

STUDIES ON THE YPONOMEUTOIDEA (II)
TWO YPONOMEUTID GENERA, *NIPHONYMPHA*
AND *PSEUDOCALANTICA*, OF JAPAN
AND FORMOSA (Lepidoptera)

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Five species of the genera *Niphonympha* and *Pseudocalantica* are described in this paper. They are: three Japanese species, *N. vera* n. sp. (the first record of the genus from Japan), *P. anas* (Stringer) and *P. eta* n. sp., and two Formosan species, *P. kappa* n. sp. and *P. lambda* n. sp. Although *Niphonympha* is closely allied to *Pseudocalantica* the marked difference exists in the genitalia, as mentioned by Friese in 1960. The two genera, however, cannot be separated by the use of the wing venation.

Before going further, I wish to express my gratitude to Prof. S. Ito and Prof. A. Mutuura, for kind guidance and constant encouragement. I am also very much indebted to Prof. Emer. S. Issiki for helpful suggestion and criticism and for the loan of material from his personal collection. My hearty thanks are also due to my friends, Messrs. T. Kodama, T. Yasuda, K. Yano, T. Okuno, T. Saito and M. Okada, for the material of the present paper.

***Niphonympha* Meyrick**

Niphonympha Meyrick, 1914, Exot. Microlep., 1: 174; Friese, 1960, Beitr. Ent., 10: 38. (Type-species: *Calantica albella* Zeller, 1847.)

Calantica Zeller, 1847, Isis von Oken, 1847: 811; Spuler, 1913, Kleinschmett. Eur.: 441-442. (Type-species: *Calantica albella* Zeller, 1847.) (praeocc.)

So far as I know, the European species *albella* is the only representative of the true *Niphonympha*. An additional species is described below.

***Niphonympha vera* n. sp. (Figs. 1-2, 7-11)**

♂ ♀. 10.5*, 14-16 mm. Head, antenna and thorax white. Palpus white, second segment fulvous laterally. Leg white, posterior tibia with dark fuscous apical hairs outwardly. Abdomen pale greyish, segmental margins and anal tuft-white. Forewing: the shape as shown in fig. 1; an ovate subhyaline patch between vein Sc and cell; shining white, sparsely scattered with fulvous or fuscous scales, especially on distal half; in some specimens, some fulvous or fuscous scales indicating a dot on or beneath fold about middle; costal edge blackish-fuscous on basal 1/5;

* A male specimen from Mt. Iwawakisan. The dwarfish specimen is quite similar to the other type-specimens in the colouring and markings as well as in the genitalia. Perhaps it is merely an individual variation.

cilia white, tip pale golden-fuscous. Hindwing with M_3 and Cu_{1a} short-stalked; grey with whitish area between $1A+2A$ (sometimes fold) and dorsum; cilia white with grey subbasal line.

Male genitalia: Uncus indent at apex. Socii broad, very hairy, the apex without thorns, which are present in *albella*. Tuba analis membranous, fused with gnathos. Valva rather large, densely clothed with long hairs in ventral half; sacculus ill-defined, with short hairs. Saccus very long, slender, parallel-sided. Aedeagus extremely long, and moderately curved in lateral aspect; indistinct cornuti arranged in two rows.

Female genitalia: Antapophysis short. Lamella postvaginalis with a pair of widely remote projections. Antrum indefinite, ductus bursae very long, slender, the posterior 3/4 sclerotized excepting the remaining membranous part. Bursa copulatrix rounded; a distinct signum (fig. 11) in the posterior end of bursa. Inception of ductus seminalis well before ostium.

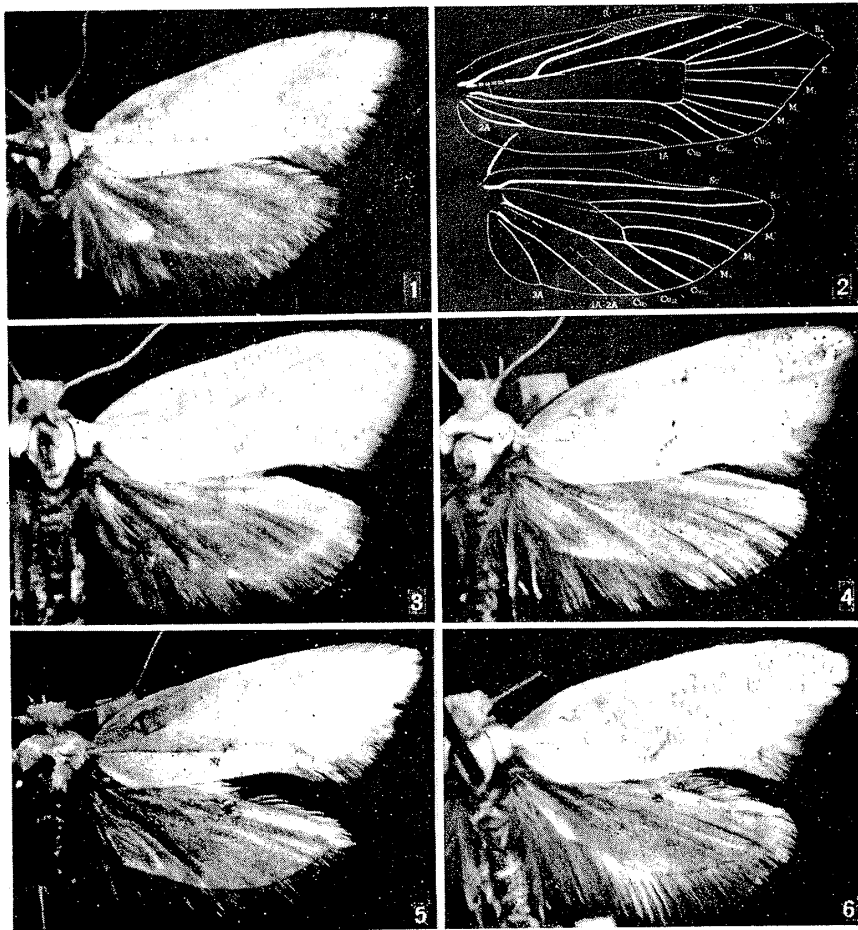
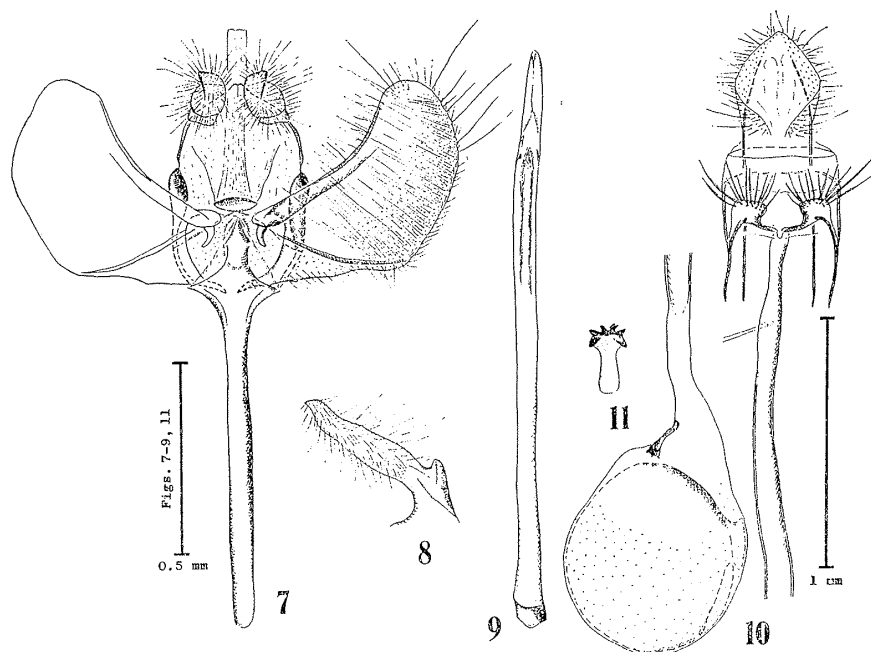


Fig. 1. *Niphonympha vera* n. sp. Fig. 2. Same, wing venation.
 Fig. 3. *Pseudocalantica anas* (Stringer). Fig. 4. *P. eta* n. sp.
 Fig. 5. *P. kappa* n. sp. Fig. 6. *P. lambda* n. sp.



Figs. 7-11. *Pseudocalantica vera* n. sp., genitalia.
 (7) ♂, ventral aspect. (8) ♂, socii, lateral aspect. (9) ♂, aedeagus,
 ventral aspect. (10) ♀, ventral aspect. (11) ♀, signum, ventral aspect.

Holotype ♂ and 5 ♂ ♂ paratypes, Zyôzyusya, Iyo, Sikoku, 12. VI. 1961 (T. Saito).
 Paratypes: 1 ♂, Tukigase, Yamato, Honsyû, 1-2. VI. 1957 (S. Moriuti); 1 ♂, 2 ♀ ♀,
 Mt. Iwawakisan, Kawati, Honsyû, 13. V. 1950 (A. Mutuura); 1 ♂, same locality,
 12. V. 1951 (S. Issiki); 1 ♂ (dwarfish specimen), same locality, 3. VIII. 1951 (S. Issi-
 ki); 1 ♀, same locality, 30. V. 1954 (T. Kodama); 1 ♀, same locality, 30. V. 1954
 (T. Yasuda); 1 ♀, Mt. Takanawayama, Iyo, Sikoku, 20. V. 1956 (M. Okada); 1 ♂,
 Omogokei Valley, Iyo, Sikoku, 24. VIII. 1956 (K. Mizuta & M. Okada).

All the types in the collection of Entomological Laboratory, University of Osaka
 Prefecture.

Distribution: Japan (Honsyû and Sikoku).

This new species is readily distinguished from *N. albella* by the different super-
 ficial appearance, and differing also in the genital structure.

Pseudocalantica Friese

Pseudocalantica Friese, 1960, Beitr. Ent., 10: 36-37; Friese, 1962, Beitr. Ent., 12:
 303. (Type-species: *Niphonympha anas* Stringer, 1930.)

In the two following Japanese species, veins M_3 and Cu_{1a} in the hindwing are
 short-stalked, connate or separated.

Pseudocalantica anas (Stringer) (Fig. 3)

Niphonympha anas Stringer, 1930, Ann. Mag. Nat. Hist, (10) 6: 420; Issiki, 1932,

Icon. Ins. Japon., ed. 1: 1491, fig. 2952; Issiki, 1950, Icon. Ins. Japon., ed. 2: 446, fig. 1202; Inoue, 1954, Check List Lep. Japan, 1: 34, no. 140; Issiki, 1957, Icon. Het. Japon. Col. Nat., 1: 20, pl. 3, fig. 64; Okano, 1959, Icon. Ins. Japon. Col. Nat., 1: 274, pl. 181, fig. 20.

Pseudocalantica anas: Friese, 1960, Beitr. Ent., 10: 37, fig. 13; Friese, 1962, Beitr. Ent., 12: 303-305, figs. 1-2.

Scythriodes unimaculata Matsumura, 1931, 6000 III. Ins. Japan: 1099, no. 2278.

Vary in size: wing expanse of 12-18 mm. This variation is not associated with sex or locality.

Detailed descriptions of the genitalia were given by Friese (1960, 1962).

Very common in Japan; over 150 specimens were examined from the following localities.

Honsyû: Hanase, Yamasiro, VII; Mt. Heisan, Yamasiro, VI, VIII; Minoo, Settu, VIII; Mt. Kasugayama, Yamato, VIII; Tukigase, Yamato, VI, IX; Sayama, Kawati, V; Mt. Kongôsan, Kawati, VI-VII; Mt. Iwawakisan, Kawati, V-VIII; Mt. Maki-nosan, Izumi, V-VI; Mt. Usitakiyama, Izumi, V; Mt. Inunakisan, Izumi, IX; Mt. Kôyasan, Kii, IX; Mt. Natsan, Kii, V, VIII; Ôsima, Kii, IV.

Sikoku: Matuyama, Iyo, V-VI; Yanagawa, Iyo, VI; Nakazima Is., Iyo, VIII; Kôti, Tosa, VIII.

Kyûshû: Mt. Hikosan, Buzen, VII-VIII; Mt. Kirisimayama, Ôsumi, X.

This species and *Niphonympha argophanes* (Meyrick)* are characterized by the broad forewing with apex obtuse and termen obliquely rounded. According to Stringer (1930), they are similar to but distinct from each other.

Pseudocalantica eta n. sp. (Figs. 4, 12-18)

♂ ♀. 14-17 mm. Head and antenna white. Palpus white, second segment pale fulvous laterally. Thorax with patagium greatly developed, as shown in figs. 12-13; white, in some specimens a dark fuscous dot at the posterior end. Leg white, posterior tibia with a dark fuscous apical mark outwardly, all the tarsi pale ochreous. Abdomen pale whitish-grey to nearly white, anal tuft white. Forewing: the shape as shown in fig. 4; an ovate subbasal patch between vein Sc and cell; shining white, sparsely sprinkled with fuscous scales on costal half towards apex and on dorsum before tornus, and sometimes densely on the praeternal area; some fuscous scales indicating an outwardly oblique streak on fold about the middle of, but in nearly all the specimens not reaching, dorsum; costal edge black-fuscous on basal 1/4; cilia light ochreous-white, outer third golden-fuscous around apex and along termen, on dorsum white in the commencement of cilia. Hindwing pale grey; cilia whitish with pale grey subbasal line.

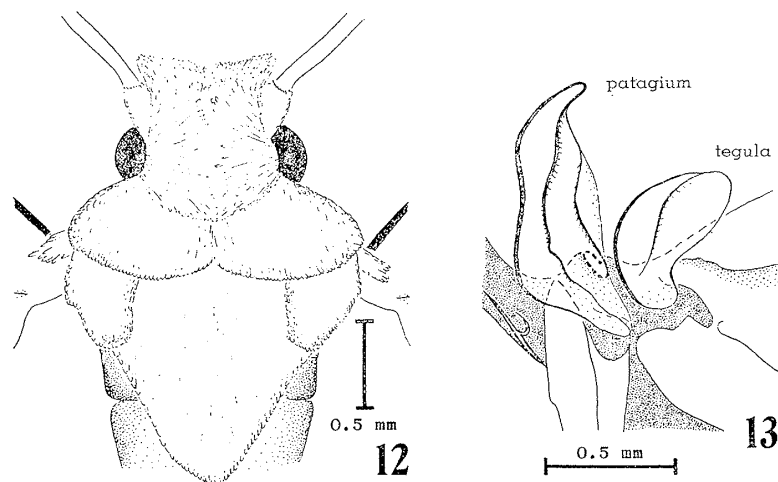
Male genitalia: Socii slender, hairy, ending in a point. Tuba analia fused with gnathos, the basal 2/3 sclerotized, the remainder membranous. Valva moderate, profusely clothed with long hairs in ventral half; the dorsal margin elevate before the middle, dorso-proximal part extended in a large rounded plate; sacculus strongly produced distally, sparsely clothed with short hairs, the ventral margin

* Originally described from Assam as a *Pyrozela*; probably belongs to *Pseudocalantica*.

concave. Saccus large, tapering from the middle to the anterior end. Aedeagus long, weakly curved in lateral aspect; the apical half with two rows of teeth, which consist of about 20 in all, the arrangement as shown in fig. 16; an indistinct cornutus.

Female genitalia: In lamella postvaginalis, the caudal processes widely remote each other. Antrum defined; ductus bursae long and broad, strongly sclerotized in the posterior half. Bursa copulatrix large, nearly elliptical; a signum with flanges at either side, as shown in fig. 18. Inception of ductus seminalis from the anterior end of antrum.

Holotype ♂ and 8 ♂♂, 23 ♀♀ paratypes, Mt. Kirisimayama, Ôsumi, Kyûsyû, 3. X. 1959 (S. Moriuti). Paratypes: 1 ♀, Mt. Hieisan, Yamasiro, Honsyû, 10. VII. 1956 (T. Kodama); 1 ♂, same locality, 24. VIII. 1958 (A. Mutuura); 1 ♂, Mt. Kunimiyama, Yamato, Honsyû, 16. VII. 1960 (S. Moriuti); 1 ♂, Mt. Ôdaigahara, Yamato,



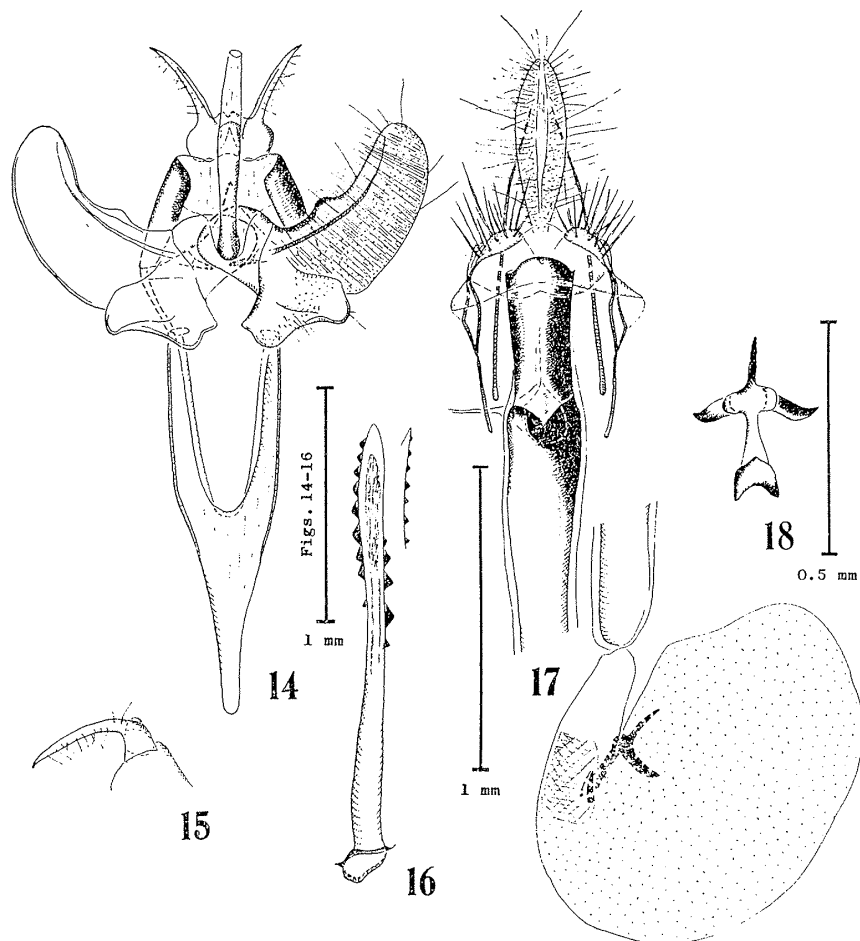
Figs. 12-13. *Pseudocalantica eta* n. sp., showing patagium developed. (12) Head and thorax, dorsal aspect. (13) A part of thorax, scales omitted, lateral aspect.

Honsyû, 9. VII. 1958 (M. Okada); 1 ♂, Mt. Iwakisan, Kawati, Honsyû, 23. VI. 1950 (A. Mutuura); 1 ♂, same locality, 25. V. 1951 (A. Mutuura); 1 ♂, same locality, 10. VI. 1953 (T. Yasuda); 1 ♂, same locality, 29. VI. 1954 (A. Mutuura); 1 ♂, Mt. Kongôsan, Kawati, Honsyû, 29. VI. 1960 (T. Saito); 1 ♂, Mt. Makinosan, Izumi, Honshû, 6. VI. 1959 (T. Saito); 1 ♂, same locality, 5. X. 1959 (T. Saito); 1 ♂, same locality, 28. V. 1960 (S. Moriuti); 1 ♂, Suzunotani Valley, Iwami, Honshû, 12. VI. 1958 (T. Kodama); 1 ♂, Mt. Takanawayama, Iyo, Sikoku, 17. VIII. 1955 (M. Okada).

All the types in the Ent. Lab., Univ. Osaka Pref.

Distribution: Japan (Honshû, Sikoku and Kyûsyû).

Very closely allied to *P. kappa* n. sp. and *P. delias* (Meyrick) from Assam and Central China, and it is very difficult to find the decided difference in the superficial characters among the three. In the male genitalia, this species is also similar to *kappa* and *delias*. The significant differences can be found on the costa of valva



Figs. 14-18. *Pseudocalantica eta* n. sp., genitalia.
 (14) ♂, ventral aspect. (15) ♂, socii, lateral aspect. (16) ♂,
 aedeagus, ventral aspect. (17) ♀, ventral aspect. (18) ♀,
 signum, ventral aspect.

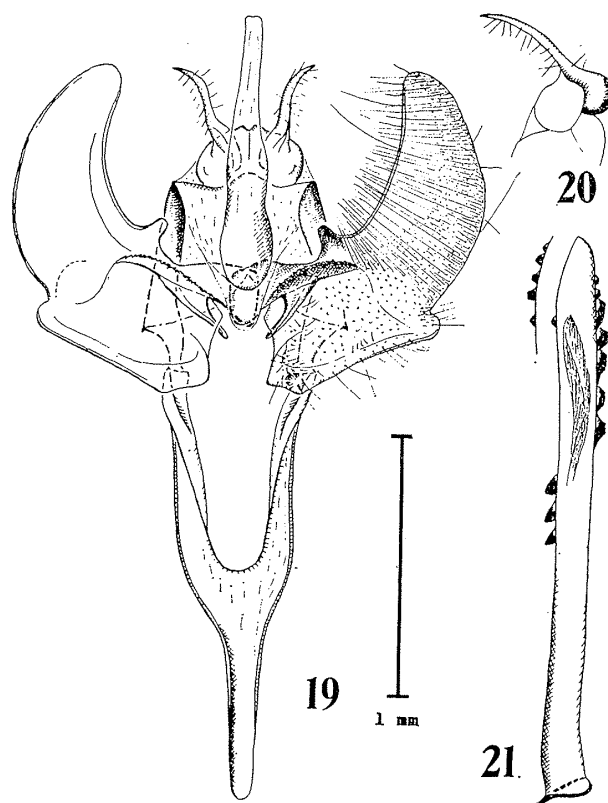
and the aedeagus. The diagnoses of the latter two are as follows.

Kappa:— In valva, the dorsal margin with a conspicuous process near the base; in aedeagus, the apical half with less teeth than in *eta*.

Delias:— Described by Friese (1962) in detail. Dorsal margin of valva simple; in aedeagus, the apical 2/3 with more teeth than in *eta*.

***Pseudocalantica kappa* n. sp. (Figs. 5, 19-21)**

♂. Paratype 16 mm, holotype 18 mm. Head and antenna white. Palpus white, second segment tinged with fulvous exteriorly. Thorax with patagium developed, as is recognized in the case of the preceding species; white, a fuscous dot at the posterior end present in paratype but absent in holotype. Leg white, posterior tibia with a fuscous apical mark laterally; spurs pale yellowish; tarsi pale

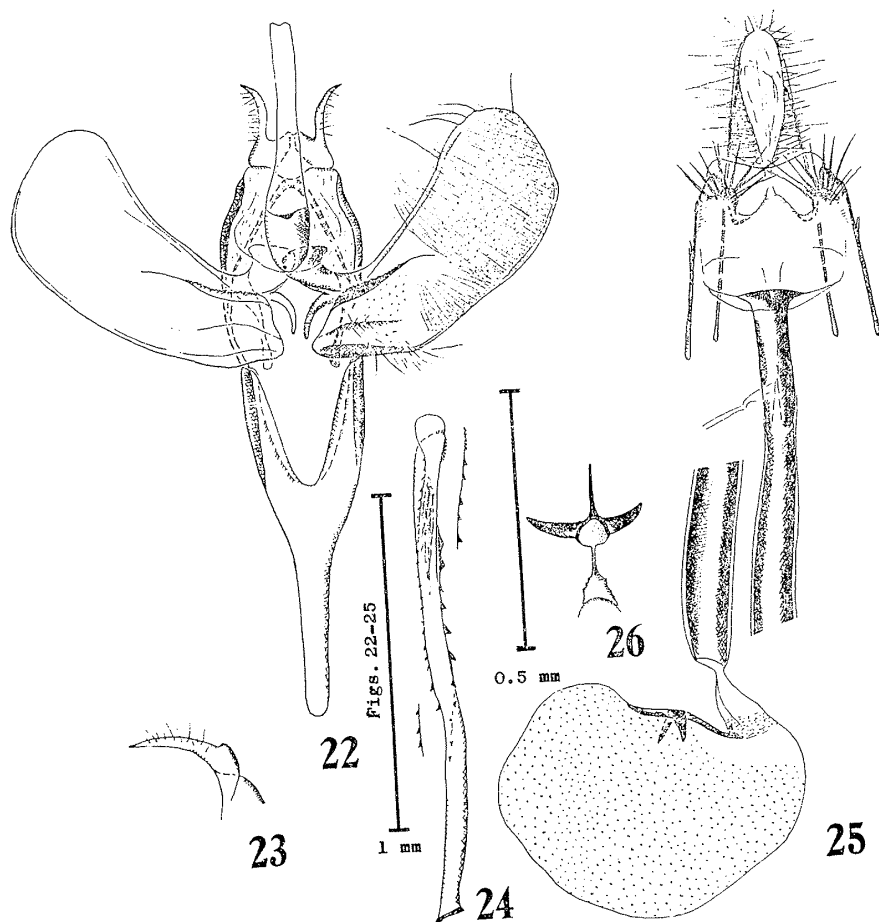


Figs. 19-21. *Pseudocalantica kappa* n. sp., male genitalia.
 (19) Ventral aspect. (20) Socii, lateral aspect. (21) Aedeagus,
 ventral aspect.

ochreous. Abdomen pale ochreous-grey, anal tuft white. Forewing: the shape as shown in fig. 5; an ovate subhyaline patch between vein Sc and cell; shining white; holotype with several scattered fuscous scales and with a fuscous suffused mark on dorsum before tornus, but paratype with more scattered scales, especially on distal half, and with the rudimentary praeternal mark; some fuscous scales indicating a slender, outwardly oblique streak on fold about middle of, but not reaching, dorsum; costal edge black-fuscous on basal 1/5; cilia light ochreous-white, on costa pale ochreous, along termen tip golden-fuscous. Hindwing: veins M_3 and Cu_{1a} connate; pale grey with deeper subbasal shade.

Male genitalia: As already mentioned, very similar to that of *eta*. In valva, dorsal margin with a prominent rounded process near the base, the extension of dorso-proximal part much smaller than that of *eta*; sacculus rounded distally, the ventral margin almost straight. In saccus, the shape similar to that of *eta*, but the anterior 2/5 nearly parallel-sided. Aedeagus larger and wider than that of *eta*, and subequal size with that of *delias*; the apical half armed with about 15 teeth, as illustrated in fig. 21.

Holotype ♂, Mt. Tattakayama, 8. VI. 1943 (S. Issiki). Paratype 1 ♂, Mt. Keinansan,



Figs. 22-26. *Pseudocalantica lambda* n. sp., genitalia.
 (22) ♂, ventral aspect. (23) ♂, socii, lateral aspect. (24) ♂, aedeagus, ventral aspect. (25) ♀, ventral aspect. (26) ♀, signum, ventral aspect.

14. VIII. 1933 (S. Issiki).

The types in coll. Professor Issiki.

Distribution: Formosa.

Closely related to *eta* and *delias*.

***Pseudocalantica lambda* n. sp. (Figs. 6, 22-26)**

♂ ♀. 12-13 mm. Head and antenna white. Palpus white, with second segment yellowish laterally. Thorax with small patagium, as in *anas*; white. Leg white, posterior tibia with an ochreous apical mark, mixed with fuscous, laterally; spurs and tarsi pale ochreous. Abdomen pale greyish-white. Forewing: the shape as shown in fig. 6; an ovate subhyaline patch between vein Sc and cell; shining] white, sparsely sprinkled with fuscous scales, some of which indicate an outwardly

oblique streak on fold about the middle of, but not reaching, dorsum; costal edge blackish-fuscous on basal 1/6; cilia white, outer third golden-fuscous. Hindwing: vein M_3 and Cu_{1a} connate; pale greyish-white, becoming grey posteriorly; cilia silvery white.

Male genitalia: Socii rather broad, ending in a point. Tuba analis fused with gnathos, the basal quarter sclerotized, the remainder membranous. Valva dilated, thickly clothed with long hairs in distal half, excluding the dorsal area, the dorsal margin simple and nearly straight, dorso-proximal part strongly produced into a bended extension; sacculus ill-defined and not produced, lightly clothed with hairs. Saccus with a little different shape (fig. 22) from that of *eta*. Aedeagus long, slender, somewhat twisted and weakly curved in lateral aspect; the apical 2/3 with two rows of many small teeth, as shown in fig. 24; an indistinct cornutus.

Female genitalia: Lamella postvaginalis, caudal processes very widely remote each other and small. Antrum scarcely defined; ductus bursae long, slender, sclerotized throughout, especially in about posterior half. Bursa copulatrix similar to, but smaller than that of *eta*; signum as illustrated in fig. 26. Inception of ductus seminalis from the anterior end of antrum.

Holotype ♂, Kansirei, 19. X. 1934 (S. Issiki). Paratypes: 1 ♂, Ranrun, 10. III. 1927 (S. Issiki); 1 ♀, Taihoku, 11. XI. 1934 (S. Issiki), reared from *Liquidambar formosana* Hance; 1 ♂, same locality, 19. XI. 1934 (S. Issiki), reared from *L. formosana*; 3 ♂♂, 2 ♀♀, same locality, 2-5. XI. 1935 (S. Issiki), reared from *L. formosana*; 2 ♂♂, same locality, 11. XI. 1940 (S. Issiki), reared from *L. formosana*.

All the types in coll. Prof. S. Issiki.

Distribution: Formosa.

Food-plant: *Liquidambar formosana* Hance (Hamamelidaceae); larva in a slight web amongst the leaves.

Very similar to *P. anas* in fuscous scaling on the forewing, but differs in much narrower forewing with termen more oblique, and colour of hindwing. The genital character of *lambda* is very different from that of *anas*.

ゴキブリヤセバチとホシセダカヤセバチの寄主

南 川 仁 博

ゴキブリヤセバチ *Evania appendigaster* Linné がワモンゴキブリ *Periplaneta americana* Linné とコワモンゴキブリ *Periplaneta australasiae* Fabricius の卵に寄生することを沖繩の那覇にて1932年7月に観察した。また1962年6月14日に小島圭三博士は高知県足摺峠にて採集されたエグリトラカミキリ *Chlorophorus japonicus* Chervolat の蛹からホシセダカヤセバチ *Pristaulacus intermedius* Uchida を羽化させられ、その標本♀2, ♂1頭を恵与された。ホシセダカヤセバチはカミキリ寄生の枯樹や薪などで採集されるが、これまで寄主の種名は判然しなかつたが、このたび小島博士によつて初めてその寄主が判明した。寄主を御教示下さつた小島博士に対し厚く御礼申上げる。