

THE FAMILY ANTHRIBIDAE OF JAPAN (COLEOPTERA). PART 2”

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THE FAMILY ANTHRIBIDAE OF JAPAN (COLEOPTERA). PART 2*

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Abstract

This is the second part of the revision of Japanese Anthribidae, treating the tribes Platystomini, Mecocerini, Xylinadini and Ecelonerini.

New taxa, recombinations and synonymies treated in this paper are as follows :

Penestica brevis (Jordan, 1912), comb. nov. (*Paraphloeobius*)

Caenophloeobius gen. nov. (type : ***Phloeomimus inconspicuus*** Wolfrum, 1948)

Caenophloeobius inconspicuus (Wolfrum, 1948), comb. nov. (***Phloeomimus***)

Phloeobius planus Shibata, 1963

= ***Caenophloeobius inconspicuus*** (Wolfrum, 1948), syn. nov.

Caenophloeobius tenuipes (Jordan, 1936), comb. nov. (***Phloeomimus***)

Caenophloeobius facilis (Jordan, 1931), comb. nov. (***Phloeobius***)

Phloeobius stenoides Shibata, 1963

= ***Phloeobius stenus*** Jordan, 1923, syn. nov.

Mecotropis ogasawarai sp. nov.

Xylinada oshimai sp. nov.

Eucorynus flavescens Nakane, 1963

= *Rawasia ritsemae* Roelofs, 1880, syn. nov.

Dendrotrogus japonicus sp. n. ov.

Dendrotrogus nagaai sp. nov.

Xylinada striatifrons Jordan, 1895, is recorded from Japan for the first time.

Tribe PLATYSTOMINI

Anthribides vrais Lacordaire, Gen. Col. VII: 573, 1866.

Platystomini Valentine, Tans. Amer. Ent. Soc. LXXXVI: 48, 1960.

Exillis Pascoe

Exillis Pascoe, Ann. Mag. Nat. Hist. (3) V: 43, 1860 (Type : *Exillis longicornis* Pascoe, 1860, by monotypy).

Exillis japonicola Nakane (Fig. 1)

Exillis japonicola Nakane, Fragm. Col., pars 8: 32, 1963 (Kochi: Okinoshima ; Kagoshima :

* Contribution from the Entomological Laboratory, Faculty of Agriculture, Kyushu University, Fukuoka (Ser. 3, No. 60).

Sata); Nakane, Icon. Ins. Jap. Col. Nat. Ed., II: 351, pl. 176, f. 5, 1963 (Shikoku, Kyushu).

Specimens examined: 750 exs. from Is. Hachijo, Kochi (Ashizuri), Fukuoka (Mt. Hiko, Mt. Fukuchi), Kagoshima (Cape Sata), Is. Yaku, Is. Kuchinoshima, Is. Takarashima, Is. Kotakarashima, Is. Amami-Oshima, Is. Okinoerabu, Is. Okinawa, Is. Ishigaki, Is. Iriomote, Is. Yonaguni, and Taiwan (Yangmingshan, Puli).

Distribution: Japan (Hachijo Isl., Shikoku, Kyushu, Ryukyus), Taiwan.

Note: This species is considerably variable in the hairy markings; namely, in specimens with well-defined greyish patches (fig. 1), the pronotum has well-defined median and lateral stripes on the brown ground, which are usually interrupted, and the patches on the alternate intervals, the humeral area and the apex of elytra are covered with greyish hairs; in brownish specimens, the hairy patches on the upperside are much more brownish, ill-defined and smaller.

Exillis japonicola is similar to *longicornis* Pascoe, *luteus* Jordan, *carinatus* Jordan, *laticeps* Jordan and *impunctatus* Wolfrum in the hairy markings. *E. longicornis* was described by female and redescribed by Jordan (1925) as "... segment

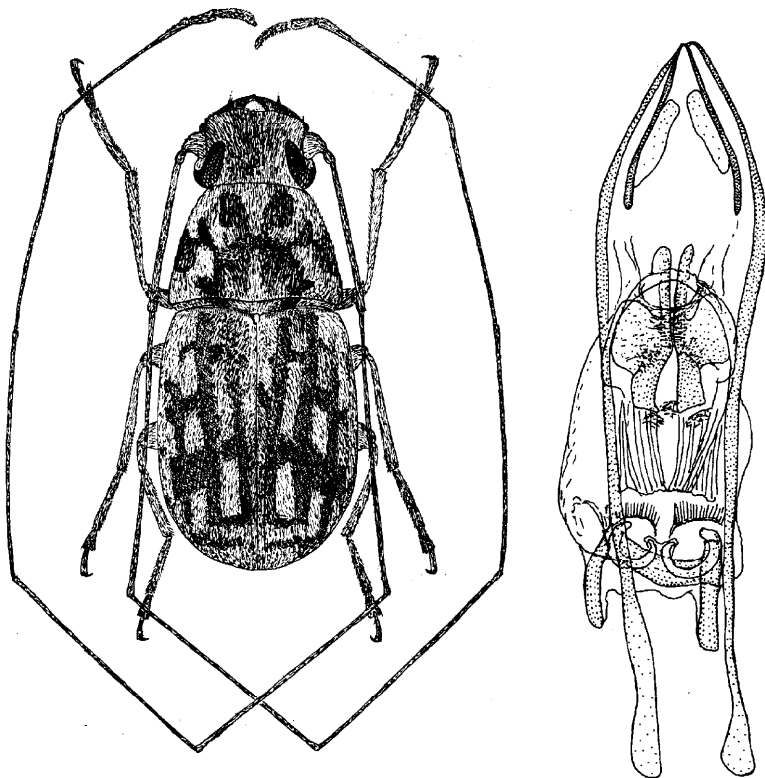


Fig. 1. *Exillis japonicola*, male and penis.

3 of antenna in ♂ nearly as long as 4 (but thicker), and in ♀ somewhat longer than 4", but the holotype (♀) has the 3rd segment which is a little shorter than 4th and many males determined by Jordan as *longicornis* have longer 4th segments.

The measurements of antennae of *Exillis* spp. by the author are as follows:

Species	Sex	Length of antennal segments (mm)				Note
		3rd	4th	5th	6th	
<i>longicornis</i>	♀	0.8	0.9	0.97	0.87	Holotype
<i>longicornis</i>	♂	1.1	2.7	2.1	2.2	Sarawak
<i>luteus</i>	♂	0.8	1.11	1.08	1.08	Holotype
<i>carinatus</i>	♂	0.9	3.3	3.4	3.4	Holotype
<i>laticeps</i>	♂	1.2	4.0	3.8	4.0	Holotype
<i>impunctatus</i>	♂	1.1	1.8	2.1	2.25	
<i>lepidus</i>	♂	0.9	1.5	1.2	1.15	

They are classified into two groups by the relative length of antennal segments.

Fourth segment more than twice as long as 3rd

longicornis, *carinatus* and *laticeps*

Fourth segment less than twice as long as 3rd

lepidus, *impunctatus*, *luteus* and *japonicola*

Exillis horni Jordan and *asper* Jordan are different from the above mentioned species by the presence of large black patches on elytra. New Zealand species, *variabilis* Sharp and *lawsoni* Sharp, are now placed in *Exillis*, but need revision in their systematic position.

KEY TO SPECIES OF THE GENUS *Exillis* Pascoe BASED ON MALE

- 1 : Antennae with 4th segment as long as or shorter than 3rd 2
- 1' : Antennae with 4th segment longer than 3rd 5
- 2 : Lateral prothoracic carina very short **horni** Jordan, 1902
- 2' : Lateral prothoracic carina extending nearly to the middle 3
- 3 : Rostrum with a pair of carinae **lawsoni** Sharp, 1873
- 3' : Rostrum without carinae 4
- 4 : Pronotum broadest at the base **asper** Jordan, 1925
- 4' : Pronotum broadest at the middle **variabilis** Sharp, 1873
- 5 : Frons with a pair of carinae 6
- 5' : Frons with a median sulcus or entirely flat 7
- 6 : Antennae with 4th segment three times as long as 3rd; frons with a distinct carina on each side along dorsal margin of eye **carinatus** Jordan, 1925
- 6' : Antennae with 4th segment 1.5 times as long as 3rd; frons with a indistinct carina on each side **impunctatus** Wolfrum, 1924
- 7 : Antennae with 4th segment more than twice as long as 3rd; apex of 4th segment exceeding far beyond elytra 8

- 7' : Antennae with 4th segment less than twice as long as 3rd, apex of 4th segment at most reaching apex of elytra 9
- 8 : Antennae with 4th, 5th and 6th segments subequal in length ... *laticeps* Jordan, 1925
- 8' : Antennae with 4th segment distinctly longer than 5th, the latter equal to 6th in length *longicornis* Pascoe
- 9 : Rostrum with a long median sulcus 10
- 9' : Rostrum with a short, punctiform median sulcus; antennae with 4th segment 1.7 times as long as 3rd *lepidus* Jordan, 1922
- 10 : Antennae with 4th segment about 1.4 times as long as 3rd, anterior margin of rostrum straightly truncate *luteus* Jordan, 1925
- 10' : Antennae with 4th segment 1.7-1.9 times as long as 3rd; anterior margin of rostrum concave at middle *japonicola* Nakane, 1963

Platystomos Schneider

Platystomos Schneider, N. Mag. Liebh. Ent., I (1) : 21, 1791 (Type : *Curculio albinus* Linnaeus, 1758).

Platystomus Hellwig (in litt.), Schneider, N. Mag. Liebh. Ent., IV: 393, 1792.

Macrocephalus Olivier, Intr. Hist. Nat. Ins., 4 (3) : 36, 1789 (preoccupied by Swederus, 1787).

Anthribus Fabricius (partim), Ent. Syst., I (2) : 375, 1792.

Platystomos sellatus Roelofs (Photo. A)

Anthribus (*Anthribidius*) *sellatus* Roelofs, Deut. Ent. Zschr., XXIII: 302, 1879 (Japan).

Anthribus daimio Sharp, Trans. Ent. Soc. Lond., 1891: 319, 1891 (Yokohama, Kobe, Kurigahara, Junsai).

Specimens examined: 20 examples from Hokkaido, Aomori, Fukushima, Hyogo, Hiroshima, Fukuoka, Kumamoto and Tsushima.

Distribution : Japan (Hokkaido, Honshu, Shikoku, Kyushu, Tsushima).

Platystomos asteromaculatus Oda (Photo. B)

Platystomus asteromaculatus Oda, Trans. Shikoku Ent. Soc., 14: 27, 1978 (Amami-Oshima, Yonaguni).

Specimens examined: 3♂, Mt. Yuwandake, Amami-Oshima, 30. vii. 1963, Y. Hirashima & J. L. Gressitt leg. ; 1♀, 24-26. iv. 1974, T. Kinoshita leg. (paratype). 1♂1♀, Nishinakama, Amami-Oshima, 24. v. 1978, H. Makihara leg. 1♀, Torigamine, Sumiyo, Amami-Oshima, 8. iv. 1977, T. Ogasawara leg. 1♀, Oku, Okinawa, 16. v. 1978, H. Makihara leg.

Distribution : Japan (Amami-Oshima, Okinawa and Yonaguni Isls.).

Note: This species is very close to *sellatus* Roelofs, but the setal fascicles on the pronotum and the elytra are longer and the subbasal large white patch on the elytra between 3rd striae expands laterally on 4th and 5th intervals as narrow points.

Penestica Pascoe

Penestica Pascoe, Ann. Mag. Nat. Hist., (3) IV: 332, 1859 (Type : *Penestica inepta* Pascoe, 1859, by monotypy).

Pioenia Pascoe, Journ. Ent., I: 332, 1860 (Type : *Pioenia saginata* Pascoe, 1860, by mono-

typy).

Penestica brevis albescens Shibata, **comb. nov.** (Photo. D)

Paraphloeobius brevis Jordan, Nakane, Icon. Ins. Jap. Col. Nat. Ed., II: 350, pl. 175, f. 22 (Honshu, Kyushu, Taiwan).

Paraphloeobius brevis albescens Shibata, Entom. Rev. Jap., XV : 47, pl. 6, f. 8 & 9, 1963 (Nara : Kasuga).

Specimen examined: 1 ♀, Mt. Takachiho, Kirishima, Kagoshima Pref., 28. vi. 1959, H. Yamamoto leg.

Distribution : Japan (Honshu, Kyushu).

***Caenophloeobius* gen. nov.**

Head and frons neither sulcate nor carinate. Scrobes foveiform, the dorsal margin carinate and prolonged downwards to the ventral face of eyes. Eyes strongly emarginate in front. Antennae slender, reaching the middle of elytra in male or to the humeri in female, 1st and 2nd segments very short, club three-segmented. Pronotum with the dorsal carina basal, rectangularly angulate at side and the lateral carina reaching anteriorly beyond the middle. Elytra arched at the base, parallel-sided or slightly widened from humeri to the middle. Femora clavate. Tibiae gently curved inwards. Tarsi slender, 1st segment slender, more than three times as long as wide, 3rd segment as broad as the 2nd. Rostrum separated from head by a deep transverse sulcus on the underside between eyes.

Type-species : *Phloeomimus inconspicuus* Wolfrum, 1948.

Here also belong *Phloeomimus tenuipes* Jordan, 1936, and *Phloeobius facilis* Jordan, 1931.

This new genus is very close to *Phloeomimus* Jordan, 1906, but separable from it by the characters noted in the following key.

KEY TO GENERA AND SPECIES OF *Phloeomimus* AND *Caenophloeobius*

- 1 : Tarsi broad, 1st segment a little longer than wide and much shorter than 4th; eyes less prominent; antennae not reaching humeri ; pronotum covered with unicoloured greyish hairs ***Phloeomimus griseus* Jordan, 1906**
- 1' : Tarsi slender, 1st segment three times as long as wide and nearly as long as or longer than 4th ; eyes large, strongly convex; antennae reaching humeri in female or to the middle of elytra in male ; pronotum with greyish spots on brownish general covering ***Caenophloeobius* gen. nov.**..... 2
- 2 : Antennae with 2nd segment longer than 3rd; elytra broadly depressed at the base ***Caenophloeobius tenuipes* (Jordan, 1936), comb. nov.**
- 2' : Antennae with 2nd segment shorter than 3rd 2
- 3 : Antennae with 3rd segment longer than 4th *.....
..... ***Caenophloeobius inconspicuus* (Wolfrum, 1948), comb. nov.**
- 3' : Antennae with 3rd segment equal to 4th in length
..... ***Caenophloeobius facilis* (Jordan, 1931), comb. nov.**

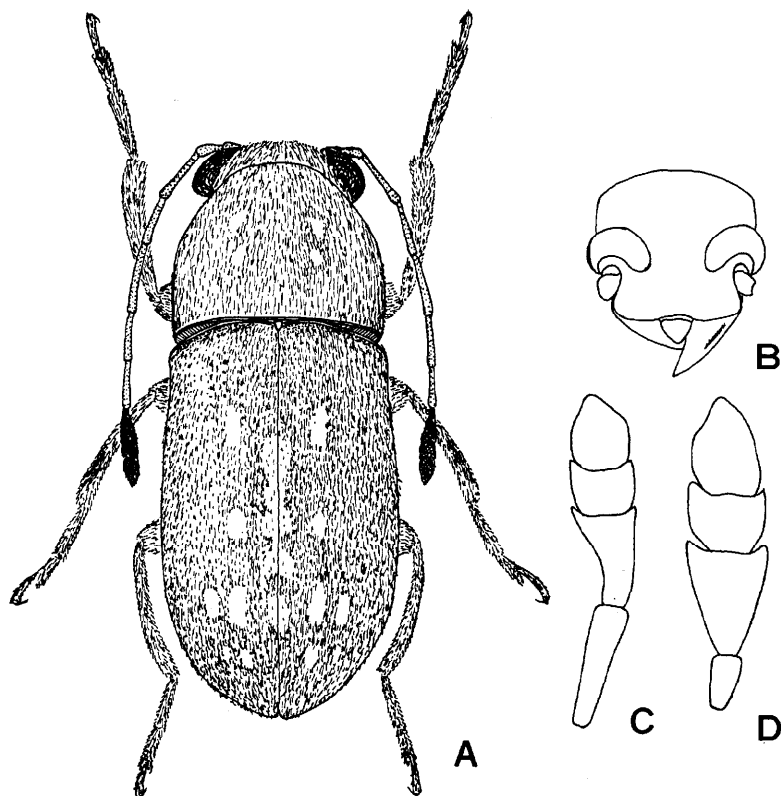


Fig. 2. *Caenophloeobius inconspicuus*. A: Male. B: Head, male. C: Antennal club, male. D: Ditto, female.

***Caenophloeobius inconspicuus* Wolfrum, comb. nov. (Photo. C; Fig. 2)**

Phloeomimus inconspicuus Wolfrum, Ent., Blätt. XVI-XLIV : 146, 1948. (China: Fukien).

Phloeobius planus Shibata, Entom. Rev. Japan, XV: 46, 1963. (Is. Amami-Oshima, ♂); Oda, Shikoku Chuho, 22: 114, 1977. (Kurinodake). -syn. nov.

Specimens examined: 1 ♀, Sungkang, Nantou Hs., Taiwan, 14. vii. 1966, H. Sasaji leg. 1 ♀, Tihyuehtan, Nantou Hs., Taiwan, 15. vii. 1966, H. Sasaji leg. 1 ♀, Fenchihu, Chiai Hs., Taiwan, 22. vii. 1966, H. Sasaji leg. 1 ♂, Yangmingshan, Taipei Hs., Taiwan, 24. viii. 1966, H. Sasaji leg. 1 ♂, Nishinakama, Amami-Oshima, 25. v. 1978, H. Makihara leg.

Distribution : Japan (Kyushu, Is. Amami-Oshima), Taiwan, China (Fukien).

***Phloeobius* Schoenherr**

Phloeobius Schoenherr, Curc. Disp. Meth., : 36, 1826 (as subgenus of *Anthribus* Fabr.;

Type : *Anthribus griseus* Fabricius, 1792 = *gigas* Fabricius, 1775).

***Phloeobius alternanus* Wiedemann (Fig. 3, H-J)**

Anthribus alternanus Wiedemann, Zool. Mag., I (3) : 172, 1816 (Bengal).

Anthribus apicalis Walker, Ann. Mag. Nat. Hist., (3) III: 262, 1859 (Ceylon) ; Sharp, Trans.

Ent. Soc. London, 1891: 319, 1891 (Japan).

Phloeobius gigas, Matsumura (nec Fabricius), 6000~111. Ins. Jap. Emp.: 273, no. 866, 1931;

Kato, Three Col. Ill. Ins. Jap., IX: pl. 29, f. 9, 1931.

Specimens examined: 1♂, Akita, 7. vii. 1912, E. Hori leg. 1♂, Tokyo, 14. v. 1935, I. Maeda leg. 1♀, Kuraru, Taiwan, 3. ix. 1921, T. Esaki leg. 1♀, Taiwan, 16. vi. 1967, Chang leg.

Distribution : Japan (Honshu, Kyushu), Taiwan, Indochina, Sumatra, India, Ceylon.

Note: This species has often been recorded by Japanese entomologists as *gigas*, but the latter has the slightly dilated 3rd segment of the tarsi and the rostrum is separated from the head by a transverse sulcus on the underside between the eyes.

Phloeobius gibbosus Roelofs (Photo. F; Fig. 3, E-G)

Phloeobius gibbosus Roelofs, Ann. Soc. Ent. Belg., XXII, Compt. Rend. :lv, 1879 (Japan).

Specimens examined: 29 examples from Kyoto, Osaka, Okayama, Fukuoka, Kumamoto and Kagoshima Prefs.

Distribution : Japan (Honshu, Shikoku, Kyushu, Is. Tanegashima).

Phloeobius mimes Sharp (Photos. G, H; Fig. 3, A-D)

Phloeobius mimes Sharp, Trans. Ent. Soc. London, 1891: 319, 1891 (Nagasaki).

Specimens examined: Type (♂) and paratypes (1♂1♀), Nagasaki, Lewis leg. [in the British Museum (Natural History)].

Distribution : Japan (Kyushu).

Note: Oda (1977) considered that *P. mimes* might be a dwarf form of *gib-*

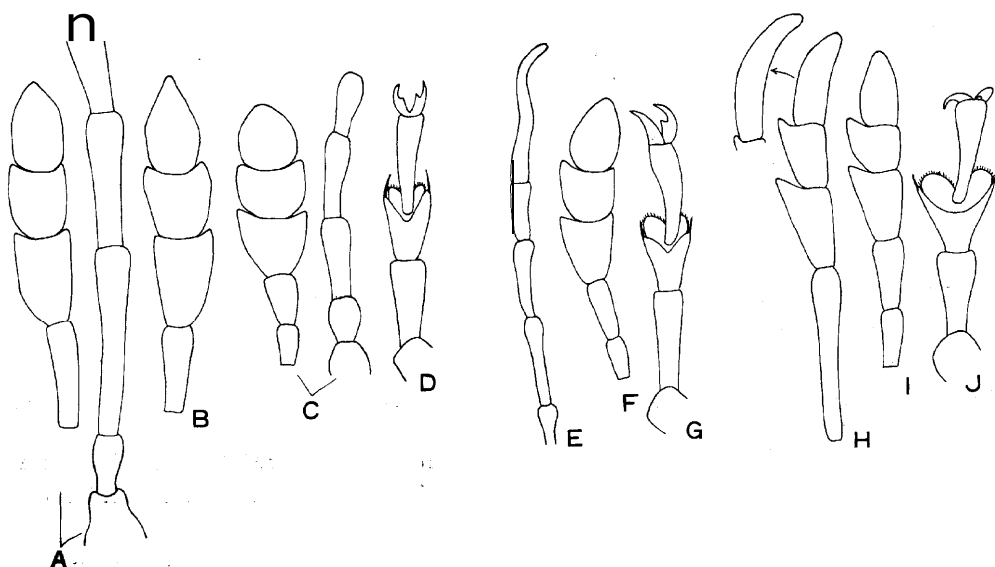


Fig. 3. Antenna and right front tarsus of *Phloeobius* spp. A-D: *mimes* (A, D: Holotype, male. B: Paratype, male. C: Paratype, female). E-G: *gibbosus* (E, G: Holotype, male. F: Paratype, female). H-J: *alternanus* (H: male. I-J: Holotype of *apicalis*, female).

bosus, but they are distinct species and clearly separable to each other by the characters noted in the following key.

Phloeobius stenus Jordan (Photo. E)

Phloeobius stenus Jordan, Nov. Zool., XXX: 173, 1923 (Shanghai).

Phloeobius stenoides Shibata, Entom. Rev. Japan, XV: 45, 1963 (Osaka: Mt. Iwawaki ; Kyoto: Hanase). -syn. nov.

Specimens examined: 1♂ 1♀, Mt. Kiyosumi, Chiba Pref., 8. vi. 1963, K. Morimoto leg. 16, Mt. Hiko, Fukuoka Pref., 5. viii. 1955, S. Nakao leg. ; 1♂, 8-10. v. 1957, K. Morimoto leg. 1♀, Tatsudayama, Kumamoto City, 16. v. 1975, A. Iwasaki leg. 1♀, Mt. Omoto, Ishigaki, 29. v. 1976, T. Ogasawara leg.

Distribution : Japan (Mikura Isl., Honshu, Shikoku, Kyushu, Ishigaki Isl.), China (Shanghai).

KEY TO JAPANESE SPECIES OF *Phloeobius*

- 1 : Underside of head with a transverse sulcus separating rostrum from head; terminal segment of antennae usually slender and bisinuate in male, antennal club in female slightly asymmetrical and more strongly dilated internally **gibbosus** Roelofs
- 1' : Underside of head without such sulcus 2
- 2 : Tarsi with the 2nd segment triangularly dilated and the anterior margin deeply and roundly concave for the reception of broad 3rd segment 3
- 2' : Tarsi with the 2nd segment weakly dilated and the anterior margin triangularly notched for the reception of smaller 3rd segment; terminal segment of antennae shorter than 9th **mimes** Sharp
- 3 : Elytra more strongly convex behind the base between suture and 4th stria, greyish with brown spots on alternate intervals. 12-15 mm **alternans** Wiedemann
- 3' : Elytra weakly convex behind the base between 1st and 5th striae, the sutural area much spotted with blackish, rather strongly contrasting with the lateral area, which is not spotted with blackish, but with greyish white in alternate intervals, the dark area continued laterad in front of the grey apical patch. 8-11. 5 mm **stenus** Jordan

Illis Jordan

Illis Jordan, Novit. Zool., XXXIX : 319, 1936 (Type : *Illis rusia* Jordan, 1936, by original designation).

Illisanna Shibata (Fig. 4)

Illisanna Shibata, Entom. Rev. Japan, XXII: 24, 1969 (Ishigaki: Mt. Omoto ; Is. Tane ; Is. Kuchinoerabu).

Specimens examined: 75 examples from Kuchinoshima, Ishigaki and Iriomote Islands. 1♀, Lushan, Wenchuan, Nantou Hs., Taiwan, 7. vi. 1976, H. Makihara leg.

Distribution : Japan (Yakushima, Tanegashima, Nakanoshima, Kuchinoerabu, Amami-Oshima, Ishigaki and Iriomote Islands), Taiwan.

Note: This species is close to *rusia* Jordan, 1936, and *medana* Jordan, 1936,

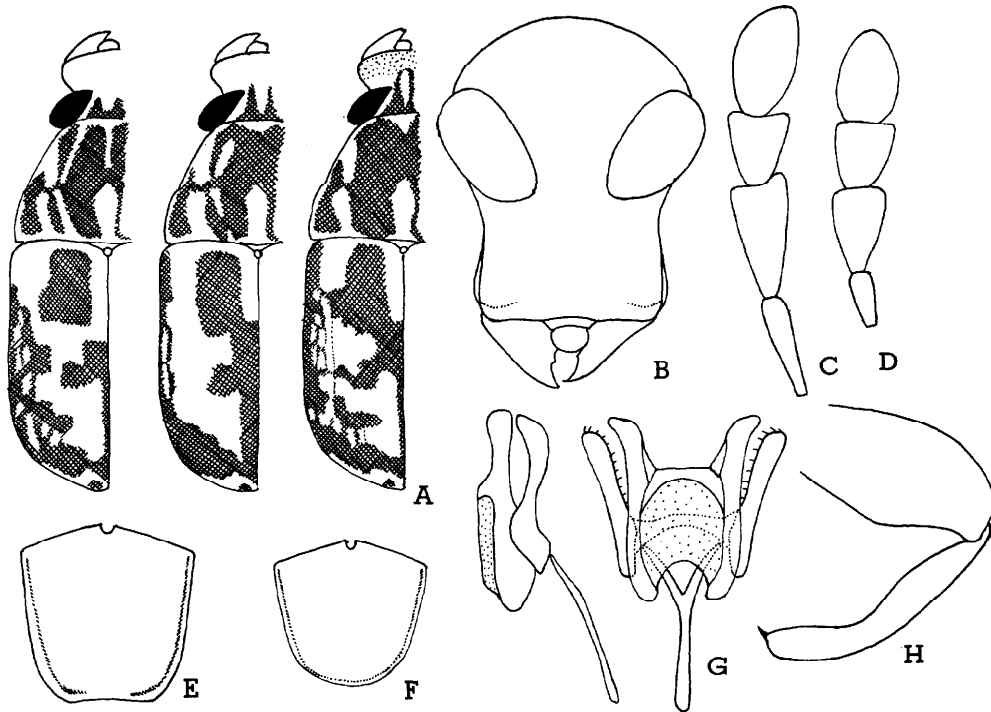


Fig. 4. *Illis anna* (A: Hairy pattern. B: Male head. C: Antennal club, male. D: Ditto, female. E: Male pygidium. F: Ditto, female. G: Genital segment, dorsal and lateral aspects. H: Middle leg, male.

but easily separable from them by the strongly curved median tibiae and the subquadrate pygidium in male.

Tribe MECOCERINI

Mecocerides Lacordaire, Gen. Col., VII: 493, 1866.

Mecocerini Morimoto, Bull. Gov. Forest Exp. Sta., 246: 40, 1972.

Mecotropis Lacordaire

Mecotropis Lacordaire, Gen. Col., VII: 495, 1866 (Type : *Mecotropis bipunctatus* Lacordaire, 1866, by original designation).

Mecotropis ogasawarai sp. nov. (Photos. I-J; Fig. 5)

Male: Black, clothed with greyish, black and dark brown pubescence. Rostrum with median groove extending onto frons. Anterior margin of eyes straight.

Rostrum a little longer than wide, median groove continued as a narrow channel across fovea between eyes onto vertex, lateral carina which runs from anterior margin of rostrum to the dorsal margin of eye distinct; median

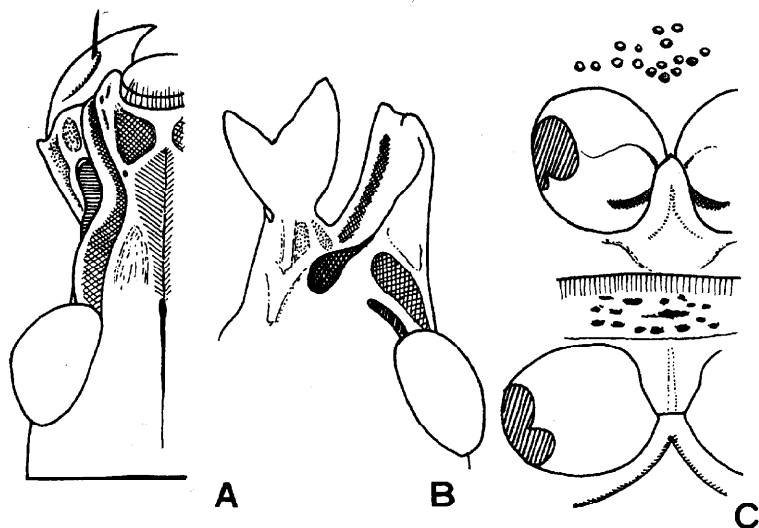


Fig. 5. *Mecotropis ogasawarai*, male (A: Head. B: Ditto, latero-ventral aspect. C: Pro- and mesosternum).

carina before the interantennal elevation between lateral carinae sharp separating rather distinct depressions; dorso-marginal carina of antennal groove running posteriorly to the middle of eye; deep subventral sulcus running antero-ventrally from antero-ventral margin of eye very deep; ventral foveae very deep; labiophore rugosely punctate, marginate with shallow sulcus; greyish pubescence covering the upperside of rostrum and forming a broad median and narrow lateral stripes on head and denser around eyes. Antennae 2.5 times as long as body, 1st and 2nd segments and apices of 3rd to 8th segments closely covered with greyish pubescence, with proportions from basal to terminal segments in length 12 : 8 : 31 : 36 : 45 : 56 : 70 : 74 : 55 : 8 : 15, 1st segment clavate.

Pronotum as long as wide, broadest at the middle, transverse sulcus along anterior margin obsolete at the middle, wrinkled obliquely before carina, rugosely punctate behind carina, greyish pubescence forming a broad median stripe in entire length and a pair of narrower lateral stripes behind carina.

Scutellum grey, as long as wide.

Elytra 1.8 times as long as wide, greyish pubescence forming a large cruciferous patch at base and a cordiform patch on declivity, alternate intervals with small black spots, lateral area black mixing with dark brown pubescence, basal sulcus running transversely along the basal margin from scutellum and continued with tenth stria across humerus.

Pygidium as long as wide, slightly narrowing posteriorly and subtruncate at apex, greyish variegated with black.

Prosternum with a pair of oblique groove on each side, with large punctures before coxae, the punctures connate and forming transverse groove along

anterior margin of coxae. Mesosternal process narrowly truncate at apex, with a fine median keel. Abdomen with two rows of indistinct irregular black spots on each side, the lateral spots usually larger and more distinct.

Tibiae black with greyish subapical and basal rings. Tarsi black, 1st segment grey excepting blackish basal area, 2nd segment with several greyish hairs on each side at the base, 4th segment greyish excepting apex.

Female: Antennae reaching humeri, with proportions in length 7 : 6 : 7 : 9 : 9 : 8 : 9 : 8 : 10 : 7 : 10. Pronotum a little broader than long. Pygidium rounded at apex.

Length : 15-22 mm. (to the apex of rostrum), 12.7-16 mm. (excluding head).

Holotype ♂ (Type No. 2146, Kyushu Univ.), Oku, Okinawa, 17. v. 1978, H. Makihara leg.

Paratypes: 1 ♂, same locality as type, 17. v. 1977, T. Ogasawara leg. 1 ♀ same locality as type, 6. vii. 1978, K. Oshima leg. 1 ♀, Nishimedake, Okinawa, 5. vii. 1978, K. Oshima leg. 1 ♀, Yona, Okinawa, 19. v. 1978, H. Makihara leg.

Distribution : Japan (Okinawa Isl.).

Note: A specimen from Yona has more greyish pubescence on the upper-side and the elytra are greyish between the 5th striae excepting black small spots on the alternate intervals and the basal area. (Photo. J)

This beautiful weevil is characteristic in having the robust body form and distinct markings on elytra.

Mecotropis kyushuensis Nakane (Photo. K)

Mecocerus kyushuensis Nakane, Fragm. Col., 8: 31, 1963 (Mt. Kirishima, ♀); Nakane, Icon. Ins. Jap., II: 351, pl. 176, f. 3, 1963 (Kyushu).

Mecotropis kyushuensis, Shibata, Entom. Rev. Japan, XXII: 9, pl. 2, f. 1 & 4, 1968 (Is. Okinawa; Is. Amami, Is. Yaku, Is. Tane. Southern Kyushu).

Specimens examined: 1 ♂ 1 ♀, Cape Sata, Kagoshima Pref., 28. v. 1967, H. Makihara leg.; 1 ♂, 18. v., Y. Miyake leg. 1 ♀, Mt. Sannousan, Gotō & Nagasaki Pref., 8. vii. 1978, M. Ezima leg. 16, Nakanoshima, Tokara Isls., 24. vii. 1964, S. Ohga leg. 1 ♀, Mt. Yuwandake, Amami-Oshima, 16-18. vii. 1973, C. M. Yoshimoto leg.

Distribution : Japan (Goto Isls., Kagoshima Pref., Yakushima, Tanegashima, Amami-Oshima and Okinawa Islands).

Mecotropis unoi Shibata (Photo. L)

Mecotropis unoi Shibata, Entom. Rev. Japan, XXII: 10, pl. 2, f. 2 & 3, 1969 (Taiwan, Okinawa).

Specimen examined: 1 ♀, Chi-chia-wan, Mt. Hsieh Shan, Taitung Hs., Taiwan, 20. vi. 1961, S. Uéno leg.

Distribution : Japan (Okinawa Isl.), Taiwan.

Tribe XYLINADINI

Xylinadides Lacordaire, Gen. Col., VII: 560, 1866.

Xylinadini Morimoto, Bull. Gov. Forest Exp. Sta., 246: 43, 1972.

Xylinada Berthold

Xylinada Berthold, in Latreille, Nat. Fam. Thierreichs: 380, 1827.

Xylinades Gyllenhal, Gen. Curc. I: 177, 1833 (Type : **Xylinades westermanni** Gyllenhal, 1833, by original designation).

Xylinada oshimai sp. nov. (Photo. M; Fig. 6, A)

Reddish brown to dark reddish brown; derm covered with brownish, greyish to ochreous grey and black hairs.

Head between eyes coarsely punctate, flat, without median carina, almost impunctate behind eyes and the underside; rostrum at the margin of apical sinus slightly elevated, from its middle extends a short median carina, median groove deep and shortly bifurcate behind, lateral carina deeper at the side of antennal socket and shallower towards apex. Underside of rostrum sharply separated from head by a transverse groove, strongly punctate. Antennae with proportions in length/width 11/11:13/10:24/10:24/11:23/13:25/13:23/14:21/14:21/18:10/17:19/14, 4th to ultimate segments with long hairs on the underside.

Pronotum nearly as long as wide, broadest at the middle, dorsal carina nearly straight or slightly curved anteriorly towards sides and obsolete on each side, weakly notched at the center. Disc strongly punctate and tuberculate before the carina except for smooth anterior part, the tubercles much smaller than punctures, sparsely provided with indistinct shallow punctures behind carina.

Elytra parallel-sided, striae with glossy granules on interstices between punctures; intervals flat, alternate intervals with blackish spots, 1st, 3rd and 5th intervals before the middle with greyish to ochreous grey spots, the latter spots also forming vague band behind the middle, black hairs forming vague patches on 3rd to 5th and 9th to marginal intervals just behind the middle.

Pygidium a little broader than long, posterior angles broadly rounded.

Prosternum transversely or T-shapedly depressed before coxae, anterior margin of the depression carinate or swollen, lateral surface between coxae and lateral carina reticulately with large punctures. Mesosternum with a glossy flat median carina, mesosternal process longitudinally depressed at the middle. Metasternum punctate, the punctures larger towards sides, metepisternum with a row of small punctures. Abdomen sparsely provided with small punctures excepting median area, each ventrite with dark brown patches on anterior and posterior corners at side margins, suture between 4th and 5th ventrites deep.

Tibiae with median black band. Tarsi with 1st and 2nd segments longitudinally depressed at the middle, 1st segment a little longer than the apical width of tibia.

Length :10.5-13.0 mm (to the apex of rostrum), or 8.9-11.1 mm (excluding head).

Holotype ♂ (Type No. 2147, Kyushu Univ.), Mt. Nishimedake, Okinawa, 5. vii. 1978, K. Oshima leg.

Paratypes: 2 ♂, same data as holotype. 1 ♂, Yona, Okinawa, 12-17. vi. 1970, H. Makihara leg.

Distribution : Japan (Okinawa Isl.).

This new species is easily separable from the others by the flat frons.

Xylinada japonica Sharp (Photo. 0; Fig. 6, B)

Xylinades japonicus Sharp, Trans. Ent. Soc. London, 1889: 317, 1889 (Yuyama) ; Jordan, Novit. Zool., XIX : 143, 1912 (redescription; Taiwan: Kosempo and Chip Chip).

Specimens examined: 1 ex., Mt. Ichifusa, Kumamoto Pref., 24. vii. 1970, S. Naomi leg. 1 ex., Kurino, Kagoshima Pref., 24. vii. 1978, K. Sakamoto leg. 1 ex., Ishizuka, Is. Yaku, 17. vi. 1965, A. Tanaka leg. 1 ex., Mt. Yuwan, Amami-Oshima, 22. v. 1976, Gressitt leg. 1 ex., Mt. Yonahadake, Okinawa, 22. v. 1976, T. Ogasawara leg. 1 ex., Sungkang, Nantou Hs., Taiwan, 14. vii. 1966, H. Sasaji leg.

Distribution : Japan (Southern Kyushu, Yakushima, Amami-Oshima and Okinawa Islands), Taiwan.

Xylinada striatifrons Jordan (Photo. N; Fig. 6, C)

Xylinades striatifrons Jordan, Stett. Ent. Zeit., LVI: 260, 1895 (Khasi Hills, Assam) ; Jordan, Opusc. Inst. Sci. Indochine, Fn. Ent., I: 30, 31, 1923 (Key; Tonkin).

Specimen examined: 1 ♂, Osugidani, Mt. Oto, Nishimuro Gun, Wakayama Pref., 1. viii. 1978, M. Umemoto leg.

Distribution : Japan (Wakayama), Taiwan, Tonkin, Assam.

Note: The author examined a specimen from Taihoku, Taiwan, in the collection of the British Museum (Natural History).

KEY TO JAPANESE SPECIES OF *Xylinada*

- 1 : Frons striate and carinate besides distinct median carina; dorsal carina of pronotum curved anteriorly to the sides and continued to lateral carina 2
- 1' : Frons flat, neither carinate nor striate, punctate; dorsal carina of pronotum nearly straight, not actually reaching lateral carina and weakly notched at center; antennal club three times as long as wide; pronotum strongly punctate and tuberculate **oshimai** sp. nov.
- 2 : Pronotum tuberculate, punctures indistinct; dorsal carina sinuate on each side and narrowly intercepted at center; elytra densely covered with grayish ochreous hairs, with blackish postmedian patches between 1st stria and lateral margin and a common basal transverse patch between 4th striae, intervals flat, much broader than striae; antennae without long hairs, club compact, 10th segment three times as wide as long **japonica** Sharp
- 2' : Pronotum punctate, not tuberculate; dorsal and lateral carinae of pronotum continuously forming an arc and narrowly intercepted at center; elytra with ill-defined postmedian patches, even intervals much narrower than odd intervals and as broad as striae, striae between punctures more or less tuberculate on dorsal and basal area; antennae with long hairs in male, 10th segment less than twice as broad as long **striatifrons** Jordan

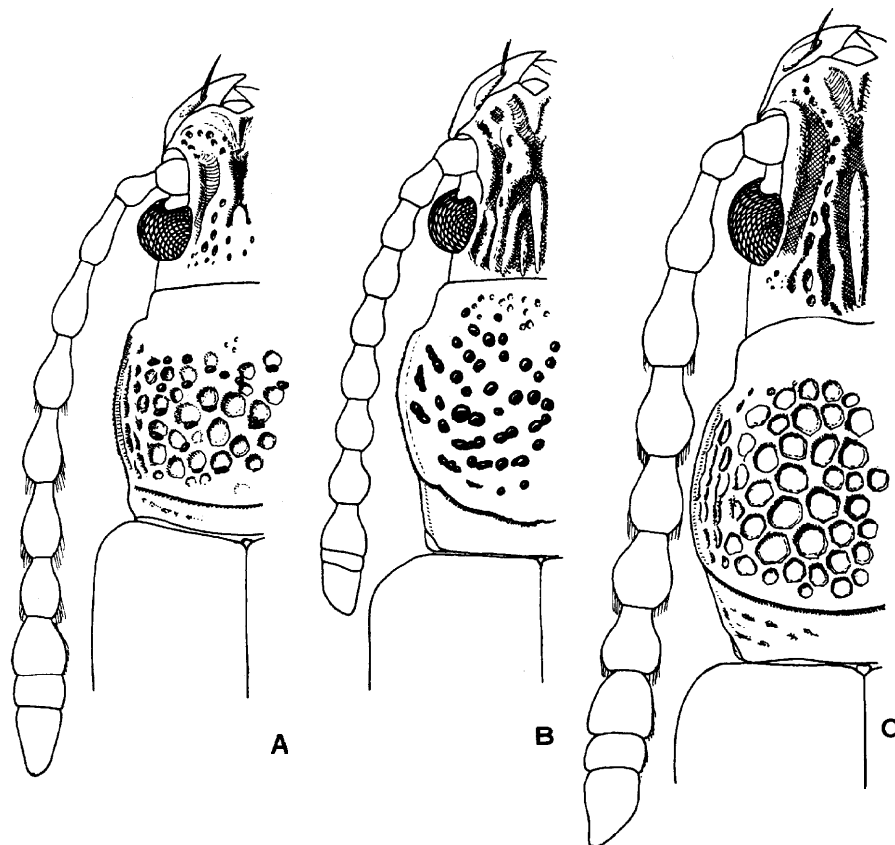


Fig. 6. *Xylinada* spp. (A : *oshimai*. B : *japonica*. C : *striatifrons*).

Stiboderes Jordan

Stiboderes Jordan, Novit. Zool., XXXII: 243, 1925 (Type : *Xylinades chevrolati* Ritsema, 1883, by original designation).

Stiboderes impressus stibinus Jordan (Photo. R)

Xylinades impressus stibinus Jordan, Novit. Zool., XIX: 143, 1912 (Taiwan: Hoozan, Kosempo, Fuhosho).

Stiboderes impressus stibinus, Wolfrum, Col. Cat., 102, Anthribidae : 74, 1929; Nakane, Icon. Ins. Jap. Col. Nat. Ed., II : 351, pl. 176, f. 2, 1963 (Kyushu, Yakushima).

Specimens examined: 3♂, Kagoshima Pref. 1♀, Mt. Inaodake, Kagoshima Pref., 24. vii. 1965, S. Ohga leg. 1♂1♀, Ohkawa Rindo, Is. Yakushima, 1-2. viii. 1974, T. Mikage leg. 1♀, Shiratani, Is. Yakushima, 26. vii. 1974, T. Mikage leg. 1♂, Nanshanchi, Nantou Hs., Taiwan, 16. v. 1971, K. Sakai leg. 1♂, Hungyeh Wenchuan, Hualien Hs., Taiwan, 14. vi. 1976, H. Makihara leg.

Distribution : Japan (Kagoshima, Yakushima Isl.), Taiwan.

Tribe ECELONERINI

Ecelonerides Lacordaire, Gen. Col., VII: 562, 1866.

Ecelonerini Morimoto, Bull. Gov. Forest Exp. Sta., 246: 43, 1972.

Rawasia Roelofs

Rawasia Roelofs, Notes Leyden Mus., II: 203, 1880 (Type: *Rawasia ritsemae* Roelofs, 1880, by monotypy).

Rawasia ritsemae Roelofs (Photo. P; Fig. 7, A-D)

Rawasia ritsemae Roelofs, Notes Leyden Mus., II: 204, 1880 (Sumatra) ; Shibata, Entom. Rev. Japan, XXII: 33, pl. 4, f. 9, 1969 (Tokara Isls: Nakanoshima).

Eucorynus flavescens Nakane, Fragm. Col., 8: 31, 1963 (Tokara Isls: Nakanoshima) ; Nakane, Icon. Ins. Jap. Col. Nat. Ed., II: 350, pl. 175, f. 21, 1963.—**syn. nov.**

Rawasia flavescens, Valentine, Proc. Biol. Soc. Wash., 84: 462, 1972; Anonym, Icon. Ins. Jap., II. Addenda et corrigenda: 17, 1978.

Specimens examined: 1 ♀, Yona, Okinawa, 12-17. vi. 1970, H. Makihara leg. 3 ♀, Wushe, Nantou Hs., Taiwan, 18. v. 1971, Y. Kurosawa leg. 1 ♂, Tanah Rata, Malaya, 30. iii. 1976, Y. Miyake leg. 18, 19 miles from Tapah, Malaya, 1. iv. 1976, Y. Miyake leg.

Distribution: India to Sumatra, China, Taiwan, Japan (Tokara Isls: Nakanoshima, Okinawa Isl.).

Eucorynus Schoenherr

Eucorynus Schoenherr, Isis von Oken, 1823 (10) : 1135, 1823 (Type: *Anthribus crassicornis* Fabricius, 1801, by monotypy).

Eucorynus crassicornis Fabricius (Photo. Q; Fig. 7, E-F)

Anthribus crassicornis Fabricius, Syst. Eleuth., 2: 407, 1801 (Sumatra).

Eucorynus crassicornis, Schoenherr, Isis von Oken, 1823 (10) : 1135, 1923; Shibata, Entom. Rev. Japan, XVI: 9, pl. 1, f. 10 & 11, 1963 (Iriomote, Hainan, Cambodia). See Valentine (Proc. Biol. Soc. Wash., 84: 459-66, 1972) for synonymy.

Specimens examined: 1 ♂, Ishigaki, 20. v. 1962, K. Kojima leg. 1 ♀, Kawara, Ishigaki, 23. v. 1962, K. Kojima leg. 1 ♂, Yonehara, Ishigaki, 28. v. 1977, T. Ogasawara leg. 2 ♂, Otomi, Iriomote, 23. iv. 1969, H. Makihara leg. 31 examples from Taiwan, Thailand, Malaya and Singapore.

Distribution : Japan (Ishigaki and Iriomote Isls.), Taiwan, China, Cambodia, Thailand, Malaya, Singapore, India, Philippines, Mauritius.

Dendrotrogus Jekel

Dendrotrogus Jekel, Ins. Saunders., 1: 80, 1855 (Type: *Dendrotrogus hypocrita* Jekel, 1855, by original designation) ; Valentine, Proc. Biol. Soc. Wash., 84: 464, 1972.

Xenotropis Fairmaire, Bull. Soc. Ent. Fr., 1895 (12-13) CCLXXXI, 1895 (Type: *Xenotropis rugicollis* Fairmaire, 1895).

Dendrotrogus japonicus sp. nov. (Photo. U; Fig. 7, I-J)

Eucorynus colligens, Sharp (nec Walker), Trans. Ent. Soc. London, 1889: 318, 1889 (Higo).

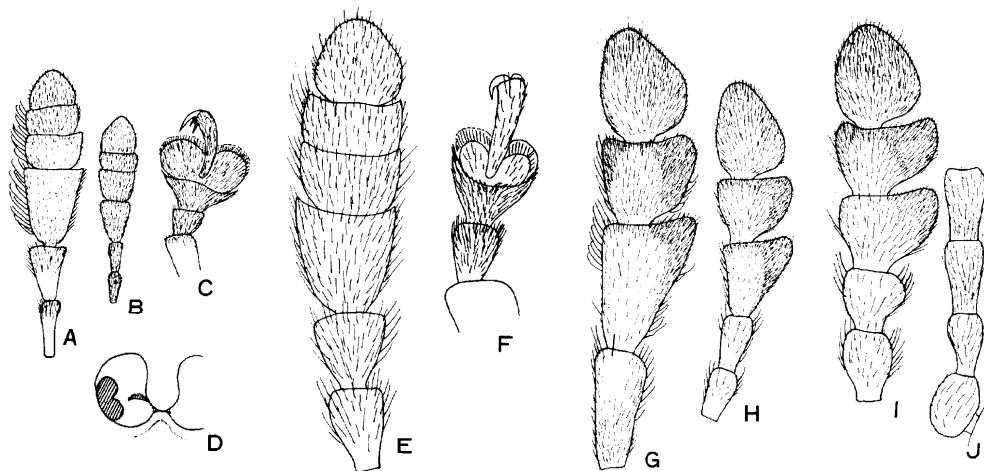


Fig. 7. A-D: *Rawasia ritsemae* (A: Antenna, male. B: Ditto, female. C: Right front tarsus, male. D: Mesosternal process.) E-F: *Eucorynus crassicornis*, male (E: Antenna. F: Right front tarsus). G-H: *Dendrotrogus ohkurai* (G: Antenna, male. H: Ditto, female). I-J: *Dendrotrogus japonicus*, male antenna.

Dendrotrogus angustipennis, Nakane (nec Jordan), Icon. Ins. Jap. Col. Nat. Ed., II: 351, pl. 176, f. 1 (Shikoku, Kyushu, Taiwan).

Male: Reddish brown to blackish brown, pronotum and elytra a little darker and variegated with paler patches, where the covering is usually greyish.

Head and rostrum with oblong punctures, which are more or less longitudinally confluent, greyish hairs on each side; rostrum parallel-sided, transverse, subtriangularly emerginate, median depression shallow, sparsely with ochreous grey hairs on each side. Antennae with proportions in length/width 9/8 : 9/5 : 9/5 : 10/5 : 9/5 : 9/6 : 9/7 : 9/8 : 12/12 : 9/12 : 14/11.

Pronotum as long as wide, broadest at the angles of carinae, dorsal carina gently arched and slightly sinuate at sides, lateral carina reaching anteriorly just behind subapical sulcus; disk irregularly punctate, the punctures more or less transversely confluent before carina and become smaller near apical margin, weakly and transversely wrinkled punctate behind carina, with a pair of weak, longitudinal and rather broad depressions at center; greyish hairs forming indistinct patches, three along carina, two pairs just before the middle, three behind apical margin, and three behind carina.

Scutellum transverse-oval, densely covered with greyish hairs.

Elytra parallel-sided, intervals flat, striae with well defined punctures, interstices between punctures on the same plane as intervals, not granulate; blackish patches forming indistinct median band and basal conjoint band between 4th striae.

Pygidium semi-circularly rounded, 1.5 times as wide as long, glossy, finely punctate and sparsely pubescent, visibly bare, weakly convex.

Lateral and ventral sides of pronotum reticulately provided with large punctures before coxae. Mesosternal process subpentagonal. Metasternum with large punctures on each side, 1st and 2nd ventrites with several and 3rd ventrite with a few small punctures on each side, 1st and 2nd ventrites each with a transverse-oval fascicle at center, which formed of posteriorly inclined ochreous dense hairs.

Tibiae with fine dark hairs at base and the remaining major area moderately clothed with ochreous grey hairs, which are much larger than those on abdomen and as large as those on elytra.

Female: Eighth segment of antennae nearly the same shape as 7th; venter without hairy fascicle; pygidium subtrapezoid, flat, closely with shallow punctures.

Length: 6.8-13.9 mm. (to the apex of rostrum), or 5.8-11.5 mm. (excluding head).

Holotype ♂ (Type No. 2148, Kyushu Univ.), Miyanoura, Is. Yakushima, 29. vii. 1974, T. Mikage leg.

Paratypes: 2 ♂ 1 ♀, same data as holotype; 3 ♀, same locality as holotype, 28. vii. 1974, T. Mikage leg. 1 ♂, Anbo, Is. Yakushima, 6-8. vi. 1969, H. Maki-hara leg. 1 ♂, Okawa Rindo, Is. Yakushima, 1. viii. 1974, T. Mikage leg. 1 ♂, Cape Sata, Kagoshima Pref., 29. v. 1952, T. Esaki & Y. Hirashima leg. 1 ♂, Cape Sata, Kagoshima Pref., 2-5. v. 1958, K. Morimoto leg. 1 ♂, Cape Sata, Kagoshima Pref., 1. vi. 1968. 1a, Cape Sata, Kagoshima Pref., 18. v. 1959, Y. Miyake leg. 1 ♀, Takachiho, Kirishima, Kagoshima Pref., 24. vi. 1967.

Distribution: Japan (Kagoshima, Yakushima Isl.). Nakane (1963) recorded it from Shikoku, Kyushu and Taiwan.

Note: this species is very close to *angustipennis* Jordan, 1895, but separable from it by the characters noted in the key.

***Dendrotrogus nagaoui* sp. nov.** (Photo. V; Fig. 8)

Male: Dark reddish brown to black, apices of femora and basal half of tibiae reddish brown to dark reddish brown, tarsi reddish brown to dark reddish brown; ochreous grey hairs forming ill-defined patches, tibiae with greyish median band.

Head densely punctate, the punctures not confluent, frons between eyes often with a fine median carina; rostrum parallel-sided, a little wider than long, with a median depression, similarly punctate as frons behind antennal insertions and the punctures become smaller thenceforth towards apex. Antennae with proportions in length/width 9/7:9/4:10/4:10/5:9/5.5:7/6:8/7:8/8:13/13:9/13:13/12.

Pronotum as long as wide, widest at the angles of carinae, dorsal carina flat V-shaped, lateral carina weakly sinuate; disc densely punctate, the punctures large and more or less transversely confluent before carina and become smaller near apical margin, weakly and wrinkled punctate behind car-

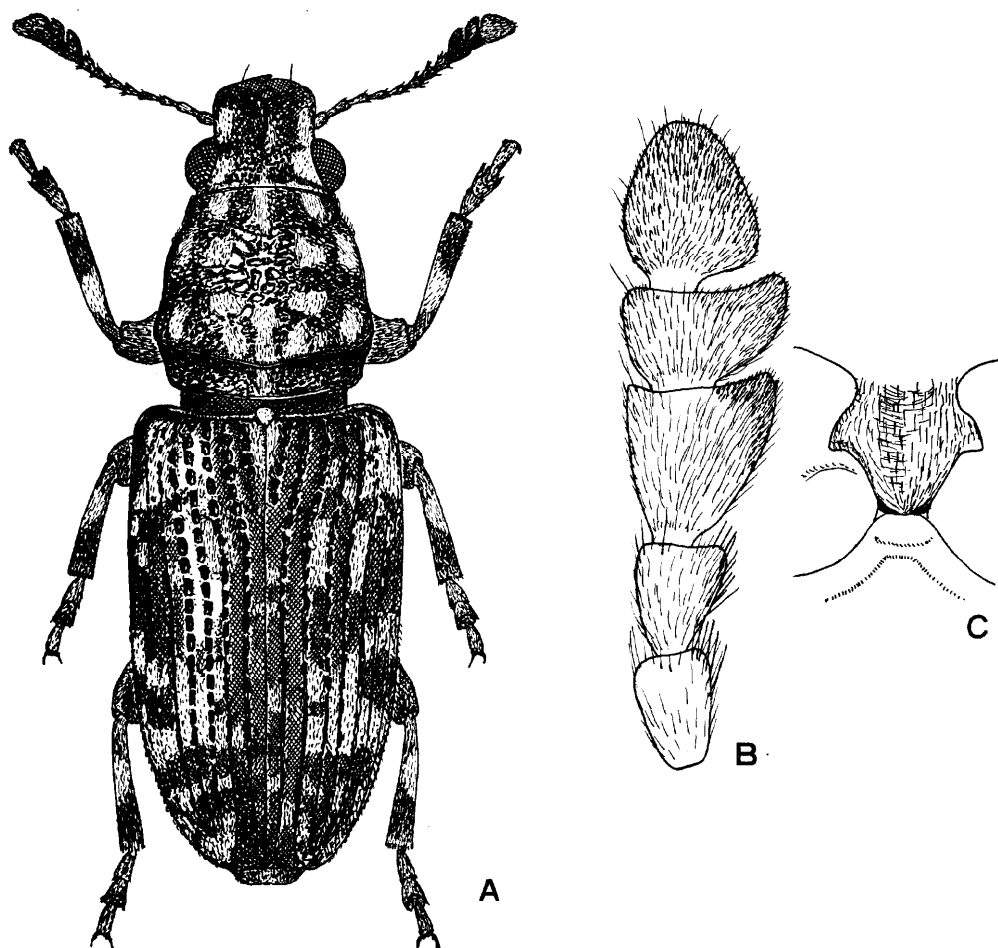


Fig. 8. *Dendrotrogus nagoi*, male (A : Holotype. B: Antenna. C: Mesosternal process).

ina.

Scutellum transverse, densely covered with ochreous hairs.

Elytra parallel-sided, intervals flat, alternate intervals slightly wider, striae with well-defined punctures, not granulate; ochreous grey hairs forming ill-defined patches on alternate intervals and postmedian band.

Pygidium semi-circularly rounded, 1.5 times as wide as long, convex, punctulate, ochreous hairs denser on each side.

Underside of prothorax with large punctures at side and deep punctures before coxae. Mesosternal process subpentagonal. Metasternum sparsely with large punctures at side. Venter almost impunctate, 1st ventrite with a small median fascicle, which formed of dark fine pubescence, 2nd ventrite with a trace of similar fascicle.

Tibiae dark reddish brown to black at base and before the middle, reddish brown area between them clothed with ochreous grey hairs.

Female: Antennae shorter and robust, 8th segment slightly broader than long; venter without fascicle; pygidium weakly depressed at middle behind distal margin, punctate.

Length : 9.5-12.2 mm (to the apex of rostrum), or 8.0-10.9 mm (excluding head).

Holotype ♂ (Type No. 2149, Kyushu Univ.) and **Paratypes**, 4 ♂ 2 ♀, Azamo-Mt. Tatera, Tsushima, 10-11. vi. 1961, J. Nagao leg.

Distribution : Japan (Tsushima).

Note: This new species is very close to *feae* Jordan, 1895, but separable from it by the shape of dorsal carina on the pronotum, coloration of the tibiae and the presence of fascicle on the basal ventrite.

Dendrotrogus ohkurai Shibata (Photos. S, T; Fig. 7, G, H)

Dendrotrogus ohkurai Shibata, Entom. Rev. Japan, XXXI: 97, 1978. (Chichijima).

Specimens examined: 2 ♀, Ogiura, Chichijima, 13. vi. 1973, H. Fujita leg. 1 ♂ 1 ♀, Mt. Chuo, Chichijima, 20. v. 1975, T. Seino leg. 2 ♂ 3 ♀, Hyogitaira, Hahajima, 6. vi. 1973, H. Fujita leg. 12 ♂ 10 ♀, Hyogitaira, Hahajima, 7. vi. 1975, T. Seino leg.

Distribution : Japan (Ogasawara Isls.: Chichijima and Hahajima).

Note: The colour pattern of this species is characteristic among the known species of the genus and very similar to *Basitropis seinoi* Morimoto, 1978, from the same islands.

KEY TO SPECIES OF *Dendrotrogus*

- 1 : Punctured striae with small granules between punctures on the basal area of elytra ; elytra with white patches **conspectus** Jordan, 1923
- 1' : Punctured striae of elytra without granules 2
- 2 : Uppersurface with ochreous distinct stripes ; 1st and 2nd ventrites each with a median fascicle, which formed of dark grey fine hairs in male. Ogasawara ISLS. **ohkurai** Shibata, 1978
- 2' : Uppersurface variegated with greyish or ochreous grey and blackish patches, blackish patches forming basal and median bands in general 3
- 3 : Tibiae clothed with unicoloured greyish hairs excepting darker base 4
- 3' : Tibiae with hairy or dark annular marking 8
- 4 : Tibiae and apical half of femora closely covered with two kinds of yellowish grey hairs, smaller hairs more depressed **hypocrita** Jekel, 1855
- 4' : Tibiae clothed with one kind of hairs 5
- 5 : Pronotum reticulately provided with large punctures ; elytra with very strong punctured striae, 1st, 3rd and 5th intervals much broader than 2nd or 4th **reticulatus** Jordan, 1923
- 5' : Pronotum with more or less transversely confluent punctures 6
- 6 : Tibiae with dark patches a little before the base; head with defined punctures; 5th ventrite in male with a transverse, closely haired depression at the middle **colligens** Walker, 1859

- 6' : Tibiae with dark fine hairs or visibly bare at the base ; 1st and 2nd ventrites each with a median fascicle 7
- 7 : Third ventrite with a small median fascicle in male; punctures on head not confluent; pronotum with smaller punctures ; elytra with shallower striae and broader hairs **angustipennis** Jordan, 1895
- 7' : Third ventrite without fascicle; punctures on head more or less longitudinally confluent; pronotum with larger and stronger punctures; elytra with deeper striae and narrower hairs **japonicus** sp. nov.
- 8 : Pronotum behind carina with many short transverse carina; elytra densely covered with hairs **perfollicornis** Fabricius, 1801
- 8' : Pronotum behind carina punctate; elytra sparsely covered with hairs 9
- 9 : Dorsal carina of pronotum flat V-shaped; male first ventrite with a small median fascicle, which formed of dark fine pubescence; 2nd ventrite with a trace of fascicle; terminal margin of 5th ventrite and pygidium each with a row of dark brown hairs; body dark brown to black, greyish hairy part on legs reddish brown, blackish band on tibiae extending almost to apex **nagaoi** sp. nov.
- 9' : Dorsal carina of pronotum arched; male ventrite without fascicle; terminal margins of 5th ventrite and pygidium each with a row of yellowish hairs; body reddish brown, blackish band on tibiae not reaching apex **feae** Jordan, 1895

Explanation of photographs

- A. *Platystomos daimio* Sharp (= *sellatus* Roelofs), male, type ; Junsai.
 B. *Platystomos asteromaculatus* Oda, female ; Amami-Oshima.
 C. *Caenophloeobius inconspicuus* Wolf rum, female ; Fenchihu, Taiwan.
 D. *Penestica brevis albescens* Shibata, female; Mt. Takachiho, Kagoshima.
 E. *Phloeobius stenosis* Jordan, male ; Mt. Hiko, Fukuoka.
 F. *Phloeobius gibbosus* Roelofs, male, type; Nagasaki.
 G. *Phloeobius mimes* Sharp, male, type ; Nagasaki.
 H. *Phloeobius mimes* Sharp, female, paratype ; Nagasaki.
 I-J. *Mecotropis ogasawarai* sp. nov., female, paratype; Okinawa.
 K. *Mecotropis kyushuensis* Nakane, female ; Amami-Oshima.
 L. *Mecotropis unoi* Shibata, female ; Mt. Hsieh Shan, Taiwan.
 M. *Xylinada oshimai* sp. nov., female, paratype; Okinawa.
 N. *Xylinada striatifrons* Jordan, male ; Wakayama.
 O. *Xylinada japonica* Sharp, type ; Yuyama.
 P. *Rawasia ritsemae* Roelofs, male ; Taiwan.
 Q. *Eucorynus crassicornis* Fabricius, female ; Malaya.
 R. *Stiboderes impressus stibinus* Jordan, type ; Hoosan, Taiwan.
 S-T. *Dendrotrogus ohkurai* Shibata, S: female, T : male ; Hahajima.
 U. *Dendrotrogus japonicus* sp. nov., male, paratype; Is.Yaku.
 V. *Dendrotrogus nagaoi* sp. nov., male, paratype; Tsushima.

