

A NEW SPECIES OF *PARTHENODES* FROM THE RYUKYUS, JAPAN (LEPIDOPTERA: PYRALIDAE: NYMPHULINAE)

YUTAKA YOSHIYASU and YUTAKA ARITA

Laboratory of Entomology, Faculty of Agriculture, Kyoto Prefectural University, Shimogamo, Kyoto 606, Japan;
Zoological Laboratory, Faculty of Agriculture, Meijo University, Tempaku-ku, Nagoya 468, Japan

ABSTRACT.— A new nymphuline species, *Parthenodes okinawanus* new sp., is described from the Ryukyu Islands, Japan. The comparison of the new species with *Parthenodes fuscalis* Yoshiyasu is also given.

KEY WORDS: Okinawa, Oriental, *Parthenodes okinawanus* new sp., taxonomy.



Figs. 1-2. *Parthenodes okinawanus* new sp.— 1. Male holotype (left); 2. Female paratype (right).

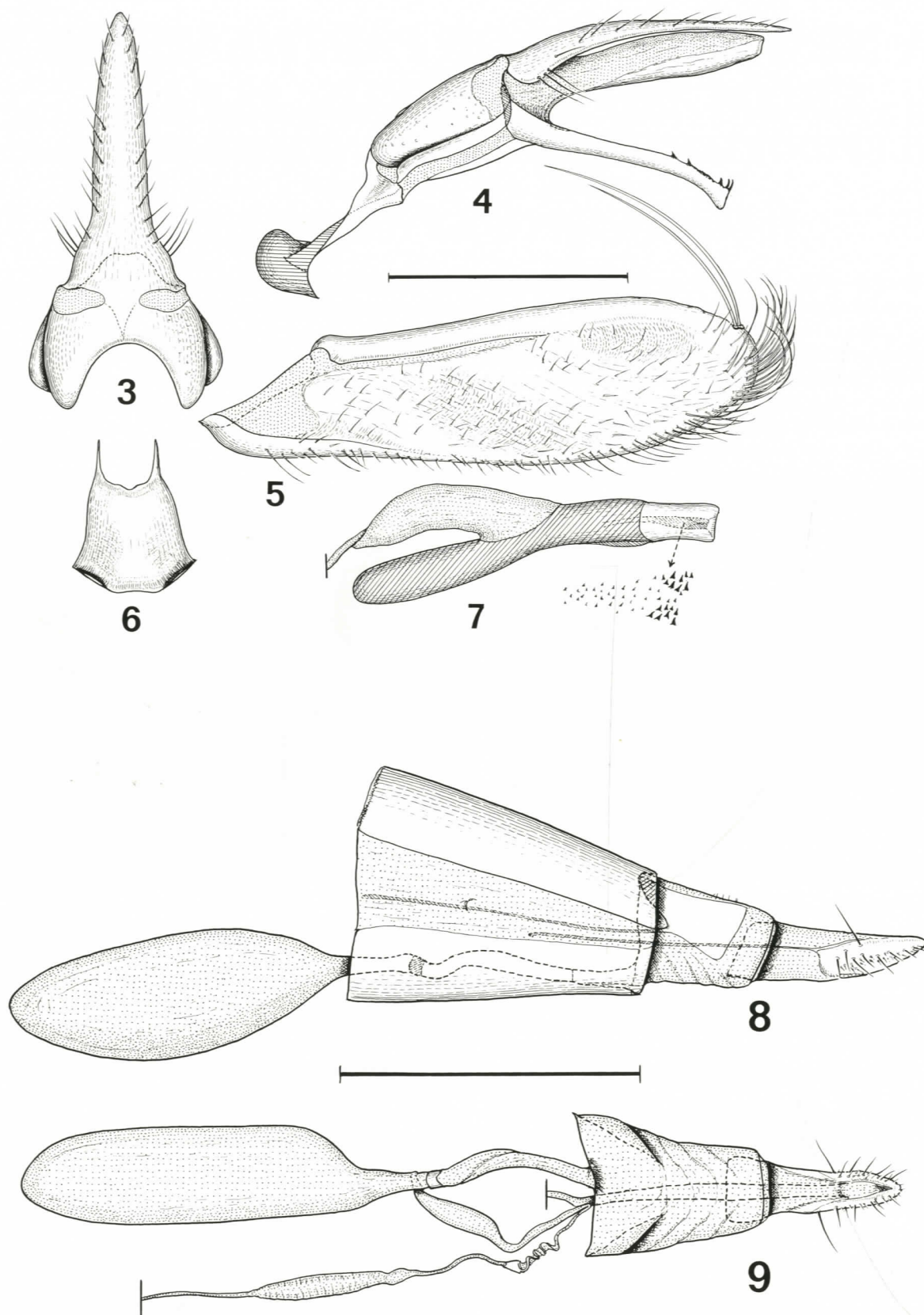
The genus *Parthenodes* Guenée contains some 40 species in the world, being especially rich in species in the subtropical and tropical regions. Until now only 4 species of this genus have been recorded from Japan (Yoshiyasu, 1985). We will newly describe the 5th species of the genus from the Ryukyus, with comparison with the closely related species, particularly *Parthenodes fuscalis* Yoshiyasu. The terminology of the wings and genitalia was referred to in Yoshiyasu (1985).

***Parthenodes okinawanus* Yoshiyasu & Arita,
new sp.**

DIAGNOSIS.— The new species is characterized by having the dark brown wing markings from base to postmedial area, except for a whitish spot or band medially in both wings, and also the dark brown abdomen and the rather slender genitalia.

DESCRIPTION.— Forewing size: 6.1-6.8mm ♂; 6.4-7.4mm ♀.
MALE/FEMALE: *Head:* with vertex elevated by dark brown scale; frons

dark brown. Labial palpus porrect, dilated to apex, dark brown in outer surface. Maxillary palpus expanded to apex by dark brown scales. Antenna filiform, 3/4 as long as forewing length, dorsally with dark brown scales, ventrally with whitish setae densely. Legs dark brown on femur and tibia except for pale brown ventral surface; tarsus fulvous. *Thorax:* above dark brown; abdomen same, with a whitish ring at posterior end of each abdominal segment dorsally, beneath paler. *Forewing:* with faint antemedial and postmedial white lines near costa. White ground color (WC) in female represented by a distinct spot, in male the white spot is smaller. Postmedial line (PML) curved, blackish, but not clearly marked from ground. Postmedial ground (PMG) dark brown. Submarginal white line rather broad in anterior portion, then narrowing posteriorly. Submarginal ground (SMG) tinged with dark orange. Cilia fuscous mixed with whitish, with a distinct blackish line basally. *Hindwing:* with WC represented by an oblique white line, while in male the band is indistinct. PML oblique and straight. PMG to cilia almost as in forewing. *Male genitalia:* Tegumen rather wide, with middorsal inner ridge poorly developed. Vinculum broad laterally, narrowing to ventral portion, as long as height of tegumen; saccus rounded laterally. Uncus long spatulate, with several lateral setae of which basal ones are longer. Gnathos slender with distinct dorsal teeth



Figs. 3-7. Male genitalia of *Parthenodes okinawanus* new sp.: 3. Tegumen and uncus, dorsal view; 4. Lateral view, valvae removed; 5. Right valva, inner view; 6. Juxta; 7. Phallus. (scale: 0.5mm).

Figs. 8-9. Female genitalia of *Parthenodes okinawanus* new sp.: 8. Lateral view; 9. Ventral view, 7th sternum removed. (scale: 1mm)

apically, a little shorter than uncus. Valva long, with costa and sacculus narrow; apical margin with two long setae significant and curved antero-dorsally and with several long setae curved innerly. Phallus rather short; vesica with two groups of spicules of cornuti and without chitinous plate seen in the other *Parthenodes* species. Juxta wide, with long and narrow extensions laterally. *Female genitalia*: Ostium bursae narrow. Corpus bursae long elliptical laterally without signa. Spermatheca without a lagenal pouch. Eighth tergum sclerotized in U shape dorsally as in the other species; apophysis anterioris almost as long as 7th tergum. Papilla analis slender and pointed posteriorly; apophysis posterioris narrow, as long as anterioris.

HOSTS AND IMMATURE STAGES.— Unknown.

BIOLOGY.— Arita collected 10 adult specimens of the new species, of which 4 were found under the leaves of trees along the Yona river, northern part of Okinawa-jima Id.

DISTRIBUTION.— Japan (the Ryukyus).

TYPES.— *Holotype* ♂: JAPAN.— Yona, Okinawa-jima Id., Ryukyu Is., 15-21 May 1992, Y. Arita legit. (No. 249 of Kyoto Prefectural University (KPU)). *Paratypes*: 3 ♂, 6 ♀, same data as for the holotype (KPU, except for 1 ♂ and 1 ♀ in the Natural History Museum, London).

REMARKS.— The new species is closely related to *Parthenodes fuscalis* Yoshiyasu, 1985, from Amami-Oshima Id., Japan, but distinguished from the latter as noted in the accompanying table.

Table 1. Characters distinguishing *P. okinawanus* and *P. fuscalis*.

Characters	<i>P. okinawanus</i>	<i>P. fuscalis</i>
Forewing.WC	spotted	indistinct
Hindwing.WC	narrow (♀)	broad
	indistinct (♂)	
.PMG	dark brown	light brown
.PML	straight	curved
Abdomen	all dark brown	front dark brown
Male Genitalia		
.tegumen ridge	weak	well-developed
.valval setae	long	short
Female Genitalia		
.lagenal pouch	absent	present

REFERENCE

Yoshiyasu, Y.

1985. A systematic study of the Nymphulinae and the Musotiminae of Japan. *Sci. Rep. Kyoto Pref. Univ. Fac. Agric.* (Kyoto), 37:1-162.