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Two New Species of Genus *Stegasta* (Lepidoptera, Gelechiidae)

K. T. PARK

Dept. of Agrobiolgy, Kangwon National University, Chuncheon,
200–702 Korea

and

M. OMELKO

Mountain-Taiga Station, Far East Branch of the Academy of
Sciences of Russia, Ussurisk, Russia

Abstract Two new species of *Stegasta* MEYRICK, *S. jejuensis* sp. nov. and *S. abdita* sp. nov., are described from Korea and Primorye Territory.

Key words: Systematics; *Stegasta*; Gelechiidae; Lepidoptera; Korea; Russian Far East.

Genus *Stegasta* MEYRICK

Proc. Linn. Soc. N. S. Wales, 29: 313 (1904). Type-species: *Stegasta variana* MEYRICK, 1904.

Genus *Stegasta* MEYRICK comprises at least 15 species in the world, mainly known from the Neotropical and Australian Regions, but no species has been known from the Palaearctic Region. The genus is superficially characterized by the expansible pencil of creamy white scales in a costal fold on the ventral surface of the forewing in males and by the characteristic pattern of the forewing.

Stegasta jejuensis sp. nov.

(Figs. 1, 2, 2 a, 2 b, 3, 4 b)

Adult. Wingspan, 9.0–10.0 mm. Head dark grey, shiny. Thorax and tegula dark fuscous, with yellowish-white scales at posterior end of thorax. Antenna about 4/5 length of forewing. Second segment of labial palpi fuscous brown on outer surface, speckled with yellowish-white scales, especially at apex and middle; inner surface yellowish white on dorsal half and dark fuscous on ventral half. Third segment slender, upcurved, as long as 2nd, dark fuscous with white bands near apex, middle and base. Costal fold on ventral surface of forewing of male with creamy white scales extending from before 1/4 to beyond 1/2 of costa. Ground color of forewing dark fuscous, with 3 white or yellowish-white spots at 1/4, 1/2, and 3/4 on costal margin: 1st widely extended to well-developed yellowish-white basal fascia,

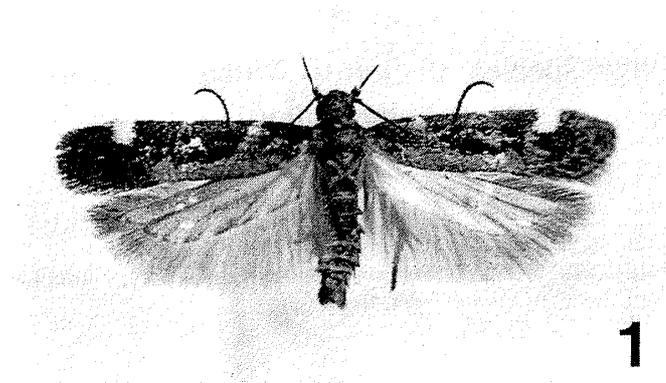
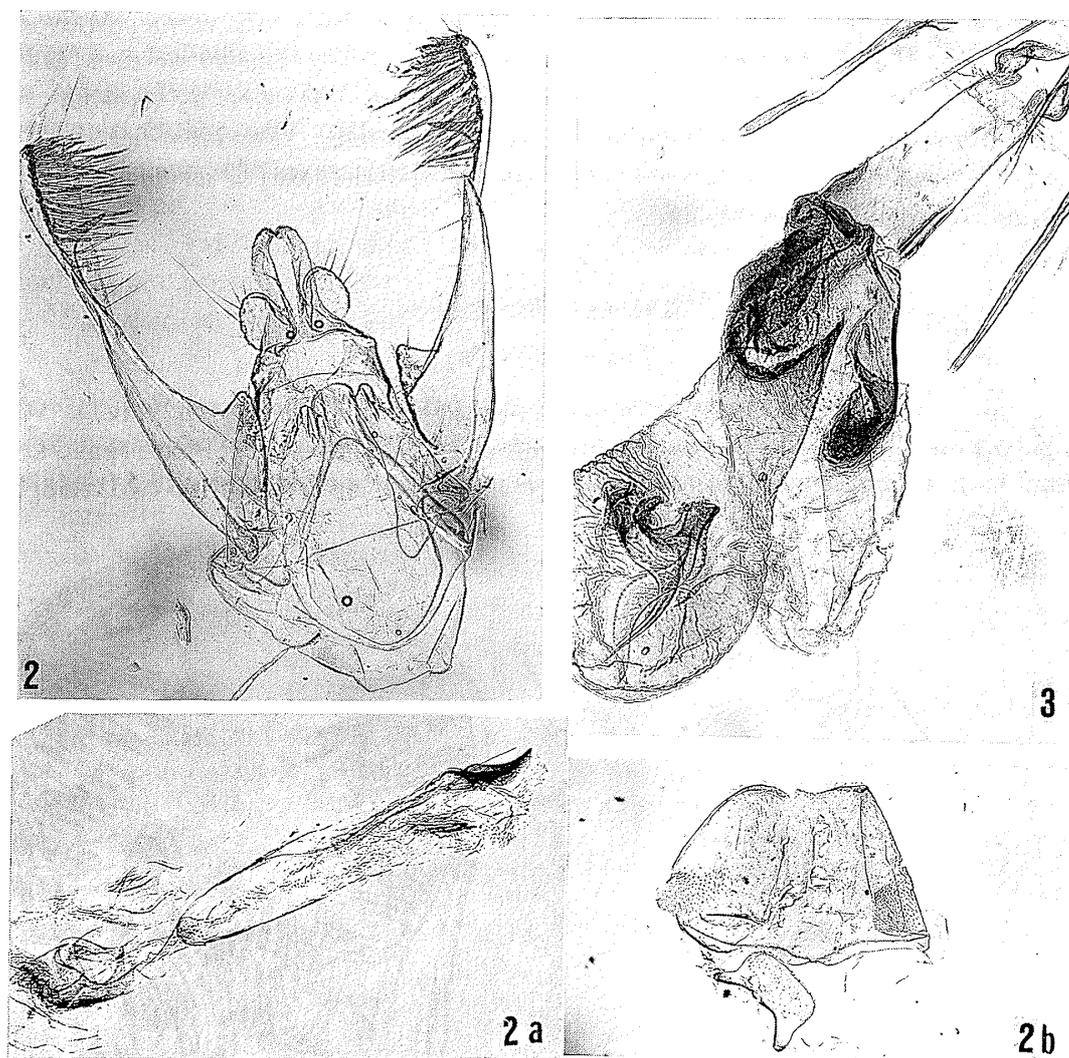


Fig. 1. Adult of *Stegasta jejuensis* sp. nov.

expanding to whitish-orange fascia, which runs along dorsum to near tornus, upper corner of this may reach two small yellowish-white spots near end of cell; 2nd smallest, yellowish-white, often accompanied by few white scales posteriorly; 3rd large, quadrate, more distinctly white than others; a black small spot developed near $2/3$ of cell, surrounded broadly by greyish-silvery scales; cilia dark grey, with irregular black streaks. Hindwings grey. Fore- and midlegs dark grey, tibia of these legs with black stripes at base, near middle and upper surface; hind tibia dark brown with white stripes near base, middle and end of inner surface, densely covered with long hairlike scales above; apex of each tarsal segment with a similar white stripe.

Male genitalia (Fig. 2, 2 a, 2 b). Uncus bifid, separated from $1/2$ length, with slender lobes. Gnathos absent. Socii well developed, large, ovate, sparsely setose. Valva rather slender, broadened toward base, expanded distally, about 1.5 length of tegumen plus uncus; numerous strong setae on inner surface of distal part, with a strong projection near $1/3$ of distal part and a small one at apex; a large triangular protrusion from costa at base of valva. Vinculum relatively short, connected terminally with extension of tegumen, protruded outwardly at base; lateral arms arise dorsomedially and extend ventrally to produce a spatulate plate at apex. Aedeagus tubular, weakly sclerotized, about $2/3$ length of aedeagus, with 2 long horn-shaped lobes: a small leaflike sclerite and the other strong well-sclerotized one distally. Eighth sternum weakly sclerotized, large, quadrate; 8th tergum very small, trapezoidal, anterior margin incurved, length about $1/2$ width.

Female genitalia (Fig. 3). Apophyses anteriores rather strong, bar-shaped, about $1/3$ length of apophyses posteriores. Ostium bursae expanded laterally, forming lateral flaps. Ductus bursae rather long, as long as apophyses anteriores; numerous spicules on ventral surface of a juncture between ductus and corpus bursae, forming a well-sclerotized crescent plate. Corpus bursae membranous, bulb-shaped, with a pair of large sickle-shaped signa; appendix bursae very large, elongated oval-shaped, almost same size as that of corpus bursae, arising widely from juncture, with a sclerotized plate arising from posterior surface.



Figs. 2-3. *Stegasta jejuensis* sp. nov. — 22. male genitalia; 2 a, aedeagus; 2 b, 8th sternum and tergum. — 3. female genitalia.

Holotype. Male, Topyung-dong, Seoguipo, Jeju Province, Korea, 9. VI. 1993 (K. T. PARK). Paratypes: 5 ♂, 4 ♀, same date and locality as holotype; 1 ♂, Namhansansung, 10 km E. Seoul, Korea, 6. IX. 1974 (K. T. PARK); 1 ♂, Yokohama, Japan, 16. IX. 1950 (H. INOUE). All the type specimens, except a male paratype from Japan which is in USNM, are preserved in the Center for Insect Systematics, Kangweon National University, Korea.

Distribution. Korea (Jeju, Central), Japan.

Remarks. This new species is superficially very similar to *S. variana* MEYRICK described from the Australian Region, and *zygotoma* MEYRICK from the Neotropical Region. The male genitalia of *variana* MEYRICK is very close to *jejuensis* sp. nov. and the following new species, *abdita* sp. nov., especially in the shape of the valva

with a strong process on inner surface of its distal part. But in *S. variana* MEYRICK the valva has the largest process, and in *abdita* sp. nov. it has the smallest one (as in fig. 4 a, b, c). *S. jejuensis* distinctly differs from *variana* MEYRICK by the shape of ductus bursae and more stout signa in the female genitalia. For identification, the types of *jejuensis* were compared with specimens of both the sexes of *variana* MEYRICK from its type locality, Queensland.

Stegasta abdita sp. nov.

(Figs. 4 a, 5, 6, 7)

Adult. Male, 9.0–9.7 mm. Forewing color pattern of *abdita* sp. nov. is very closed to that of *jejuensis* sp. nov.; differences are the shape of whitish-orange area beyond basal fascia along dorsum (this area is more clearly divided into two triangles

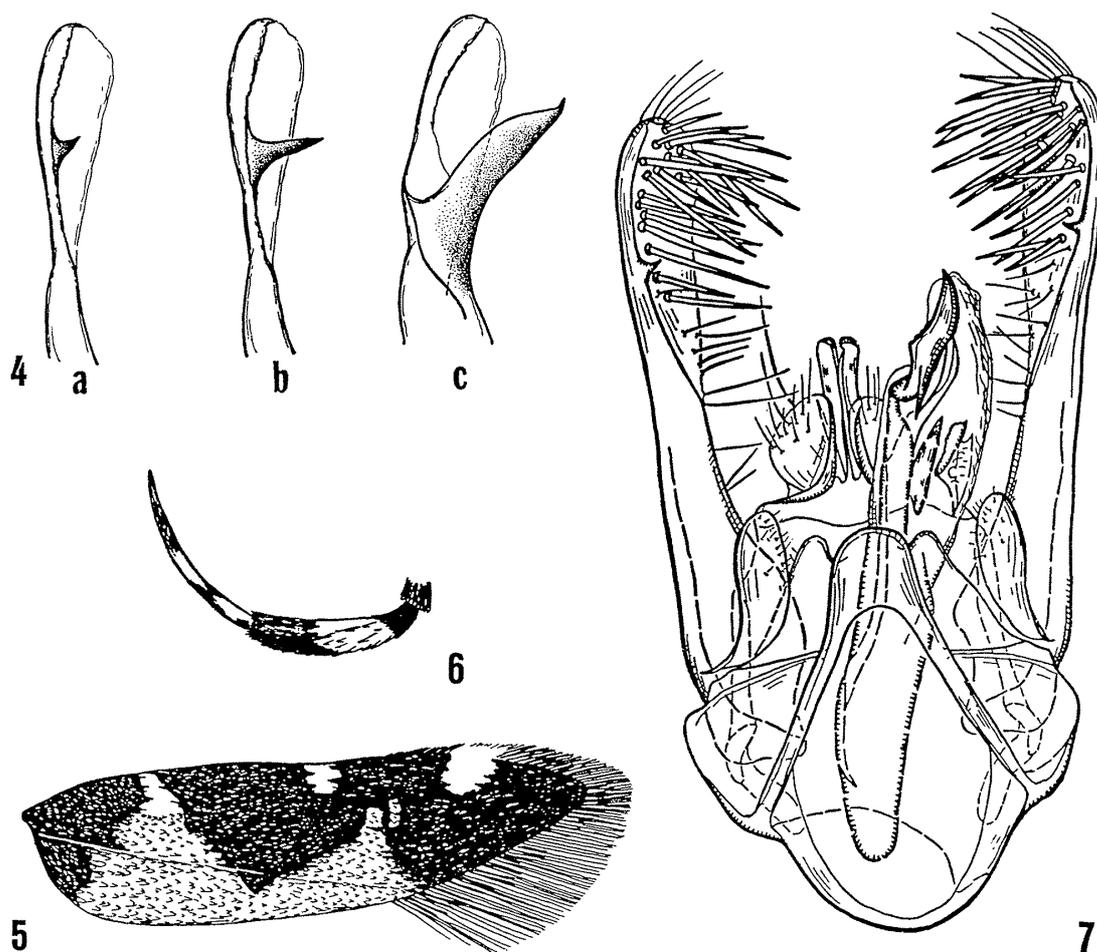


Fig. 4. Median process on distal part of valva (a-c): a, *S. abdita* sp. nov.; b, *S. jejuensis* sp. nov.; c, *S. variana* MEYRICK.

Figs. 5-7. *S. abdita* sp. nov. — 5, forewing; 6, labial palpus; 7, male genitalia.

as figured), and the larger 2nd costal spot which is more distinct than that of *jejuensis*. Female: unknown.

Male genitalia (Fig. 7). Closely similar to those of *jejuensis*, but the median projection on the distal part of the valva is far minute in comparison with the large projection of *jejuensis*.

Holotype. Male, Khasansky district, Primorye Territory, Russian Far East, 15. VIII. 1985 (M. OMELKO leg.). Paratype: 1 ♂, same locality and date as holotype. The types are preserved in the collection of the second author's laboratory.

Distribution. Russian Far East.

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