

## A New Taiwanese Species of the Tetratomidae and Three New Japanese Species of the Melandryidae (Coleoptera, Heteromera)

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**Abstract** A new species of the family Tetratomidae, *Hallomenus* (*Xeuxes*) *arimotoi* TOYOSHIMA et Y. ISHIKAWA, sp. nov., and a new subgenus and three new species of the family Melandryidae, *Phloeotrya* (*Phloeotrya*) *shimomurai* TOYOSHIMA et Y. ISHIKAWA, sp. nov., *Phloeotrinus* (*Nagakuchikius*) *tenuipes* TOYOSHIMA et Y. ISHIKAWA, subgen. et sp. nov. and *Serropalpus* (*Serropalpus*) *iriei* TOYOSHIMA et Y. ISHIKAWA, sp. nov. are described, all of them characterized by pronounced peculiarities and easily distinguishable from their congeners. Besides, a diagnosis of the genus *Phloeotrinus* is given and the subgenus *Phloeotrinops* is synonymized with the nominotypical subgenus of this genus, to which *Phloeotrya minuscula* NOMURA, 1962 is transferred as *Phloeotrinus* (*Phloeotrinus*) *minusculus* (NOMURA, 1962), comb. nov.

In the course of collaborative study of the families Tetratomidae and Melandryidae of Asia, we have had opportunities to examine a long series of coleopteran specimens belonging to the families concerned in the last decade and have recognized that some problematical species worth for close taxonomic study are contained in the collection. We have also noticed that these materials are very useful for the faunal study and that their records are worth noting. In the present paper, we are going to report on the result of our taxonomic and faunal studies based on these materials.

As the first step, we will describe a new Taiwanese tetratomid beetle, *Hallomenus* (*Xeuxes*) *arimotoi* sp. nov., and three new Japanese melandryids, *Phloeotrya* (s. str.) *shimomurai* sp. nov., *Phloeotrinus* (*Nagakuchikius*) *tenuipes* subgen. et sp. nov. and *Serropalpus* (s. str.) *iriei* sp. nov. All these species are very peculiar in morphological features and belong to distinctive taxa which are apparently new to science.

On the other hand, we will redefine the genus *Phloeotrinus* NIKITSKY, 1989 and enumerate all the species belonging to this genus, including *Phloeotrinus* (s. str.) *minusculus* (NOMURA) which is newly transferred from the genus *Phloeotrya* because of

its similarity in some significant characteristics. Of this genus, we will also discuss on the status of the subgenus *Phloeotrinos* NIKITSKY, 1989 and will regard it as a junior synonym of the nominotypical subgenus, while we will erect a new subgenus *Nagakuchikius* for *Phloeotrinos tenuipes*.

Before going further, we wish to express our hearty gratitude to Dr. Masatoshi TAKAKUWA of the Kanagawa Prefectural Museum of Natural History, Odawara, for his kind guidance and critical reading of the manuscript, and to Dr. Nikolai B. NIKITSKY of the Zoological Museum of Moscow Lomonosov State University for his useful advice. We also express our sincere gratitude to Dr. Shun-Ichi UENO of the National Science Museum (Nat. Hist.), Tokyo, for his kindness in permitting to examine the melandryid specimens preserved in the collection of his museum. Our hearty thanks are due to Messrs. Katsumi AKITA, Kôji AZUMA, Isamu HIRAI, Yukihiro HIRANO, Heikichi IRIE, Tetsuji KAMAKARI, Noboru KANIE, Tatsunosuke KIMOTO, Nobuyuki KOBAYASHI, Nobuyuki NARUKAWA, Tôru SHIMOMURA, Tetsuya TAKASAKI, Kiyoshi UCHIDA, Akihiko WATANABE and Hideyuki WATANABE for their kindness in giving us opportunities to examine invaluable materials. We are also deeply indebted to Mr. Hisayuki ARIMOTO for his supplying us invaluable specimens and taking photographs inserted in this paper.

All the holotypes to be designated in this paper will be deposited in the collection of the National Science Museum (Nat. Hist.), Tokyo, and the paratypes are preserved in our collections.

***Hallomenus (Xeuxes) arimotoi* TOYOSHIMA et Y. ISHIKAWA, sp. nov.**

[Japanese name: Taiwan-miyama-nagakuchiki]

(Figs. 1–3)

Male. Length: 5.4 mm. Humeral width: 1.7 mm. Oblong-ovate, convex though somewhat flattened above.

Body dark brown and feebly shining. Maxillary palpi, antennae, all tibiae and tarsi, mesepisterna, mesepimera and 5th abdominal sternite dark reddish brown. All femora and coxae, prosternum, apical half of mesosternum, middle of metasternum, 1st to 3rd abdominal sternites except for apical margins, and 6th abdominal sternite yellowish brown. Apical margins of 1st to 3rd abdominal sternites blackish brown. Fourth abdominal sternite entirely reddish brown.

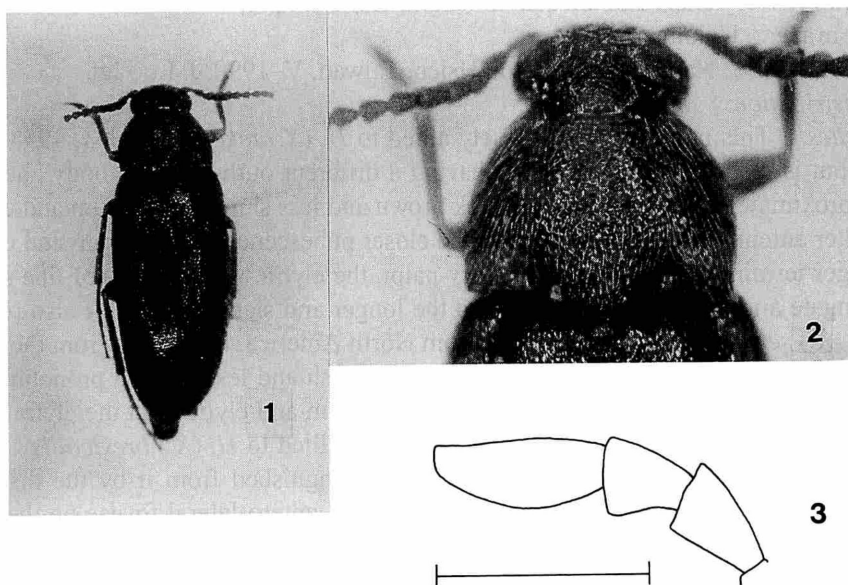
Head sparsely covered with erect and brown pubescence. Antennae very closely with short and brown pubescence, and 3rd to 10th segments also with several long hairs near apices. Pronotum and elytra moderately covered with long, semirecumbent and yellowish brown pubescence. Underside of body clothed with recumbent and brown pubescence which is sparse on metasternum, and fine and short on abdominal sternites. Legs closely with fine and yellowish brown pubescence.

Head moderately convex, shallowly, closely and rugulose punctate; frons between eyes slightly wider than long, a little wider than eye lobe in frontal view. Eyes very large, elongate-ovate, moderately approximated to each other near vertex, and

roundly protruding laterad in dorsal view; anterior margins narrowly though deeply emarginate behind antennal insertions. Maxillary palpus slender; 2nd segment obconical, about 1.4 times as long as wide; 3rd a little shorter than 2nd and about 1.1 times as long as wide; terminal one the longest, about 2.5 times as long as wide, thickened towards the middle, then gently narrowed apicad with truncate apex. Antennae serrate, reaching basal angles of pronotum; 1st segment elongate and clavate; 2nd small and subcupulate, 0.37 times as long as 1st; 3rd obconical, 2.17 times as long as 2nd and 1.18 times as long as wide; 4th to 10th obliquely obconical, nearly as long as wide, base of each segment articulated eccentrically, 4th to 8th subequal in length and about 0.79 times as long as 11th, 9th a little shorter than 8th and longer than 10th; 11th nearly as long as 1st and 1.71 times as long as wide, thickest at a little before the middle, then attenuate towards apex which is somewhat acute.

Pronotum wider than long (ratio:— 1.5:1), widest at basal 2/5, strongly and roundly narrowed apicad and very feebly so basad; apex much narrower than head including eyes; latero-basal angles rectangular; anterior margin almost straight, and basal one very slightly bisinuate; sides almost completely margined; pronotal disc completely enclosed with fine and shallow marginal furrows, coarsely, closely and somewhat rugulose punctate, the interspace between punctures also very closely micro-punctulate, bearing a pair of deep and subtriangular foveae at the base and a shallow median longitudinal furrow extending from base to near apex.

Elytra about 2.3 times as long as prebase, widest at basal 1/5, then gently and fee-



Figs. 1–3. *Hallomenus (Xeuxes) arimotoi* sp. nov. (holotype); 1, habitus; 2, pronotum; 3, maxillary palpus (scale: 0.5 mm).

bly roundly narrowed apicad; base almost as wide as the widest portion of pronotum; apices dehiscent and each narrowly rounded; disc without distinct rows of fine striae, coarsely, closely and somewhat rugulose punctate, the punctures becoming shallower and a little finer apicad, surface of each punctural pit very closely micro-punctulate. Scutellum elongate-subquadrate, feebly narrowed apicad.

Prosternum sparsely punctate; median process long and slightly narrowed from base to the middle, then almost parallel-sided to apex, preapical portion of the process bent downwards, the apex moderately rounded and reaching bases of fore coxae which are separated. Mesosternum small, subrhombic, with sides narrowly though strongly expanded laterad; median process acute at apex and reaching bases of middle coxae. Metasternum with a distinct median longitudinal furrow, sparsely punctate, each puncture bearing a fine and long hair, the interspace between punctures very closely micro-punctulate.

Abdomen with six visible segments; 1st to 5th sternites finely and sparsely punctulate, the interspace between punctures very closely micro-punctulate, with apical borders finely margined; apical borders of 5th and 6th sternites and anal tergite widely rounded; 6th well developed, scattered with punctures of different size.

Legs slender; fore tibiae as long as and middle and hind ones very slightly shorter than respective tarsal segments united; 1st to 4th segments of fore tarsi flattened and subtriangular, apex of 4th emarginate; middle and hind tarsal segments cylindrical; ratios of the lengths of middle and hind tarsal segments as follows:—1 : 0.55 : 0.41 : 0.29 : 0.62 and 1.45 : 0.73 : 0.53 : 0.57, respectively; each pair of middle and hind tibial spurs simple, very short and unequal in length; claws simple.

Female. Unknown.

Holotype: ♂, Nanshanchi, Nantou Hsien, Taiwan, V-1990, J. LUO lgt.

*Distribution.* Taiwan.

*Notes.* This new species is closely allied to *H. (X.) tokejii* NOMURA, 1958 from Japan, but is distinguished from it by having a different outline of the body, the eyes less approximated in dorsal view, the dark brown and less shining pronotum and elytra, the darker antennae, legs and abdomen, the closer pubescence on pronotum and elytra, the longer terminal segments of maxillary palpi, the elytra without rows of fine striae, the elongate and narrower scutellum, and the longer and slenderer legs. It also resembles *H. (X.) serricornis* LECONTE, 1878 from North America, but differs from the latter in having a different outline of the body, the brownish and less shining pronotum and elytra, the thicker and longer pubescence on pronotum and elytra, and the elytra without rows of fine striae. Further, this new species is allied to *H. (X.) brevicollis* CHAMPION, 1889 from Central America, but can be distinguished from it by the different colour of body, the pronotum without a pair of small antero-lateral foveae on the disc, and the elytra without rows of fine striae.

This new species is a fourth member of the subgenus *Xeuxes* CHAMPION, 1889, the peculiar characteristics of which are found in the large eyes, the thick and serrate antennae, and the emarginated penultimate segments of fore tarsi in the male.



***Phloeotrya (Phloeotrya) shimomurai* TOYOSHIMA et Y. ISHIKAWA, sp. nov.**

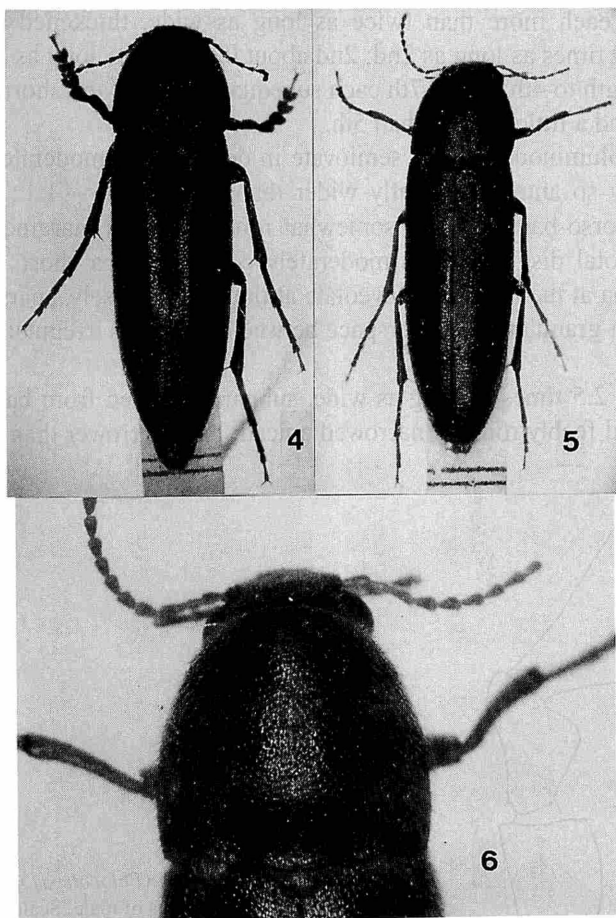
[Japanese name: Mikura-hoso-nagakuchiki]

(Figs. 4–7)

Male. Length: 15.8 mm. Humeral width: 4.1 mm. Robust, elongate and cylindrical.

Blackish brown. Clypeus and margin of labrum dark yellowish-brown. Maxillary palpi, antennae, legs and coxae reddish brown. Abdominal sternites dark reddish brown.

Body closely covered with long, suberect and brown pubescence, the pubescence on head being a little closer than that on pronotum and elytra. Inner sides of 1st to 3rd segments of maxillary palpi closely covered with long and brown hairs, and terminal



Figs. 4–6. *Phloeotrya (Phloeotrya) shimomurai* sp. nov.; 4–5, habitus: 4, male (holotype) and 5, female (paratype); 6, pronotum of female (paratype).

segments with fine and short pubescence all over. Scutellum very closely with recumbent pubescence. Abdominal sternites very closely clothed with fine, short and recumbent pubescence. Legs closely with short and brown pubescence.

Head shallowly and coarsely punctate, the interspace between punctures also micro-punctulate; frons strongly arcuate laterad just before clypeus; antennal insertions concealed by supra-antennal edges; vertex moderately convex without impression. Eyes moderately roundly prominent laterad in dorsal view, elongate-ovate and somewhat widened inferiorly; anterior margins not emarginate though feebly sinuate. Maxillary palpi finely punctulate; 1st segment very short, 2nd elongate and clavate apicad; 3rd as wide as 2nd, subtriangular with inner angle almost rectangular, apical margin nearly as long as basal one; terminal segment a little wider than and about 1.6 times as long as 3rd, subsecuriform with obtuse inner angle. Antennae comparatively short, very slender and submoniliform, barely reaching basal corners of pronotum; 3rd to 9th segments each more than twice as long as wide, thickened apicad; 1st the longest, about 1.9 times as long as 2nd; 2nd about 0.6 times as long as 3rd which is almost equal in length to 4th; 5th to 7th each subequal in length and shorter than 3rd; 8th longer than 9th and a little shorter than 5th.

Prothorax voluminous, almost semiovalate in dorsal view, moderately rounded laterad and strongly so anteriorly, slightly wider than long (ratio:— 1.1 : 1), widest near basal 1/4, with dorso-basal corners somewhat rounded; sides margined from base to the middle; pronotal disc asperous, moderately convex with a short, fine and vague longitudinal carina at the middle, bifoveolate at the base, coarsely, sparsely and irregularly punctate, not granulate, the interspace between punctures irregularly rugulose and micro-punctulate.

Elytra about 2.5 times as long as wide, subparallel-sided from base to basal 4/9, then smoothly and feebly roundly narrowed apicad; base narrower than the widest por-

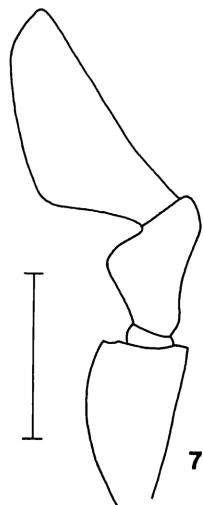


Fig. 7. *Phloeotrya (Phloeotrya) shimomurai* sp. nov.; maxillary palpus of male. Scale: 0.5 mm.

tion of pronotum; apices contiguously and narrowly rounded; disc asperous, moderately convex, without visible veins or costae, coarsely and sparsely punctate, the interspace between punctures irregularly rugulose and micro-punctulate. Scutellum a little wider than long, semicircular, coarsely and closely punctate.

Prosternum sharply margined; intercoxal portion coarsely and closely punctate; median process acutely and triangularly projecting backwards. Mesosternum sharply margined, rugulose medially and coarsely punctate laterally; median process long and acute at apex, reaching bases of middle coxae which are narrowly separated.

Abdomen with five visible sternites; surface of each sternite smooth, without impressions, feebly convex medio-apically, finely and irregularly punctulate and rugulose; 5th sternite emarginate in apical margin.

Legs stout and rather long; 1st segment of fore tarsi long and somewhat flattened, 2nd to 4th each wider than long, flattened and bilobed; middle and hind tibiae shorter than respective tarsi; ratios of the lengths of middle and hind tarsal segments as follows:— 1 : 0.5 : 0.36 : 0.25 : 0.5 and 1.21 : 0.60 : 0.26 : 0.50, respectively; each pair of middle and hind tibial spurs unequal in length, anterior spur longer than posterior one; claws simple though rather strongly sinuate and thickened near the base.

Female. Length: 11.3–13.3 mm. Humeral width: 3.1–3.3 mm. Coloration the same as in male. Body somewhat slenderer than in male. Terminal segment of maxillary palpus slenderer than in male. Antennal segments each shorter than in male; 4th to 10th subobconical. Legs shorter and slenderer than in male; fore tarsi slender and cylindrical, not dilated; 1st segment of hind tarsi slightly longer than in male.

*Type series.* Holotype: ♂, Sato, Mikura Is., Tokyo Pref., 23–VII–1974, Tôru SHIMOMURA lgt. Paratypes: 2 ♀♀, same data as the holotype.

*Distribution.* Japan (Mikura Is. of the Izu Islands).

*Notes.* This new species is allied to *P. (P.) bellicosa* LEWIS, 1895 from Japan, but is easily distinguished from it by having a different outline and colour of the body, the shorter antennae, the pronotal disc without granulations, the longer mesosternal process and the closer pubescence on the body. This species also resembles *P. (P.) rugicollis* MARSEUL, 1876 from Japan, but is distinguishable from the latter by having the stouter body, the different colour of body, the shorter antennae, the different shape of pronotum, the pronotal disc without granulations or distinct rugae in the middle, the closer pubescence on the body, the abdominal sternites without impressions and the longer legs.

This new species is endemic to Mikura Island of the Izu Islands. All the type specimens were attracted to a light trap.

#### Genus *Phloeotrinus* NIKITSKY, 1989

Body comparatively small to medium in size, slender, cylindrical and elongate-lanceolate.

Head hypognathous with occiput and superior portions of eyes visible in dorsal

view. Eyes elongate-ovate, more or less broadened inferiorly. Antero-inferior orbits depressed or sulcate. Maxillary palpi long and slender; 2nd segment very long, flattened and almost or more than twice as long as each of 3rd and terminal segments. Antennae moderately long and reaching at least a little beyond humeri in both sexes.

Pronotum a little wider than long, widest a little before base or near the middle; sides evenly rounded, margined at least from base to apical 1/3, the marginations being very sharp and curvate in lateral view; posterior border at least feebly sinuate laterad and more or less margined; disc moderately convex, almost evenly punctate, not rugulose, bearing an oblong-ovate fovea near the base of the middle, the fovea becoming deeper and a little wider basad.

Elytra subparallel-sided from base to about apical 1/3, then gently narrowed apicad; apices narrowly dehiscent and each narrowly rounded; apices of sutural margins simple, not pectinate; disc almost evenly punctate, sometimes rugulose near base, more or less raised near humeri, the raised areas bearing short rugulae. Scutellum feebly depressed or foveolate apicad.

Prosternal process acute and rather long, mesosternal process moderately long and reaching near bases of middle coxae. Abdomen with six visible sternites in male and five sternites in female; all sternites simple, without impressions or tubercles.

Legs long, a little longer in male than in female; femora slender and more or less flattened; fore tibiae almost cylindrical; middle and hind tibiae variable, cylindrical to flattened laterally, more or less pectinate on upper edges; tibial apices of stretched hind legs reaching or exceeding elytral apices; fore tarsi more or less widened in male, middle ones almost cylindrical, hind ones variable, cylindrical to flattened laterally; tibial spurs simple, short and unequal in length; fore coxae well contiguous and middle ones contiguous at each base.

Median lobe of male genitalia long and slender, a little shorter than parameres and tegmen united, gradually thickened apicad though more or less constricted at apical portion, with apex widely rounded to moderately angulate. Parameres relatively very short to the length of tegmen, enclosing apex of median lobe, more or less bilobed dorsally; tegmen gradually narrowed basad.

#### Subgenus *Phloeotrinus* NIKITSKY, 1989

*Phloeotrinus* NIKITSKY, 1989, Sb. Trud. zool. Muz. MGU, **27**, pp. 26, 27, 45, 46; 1992, Opred. Nasek. Dal'nego Vostoka SSSR, **3**(2), pp. 439, 450; 1998, Sb. Trud. zool. Muz. MGU, **36**, suppl. 1, p. 44. (Type species: *Serropalpus filiformis* MARSEUL, 1876; by monotypy.)

*Phloeotrinops* NIKITSKY, 1989, Sb. Trud. zool. Muz. MGU, **27**, p. 46; 1992, Opred. Nasek. Dal'nego Vostoka SSSR, **3**(2), p. 451. (Type species: *Dircaea femoralis* LEWIS, 1895; by monotypy.) *Syn. nov.*

Eyes with anterior margins not emarginate though feebly sinuate near antennal insertions. Orbits more or less depressed. Maxillary palpi moderately long; 3rd segment subtriangular in shape; terminal one roundly subtriangular in both sexes, apparently longer than wide, nearly as long as 3rd. Antennae inserted just outside of eyes, subfiliform, not serrate, reaching a little beyond humeri to basal 1/3 of elytra. Pronotal poste-

rior border almost straight, though very feebly sinuate laterally, and sometimes very slightly and narrowly emarginate at the middle. Fore tarsi sexually dimorphous in shape: in male, four basal segments flattened and distinctly dilated apicad though the 4th is narrower than the 3rd; in female, each segment slender and subcylindrical. Sixth visible abdominal sternite of male small and triangular in shape. Median lobe of male genitalia feebly constricted near apical 1/4 and parameres evidently bilobed dorsally to dorso-laterally.

*Notes.* In the same paper as the genus *Phloeotrinus* was established, the subgenus *Phloeotrinos* was also erected for *D. femoralis* LEWIS, 1895 from Japan and its characteristics were defined as follows: 1) transverse ridges on the middle and hind tibiae very feeble; 2) 1st segment of the male hind tarsi more than twice as wide as the 2nd in lateral view. However, these features do not seem so important to distinguish a subgenus, because of variability shown by the members of this genus. All the other significant features of this species, such as the eyes with anterior margins not emarginate, the subfiliform antennae and the simple shape of the median lobe of male genitalia, and so on, indicate its close similarity to the nominotypical subgenus. Therefore, we are going to regard *Phloeotrinos* as a junior synonym of the nominotypical subgenus.

***Phloeotrinus (Phloeotrinus) filiformis* (MARSEUL, 1876)**

(Fig. 8)

*Serropalpus filiformis* MARSEUL, 1876, Annls. Soc. ent. Fr., (5), **6**, p. 333. — CSIKI, 1924, Coleopt. Cat., (77), p. 35.

*Phloeotrya parvula*: NOMURA, 1963, Icon. Ins. Japon. Col. nat. ed., **2**, p. 243, pl. 122, fig. 2. — SASAJI, 1985, Coleopt. Japan Col., Osaka, **3**, pp. 366, 367, pl. 63, fig. 8. (Nec LEWIS, 1895.)

*Serropalpus parvulus*: HAYASHI, 1975, Kontyû, Tokyo, **43**, pp. 159, 162. (Nec LEWIS, 1895.) [Larva.]

*Phloeotrinus (Phloeotrinus) filiformis*: NIKITSKY, 1989, Sb. Trud. zool. Muz. MGU, **27**, pp. 45, 46–47, figs. 4·8, 5·3; 1992, Opred. Nasek. Dal'nego Vostoka SSSR, **3**(2), pp. 450, 451, figs. 218·8, 218·9; 1998, Sb. Trud. zool. Muz. MGU, **36**, suppl.1, pp. 44–45.

*Specimens examined.* 1 ♂, Shindenbara, Tateiwa-mura, Fukushima Pref., 16–VI–1981 (emerged from a dead twig), Nobuyuki KOBAYASHI lgt.; 1 ♂, Mt. Nonobori, Kameyama-shi, Mie Pref., 29–VII–1993, Nobuyuki NARUKAWA lgt.; 1 ♂, 1 ♀, Mt. Mitake, Tsushima Is., Nagasaki Pref., 23–VII–1991, Noboru KANIE lgt.

*Distribution.* Japan (Hokkaido, Honshu, Kyushu, Tsushima).

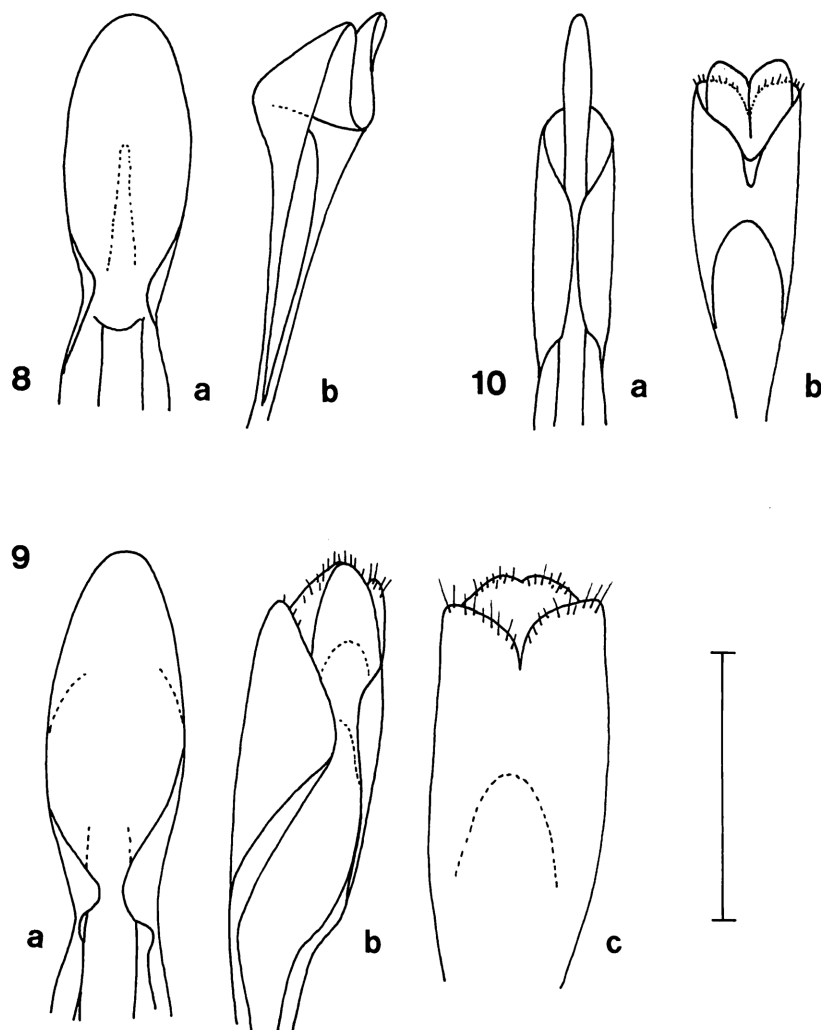
*Host plant.* *Salix gilgiana*.

***Phloeotrinus (Phloeotrinus) femoralis* (LEWIS, 1895), stat. nov.**

(Fig. 9)

*Dircaea femoralis* LEWIS, 1895, Ann. Mag. nat. Hist., (6), **15**, p. 267.

*Phloeotrya femoralis*: CHAMPION, 1916, Entomologist's mon. Mag., **52**, p. 36. — NOMURA, 1962, Tôhō Gakuhô, (12), p. 45; 1963, Icon. Ins. Japon. Col. nat. ed., **2**, p. 243, pl. 122, fig. 1. — SASAJI, 1985,



Figs. 8–10. Aedeagus of *Phloeotrinus* spp.; 8, *P. (P.) filiformis* (MARSEUL); 9, *P. (P.) femoralis* (LEWIS); 10, *P. (P.) minusculus* (NOMURA); a, median lobe; b–c, parameres: b, ventral view and c, dorsal view. Scale: 0.5 mm.

Coleopt. Japan Col., Osaka, **3**, pp. 366, 367, pl. 63, fig. 7.

*Serropalpus femoralis*: HAYASHI, 1975, Kontyû, Tokyo, **43**, pp. 159, 162, figs. 1C, 2K, 2L, 3I, 4J, 5G, 6I, 7F, 8F, 8G. [Larva.]

*Phloeotrinus (Phloeotrinoops) femoralis*: NIKITSKY, 1989, Sb. Trud. zool. Muz. MGU, **27**, pp. 46, 47, fig. 5·2; 1992, Opred. Nasek. Dal'nego Vostoka SSSR, **3**(2), p. 451, fig. 218·10.

*Specimens examined*. 1♂, 2♀♀, Akane-rindô, Haranomachi-shi, Fukushima Pref., 1–VI–1990, Ryôji TOYOSHIMA lgt.; 1♂, Mt. Takaosan, Hachiôji-shi, Tokyo Pref.,

1-V-1988, Isamu HIRAI lgt.; 1 ♀, Tennouji-one, Tanzawa Mts., Kanagawa Pref., 27-VI-1993, Tetsuya TAKASAKI lgt.; 2 ♂♂, Masutomi-onsen, Sudama-chô, Yamanashi Pref., 20-VI-1996, Yutaka ISHIKAWA lgt.; 2 ♂♂, 1 ♀, Hirogawara, Maruko-machi, Nagano Pref., 15-VI-1988, Yutaka ISHIKAWA lgt.; 3 ♂♂, 3 ♀♀, Mennoki-tôge, Inabuchô, Aichi Pref., 16-VI-1999, Ryôji TOYOSHIMA lgt.; 1 ♂, Hirakura, Misugi-mura, Mie Pref., 8-VI-1986, Katsumi AKITA lgt.; 5 ♂♂, Sasari-tôge, Kyoto-shi, Kyoto Pref., 11-VI-1988, Ryôji TOYOSHIMA lgt.; 4 ♀♀, Mt. Takashiro-yama, Kisawa-son, Tokushima Pref., 17~18-V-1991 (emerged from dead twigs), Ryôji TOYOSHIMA lgt.; 3 ♂♂, Mt. Ôtaki-san, Waki-chô, Tokushima Pref., 17-II-1992 (emerged from dead twigs), Kiyoshi UCHIDA lgt..

*Host plant.* *Fagus crenata*.

*Distribution.* Japan (Hokkaido, Honshu, Shikoku, Kyushu).

***Phloeotrinus (Phloeotrinus) minusculus* (NOMURA, 1962), comb. nov.**

(Fig. 10)

*Phloeotrya minuscula* NOMURA, 1962, Tôhō Gakuhô, (12), pp. 45-46, pl. 2, fig. 15, (type locality: Amami-Ôshima Is., Japan.); 1963, Icon. Ins. Japon. Col. nat. ed., 2, p. 242, pl. 121, fig. 25. — SASAJI, 1985, Coleopt. Japan Col., Osaka, 3, p. 366, pl. 63, fig. 9.

*Specimens examined.* [Japan] 1 ♂ (paratype), Hatsuno, Amami-Ôshima Is., Kagoshima Pref., 23-V-1961, Taichi SHIBATA lgt.; 1 ♂, 1 ♀, Shinmura, Amami-Ôshima Is., 25-VI-1976, Hisayuki ARIMOTO lgt.; 2 ♂♂, 1 ♀, Mt. Yonaha-dake, Okinawa Is., Okinawa Pref., 3-V-1978, Hisayuki ARIMOTO lgt.; 4 ♂♂, 1 ♀, Mt. Omoto-dake, Ishigaki Is., Okinawa Pref., 8-V-1974, Heikichi IRIE lgt.; 1 ♀, Arakawa, Ishigaki Is., 19-V-1974, Heikichi IRIE lgt.; 1 ♂, Hirakubo, Ishigaki Is., 28-IV-1984, Kôji AZUMA lgt.; 1 ♀, Funaura, Iriomote Is., Okinawa Pref., 3-IV-1974, Hisayuki ARIMOTO lgt.; 1 ♂, 2 ♀♀, Hoshidate, Iriomote Is., 4-V-1974, Heikichi IRIE lgt.; 1 ♂, 1 ♀, Mt. Urabu-dake, Yonaguni Is., Okinawa Pref., 28-V-1974 (emerged from dead twigs), Isamu HIRAI lgt. [Taiwan] 2 ♂♂, Mt. Lala-shan, Taouyuan Hsien, 1-V-1978, Tetsuji KAMAKARI lgt.

*Distribution.* Southwest Japan (the Nansei Islands) and Taiwan.

*Host plants.* *Lithocarpus edulis*, *Machilus Thunbergii*.

**Subgenus *Nagakuchikius* TOYOSHIMA et Y. ISHIKAWA, nov.**

Eyes with anterior margins deeply emarginate along antennal insertions. Antennae inserted inside of eyes, more or less flattened and serrate, reaching basal 1/3 to 1/2 of elytra. Orbital sulci narrow and rather distinct. Maxillary palpi long, sexually dimorphous in shape of terminal segment: in male, it is short and relatively smaller than in female in the size of 3rd segment, slightly longer than wide, roundly subtriangular to tetragonal in shape, and in female, it is moderately longer than wide and roundly subtriangular in shape. Fore tarsi very slender, almost the same in shape in both sexes; in male, three basal segments never distinctly dilated apicad though the 4th is feebly di-

lated and relatively wider than preceding ones; in female, each segment slender and subcylindrical. Sixth visible abdominal sternite in male well developed and strongly projecting. Median lobe of male genitalia very strongly constricted preapically and forming subrhombic apex. Parameres subcylindrical, feebly bilobed dorsally.

Type species: *Phloeotrinus (Nagakuchikius) tenuipes* TOYOSHIMA et Y. ISHIKAWA, sp. nov. (Monotypy.)

*Notes.* This new subgenus is easily distinguished from the nominotypical subgenus by the points mentioned above. The gender of the subgeneric name is masculine, and “*Nagakuchiki*” is derived from the Japanese noun meaning melandryid beetles.

***Phloeotrinus (Nagakuchikius) tenuipes* TOYOSHIMA et Y. ISHIKAWA, sp. nov.**

[Japanese name: Hosô-ashi-nagakuchiki]

(Figs. 11–16)

Male. Length: 5.6–8.3 mm. Humeral width: 1.4–2.0 mm. Elongate and cylindrical.

Body blackish brown. Maxillary palpi, two basal segments of antennae and almost all parts of legs yellowish brown. Middle portions of middle and hind tibiae, 1st to 3rd segments of all tarsi except for basal portions of 1st segments of middle and hind ones, and 5th segment of middle tarsi infusate.

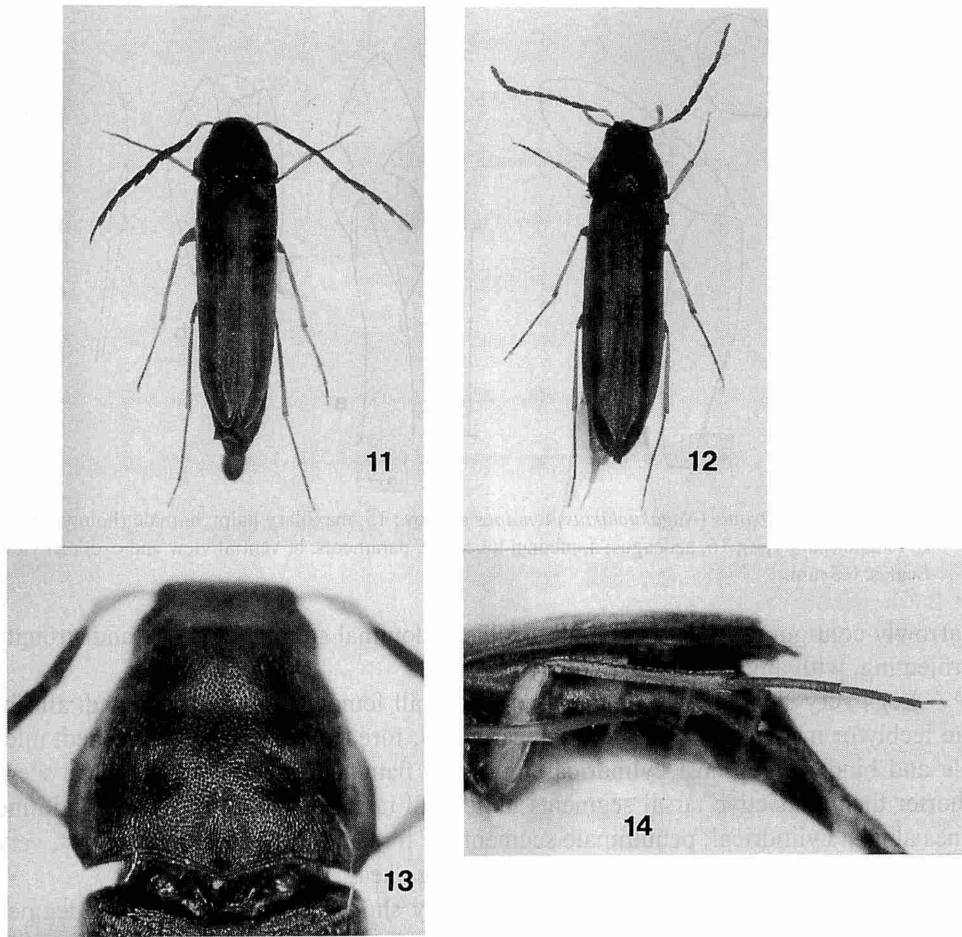
Body closely covered with short, recumbent and brownish pubescence, the pubescence on pronotum being slightly longer than that on elytra, and very fine on abdomen.

Head closely punctate, moderately convex at antennal insertions; frons shallowly and transversely impressed before clypeus; vertex feebly and narrowly impressed. Eyes moderately large, oblong-ovate, feebly widened inferiorly. Maxillary palpus finely punctulate; 2nd segment very long, somewhat widened medially and about 3.9 times as long as wide; 3rd subquadrate, with apex of inner margin somewhat expanded, nearly 0.43 times as long as 2nd; terminal one small and short, a little wider and distinctly shorter than 3rd, outer margin feebly curvate and inner one strongly so, apex widely rounded. Antennae serrate, comparatively long, reaching the middle of elytra; 1st segment somewhat clavate, 3rd to 10th each flattened and subtriangular in shape, 11th the longest, flattened and elongate-ovate, four apical segments each more than twice as long as apical width; relative lengths of segments as follows:— 3.8 : 1.6 : 5.0 : 5.0 : 5.3 : 5.3 : 5.4 : 5.5 : 5.5 : 5.3 : 6.0.

Pronotum wider than long (ratio:— 1.24 : 1), almost evenly and rather strongly arcuate laterad, widest at about basal 1/4; anterior border almost straight and feebly margined; sides sharply and completely margined, the marginations being distinct and feebly curved in lateral view; posterior border widely bisinuate, medio-basal angle between these sinuations widely and obtusely projecting backwards; disc well convex, uneven, more or less depressed medially and also antero- and postero-laterally, closely punctate, with a deep and elongate-ovate fovea just before scutellum.

Elytra slightly narrower than the widest portion of pronotum and as wide as

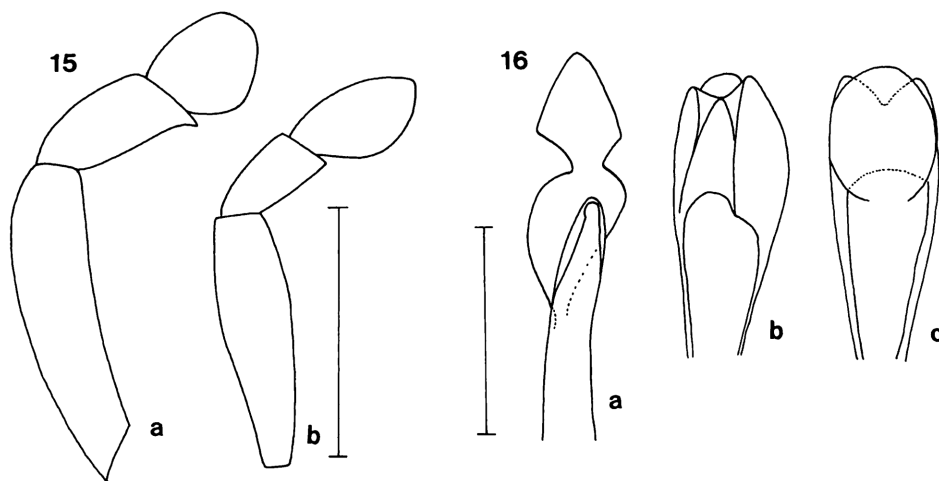




Figs. 11–14. *Phloeotrinus (Nagakuchikius) tenuipes* sp. nov.; 11–12, habitus: 11, male (holotype) and 12, female (paratype); 13, pronotum (holotype); 14, hind leg (holotype).

pronotal base, subparallel-sided from base to apical 1/3, then gently narrowed apicad; apices dehiscent and each narrowly rounded; disc of each elytron finely and closely punctate, sometimes with shallow and transverse rugulae near base and also two rows of obsolete and vestigial costae, the latter of which are vanished near apex and base, prehumeral portion beside scutellum strongly and subtriangularly raised and bearing distinct and transverse rugulae, feebly depressed just behind the raised area. Scutellum longer than wide, gradually narrowed posteriad with rounded apical margin; apical fovea shallow.

Underside of body finely and closely punctate; intercoxal portion of prosternum comparatively long, triangularly or narrowly projecting backwards; mesosternal process long and acute at apex, reaching prebasal portions of middle coxae which are



Figs. 15–16. *Phloeotrinius* (*Nagakuchikius*) *tenuipes* sp. nov.; 15, maxillary palpi: a, male (holotype) and b, female (paratype); 16, aedeagus: a, median lobe; b–c, parameres: b, ventral view and c, dorsal view. Scales: 0.5 mm.

narrowly contiguous at the bases; 6th visible abdominal sternite elongate and strongly projecting, with apical margin narrowly rounded.

Legs very slender and comparatively long; all femora short and flattened; all tibiae feebly or moderately notched on upper edges; fore tibiae somewhat flattened; middle and hind ones almost cylindrical and never flattened or widened in lateral view, shorter than respective tarsal segments united; all tarsi very slender, middle and hind ones almost cylindrical; penultimate segments of fore and middle tarsi very short, very feebly dilated and relatively wider than preceding ones.

Median lobe of male genitalia very slightly shorter than parameres and tegmen united; apex subrhombic in shape, with sides almost rectangularly angled, antero-lateral margins of apex very slightly arcuate outwards and postero-lateral ones almost straight.

**Female.** Length: 7.0–8.2 mm. Humeral width: 1.5–1.8 mm. Coloration the same as in male, except for abdominal sternites which are dark yellowish brown to dark reddish brown. Body somewhat slenderer than in male. Maxillary palpi shorter and slenderer; terminal segment longer than in male, nearly as long as 3rd, roundly subtriangular in shape, with apex rather acute. Antennae distinctly slenderer than and not so serrate as in male, reaching about basal 1/3 of elytra; 3rd to 10th segments each feebly flattened, short-subtriangular in shape. Middle and hind tarsi shorter than in male. Abdomen with five visible sternites; apex of 5th sternite moderately rounded.

**Type series.** Holotype: ♂, Mt. Garyû-san (ca. 1,000 m in alt.), Geihoku-chô, Hiroshima Pref., 3–XI–1991 (adult in a pupal cell), Akihiko WATANABE lgt. Paratypes: 1 ♀, Mt. Takashiro-yama (ca. 1,300 m in alt.), Kisawa-son, Tokushima Pref., 8–VI–1988, Ryôji TOYOSHIMA lgt.; 5 ♂♂, 2 ♀♀, Dôdaira, eastern Tanzawa Mts., Kana-

gawa Pref., 6-V-1996 (emerged from dead twigs), Akira YAMAGAMI lgt.

*Distribution.* Japan (central to western Honshu and Shikoku).

*Host plant.* *Fagus crenata*.

*Notes.* This new species is easily distinguished from all the congeners by having the strongly emarginate eyes, the peculiar shape of maxillary palpi in the male, the flattened and more or less serrate antennae, very slender and not flattened middle and hind tibiae, and very slender tarsi.

Since the holotype specimen was taken from the pupal cell lying in a dead twig of *Fagus crenata* late in the autumn, the adults of this new species seem to hibernate in their pupal cells and to fly out in mid to late spring of the next year in the field. This species occurs sympatrically with *P. (P.) femoralis*, but the flight period is usually earlier than in the latter.

***Serropalpus (Serropalpus) iriei* TOYOSHIMA et Y. ISHIKAWA, sp. nov.**

[Japanese name: Irie-hoso-nagakuchiki]

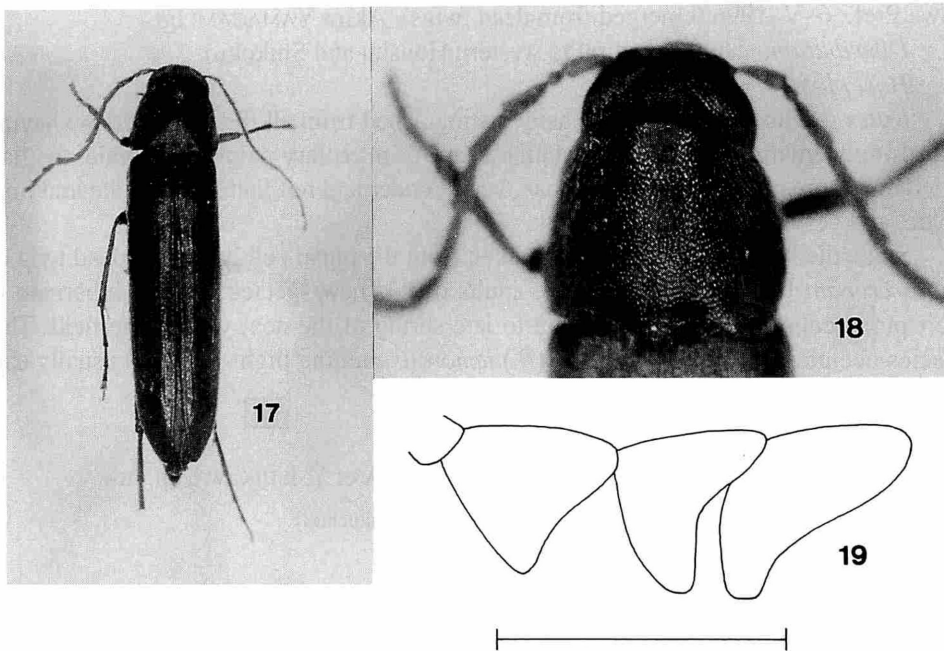
(Figs. 17-19)

Male. Length: 8.8 mm. Humeral width: 1.9 mm. Medium-sized, elongate and cylindrical.

Colour uniformly testaceous except for black eyes and mandibles.

Dorsum closely covered with rather long, recumbent and brownish pubescence, the pubescence on head being sparser than that on pronotum and elytra; antennae, legs and abdomen very closely covered with fine, short and brownish pubescence; apical margins of elytra narrowly and densely fringed with very short and black bristles.

Head closely and rugosely punctate; clypeus narrow and transverse, with clypeal suture evident and almost submargined; vertex between eyes narrow, rapidly widened towards occiput in dorsal view. Eyes comparatively large, elongate-subovate, very strongly approximated to each other near vertex; anterior margins emarginate near antennal insertions and feebly sinuate along mouth parts. Maxillary palpi strongly serrate with 3 apical segments subequal in width; 1st segment narrow, short and subquadrate; 2nd broadly subtriangular with apical margin feebly incurvate; 3rd comparatively broad, boomerang-shaped with inner angle moderately rounded and outer margin almost as long as that of terminal segment; terminal one broad, obtuse-subtriangular with outer margin as long as basal one, apical angle moderately rounded and inner one narrowly so, apical margin between these angles sinuate, strongly incurvate near base, then moderately curvate towards apex. Antennae somewhat serrate, reaching a little beyond basal 1/3 of elytra; 1st segment cylindrical and clavate; 2nd very short and obconical; 3rd to 10th each flattened, dilated apicad and apices of 3rd to 6th apparently wider than those of 7th to 10th; apical angles of 3rd and 4th rectangular, and those of 5th to 10th acute; 3rd as long as 1st and 3.62 times as long as 2nd; 4th as long as 5th which is a little shorter than 6th; four apical segments each subequal in length and longer than 6th; terminal one slenderer than 10th, flattened and elongate-ovate, with



Figs. 17–19. *Serropalpus (Serropalpus) iriei* sp. nov. (holotype); 17, habitus; 18, pronotum; 19, maxillary palpus (scale: 0.5 mm).

apex very narrowly rounded.

Pronotum widest behind the middle; anterior margin feebly arcuate forwards; lateral sides moderately rounded and margined from base to apical 1/4; posterior border completely margined, bisinuate, widely arcuate backwards at the middle; disc moderately convex, shallowly bifoveolate at the base, coarsely, closely and rugulose punctate, the interspace between punctures also micro-punctulate; both of front and basal corners widely rounded.

Elytra slightly narrower than the widest portion of pronotum and as wide as pronotal base, parallel-sided from base to apical 1/5, then rapidly and roundly narrowed apicad; apices narrowly dehiscent and each moderately rounded, with sutural angles obtusely angulate; disc of each elytron feebly depressed just inside of humerus, coarsely, closely and rugulose punctate, bearing fine, distinct and transverse rugae near humerus, with four rows of shallow and obsolete striae which are vanished near apex and base, sutural stria distinct and almost complete from base to sutural angle of apex. Scutellum longer than wide, subquadrate, coarsely and closely punctate.

Legs slender and comparatively short, closely punctulate; middle and hind femora flattened; fore tibiae a little shorter than respective tarsi; 1st segment of fore tarsi long and cylindrical, 2nd to 4th each narrowly dilated apicad, 4th bilobed and wider than 3rd; middle tibiae almost as long as respective tarsi, notched on upper edges; 1st seg-

ment of middle tarsi slightly longer than 2nd and 3rd united, 4th flattened, bilobed and distinctly wider than 3rd; hind tibiae much shorter than respective tarsi, distinctly notched on upper edges; hind tarsi simple, not dilated; spurs of fore tibiae subequal in length, and those of middle and hind ones unequal; claws simple.

Prosternum coarsely and closely punctate; intercoxal portion broad, long and triangularly projecting backwards, the apex of the projection reaching bases of fore coxae. Mesosternum narrow, coarsely scattered with large punctures; median process long and acute, reaching bases of middle coxae which are separated. Mesepisterna coarsely and closely punctate. Mesepimera rather narrow and rhomboidal, with anterior and posterior margins rather strongly arcuate inwards.

Abdomen with six visible sternites, shallowly and finely punctulate; 5th sternite the largest, subtriangular with rounded apical margin; 6th rather narrow though well developed, subtriangularly projecting.

Female. Unknown.

Holotype: 1♂, Mt. Omoto-dake, Ishigaki Is., Okinawa Pref., 18-V-1974, Heikichi IRIE lgt.

*Distribution.* Japan (Ishigaki Is. of the southern Ryukyus).

*Notes.* This new species is easily distinguished from all the congeners by having the large and approximated eyes, the serrate antennae of which the 3rd to terminal segments are apparently flattened, the broader terminal segment of maxillary palpus, the broadly and triangularly projecting prosternal process whose apex reaches the bases of the fore coxae, and the apparently dilated penultimate segments of middle tarsi.

Although we have placed this species in the nominotypical subgenus, *Serropalpus* HELLENUS, 1786, there is a possibility that this species may belong to the subgenus *Mimoserropalpus* PIC, 1922 (type species: *S. (M.) binhanus* PIC, 1922, by monotypy; type locality: Tonkin) by having the broadly and triangularly projecting prosternal process whose apex reaches the bases of the fore coxae. However, the original description of the latter subgenus is so brief that we have been unable to verify the true identity.

## 要 約

豊嶋亮司・石川 豊：台湾産キノコムシダマシ科の1新種および日本産ナガチキムシ科の3新種。——台湾で発見されたキノコムシダマシの1種および日本で発見されたナガチキムシの3種は、顕著な特徴を有する新種と認められるので、各種を次のとおり命名して記載するとともに *Phloeotrinius* 属の特徴について検討し新亜属を設立した。

1. タイワンミヤマナガチキ *Hallomenus* (*Xeuxes*) *arimotoi* TOYOSHIMA et Y. ISHIKAWA, sp. nov.: 本種は日本に分布するトケジナガチキ *H. (X.) tokejii* NOMURA, 1958 に似ているが、前胸背板および翅鞘が暗褐色で光沢が鈍く、触角や肢の色彩はより暗色であること、翅鞘には微細な縦条列を有しないこと等により容易に区別できる。また北米に分布する *H. (X.) serricornis* LECONTE, 1878 とは、前胸背板および翅鞘が暗褐色で光沢が鈍く、前胸背板および翅鞘はより太く長い微毛でより密に覆われること、翅鞘には微細な縦条列を有しないこと等により区別できる。さら

に中米に分布する *H. (X.) brevicollis* CHAMPION, 1889 とは、前胸背板前側部の1対の小凹陷を欠くこと、翅鞘には微細な縦条列を有しないこと等により区別できる。なお本亜属に所属する種は従来、上記の3種が知られていた。

2. ミクラホソナガクチキ *Phloeotrya (Phloeotrya) shimomurai* TOYOSHIMA et Y. ISHIKAWA, sp. nov.: 本種は伊豆諸島の御蔵島に固有の比較的大型の種で、近似種のオオクロホソナガクチキ *P. (P.) bellicosa* LEWIS, 1895 およびクロホソナガクチキ *P. (P.) rugicollis* MARSEUL, 1876 とは、体形や前胸部の形が異なること、触角が短いこと、前胸背板の点刻は粗く疎で顆粒状または皺状とならないこと等により容易に区別できる。

3. ホソアシナガクチキ *Phloeotrinus (Nagakuchikius) tenuipes* TOYOSHIMA et Y. ISHIKAWA, subgen. et sp. nov.: 本種は *Phloeotrinus* 属に所属する種であるが、複眼前縁は触角付着点付近で強く挟まれること、触角は鋸歯状で各節は平圧されること、小顎肢末端節は前節に比べてきわめて小さく特異な形であること、付節は♂♀ともに非常に細いこと、♂交尾器の陰茎先端は非常に強くくびれ菱形状であること等の形質が、本属の他の種が共通して保有する形質とは非常に異なるため、本種に対して新亜属 *Nagakuchikius* を設立した。なお、*Phloeotrinus* 属の広義の特徴を体形が細長いこと、小顎肢第2節がいちじるしく細長く、第3節および第4節それぞれの約2倍の長さであること、前胸背板は基部中央に長楕円形の顕著な凹陷を有し、側縁は少なくとも基部2/3が鋭く縁取られること、翅鞘の肩部は多少なりとも隆起すること等により再定義し、*Phloeotrinops* 亜属を基亜属の下位同物異名として扱った。また、*Phloeotrya minuscula* NOMURA, 1962 を本属に移し、*Phloeotrinus (Phloeotrinus) minusculus* (NOMURA, 1962) とした。

4. イリエホソナガクチキ *Serropalpus (Serropalpus) iriei* TOYOSHIMA et Y. ISHIKAWA, sp. nov.: 本種は1♂個体が発見されたにすぎないが、既知の種とは触角は弱いことが明らかに鋸歯状で各節は平圧されること、小顎肢は第2, 3節、末端節ともに比較的幅広く、とくに末端節は幅広の三角形状であること、前胸腹突起は広く三角形状に突出し先端は前基節基部に達すること等により区別できる。なお、本種を基亜属に含めたが、前胸腹突起の形態はトンキンから知られる *Mimoserropalpus* 亜属（基準種：*S. (M.) binhanus* PIC, 1922）の特徴に類似すると考えられる。

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*Elytra, Tokyo*, **28** (1): 191–192, May 15, 2000

## A Biological Note on *Coeliodes galloisi* (Coleoptera, Curculionidae, Ceutorhynchinae)

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The ceutorhynchine weevil *Coeliodes galloisi* was described by HUSTACHE (1916) from Honshu, Japan. YOSHITAKE (1999) additionally recorded the species from the mountainous areas of eastern Japan. However, there is hardly any information about its biology including feeding habits until now. Recently, I had an opportunity to take the adults of the species on young branches of *Carpinus japonica* BL. [Kuma-shide in Japanese] (Betulaceae) at Hakone, Kantou District, Japan. They fed on young leaves of the plant. The collecting data are as follows:

6♂♂, 2♀♀, Mt. Daigatake, Hakone, Kanagawa Pref., 17–V–1999, H. YOSHITAKE & H. MIZUSHIMA leg.