

A Revisional Study of Japanese Longicornia

I. Genus *Epania* PASCOE (Molorchini)

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日本産カミキリの再検討 I. *Epania* 属

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ABSTRACT. The Japanese members of the genus *Epania* PASCOE, hitherto classified into 5 species and 3 subspecies, are rearranged into 4 species and 2 subspecies, which include a new species from the Ryukyus. *Molorchoepania* PIC, reduced to a subgenus of *Epania* by GRESSITT and RONDON (1970), is regarded herewith as a full genus.

Genus *Epania* PASCOE

Epania PASCOE, 1858, Trans. ent. Soc. Lond., (2), 4: 237 (type-species: *Odontocera? singaporensis* THOMSON, 1857); HAYASHI, 1950, Ent. Rev. Japan, 5: 1; GRESSITT, 1951, Longicornia, 2: 168; GRESSITT & RONDON, 1970, Pacif. Ins. Monogr., (24): 111.

Body clothed with erect or semierect long hairs; underside partially with whitish or yellowish pubescent marks, which can often be regarded as one of the principal characteristics of specific classification. Antennal segments 3-11 densely clothed with minute pubescence. Pronotum with pubescent bands behind apex and before base, the latter of which sometimes disappears.

Antenna 11-segmented; 3 nearly equal in length to 1. Pronotum coarsely, almost uniformly punctured except for anterior marginal area, lacking any swelling or callosity, constricted both behind apex (weakly) and before base. Scutellum tongue-shaped, wider than long. Elytra very short, not covering abdomen, usually wider than long; apex separately rounded. Hind tarsal segment 1 nearly equal in length to 2 and 3 combined, though rarely a little longer than the latter.

Though GRESSITT and RONDON (1970) regarded *Molorchoepania* PIC (1949, Échange, (65): 9, type-species: *M. barbieri* PIC, 1949) as a subgenus of *Epania*, it had better be considered as an independent genus as was already pointed out by HAYASHI (1974). Judging mainly from Japanese and Taiwanese species, it differs from *Epania* in the following respects: 1) antennal segments 5-11 densely clothed with minute pubescence (3-11 in *Epania*), 3 about 1.5 times as long as 1 (almost equal to or shorter than 1 in *Epania*), 2) pronotum rather finely granulate (very coarsely punctate in *Epania*), lacking pubescent band and not constricted behind apex

(with pubescent band and weakly constricted in *Epania*), 3) abdominal segment 1 as long as or slightly longer than 2 (clearly longer in *Epania*), 4) hind tarsal segment 1 distinctly, about twice, longer than 2 and 3 combined (nearly equal to or occasionally a little longer than the latter in *Epania*), and so on.

Key to the Japanese Species of *Epania*

1. Antenna of male extending beyond apex of posterior femur, nearly cylindrical, each apex not angulate; 4th abdominal segment partially clothed with whitish pubescence..... 2
- Antenna of male not extending beyond apex of posterior femur, 4-10th segments depressed, each more or less angulate at outer apex; 4th abdominal segment almost entirely clothed with silvery white pubescence..... *iriei* sp. nov.
2. Pronotum with whitish bands in front and behind; terminal segment of antenna in male more than 0.8 times as long as the penultimate, with its apical portion arcuate or bent; that in female rounded or weakly projecting at the tip 2
- Pronotum only with whitish band behind apex; terminal segment of antenna in male nearly straight, about 0.6 times as long as the penultimate; that in female acutely projecting at the tip.....*septentrionalis*
3. Terminal segment of antenna in male a little longer than the penultimate, with arcuate apical portion; latero-apical parts of 1st abdominal segment clothed with whitish pubescence; hind femur abruptly clavate.....*shikokensis*
- Terminal segment of antenna in male a little shorter than the penultimate, with the apical portion appendiculate and bent; latero-apical parts of 1st abdominal segment without whitish pubescence; hind femur gradually clavate.....*dilaticornis*

***Epania septentrionalis* HAYASHI (figs. 1a-1g)**

Epania septentrionale HAYASHI, 1950, Ent. Rev. Japan, 5: 3, fig. 1.

Epania septentrionalis: HAYASHI, 1950, Ent. Rev. Japan, 5: 72; OHBAYASHI, 1963, Icon. Ins. Japon. Col. nat. ed., 2: 287, pl. 144, fig. 12; KOJIMA & HAYASHI, 1969, Insects' Life in Japan, 1: 59, pl. 18, fig. 23; KUSAMA, 1973, List Ecol. & Dist. Jap. Ceramb.: 52; NAKANE, 1976, Nat. & Ins., Tokyo, 11(6): 4.

Male. Body shiny black; mouth-parts, antennae and legs excepting blackish corpulent parts of femora reddish brown to dark brown. Antenna surpassing apex of hind femur by base of 9th segment; segments 2-11 nearly cylindrical; scape about 1.2 times as long as 3rd; 5th segment about 6 times as long as wide; terminal segment short and nearly straight, about 0.6 times as long as the penultimate. Pronotum widest behind middle, feebly attenuate towards apex, with whitish pubescent band behind apical margin, but without whitish band before basal margin. Elytra about 1.3 times as wide as long, widest at basal 1/3, strongly attenuate posteriad, with apex separately, broadly rounded; disc somewhat sparsely punctured, with an oblique longitudinal concavity at the median part of each elytron. Each abdominal segment with a pair of whitish pubescent marks near the postero-lateral margin; segment 1 with another pair of similar marks at the postero-lateral parts; these marks sometimes extend dorso-ventrally, and on segment 1, merge each other to form an arcuate mark on each side. Hind femora abruptly clavate.

Female. Antennae reaching 2nd abdominal segment; each segment broader than in male;

terminal segment slightly longer than the penultimate, acutely projecting at the tip.

Body length: 8.0-11.0 mm.

Specimens examined. 1♂, Nakatsuchi, Otari-son, Nagano Pref., Honshu, 25. VII. 1972, M. NAGAI leg.; Akasai, Shiso-gun, Hyogo Pref., Honshu: 1♀, 1. VII. 1973, H. HATANAKA leg., 1♀, 8. VII. 1973, H. HATANAKA leg., 1♂, 3. VII. 1977, M. TOHYAMA leg.; 1♀, Mt. Takahachi, Tottori Pref., Honshu, 20. VII. 1975, O. YAMAJI leg.

Range. Honshu, Shikoku and Kyushu.

This species is rarely collected on flowers of *Castanea crenata* SIEB. et ZUCC., *Hydrangea paniculata* SIEB., etc.

Epania shikokensis OHBAYASHI (figs. 2a-2j)

Epania shikokensis OHBAYASHI, 1936, Trans. Kansai ent. Soc., (7): 13, pl. 11, fig. 3.

Male. Body shiny black, with steel, golden green or greenish blue or indigo-blue tint on elytra; mouth-parts, antennae and large parts of legs reddish brown to reddish black; basal parts of hind femora usually ivory-yellow, but rarely reddish black. Antenna semicylindrical, surpassing apex of hind femur by 10th segment, more or less corpulent near each apex in segments 3-8; scape about as long as 3rd segment; 5th segment about 3.6-3.8 times as long as wide; terminal segment longer than the penultimate, with its apical portion arcuate. Pronotum usually widest behind middle, attenuate towards apex, with whitish pubescent bands behind apical and before basal margins. Elytra most transverse of the members of Japanese *Epania*, about 1.3-1.45 times as wide as long, broadest at about basal 1/3, gradually attenuate posteriorly, with apex separately, widely rounded; disc somewhat densely or sparsely punctured, often with irregular rugosities, and with a shallow oblique concavity at the post-median part of each elytron. Abdomen with clear whitish pubescent marks as follows: segment 1 with a pair of arcuate ones near the posterior and lateral margins; each of segments 2-4 with a pair of transverse oval ones near the postero-lateral margin, these marks occasionally extending dorso-ventrally. Hind femora abruptly clavate.

Female. Antennae not reaching 2nd abdominal segment; each segment wider than in male; scape a little shorter than 3rd; terminal segment as illustrated.

Body length: 5.7-9.0 mm.

Two subspecies are recognized as shown below:

1. Elytra with steel, golden green or greenish blue tint; terminal segment of antenna in female longer than the penultimate; abdominal whitish marks relatively less developed.....subsp. *shikokensis*
- Elytra with steel indigo-blue tint; terminal segment of antenna in female about as long as the penultimate; abdominal whitish marks well developed.....subsp. *maruokai*

Subsp. *shikokensis* OHBAYASHI

Epania shikokensis shikokensis: KOJIMA & HAYASHI, 1969, Insects' Life in Japan, 1: 59, pl. 18, fig. 24; KUSAMA, 1973, List Ecol. & Dist. Jap. Ceramb.: 53; NAKANE, 1976, Nat. &

Ins., Tokyo, 11(6): 4. (Shikoku and Kyushu)

Epania shikokensis densepunctata HAYASHI, 1968, Ent. Rev. Japan, 21: 13; KOJIMA & HAYASHI, 1969, Insects' Life in Japan, 1: 59, pl. 18, fig. 24a; KUSAMA, 1973, List Ecol. & Dist. Jap. Ceramb.: 53; NAKANE, 1976, Nat. & Ins., Tokyo, 11(6): 4. (Amami-Oshima Is. and Yaku Is. of the Ryukyus) (**New synonymy**)

Epania shikokensis okinawana HAYASHI, 1976, Bull. Osaka Jonan Women's Junior College, 11: 7. (Okinawa Is. of the Ryukyus) (**New synonymy**)

Range. Shikoku, Kyushu? and Ryukyus (Yaku Is., Amami-Oshima Is. and Okinawa Is.).

Specimens examined. Yaku Is.: 1♂ 5♀♀, Miyanoura, 20-22. VII. 1968, TAKAKUWA leg., many others; Amami-Oshima Is.: 5♂♂ 6♀♀, Mt. Yuwan, 3. VII. 1972, A. SAKAI leg., many others; Okinawa Is.: 1♂, Mt. Yonaha, 28. VI. 1973, T. HATAYAMA leg., 1♂ Mt. Yonaha, 28. IV. 1975, K. SUGINO leg.

Elytra more or less with golden green tint in specimens of Shikoku and Yaku Is., usually with greenish blue but sometimes golden green tint in specimens of Amami-Oshima Is. and Okinawa Is. Pronotal punctation variable, though showing the following tendency: less coarse and rather dense in large specimens, rather coarse and less dense in small ones.

Subsp. *maruokai* HAYASHI, stat. et comb. nov.

Epania maruokai HAYASHI, 1968, Ent. Rev. Japan, 21: 13; KOJIMA & HAYASHI, 1969, Insects' Life in Japan, 1: 60, pl. 18, fig. 26; KUSAMA, 1973, List Ecol. & Dist. Jap. Ceramb.: 53; NAKANE, 1976, Nat. & Ins., Tokyo, 11(6): 4.

Range. Ishigaki Is. and Iriomote Is. (Yaeyama group of the Ryukyus)

Specimen examined. 1♀, near Kanpira Fall, Iriomote Is., 7. IV. 1973, H. IRIE leg.

This subspecies is very rare. Only three specimens have been reported to science up to the present: holotype (♀, Iriomote Is., 18. VII. 1962, H. MARUOKA leg.), 1 ex., Ishigaki Is., 14. IV. 1973, H. IRIE leg. and the above specimen.

***Epania dilaticornis* HAYASHI (figs. 3a-3p)**

Epania dilaticorne HAYASHI, 1950, Ent. Rev. Japan, 5: 5, fig. 3.

Epania dilaticornis: HAYASHI, 1950, Ent. Rev. Japan, 5: 72.

Male. Body shiny black; mouth-parts, antennae and legs usually reddish brown to dark reddish brown, but the antennae and hind legs (basal parts of hind femora occasionally ivory-yellow) are sometimes reddish black; elytra dark reddish brown to reddish black, often nearly black. Antenna cylindrical, surpassing apex of hind femur by 9-10 th segments; scape about as long as 3rd; segments 3-8 more or less corpulent near each apex; 5th segment about 4.4 times as long as wide; terminal segment a little shorter than the penultimate, bent and appendiculate near apical portion. Pronotum 1.23-1.4 times as long as wide, with whitish pubescent bands behind apical and before basal margins. Elytra about 1.12-1.3 times as wide as long, usually

widest behind humeri, gradually attenuate posteriorly with curving sides; apex separately, broadly rounded; disc finely, somewhat sparsely punctured, irregularly rugulose at the posterior parts, often with a shallow longitudinal concavity at the median part of each elytron. Abdomen with a pair of whitish pubescent marks as follows: maculations at antero-lateral margins of 1st segment (without mark near posterior margin), inclined fasciae at the side of 2nd, small spots at the lateral and post median parts of 3rd and larger spots than in 3rd at the latero-posterior parts of 4th. Hind femora somewhat gradually, but occasionally somewhat abruptly, clavate.

Female. Antennae not extending beyond 1st abdominal segment; each segment wider than in male; scape a little longer than 3rd; terminal segment as illustrated, a little longer or nearly equal to the penultimate.

Body length. 5.5-9.5 mm.

Two subspecies are recognized as shown by the following key:

1. Pronotum longer, 1.40 times as long as wide; elytra almost parallel-sided at basal half, then gradually attenuate posteriorly with curving sides.....subsp. *dilaticornis*
- Pronotum shorter, 1.23-1.35 times as long as wide; elytra usually widest behind humeri, then gradually attenuate posteriorlysubsp. *kumatai*

Subsp. *dilaticornis* HAYASHI

Range. South Kyushu.

Specimen examined. 1♀, Kagoshima City, Kagoshima Pref., Kyushu, 1. VI. 1941, T. KUSUMOTO leg. (holotype).

Only the holotype is known. It is strange to say that the insect has been forgotten and has never been sited since its original description by HAYASHI (1950).

Subsp. *kumatai* HAYASHI, stat. et comb. nov.

Epania kumatai HAYASHI, 1961, Ent. Rev. Japan, **13**: 45, pl. 10, fig. 10; KOJIMA & HAYASHI, 1969, Insects' Life in Japan, **1**: 59, pl. 18, fig. 25; KUSAMA, 1973, List Ecol. & Dist. Jap. Ceramb.: 52; NAKANE, 1976, Nat. & Ins., Tokyo, **11**(6): 3. (Amami-Oshima Is., Yaku Is. and Tanegashima Is.)

Epania subglabra: HAYASHI, 1961, Ent. Rev. Japan, **13**: 46, pl. 10, fig. 20 (nec GRESSITT, 1938). (Amami-Oshima Is.)

Epania septentrionalis shibatai HAYASHI, 1976, Bull. Osaka Jonan Women's Junior College, **11**: 8. (Amami-Oshima Is.) (**New synonymy**)

Epania septentrionalis: KOMIYA, 1980, Gekkan-Mushi, Tokyo, (112): 10, fig. 12 (nec HAYASHI, 1950). (Yaku Is.)

Range. Ryukyus (Okinawa Is., Amami-Oshima Is., Yaku Is. and Tanegashima Is.).

Specimens examined. Okinawa Is.: 1♀, Mt. Yonaha, 28. IV. 1975, K. SUGINO leg., 1♂, Mt. Yonaha, 13. VI. 1978, T. OGASAWARA leg.; Amami-Oshima Is.: 4♂♂ 4♀♀, Marubatake, 13. IV. 1976, N. MORISHIMA leg., also many others collected in spring; holotype (♂) and one

paratype (♀) of *shibatai*, 3♂♂ 1♀, Chuo-rindo, 26. VI. 1979, T. KAMAKARI leg., also many others collected in summer; Yaku Is.: 1♂, Miyanoura-rindo, 14. VII. 1972, J. KOMIYA leg., 1♂, Miyanoura, 27. VII. 1974, T. MIKAGE leg., 1♂, Nagamine, 30. VII. 1974, T. MIKAGE leg.

This subspecies is mainly collected in April and from late July to August on Amami-Oshima Is. Though the species name *kumatai* was given for spring specimens and *septemtrionalis shibatai* for summer ones, it is difficult to distinguish them by external morphological characteristics. According to Dr. N. MORISHIMA, many specimens of this subspecies emerged in the summer of 1976 from a freshly cut tree in which adults laid eggs in April of 1976. Judging from these facts, it can be surmised that this species emerges twice in a year at that locality. Specimens of Yaku Is. are slightly different from true *kumatai*, because they are more or less discriminated from males of Amami-Oshima Is. by the thicker median and slenderer lateral lobes of male genitalia.

Epania iriei sp. nov. (figs. 4a-4d)

Male. Body shiny reddish black, but the posterior coxae and latero-anterior portions of 1st abdominal segment are castaneous and the prothorax is almost black; elytra dark reddish black with a vague, faintly light V-maculation at the median area; antennae and legs generally dark castaneous, but the basal 1/3-1/2 of each femur is ivory-yellow.

Head somewhat sparsely clothed with semierect brown hairs, with white pubescent bands behind anterior margin and before posterior margin, the former of which is not clear on the disc. Scutellum densely clothed with whitish pubescence. Elytra sparsely clothed with semierect brownish hairs. Underside somewhat sparsely clothed with long semierect pale hairs, with pale whitish pubescence near the antero-median parts of lateral margins of 1st abdominal segment and latero-anterior corners of 2nd, and with silvery white pubescence on the following parts: mesepimera, posterior coxae except for median areas and 4th and 5th abdominal segments excepting each median part. Antennal segments 1-2 sparsely clothed with semierect hairs, 3-11 densely clothed with minute brown pubescence, and the under surface of 3-5 with a row of sparse semierect brown hairs. Legs generally clothed with long semierect yellow hairs, but basal parts of femora with pale ones.

Head densely, coarsely punctate. Antennae relatively short, barely reaching abdominal apex; relative lengths of segments as follows: 13:4:13:15:18:19.5:20:20:20.5:20:22; segments 4-10 more or less depressed, weakly serrate; segment 5 about 2.86 times as long as wide; terminal segment semicylindrical. Pronotum subcircular, about 1.2 times as long as wide, widest a little behind middle, slightly constricted behind apex and strongly constricted before base; disc densely, coarsely punctate, but the anterior margin is not punctured. Scutellum tongue-shaped, wider

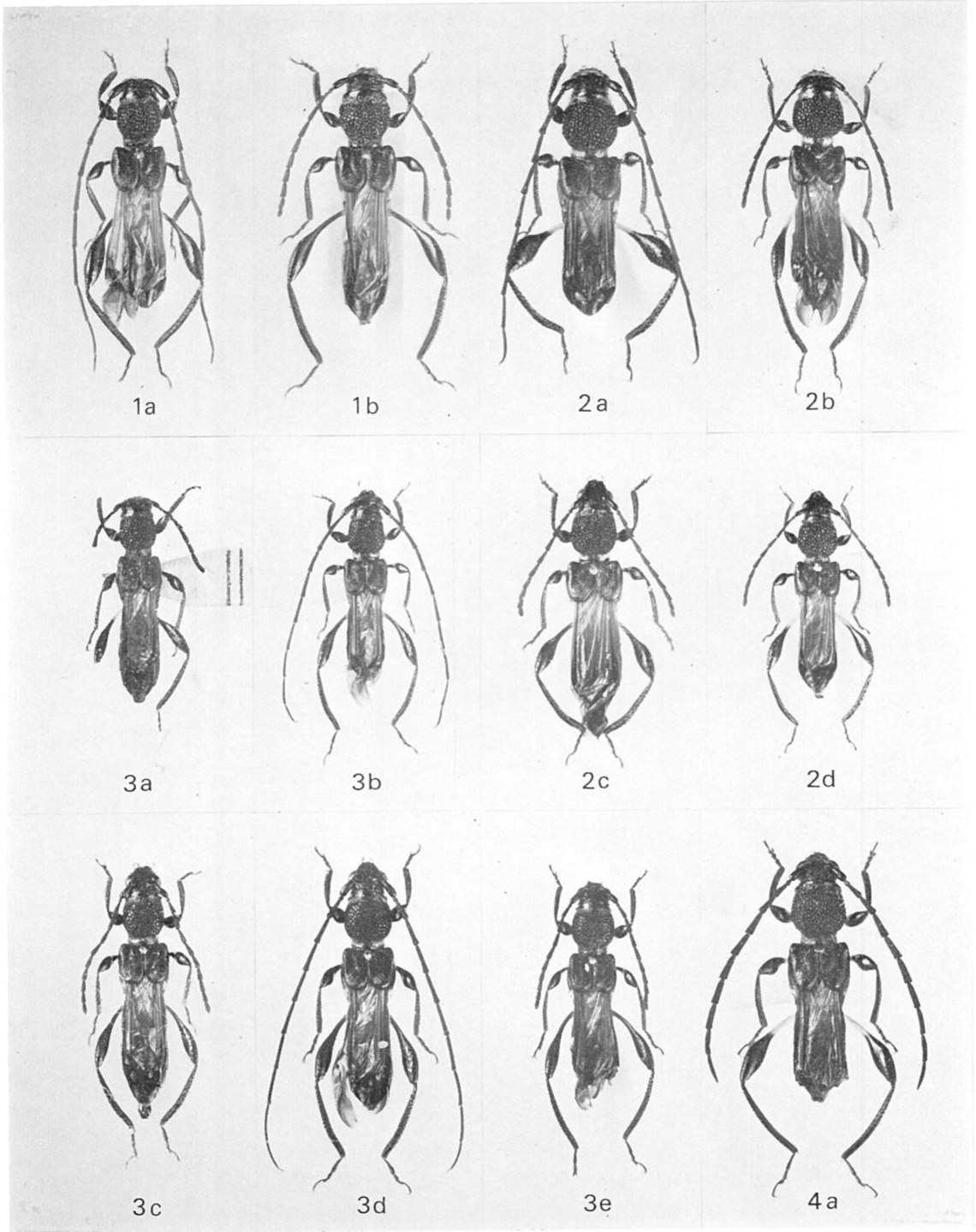


Fig. A. Japanese species of *Epania*

1a. *septentrionalis*, ♂, 1b. ditto, ♀, 2a. *shikokensis shikokensis*, ♂ (Okinawa Is.), 2b. ditto, ♀ (Amami-Oshima Is.), 2c. ditto, ♀ (Yaku Is.), 2d. *shikokensis maruokai*, ♀, 3a. *dilaticornis dilaticornis*, ♀ (holotype), 3b. *dilaticornis kumatai*, ♂ (Yaku Is.), 3c. ditto, ♀ (Amami-Oshima Is.: spring specimen), 3d. ditto, ♂ (Amami-Oshima Is.: summer specimen), 3e. ditto, ♀ (ditto), 4a. *iriei* sp. nov., ♂ (holotype)

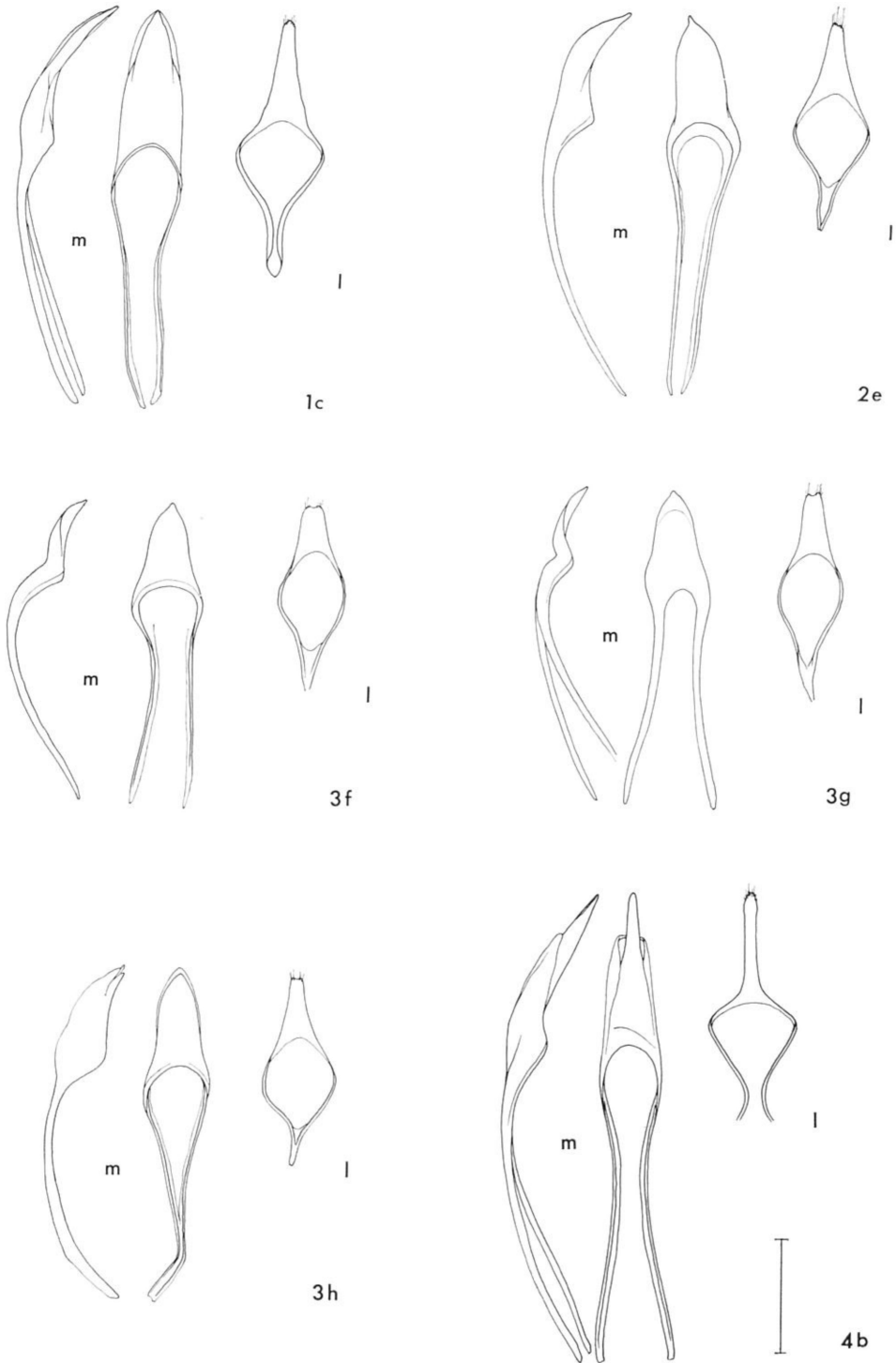


Fig. B. Male genitalia (m: median lobe, l: lateral lobes, scale: 0.5 mm)

1c. *septentrionalis*, 2e. *shikokensis shikokensis*, 3f. *dilaticornis kumatai* (Amami-Oshima Is.: spring specimen), 3g. ditto (ditto: summer specimen), 3h. ditto (Yaku Is.), 4b. *iriei* sp. nov.

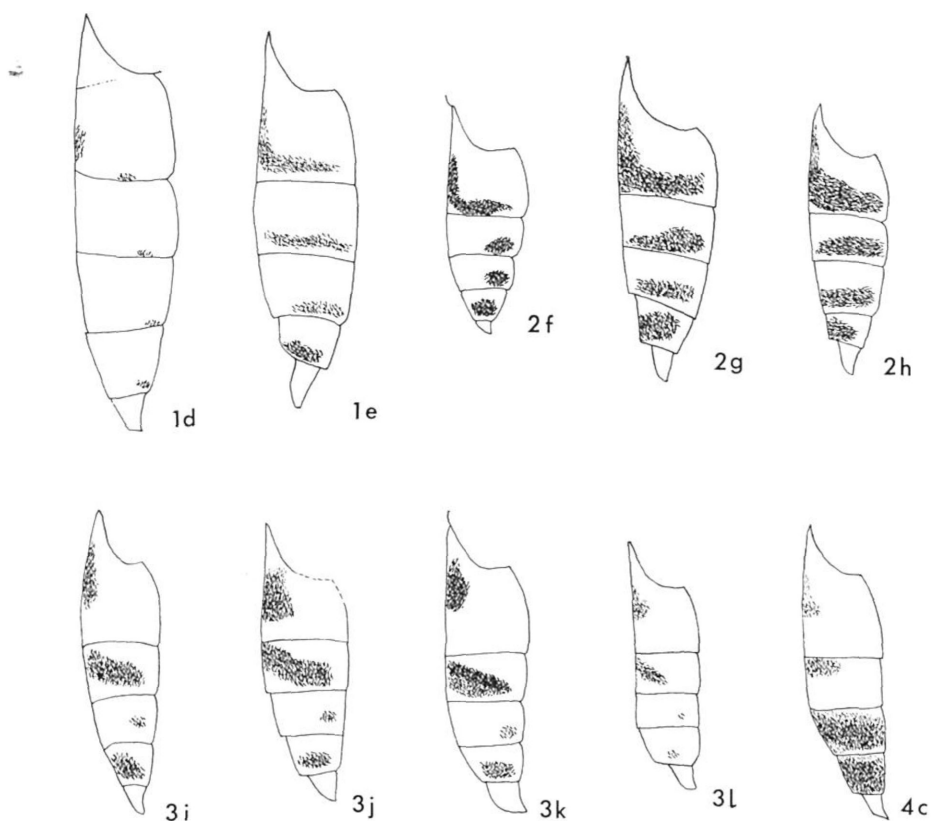


Fig. C. Abdominal whitish pubescent marks, lateral view

1d. *septentrionalis*, ♂, 1e. ditto, ♀ (developed form), 2f. *shikokensis shikokensis*, ♂, 2g. ditto, ♂ (developed form), 2h. *shikokensis maruokai*, ♀, 3i. *dilaticornis dilaticornis*, ♀, 3j. *dilaticornis kumatai*, ♂ (holotype of *septentrionalis shibatai*), 3k. ditto, ♂ (Amami-Oshima Is.: spring specimen), 3l. ditto, ♂ (Yaku Is.: underdeveloped form), 4c. *iriei* sp. nov., ♂

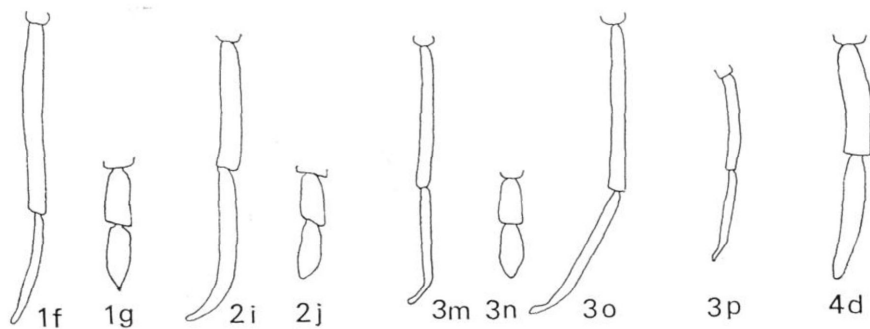


Fig. D. Tenth and terminal segments of right antenna

1f. *septentrionalis*, ♂, 1g. ditto, ♀, 2i. *shikokensis shikokensis*, ♂, 2j. ditto, ♀, 3m. *dilaticornis kumatai*, ♂ (Amami-Oshima Is.: spring specimen), 3n. ditto, ♀ (ditto), 3o. ditto, ♂ (Amami-Oshima Is.: summer specimen), 3p. ditto, ♂ (Yaku Is.), 4d. *iriei* sp. nov., ♂

than long. Elytra transverse, about 1.28 times as wide as long, weakly projecting at the humeri; sides widest at basal 1/3, relatively abruptly attenuate posteriorly with slight curving; apices relatively narrowly rounded; disc coarsely, and moderately punctate, each with a broad concavity which arcuately runs obliquely from inside humeral angle to apical third of the inner margin. Hind femora somewhat strongly corpulent behind middle.

Body length. 9.0 mm.

Holotype. ♂, near Kanpira Fall, Iriomote Is., 7. IV. 1973, H. IRIE leg. (deposited in the Natn. Sci. Mus., Tokyo)

Range. Iriomote Is. (Yaeyama group of the Ryukyus)

This new species is evidently different from the other members of *Epania* in having peculiar antennae and abdominal whitish marks.

Acknowledgement

I wish to express my hearty gratitude to Dr. Shun-Ichi UÉNO of the National Science Museum, Tokyo, for his kindness in reading the original manuscript of this paper. Deep thanks are also due to Prof. Drs. M. HAYASHI and K. KUSAMA, Dr. N. MORISHIMA, Messrs. H. IRIE, J. KOMIYA, N. OHBAYASHI, M. TOHYAMA, T. KOBAYASHI, K. SUGINO, T. HATAYAMA, A. SAKAI, T. KAMAKARI, N. OGURA, T. WAKEJIMA, T. OGASAWARA, K. KAWADA and H. AKIYAMA for their kindness in supplying with valuable materials, to Mr. H. FUJITA for preparing genitalic drawings and to Mr. H. MATSUKA for taking photographs inserted in this paper.

摘 要

日本の *Epania* 属について再検討を行ない、これを次のように整理した。

1. *Molorchoepania* PIC を独立属と認め、これを *Epania* から分離した。この扱いは HAYASHI (1974) に続くものである。
2. 日本からは4種を認めた。すなわち、
 - 1) *E. septemtrionalis* HAYASHI クロサワヒメコバネカミキリ
 - 2) *E. shikokensis* OHBAYASHI リョウブモモブトヒメコバネカミキリ
 - 3) *E. dilaticornis* HAYASHI サツマヒメコバネカミキリ
 - 4) *E. iriei* TAKAKUWA, sp. nov. ノコギリヒメコバネカミキリ (新称)

3. *E. shikokensis* には次の2亜種を認めた。

- 1) *E. shikokensis shikokensis* OHBAYASHI
- 2) *E. shikokensis maruokai* HAYASHI, stat. et comb. nov.

なお、*E. shikokensis densepunctata* HAYASHI ならびに *E. shikokensis okinawana* HAYASHI を基亜種と区別しなかった。

4. *E. dilaticornis* には次の2亜種を認めた。

- 1) *E. dilaticornis dilaticornis* HAYASHI
- 2) *E. dilaticornis kumatai* HAYASHI, stat. et comb. nov.

なお、*E. septemtrionalis shibatai* HAYASHI を *E. dilaticornis kumatai* の同物異名として扱った。