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NEW *BIRTHANA* FROM TAIWAN (LEPIDOPTERA: IMMIDAE)

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ABSTRACT.— *Birthana taiwana*, new species, is described from Kenting Park, southern Taiwan, as the first species of this genus from Taiwan.

KEY WORDS: *Birthana taiwana* n. sp., China, India, New Guinea, Oriental, *Imma*, Immoidea, Tortricidae, *Zacorisca*.

The genus *Birthana* previously has been known from the mainland of China, to India and through Southeast Asia to New Guinea. As presently known, the genus consists of 11 species, including the present new species (Heppner, 1982). One species has been removed and transferred to Tortricidae. Almost all Immidae were until recently placed in the genus *Imma*, but several genera are involved among Immidae and *Birthana* is among the larger and more colorful members of this unusual tropical family.

Birthana taiwana Heppner, **new sp.**

Diagnosis.— Size: 32.5mm. This new species is most related to *Birthana caelestis* Meyrick and may be distinguished by the larger amount of orange-yellow on the hind wings.

Description.— Forewing length: 15mm ♂.

Male.— *Head*: orange-yellow; frons dark brown; labial palpus orange-yellow with black terminal segment; antenna brown-black with golden setae. *Thorax*: orange-yellow with black on dorsum of prothorax and part of metathorax; venter fuscous mixed with buff; legs orange-yellow. *Forewing*: blackish-blue, with orange-yellow at base and pointed slightly on costal, radial, cubital, and anal veins; major veins illuminated as cream-white lines merging to pale blue near termen; fringe black; venter fuscous with major veins yellow and with pale blue suffusion on mid-apical arrea. *Hindwing*: fuscous with a basal half of wing yellow to orange-yellow, with some vein streaks of black near base; fringe white along termen; venter like dorsum plus pale blue streaks toward termen and tornus. *Abdomen*: orange-yellow, with single black spots dorsally and 2 spots laterally on each segment; venter yellow. *Male genitalia* (Fig. 2): retracted into abdomen; tegumen ovate, simple; vinculum elongated and stouter than tegumen; saccus quadrate and prominent; uncus absent (only anal tube prominent); gnathos absent other than a sclerotized line at center below anal tube; valva stout, angled dorsally and about as long as tegumen-vinculum length, with invagination of sclerotized areas midway along costal margin, with a bulbous and setaceous ampulla, with a sharply sclerotized cucullus merging with a setose sacculus having a broad base; valval center with an elongate area of little sclerotization; anellus a quadratic tube with a V-shaped termen of stronger sclerotization and with a pair of setose protrusions; aedeagus-(Fig. 3) S-shaped and long, with a complex ductus ejaculatorius having a side tube ending in a closed spiral; cornutus as several pointed spines with bifurcate or trifurcate ends.

Female.— Unknown.

Fig. 1. *Birthana taiwana*, n. sp., adult ♀, Taiwan.

Immature stages.— Unknown.

Hosts.— Unknown.

Distribution.— Taiwan.

Types.— *Holotype* ♂: TAIWAN.- Pingtung Co.: Kenting Park, 255m, 23-28 Apr 1989, J. Heppner and H. Wang (TM [on indefinite loan to the FSCA]). *Paratype*: TAIWAN, 1♂ (Natl. Taiwan Univ., Taipei).

Remarks.— Species most related to *B. taiwana* include *B.caelestis* (Meyrick), described from China (Szechuan), and *B. saturata* (Walker), described from Malaysia. Clarke (1965) illustrated the type specimen of *B. caelestis*. The Philippine species *Birthana aurantiaca* (Semper) and *Birthana basiflava* (Semper) are also related but have large areas of yellow on the basal halves of both

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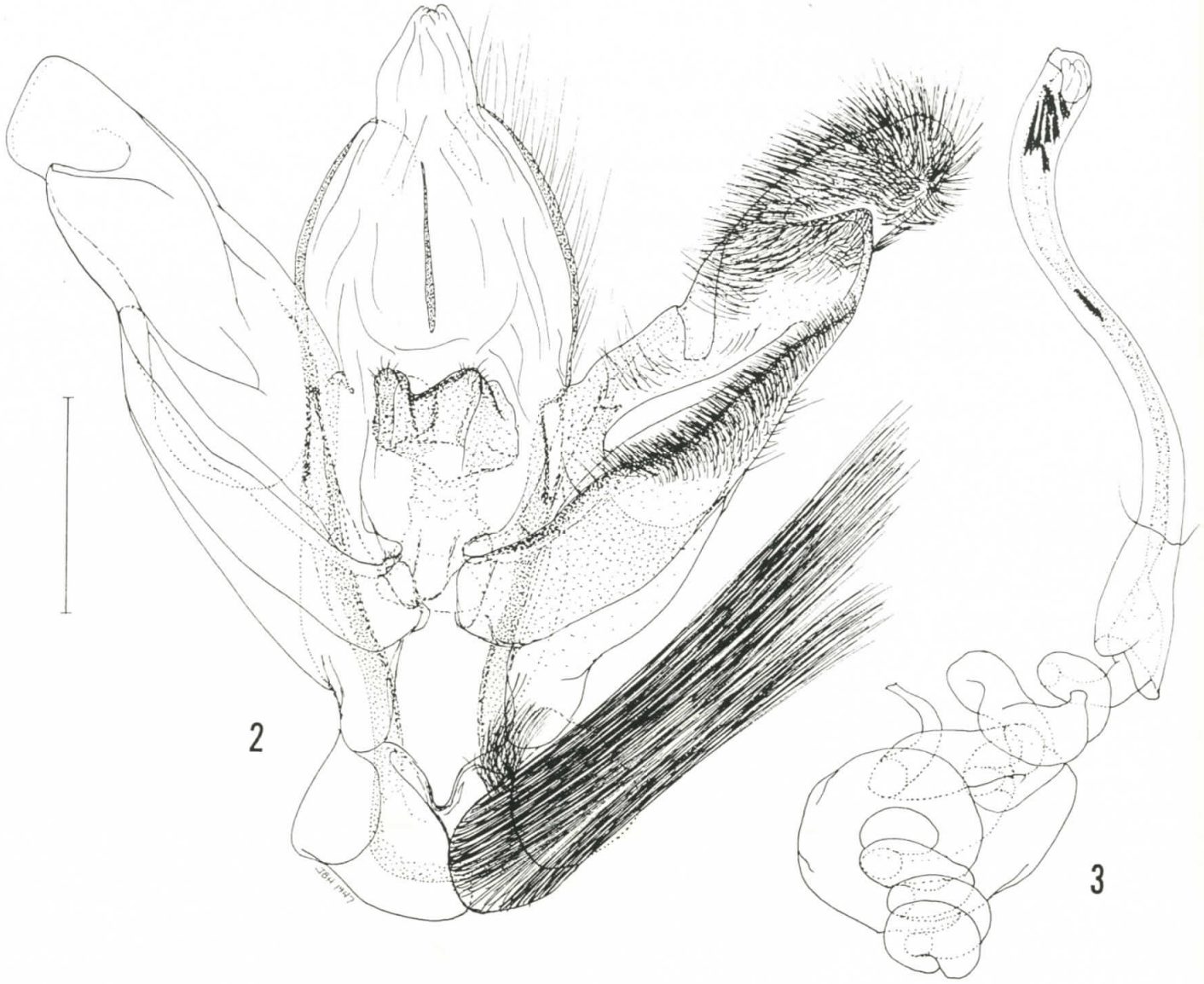

Fig. 2-3. Male genitalia of *Birthana taiwana*, holotype: 2. Genitalia (showing hair pencils at posterior of abdomen as attached to saccus area); 3. Aedeagus. (line = 1mm)

fore- and hindwings (Diakonoff, [1968]). The other Philippine species noted for the genus, *Birthana pulchella* (Schultze), was mistakenly included in the genus (Heppner, 1982), since Diakonoff ([1968]) already noted that this species is a tortricid in the genus *Zacorisca*. *B. caelestis* is completely dark in coloration and lacks the hindwing yellow marking, although the forewing shows the same general vein striation as in *B. taiwana*. *B. saturata* is most similar to the new species but has only a small area of yellow on the hindwing. I have seen some specimens from southern China (Fujian) that appear midway in wing maculation between *B. saturata* and *B. taiwana* but they were not available for study to determine whether they are a distinct species or a form of the Taiwan species.

The male genitalia of *B. caelestis* are similar to *B. taiwana* but show various modifications, such as a larger and rounder cucullus on the valvae. In *B. saturata* the saccus is longer and valval cucullus is narrower, among other differences.

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