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New Species of *Kibunea* KISHII and *Gambrinus* LECONTE from Yamanashi Pref. Collected by Mr. K. HOSODA (Coleoptera: Elateridae)

"Some New Forms of Elateridae in Japan (XXII)"

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In this paper, I would like to describe two new species, which belong to the genera of *Kibunea* KISHII and *Gambrinus* LECONTE respectively, from near Mt. Hôô-zan in Yamanashi Prefecture.

Through the kind offices of Messrs. Kôichi Hosoda (細田倖市) and Kôzô Mizuno (水野弘造), my recent study of a large lot of the elaterid species collected in Mt. Hôô and Gozaishi-kôsen Spa by themselves in 1987 & 1988, has disclosed some new, very rare or many unrecorded species, for which I express my hearty gratitude. In this material, on the remaining species exclusive of two new species described here I shall report in other papers at not very distant date.

Before going further, I wish to express my cordial thanks to Mr. K. Hosoda, the manager of the Hôô Lodge in Yamanashi, and Mr. K. Mizuno in Uji City, who was carried kindly these valuable materials for me.

Kibunea kouichiana KISHII, sp. nov. "Kôichi-hime-kane-kometsuki" (Figs. 1, 3, 4, 6 & 7)

Male, $7.45-8.20\times2.10-2.30 \ \text{mm}$; female, $7.95\times2.30 \ \text{mm}$. Distinctly robust, well-cylindrical, but a little flattened on elytra longitudinally, parallel-sided, and plainly with clear brassy metallic lustre all over. Black entirely with hind angles of pronotum feebly and rear borders of

propleuron widely yellowish orange. Legs generally fuscous with femora basally, internal sides of tibiae longitudinally and tarsal segments apically more or less orange in male, and a little brightened wholly in female. Pubescence long, tender, a little curved roundly, not so dense, rather recumbent and generally golden yellowish with the exception of anterolateral parts of pronotum, sutural zone and of basal half of elytral sides clearly whitish, in general having obvious tint all over.

Head (fig. 1C) broad, slightly convex above between eyes, with a wide conspicuous triangular concavation on frontal area; relative extent across eyes and each eye breadth in upper views as 44.5:11 (ca. 4 times); anterior edge of frons well-definedly carinated, roundly expanded latero-anteriorly before eyes and clearly emarginated medianly, with weak transverse depression along anterior edge; frontal groove exceedingly broad, excavated transversely, faced rather antero-obliquely, with fine shagreen-like granules all over. Eyes plainly large, spherical and protruding outwards. Vertical punctures large, circular, single, deep, rather dense and a little uneven in density, with surface among punctures entirely glabrous.

Antennae elongate, not so slender, surely exceeding hind angles of pronotum by apical one joint or more (male), or plainly shorter (female); relative joint lengths and widths from basal joint to 5th respectively as $20/12,\ 9/7,\ 8/7,\ 19/15$ and 17/16 (length/width, male, holotype) (fig. 1A), and $19/10.5,\ 10/6.5,\ 10/6,\ 17/13$ and 15/13 (female) (fig. 1B); basal joint clearly voluminous and expanded anteriorly with distinct carina at antero-superior margin, 2nd obconical, 3rd rather triangular, 4th to 10th obviously (male) or weakly serrated (female).

Pronotum (fig. 1G) plainly convex above domelikely, without any line nor furrow; sides widest at apices of hind angles, a little sinuated before angles, then slightly and roundly convergent ahead (male) or rather subparallel medianly (female), each with a conspicuous expansion behind anterior corner; hind angles broad, short, slightly divergent outwards with short definite unicarination. Punctures somewhat ellipse longitudinally, deep, rather sparser and a little smaller than those of vertical ones medianly, but progressively becoming large laterally, with surface among punctures entirely smooth.

Scutellum (fig. 1F) shieldlike, declivous antero-inferiorly, mediolongitudinally elevated plainly, slightly expanded roundly at posterior sides, then straightly attenuating ahead; anterior margin feebly excavated medianly; posterior margin weakly emarginated at middle; punctures plainly large, dense and coarse.

Elytra parallel-sided behind humeri to beyond middle, then roundly convergent to apices; sutural line well elevated longitudinally; bases

slightly concave on scutellar sides; striae distinct with deep large discontinuous and somewhat oblong punctures which are united mutually with narrow strial groove; strial interstices flattened having sparse small punctures and fine transverse creases; lateral edges having distinct small spines evenly; apices rounded.

Prosternal punctures more or less similar to pronotal ones medianly, but obviously larger, denser, coarser and irregular in density and scale at anterior border, with surface among punctures entirely glabrous. Prosternal process (fig. 1D) furrowed between procoxal cavities longitudinally: sides distinctly enlarging roundly outwards, conspicuously depressed along sides, with dense coarse punctures at basal surface and dense granular ones on posterior surface; in profile (fig. 1E) gently bent inwards behind procoxae. Prosterno-pleural sutures smooth, double, substraight and divergingly extending ahead, with anterior ends plainly furrowed. Propleural punctures rather similar to median ones of prosternum. Anterior corners of propleura definitely furrowed longitudinally, with inner edge of each corner roundly expanded downwards and conspicuously carinated. Posterior margins of propleura almost straightened. Metasternal punctures a little smaller and plainly sparser than those of propleural ones. Legs moderate. Male genitalia and female bursa copulatrix as figured (figs. 1H, 6 & 7).

Holotype, \Im , Gozaishi-kôsen Spa near Mt. Hôô-zan (鳳凰山御座石鉱泉), Yamanashi Prefecture, June 6, 1988, Kôichi Hosoda leg. Paratypes, 1 \Im , ditto, May 26, 1988, K. Hosoda leg.; 1 \Im , same data as in holotype.

In the general features, this new Kibunea-species is closely intimate to K. approximans (Lewis, 1894, Limonius), though the former has a little large body, infuscate legs, sparse pronotal punctures, wide antennal segments of 4th to 10th, and different shape in apico-lateral expansion of paramere with short lateral edge. New name is based on the first name of Mr. Kôichi Hosoda and dedicated to him.

Gambrinus hosodai Kishii, sp. nov.

"Hosoda-kane-kometsuki"

(Figs. 2, 5 & 8)

Male, 7.45–7.95×1.95–2.00 mm. Elongate, stout, cylindrical and parallel-sided, with distinct metallic and brassy tint on dorsal surface entirely and simple lustre on ventral ones all over. Black with elytral bases transversely and humeral parts longitudinally at 5th strial interstice and 6th dusky brownish (holotype), or these patches almost obscure (isotype), and with both ends of femora, tibiae except of bases, both ends of each tarsal joint and claws more or less yellowish orange (holotype), or legs more fuscous (isotype). Pubescence not so long, rather erect, a

little curved roundly, not so tender, rather sparse and golden brown with clear tint exclusive of lateral borders and posterior area of pronotum and of lateral sides of elytra with white ones.

Head (fig. 2C) broad, feebly convex transversely between eyes, and widely flattened at frons; relative breadth across eyes and each eye width in dorsal views as 45: 10.5 (ca. 4.3 times); frontal edge of frons well-limited and carinated, roundly expanded ahead upon each basal joint of antennae, rather transverse medianly, and slightly depressed along edge; frontal groove not so broad, rather shallow, feebly narrowed medianly and faced ahead with surface microscopically shagreen-likely sculptured entirely. Eyes large, spherical and moderately projected outwards. Vertical punctures not so large, conspicuously dense, a little oblong longitudinally, subocellated, not so deep and uneven in density and scale generally, with interpunctate surface glabrous; average distance among punctures very narrow and partly reticulated mutually.

Antennae rather thick, not so elongate, slightly longer than combined length of head and prothorax together including hind angles of pronotum by apical one joint; relative joint lengths and widths from basal joint to 5th respectively as $21/10,\ 9.5/7,\ 9/7,\ 16.5/15$ and 18/14 (length/width, holotype) (fig. 2A); basal joint cylindrical and well expanded roundly at anterior margin, 2nd obconic, 3rd rather triangular and smallest, and 4th to 10th definitely serrated and each joint rather hanging-bell-formed.

Pronotum (fig. 2G) cylindrical, simply convex above without any line nor furrow medianly, though slightly medio-longitudinally impressed on posterior slope only; sides widest at apices of hind angles, then straightly and gently converging ahead; anterior end of each side with a conspicuous expansion; hind angles broad, not so elongate, short unicarinated, and hardly divergent outwards. Punctures entirely single, clearly sparser, smaller and evener than vertical ones, but progressively becoming denser laterally, with interpunctate surface entirely glabrous and average distance among punctures subequal to each puncture-diameter.

Scutellum (fig. 2F) rather subcircular at posterior half, declivous antero-inferiorly, weakly elevated medio-longitudinally, obviously expanded laterally at the posterior sides and parallel at the anterior, with fore edge substraight and hind margin rounded; surface scabrously sculptured wholly by rugose granules and rough punctures.

Elytra parallel-sided behind humeri to beyond middle, then roundly converging to apices; sutural line plainly elevated longitudinally; bases clearly concave on scutellar sides; striae fine and distinct with deep, not so large, rather circular and discontinuous punctures, which are united each other by a narrow strial groove respectively; strial intervals perfectly flattened having minute sparse punctures, and fine transverse

creases on bases; lateral edge simple without any spines; apices rounded with sutural ends scarcely projected acutely.

Prosternal punctures small, single and very sparse medianly, but on anterior border definitely large ocellated and distinctly dense, with surface among punctures smooth. Prosternal process (fig. 2D) slightly depressed between procoxae; sides feebly enlarging roundly laterally, strongly concave near each base at both sides and longitudinally depressed along sides narrowly: in profile (fig. 2E) gently and weakly bent inwards behind procoxae, then substraightly extending backwards, with apical end feebly notched. Prosterno-pleural sutures rather broad, smooth, straight and slightly divergent ahead, having anterior ends widely and shallowly furrowed. Propleural punctures exceedingly denser than median ones of prosternum. Anterior corner of each propleuron plainly concave longitudinally, with inner edge of corner rectangularly expanded downwards and well-carinated. Posterior margins of propleura widely emarginated near latero-posterior corners. Metasternal punctures somewhat similar to median ones of prosternum, but a little larger and weakly denser. Legs rather slender. Genitalia as figured (figs. 1H & 8), with lateral lobe broadened at base of apico-lateral expansion. Female unknown.

Holotype and an isotype, ♂, Gozaishi-kôsen Spa near Mt. Hòò-zan (鳳凰山御座石鉱泉), Yamanashi Prefecture, June 25, 1988, K. Hosoda leg.

In the general structures the present new Gambrinus-species undoubtedly belongs to the group of G. vittatus (Candèze, 1873): vittatus, ogatai Kishii, 1985 and rufovittatus Ôhira, 1963, and moreover at a glance, in the coloration and outline it seems to be an allied species of G. montivagus (Lewis, 1894), though they may be distinguishable by the key as follow as.

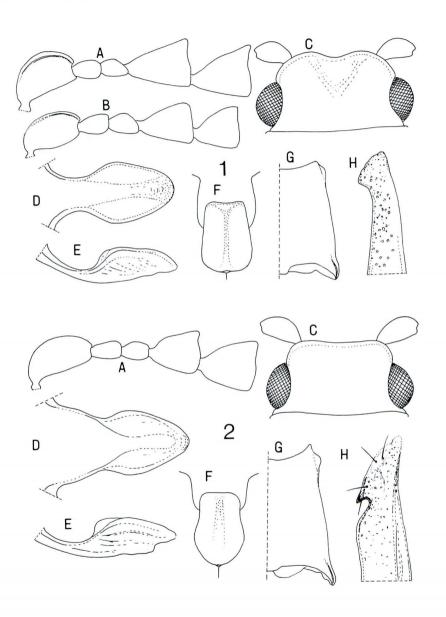
- Pronotal lateral sides almost simple near anterior ends, or sometimes with very feeble expansions only. Elytra always without any humeral maculation. ...montivagus

- 3. Prosternal punctures generally large, with average distance across punctures 4 or 5 times of each puncture-diameter or more medianly...... 4
- 4. Pronotal punctures partly reticulated mutually, especially on lateral borders conspicuous. Elytral maculation at humeri dusky brownish, sometimes absent

ogatai						entirely
aculation yellowish orange.	ely. Elytra	1 e	reticulated	not	punctures	- Pronotal
vittatus						

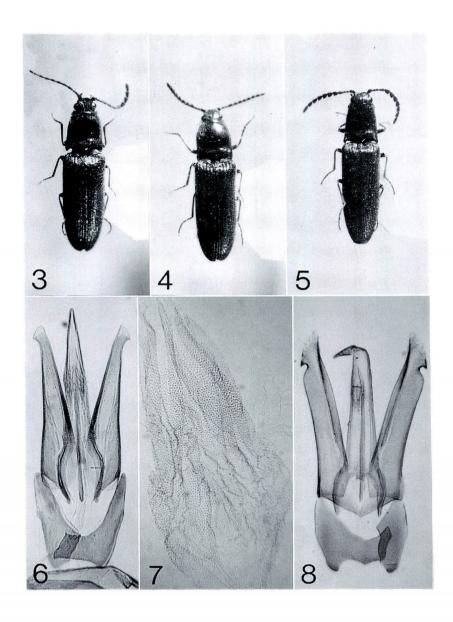
Explanation of Plates 10-11

- Pl. 10, Fig. 1. Kibunea kouichiana Kishii, sp. nov.
 - 2. Gambrinus hosodai Kishii, sp. nov.
 - A, Five basal joints in male antenna; B, Ditto in female; C, Head in dorsal view; D, Prosternal process in ventral aspect; E, Ditto in profile;
 - F, Scutellum; G, Right half of pronotum; H, Apical part of right paramere in male genitalia.
- Pl. 11, Fig. 3. Kibunea kouichiana Kishii, sp. nov., holotype, &, 8.20 mm.
 - 4. Ditto, paratype, ♀, 8.05 mm.
 - 5. Gambrinus hosodai Kishii, sp. nov., holotype, 3, 7.95 mm.
 - 6. Kibunea kouichiana KISHII, sp. nov., holotype, ♂, genitalia.
 - 7. Ditto, paratype, ♀, bursa copulatrix.
 - 8. Gambrinus hosodai Kishii, sp. nov., holotype, &, genitalia.



(T. KISHII del.)

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(T. KISHII photo.)

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Affinity of *Pterostichus* ("*Platysma*") *fortis* MORAWITZ of East Asia (Coleoptera, Carabidae)

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Abstract Pterostichus fortis is transferred from the subgenus Platysma to the subgenus Adelosia on the basis of the female genitalia.

Pterostichus fortis Morawitz is a hygrophilous species occurring in East Siberia, China and Japan¹). This species was assigned to the Palearctic subgenus Platysma Bonelli (type species: Pterostichus niger Schaller) by Tschitschérine (1893), but I found that P. fortis is more closely related to Pterostichus macer Marsham, the type species of the monotypic subgenus Adelosia Stephens²), occurring in the western half of Eurasia, and came to the conclusion that P. fortis must be included in Adelosia as discussed below.

Pterostichus (Adelosia) fortis Morawitz, 1962

This species is similar to *P.* (*Platysma*) niger externally, but the female genitalia decidedly differ from those of *P. niger*. First, in *P. niger*, the spermathecal duct opens into the median oviduct just before the vagina (Fig. 1) like those in many other subgenera of the genus, whereas in *P. fortis*, the spermathecal duct opens directly into the enlarged vagina (Fig. 3). Second, *P. niger* has a pigmented apophysis on the median oviduct and the spermathecal duct respectively, which are never found in *P. fortis*.

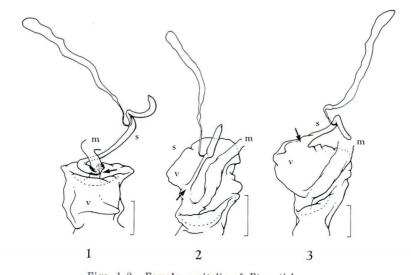
These features of the female genitalia of *P. fortis* are shared by *P. (Adelosia) macer* (Fig. 2), whose peculiarity of this organ was already noticed by Schuler (1963). The spermathecal duct of this kind, which opens directly into the vagina, is quite unusual in *Pterostichus* as well

¹⁾ A closely allied species, *P. leptis* BATES, is known from Japan, but it is not clear whether *P. leptis* is specifically distinct from *P. fortis* or not.

²⁾ CSIKI (1930) assigned the group of *P. thunbergi* MORAWITZ of Japan to *Adelosia* without mentioning the reason. Unlike *P. macer*, the spermathecal duct opens into median oviduct in these species (see text).

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1 mm.



Figs. 1-3. Female genitalia of *Pterostichus* spp. 1, *P.* (*Platysma*) *niger*; 2, *P.* (*Adelosia*) *macer*; 3, *P.* (*A.*) *fortis*. m, median oviduct; s, spermathecal duct (arrow shows its opening); v, vagina. Scale

as in its related genera, and is most probably one of synapomorphies combining these two species in one subgenus. Although *P. fortis* is different from *P. macer* externally, I am not able to find any apomorphic character state of its own. Therefore, a new subgenus is not proposed for *P. fortis* at present. I failed to examine any specimen of other species which TSCHITSCHÉRINE (1893) had referred to *Platysma*.

Taxonomic position of *Adelosia* is not clear. Jeannel (1942) united *Adelosia, Omaseidius* Jeannel (=*Morphnosoma* Lutshnik), *Platysma* and *Melanius* Bonelli sensu Jeannel, 1942 (=*Pseudomaseus* Chaudoir) primarily because they have in common elongate metepisterna. But this characteristic is no doubt a symplesiomorphy and never relevant to their relationship. On the other hand, *Adelosia* shares two apomorphic character states, i.e. the multiplication of setae of mesofemur and the loss of seta on metatrochanter, together with such Palearctic subgenera as *Platysma, Myosodus* Fischer-Waldheim and *Lyperopherus* Motschulsky³ so far as I am aware. However, none of these features represents strong

³⁾ Excluding the group of *P. punctatissimus* Randall, whose endophallus and female genitalia are closely similar to those of *Steropus* Dejean sensu Bousquet, 1984 (Nemoto, unpublished data).

evidence for true relationship since they occur homoplasously in many other genera of the tribe Pterostichini, and further study is needed.

Acknowledgments

I thank Prof. R. Ishikawa of Tokyo Metropolitan University for his constant guidance. I also thank Prof. S. L. Straneo, Mr. M. Hartmann and Mr. T. Matsumoto for materials.

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Descriptions of a New Genus and Three New Species of Taiwanese Chrysomelidae (Coleoptera) Collected by Dr. KINTARO BABA, on the Occasion of his Entomological Survey in 1986.

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A good number of chrysomelid beetles were collected by Dr. KINTARO BABA, on the occasion of his entomological survey in Taiwan, China. In this paper, one new genus and three new species of Chrysomelidae are described as new to science. A material collected by Dr. TAKASHI SHIRÔZU in Taiwan is also treated. This paper should refer to KIMOTO (1989).

I wish to express my hearty thanks to Drs. Kintaro Baba and Takashi Shirô-zu, for giving me the opportunity to work this interesting material.

Subfamily Galerucinae

Genus Taiwanolepta n. gen.

Width between antennal insertions narrower than diameter of single antennal socket; labrum bilobed apically, gena nearly ¼ as deep as eye; frontal tubercles distinctly raised, contiguous; antenna generally slender, third antennal segment distinctly longer than second; prothorax with anterior, lateral and basal margins distinctly marginate, and dorsal surface with two pairs of longitudinal grooves starting from basal margin; elytron confusedly punctate, elytral epipleuron wide at basal half and suddenly narrowed at middle; prosternal process elevated between coxal cavities, and separating them; middle and posterior tibiae with many short spines apically; anterior coxal cavity closed posteriorly; tarsal claws appendiculate and first tarsal segment of posterior leg subequal to length of second and third segments combined; in male tenth and eleventh segments modified.

Type species: Taiwanolepta babai n. sp.

Gender: Feminine.

This new genus resembles Cassena Weise, in having pronotum with longitudinal

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grooves which start from basal margin, pronotal coxal cavity closed behind and tarsal claws appendiculate, but differs in having pronotum with two pairs of longitudinal grooves, and tenth and eleventh segments of antenna modified in the male.

Taiwanolepta babai n. sp. (Fig. 1)

Generally dark reddish brown, with antennae, legs and ventral surfaces of meso- and metathorax and abdomen black.

Male: Head with vertex smooth, shining, impunctate; frontal tubercles subquadrate, contiguous, distinctly raised, anterior angles inserted between antennal insertions and well separated from behind, surface smooth, shining, impunctate. Antenna slender, about $\frac{2}{3}$ as long as length of body, first segment robust, club-shaped, second shortest, nearly $\frac{1}{3}$ as long as first, third almost $\frac{12}{3}$ times as long as second, fourth slightly longer than third, fifth slightly shorter than fourth and subequal to third in length and shape, fifth to ninth subequal to each other in length but slightly robuster in apical segments, tenth nearly twice as long as ninth and obliquely cut down apically, eleventh as long as tenth but robuster, wider basally and curved as a whole. Pronotum convex from side to side, transverse, about $\frac{11}{2}$ times as wide as long, anterior

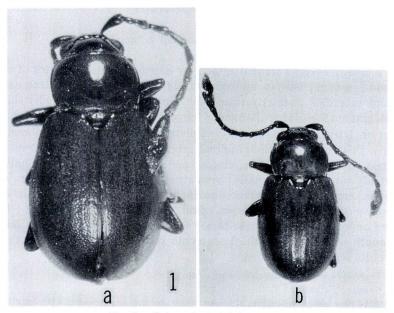


Fig. 1. *Taiwanolepta babai* n. sp. a, holotype; b, paratype.

margin nearly straight, lateral margin distinctly rounded, widest almost at middle, and narrowed anteriorly and posteriorly, posterior margin slightly rounded posteriorly and slightly concaved before scutellum; anterior corner thickened and distinctly produced laterally and posterior corner slightly angulate, and each with a setigerous pore; surface impressed with very fine punctures, and with two pairs of longitudinal deep grooves laterally, starting from basal margin, of which interior ones are short and exterior ones are long. Scutellum subtriangular, with apex rounded; surface smooth, shining, impunctate. Elytron broader than prothorax at base, widened posteriorly, rounded at apex, surface closely and distinctly punctate, epipleuron broad in basal half and suddenly narrowed at middle.

Female: Unknown Length: 5.9-6.1 mm.

Holotype: Shi Nan Shan, near Liu Kui, Kao Hsiung Hsien, 15. viii. 1986, K. Baba leg. Paratype: Thu Yun Shan, near Liu Kui, Kao Hsiung Hsien, 1 ex., 23. vii. 1986, K. Baba leg.

This new species is easily separable from the known forms of the genus *Cassena* in being the body length longer, and having pronotum with a pair of long and a pair of short longitudinal grooves laterally, starting from the basal margin, and the tenth and the eleventh antennal segments modified in the male.

Theopea collaris n. sp. (Fig. 2)

Generally reddish brown, head with vertex greenish blue, pronotum generally reddish brown, in most specimens surface with greenish luster in various degrees, elytron entirely golden green, antenna pitchy brown with three or four basal segments reddish brown.

Head with vertex finely granulate, sparsely covered with fine hairs and not closely but distinctly impressed by large punctures; frontal tubercles transverse, contiguous, subtriangular, surface finely granulate, impunctate, anterior angles slightly inserted between antennal insertions; interantennal space slightly raised. Antenna slender, nearly as long as body length, and in preapical segments nearly six times as long as wide; first segment robust, somewhat club-shaped, second shortest, nearly ½ as long as first, third slender, nearly three times as long as second, third to seventh subequal to each other in length and shape, eighth slightly shorter than seventh, eighth to tenth subequal to each other in length and shape, eleventh subequal to tenth in length but its apex pointed. Pronotum transverse, nearly $1\frac{1}{3}$ times as wide as long; anterior margin nearly straight, lateral margin rounded, widest almost ½ from anterior margin, and slightly narrowed anteriorly and more strongly so posteri-



Fig. 2. Theopea collaris n. sp.

orly, basal margin slightly rounded posteriorly; anterior and posterior corners each with a setigerous pore and also sparsely covered with short hairs along lateral margin; surface closely impressed by large punctures and with a pair of large depressions at middle of each side. Scutellum convex, subtriangular, apex rounded; surface slightly wrinkled and sparsely covered with minute punctures and fine pubescence especially at apex. Elytron subparallel-sided; surface sparsely covered with fine pubescence, and distinctly and rugosely punctate, and those generally arranged in double rows of punctures and their interstices distinctly raised as eight rows of longitudinal costae, including extreme lateral one very faint; elytral epipleuron wide; surface finely shagreened.

Length: 4.1-4.5 mm.

Holotype: Too Nah, near Mao Lin, Kao Hsiung Hsien, 30. v. 1986, K. BABA leg. Paratopotypes: 5 exs., same data as the holotype. Paratypes: Sha Ping, 1,000 m, near Liu Kui, Kao Hsiung

Hsien, 5 exs., 29. iv. 1986, K. Baba leg.; Shi Nan Shan, near Liu Kui, Kao Hsiung Hsien, 1 ex., 29. iv. 1986, K. BABA leg.

This new species resembles Theopea sauteri Chûjô, but differs in having the pronotum more closely and subrugosely impressed by the strong punctures, the elytron with the punctures more deeply impressed and the anterior half of the head and the ventral surfaces of the body entirely reddish brown.

Subfamily Alticinae

Hemipyxis apicicostata n. sp. (Fig. 3)

Generally dark reddish brown, elytron pitchy black with a subapical marking yellowish brown; legs with tibiae and tarsi pitchy brown to black, antenna pitchy black with basal segments brownish; in dark colored specimen vertex and pronotum pitchy brown and elytron generally pitchy black, in darkest colored specimen dorsal surfaces entirely pitchy black.

Head with vertex smooth, shining, nearly impunctate, except for a pair of large foveae situated near interior margin of eye; frontal tubercles convex, subquadrate, contiguous, anterior angles inserted between antennal insertions. Antenna slender, long, nearly \(^2\)_3 as long as length of body, first segment long, robust, somewhat club-shaped, second short-

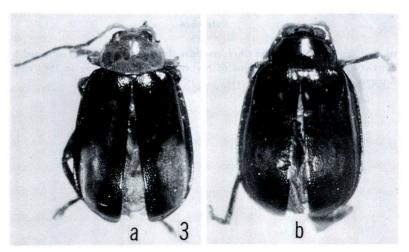


Fig. 3. *Hemipyxis apicicostata* n. sp. a, holotype; b, paratype.

est, nearly $\frac{2}{5}$ as long as first, third nearly twice as long as second, fourth $1\frac{1}{3}$ times as long as third, fifth nearly $\frac{4}{5}$ as long as fourth, fifth to seventh subequal to each other in length and shape, eighth nearly $\frac{4}{5}$ as long as seventh, eighth to tenth subequal to each other in length and shape, eleventh slightly longer than tenth and its apex pointed. Pronotum transverse, nearly twice as wide as long; anterior margin slightly rounded posteriorly, posterior margin distinctly rounded posteriorly, lateral margin relatively wide, rounded, widest almost at $\frac{1}{3}$ from basal margin, strongly narrowed anteriorly and less strongly so posteriorly; anterior and posterior corners slightly thickened, each with a setigerous pore; dorsal surface sparsely covered by fine punctures. Scutellum subtriangular, its apex rounded, surface nearly impunctate, smooth, shining. Elytron convex, lateral margin slightly rounded, surface closely and distinctly punctate, and with a sharply raised apicolateral costa.

Length: 3.6-4.1 mm.

Holotype: Sun Gan (= Nihonmatsu) - Pei Keng (= Hokko), Miao Li Hsien, 10. iv. 1967, T. Shirôzu leg. Paratypes: Shi Nan Shan, near Liu Kui, Kao Hsiung Hsien, 2 exs., 15. vii. 1986, K. Baba leg.

This new species resembles *Hemipyxis takedai* Kimoto, from Taiwan, in having elytron with a pale subapical marking, but differs in having elytron with a distinct apico-lateral costa.

Reference

Kimoto, S., 1989. The Taiwanese Chrysomelidae (Insecta: Coleoptera) collected by Dr. Kintaro Baba, on the occasion of his entomological survey in 1983 and 1986. Kurume Univ. J., 38 (2) (in press).

日本産ハナコメツキムシ亜科の1新属の記載

大 平 仁 夫

A New Genus of the Subfamily Cardiophorinae (Coleoptera: Elateridae) from Japan

By HITOO ÔHIRA

日本に分布するハナコメッキ 亜科の種は現在5属に分けられていて、 比較的よくまとまっているように思われる. しかし、 東南アジア地域には多くの種が分布していて、 それらの分類についてはまだこれからの段階である.

筆者は、 M_{IWA} (1927) が琉球の石垣島からの標本 (1. V. 1923, S. $H_{IRAYAMA}$ 採集)にもとづいて新種の記載をされた Paracardiophorus nigroapicalis (ツマグロハナコメツキ) について調査を進めているうちに、従来の既知種とは種々異なった 形態を有することが判明したので、ここに新属を設立して記載をすることにした.

ニセハナコメツキ属 (新称)

本属の基準種は、前述のツマグロハナコメツキであるが、現在では宮古島、伊良部島、石垣島、竹富島、西表島などに分布することが知られており、ここに調査した個体は黒島から楠井善久博士が得られた個体である(21. III. 1988 採集)。本種はハナコメツキの仲間でも美麗種で、体長は 10mm 内外ある。

属の特徴は別記したが、近属との最も著しい差は、頭部の複眼の縁に沿って深い凹溝を有すること (Pl. 12, D の↑印)、前肢基節腔の後方が幅広く開いていること (Pl. 12, B の↑印)、前胸腹板突起の末端がえぐられ、切断状をしていないこと (Pl. 12, C) などであるが、雄交尾器の形も Paracardiophorus 属 (コハナコメツキ属) のものとは異なっているし、雌の bursa copulatrix の袋内にある角質化した板状物の形態も特有である (Pl. 12, G). 現在、本属に所属する種は 1 種である.

Genus Allocardiophorus nov.

Head with clypeal margin rounded and well ridged at middle, bears a deep groove along by edge of each eye (Pl. 12, $D-\uparrow$). Lateral margin

[[]昆虫学評論, 第44巻, 第2号, 79-80頁, 第12図版, 12月, 1989年]

of pronotum clearly carinated, basal half at least. Propleural suture in propleuron absent (Pl. 12, B). Prosterno-pleural suture simple, only weakly divergent at anterior end. Procoxal cavity broadly opened posteriorly (Pl. 12, B- \uparrow). Prosternal process short, clearly excavated at apex (Pl. 12, C- \uparrow). Scutellum cordiform. Aedeagus with median lobe narrow and subclavate, with lateral lobe also narrow, gradually narrowing towards apex, not angulated (Pl. 12, E). Structures of sclerotized plates in bursa copulatrix are unique as figured (Pl. 12, G). Legs and claws simple.

Type-species: Paracardiophorus nigroapicalis MIWA, 1927, Ins. Mats., 2 (2): 109, f. 6.

This new genus is somewhat allied to the genus *Paracardiophorus* Schwarz, 1906, but can be distinguished from the latter by the unique structures of the groove by edge of each eye, prosternal process, aedeagus and plates in bursa copulatrix.

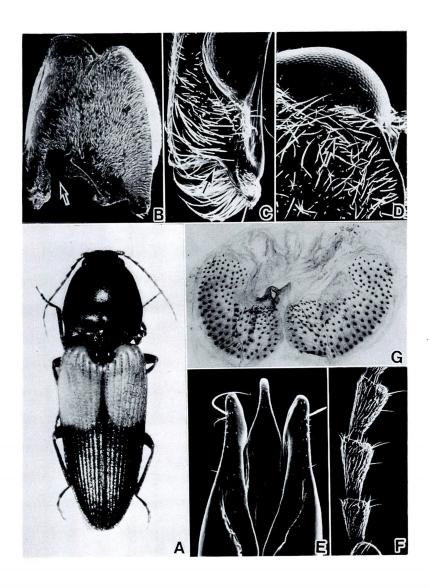
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Explanation of Plate 12

Plate 12. Allocardiophorus nigroapicalis (MIWA, 1927) male (except for G which is female), specimens used are from Kuro-shima of the Ryukyus.

A. adult, dorsal aspect; B, prothorax in latero-ventral aspect; C, prosternal process, lateral aspect; D, showing the groove by edge of eye; E, apical portion of aedeagus, dorsal aspect; F, 2nd to 4th segments of antenna; G, sclerotized plates in bursa copulatrix.



(H. ÔHIRA photo.)

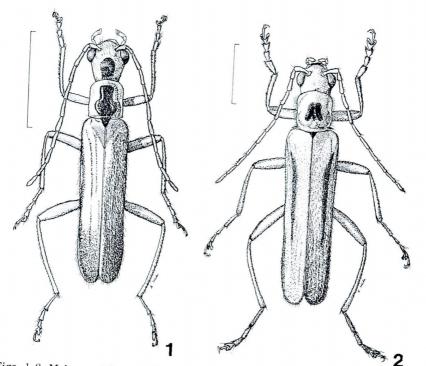
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Two New Species of the Cantharid Beetles from Okinawa (Coleoptera, Cantharidae)

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In the present paper, I should like to describe and illustrate two new cantharid beetles, *Micropodabrus maculivertex* sp. nov. and *Athemus (Andrathemus) kunigamiensis* sp. nov. from Okinawa-hontó.



Figs. 1-2, Male. 1. Micropodabrus maculivertex sp. nov.; 2, Athemus (Andrathemus) kunigamiensis sp. nov. Scale line = 2 mm.

[[]Ent. Rev. Japan, Vol. XLIV, No. 2, pp. 81-85, Dec., 1989]

Micropodabrus maculivertex sp. nov.

(Figs. 1, 3a, 4a)

Male. Body small, elongate, flat, densely covered with yellow pubescence and intermingled with yellow and dark brown bristles on elytra (Fig. 1). Colour pale yellowish brown; head with pale brown antenna; large markings of vertex and pronotum, and apical segments of palpi dark brown; scutellum, reverse side of body, prosternum and apical three segments of abdominal sternites blackish brown.

Head rather long and flat, but slightly convex on the vertex. Clypeus smooth and its apical margin weakly arcuate. Eyes comparatively small, globular and prominent. Apical segments of maxillary palpi slender. Antennae filiform, long and reaching slightly beyond the half of elytra; the length of each segment from 1st to 11th in the ratio 1.8: 1.0: 1.8: 1.9: 1.9: 1.9: 1.9: 1.9: 1.8: 2.1.

Pronotum subquadrate, 0.8 times as wide as head, 1.2 times as long as wide, widest at the base, rather smooth on surface; front margin weakly arcuate; hind margin subtruncate; lateral margins feebly sinuate; anterior angles broadly rounded; posterior ones angulate; disk undulate with two distinct discal protuberances which are longitudinally elongate on their tips, and the inner space among them hardly depressed widely. Scutellum triangular and with strongly rounded apex. Elytra 1.4 times as wide as pronotum, 3.5 times as long as wide, gradually narrowed apically; disk somewhat wrinkly on surface.

Prosternum strongly concaved triangularly at the base of prosternal process. Apical abdominal sternite very broad and obtusely rounded at the apex. Legs very long, slender and provided with bifurcated claws on all tarsi.

Male genitalia elongate; basal lobe strongly reflexed at the base; ventral process of lateral lobe very large and provided with a projection for outside at the apex; dorsal plate of lateral lobe largely bifurcated at anterior half of which apex is subtruncate and is provided with a small projection for inner side at outer margin (Fig. 3a).

Length: body 5.1-5.3 mm; hind tibia 1.4-1.6 mm.

Female. Similar to male except for the small eyes, short antennae, broad pronotum and elytra, and small tooth at the base of each claw which is not bifurcated and sinuated on all legs. Apical sternite of abdomen illustrated (Fig. 4a).

Length: body 6.5-7.8 mm; hind tibia 1.9-2.0 mm.

Type-series. Holotype: &, Haneji-ôkawa, Nago-shi, 24. III. 1986, K. Ishida leg. (E. U.). Paratypes: 1 &, Yona, 16. III. 1986, M. Sawai leg. (K. I.); 2 & & 1 &, Iye-rindô, 21. III. 1986, M. Sawai leg. (N. W. U.); 2 & &, Ha(ne)ji, 23. III. 1986, M. Sawai leg.

(K. I.); 1 \circlearrowleft , 24. III. 1986, K. Ishida leg. (K. I.); 1 \circlearrowleft , Okuni-rindò, 28. III. 1986, M. Sawai leg. (E. U.).

Distribution. Ryûkyûs (Okinawa-hontô).

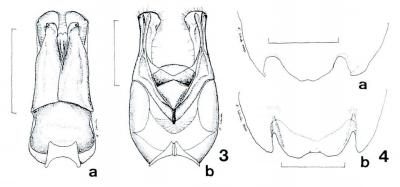
Remarks. This new species closely related to *M. obscurior* (WITTMER) in having the small body and the very large ventral process of lateral lobe of male genitalia, but it may be distinguished from the latter by pale yellowish brown body and largely bifurcated dorsal plate of lateral lobe of male genitalia.

Athemus (Andrathemus) kunigamiensis sp. nov. (Figs. 2, 3b, 4b)

Male. Body elongate, flat, densely covered with yellow pubescence, intermingled with same colour bristles on elytra; apical margin of clypeus and lateral margins of pronotum fringed with them (Fig. 2). Colour yellow; head, antennae, femora and claws reddish yellow; eyes reddish brown; apices of mandibles, tips of labial palpi, stripe of elytron which as shown in figure 2 and prosternum dark brown; base of genae, large marking of pronotum, scutellum and under surface of body black.

Head almost flat, weakly depressed before eyes. Eyes large, globular and strongly prominent. Antennae long, filiform, reaching to anterior half of elytra; 1st segment clavate, about 3.9 times as long as wide, 2nd short, 3rd to 11th subcylindrical, 4th to 10th with a small longitudinal groove at apical one third of each segment, the approximate ratio of each segment from 1st to 11th 1.8: 1.0: 1.5: 1.7: 1.9: 1.8: 1.7: 1.7: 1.7: 1.7: 1.4: 1.6.

Pronotum subquadrate, 0.8 times as wide as head, 1.5 times as long at median line as wide; front margin weakly arcuate; hind margin



Figs. 3-4. 3, male genitalia; 4, apical sternite of abdomen of female.

a: Micropodabrus maculivertex sp. nov.; b: Athemus (Andrathemus) kunigamiensis sp. nov. Scale line=0.5 mm.

subtruncate; lateral margins feebly sinuate; disk undulate and provided with conspicuous median furrow; discal protuberances distinct. Scutellum triangular. Elytra long, conjointly 1.45 times as wide as pronotum, 3.5 times as long as wide, gradually narrowed apically.

Apex of prosternal process truncated. Hypomeron rather vertical. Mesosternum slightly convex along mid-line. Abdominal sternite moderate. Legs very long and slender; each outer claw of fore and middle tarsi with a small tooth at the base and claws of hind tarsi simple.

Male genitalia subtruncate; dorsal plates of lateral lobe narrow and outdistanced each other; apices of processes of median lobe reached apices of dorsal plates of lateral lobe; basal lobe inconspicuous (Fig. 3b).

Length: body 6.8-7.9 mm; hind tibia 2.3-2.4 mm.

Female. Similar to male except for the head provided with longitudinal black marking at base, broad pronotum which is 0.93 times as wide as head and broad elytra which is 1.32 times as long as wide. Apical sternite of abdomen illustrated (Fig. 4b).

Length: body 8.1 mm; hind tibia 2.1 mm.

Distribution. Ryûkyûs (Okinawa-hontô).

Remarks. This new species somewhat resembles A.(A.) lineatipennis WITTMER for lacking of a small tooth at the base of each claw of hind legs, but it differs from the latter by the yellow head and outdistanced dorsal plates each other of lateral lobe of male genitalia.

The type series used for the descriptions and illustrations are conserved in the collection of the Entomological Laboratory, Ehime University (E. U.), the collection of the Biological Laboratory, Nagoya Women's University (N. W. U.) and author's individual collection (K. I.).

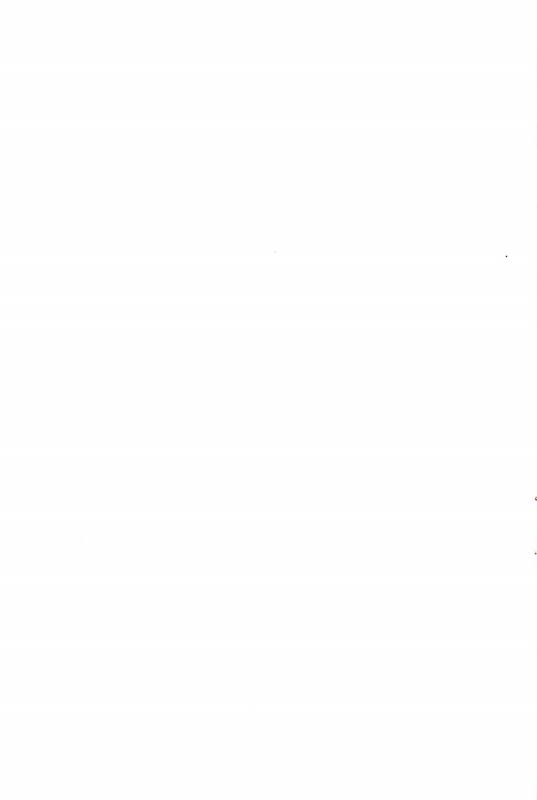
Acknowledgements

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Coprophagid-beetles from Northwest Thailand (IV)

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Abstract The present part deals with the following new species: Copris (s. str.) kiuchii sp. nov., Onthophagus (Gibbonthophagus) sunantaae sp. nov., O. (s. str.) gosoli sp. nov., O. (s. str.) mairuu sp. nov., O. (s. str.) deemaak sp. nov. Onychothecus corniclypeus Chang, 1980 is redescribed on the basis of a male.

Copris (s. str.) kiuchii sp. nov. (Figs. 1-2, 7-8)

Piceous, with outer margin of head, tibiae, etc. lighter in colour, antennae, mouth-parts, gula, tarsi, etc. reddish brown, hairs on surfaces yellowish brown; dorsal surface rather strongly shining, almost glabrous, ventral surface moderately shining, partly, densely clothed with long hairs. Slightly oblong ovoid, strongly convex above, moderately constricted between pronotum and elytra.

Male: Head semicircular, shallowly, rather closely punctate anteriorly and basally, almost impunctate medially; clypeus with outer margin finely rimmed, weakly indented medially; frons somewhat transversely elliptically elevated, the elevation growing upright as a short horn, whose summit is truncate, briefly arcuate forwards in dorsal view; genae angulate laterad.

Pronotum rather closely punctate, the punctures becoming coarser basally and antero-laterally, with frontal incline almost impunctate or very sparsely, finely punctate; apical margin widely arcuate posteriad though feebly produced in medial $\frac{3}{5}$; base gently arcuate, finely ridged along margin; sides weakly rounded in basal $\frac{2}{3}$, gently produced laterad in anterior $\frac{1}{3}$, with a pair of spot-like impressions at the middle near lateral margins; front angles subrectangular, though the corners are rather obtuse; hind angles rounded; disc strongly, somewhat transversely convex above, steeply inclined forwards, posterior edge of the

[[]Ent. Rev. Japan, Vol. XLIV, No. 2, pp. 87-96, Dec., 1989]

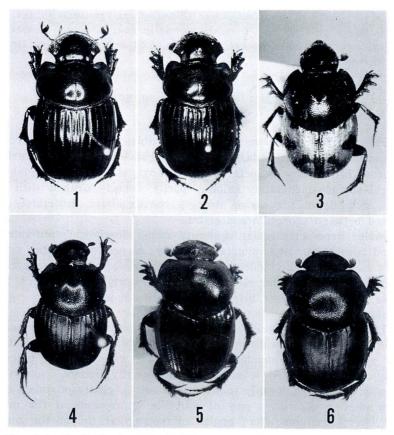
incline with two pairs of somewhat transverse low tubercles, of which the inner two are almost continuous, with rather distinct depressions between the inners and the outers.

Elytra clearly punctate-striate, the punctures in striae transverse and distinctly notching intervals; intervals gently convex, scattered with fine punctures.

Pygidium gently convex, rather closely punctate.

Metasternum rather closely but finely punctate, triangularly bordered anteriorly, rather coriaceous and haired laterally.

Protibia rather wide with 4 outer teeth, of which the 4th is indistinct,



Figs. 1-6. 1, Copris (s. str.) kiuchii sp. nov., & (holotype); 2, ditto, \$\phi\$ (paratype); 3, Onthophagus (Gibbonthophagus) sunantaae sp. nov., & (holotype); 4, O. (s. str.) gosoli sp. nov., & (holotype); 5, O. (s. str.) mairuu sp. nov., & (holotype); 6, ditto, \$\phi\$ (paratype).

terminal spur flattened and feebly curved inwards, obliquely truncate at apex.

Female: Compared with male, head more closely rugoso-punctate anteriorly, more broadly, though indistinctly elevated in middle, summit of the elevation gently arcuate forwards, pronotum more strongly punctate in anterior and also basal portions, posterior edge of the declivity without tubercles.

Body length: 17.5-18.5 mm.

Holotype: &, Doi Angkhang, Ampoe Fang, Chiang Mai Prov., 23. V. 1989, K. MASUMOTO leg. Paratypes: 34 exs., same data as the holotype; 14 exs., same locality, 19. VI. 1989, MANIT Y. leg.

Notes. This new species somewhat resembles *Copris* (s. str.) *laevigatus* GILLET, 1927, originally described from Assam, but can be distinguished from the latter by the quite differently shaped male cephalic horn.

Onthophagus (Gibbonthophagus) sunantaae sp. nov. (Figs. 3, 9)

Piceous, with apical portion of head, legs, etc. lighter in colour, antennae, mouth-parts, gula, and hairs on surfaces yellowish brown, elytra pale yellow, sutural intervals, irregularly shaped band on 5 inner intervals at base, patch on 5 outer intervals before the middle, obliquely zigzagged band on 7 inner intervals behind the middle, black; dorsal surface metallically shining and fairly densely clothed with rather short hairs, with head and pronotum irregularly bearing brassy, coppery or iron-grey lustre, ventral surface moderately, rather vitreously shining, feebly bearing coppery lustre, and clothed with rather long hairs. Oblong oval, moderately constricted between pronotum and elytra, strongly convex above.

Male: Head subparabolical, scattered with strong punctures laterally, gently raised medially and becoming a somewhat low conical elevation at the middle, shallowly depressed behind the elevation; clypeus produced and reflexed at apex; genae rounded; vertex feebly angulate on both sides behind eyes.

Pronotum rather closely punctate, each puncture with a short fine hair; apical margin widely arcuate posteriad, sublinear in medial \(^3\)/5 though weakly indented at the middle; base roundly produced posteriad; sides rounded in anterior half, sublinearly narrowed towards base in posterior half; front angles obtuse; hind angles indistinct, or obliquely truncate; disc strongly convex above, rather steeply inclined in anterior half, with a distinct longitudinal groove medially, of which each side is strongly ridged, each outer portion of the ridge gently depressed and almost impunctate.

Elytra shallowly punctate-striate, the punctures in striae feebly notching intervals; intervals feebly convex, scattered with rows of small punctures, each with a fine hair.

Pygidium moderately convex, fairly strongly, closely punctate and haired, with base margined.

Metasternum fairly broad, scattered with punctures, rather densely clothed with fairly long hairs laterally.

Protibia prolonged and moderately arcuate, with four outer teeth, terminal spur acutely pointed and feebly curved downwards; ratio of the length of metatarsal segments and terminal spur of metatibia as follows: 1.0, 0.36, 0.24, 0.18, 0.34; 0.92.

Female: Unknown.

Body length: ca. 5.5 mm.

Holotype: \Im , Maesa Vil., Chiang Mai Prov., 9-11. X. 1987, Manit Y. leg. (in NSMT). Paratypes: 8 exs., same data as the holotype.

Notes. This new species is a quite peculiar *Gibbonthophagus* in having the small body and the yellowish elytra with black patches. The closest species may be *Onthophagus* (*Gibbonthophagus*) balthasari Všetečka, 1939, originally described from Chinkiang, China, but the present new one can be easily distinguished from the Chinese species by the head without horns on the vertex.

Onthophagus (s. str.) gosoli sp. nov. (Fig. 4)

Piceous, with antennae, mouth-parts, tarsi, etc. dark brown, hairs on surfaces yellowish brown; dorsal surface rather weakly shining and glabrous, elytra with feebly sericeous lustre, ventral surface weakly shining and clothed with rather long hairs. Broadly oval, thickened, and moderately constricted between pronotum and elytra.

Male: Head semicircular, closely punctate, though rugosely so anteriorly; clypeus finely reflexed along apical margin; fronto-clypeal border triangularly raised; genae weakly, obtusely produced laterad; vertex gently ridged along hind margin.

Pronotum fairly closely punctate; apical margin widely arcuate posteriad, feebly bisinuous on each side; base widely produced posteriad; sides roundly produced laterad; front angles subrectangular and gently produced forwards; hind angles obliquely truncate; disc fairly steeply inclined anteriorly, with a shallow but distinct longitudinal median groove in anterior $\frac{2}{5}$.

Elytra shallowly punctate-striate, the punctures feebly notching intervals; intervals slightly convex and micro-shagreened, rather closely scattered with fine punctures.

Pygidium moderately convex and shining, rather closely, clearly

punctate, finely margined along base.

Metasternum broad, rather sparsely scattered with large and small punctures intermixed.

Protibia with three outer teeth, terminal spur feebly flattened and bent inwards apically; ratio of the length of metatarsal segments and terminal spur of metatibia as follows: 1.0, 0.43, 0.26, 0.2, 0.44; 1.1.

Female: Unknown.

Body length: ca. 11 mm.

Holotype: ♂, Doi Suthep, Chiang Mai Prov., 27. XI. 1988, Manit Y. leg. (in NSMT). Paratype: 1 ex., Chiang Dao, Chiang Mai Prov., 24. XI. 1988, K. Маѕимото leg.

Notes. Although the new species has a longitudinal groove in the anterior portion of pronotum, it should not be a member of the subgenus *Gibbonthophagus* BALTHASAR. There is no named species related to the present new one either in the subgenus *Onthophagus* or in *Gibbonthophagus* from East Asia.

Onthophagus (s. str.) mairuu sp. nov. (Figs. 5-6)

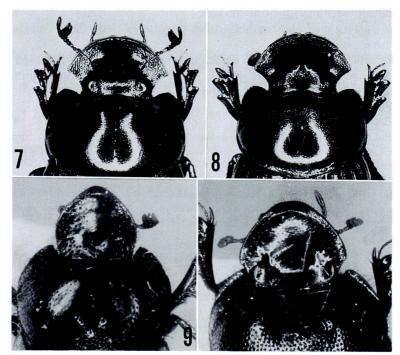
Brownish black, with head and legs lighter in colour, antennae, mouth-parts, etc. yellowish brown; dorsal surface moderately shining, sparsely clothed with microscopic hairs, ventral surface moderately and feebly alutaceously shining, rather densely clothed with fairly long hairs laterally. Oblong oval and thickened, moderately constricted between pronotum and elytra.

Male: Head rather semicircular, closely rugoso-punctate, gently raised medially; clypeus feebly reflexed along outer margin, briefly truncate at apex; fronto-clypeal border finely ridged and arcuate forwards; genae with outer margins rectangular; vertex bisinuously ridged along hind margin.

Pronotum covered with closely packed, elongate-oval granules; apical margin widely arcuate posteriad, feebly produced medially; base widely, roundly produced posteriad; sides moderately rounded anteriorly, obliquely, sublinearly narrowed towards base posteriorly; front angles obtuse; hind angles indistinct; disc fairly strongly convex above, with a faint transverse impression along apical margin, an indistinct swell behind the impression, and also with a small tubercle at the middle near each lateral margin.

Elytra shallowly punctate-striate, the punctures in striae small; intervals wide and very feebly convex, micro-shagreened, sparsely scattered with fine punctures, each with a short fine hair.

Pygidium gently convex, closely, finely punctate and haired, with base finely margined.



Figs. 7-10. 7, Copris (s. str.) kiuchii sp. nov., & (holotype), fore body above; 8, ditto, & (paratype), fore body above; 9, O. (Gibbonthophagus) sunantaae sp. nov., & (holotype), fore body above; 10, O. (s. str.) deemaak sp. nov., & (holotype), fore body above.

Metasternum broad, rather closely, shallowly punctate, triangularly inclined in front, densely haired laterally.

Protibia with four outer teeth, terminal spur bent downwards apically, apico-inner corner with finger-like projection; ratio of the length of metatarsal segments and terminal spur of metatibia as follows: 1.0, 0.38, 0.25, 0.2, 0.35; 1.1.

Female: Compared with male, pronotal impression less distinct, legs broader with apico-inner corner of protibia not projected.

Body length: 9.5-11.5 mm.

Holotype: ♂, Phrao-Chiang Dao, Chiang Mai Prov., 14-16. IX. 1988, K. Masumoto leg. Paratypes: 4 exs., same data as the holotype; 7 exs., Doi Suthep, Chiang Mai Prov., 13. IX. 1988, K. Masumoto leg.; 1 ex., Doi Suthep, 16. IX. 1988, K. Masumoto leg.; 1 ex., Phrao-Chiang Dao, 9. X. 1988, Manit Y. leg.; 1 ex., Chiang Dao, 24. XI. 1988, K. Masumoto leg.; 1 ex., Doi Suthep, 27. XI. 1988, Manit Y. leg.; 1 ex., Phrao, 10. VIII. 1987, Manit Y. leg.

Notes. This new species somewhat resembles Onthophagus (s. str.) pollicatus

HAROLD, distributed in Northeast India and Burma, but can be easily distinguished from the latter by the head rugoso-punctate, gently raised medially, with the frontoclypeal border finely raised, the vertex ridged along the hind margin, the elytra not covered with minute granules but sparsely scattered with fine punctures, and the terminal spur of protibia not clavate but rather slender and bent downwards.

Onthophagus (s. str.) deemaak sp. nov. (Figs. 10–12)

Dark brown, with fore body above darker in colour, elytra, antennae, mouth-parts, etc. yellowish brown, hairs on surfaces paler; dorsal surface strongly shining with head and pronotum iron-grey metallic lustre, rather densely clothed with hairs, ventral surface rather strongly, somewhat vitreously shining, clothed with rather long fine hairs. Ovate, convex, moderately constricted between pronotum and elytra.

Male: Head gently produced forwards, feebly convex in middle, rather sparsely scattered with small punctures, each with a fine hair; clypeus reflexed along outer margin, whose medial portion is strongly so; fronto-clypeal border very slightly raised; genae moderately arcuate laterad in anterior half, obliquely narrowed in posterior half; vertex with elongate lamina medially, the middle of lamina is narrowed and produced as a rather slender horn, which is obliquely arcuate posteriad in lateral view.

Pronotum fairly closely punctate except for anterior declivity, which is rather sparsely, finely so; apical margin widely arcuate posteriad and sublinear in medial $\frac{3}{5}$; base widely produced posteriad; sides roundly produced laterad; front angles subrectangular and directed forwards; hind angles obtuse (or, obliquely truncate and feebly sinuous at some glance); disc strongly convex above and shallowly, longitudinally grooved, steeply inclined anteriorly, posterior edge of the declivity armed with 4 small tubercles, of which the inner two are rather closely set with each other.

Elytra finely punctate-striate, the punctures in striae feebly notching intervals; intervals very feebly convex, rather closely, finely punctate.

Pygidium moderately convex, rather closely punctate, with base margined.

Metasternum moderately punctate and fairly densely haired.

Protibia gently prolonged and arcuate, with 4 outer teeth, terminal spur acute and bent downwards, whose apex is feebly hooked; ratio of the length of metatarsal segments and terminal spur of metatibia as follows: 1.0, 0.31, 0.22, 0.18, 0.30; 0.8.

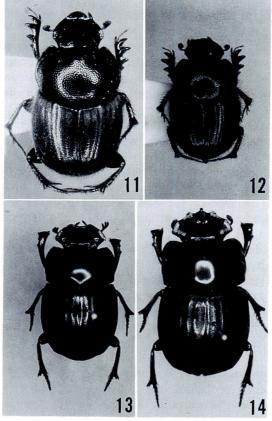
Female: Compared with male, body less convex and pronotum more

coarsely punctate; head moderately, roundly produced; clypeus rugoso-punctate, finely reflexed along outer margin; fronto-clypeal border finely ridged and arcuate forwards; genae obtusely produced laterad; vertex with distinct ridge arcuate posteriad; pronotum with a shallow median groove in basal $\frac{2}{5}$, steeply inclined in front, posterior edge of frontal declivity with a pair of tubercles.

Body length: 8.3-9.7 mm.

Holotype: ♂, Doi Suthep / Pui, Chiang Mai Prov., 30. VII. - 5. VIII. 1988, K. MASUMOTO leg. Paratypes: 70 exs., same data as the holotype.

Notes. This new species somewhat resembles *Onthophagus* (s. str.) *insignicollis* FREY, 1954, originally described from India, and newly recorded here from Northwest Thailand for the first time, but can be distinguished from the latter by following characteristics:



Figs. 11-14. 11, O. (s. str.) deemaak sp. nov., \eth (holotype); 12, ditto, \updownarrow (paratype); 13, Onychothecus corniclypeus Chang, \eth ; 14, ditto, \updownarrow .

Elytra without transverse blackish patches, pronotum more closely punctate with front angles more angulate, legs more slender in both sexes; male — laminated horn on vertex thinner, pronotal tubercles less distinct; female — hind ridge on head shorter but more conspicuous; pronotum armed with not four but two tubercles anteriorly.

Onychothecus corniclypeus Chang, 1980 (Figs. 13-14)

This species was originally described by Chang (1980) based on a "male" specimen from Yunnan. I have had an opportunity to examine specimens from Northwest Thailand and noticed that the specimen described by Chang is not a male but a female. Here I am going to describe the male of the present species:

Head somewhat transversely elliptic, almost flat, irregularly finely punctate, the punctures becoming larger and coarser basally, closer and finer apically, without any ridge or horn; clypeus fairly board, with apex emarginate and gently reflexed medially; fronto-clypeal border feebly, finely raised on each side; clypeo-genal borders sulcate; genae subrectangularly produced laterally.

Pronotum transverse, moderately closely, finely punctate, the punctures becoming larger and coarser in marginal portions; apical margin feebly arcuate forwards in medial $\frac{1}{3}$, feebly obliquely arcuate in each lateral $\frac{1}{3}$; base feebly produced posteriad; sides gradually declined to lateral margins, which are widened from the base to the anterior $\frac{1}{3}$, and then narrowed to the apex; disc rather strongly, somewhat transversely convex above, with a transversely oblong depression medially on each side.

Elytra finely punctate-striate, the punctures in striae round and clearly notching intervals; intervals gently convex, almost impunctate, with rows of small punctures along each punctate-stria.

Body length: 13.5-18 mm.

Distribution. Yunnan, Southwest China; Northwest Thailand.

Specimens examined, 16 exs.

Notes. All the specimens that I examined were captured at light. It is possible that the present species is not a member of 'coprophagid-beetles'.

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Longitarsus phuketensis sp. n. from Thailand (Coleoptera, Chrysomelidae: Alticinae)

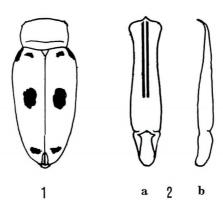
By BLAGOY GRUEV

University of Plovdiv, Bulgaria

Longitarsus phuketensis sp. n.

Locus typicus. Thailand: Phuket Island, Tonesai Waterfall, 17. XI. 1984, leg. P. Beron, 1 male — holotype (author's collection).

Description. Body ovate, convex, shining. Brownish-yellow; underside darker, reddish-brown; hind femora darkened apically; antennae completely yellow; each elytron (fig. 1) with not sharply outlined brown spots: 2 small and unclear on inner and outer sides of the humeral tubercles, 1 rounded in the middle and 1 oval near the apex. Head smooth and shining; frontal tubercles not raised, with very delicate contours; interantennal ridge clear only between the antennal bases, downwards not delimited. Antenna slender, about ¾ as long as body, with 4th-11th segments about 4 times longer than wide. Pronotum two times as broad as long, with very small and sparse punctures, with sides regularly rounded and with a shallow but clear transversal ante-basal



Figs. 1, 2. Longitarsus phuketensis sp. n. 1, View of body; 2, Aedeagus: a, ventral view; b, lateral view.

impression. Elytron narrowed behind, widest near basis, rather strongly convex, raised postmedially; humeral tubercles prominent; apex with a short sutural depression; disc with very small and shallow punctures. Hind tibia curved, short and widened towards apex; apical spine short. Anterior 1st tarsal segment not extended. Aedeagus (fig. 2) slightly narrowed preapically and with a very small apical tooth; underside with two parallel longitudinal furrows. Length: 2.4 mm.

The new species is somewhat similar to L. nigronotatus Jacoby. It differs from the latter clearly in having: body larger and paler; antennae completely yellow; another disposition and measurements of the dark spots on the elytron.

Acknowledgements. I thank my colleague Peter Beron of the National Natural History Museum in Sofia for collecting the specimen of the new species, and to Prof. Dr. Shinsaku Kimoto of the Kurume University for his valuable assistance in connection with the publication of this paper.

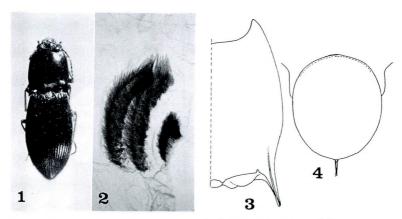
On a New Subspecies of *Hypolithus motschulskyi* from Mt. Yamizo-san in Fukushima Prefecture (Coleoptera, Elateridae)

By Takashi Kishii

Biol. Lab., Heian High Sch., Shichijô-Ômiya, Shimokyô-ku, Kyoto 600

Early the New Year I received some elaterids through the courtesy of Mr. Hideo Ohkawa (大川秀雄) in Ashikaga City, who until now had valuable examples of Elateridae sent often to me kindly. In the materials, two female specimens of Hypolithus motschulskyi (Fleutiaux, 1902) collected at Mt. Yamizo-san (八溝山, alt. ca. 1,000 m) in Fukushima Prefecture were picked out. At a glance, these examples have a close similarity to the subspecies from the Ashio Mountainous-district: subsp. ohkawai Kishii, 1986 (Bull. Heian High Sch., 30: 38-39, figs. 1, 2, 20 & 30, Iwakirisawa and Mt. Narabe-Yama) in the outward seeming. As the result of a careful comparative study, however, the present specimens have many different diagnoses from the latter and the other subspecies. I think, it is a distinct subspecific taxon, and describe here newly.

Before going further, I want to express my hearty gratitude to Mr. Ohkawa for his kindness.



Figs. 1-4. 1. Holotype, ♀, 11.10 mm. 2. Sclerotized plates of bursa copulatrix. 3. Pronotum in dorsal aspect. 4. Scutellum.

Hypolithus motschulskyi yamizo Kishii, subsp. nov. "Yamizo-miyama-hisago-kometsuki"

(Figs. 1-4)

Female, 10.40– 11.10×3.45 –3.50 mm. Outline and coloration almost resembling those of subsp. *ohkawai*, but darker generally, especially elytral apices slightly brownish only. Pronotal punctures at median area exceedingly finer and sparser. Posterior angles of pronotum (fig. 3) plainly elongate and divergent postero-laterally, with each apex not broadened by hind angle of propleuron in dorsal aspect. Basal grooves small and rather indistinct, without anterior furrows entirely. Scutellum (fig. 4) semicircular and arrower than long. Sclerotized plates of bursa copulatrix as figured (fig. 2); a pair of large plates clearly narrower and longer than those of *ohkawai*. Male unknown.

Holotype and an isotype, $\mbox{\ }$ $\mbox{\ }$, Mt. Yamizo-san, Tanagura, Fukushima Pref., May $20,\ 1988,\ H.\ Ohkawa\ leg$.

A New Species of *Odacantha* from Japan (Coleoptera, Carabidae)

By Keisuke Nemoto

Nishiochiai 2-2-18, Shinjuku-ku, Tokyo 161, Japan

Abstract Odacantha hagai n. sp. is described from Japan.

The classification of the tribe Odacanthini is fairly settled at the specific level, but the higher taxa are not well defined and knowledge on their relationship is incomplete. In his revision of the Japanese species of the Odacanthini, Habu (1962) united the group of melanura (Odacantha Paykull (s. str.), containing O. melanura Linné and O. puziloi Solsky) and the group of metallica (subgenus Heliocasnonia Liebke, containing O. metallica Fairmaire and O. aegrota Bates) in the genus Odacantha. The genus Odacantha in his sense seems to be natural since the members of the genus share an apomorphic character state, i.e. the presence of secondary setae on head.

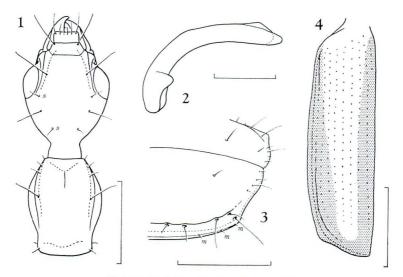
A new species which is described in this paper has features intermediate between *Odacantha* s. str. and *Heliocasnonia*. It coexists with *O. puziloi* and *O. aegrota* in the habitat.

Odacantha hagai n. sp.

Odacantha hagai is easily recognized among the genus (see HABU (1962, 1967) for the generic features) on the following combination of character states: Elytra without microsculpture; elytral margin with some vestigial setae posteriorly; median lobe distinctly curved; posterior half of underside reddish brown.

Small species, 5.0–5.5 mm long (measured from anterior margin of labrum to anal end of elytra). Head and prothorax shiny black, elytra yellowish brown with sutural and marginal areas more or less darker (Fig. 4), mesothorax, metathorax and abdomen mostly reddish brown; labrum and mandible reddish brown, pubescent part of antenna dark brown, rest of appendages mostly yellowish brown; dorsal surface of body without microsculpture. Head (Fig. 1) with neck strongly constricted as in *O. aegrota*; tempora glabrous and somewhat swollen; 1 or 2 pairs of secondary setae present (anterior ones sometimes absent).

[[]Ent. Rev. Japan, Vol. XLIV, No. 2, pp. 101-103, Dec., 1989]



Figs. 1-4. Odacantha hagai n. sp., 3.

1, Head and prothorax; 2, median lobe; 3, apical part of elytra; 4, left elytron. s, secondary setae of head; m, setae of elytral margin. Scales: 1 mm in Figs. 1, 3 & 4; 0.5 mm in Fig. 2.

Prothorax (Fig. 1) convex and wide as in *O. metallica* and *O. aegrota* but much more pronounced; disc smooth except for apical and basal areas which are distinctly punctate; secondary setae of lateral groove short and thin as in *O. puziloi*. Elytra (Fig. 4) with striae composed of large punctures; lateral margin with some short and thin setae at posterior half before preapical sinuation (Fig. 3); 3rd, 5th and 7th intervals with 3-5 discal setae, respectively; umbilicate series widely interrupted at middle. Ventral side of body similar to those in other species of the genus structurally, but apical sinuation of 7th sternum of male weaker. Median lobe (Fig. 2) curved like those of *O. metallica* and *O. aegrota*, and remarkably slender; apical lamella symmetrically rounded at apex.

Range: Lake Kasumigaura, Ibaraki Pref., Japan.

Holotype: \circlearrowleft , Lake Kasumigaura, Ishioka-shi, Ibaraki Pref., v. 4, 1986, K. Haga & K. Nemoto leg. Deposited in the collection of the Department of Natural History, Faculty of Science, Tokyo Metropolitan University, Tokyo, Japan. Paratypes: $13 \circlearrowleft \circlearrowleft$, $7 \circ \circ$, the same data as the holotype. Deposited in the collections of K. Haga and K. Nemoto.

Discussion

Odacantha hagai shows a mosaic combination of features of Odacantha s. str.

and *Heliocasnonia*. It has 1st elytral interval without discal setae, secondary setae of head of smaller number, etc., in common with the species of *Odacantha* s. str. On the other hand, it has elytra without microsculpture, elytral margin with some setae, noticeably curved median lobe, etc., in common with the species of *Heliocasnonia*. Occurrence of such intermediate form between the two subgenera supports Habu's (1962) view.

Of the genus *Odacantha*, the subgenus *Heliocasnonia* seems to comprise a monophyletic group based on at least one autapomorphy, i.e. the multiplication of secondary setae of head (3-4 pairs). *Heliocasnonia* and *O. hagai* share at least one synapomorphy, i.e. the presence of setae on elytral margin, and therefore, these species are thought to be closely related to each other. On the contrary, the status of *Odacantha* s. str. is still uncertain. *Odacantha* s. str. has no apomorphic character states of its own. Moreover, the members of the subgenus (*O. melanura* and *O. puziloi*) fairly differ from each other morphologically. For this reason, I reserve subdivision of the genus *Odacantha* until its phylogeny is thoroughly clarified. Consequently, *Heliocasnonia* should be regarded as a junior synonym of *Odacantha* s. str.

Acknowledgments

I deeply thank Prof. R. ISHIKAWA for constant guidance and Mr. K. HAGA for cooperation in various way.

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Studies on the Tenebrionidae of SHIBATA Collection Mainly from S. E. Asia. I. (Coleoptera)

By Kiyoshi Ando¹⁾

Through the courtesy of Mr. T. Shibata I have been able to examine many specimens of the Asiatic Tenebrionidae in Shibata Collection for the present series.

I wish to express my appreciation to Mr. Taichi Shibata, for making this series of study possible, also my cordial thanks to Mr. Kimio Masumoto, Tokyo University of Agriculture, for his continual kind advice through the series. The special thanks are owing to Assoc. Prof. Michitaka Chûjô, Kyushu University, and also to the members of Osaka Coleopterological Society, who have kindly given me valuable materials and literature.

Two new species of Tenebrionidae, Gauromaia erotyloides and Oedemutes itoi are described, and genus Falsogauromaia is newly regarded here as subgenus of Gauromaia.

Genus Gauromaia PASCOE, 1866

Gauromaia Pascoe, 1866, Journ. Ent., 2: 474. (Type species: G. dives Pascoe).

Subgenus Falsogauromaia stat. nov.

Falsogauromaia Pic, 1921, Mél. exot.-ent., 34 : 22. (Type species; F. annulipes Pic).

Genus Falsogauromaia was established by Pic based on the three characteristics, elongate body, vestigially marginate lateral sides of pronotum and anteriorly divergent head, however, in my careful re-examination these characteristics are insufficient to separate from the genus Gauromaia.

Gauromaia (Falsogauromaia) annulipes (Pic)

Falsogauromaia annulipes Pic, 1921, Mél. exot.-ent., 34:22; Ando, 1987, Ent. Rev. Japan, 42, Suppl.: 3-5.

I redescribed a female specimen in 1987. Recently I have had an opportunity of examining a male and confirmed that one of the most important secondary sexual features is the male hind tibiae which are narrowly but deeply grooved in the apical fifth.

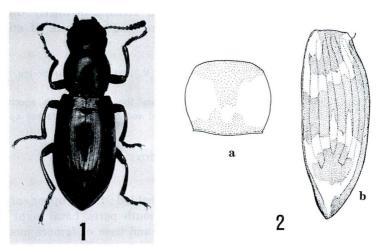
^{1) 3-5,} Kôfû-dai 5-chôme, Toyono-chô, Toyono-gun, Osaka 563-01, Japan. [Ent. Rev. Japan, Vol. XLIV, No. 2, pp. 105-110, Dec., 1989]

Examined specimen; 1 σ , Keningau, Sabah, Borneo Is., 10-20. X. 1988, М. Ітон leg.

Gauromaia (Falsogauromaia) erotyloides sp. nov. (Figs. 1, 2a-b)

Female. Body elongate, subparallel-sided, and rather opaque; reddish brown, but terminal five segments of antennae, clypeal suture, terminal segments of maxillary palpi, prosternum in part, lateral sides of metasternum, basal and apical margins of abdominal segments and apical half of anal segment dark reddish brown, pronotum and elytra also dark reddish brown except three spots on pronotum and two pairs of spots on elytra; pronotal spots reddish brown, round but very obscure in outline, in which a pair of large spots occupying large space of surface, the small one antebasal, these three spots linked with each other by a vague bridge; two pairs of spots on elytra, antemedian and apical, reddish yellow, the antemedian spot of each elytron fasciated, lying between 2nd and 9th striae, with two vertical branches, the inner branch of which being thick and prolonged obliquely toward scutellum, the outer branch prolonged forward along 9th stria on to humeral callus, where with an incurved hook, posterior margin of the fasciated spot trisinuate, on 4th, 6th and 7th intervals, the sinuation of 4th deeper than the other two, the apical spot annular, occupying apical third of elytron, with a triangular projection extending toward elytral apex from inner posterior corner, the anterior margin four-toothed in front and undulate behind, the two teeth on 4th and 6th intervals much longer than the other outer two and prolonged forward a little beyond middle of elytron, the inner margin arcuate along 1st stria, the outer margin also arcuate along lateral margin of elytron.

Head transversely subtrapezoid, divergent forward, and flattened above, clypeus weakly and transversely convex, slightly emarginate at apex, moderately closely rather roughly punctate, and bounded from frons by a fine clypeal suture, genae weakly convex, rounded but not produced beyond eye laterally, a little more minutely punctate than on clypeus, frons unevenly flat, scarcely and minutely punctate, inner ocular space nearly six times as wide as an eye, eyes small, widely emarginate in front. Antennae short, passing scarcely middle of pronotum, 2nd segment small, 3rd longer than 4th and shorter than 11th, 4th, 5th and 7th to 9th subequal in length, a little longer than 6th or 10th, 7th as long as wide, 7th to 10th well dilated apically, 8th to 10th wider than long, 11th oval and as long as wide. Mentum subhexagonal and wholly bor-



Figs. 1, 2. Gauromaia (Falsogauromaia) erotyloides sp. nov. 1, female (Holotype); 2a, pronotum; 2b, left elytron.

dered, strongly convex in apical third, and deeply excavate on lateral sides of a longitudinal median carina, submentum pentagonally depressed and coarsely punctate, area behind which with two transverse depressions. Gula suture pressure and coarsely punctate, area behind which with two transverse depressions.

Pronotum barrel-shaped, moderately convex, widely depressed along base, very weakly arcuate at apex, slightly bisinuate and clearly bordered at base, fairly arcuate laterally, true lateral margins vestigial in basal fourth, dorsal punctures shallow and fine, but somewhat closer and larger on the basal depression. Scutellum small and transverse, rounded at apex, slightly depressed and impunctate.

Elytra elongate, with sides narrowly bordered and weakly divergent behind to apical third, surface distinctly and transversely depressed just behind scutellum, from the depression gradually convex backward, striae very fine, strial punctures minute, sparse, and unequal in size, the punctation scarcely wider than stria itself, intervals almost flat, more sparsely and more minutely punctate than on stria, epipleuron impunctate, more or less steeply descendent inwardly in basal fourth.

Prosternum strongly narrowed toward base, sparsely rugose, its process convex backward and rounded at apex, then slanting subvertically behind. Mesosternum shallowly and obliquely depressed basally in front of a ridge, which being very weakly convex and rugose. Abdomen with basal three segments finely and longitudinally rugose, moderately and finely punctate excepting that lateral and apical margins almost impunctate, punctures on apical two segments close and minute.

Legs short and stout, tibiae shorter than femora, distinctly dilated toward apex, and more or less curved inward, the curvature of middle tibiae stronger.

Length: 14.0 mm; width: 5.0 mm.

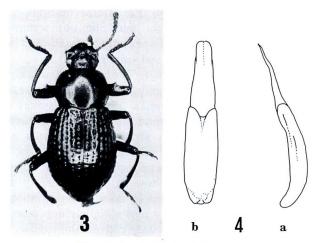
Holotype: $\mbox{$\mathcal{Q}$}$, Head-Quarter, North Borneo, 24. V. 1981, M. Yamamoto leg. (in T. Shibata coll.).

The new species is easily distinguished from the other known species of *Gauromaia* by presence of the distinct elytral pattern, and the body is rather opaque, etc.

Oedemutes itoi sp. nov. (Figs. 3, 4a-b)

Male. Oblong-oval, moderately convex behind; black, upper surface and abdomen with purplish-aeneous tinge, mouth parts, basal eight segments of antennae, gula, coxae, trochanters and base of femora more or less dark reddish brown.

Head transverse, flattened above but somewhat uneven, weakly and irregularly rugose, coarsely and moderately punctate, the punctures sparse near middle of fine clypeal suture, clypeus a little convex forward, widely and shallowly emarginate at apex, genae roundedly expanded latero-obliquely, frons almost flat, obscurely and ovately depressed in middle, a little less than three times as wide as an eye, eyes rather small, moderately prominent laterally, inner ocular sulcus shallow, deepened



Figs. 3, 4. *Oedemutes itoi* sp. nov. 3, male (Holotype); 4, male genitalia: a, dorsal aspect; b, lateral aspect.

behind. Antennae short but slender, reaching hardly basal margin of pronotum, slightly dilated apically, terminal five segments forming a very weak and loose club, 2nd shortest and a half length of 1st, 3rd more than twice as long as 2nd and longer than 4th, 4th to 10th subequal in length to each other, 8th to 10th wider than long, 11th subquadrate, nearly as long as wide and hardly longer than 3rd. Mentum hexagonal, strongly convex below in apical two-thirds, with a pair of deep excavations, submentum small and transversely triangular.

Pronotum transverse, slightly convex, uniformly and moderately punctate, but a little minutely and shallowly so on each lateral fourth, apex nearly straight, base bisinuate and hardly reflexed, not bordered in median fourth, lateral sides rounded, distinctly and narrowly bordered but strongly reflexed, widest at basal fourth, from where gently narrowed in front and sublinearly so behind, basal angles obtusely angulate. Scutellum small, transversely triangular.

Elytra oblong, rather weakly convex than usual, highest behind middle and widest at apical third, striae fine, punctures in striae fusiform and shallow, those on lateral and apical sides fovea-like, much more deepened and larger, intervals weakly convex, strongly so on lateral and apical declivous areas, microscopically and sparsely punctate, epipleuron strongly oblique below near base.

Prosternum short and narrow, strongly bordered at apex, with oblong and sparse punctures, prosternal process somewhat widened between front coxae, narrowly depressed along middle, gently inclined behind and reflexed at rounded tip. Mesosternum small, with a complete U-shaped costa in middle of front. Metasternum finely shagreened, sparsely pubescent, and deeply sulcate in front of hind coxal cavity, metasternal process pentagonal, closely and concentrically rugose between middle coxae. Abdomen closely punctate, with basal three segments longitudinally rugose basally.

Legs moderate in length, femora thickened in middle, finely and closely punctate, fore femora thicker than the hinder four, with a slender tooth at apical third of inner dorsal margin, tibiae distinctly incurved, and minutely punctate, inner side of hind tibiae somewhat shallowly emarginate near apex, the emargination closely pubescent, 5th segments of fore and middle tarsi a little shorter than their preceding segments together, 1st segment of hind tarsi nearly twice as long as 2nd, 3rd shortest, 4th longest, nearly as long as 1st and 2nd together.

Male genitalia as figured (Figs. 4a-b).

Female unknown.

Length: 12.5 mm; width: 6.0 mm.

Holotype: 3, Maliburu, Taitung Hsien, Taiwan, 6. V. 1983, N. Ito leg. (in T.

SHIBATA coll.).

The present species is closely allied to $O.\ hirashimai\ M.T.\ Chôjô$ from Ryukyu Is., but distinguished from the latter by the following points: the body is less convex, the head is more flattened, the antennae are slenderer, the elytra are more oblong in outline, whose intervals are weakly convex medianly or distinctly so laterally and apically, the pronotum is less transverse and more minutely punctate, and the hind tibiae in the male with a shallower emargination.

ミヤマホソチャバネコメツキの形態について

大 平 仁 夫

Notes on the Morphological Structure of *Ampedus tokugoensis* (Coleoptera: Elateridae) from Japan

By Hitoo Ôhira

Ampedus (Ampedus) tokugoensis W. Suzuki, 1985 ミヤマホソチャバネコメツキは、Miwa (1934) によって長野県徳本峠において故大林一夫氏が1931年8月2日に採集された1個体(性は不明)を基準標本に指定して Elater longipennis と命名、新種の記載がなされた種である.しかし、この種小名は Notman (1921) によって先取されていることがわかり、Suzuki (1985) によって上記のように再命名されたものである.

本種は上翅が黄褐色であるのと細長い体形によって、 特徴が比較的つかみやすいように思われるが、 詳しい形態についてはまだ調査されていないので、ここに明らかにしておきたいと思う. なお、本種の全形図は原記載に示されているし、大平・鈴木 (1985) には原色図が示されている.

1. 分布・生態の概要

前述のように、本種は長野県徳本峠がタイプ標本の基準産地であるが、その後岐阜県、福井県、石川県、新潟県、山形県、岩手県、青森県などの各地から知られている。関東地方からの記録はないが、筆者は日光産(1 ♂、29. IV. 1960)の標本を検している。以上のことから判断して、本種は中部・関東地域から北部の本州の山岳地に広く分布しているように思われるが、個体数はどこも多くないようである。

成虫の出現期は6月から7月ころにかけてであるが、 詳しい生態については何も判明していない.

2. 形態の概要

雄は体長 9-10 mm. 体は細長く, 両側は平行状である (Pl. 13, A). 黒色で光沢を有し, 上 翅は黄褐色 (会合線部は通常黒褐色), 触角は黒褐色, 肢は黄褐色である. 体毛は黄褐色で,

〔昆虫学評論, 第44巻, 第2号, 111-113頁, 第13-14図版, 12月, 1989年〕

頭部や前胸背板上にはやや長い毛を生ずる.

頭部は粗雑な点刻を生じ、前頭横隆線の前縁中央部は弱く抑圧される (Pl. 14, C). 小腮ひげ節の末節は顕著に拡大しない (Pl. 14, E). 触角は細長く、 末端は前胸背板の後角よりやや長い (Pl. 13, A). 第 2 節は短小で幅よりやや長く、第 3 節は倒円錐形状で、第 4 節は第 3 節の約 2 倍の長さである。また、これら第 2, 3 節を合せたものは第 4 節とほぼ等長である (Pl. 13, G, H).

前胸背板は梯形状で、 両側は中央部より前方にやや顕著に細まる (Pl. 14, D). 背面は弱く 膨隆し、小形の円形点刻をまばらに生ずる (Pl. 13, F). 点刻は頭部より明らかに小形である. 前胸腹板突起は、 前肢基節腔を越えて弱く内方へ湾曲し、 途中で直角状に断刻されて末端に 細まる. 断刻部から末端まで細長い (Pl. 13, I). 小楯板は細長い舌状である (Pl. 14, B).

上翅の長さは幅(肩角部で測定)の約2.6-2.7倍である。条線は浅く印し、間室部は弱く隆起し、不規則な横しわ状を呈する (Pl. 14, A). 腰板は比較的幅せまく、外形は図示したようである (Pl. 13, E).

交尾器の末端部(背面)は図示したようで、中央突起は細長く、両側は弱く内方へ湾曲して 細まる (Pl. 13, B). 側突起の末端の三角形状部は幅より細長く、外縁は内方へやや顕著に湾 曲して伸長し、外角部は角ばらず、10個内外の小段刻を生ずる (Pl. 13, C, D).

雌は雄に比して一般に体はより幅広く、触角の末節は前胸背板の後角にやや達しない。また、触角の第3節はより細長く、第4節はより短く、第3節の約1.5倍の長さである (Pl. 14, G, H). 雌内部生殖器の bursa copulatrix の袋内にある刺状の角質片の外形は図示 (Pl. 14, I, J) したようで、微小なものも含めて50個内外存在する.

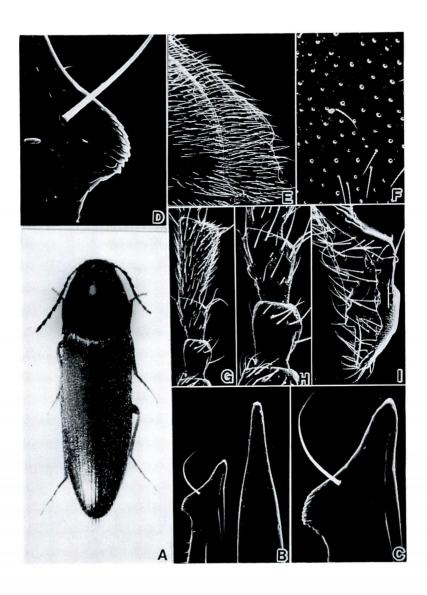
3. その他

本種の体色は、原記載では触角は pitchy black, 肢は black となっているが、触角も肢も 黒褐色から黄褐色までの種々の段階のものがみられる。また、本種は細長い体形が特徴的で、 上翅は原記載では "three and a half times as long as wide" とされているが、筆者が台 湾省農業試験所に保管されている本種のタイプ標本と思われる個体を検した限りでは、上翅 の長さは幅の 2.7-2.8 倍内外であった。原記載は測定の誤りと思われる。

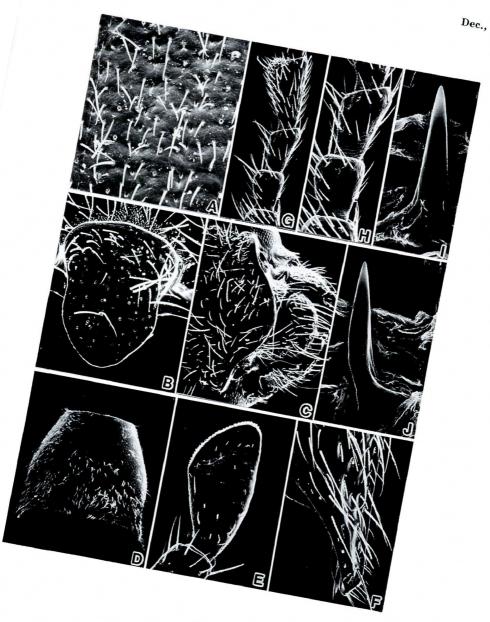
なお、ここで扱った全形図 (Pl. 13, A) は. 長野県茅野市麦草峠において1988年6月5日 に竹内克豊氏が採集された雄個体であり、SEM 写真のうち、雄個体は日光において1962年7月3日に得られたもの、雌個体は岐阜県平湯において1954年7月17日に得られたものを示した。その他、長野県志賀高原において1954年7月11日に得られた雌雄の個体も SEM 写真を作り参考にした。

引用文献

MIWA, Y. (1934); The Fauna of Elateridae in the Japanese Empire. Dept. Agr. Gov. Res. Inst. Formosa, (65): 1-289, 9 pls.



(H. ÔHIRA photo.)



 $(H. \hat{O}_{HIRA} photo.)$

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大平仁夫・鈴木 亙 (1985); 原色日本甲虫図鑑 (III). (コメツキムシ科). 保育社, 大阪. Suzuki, W. (1985); On some Elateridae of the Far East (Coleoptera). Trans. Shikoku ent. Soc., 17 (1/2): 79-85.

Summary

Ampedus (Ampedus) tokugoensis W. Suzuki, 1985 is the replacement name for Elater longipennis Miwa, 1934=(Ampedus longipennis), which is found in mountain areas of Honshu, Japan. Elater longipennis Miwa, 1934, is the primary homonym of Notman, 1921, Journ. N. Y. ent. Soc., 29: 159.

In the present study, the author has examined some important structures of this unique species by SEM-images (Plates 13 and 14), in order to facilitate its recognition in the Elateridae from Japan.

Explanation of Plates 13-14

Plate 13. Ampedus (Ampedus) tokugoensis, male.

A, adult in dorsal aspect; B, apical portion of aedeagus, dorsal aspect; C, same, left lateral lobe; D, same, right lateral lobe; E, basal plate; F, some punctures on the disk of pronotum ($\times150$); G, 2nd to 4th segments of antenna; H, 2nd and 3rd segments of antenna (enlarged).

Plate 14. Ampedus (Ampedus) tokugoensis, male (except for G, H, I and J which are females).

A, 2nd to 4th intervals of right elytron; B, scutellum; C, clypeal margin; D, pronotum, dorsal aspect; E, apical segment of maxillary palpus; F, right posterior angle of pronotum, dorsal aspect; G, 2nd to 4th segments of antenna; H, 2nd and 3rd segments of antenna (enlarged); I, J, form of spine-like setae in bursa copulatrix.

国際動物命名委員会からのお願い (11)

The following applications were published on June 23, 1989 in Vol. 46, Part 2 of the Bulletin of Zoological Nomenclature. Comment or advice on these applications is invited for publication in the Bulletin and should be sent to the Executive Secretary, I. C. Z. N., c/o British Museum (Natural History), Cromwell Road, London SW7 5BD, U. K.

Case No.

- 2677 Saissetia Déplanche, 1859 (Homoptera): proposed designation of Lecanium coffeae Walker, 1852 as the type species.
- 2695 Fonscolombia Lichtenstein, 1877 (Homoptera): proposed designation of Fonscolombia graminis Lichtenstein, 1877 as the type species.
- 2665 Rosema Walker, 1855 (Lepidoptera): proposed conservation.
- 2658 Protocalliphora Hough, 1899 (Diptera) and its type species Musca azurea Fallén, 1817: proposed conservation of usage by designation of a replacement lectotype.

The following opinions were published on June 23, 1989 in Vol. 46, Part 2 of the Bulletin of Zoological Nomenclature.

Opinion No.

- 1543 Ditiscus cinereus Linnaeus, 1758 (currently Graphoderus cinereus; Coleoptera): neotype replaced.
- 1544 Ethmiidae Busck, 1909 (Lepidoptera): given precedence over Azinidae Walsingham, 1906.
- 1545 Glabellula Bezzi, 1902 (Diptera): Platygaster arcticus Zetterstedt, 1838 designated as the type species.
- 1546 Chelonus Panzer, 1806 (Hymenoptera) and Anomala Samouelle, 1819 (Coleoptera): names conserved.

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