

Curculionidae and Rhynchophoridae (Coleoptera) of the Ogasawara Islands : Part 1. Otiorhynchinae and Cryptorhynchinae (I)

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Curculionidae and Rhynchophoridae (Coleoptera) of the Ogasawara Islands

Part 1. Otiorrhynchinae and Cryptorrhynchinae (I)*

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This is the first part of the report on the Curculionidae and Rhynchophoridae of the Ogasawara (=Bonin) Isls. treating the subfamily Otiorrhynchinae and part of the Cryptorrhynchinae. New taxa described in this paper are as follows: *Ogasawarazo rugosicephalus hahajimaensis* subsp. nov.; *Ogasawarazo mater* sp. nov.; *Metempleurus* gen. nov.; *Metempleurus ogasawarensis* sp. nov.; *Metempleurus nigritus* sp. nov.; *Parempleurus nigrovariegatus* sp. nov.; *Parempleurus nigronotatus* sp. nov.; *Gasterocercus ogasawaranus* sp. nov.; *Euthyrhinus kojimai* sp. nov.; *Buninus* gen. nov.; *Buninus niger* sp. nov.; *Buninus seinoi* sp. nov.; *Buninus iriei* sp. nov.; *Buninus hahajimaensis* sp. nov.; *Buninus chichijimaensis* sp. nov. *Torishimazo* Morimoto, 1966, is newly treated as a subgenus of *Ogasawarazo* Kôno, 1942. *Agasterocercus* Kôno, 1932, is sunk in *Parempleurus* Heller, 1931. Key to species of the genera *Ogasawarazo*, *Euthyrhinus* and *Buninus* are given.

INTRODUCTION

The Ogasawara Islands lying about 1,000-1,200 km south of Tokyo are strictly oceanic and 18 species (including 8 unidentified species) of the Curculionidae and Rhynchophoridae have been reported from there by Waterhouse and Gahan (1939), Matsumura (1914), Kôno (1928, 1942), Kano (1930), Yuasa (1939) and Nakane (1970), and the origin and constitution of the insect fauna were discussed by Esaki (1930), Kano (1930), Monzen (1951) and Kurosawa (1976).

The materials treated in this study contain more than 40 species. They are mostly in the collection of the Entomological Laboratory, Kyushu University, and partly in the collections of the National Science Museum and Tokyo University of Agriculture, both in Tokyo.

This is the first part of the taxonomic report treating the subfamily Otiorrhynchinae and part of the subfamily Cryptorrhynchinae. The continuation and zoogeographical study will be published in this journal in a series of papers.

The holotypes described in this paper are preserved in the Entomological

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Laboratory, Kyushu University, unless otherwise stated.

Family CURCULIONIDAE
Subfamily OTIORHYNCHINAE
Tribe CELEUTHETINI
Genus **Ogasawarazo** Kôno

Ogasawarazo Kôno, Ins. Mats., XVI: 31, 1942; Marshall, The Otiorhynchine Curculionidae of the tribe Celeuthetini (Brit. Mus.) : 13, 14, 116, 1956 (Key to genera, redescription based on *lineatus*); Voss, Mem. Fac. Educ. Kagawa Univ., part II (202) : 48, 1971 (Redescription, key to species).

Type-species: *Sphaerorhinus rugosicephalus* Kôno, 1928, by original designation.

Torishimazo Morimoto, Kontyû, 34: 141, 1966.

Type-species : **Torishimazo watanabei** Morimoto, 1966, by original designation.

Torishimazo is newly treated here as a subgenus of *Ogasawarazo*. The subgenera and species of the genus are separable by the characters noted in the following key.

Key to subgenera and species of **Ogasawarazo**

- 1 : Head longitudinally multicarinate; eyes dorso-lateral, normally convex, highest at or a little behind the middle; elytra subcordiform, without punctures on intervals; pronotum with a weak median carina; pronotum and elytra evenly covered with scales; aedeagus robust, internal sac adorned with a hook-like sclerite at the middle, apical orifice terminal and transverse-oval..... *Ogasawarazo* s. str. 2
- 2 : Eyes weakly convex, highest at the middle; elytra sparsely with minute setae, which are almost invisible in male and discernible on the lateral and posterior margins in female; legs blackish to dark reddish brown; aedeagus with the apical orifice of median lobe invisible from above, hooklike sclerite of the inner sac longer (Hahajima Is.) ... *mater* sp. nov.
- 2' : Eyes strongly convex, highest a little behind the middle; aedeagus with the apical orifice of median lobe dorso-apical and visible from above, hook-like sclerite of the inner sac shorter *rugosicephalus* Kôno 3
- 3 : Elytra with a row of longer setae on lateral and posterior margins, discal area without setae, the setae are longer in female; legs yellowish brown to light brown (Chichijima Is.) *rugosicephalus rugosicephalus* Kôno
- 3' : Elytra with a row of fine setae of the similar shape and length on each interval; legs dark reddish brown (Hahajima Is.) *rugosicephalus hahajimaensis* subsp. nov.
- 1' : Head punctate, not carinate; eyes lateral, strongly convex latero-posteriorly, highest far behind the middle; elytra oval, with a row of punctures in each interval; pronotum with lateral scaly stripes; elytra with scaly patches; aedeagus with median lobe flat, internal sac not adorned with sclerite at the median part, apical orifice slit-like and dorsal in position..... *Torishimazo* 4
- 4 : Punctures on the basal area of 2nd-5th intervals of elytra as large as those on striae; pronotum densely and strongly punctate..... 5

- 4': Punctures on the intervals of elytra much smaller than those on striae; punctures on pronotum a little finer and sparser, their interstices more than half of the diameter of the punctures; second ventrite finely and sparsely punctate and finely rugose at apical area in female; aedeagus with median lobe very slightly narrowing apically from base to apical fifth and obtusely rounded at apex (Kita-daitojima Is.)..... **daitoensis** Voss
- 5: Intervals of elytra with a row of punctures in the same manner as striae at least on the basal half and sparser thence posteriorly; second ventrite finely and sparsely punctate on the basal half and finely wrinkled on the apical half in female; aedeagus with median lobe gently and evenly narrowing anteriorly from the base and subtriangular at apex (Torishima Is.)..... **watanabei** Morimoto
- 5': Punctures on the intervals of elytra of the same size as those on striae at the base and rapidly becoming smaller and sparser behind; second ventrite transversely wrinkled in entire surface in female; aedeagus with median lobe weakly sinuate and narrowed at apical third, broadly rounded at apex (Ogasawara Isls.)..... **lineatus** Kôno

Ogasawarazo (**Ogasawarazo**) **rugosicephalus rugosicephalus** (Kôno)

(Fig. 1, A, D ; Fig. 2, B ; Plate III, C, D)

Sphaerorhinus rugosicephalus Kôno, Ins. Mats., II: 163, Taf. VI, fig. 11, 1928 (Ogasawarajima) ; Kano, Bull. Biogeogr. Soc. Jap., I: 242, 1930; Lona, Col. Cat., 160, Otiorrhynchinae II: 313, 1937 (Japan),

Sphaerorhinus rugosicephalus : Kôno, Journ. Fac. Agr. Hokkaido Imp. Univ., XXIV: 242, 1930 (Ogasawara) ; Esaki, Bull. Biogeogr. Soc. Jap., I: 242, 1930 (Ogasawara) ; Matsumura, 6000 Illust. Ins. Jap. Emp., 297, fig. 1000, 1931 (Chichijima and Hahajima) ; Monzen, Ann. Rep. Gakugei Fac. Iwate Univ., 2: 27, 1951 (Ogasawara).

Ogasawarazo rugosicephalus : Kôno, Ins. Mats., XVI: 23, 1942 (Ogasawara) : Nakane, The Nature of the Bonin and Volcanic Islands (Agency for Cultural Affairs) : 27, 1970 (Chichijima, Hahajima) ; Hasuo, The Nature in the Bonin Islands (Hirokawa Shoten) : 169, 1970 (Chichijima, Hahajima) ; Voss, Mem. Fac. Educ. Kagawa Univ., part II (202) : 50, 1971 (Key) ; Kurosawa, Gekkan-

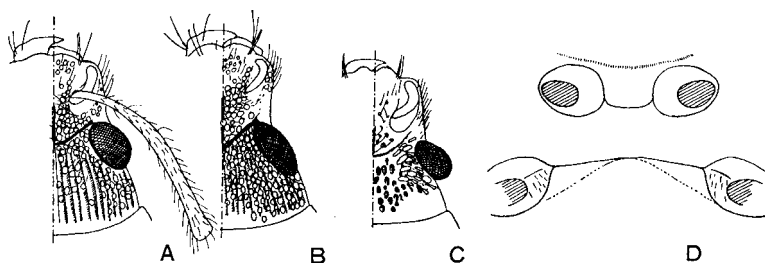


Fig. 1. Ogasawarazo spp. A: **rugosicephalus rugosicephalus** (Kôno), head, right half. B: **mater** sp. nov., ditto. C: **lineatus** (Kôno), ditto. D: **rugosicephalus rugosicephalus** (Kôno), meso- and metasterna, female.

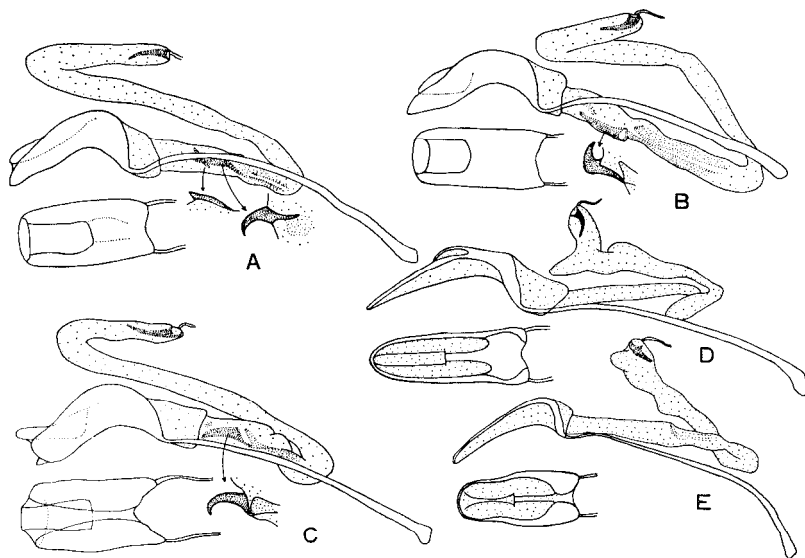


Fig. 2. Aedeagus of *Ogasawarazo* spp. A: *rugosicephalus hahajimaensis* subsp. nov. B: *rugosicephalus rugosicephalus* (Kôno). C: *mater* sp. nov. D: *daitoensis* voss. E: *lineatus* (Khno).

Mushi, (68) : 26, 1976 (Ogasawara).

Male and female. Derm dark reddish brown to black, declivity of rostrum reddish brown, legs and antennae yellowish to reddish brown; coloration of scaling variable, bright green or copper green with iridescent reflection, copper grey or brownish grey, metasternum and venter scaled on each side, femora sparsely with scales on distal and outer surface, dorsal surface sparsely clothed with minute setae which becoming a little longer on posterior and lateral areas of elytra, setae are long on legs, antennae and ventral surface excepting margins.

Head separated from rostrum by an arcuate sulcus that is not continued downwards in front of eyes, with many narrow carinae converging anteriorly onto frons, the latter flat. Eyes round, convex, highest behind the middle. Rostrum parallel-sided or very slightly narrowing anteriorly, abruptly declivous at apex, with a median carina behind antennal insertion; declivitous apical part shiny, with small punctures and a few scales, with a few long setae on dorsal mandibular articulations; mandibles with 4-5 long setae on basal surface. Antennae with scape slightly expanded distally, funicle and club with lengths of segments from base : 12 : 9 : 8.5 : 7 : 7 : 7 : 7 : 7.5 : 5 : 9, width of club 8 (40 = 1 mm).

Pronotum a little broader than long, the sides slightly widening from base to the middle and broadly rounded and narrowed anteriorly, anterior margin $\frac{3}{4}$ times as wide as posterior margin; disc with a bare median carina in entire length, with rather well-marked punctures separated by their interstices narrower than the diameters, each puncture bearing a short decumbent

and transversely directed seta.

Elytra $5\frac{1}{4}$ times as long as wide, broadest at the basal fourth; base weakly concave; sides rather evenly curved from base to the middle, thence rather straightly narrowed behind and narrowly rounded at apex; scales round or oval, not completely concealing derm; punctured striae narrow, intervals flat.

Legs with femora clavate, tibiae straight.

Sternum with long setae as on coxae and femora; prosternum between coxae narrow; mesosternal process subquadrate, a little broader than long; metasternum between meso- and metacoxae as long as first ventrite behind coxa, weakly depressed, punctate, metepisternal suture well impressed on anterior two-thirds.

Male. Elytra not produced downwards, lateral margin straight seen laterally, setae on apical and lateral areas shorter. Pronotum narrower. Mesosternal process slightly wider than long. Venter normal, metasternum and first ventrite broadly and shallowly depressed at the middle, punctate, suture between first and second ventrites well marked on each side, second ventrite longer than third and fourth combined, fifth ventrite broadly rounded at apex.

Female. Elytra produced downwards at apex, setae on apical and lateral areas often longer. Pronotum wider. Mesosternal process a little more wider than long. Venter visibly two-segmented, first and second ventrites large covering nearly whole ventral surface of abdomen, convex, deeply marginate at the posterior margin, metasternum and ventrites transversely wrinkled and sparsely punctate.

Body length : 5.0-6.2 mm (including rostrum).

Distribution : Ogasawara Isls. (Chichijima).

Specimens examined: Mikazukiyama, Chichijima, 1 ♂1 ♀, 1. vi. 1973, H. Fujita leg. ; 3 ♂3 ♀, 30. v. 1975, T. Seino leg. ; 2 ♂, 18. vi. 1976, H. Irie leg. Chuosan, Chichijima, 1 ♂1 ♀, 18. vii. 1939; 13 ♂7 ♀, 11. vi. 1973, H. Fujita leg. ; 3 ♂4 ♀, 19. vi. 1976, H. Irie leg. Ogiura, Chichijima, 1 ♀, 13. vi. 1973, H. Fujita leg. Yoakeyama, Chichijima, 1 ♂2 ♀, 11. vi. 1976, Y. Kusui leg. ; 1 ♀, 8. vii. 1976, H. Irie leg. Kitafukurosawa, Chichijima, 1 ♂, 7. vii. 1976, H. Irie leg. Nagatani, Chichijima, 1 ♀, 10. vi. 1973, H. Fujita leg.

Note. This species has been recorded from Chichijima and Hahajima, but all of the specimens from Hahajima before me belong to the next subspecies or *mater* sp. nov. The nominate subspecies redescribed above is endemic to Chichijima. For the scaly coloration, two specimens are brownish grey, three are copper grey and the others are greenish.

***Ogasawarazo (Ogasawarazo) rugosicephalus hahajimaensis* subsp. nov.**

(Fig. 2, A ; Plate III, B)

***Ogasawarazo rugosicephalus auct. ex* Hahajima**

The specimens from Hahajima Is. are distinguished from those of the nominate subspecies from Chichijima by the following points.

Elytra with a row of greyish fine setae of the similar shape and length

on each intervals in both sexes. Legs dark reddish brown.

Holotype ♂, Chibusayama, Hahajima, 2. vii. 1976, Y. Kurosawa leg. (in the collection of the National Science Museum).

Paratypes: Same data as holotype, 2 ♂1♀. Hyogitaira, Hahajima, 16, 22. vi. 1976, Y. Kurosawa leg. Kitamura-Okimura, Hahajima, 1 ♀, 27. vi. 1976, Y. Kurosawa leg.

Distribution : Ogasawara Isls. (Hahajima).

Note. The scaly coloration of the holotype and two male paratypes from Chibusayama is bluish grey, one male paratype from Hyogitaira is dark grey, and the female paratypes are greenish.

***Ogasawarazo (Ogasawarazo) mater* sp. nov.**

(Fig. 1, B ; Fig. 2, C ; Plate III, A)

Male and female. Derm black, dorso-apical part of rostrum, antennae, coxae, basal part of femora, tibiae and tarsi dark reddish brown; coloration of scaling variable, brilliant metallic green, copper green or grey; metasternum and venter scaled on each side; femora and tibiae sparsely scaled; dorsal surface sparsely with minute setae, legs and undersurface with longer setae.

Head separated from rostrum by a V-shaped deep sulcus, with many narrow carinae converging onto frons, the latter flat. Eyes evenly and weakly convex, highest at the middle. Rostrum subparallel-sided, abruptly declivous at apex, with a median carina behind antenna1 insertion; declivitous apical part shiny, with small punctures and a few scales and setae ; mandibles usually with five setae at base. Antennae with scape slender and thick at apex, funicle and club with lengths of segments from base as follows: 13 : 11.5 : 11 : 10 : 9 : 9 : 9 : 10 : 6.5 : 10, width of club 9 (40=1 mm).

Pronotum nearly as wide as long, widest at anterior third, shape, surface structure and covering similar to *rugosicephalus*. Elytra 5/3 times as long as wide, widest at the basal fourth, base weakly concave; sides evenly curved from base to the middle, thence rather straightly acuminate posteriorly and narrowly rounded at apex; scales round, setae minute.

Underside, venter and legs as in *rugosicephalus*.

Male. Venter as in *rugosicephalus*.

Female. Venter convex, visibly two-segmented, weakly and transversely wrinkled and sparsely punctate.

Body length : 5.4-7.4 mm (including rostrum).

Holotype ♂ (Type No. 2238, Kyushu Univ.), Kuwanokiyama, Hahajima, 23. vi. 1976, H. Irie leg.

Paratypes: Same data as holotype, 1 ♂1♀. Hyogitaira, Hahajima, 1 ♀, 31. v. 1975, T. Seino leg. ; 1 ♂1♀, 6 & 9. vi. 1975, T. Seino leg. Kitamura, Hahajima, 1 ♂2♀, 25. vi. 1976, H. Irie leg. Sekimonyama, Hahajima, 1 ♀, 25. vi. 1976, Y. Kurosawa leg. Okimura, Hahajima, 1 ♂, 27. vi. 1976, Y. Kurosawa leg. Chibusayama, Hahajima, 1 ♀, 2. vii. 1976, Y. Kurosawa leg.

Distribution : Ogasawara Isls. (Hahajima).

Note. This new species is very close to *rugosicephalus*, but the eyes are

less convex, setae on the posterior and lateral areas of elytra are shorter, legs are scarcely paler than elytra, and aedeagus is characteristic in having the apical orifice of the inner sac terminal and invisible from above.

***Ogasawaraw (Torishimazo) lineatus* (Kôno)**

(Fig. 1, C; Fig. 2, E; Plate III, E)

Sphaerorrhinus lineatus Kôno, Ins. Mats., II: 163, Taf. vi, fig. 9, 1928 (Ogasawara-jima); Kano, Bull. Biogeogr. Soc. Jap., I: 242, 1930 (Ogasawara); Lona, Col. Cat., 160, Otiorrhynchinae II: 313, 1937.

Sphaerorrhinus lineatus: Kôno, Journ. Fac. Agr. Hokkaido Imp. Univ., XXIV: 242, 1930 (Ogasawara); Esaki, Bull. Biogeogr. Soc. Jap., I: 242, 1930 (Ogasawara); Matsumura, 6000 Ill. Ins. Jap. Emp.: 297, fig. 999, 1931 (Chichijima and Hahajima); Monzen, Ann. Rep. Gakugei Fac. Iwate Univ., 2: 27, 1951 (Ogasawara).

Ogasawarazo lineatus: Kôno, Ins. Mats., XVI: 32, 1942 (Ogasawara); Nakane, The Nature of the Bonin and Volcano Islands (Agency for Cultural Affairs): 27, 1970 (Chichijima, Hahajima); Hasuo, The Nature of the Bonin Islands (Hirokawa Shoten): 169, 1970 (Chichijima, Hahajima); Voss, Mem. Fac. Educ. Kagawa Univ., part II (202): 50, 1971 (Key); Kurosawa, Gekkan-Mushi, (68): 26, 1976 (Ogasawara).

Male and female. Derm blackish, declivity of rostrum dark reddish brown, legs and antennae reddish brown; head with greyish scaly patches on each side, pronotum with greyish scaly stripes on each side, elytra with sparse greyish scales on the posterior one-third and lateral intervals out of fourth striae, lateral and undersides not scaled, each punctures on derm adorned with greyish setae.

Head with oblong punctures; rostrum broader than long, subparallel-sided, apical declivity less steeper than in *Ogasawarazo* (s. str.) spp., dorsum behind antennal insertion nearly flat with a faint median carina. Eyes strongly convex latero-posteriorly and slightly produced posteriad, highest far behind the middle. Antennae with scape curved and slightly expanded distally, funicle and club with lengths of segments as follows: 8 : 8 : 6 : 5 : 5 : 5 : 6 : 5 : 4 : 6, width of club 6 (40=1 mm).

Pronotum a little broader than long, the sides broadly rounded and widest at the middle, disc densely and strongly punctate, median carina absent.

Elytra oblong oval, broadest at the basal third, intervals flat, with a row of punctures, which are larger at the base, smaller and sparser behind.

Front coxae narrowly separated, mesosternal process quadrate, a little wider than long, middle tibiae finely uncinat.

Male. Venter visibly five-segmented, punctate.

Female. Venter visibly two-segmented, transversely wrinkled.

Body length : 4.0-4.9 mm (including rostrum).

Distribution : Ogasawara Isls. (Chichijima, Hahajima, Minamishima).

Specimens examined : Miyanohama, Chichijima, 2 ♂2♀, 9. viii.1934, M. Okabe leg. Chichijima, 1 ♀, 8. iv. 1974, H. Yamada leg.; 3 ♀, 8-9. v. 1974, Y. Hori leg.

Minamishima, 1 ♂1 ♀, 14. xii. 1972, Y. Kusui leg.; 2 ♂, 11. viii. 1973, M. Iga leg.

Tribe PTOCHINI

Genus **Myosides** Roelofs

Myosides Roelofs, Ann. Soc. Ent. Belg., XVI: 164, 1873; Kôno, Journ. Fac. Agr. Hokkaido Imp. Univ., XXIV (5) : 221, 224, 1930; Morimoto, Journ. Fac. Agr. Kyushu Univ., 12: 52, 1962.

Type-species : *Myosides seriehispidus* Roelofs, 1873, by monotypy.

This genus is very close to *Trachyodes* Marshall, 1916, and I am not certain whether they are different or not. The genus *Myosides* contains two species from Japan, *seriehispidus* is a common species and apparently introduced into the Ogasawara Islands. The genus *Trachyodes* contains two species, *horrescens* Marshall, 1916, from India, and *marshalli* Heller, 1931, from Formosa. I have some undescribed species from the Ryukyus.

Myosides seriehispidus Roelofs

Myosides seriehispidus Roelofs, Ann. Soc. Ent. Belg., XVI: 165, 1873 (Nagasaki) ; Sharp, Trans. Ent. Soc. London: 93, 1896 (Nagasaki, Miyanosita) ; Kôno, Journ. Fac. Agr. Hokkaido Imp. Univ., XXIV (5) : 224, 1930 (Tokio, Kiu-shu) ; Morimoto, Enum. Ins. Mont. Hikosan, II: 79, 1959 (Mt. Hiko) ; Chûjô and Morimoto, Ins. Niigata, II: 7, 1957 (Kurokawa) ; Nakane, Icon. Ins. Jap. col. nat. ed., II: 361, pl. 181, fig. 1, 1963 (Honshu, Kyushu) ; Morimoto, Ins. Niigata Pref. (Dr. K. Baba ed.) : 31, 1979 (Niigata, Sado).

Distribution : Japan (Honshu, Shikoku, Kyushu, Sado, Hachijo, Ogasawara Isls.).

Specimen examined: Omura, Chichijima, 1 ♀, 19. vi. 1976, Y. Kurosawa leg.

Subfamily CRYPTORHYNCHINAE

Tribe CRYPTORHYNCHINI

Genus ***Metempleurus*** nov.

Head with frons a little narrower than the base of rostrum, with a median fovea. Rostrum curved; in male, weakly widening apically, strongly punctate and squamose on dorsal and lateral surface except for glossy scrobes, ventral surface weakly and broadly depressed, scrobes running from dorso-lateral surface near the apex to the lower half of eyes, not connate behind; in female, antennae median, rostrum subcylindrical and glossy. Antennae with scape reaching the anterior-lower margin of eye, funicle 7-segmented, first and second segments longer than wide, the remaining segments transverse, club visibly one-segmented.

Pronotum transverse, slightly convex, bisinuate at base.

Scutellum evident. Elytra parallel-sided, basal margin sinuate for the reception of produced hind corners of pronotum, ninth and tenth striae complete.

Prosternal canal sparsely setose, widening anteriorly. Mesosternal process wide, subtrapezoid, on the same level as metasternum, not cavernous,

its anterior margin truncate. Metepisternal sutures complete. Venter with the second segment as long as third and fourth taken together. Femora weakly clavate, unidentate, reaching the posterior margin of fourth ventrite. Tibiae straight, middle tibiae not dentate externally near base, mucronate, uncinatate at the median part of the terminal margin. Tarsi with third segment wider than the second and deeply bilobed.

Type-species : *Metempleurus ogasawarensis* sp. nov.

The present new genus belongs to the subtribe Strongylopterina (*sensu* Morimoto, 1978, Esakia, (11) : 129) and close to *Empleurodes* Marshall, 1946, (= *Empleurus* Lacordaire, 1866, nec Hope, 1838), *Parempleurus* Heller, 1931, and *Magaris* Pascoe, 1885, but the middle tibiae are not furnished with a tooth near base, femora are robust, dentate and not strongly compressed, and hind femora are not passing posteriorly beyond elytra. The rostrum is sexually dimorphic, robust and antennae are dorso-terminal in male, while in female rostrum is cylindrical and antennae are median.

***Metempleurus ogasawarensis* sp. nov.**

(Fig. 3, A-H; Plate III, F)

Male and female. Derm black, antennae, unci of tibiae and tarsi dark reddish brown; densely squamose above and below, scaling coloured as follows: Head and dorsal surface with brownish scales, lateral sides of rostrum below scrobes with yellowish brown hairy scales; pronotum brown with greyish brown median and lateral stripes, the stripes more whitish near basal margin, disc with two pairs of large blackish patches between lateral stripes, which subdivided by a transverse yellowish brown band; scutellum yellowish to greyish brown; elytra mostly brown but with a scattering of black patches or specks, these patches or specks often forming irregular macula at the basal area of third to fifth intervals and indistinct U-shaped fasciae before and behind the rather distinct postmedian brownish band; legs with femora brownish at apex and dark greyish at the swollen part in contrast to the

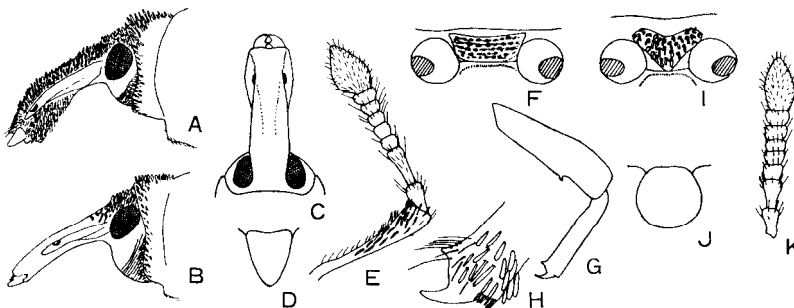


Fig. 3. A-H: *Metempleurus ogasawarensis* sp. nov. A: male head. B: female head. C: male head, dorsal. D: scutellum. E: antenna. F: mesosternal plate. G: hind leg. H: apex of hind tibia. I-K: *Metempleurus nigritus* sp. nov. I: mesosternal plate. J: scutellum. K: antenna.

brownish grey general scaling; tibiae with blackish scales on the basal two-thirds and greyish brown thence to the apex; underside with prosternum, lateral sides of meso- and metasterna and ventrites with greyish brown scales, the remaining area with hairs or hairy scales of the same coloration.

Head densely punctate, frons with a median fovea; major part of eyes hidden under ocular lobes when rostrum is reposed in pectoral canal. Rostrum in male robust, about four times as long as wide, dorsum weakly narrowed from base to the antennal insertions, thence parallel-sided towards apex, lateral surface below scrobes arched laterally and widest at the antennal insertions, densely punctate, the punctures more or less longitudinally confluent and forming a pair of carinae, median carina discernible between antennal insertions, short, latero-ventral edges costate, ventral surface broadly depressed with a few hairy scales on each side; in female rostrum cylindrical, densely punctate at base, sparsely punctate thence forwards. Antennae with scape dilated distally, about as long as first six segments of funicle combined, funicle with first segment $2/3$ times as long as second, third to seventh subequal in length and each successively broader, club ovate, visibly one-segmented, about $3/2$ times as long as wide.

Pronotum 1.3 times as wide as long, widest at the middle, the sides evenly curved from base to subapical constriction, the latter well-marked on each side and weak on disc, anterior margin weakly arched, $2/3$ times as wide as posterior margin, which bisinuate, disc densely punctate.

Scutellum a little longer than wide, subtriangular, punctate, densely covered with scales.

Elytra two-thirds as wide as long and a little more than twice as long as pronotum, almost parallel-sided from base to two-thirds, thence roundly narrowed to apex; base weakly trisinuate, striae strongly punctate, first stria reaching base rather straightly by scutellum; intervals flat, rugose, with small granules on each side of punctures in striae.

Legs densely punctate and scaled; femora with a distinct ventral tooth at distal third; tibiae with uncus well developed, straight, slightly bisinuate internally; tarsi with first segment slightly longer than second, third transverse, bilobed. Sternum with pectoral canal strongly punctate, the punctures transversely confluent and wrinkled, especially in male, with a few hairy scales; mesosternal process flat, transverse trapezoid, anterior margin truncate, densely punctate; metepisternal sutures complete, metepisterna with three rows of scales on posterior half. Venter with first ventrite obtuse triangular between coxae, second ventrite nearly as long as third and fourth combined, densely with squamose punctures, the squama broader at side.

Body length: 6.1-B. 5 mm (elytra plus pronotum).

Holotype ♂ (Type No. 2239, Kyushu Univ.), Kuwanokiyama, Hahajima, 13. vi. 1975, T. Seino leg.

Paratypes: Same data as holotype, 6 ♂5 ♀. Hyogitaira, Hahajima, 3 ♂6 ♀, 7. vi. 1976, T. Seino leg. Okimura, Hahajima, 1 ♂, 13. vi. 1972, Y. Watanabe leg.; 1 ♀, 23. ix. 1977, Y. Tanokuchi leg.; 1 ♀, 24. ix. 1977, Y. Watanabe leg. Nakanodaira, Hahajima, 1 ♂, 26. ix. 1977, Y. Watanabe leg. Kitamura, Haha-

jima, 1 ♂, 27. ix. 1977, Y. Watanabe leg. Hahajima, 6 ♂5 ♀, 1-4. iv. 1970, K. Kojima leg. Ogiura, Chichijima, 1 ♂1 ♀, 10. vi. 1972, Y. Kusui leg. Chichijima, 1 ♂, 27. ii. 1973, N. Kakiya leg.

Distribution : Ogasawara Isls. (Chichijima, Hahajima).

***Metempleurus nigrinus* sp. nov.**

(Fig. 3, I-K; Plate III, G)

Male and female. Derm black; antennae, unci of tibiae and tarsi dark reddish brown; densely squamose above and below, scaling coloured as follows: dorsal surface with blackish scales; frons with erect brown scales on each side; lateral surface of rostrum below scrobes with greyish brown scales; pronotum mixed with dark brown scales on each side and with a faint median stripe of the same colour; scutellum densely covered with greyish to brownish scales; elytra brownish black to black mixing with brownish scales, the latter often forming a pair of irregular indistinct patches before middle and a transverse band on apical third; legs with greyish brown scales on coxae, femora excepting apex and tarsi, the rest with dark brown to blackish scales; under-surface with greyish brown scales, often with darker and sometimes almost black scales on third to fifth ventrites.

Head densely punctate, frons with a median fovea; **eyes** as in *ogasawarensis*. Rostrum in male robust, about four times as long as wide, dorsum slightly narrowed from base to a little behind antennal insertion, lateral surface below scrobes arched laterally from the middle to the antennal insertions and thence parallel-sided to apex in dorsal aspect, rugose, median carina distinct in entire length, lateral carina absent, latero-ventral edges obtusely rounded and only carinate at apex; in female, rostrum cylindrical, densely punctate at base, sparsely punctate thence forwards. Antennae with scape dilated distally, funicle with first segment as long as second, third to seventh segments subequal in length and each successively broader, club a little broader than seventh, twice as long as wide.

Pronotum 1.23-1.25 times as wide as long, widest at basal third, the sides evenly curved from base to subapical constriction, the latter well-marked on each side and weak on disc, anterior margin weakly arched and half as wide as posterior margin, which bisinuate, disc densely punctate, median carina absent.

Scutellum broad ovate.

Elytra two-thirds as wide as long and a little more than twice as long as pronotum, almost parallel-sided from base to two-thirds, thence roundly narrowed to apex; base weakly trisinuate; punctured striae narrow; intervals flat, rugose, granules indistinct.

Legs same as in *ogasawarensis*. Mesosternal process transverse trapezoid, postero-lateral corners impunctate, antero-lateral corners convex. Metepisternum with two rows of scales in general. Venter densely with squamose punctures, punctures stronger between coxae on first ventrite in male, scales larger on first two ventrites except for coxal process in male.

Body length : 5.7-9.2 mm (elytra plus pronotum).

Holotype ♂ (Type No. 2240, Kyushu Univ.), Chuoizan, Chichijima, 8. vii. 1976, H. Irie leg.

Paratypes: Same data as holotype, 4 ♂. Ogiura, Chichijima, 1 ♀, 10. vi. 1972, Y. Kusui leg. Hyogitaira, Hahajima, 1 ♂, 13. vi. 1973, H. Fujita leg.; 4 ♂ 3 ♀, 7. vi. 1975, T. Seino leg. Okimura, Hahajima, 2 ♂ 2 ♀, 22. vi. 1976, M. Takakuwa leg. Kuwanokiyama, Hahajima, 1 ♂, 22. vi. 1976, M. Takakuwa leg. ; 1 ♀, 23. vi. 1976, H. Irie leg. Komoridani, Hahajima, 1 ♂, 3. vi. 1973, H. Fujita leg. ; 2 ♀, 7. vi. 1973, H. Fujita leg. ; 1 ♀, 30. vi. 1976, H. Irie leg. Kitamura, Hahajima, 1 ♂ 1 ♀, 25. vi. 1976, H. Irie leg. ; 1 ♂ 1 ♀, 9. vi. 1972, Y. Watanabe leg. ; 1 ♀, 13. vi. 1972, Y. Watanabe leg. ; 1 ♀, 23. ix. 1977, Y. Tanokuchi leg. ; 1 ♂, 25. ix. 1977, Y. Watanabe leg.

Distribution : Ogasawara Isls. (Chichijima, Hahajima).

Note. This new species is very close to *ogasawarensis*, but the general coloration of scales blackish with brownish patches, pronotum is broadest at basal third, scutellum is broad ovate, the mesosternal plate is convex at the antero-lateral corners and the punctate part is triangular.

Genus *Parempleurus* Heller

Parempleurus Heller, Wien. Ent. Zeit., 48: 101, 1931; Morimoto, Esakia, (11) : 129, 1938.

Type-species : *Parempleurus dentirostris* Heller, 1931, by original designation. *Agasterocercus* Kôno, Ins. Mats., VI: 177, 1932; Morimoto, Esakia, (11) : 129, 1978. ~ **Syn. nov.**

Type-species : *Agasterocercus sakaguchii* Kôno, 1932, by original designation.

The genus *Parempleurus* was established by Heller probably on the male of *P. dentirostris*, and a close genus *Agasterocercus* was described by Kôno on the female of *A. sakaguchii*. The characters separating these genera are apparently sexual of the same genus.

The male has slender legs, femora are scarcely clavate, hind femora reach or exceed beyond the apex of elytra, front and hind femora are a little longer than the middle pair, front tibiae are serrate internally with long setae, middle tibiae are weakly bidentate externally, basal dentation is weaker than in female. In the female, legs are robust, hind femora are strongly flattened, middle tibiae are sharply bidentate externally.

The antennae are inserted into a little behind the apex of rostrum on the dorsal surface, and Kôno's description "Fühler etwas hinter der Mitte des Rüsselseingefügt" is apparently erroneous.

Parempleurus nigrovariegatus sp. nov.

(Fig. 4; Plate IV, K)

Male. Black, tarsi dark reddish brown, antennae reddish brown; derm densely covered with greyish scales mixing blackish ones, the latter forming following patches: a pair of small patches on vertex, two pairs of rather large patches on pronotum, of which the anterior patches often connate at the middle; elytra variegated with black small patches, the patches often in-

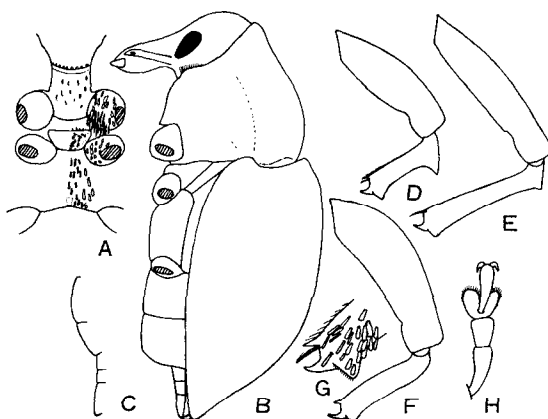


Fig. 4. *Parempleurus nigrovariegatus* sp. nov. A: pro-, meso- and metasterna. B: female, lateral. C: male abdomen, lateral. D: female middle leg. E: male middle leg. F: female hind leg. G: apex of female hind tibia. H: male front tarsus.

distinctly connate behind the middle and forming vague band.

Head densely punctate, derm concealed by scaling; frons between eyes a little narrower than the base of rostrum, Rostrum densely punctate, the punctures more or less longitudinally confluent before the middle between scrobes, median carina weak and continuous to fine stria between antennal insertions and not reaching apex, antennal scrobes run downwards from dorsum a little behind mandibles posteriorly to the lower margin of eyes. Antennae with scape as long as funicle, funicle with first segment as long as and much thicker than second, third to seventh segments transverse, each successively broader, club oval, twice as long as wide, first segment shorter than second.

Pronotum slightly broader than long, broadest just before the base, slightly rounded on sides and weakly narrowing anteriorly to the weak subapical constriction, weakly convex anteriorly, base concave on either side of the middle, disc densely punctate, median carina indistinct.

Scutellum ovate, slightly longer than wide, densely covered with greyish scales.

Elytra two-thirds as broad as long, broadest at middle, very slightly narrowing anteriorly to humeri, conjointly rounded at apex, base strongly convex anteriorly between scutellum and fifth interval, deeply emerginate between fifth interval and humeral point, intervals strongly punctate and weakly granulate, third interval strongly dilated and convex at base.

Legs slender, femora not clavate, unarmed, finely punctate, not costate, front femora a little longer than the middle, hind femora slightly exceeding **posteriorly** beyond apex of elytra; tibiae straight, front tibia with fine denticles and long setae along inner margin.

Pectoral canal shiny, with a few scales. Mesosternal receptacle flat, trap-

ezoid, punctate, truncate vertically at apex. Metasternum, first, second and fifth ventrites densely punctate, third and fourth ventrites weakly punctate and sparsely scaled.

Female. Rostrum without median carina, with long punctures between antennal insertions. Legs robust, front femora not exceeding anteriorly beyond head, front and middle femora weakly clavate, hind femora arched dorsally and strongly flattened, middle tibiae strongly bidentate externally. Venter with second ventrite strongly convex.

Body length : 4.6-5.5 mm (elytra plus pronotum).

Holotype ♂ (Type No. 2241, Kyushu Univ.), Chichijima, 5. v. 1974, N. Ohbayashi leg.

Paratypes: Chuosan, Chichijima, 1 ♂, 8. vii. 1976, H. Irie leg. Yoakeyama, Chichijima, 2 ♂, 8. vii. 1976, H. Irie leg. Mikazukiyama, Chichijima, 1 ♂, 30. v. 1975, T. Seino leg. Same data as holotype, 1 ♀. Tsutsujiyama, Chichijima, 1 ♀, H. Fujita leg. Chichijima, 2 ♀, 3. v. 1974, N. Ohbayashi leg.

Distribution : Ogasawara Isls. (Chichijima).

***Parempleurus nigronotatus* sp. nov.**

(Plate IV, J)

Male. Black, tarsi and antennae dark reddish brown; derm densely covered with greyish scales mixing black ones, the latter forming the following patches: a large median patch on vertex, a wide median stripe on pronotum, which is divided by a lozenge-shaped greyish patch on basal two-thirds, variegated patches on elytra, and a terminal ring of each femur.

Head densely punctate, derm concealed by scaling; frons between eyes a little narrower than the base of rostrum. Rostrum densely punctate, the punctures larger and slenderer between antennal scrobes, median carina weak and continuous to a fine stria between antennal sockets and not reaching apex, antennal scrobes as in *nigrovariegatus*. Antennae with scape as long as funicle, funicle with first segment much longer than second and as long as second and third combined, third to seventh segments transverse, each successively broader, club broadest at basal third, thence straightly narrowing apically and broadly rounded at apex, twice as long as wide.

Pronotum as long as wide, broadest just before the base, slightly rounded and gently narrowing anteriorly to the weak subapical constriction, weakly convex anteriorly, bisinuate at base, disc densely punctate, median carina indistinct, greyish scaled area often sparsely scattered with black scales.

Scutellum oval, a little longer than wide, densely covered with greyish scales.

Elytra two-thirds as broad as long, almost parallel-sided from humeri to the middle, conjointly rounded at apex, base strongly convex anteriorly between scutellum and fifth interval, deeply emarginate between fifth interval and humeral point, intervals strongly punctate and weakly granulate, third interval strongly dilated and convex at base, the convex area strongly granulate, striae with punctures relatively smaller than in *nigrovariegatus*, fifth stria weakly depressed at base.

Legs slender, femora scarcely clavate, femoral tooth minute on front and middle pairs, obsolete on hind pair; hind femora reaching the apex of elytra; tibiae straight, front tibiae with a row of denticles and long setae along inner margin, the denticles larger and sharper in larger specimen; underside as in *nigrovariegatus*.

Female. Unknown.

Body length : 5.5-8.7 mm (elytra plus pronotum).

Holotype ♂ (Type No. 2242, Kyushu Univ.), Chibusayama, Hahajima, 28. vi. 1976, H. Irie leg.

Paratypes: Same data as holotype, 4 ♂. Kuwanokiyama, Hahajima, 1 ♂, 26. vi. 1976, M. Takakuwa leg. Chichijima, 3 ♂, 3. v. 1974, N. Ohbayashi leg. Chuoan, Chichijima, 1 ♂, 20. vi. 1975, T. Seino leg.

Distribution : Ogasawara Isls. (Chichijima, Hahajima).

Note. The two species described above from Ogasawara Isls. are close to each other and different from *dentirostris* Heller and *sakaguckii* Kôno by the scaly pattern on the pronotum and elytra. *P. nigronotatus* is larger than *nigrovariegatus*, having the pronotum as long as wide, and the elytra almost parallel-sided on basal half.

Genus *Gasterocercus* Laporte et Brullé

Gasterocercus Laporte et Brullé, Mem. Soc. Hist. Nat. Paris, IV: 197, 1828.

Type-species : *Cryptorhynchus depressirostris* Fabricius, 1792, by monotypy.

Gasterocercus ogasawaranus sp. nov.

(Plate III, H, I)

Male. Black, underside of head and rostrum dark brown, antennae reddish brown. Derm densely covered with greyish, greyish brown and blackish scales, scaling coloured as follows: head brownish grey with a pair of dark brown short stripes between eyes; rostrum densely covered with greyish scales on basal half, the scales sparser and brownish grey at side and towards apex; pronotum greyish with a pair of broad brownish stripes leaving narrow median greyish line, with a pair of oblique scaly fascicles near apex, brownish scales sparsely scattered on lateral and anterior areas, dark brown to blackish scales sparsely scattered on median area and forming a pair of small spots before the middle; scutellum covered with greyish brown to brownish scales; elytra mottled with greyish brown and greyish scales, the latter denser before the middle, a pair of oblique basal humps dark brown to blackish, dark brown scales forming indistinct small spots at the middle; legs densely covered with greyish brown to greyish scales mixing sparsely with brownish scales, greyish brown scales forming two indistinct rings at the middle and apex of femora and a ring at the base of tibiae, these rings more darker and almost blackish on the dorsal surface of front legs; underside greyish to pale brownish grey mixing sparsely with greyish brown scales, the latter often denser on metepisterna and forming a pair of broad stripes from the posterior half of second ventrite to apex.

Head weakly depressed longitudinally at the middle, with a small bare tu-

bercle between eyes. Rostrum wider than frons, slightly narrowed from base to the middle and thence widening distally, about twice as long as wide, straight, obtuse median carina obsolete near apex, transversely carinate along anterior margin, dorsal surface rugose, antennal scrobes straightly run downwards to the latero-ventral corners of rostrum. Antennae inserted just before the middle of rostrum, scape glossy, triangularly dilated at apex, funicle with first segment 2.5 times as long as wide and as long as the second and third combined, third segment a little longer than wide and $3/5$ times as long as second, fourth to sixth segments as long as wide, subequal in length, seventh segment transverse, club oval, slightly flattened, slightly shorter than the first to third segments of funicle combined, first segment longer than second.

Pronotum slightly wider than long, broadest at base, the sides straightly and slightly narrowed from base to the apical third, anterior margin produced anteriorly over head in an arc, disc densely punctate, median carina absent.

Scutellum convex, transverse, trapezoid, posterior margin weakly emarginate.

Elytra scarcely wider than pronotum, almost parallel-sided from humeri to the apical third, bluntly pointed at apex of third interval, second interval strongly curved outwards and strongly convex forming conspicuous oblique hump at base, third interval convex near base and connate to the hump at the basal extremity; first, third and ninth intervals convex, striae narrower than interval.

Front legs much longer than the posteriors; femora linear, each with a small tooth, the tooth very small on the middle pair and obsolete on the hind ones; tibiae almost straight, front tibiae serrate internally; front tarsi slender, first segment longer than the remainings combined, first and second segments with long setae. Pectoral canal bare, not reaching the anterior margin of middle coxae, receptacle costate at the middle of hind wall. Venter with first ventrite behind coxa shorter than metasternum and a little longer than third, fifth ventrite with the posterior margin bisinuate.

Female. Rostrum finely punctate before the middle, bare, without transverse ridge along anterior margin. Front legs nearly as long as the hind pair and a little longer than the middle pair. Venter truncate at apex.

Length : 5.7-10.5 mm (elytra plus pronotum).

Holotype ♂ (Type No. 2243, Kyushu Univ.), Hyogitaira, Hahajima, 7. vi. 1975, T. Seino leg.

Paratypes : Same data as holotype, 2 ♂1 ♀. Nagahama-Kitamura, Hahajima, 2 ♂2 ♀, 27. vi. 1976, H. Irie leg. Chibusayama, Hahajima, 2 ♀, 22. vi. 1976, Y. Kurosawa leg. Sekimonyama, Hahajima, 1 ♀, 25. vi. 1976, Y. Kurosawa leg. Okimura, Hahajima, 1 ♂, 23. ix. 1977, Y. Watanabe leg. Fukiagedani, Chichijima, 1 ♂1 ♀, 18. iv. 1976, H. Irie leg.; 1 ♂1 ♀, 19. vi. 1976, M. Takakuwa leg. ; 4 ♂, 9-10. vii. 1976, H. Irie leg. Ogiura, Chichijima, 2 ♂, 10 & 12. vi. 1973, H. Fujita leg. Omura, Chichijima, 1 ♂1 ♀, 20. v. 1976, Y. Kurosawa leg. Chuoizan, Chichijima, 1 ♂, 19. vi. 1976, Y. Kurosawa leg.

Distribution : Ogasawara Isls. (Chichijima, Hahajima).

Note. This new species is close to *enokivorus* Kôno in having the elytra

with oblique humps at base, marginate rostrum at apex in the male and flat pronotum with a pair of oblique fasciculate tubercles at apex, but easily separable from the latter by the scaly coloration.

Genus ***Euthyrhinus*** Schoenherr

Euthyrhinus Schoenherr, Gen. Sp. Curc. IV(1): 271, 1838.

Euthyrhinus: Gemminger et Harold, Cat. Col., VIII: 2564, 1871.

Type-species : *Curculio meditabundus* Fabricius, 1775, by original designation.

In Coleopterorum Catalogus, Cryptorrhynchinae, Hustache (1936) enumerated 11 species of the genus ***Euthyrhinus***. They have been described from New Guinea, Australia, New Zealand, and their neighbouring islands with an exception for *pictus* Pascoe, which was described from Singapore. The generic position of the latter species is problematical judging from his illustration.

Japanese species was first described by Nakane (1963) from Yakushima Is. as ***yakushmanus*** and Chûjô (1971) gave a subspecific name for the specimens taken from Ishigaki and Iriomote Isls. as ***yakushmanus yaeyamanus***, both under the genus ***Syrotelus***. Synonymic list of the Japanese species are as follows:

Euthyrhinus yakushmanus (Nakane)

Syrotelus yakushmanus Nakane, Fragm. Col., pars 9: 38, 1963 (Yakushima: Kurio) ; Nakane, Icon. Ins. Jap. Col. Nat. Ed., II: 370, pl. 185, fig. 25, 1963 (Yakushima).

Euthyrhinus yakushmanus: Anonym, Icon. Ins. Jap. Col. Nat. Ed., II, Addenda et corrigenda: 17, 1978.

Distribution : Japan (Mikurajima Is., Miyazaki : Mt. Aoidake, Yakushima Is., Tanegashima Is., Nakanoshima Is.).

Euthyrhinus yaeyamanus (Chûjô), **comb. et status nov.**

Syrotelus yakushmanus yaeyamanus Chûjô, Mem. Fac. Educ. Kagawa Univ., part II (202) : 39, 1971 (Ishigaki and Iriomote Isls.).

Euthyrhinus meditabundus: Miwa, Trans. Nat. Hist. Soc. Formosa, XXIII: 14, 1944 (Iriomote Is.).

Distribution : Japan (Ishigaki and Iriomote Isls.), Taiwan.

Key to species of the genus ***Euthyrhinus*** in Japan

- 1 : Pronotum subtriangular, broadest at the base and straightly narrowing anteriorly as far as the anterior third and strongly and roundly narrowed thence to the subapical constriction (New Guinean and Australian species : ***meditabundus*** Fabricius, ***squamiger*** White and ***tesselatus*** Blanchard)
- 1' : Pronotum behind the subapical constriction transverse subquadrate, the sides subparallel or slightly rounded and narrowing anteriorly from the base to the apical third, disc with small granules, alternate intervals of elytra at least on first, third and fifth more or less convex or costate. Japanese species2.....
- 2 : Elytra with seventh and ninth intervals costate in entire length and connate to each other at the basal extremity, eighth interval also costate

- excepting the base; derm clothed with whitish, ochreous grey and dark brown scales, ochreous grey scales forming a triangular large median patch on pronotum, dark brown scales forming a postscutellar patch and two vague transverse bands between 5th striae, the bands often indistinct or the dark brown scales forming longitudinal patches on third and fifth intervals; front femora and tibiae covered with whitish and ochreous grey scales as on the other legs.....*kojimai* sp. nov.
- 2': Elytra with seventh and ninth intervals not costate (excepting the basal extremity in *yaeyamanus*), derm clothed with white, dark brown and blackish scales; elytra with a dark brown or blackish band behind the middle, scales on the distal third of femora and tibiae of front legs darker 3
- 3: Elytra with fifth-eighth striae strongly punctate, the punctures much larger than those in inner striae, seventh and ninth intervals shortly costate and connate to each other at the basal extremity, first, third, fifth and seventh to ninth intervals with a row of granules; derm clothed with greyish and blackish scales, front tibiae and distal third of front femora clothed with blackish scales. Body length : 5.0-11.3 mm (excl. head).....*yaeyamanus* (Chûjô)
- 3': Elytra with fifth-eighth striae weakly punctate in the same manner as inner striae, seventh and ninth intervals not costate, but slightly convex and rugosely punctate at base; derm clothed with greyish, brownish grey and dark brown scales, tibiae and distal third of femora of front legs brownish grey to dark brown. Body length : 5.3-8.0 mm (excl. head).....*yakushimanus* (Nakane)

***Euthyrhinus kojimai* sp. nov.**

(Plate IV, L)

Male. Derm clothed with whitish, ochreous grey and dark brown scales, ochreous grey scales forming a triangular large median patch on pronotum, dark brown scales forming a post-scutellar patch and two vague transverse bands between fifth stria, the bands often indistinct or the dark brown scales forming longitudinal patches on third and fifth intervals, legs covered with whitish and ochreous grey scales, underside covered with whitish and ochreous scales, the latter denser on each side of prosternal canal and fifth ventrite.

Head densely punctate; frons between eyes weakly depressed, as wide as the narrowest part of rostrum, with a median fovea. Rostrum straight, weakly narrowed from base to the apical third and slightly widening apically thence, slightly shorter than pronotum, lateral and dorsal surface punctate, with a weak median carina, undersurface almost impunctate, bare, with a fine median carina and a pair of lateral sulci, the latter gradually converging posteriorly and sharply limiting the latero-ventral ridges from ventral surface. Antennae inserted at the middle of rostrum, antennal scrobes oblique, straight, scape not reaching eye, clavate, shorter than funicle, funicle with first segment the longest, second segment 2/3 times as long as first and twice as long

as third, third to fifth segments equal in length, transverse, sixth segment a little longer than fifth and shorter than seventh, gradually widening distally from second to seventh segments, club as long as first and second segments of funicle combined, first segment as long as second.

Pronotum $3/4$ times as long as wide, almost parallel-sided from base to apical third, thence strongly narrowed to the subapical constriction, weakly convex dorsally, disc granulate at middle and sides.

Scutellum rounded, inclined anteriorly, with plumose scales.

Elytra strongly produced anteriorly between scutellum and fourth interval, slightly wider than pronotum, widest just behind humeri, apex mucronate, first, third and fifth intervals convex, seventh and ninth intervals costate in entire length and connate to each other at base, eighth interval also costate excepting the base, first interval granulate and a little wider at base, striae narrower than intervals, punctures usually concealed by scales.

Front legs larger than the posteriors; femora dentate, median and hind femora weakly sulcate beneath, the sulci scaled on anterior half; pectoral canal on mesosternal process obsolete, only slightly concave and scaled. Venter with first ventrite behind coxa as long as metasternum, second ventrite a little shorter than first and as long as third and fourth combined, fifth ventrite slightly depressed at middle.

Female. Rostrum slender, almost parallel-sided and bare before the middle. Front tibiae shorter than femora. Venter with first ventrite weakly convex, fifth ventrite not depressed, rounded at apex.

Body length : 6.0-8.4 mm (elytra plus pronotum).

Holotype ♂ (Type No. 2244, Kyushu Univ.), Chibusayama, Hahajima, 28. vi. 1976, H. Irie leg.

Paratypes: Same data as holotype, 1 ♂. Kitamura, Hahajima, 1 ♀, 25. iv. 1976, H. Irie leg.; 2 ♀, 28. ix. 1977, Y. Watanabe leg. Kuwanokiyama, Hahajima, 1 ♂ 2 ♀, 13. vi. 1975, T. Seino leg. Komoridani, Hahajima, 1 ♂ 2 ♀, 3. vii. 1976, H. Irie leg. Hyogitaira, Hahajima, 1 ♂, 31. v. 1975, T. Seino leg.; 1 ♂ 2 ♀, 7-9. vi. 1975, T. Seino leg. Nakanodaira, Hahajima, 1 ♂, 26. ix. 1977, Y. Watanabe leg. Chichijima, 19 ♂ 11 ♀, 2. iii & 28. iii. 1970, K. Kojima leg.

Distribution : Ogasawara Isls. (Chichijima, Hahajima).

Host tree: Prof. Kojima found several specimens in the dead trunk of *Fagara inermis* Koidzumi.

Genus *Buninus* nov.

Derm densely squamose above and below; venter with second and third ventrites almost bare excepting sides; tuberculate or nodulate above. Head globular, immersed in prothorax, entirely concealed from above; frons between eyes as wide as the base of rostrum and strongly widening posteriorly. Eyes lateral, flat, a little narrowly separated below than above. Antennae inserted into apical third of rostrum, scape as long as funicle, funicle with first and second segments elongate, third segment about as long as wide, fourth to seventh segments successively slightly shorter, club ovate, compact, four-segmented, first segment longer than second.

Pronotum transverse, the sides obtusely ridged, straightly expanding laterad from base to apical third, thence rectangularly curved and strongly narrowed to subapical constriction, anterior margin convex anteriorly over head, posterior margin truncate, ocular lobes small, obtuse.

Scutellum absent.

Elytra broadest at the middle, alternate intervals nodulate or tuberculate, seventh and ninth intervals connate a little behind the base and forming short humeral nodule, ninth stria complete, tenth stria fine and obsolete behind a point above middle coxa. Legs robust, femora slightly clavate, tooth vestigial or obsolete, hind femora not reaching the apex of elytra, tibiae almost straight, front tibiae with long setae inwards in male, tarsi with first segment much longer than second, the latter nearly as long as wide, third segment transverse, deeply bilobed, fourth segment projecting well beyond third.

Sternum with pectoral canal deep, bare, terminating a little behind the anterior margin of middle coxa; mesosternal receptacle cavernous, wall semicircular, ventral surface almost flat and inclined posteriorly to metasternum, lateral surface vertical; metasternum very short; metepisternal suture obsolete, venter with first ventrite as long as second behind coxa, second segment much longer than third and fourth combined.

Type-species: *Buninus niger* sp. nov.

This genus belongs to difficult assemblage of genera allied to *Poropterus* in the subtribe Tylodina. It is distinct from the related genera by the following points:

Venter with second ventrite longer than third and fourth combined; femora with tooth obsolete, not sulcate beneath; hind femora not reaching the apex of elytra; mesosternal receptacle cavernous, its wall semicircular, not carinate at the posterior wall; frons between eyes as wide as the base of rostrum and continuous to rostrum in a same plane; pronotum rather flat, lateral margins obtusely ridged; scutellum absent.

This genus is erected for the reception of four new species from the Ogasawara Isls. I have some other related species from Micronesia, but these species belong to the different genus, because they have the second ventrite shorter than the third and fourth combined, and the third and fourth ventrites are similarly scaled as the second.

Key to species of the genus *Buninus*

- 1: Elytra scarcely longer than wide; pronotum almost parallel-sided on basal two-thirds, basal margin truncate; mesosternal receptacle not prominent from metasternum *iriei* sp. nov.
- 1': Elytra distinctly longer than wide 2
- 2: Pronotum with scales greyish brown in contrast to blackish general coloration, strongly narrowed posteriorly from the widest point, disc with six fascicles *seinoi* sp. nov.
- 2': Pronotum with scales similar to elytra and head in general coloration 3

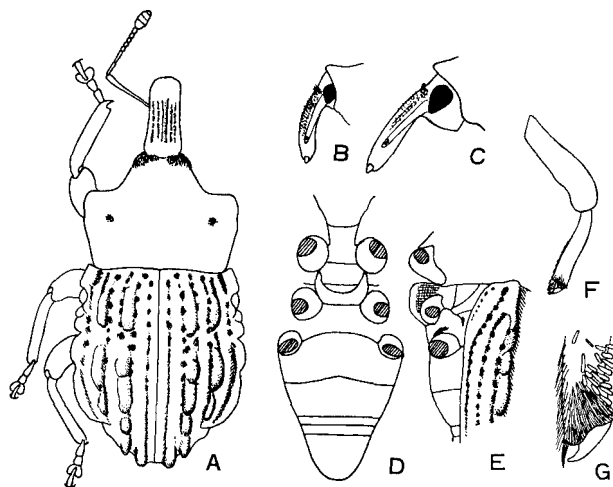


Fig. 5. *Buninus niger* sp. nov. A: female. B: male head. C: female head. D: female, ventral. E: female, lateral. F: hind leg. G: apex of hind tibia.

- 3: General scaly coloration black; pronotum strongly narrowed posteriad from the widest point, fascicles black *niger* sp. nov.
- 3': General scaly coloration brownish grey; fascicles on pronotum greyish brown 4
- 4: Pronotum weakly, but distinctly narrowed posteriad from the widest point, elytra with sides evenly rounded; mesosternal receptacle distinctly prominent ventrad from the level of metasternum, fascicles indistinct *hahajimaensis* sp. nov.
- 4': Pronotum almost parallel-sided, fascicles distinct; elytra parallel-sided from a little behind humeri to the middle; mesosternal receptacle with ventral wall flat, on the same plane or weakly angulate to metasternum *chichijimaensis* sp. nov.

***Buninus niger* sp. nov.**

(Fig. 5; Plate IV, M)

Male. Black, underside of head, antennal scrobes, antennae and terminal segments of tarsi dark reddish brown; mat, squamose above and below, general scaly coloration blackish with patches in fresh examples as follows: rostrum with a dark brown to greyish brown indistinct scaly tuft on each side at base; pronotum with a faint median greyish stripe before middle, marginate with brownish scales before fourth to eighth intervals along posterior margin, often with a pair of small and indistinct spots formed of several greyish scales at middle; elytra with a median band between third intervals; underside, coxae and subbasal wide rings of femora with reddish grey scales.

Head with black scales, the scales denser and suberect on vertex, frons with a median elongate fovea. Rostrum about as long as pronotum evenly

curved, the sides slightly narrowing anteriorly from base to apical third, thence slightly widening apically, disc with three weak carinae and sparse scales on basal two-thirds, bare and punctate on apical third. Antennae inserted slightly beyond apical third, scape as long as funicle, clavate, funicle with proportions in length from base 19 : 18 : 8 : 7.5 : 7 : 7 : 7, width of first 9, seventh 11 (100=1 mm), club as long as basal three segments of funicle combined, less than twice as long as wide, first segment longer than second.

Pronotum two-thirds as long as wide, widest at apical third, disc weakly convex, sparsely with squamose punctures, anterior fascicles ill-defined, median fascicles four in a transverse row, small.

Elytra longer than wide (5 : 4), widest at middle, first interval slightly convex excepting the base, sparsely with a row of granules, second interval with pustule at apex, third interval usually with six pustules, basal one before the middle large, second to fourth pustules close in position and often connate, sixth pustule at apex, fifth interval with five pustules, basal one shorter than that on third interval, second pustule small, third and fourth ones often connate, seventh interval with four to five pustules, seventh and ninth intervals connate a little behind the base and at apex, pustulate on humeri.

Front tibiae with long suberect yellowish grey setae along inner margin, the setae a little longer than the width of tibia.

Venter with first and second ventrites sparsely punctulate, each puncture bearing a suberect scale, third and fourth ventrite almost bare excepting anterior and lateral margins, fifth ventrite rugosely punctate.

Female. Rostrum bare excepting lateral margin behind the middle and the base; front tibiae with recumbent setae as on middle and hind pairs.

Body length: 4.2-4.7 mm (elytra and pronotum).

Holotype ♂ (Type No. 2245, Kyushu Univ.), Komoridani, Hahajima, 30. vi. 1976, H. Irie leg.

Paratypes : Kuwanokiyama, Hahajima, 1 ♂ 2 ♀, 13. vi. 1975, T. Seino leg. Hyogitaira, Hahajima 1 ♀, 5. vi. 1973, H. Fujita leg. ; 1 ♀, 21. vi. 1976, H. Irie leg.

Distribution : Ogasawara Isls. (Hahajima).

***Buninus seinoi* sp. nov.**

(Plate IV, N, O)

Male. Black, antennae and underside of head dark reddish brown, densely squamose above and below excepting bare third and fourth ventrites; scaling coloured as follows: head and rostrum black, pronotum greyish brown with two pairs of blackish small patches, one before the middle and the other at base; elytra black with a greyish median band between fifth interval, scales are larger and fasciculate on third and fifth intervals, fascicles on tubercles of third and fifth intervals greyish brown in median band; meso- and metasterna brownish grey; venter with first two ventrites brownish grey, scales denser on each side; coxae brownish grey; femora black with brownish grey broad subbasal and narrow antemedian rings; tibiae black with brownish grey basal half and small spots near base.

Head punctate, derm completely concealed by scales. Rostrum parallel-sided, punctate, the punctures larger than those on head, more or less longitudinally confluent at side above antennal scrobes, evenly curved, weak median carina on the basal two-thirds, almost bare and punctures shallower at apex. Antennae with first segment of funicle slightly shorter than second, with proportions in length from base 21 : 23 : 10 : 9 : 8 : 8 : 9, width of first 9, seventh 11 (100=1 mm).

Pronotum similar to *niger*, but less convex dorsally and fascicles more pronounced, transverse (10 : 7), basal margin trisinate.

Elytra broadest at middle, longer than wide (4 : 3.5), second interval weakly convex at apex, third, fifth and seventh intervals pustulate, third interval with three pustules, median pustula shorter and more convex, fifth interval similarly pustulate as on third, but the posterior pustula shorter, seventh interval with four indistinct pustules, these being connate.

Mesosternal receptacle distinctly projected below the level of metasternum as in *niger*. Metasternum and first two ventrites punctate, the interstices between punctures wider than the diameter; third and fourth ventrites impunctate, fifth ventrite rugose. Front tibiae with inner setae waved and long, twice as long as width of tibia.

Female. Unknown.

Body length : 4.9 mm (elytra and pronotum).

Holotype ♂ (Type No. 2246, Kyushu Univ.), Hyogitaira, Hahajima, 7. vi. 1975, T. Seino leg.

Distribution : Ogasawara Isls. (Hahajima)

Note. This is the most beautiful species of the genus and easily recognized by the scaly coloration.

***Buninus iriei* sp. nov.**

(Plate IV, P)

Male. Black; antennae, underside of head and fourth segment of tarsi reddish brown to dark reddish brown; densely squamose above and below excepting third and fourth ventrites; scaling coloured as follows: general scaly coloration greyish to brownish grey, head and rostrum brownish grey, pronotum greyish with a quadrate basal large brown patch, a pair of small antemedian transverse dark patches, and with a pair of blackish to dark brown short patch at base; elytra brownish grey with a greyish transverse band between fifth intervals, third, fifth and seventh intervals often greyish brown, third interval with blackish for a short distance behind greyish band; underside and legs greyish brown with scattered suberect greyish scales.

Head as in *niger*. Rostrum weakly narrowing anteriorly from base to the middle, thence slightly widening to apex, median carina distinct on basal half, punctures more or less longitudinally confluent forming three pairs of irregular striae on basal two-thirds, finely punctate at apex. Antennae with funicle with proportions in length from base 22 : 18 : 8 : 9 : 8 : 7 : 7, width of first 9, seventh 11 (100=1 mm).

Pronotum transverse (7 : 5), broadest at basal third, weakly narrowing to

base, slightly narrowing anteriorly to the anterior third and rectangularly narrowed to subapical constriction, disc as convex as in *niger*, anterior fascicles indistinct, median fascicles small, one paired, placed near sides, basal margin truncate.

Elytra scarcely longer than wide, broadest at middle, first and third intervals with a row of granules at base, pustules weak, third interval with three pustules, median one distinct and connate to the third, fifth interval also with three pustules, the posterior pustule weakened posteriad, seventh interval convex throughout and connate to humeral pustula.

Mesosternal receptacle with posterior wall flat and not projecting ventrad from the level of metasternum. Metasternum and venter as in *seinoi*. Front tibiae with inner setae waved and long, nearly twice as long as width of tibia.

Female. Rostrum smooth excepting base, with small punctures; front tibiae with short inclined setae as on the posterior pairs.

Body length : 3.8-4.3 mm (elytra and pronotum).

Holotype ♂ (Type No. 2247, Kyushu Univ.), Kitamura, Hahajima, 27. vi. 1976, H. Irie leg.

Paratypes: Same data as holotype, 1 ♂. Hyogitaira, Hahajima, 1 ♂ 1 ♀, 7. vi. 1975, T. Seino leg.

Distribution : Ogasawara Isls. (Hahajima)

Note. This species is easily recognized by its broader pronotum, shorter elytra, and flat receptacle on the mesosternum.

***Buninus hahajimaensis* sp. nov.**

(Plate IV, Q)

Very close to *iriei* in coloration and structures, but separable from it by the following points:

Pronotum less transverse (8 : 5), distinctly narrowed posteriorly from the widest point, basal margin weakly bisinuate. Elytra distinctly longer than wide (6 : 5). Mesosternal receptacle weakly, but distinctly prominent ventrad below the level of metasternum. Male front tibiae with setae along inner margin shorter and sparser.

Body length : 3.9-4.2 mm (elytra and pronotum).

Holotype ♂ (Type No. 2248, Kyushu Univ.), Komoridani, Hahajima, 6. vii. 1976, H. Irie leg.

Paratypes: Kuwanokiyama, Hahajima, 1 ♀, 13. vi. 1975, T. Seino leg.; 1 ♀, 23. vi. 1976, H. Irie leg. Kitamura, Hahajima, 1 ♀, 25. vi. 1976, H. Irie leg.

Distribution : Ogasawara Isls. (Hahajima).

***Buninus chichijimaensis* sp. nov.**

(Plate IV, R)

Very close to *iriei* and *hahajimaensis*, but separable from them by the following points :

Pronotum transverse (10 : 7.5), the sides almost parallel-sided, basal mar-

gin weakly bisinuate, anterior fascicles obsolete, median fascicles indistinct. Elytra longer than wide (6 : 5), widest a little behind humeri and almost parallel-sided thence posteriorly to the middle, seventh interval not convex behind humeral pustule. Mesosternal receptacle with ventral wall flat, on the same plane or weakly angulate to metasternum. Male front tibiae as in *hahajimaensis*.

Body length : 3.9-4.1 mm (elytra and pronotum).

Holotype ♂ (Type No. 2249, Kyushu Univ.), Yoakeyama, Chichijima, 20. vi. 1975, T. Seino leg.

Paratype : Mikazukiyama, Chichijima, 1 ♀, 10. vii. 1967, H. Irie leg.

Distribution : Ogasawara Isls. (Chichijima).

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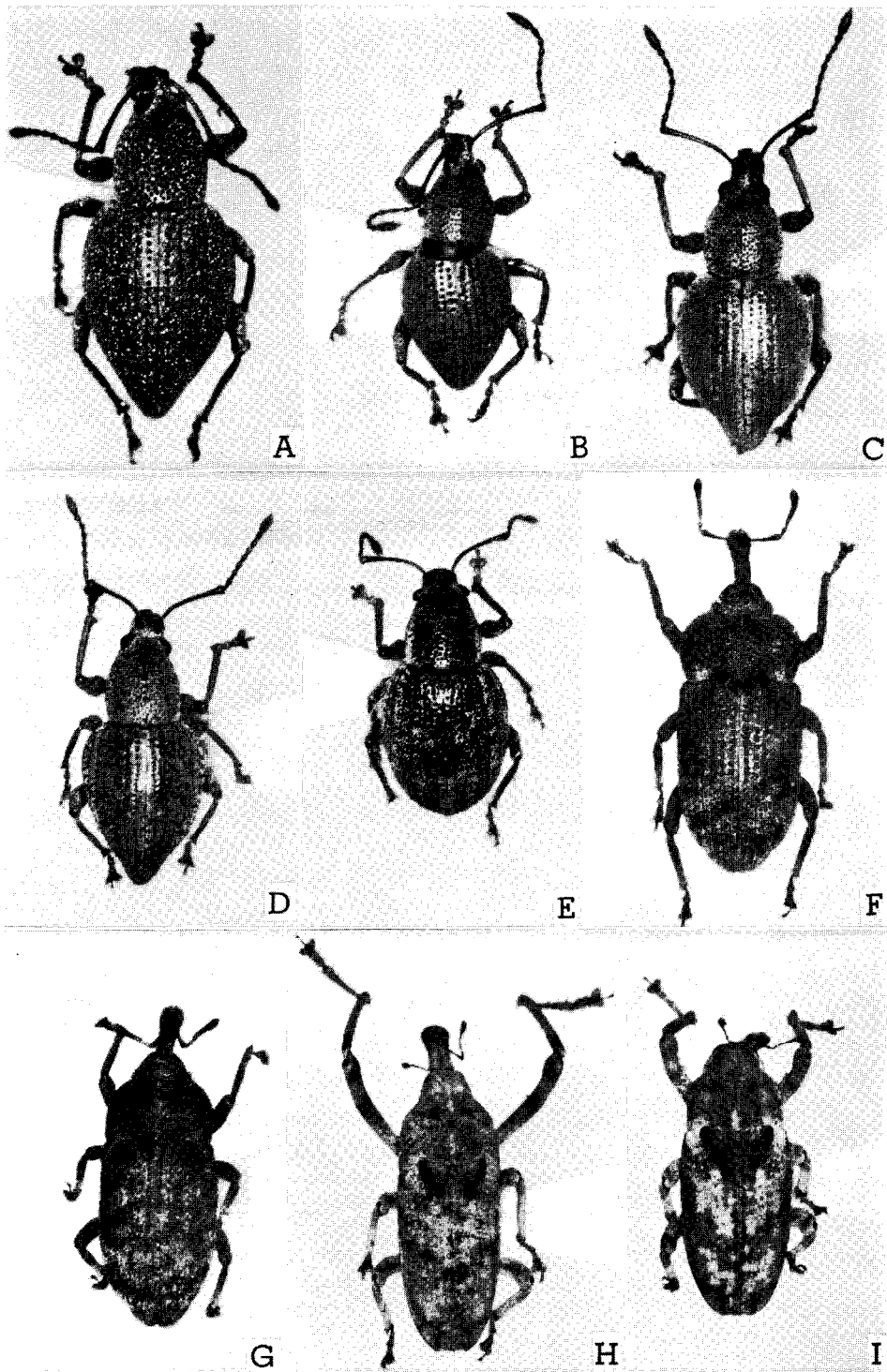
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REFERENCES

- Esaki, T. 1930 Uebersicht über die Insektenfauna der Bonin (Ogasawara)-Inseln, unter besonderer Berücksichtigung der zoogeographischen Faunencharaktere. **Biogeogr. Soc. Japan, Bull.**, 1: 206-226, 287-293
- Esaki, T., E. H. Bryan and J. L. Gressitt 1955 Insects of Micronesia, bibliography. **Ins. Micronesia**, 2: 1-68
- Hasuo, Y. 1970 Land animals. In "The Nature in the Bonin Islands," ed. by T. Tsuyama and S. Asami, Hirokawa-shoten, Tokyo, pp. 143-178, 4 pls. (in Japanese)
- Kano, T. 1930 Coleopterous insects from Bonin Islands, with some considerations of its insect fauna. **Biogeogr. Soc. Japan, Bull.**, 1: 239-247, 1 col. pl. (in Japanese)
- Kôno, H. 1928 Einige Curculioniden Japans. **Ins. Mats.**, 2(4): 163-177, 1 pl.
- Kôno, H. 1930 Kurzrüssler aus dem japanischen Reich. **Journ. Fac. Agr. Hokkaido Imp. Univ.**, 24(5): 153-237, 2 pls.
- Kôno, H. 1942 Die Rüsselkäfer auf den Ogasawara-Inseln. **Ins. Mats.**, 16(2): 31-33
- Kurosawa, Y. 1976 Coleopterous fauna of the Ogasawara Islands. **Gekkan-Mushi**, (68): 21-26; (69): 3-8 (in Japanese)
- Matsumura, S. 1914 Insects. In "A General Account of the Bonin Islands and Their Forests." ed. by A. Toyoshima, Ogasawara-shicho, pp. 5-7 (in Japanese)
- Monzen, K. 1951 A revision of the insect-fauna of the Bonin Islands, with some unrecorded species. **Ann. Rep. Fac. Liberal Art, Zwaite Univ.**, 2: 21-33
- Nakane, T. 1970 The insects of the Bonin and Volcano Islands. In "The Nature of the Bonin and Volcanic Islands," Agency for Cultural Affairs, Tokyo, pp. 15-32
- Waterhouse, C. O. and C. J. Gahan 1890 Observations on some Coleoptera from the Bonin Islands. **Ann. Mag. Nat. Hist.**, VI, 5: 169-170
- Yuasa, H. 1939 Invasion of the cane-borer beetle, *Rhabdocnemis obscura*, in Tokyo. **Ôyô-Kontyû**, 2(1): 31-34, 1 map (in Japanese)

Explanation of Plate III

- A. Ogasawarazo **mater** sp. nov., paratype, female.
- B. Ogasawarazo rugosicephalus **hahajimaensis** subsp. nov., paratype, male.
- C. Ogasawarazo **rugosicephalus rugosicephalus** (KBno), female (scaling greenish).
- D. Ogasawarazo **rugosicephalus rugosicephalus** (Kôno), female (scaling brownish grey).
- E. Ogasawarazo **lineatus** (KBno), female.
- F. **Metempleurus ogasawarensis** sp. nov., holotype, male.
- G. **Metempleurus nigrinus** sp. nov., holotype, male.
- H. **Gasterocercus ogasawaranus** sp. nov., paratype, male.
- I. **Gasterocercus ogasawaranus** sp. nov., paratype, female.



Explanation of Plate IV

- J. *Parempleurus nigronotatus* sp. nov., paratype, male.
- K. *Parempleurus nigrovariegatus* sp. nov., holotype, male.
- L. *Euthyrhinus kojimai* sp. nov., holotype, male.
- M. *Buninus niger* sp. nov., paratype, female.
- N. *Buninus seinoi* sp. nov., holotype, male.
- O. Same as above, ventral aspect.
- P. *Buninus iriei* sp. nov., paratype, male.
- Q. *Buninus hahajimaensis* sp. nov., paratype, female.
- R. *Buninus chichijimaensis* sp. nov., paratype, female.

