherto been known from Kyushu, China, Smatra, Borneo, Ceylon and India.

One male specimen mentioned above is determined through the published descriptions.

DREPANIDAE

Macrauzata minor sp. nov.

(Pl. 3, fig. 1 ; Pl. 4, figs. 1—2)

Closely related to *M. fenestraria* MOORE from Honshu, Shikoku, Kyushu, Yakushima and India, but easily separable from it in the following characters.

♂. Much smaller in size. Outer margin of hindwings less roundish between veins 7 and 4, projecting at veins 4 and 3. Ground colour of both wings less brownish ; postmedial line situated nearer to submarginal line.

Male genitalia : Valva much narrower, without ventral process ; anellus lobes much

broader, roundish, pointed at tip; aedoeagus with numerous teeth on ventral side.

Length of forewings : 19—20 mm. (♂).

Habitat : Formosa.

Holotype ♂ : Puli—Wushe, Central Formosa, May, 1958.

Paratypes : 2♂♂, type locality, June—July, 1958.

***Drepana pallida nigromaculata* subsp. nov.**

♂♀. Separable from the nominate subspecies from Sikkim in having by far much distinct and darker round spot at lower angle of discoidal cell of forewings.

Length of forewings : 19—22 mm. (♂), 22 mm. (♀).

Habitat : Formosa.

Holotype ♂ : Puli—Wushe, Central Formosa, May, 1958.

Allotype ♀ : Type locality, June—July, 1958.

Paratypes : 2♂♂, data as holotype; 2♂♂, data as allotype.

***Albara scabiosa* BUTLER**

Specimen examined : 1♂, Puli—Wushe, Central Formosa, May, 1958.

This is the first record from Formosa. The species has hitherto been known from Hokkaido, Honshu, Shikoku, Kyushu, Korea, Amur and China.

One male specimen before me from Formosa is identical with those from Japan.

***Albara takasago* sp. nov.**

(Pl. 3, fig. 2; Pl. 4, figs. 3—4)

♂♀. Antennae in male bipectinate to two-thirds, in female simple. Front and head dark brown. Labial palpi dark brown above, yellowish below. Patagia reddish yellow. Thorax and tegurae purplish grey. Legs light brownish yellow; fore tibia and fore and middle tarsus dark brown outside. Abdomen purplish grey above, whitish below. Both wings purplish grey; antemedial line whitish, very indistinct; postmedial line brownish yellow; a minute white dot at lower angle of discoidal cell; cilia purplish grey, tipped with brownish yellow. Forewings with reddish yellow costal margin; antemedial line starting at basal fourth of costal margin, angulated on cubitus, terminating at basal third of hind margin; postmedial line starting at apical third of costal margin, oblique outwards, angulated in space 6, then oblique inwards, terminating at distal third of hind margin, indistinct below costal margin; an indistinct dark spot at middle of discocellulars. Hindwings with paler costal area; antemedial and postmedial lines weakly arched outwards; the former at basal third, the latter just beyond middle of the wings. Underside of both wings whitish grey, unmarked.

Length of forewings : 17—18 mm. (♂), 17 mm. (♀).

Habitat : Formosa.

Holotype ♂ : Puli—Wushe, Central Formosa, May, 1958.

Allotype ♀ : Type locality, June—July, 1958.

Paratypes : 2♂♂, data as holotype; 1♂, data as allotype.

Similar to *A. violacea* BUTLER from North India, but ground colour of both wings darker, postmedial line of forewings not straight below costal margin.

THYATIRIDAE

Tethea ampliata grandis subsp. nov.

♂. Similar to the nominate subspecies from Hokkaido, Honshu, Shikoku, Kyushu, Kuriles, Ussuri and China, but larger in size, ground colour of forewings lighter.

Length of forewings : 24—25 mm. (♂).

Habitat : Formosa.

Holotype ♂ : Puli—Wushe, Central Formosa, May, 1958.

Paratypes : 2 ♂♂, type locality, June—July, 1958.

LYMANTRIIDAE

Arctornis L-nigrum okurai subsp. nov.

(Pl. 3, fig. 3)

♂. Closely related to subsp. *asahinai* INOUE from Hokkaido, Honshu, Shikoku and Kyushu, but clearly separable from it in having much heavier L-mark on discocellulars of forewings.

Length of forewings : 20—21 mm. (♂).

Habitat : Formosa.

Holotyp ♂ : Puli—Wushe, Central Formosa, May, 1958.

Paratypes : 1 ♂, data as holotype ; 1 ♂, type locality, June—July, 1958.

Named after Mr. JÔZABURÔ ÔKURA.

NOTODONTIDAE

Suzukia formosana sp. nov.

(Pl. 3, fig. 4; Pl. 4, fig. 5)

Suzukia punctella MATSUMURA (err. typogr., nec MOTSCHULSKY), Zool. Mag., Tokyo, 37 : 407, 1925 (Formosa).

♂. Most closely related to *S. cinerea* BUTLER from Hokkaido, Honshu, Shikoku, Kyushu and Korea, but forewings more strongly suffused with greenish scales.

Male genitalia : ampulla vestigial ; lateral process of aedoeagus much shorter and blunter, situated nearer to apex of aedoeagus.

Length of forewings : 22 mm. (♂).

Habitat : Formosa.

Holotype ♂ : Puli—Wushe, Central Formosa, May, 1958.

Paratypes : 1 ♂, data as holotype ; 1 ♂, type locality, June—July, 1958.

Neopheosia fasciata formosana subsp. nov.

(Pl. 3, fig. 5)

♂. Very similar to subsp. *japonica* OKANO from Honshu, Shikoku and Kyushu, but

postmedial series of short black streaks of forewings well developed, which is weakly developed or almost absent in *japonica*, the other markings slightly stronger.

Length of forewings : 25 mm. (♂).

Habitat : Formosa.

Holotype ♂ : Puli—Wushe, Central Formosa, May, 1958.

Paratype : 1 ♂, data as holotype.

***Phalera takasagoensis matsumurai* subsp. nov.**

(Pl. 3, fig. 6 ; Pl. 4, fig. 6)

♂. Easily separable from the nominate subspecies from Honshu in having much darker ground colour of forewings.

Length of forewings : 23 mm. (♂).

Habitat : Formosa.

Holotype ♂ : Puli—Wushe, Central Formosa, May, 1958.

Palatypes : 1 ♂, data as holotype ; 2 ♂♂, type locality, June—July, 1958.

Named after Dr. SHONEN MATSUMURA.

I erroneously synonymised *P. takasagoensis* MATSUMURA with *P. fuscescens* BUTLER in a previous paper (Annual Rep. Gakugei Faculty Iwate Univ., 8(2) : 51, 1955). Both the species, however, are specifically distinct and are easily distinguished by the following key.

- 1 (2) Forewings : Apical yellowish patch broader ; underside greyish white. Male genitalia : Juxta truncated at apex *fuscescens*.
2 (1) Forewings : Apical yellowish patch narrower ; underside dark greyish brown. Male genitalia : Juxta sharply pointed at apex *takasagoensis*.

SPHINGIDAE

***Oxyambulyx japonica angustifasciata* subsp. nov.**

(Pl. 3, fig. 7)

♂♀. Similar to the nominate subspecies from Honshu, Shikoku, Kyushu and Korea, but antemedial band of forewings much narrower, submarginal line less strongly arched inwards, hindwings more strongly dusted with blackish brown.

Length of forewings : 42—43 mm. (♂) ; 44 mm. (♀).

Habitat : Formosa.

Holotype ♂ : Puli—Wushe, Central Formosa, May, 1958.

Allotype ♀ : Type locality, June—July, 1958.

Paratype : 1 ♂, data as allotype.

***Oxyambulyx okurai* sp. nov.**

(Pl. 3, fig. 8 ; Pl. 4, fig. 7)

Closely allied to *O. schauffelbergeri* BREMER et GREY from Hokkaido, Honshu, Korea and China, but clearly separable from it in the following characters.

♂♀. Much larger in size. Abdomen with a dull dorsal line. Flat costal spot and

roundish submarginal spot in basal area of forewings blackish brown instead of greenish brown in *schauffelbergeri* ; submarginal line less strongly arched inwards.

Male genitalia : Valva larger, rather pointed at apex ; sacculus narrower, with much larger teeth ; saccus much smaller.

Length of forewings : 54 mm. (♂), 56 mm. (♀).

Habitat : Formosa.

Holotype ♂ : Puli, Central Formosa, 1957.

Allotype ♀ : Data as holotype.

Named after Mr. Jôzaburô Ôkura.

Explanation of plates

Plate 3.

- Fig. 1. *Macrauzata minor* OKANO, ♂ (holotype). Puli—Wushe, Central Formosa, May, 1958.
- Fig. 2. *Albara takasago* OKANO, ♂ (holotype). Puli—Wushe, Central Formosa, May, 1958.
- Fig. 3. *Arctornis L-nigrum okurai* OKANO, ♂ (holotype). Puli—Wushe, Central Formosa, May, 1958.
- Fig. 4. *Suzukia formosana* OKANO, ♂ (holotype). Puli—Wushe, Central Formosa, May, 1958.
- Fig. 5. *Neopheosia fasciata formosana* OKANO, ♂ (holotype). Puli—Wushe, Central Formosa, May, 1958.
- Fig. 6. *Phalera takasagoensis matsumurai* OKANO, ♂ (holotype). Puli—Wushe, Central Formosa, May, 1958.
- Fig. 7. *Oxyambulyx japonica angustifasciata* OKANO, ♂ (holotype). Puli—Wushe, Central Formosa, May, 1958.
- Fig. 8. *Oxyambulyx okurai* OKANO, ♂ (holotype). Puli, Central Formosa, 1957.

Plate 4.

- Figs. 1—2. Male genitalia of *Macrauzata minor* OKANO. 1. lateral aspect as a whole (left valva removed) ; 2. eighth sternite.
- Figs. 3—4. Male genitalia of *Albara takasago* OKANO. 3. lateral aspect as a whole (left valva removed) ; 4. eighth sternite.
- Fig. 5. Male genitalia of *Suzukia formosana* OKANO, lateral aspect as a whole (left valva removed).
- Fig. 6. Male genitalia of *Phalera takasagoensis matsumurai* OKANO, lateral aspect and ventral aspect as a whole (left valva removed).
- Fig. 7. Male genitalia of *Oxyambulyx okurai* OKANO, lateral aspect as a whole (left valva removed).



