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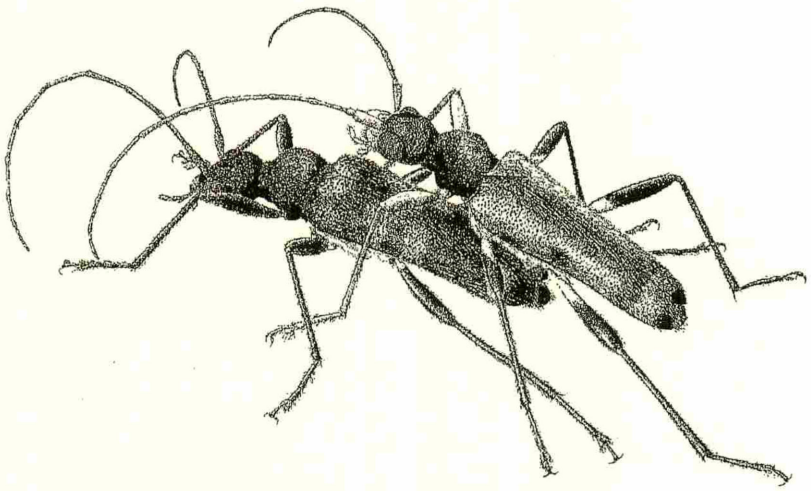

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A New Species of the Genus *Tritoma* (Coleoptera, Erotylidae) from Northeast Japan

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Abstract. *Tritoma ozakii* sp. nov. is described from Aomori Prefecture, Japan.

Up to the present 32 species of the genus *Tritoma* have been known to occur in Japan (NAKANE,1983,1986; SASAJI,1985; NARUKAWA,1994). Recently, I had an opportunity to examine unknown erotylid beetles from Aomori Prefecture, Japan. After the close examination, I recognized them as a new species and am going to describe it in the present paper.

Before going further, I wish to express my hearty thanks to Mr. Toshihiro OZAKI and Mr. Masahiro SAITOU for their kind offer of these valuable materials and to Dr. Hideto HOSHINA, Kyushu Univ., for his helpful criticism on this manuscript.

Tritoma ozakii sp. nov.

(Japanese name: Iwaki-chibi-ohkinokomushi)
(Figs. 1: A–H)

Body oval, strongly convex on dorsum, about 1.5 times as long as wide; head and pronotum black and bright; elytra reddish brown; mouth parts, antennae, scutellum and legs dark brown.

Head (Fig.1-B) nearly half as wide as pronotum, sparsely provided with large and rough punctures; clypeus rather sharply narrowed anteriorly, slightly emarginate at apex and finely marginate in apical and lateral margines (Fig.1-B); eyes moderate in size, interocular distance about three times as wide as the transverse diameter of eye. Maxillary palpus with terminal segment (Fig.1-C) securiform and about 1.6 times as wide as long; mentum (Fig.1-F) pointed at apex with strongly gouged lateral margins in anterior two-thirds. Antennae (Fig.1-D) eleven-segmented, three terminal segments forming a club; 1st segment cylindrical, wider than long weakly const-ricted near apex; 2nd longer than wide; 3rd about 2.3 times as long as wide, twice as long as 2nd; 4th as long as wide; 5th wider than long; 6th and 7th as long as wide, respectively; 8th wider than long; 9th about 1.2 times as wide as long; 10th about 2.0 times as wide as long; 11th about 1.2 times as wide as long, rounded at apex.

Pronotum about 2.3 times as wide as long, widest at base; anterior margin feebly bisinuate, gently arched and produced forward at middle; anterior corners roundly projected forward; post-erior corners nearly rectangulate; lateral margins clearly marginate, gradually narrowed in basal half and strongly so in the rest; disc sparsely with large and rough punctures

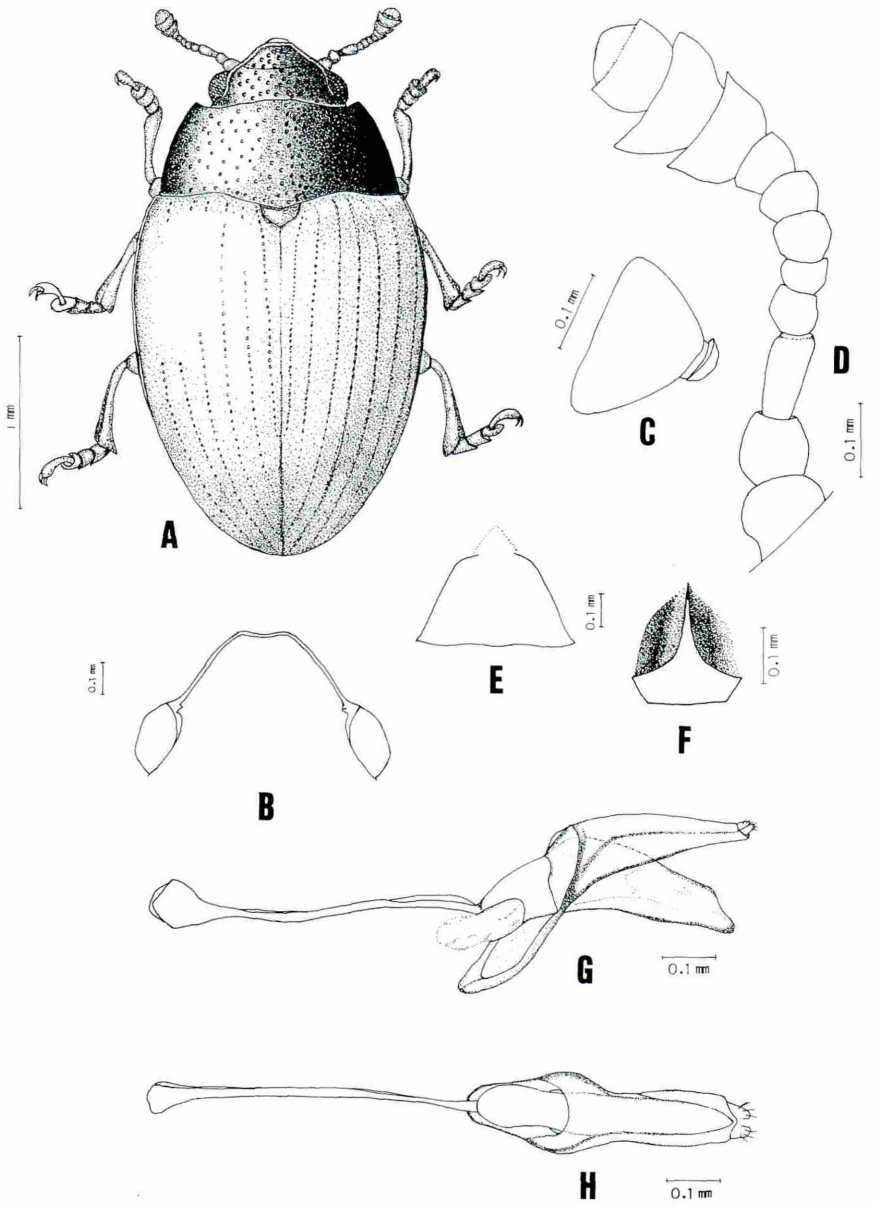

Fig.1, *Tritoma ozakii* sp. nov. A, dorsal view; B, head; C, maxillary palpus; D, antenna; E, prosternal carinae; F, mentum; G, aedeagus, lateral view; H, aedeagus, dorsal view.

as those of head.

Elytra elongate, about 1.2 times as long as wide, widest at basal one-fourth and slightly wider than pronotum at base, with eight seriate rows of punctures, which are relatively finer than those of pronotum; intervals sparsely and minutely punctured; humeri slightly produced forward and rather pointed at the tops; basal margin clearly marginate; lateral margins weakly arcuate in basal one-fourth and strongly narrowed caudad in apical one-fourth.

Prosternum sparsely punctured; prosternal process slightly arcuate posteriorly, longer than wide; prosternal lateral carinae (Fig.1-E) straight, distinctly narrowing anteriorly and slightly bent inward at their apices. Metasternum with large and rough punctures, bearing short and sparse hairs; first abdominal segment with metacoxal line entire in whole length, longitudinal carinae extending posteriorly and reaching close to posterior margin.

Aedeagus (Figs.1-G and 1-H) slender, curved in an arc, expanded in basal one-third, then narrowed apically and rounded at apex in lateral view, triangular at apex in dorsal view; parameres almost as long as median lobe in lateral view; median strut relatively short, about 1.3 times as long as median lobe.

Body length: 2.8-3.2 mm; width: 1.8-2.2 mm.

Holotype: ♂, Nagatai, Ajigasawa-T., Nishitsugaru-gun, Aomori Pref., 11. VIII. 1996, T. OZAKI leg. (preserved in the Collection of the Osaka Museum of Natural History, Type No. OMNH-TI-127). Paratypes: 4♂♂, 5♀♀, the same data as the holotype; 12♂♂, 20♀♀, same locality and collector, 21. VII. 1996 (2♂♂, 3♀♀ preserved in the Collection of the Osaka Museum of Natural History and 14♂♂, 22♀♀ in my collection).

Distribution: Japan (Honshu).

Food-fungus: Corticiaceae sp.

Remarks. This new species resembles *Tritoma rufipennis* (LEWIS, 1887), but the latter has the clypeus strongly emarginate and not marginate at the apex, and the mentum subpentagonal and pointed at apex. Moreover, this species is similar to *Tritoma tanigutii* CHÛJÔ,1940, but the lattter has the elytra more elongate, about 1.4 times as long as wide and widest at basal three-tenths.

Etymology. The specific name of the new species is dedicate to Mr. Toshihiro OZAKI.

要　　約

生川展行：東北地方産チビオオキノコムシの一新種．――― 青森県からチビオオキノコムシの１新種 *Tritoma ozakii*（イワキチビオオキノコムシ）を記載した．本種はベニバネチビオオキノコムシ *Tritoma rufipennis* (LEWIS) によく似ているが，後者に比べて頭楯前縁の湾入度が弱く，下唇基節の形態が異なることで区別できる．本種はまた，チャバネチビオオキノコムシ *Tritoma tanigutii* CHÛJÔ にもよく似ているが，後者においては上翅がより長く，幅の1.4倍の長さがあることで区別できる．

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Ent. Rev. Japan, 55 (1): 5–13, June 20, 2000

Description of *Donacia tominagai* sp. nov. from Hokkaido, Japan, and Taxonomic Notes on its Allies (Coleoptera: Chrysomelidae: Donaciinae)

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Abstract *Donacia tominagai* sp. nov. is described from Hokkaido, Japan, and its related species are revised mostly on the endocephallic structures. *Donacia splendens* JACOBSON is newly raised the rank to full species from subspecies of *D. obscura*; *Donacia hiurai* KIMOTO (auct.) comprises two subspcies: one from Hokkaido is nothing but *D. splendens splendens* JACOBSON, and the other from Niigata (holotype), Miyagi and Fukushima Prefs., Honshu is newly down graded to a subspecies of *D. splendens*; diagnostic features of *D. obscura* GYLLENHAL and *D. distincta* LECONTE are also described and figured.

Key words *Donacia tominagai*, *Donacia hiurai*, *Donacia splendens*, new species, Japan

Among the Holarctic species of the genus *Donacia*, *Donacia hiurai* KIMOTO of Japan, *D. obscura obscura* GYLLENHAL of Europe, *D. obscura splendens* JACOBSON of Siberia and *D. distincta* LECONTE of North America are similar in having the following characters: body and legs entirely metalic in colour, pronotum quadrarte, with coarse punctures and transverse rugae, elytral intervals finely rugulose, median lobe of male genitalia gradually narrowing apically, without deep subapical depression, metafemora with blade-like tooth. These species are reexamined mostly on the male genitalic structure in the course of my study on the Donaciinae and the following conclusions are drawn that *Donacia obscura splendens* should be raised the rank to full species, *D. hiurai* from the northern Honshu must be downgraded as a subspecies of *D. splendens*, *D. hiurai* auct. from Hokkaido is identical with *D. splendens* from Siberia, and a new species is discovered from Hokkaido.

In this paper, description of a new species, recombinations and synonymic treatment of these species are given, and the diagnostic features for each species are described and illustrated.

All specimens including the type series of the new species are deposited in the Osaka Museum of Natural History, Osaka (OMNH).

I gratefully acknowledge to Dr. Yuri E. MIKHAILOV (Novouralsk), who informed me original description of *Donacia splendens* and provided me useful materials. I also gratefully acknowledge to Mr. Shigehiko SHIYAKE of the Osaka Museum of Natural History for allowing access to the referred materials. I thank Dr. Laurent LESAGE (Ottawa), Messrs. Osamu TOMINAGA (Nara) and Miroslav ZÚBER (Kosmonosy) for supply of useful materials.

Donacia tominagai sp. nov.

(Japanese name: Nise-hirata-nekui-hamushi)

(Figs. 1-3, 12-23)

Donacia hiurai (partim, ex Tnninkyo Konumadaira, Hokkaido): Atlas of the Japanese Donaciinae, Osaka: 7

Diagnosis: Median process of endophallus (median ejaculatory guide+endophallic lateral disgits: ASKEVOLD,1990) of male genitalia elongate, arched dorsally, dorsal part of median process projecting from ostium bursae, apex somewhat acute; paired dorsal sclerites slender; basal supporting block elongate.

Description: Male. Entirely blackish coppery in most specimens, sometimes purple. Eyes small; supraocular furrow deep; vertex pubescent and swollen, and frons with a deep median line. Antennae entirely blackish coppery; 4th segment slightly longer than 3rd and two times as long as 2nd, 5th longest in 2nd to 6th. Pronotum quadrate, anterior and posterior corners prominent; anterolateral calli present but callous sulcus shallow; disc coarsely punctate, with transverse deep rugae; median line deep; basal sulcus present but shallow, with punctate and dense rugae. Elytra with two shallow depressions, one on basisutural and the otheron mid-sutural parts of disc; sutural interval rugose, without distinct setae, gradually narrowing towards apex; other intervals finely rugulose and densely punctulate; apex narrowly truncate, outer apical angle rounded, inner apical angle rec-tangular and slightly prominent. Legs entirely metallic colored; all tarsi simpla; outer apical angle of protibia acute with a small spine; metafemur with a blade-like tooth and sharp at apex. Pygidium with rounded apex, more or less truncate at apex. Median lobe of genitalia narrowed apically, with-out a median lip; a cap of tegmen slender. Sterna entirely coppery and pubescent; last sternite (sternum VII) punctate, apical shape rounded, more or less truncate, apical depression shallow.

Female. Pygidial apex narrowly rounded. Apical shape of last sternite entirely acute but apex rounded.

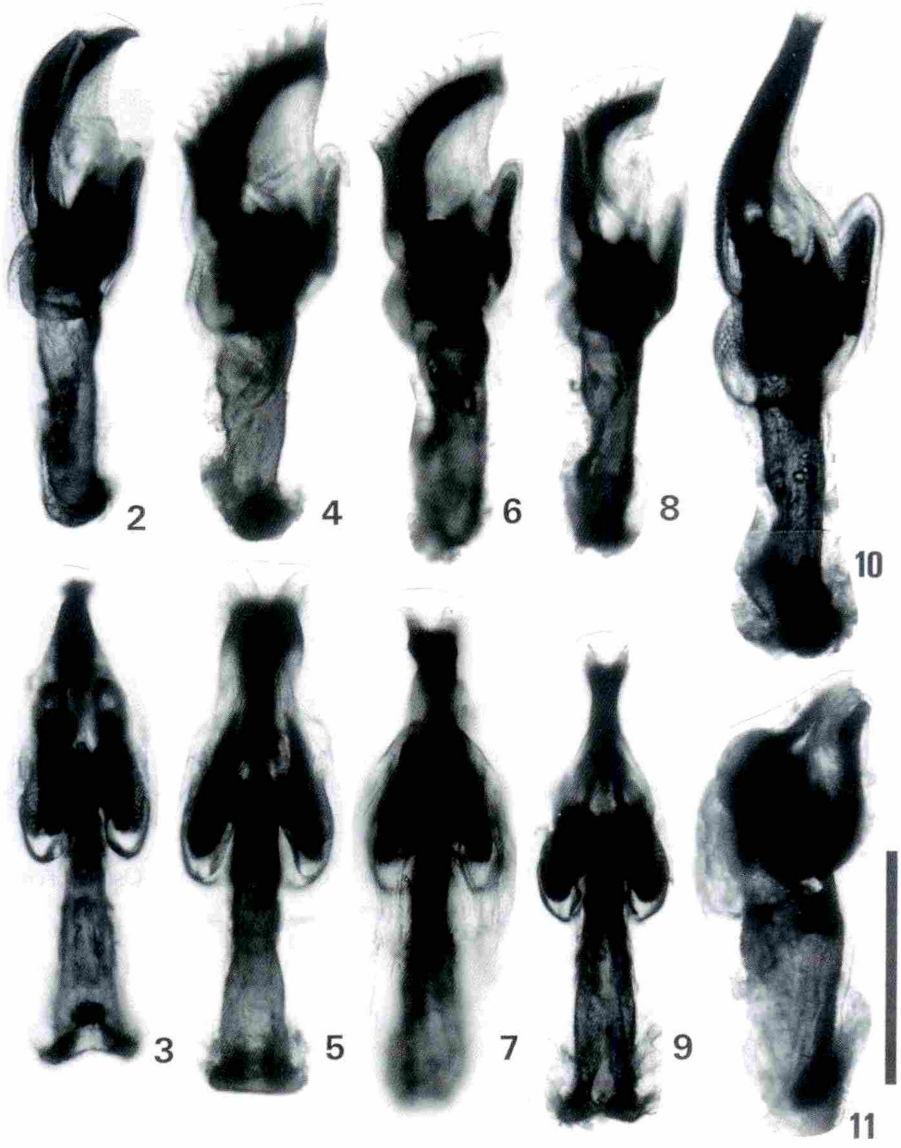
Fig. 1. Habitus of *Donacia tominagai* sp. nov. Scale ba =1.0 m

Body length. Males: 7.3–8.4 mm, and females: 8.4–8.8 mm.

Holotype. ♂(OMNH-TI-126), Konuma-daira, Tai-setsu-kôgen, Kamikawa-cho, Hokkai-do, Japan, 20. VII. 1980, O. TOMINAGA leg. Paratypes: 1♂, same data as holo-type.; 2♂♂, Hyotan-numa, Tenninkyo, Higashikawa-cho, Hokkaido, 18. VII. 1980, O. TOMINAGA leg.; 2♂♂, Hyotan-numa (940 m), Tenninkyo, Kamikawa, Hokkaido, 18. VII. 1980, Y. MIYATAKE leg.; 1♂, Hyotan-numa, Tenninkyo, Kamikawa, Hokkaido, 18. VII. 1980, I. HIURA leg.; 2♂♂, Konumadaira (1320–1440 m), Mt. Daisetsu (= Taisetsu), 20. VII. 1980, Y. MIYATAKE leg.; 1♀, Tenningahara (1240–1300m), Mts. Daisetsu (= Taisetsu), 6. VII. 1970, Y. SHIBATA leg.; 5♂♂, 2♀♀, Hyotan-numa, Tenninkyo, Higashikawa-cho, Hokkaido, 22. VII. 1993, M. HAYASHI leg.

Distribution: Hokkaido.

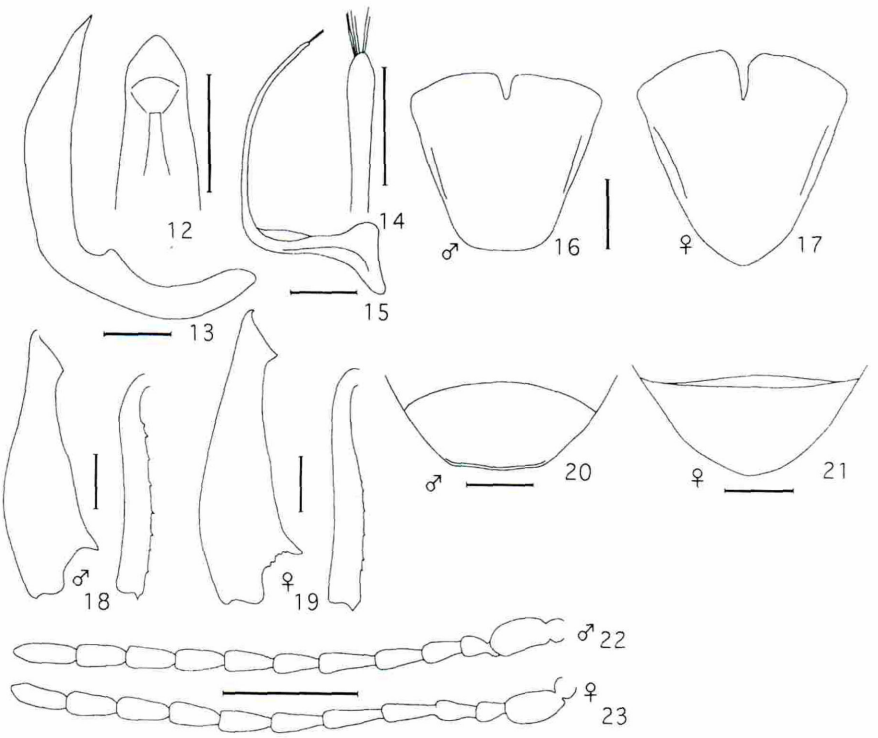
Remarks: The new species resembles *D. splendens* in most characters, but the apical shape of the endophallic median



Figs. 2–11. Endophallus of *Donacia* spp. 2–3, *D. tominagai* sp. nov. (Kamikawa, Hokkaido); 4–7, *D. splendens* s. str. (4–5, SW Siberia; 6–7, Kamikawa, Hokkaido); 8–9, *D. splendens hiurai* (Fukushima); 10, *D. obscura* (Slovakia); 11, *D. distincta* (Canada). 2, 4, 6, 8, 10, 11, lateral view; others, dorsal view. Scale bar = 0.5 mm. Photographs by Light Microscope.

process is characteristic in male (Figs. 2-9), and the pygidial apex in female is narrowly rounded in *D. tominagai*, whereas it is broadly rounded or slightly emarginate in *D. splendens*.

Ecological notes: According to the collecting data, the adults of the new species were collected on *Carex thunbergii* and *Carex middendorfii*. *D. splendens* was also obtained from *Carex thunbergii* at the same locality.



Figs. 12–23, *D. tominagai* sp. nov. 12–13, median lobe of male genitalia (12, dorsal view; 13, lateral view); 14–15, tegmen (14, dorsal view; 15, lateral view); 16–17, pygidium; 18–19, hind leg; 20–21, last sternite; 22–23, antenna. Scale bar = 0.5 mm.

Etymology: The specific name of the new species is dedicated to Mr. Osamu TOMINAGA, Nara City, who collected the holotype of the new species.

Donacia splendens splendens JACOBSON stat. nov.

(Japanese name: Kita-hirata-nekui-hamushi)

(Figs. 4–9, 24–45)

Donacia obscura var. *splendens* JACOBSON, 1894, Diary zool. Dept. MOIP, Moscow, 2, p. 21.

Donacia obscura splendens: MEDBEDEV, 1973, Fauna ecol. nasekom. Vostoc. Dalnego Vostoka, Irkuck, 1973, p. 144. 1992, Opredelitel'nasekomyh Dalnego Vostoka SSSR. 3 (2), St. Petersburg: 546.

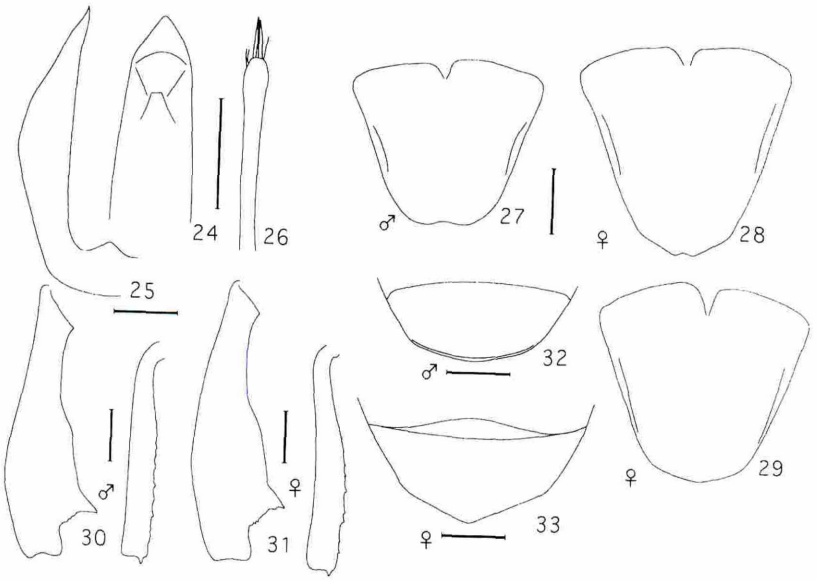
Donacia impressa ~~(ex~~ Hokkaido): LEWIS, 1893. Entomologist, 26: 153.

Donacia obscura (ex Hokkaido): CHUJO and KIMOTO, 1960, Nipponius: 2.

Donacia thalassina (ex Hokkaido): KIMOTO, 1961, Kontyû: 160.

Donacia hiurai (partim, ex Hokkaido): FossilInsect Research Group for Nojiri-koExcavation, 1985. Atlas of the Japanese Donaciinae, Osaka: 7; —— KIMOTO, 1994. Leaf Beetles (Chrysomelidae) of Japan, Volume adults, Tokai Univ. Press, Tokyo: 101.

Diagnosis: Median process of endophallus of male genitalia robust and L-shaped, arched dorsally, dorsal part of median process strongly projects from ostium bursae, apex somewhat



Figs. 24–33, *D. splendens* s. str. 24–25, median lobe of male genitalia (24, dorsal view; 25, lateral view); 26, tegmen (dorsal view); 27–29, pygidium; 30-31, hind leg; 32–33, last sternite. 29, Hokkaido, and others SW Siberia. Scale bar = 0.5 mm.

truncate, anteriole margin with remarkable fin-like projections; paired dorsal sclerites slender; basal supporting block robust.

Specimens examined (subsp. *splendens*): 1♂, 2♀♀, upper Bolshoi Tumuyas river, Kuznetsky Alatau mts., SW Siberia, Russia, 11. VII. 1995. Y. MIKHAILOV leg.; 2♂♂, Hyotannuma, Akan-cho, Hokkaido, 22. VII. 1980, O. TOMINAGA leg.; 2♂♂, 1♀, Konumadaira (1320-1440 m), Mt. Daisetsu (= Taisetsu), 20. VII. 1980, Y. MIYATAKE leg.; 1♂, Konumadaira (1320-1440 m), Mt. Daisetsu (= Taisetsu), 20. VII. 1980, I. HIURA leg.; 1♂, Hanrakorosyu-sawa (460 m), Akan-cho, Hokkaido, 21. VII. 1980, I. HIURA leg.; 1♂, 1♀, Hyotannuma, Tenninkyo, Higashikawa-cho, Hokkaido, 22. VII. 1993, M. HAYASHI leg.

Distribution: Siberia, Sakhalin, Hokkaido (subsp. *splendens*); Honshu (subsp. *hiurai*).

Remarks: *Donacia obscura* var. *splendens* JACOBSON was assigned to subspecies of *D. obscura* by MEDVEDEV (1973, 1982), but it should be raised to full species rank because of the characteristic shape of the median process of the endophallus (Fig. 10).

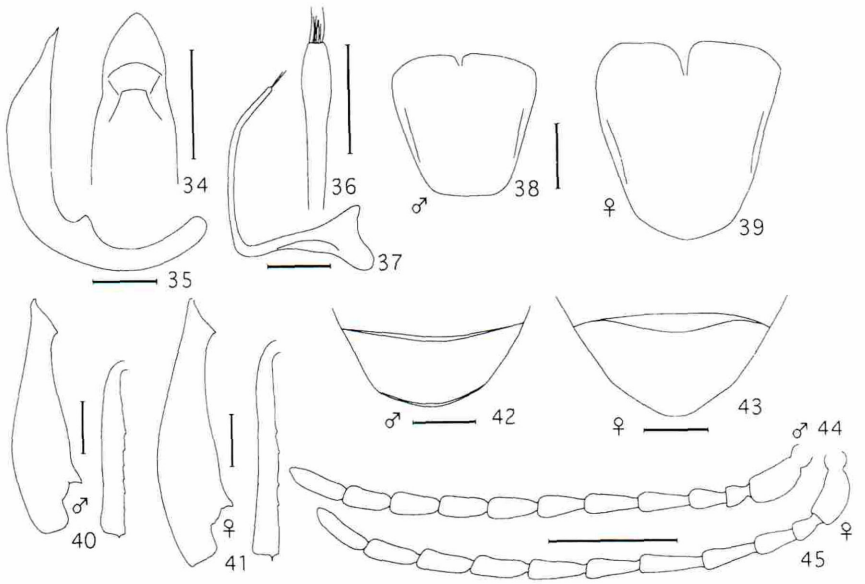
D. hiurai auct. from Hokkaido is identical with *D. splendens* from Siberia in the endophalic structure, but the pygidium is slightly different; namely, it is emarginate in both sexes in the specimens from SW Siberia, but truncate in male and broadly rounded in female in most specimen from Hokkaido.

Donacia splendens hiurai KIMOTO stat. nov

(Japanese name: Hirata-nekui-hamushi)

(Figs. 8–9, 34–45)

Donacia hiurai KIMOTO, 1983, Ent. Rev. Japan, 38, p. 11.



Figs. 34–45, *D. splendens hiurai*. 34–35, median lobe of male genitalia (34, dorsal view; 35, lateral view); 36–37, tegmen (36, dorsal view; 37, lateral view); 38–39, pygidium; 40–41, hind leg; 42–43, last sternite; 44–45, antenna. Scale bar = 0.5 mm.

Donacia hiurai (partim, ex Honshu): FossilInsect Research Group for Nojiri-ko Excavation, 1985. Atlas of the Japanese Donaciinae, Osaka: 7; — KIMOTO, 1994. Leaf Beetles (Chrysomelidae) of Japan, Volume adults, Tokai Univ. Press, Tokyo: 101

Diagnosis: Median process of endophallus of male genitalia L-shaped, arched dorsally, dorsal part of median process strongly projects from ostium bursae, apex somewhat rounded, anterior margin with fin-like projections; paired dorsal sclerites slender; basal supporting block elongate.

Specimens examined: 1♂ [Holotype · OMNH], Ginzandaira, Niigata Pref., 27. VI. 1970, I. HIURA leg.; 1♂, Ginzandaira, Niigata Pref., 27. VI. 1970, I. HIURA leg.; 1♂, Sugenuma, Onoda-machi, Miyagi Pref., 16. VI. 1992, M. HAYASHI leg.; 5♂♂1♀, Hosono, Kitashiobara-mura, Fukushima Pref., 17. VII. 1992.; 1♂, Miomote, Asahi-mura, Niigata Pref., 2. VI. 1994, M. HAYASHI leg.; 1♂, Kostunagi, Tocho City, Niigata Pref., 12. V. 1996, M. HAYASHI leg.; 1♂, Yoshigahira, Shitada-mura, Niigata Pref., 20. VI. 1995, M. HAYASHI leg.

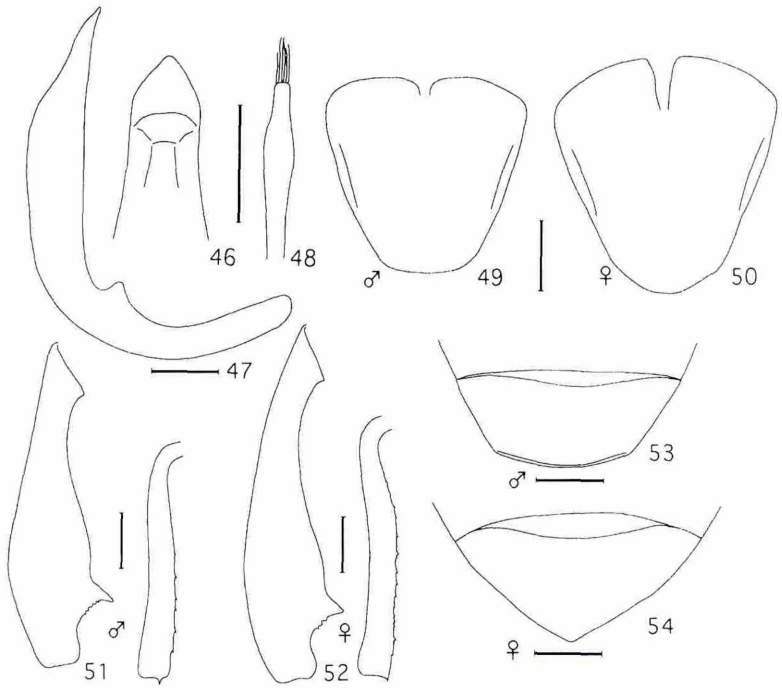
Remarks: *D. hiurai* auct. from Honshu, locality of the holotype, resembles *D. splendens* from NE Siberia and Hokkaido in most characters including the endophallus, but the shape of the endophallic median process (Figs. 8-9) is only slightly different and thus the former is newly downgraded to the subspecies of the latter.

Donacia obscura GYLLENHAL

(Figs. 10, 46–54)

Donacia obscura GYLLENHAL, 1813, Ins. Suec., 3, p. 654.

Diagnosis: Median process of endophallus of male genitalia elongate and robust, gradually narrowed apically and gently arched dorsally, apex truncate with ostium bursae; paired dorsal



Figs.46-54. *D. obscura*. 46-47, median lobe of male genitalia (46, dorsal view; 47, lateral view); 48, tegmen (dorsal view); 49-50, pygidium; 51-52, hind leg; 53-54, last sternite. Scale bar = 0.5 mm.

sclerites slender; basal supporting block elongate.

Specimens examined: 1♀, V. Tatry-S. pleso 1350m m. n. m., Slovakia bor., 2. VII. 1995, M. ZÚBER leg.; 1♀, V. Tatry-S. pleso 1350m m. n. m., Slovakia bor., 4. VII. 1995, M. ZÚBER leg.; 1♂, V. Tatry-S. pleso 1350m m. n. m., Slovakia bor., 1. VII. 1989, M. ZÚBER leg.; 1♂, Vysoke' Tatry-S trbske pleso 1350m m. n. m., Slovakia bor., 1. VII. 1989, M. ZU'BER leg.; 2♂♂, V. Tatry-S trbske pleso, Slov b., 2. VII. 1995, L. MIKULENKA leg.; 1♀, Zmijinje Jezero 1400m, Durmitor, Mont., 1. VII. 1958, KASZAB and SZÉKESSY leg.; 2♂♂, Westpreuben, 1903.

Distribution. Europe.

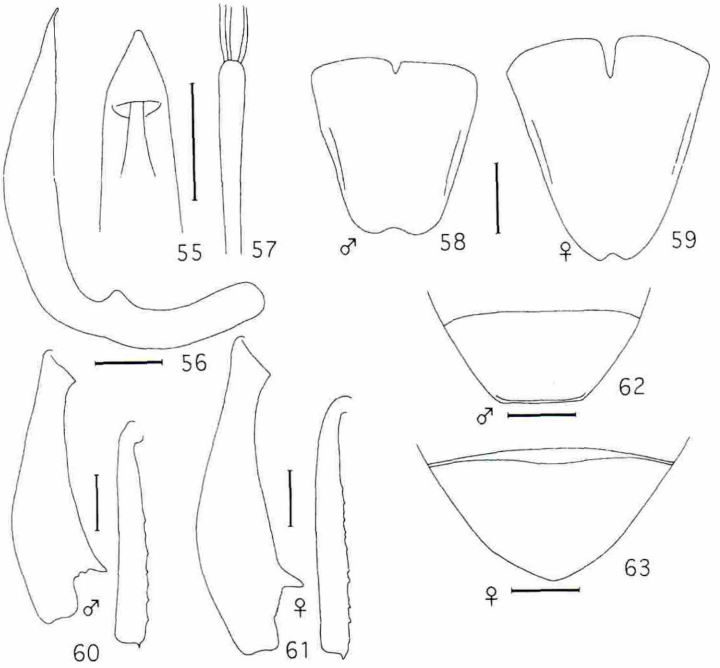
Remarks: Pronotal out line of *D. obscura* oblong remarkably. Apical shape of median lobe of *D. obscura* is similar to those of *D. splendens* and *D. tominagai*.

Donacia distincta LECONTE

(Figs. 11, 55–63)

Donacia distincta LECONTE, 1851, Proc. California Acad. Sci., 5, p. 313.

Diagnosis: Median process of endophallus of male genitalia short and robust, gradually narrowed apically, apex with ostium bursae; paired dorsal sclerites robust; basal supporting block elongate and robust.



Figs. 55-63. *D. distincta*. 55-56, median lobe of male genitalia (55, dorsal view; 56, lateral view); 57, tegmen (dorsal view); 58-59, pygidium; 60-61, hind leg; 62-63, last sternite. Scale bar = 0.5 mm.

Specimens examined: 1♂1♀, N. P., Belly R., Chief, Mt. Hwy, Waterton Lks., Alta., 18. VI. 1980, J. M. CAMPBELL leg. 1♂, Mer Bleu, Ont., 1, VI. 1928, J. A. ADAMS leg. 2♂♂2♀♀, Brokenhead River, Manitoba, Canada, 7. VI. 1997, I. S. ASKEVOLD leg.1♂1♀, 6km N. Invermere marsh, British Columbia, Canada, 23. V. 1981, I. S. ASKEVOLD leg.

Distribution. North America.

Remarks: ASKEVOLD (1991) recognized that *D. hiurai* and *D. distincta* belong to a sister lineage based on comparisons with Palaearctic and Nearctic members of *Donacia*. *D. hiurai* (= *D. splendens*) is similar to *D. distincta* in most dorsal characters, but pygidial apex, median lobe and endophallus of them differs from each other.

要　　約

林　成多：従来，*Donacia obscura* GYLLENHAL の亜種として扱われてきた *Donacia splendens* JACOBSON を種のランクに格上げし，本州産の*Donacia hiurai* KIMOTOをその亜種とした．また，北海道産の *D. hiurai* とされてきた個体群は *D. splendens* の基亜種に同定される．さらに，*D. splen-dens* に近縁な北海道産の1新種 *Donacia tominagai* を記載した．これらの種はたがいに酷似しているが，雄交尾器骨片により区別が可能である．

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A New Genus and Species of Philonthini (Coleoptera: Staphylinidae) from Tropical Asia and some Notes on Philonthini

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Abstract A new genus, *Dorcophilonthus* is established on *Dorcophilonthus clavicornis* sp. nov. and some notes on the characteristics of the Philonthina and Anisolinina are given.

Through studies of Asian Staphylininae, I found a very interesting species of the tribe Philonthini. It is well similar in general appearance to *Philonthus spinipes* SHARP from Japan but is very peculiar in the structures of the mouth organs, antennae, head including chaetotaxy of macrosetae, pronotum, pro- and metasterna and legs. Especially, the mandibles are resemblance to those of a *Dorcus* species (Lucanidae), and the palpi are rather similar in part to those of a *Tympanophorus* species. However, features of the ligula, mentum and 5th tarsomeres show that the species belongs to the Philonthina. Therefore, in this paper, I am going to establish a new genus for this species under the name *Dorcophilonthus clavicornis* gen. et sp. nov. and give some notes on the subtribes Philonthina and Anisolinina.

Before going into further details, I wish to express deep gratitude to Dr. Katsura MORIMOTO, the Emeritus Professor of Kyushu Univercity (Department of Agriculture), Fukuoka, for his kindness of critically reading the manuscript of this paper.

Terminology The main terminology and the abbreviations used herein are the same as those explained in HAYASHI, 1993.

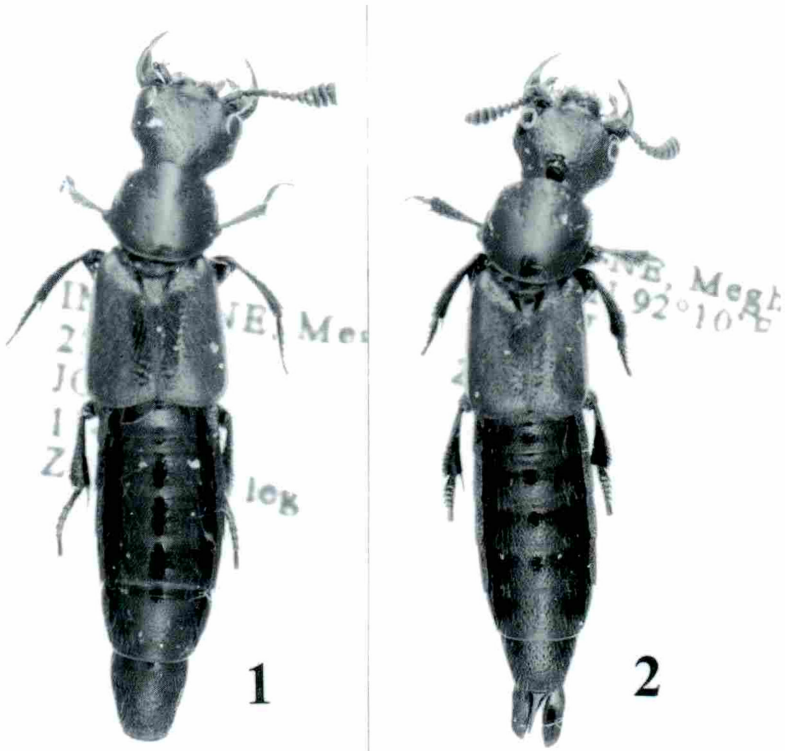
Dorcophilonthus gen. nov. (Philonthina)

(Figs. 1-23)

Type species: *Dorcophilonthus clavicornis* sp. nov. (type-locality: Meghalaya, NE India)

Body thick, robust, elongate, subparallel-sided, well shiny and similar in general appearance to *Philonthus spinipes* SHARP.

Head (Figs. 3 & 6) wide, short, subpentagonal, nearly parallel-sided in anterior half, strongly narrowed posteriad and rather deeply emarginate at frontal margin, the bottom of the emargination being behind the level of front angle of eye; preclypeus (sensu BLACKWELDER 1936) corneous; neck thick, a little wider than a half of head and not constricted at front border; upper surface flattened, coarsely and strongly punctured, and interstices smooth. Antennae (Figs. 4 & 5) short, markedly clavate, strongly clubbed in apical 5 segments; basal 3 segments strongly and the following 2 weakly polished; 1st segment very wide, subcordate, longer than



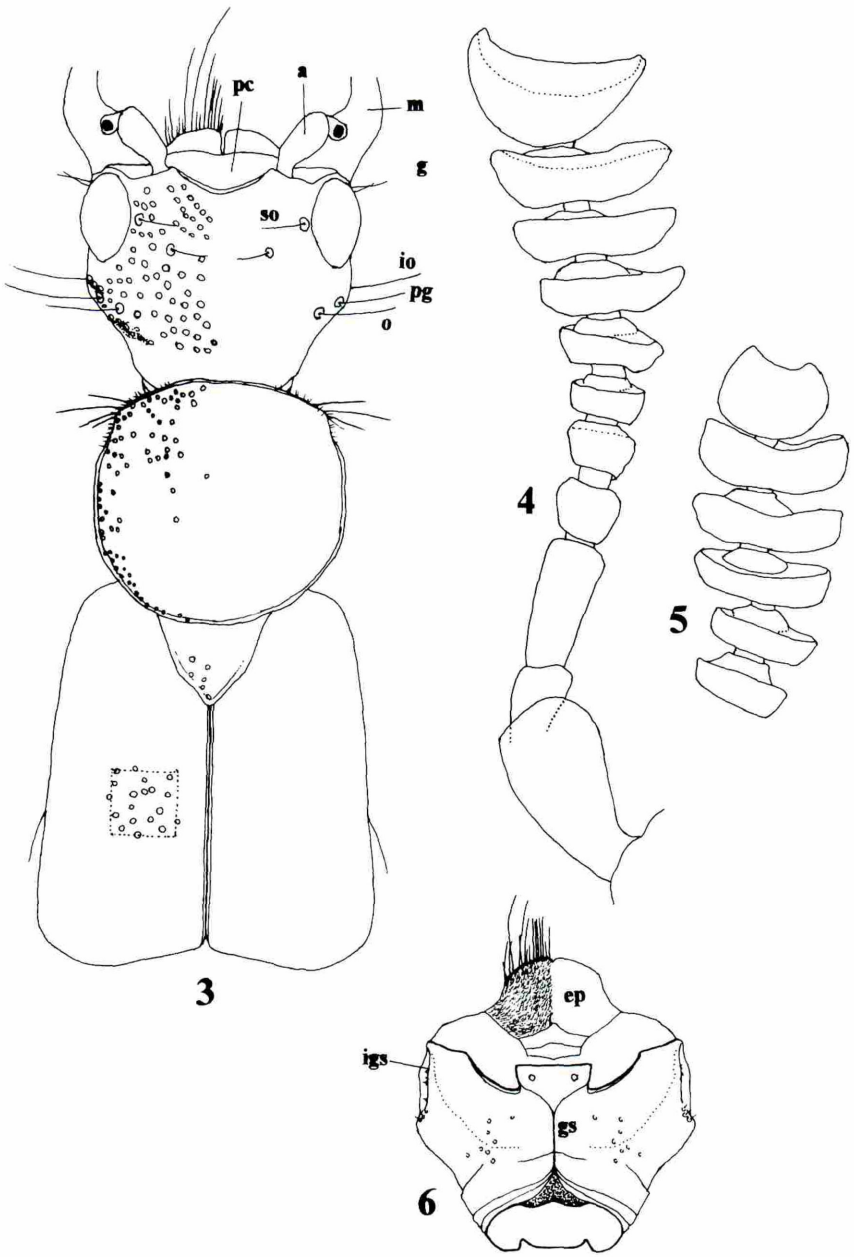
Figs. 1 & 2, Habitus of *Dorcophilonthus clavicornis* sp. nov.; 1, male; 2, female.

wide, almost rectangularly bent dorsally at the extreme base, deeply grooved at apical face, and the groove receiving 2nd segment; 2nd short, hidden in apical portion of 1st in strongly turning; 7th to 10th segments each boat-shaped; 11th segment markedly crescent in male but subtrapezoidal and bicrenate at apex in female. Eyes large, rather strongly convex dorso-laterally, and anterior angle produced in front slightly beyond the level of antennal insertion. Postgenae with a few punctate oblique sulci. Macrosetae composing chaetotaxy rather poorly developed, genal, supraorbital, occipital, postgenal and infragenal macrosetae discernible but front-marginal, supra-antennal and subgenal ones reduced, and a pair of additional long setae perceptible between eyes.

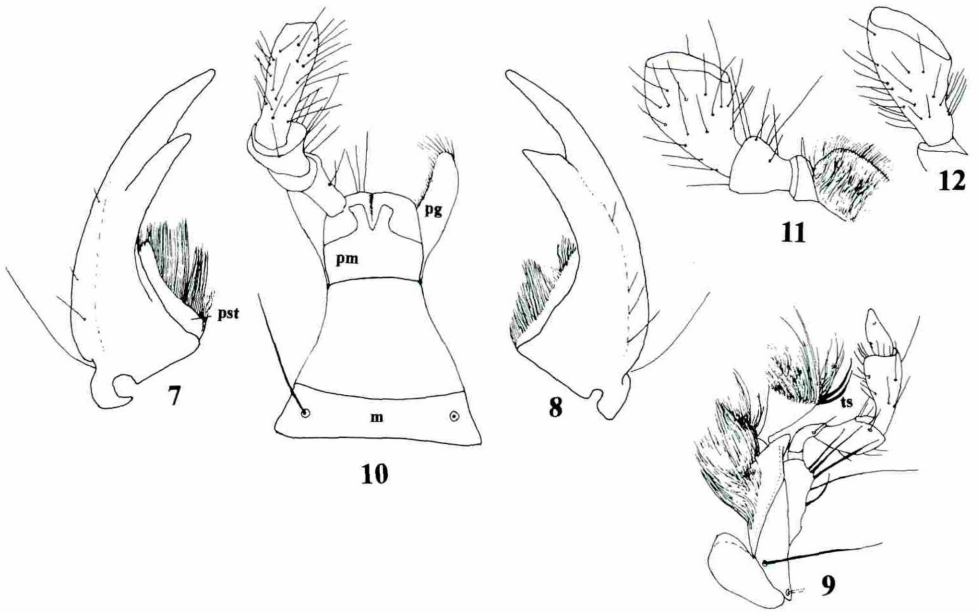
Subgenae (Fig. 6) very short, nearly glabrous, only with a few finely setiferous punctures and well shiny; infragenal line absent. Gena sulcate along border of head from base of mandible to portin of postgena on the underside, but the sulci not continuous with the post genal sulci (above mentioned) as in *Xanthopygus*. Gular sutures very short, contiguous to each other in full length and forming a fine sulcus.

Mandibles (Figs. 7 & 8) resembled to those of a *Dorcus* species, robust, gently curved, rather long, a little longer than head, nearly symmetrical, and each with a large subtriangular tooth at about apical third of upper side; prostheca unilobed, long, nearly a half as long as mandible, with long pubescence; in female mandibles relatively shorter than in male.

Labrum short, strongly transverse, almost completely bilobate; each lobe gently arcuate at front margin, densely setose at inner half of front margin, with a few long stiff setae, and nearly glabrous in lateral half and upper surface; in female labrum relatively longer than in male.



Figs. 3-6, *Dorcophilonthus clavicornis* sp. nov.; 3, fore body, with macrosetal and long setal chaetotaxy (a=antenna; g=genal macroseta; io=infraorbital macroseta; m=mandible; o=occipital macroseta; pc=preclypeus; pg=postgenal macroseta; so=supraorbital macroseta); 4, male antenna; 5, apical 6 segments of female antenna; 6, ventral view of head (ep=epipharynx; gs=gular suture; igs=inflagenal sulcus).



Figs. 7-12, *Dorcophilonthus clavicornis* sp. nov.; 7, left mandible (prostheca); 8, right mandible; 9, maxilla (ts=terminal seta); 10, labium (m=mentum; pg=paraglossa; pm=prementum); 11, labial palpus of female; 12, 3rd segment of male labial palpus).

Galea (Fig. 9) strongly dilate apically and densely pubescent in distal lobe, the pubescence being disorderly separated dorsoventrally; proximal sclerite subtriangular, glabrous, with a few pale terminal setae. Lacinia short and wide, densely pubescent in distal half, rough and sparsely pubescent in proximal half. Maxillary palpi filiform, relatively shorter in ♀ than in ♂ and covered with reticulolinear microsculpture; 1st segment the shortest, a little longer than wide, weakly curved, with a fine short seta at about the middle and a few short pubescence; 2nd strongly dilated distad and curved, nearly as wide as and slightly shorter than 3rd, bearing 2 long setae at apex and a few fine short ones at outer margin; 3rd nearly straight, strongly clavate and with numerous long setae of various length; 4th straight, glabrous, subfusiform in ♂, conical in ♀ subacute at apex, much slenderer and shorter than 3rd (7 : 12), finely and sparsely punctate and strigous on dorsal side instead of microsculpture.

Labial palpi (Figs. 10, 11 &12) long, thick, subclavate; 1st segment the shortest, straight, weakly thickened apicad, with a long seta near apex of inner side; 2nd strongly dilated apicad, nearly equal in size and shape to 1st in male, a little longer and thicker than 1st in female, with 10 and a little more long setae of various length, most of which are arranged in apical half of inner side; 3rd subsecuriform, strongly dilated apicad in lateral view, about twice as long as 2nd, nearly twice as long as wide in male but 1.3 times as long as wide in female, obliquely truncate at apex, which is elongate-suboval and excavate, and numerously but not densely setiferous in various length. Ligula short, wide, finely sulcate medially, with a fine small notch at apex and bearing about 3 long setae near base in each half. Paraglossa rather wide, fringed with long and dense pubescence at the inner margin, finely and densely ciliate dorsally, the tips reaching at apex of 1st segment of labial palpus. Prementum short, strongly transverse, strongly and subcylindrically convex in each half as a palpiger and deeply sulcate in front half.

Mentum (Fig. 10) very short and transverse, weakly emarginate at front margin, gently convex, rather deeply impressed medially, pitted at each lateral side and bearing single long stiff and erect seta in the pit. Submentum nearly flattened, faintly convex in the middle of each half, bearing a very long stiff setae near each lateral side.

Pronotum (Figs. 3 &13) subpentagonal, nearly parallel-sided in anterior two-thirds, widely rounded off posteriorly, nearly as wide as head and narrower than elytra and completely marginate with fine ridge, the margins visible nearly in full length except front angles in dorsal view; disc weakly convex, coarsely, sparsely and irregularly punctured, the punctures with well developed setae of various length, so that the macrosetae are not specified, interstices smooth; superior lateral line visible nearly in full length in dorsal view, inferior lateral line ended at prosternum and not linked with superior lateral line, so that superior lateral line only shifts to pronotal front margin; hypomeron horizontal, almost invisible in lateral view, rather wide and long; epimera (hypomeral projection) absent.

Scutellum large, triangular, subacute at apex, shallowly depressed and punctured; prescutum well developed.

Elytra (Fig. 3) subquadrate, coarsely punctured, the interstices smooth; macrosetae maldeveloped, hardly discernible except humeral macroseta; epipleuron not bordered above. Hind wings well developed.

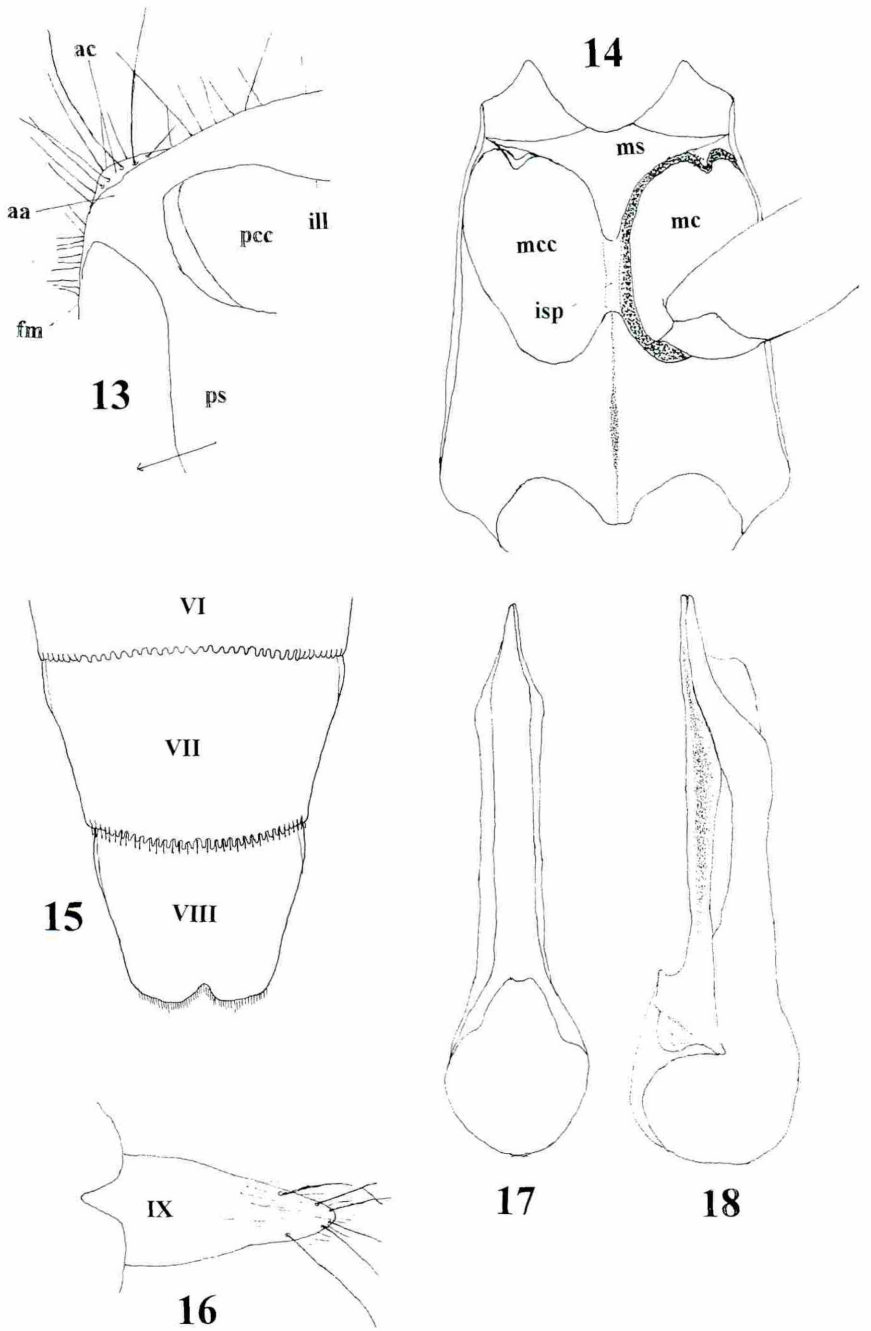
Prosternum flattened antero-posteriorly, weakly and transversely convex, not carinate medially and without paired erect setae; prosternal process very short and rounded at the tip. Furcasternum short and not carinate.

Mesosternum (Fig. 14) subtriangular, flattened, minutely and sparsely asperate-punctate, with fine short pubescence; mesosternal process narrow, elongate, rounded at apex; mesocoxae narrowly separated; intersternal piece narrow, rather long and deeply sunken.

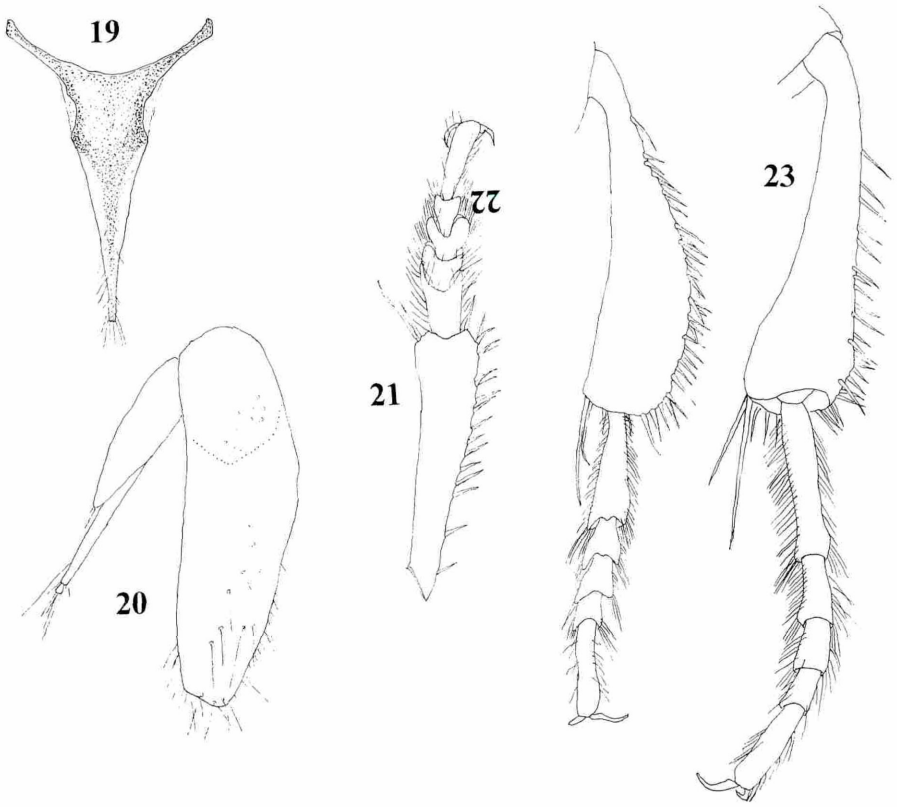
Metasternum rather long, vaguely depressed in each half and sulcate medially, the sulcus deepened in the middle portion in subfusiform as in *Xanthopygus*.

Abdomen (Figs. 15, 16, 19 & 20) elongate, slightly dilated in middle, shallowly depressed at base of 3rd to 6th tergites, rather sparsely and coarsely punctured, interstices smooth and shiny; all sternites shallowly depressed respectively in basal half; 7th sternite combed at apical margin and bearing a seta among the teeth; 8th tergite gently arcuate at apex; 8th sternite weakly reflexed, shallowly notched at apex in male and gently arcuate in female; 9th tergite very thick and robust, much thicker and robuster in ♀, rounded at apex, with numerous setae; 9th sternite in male elongate, subfusiform, rounded at apex, rough, minutely and sparsely punctured, not setose, with sparse pubescence of various length; in female 2nd gonocoxcite slender, subcylindrical, with a few pubescence and a long seta, and minute stylus very small, with a few pubescence at the tip; 10th tergite in male rather narrow, subtriangular, subtruncate at apex, not setose but pubescent in apical half; 10th tergite in female narrow, subtriangular, weakly emarginate at sides, somewhat extending laterally at base, blunt at the tip, finely and sparsely pubescent in apical fourth.

Legs (Figs. 21-23) short and robust, much shorter in female than in male, even in tarsomeres; tarsal formula 5–5–5; tarsi flattened, meso- and metatarsomera longer than wide in male but 2nd to 4th tarsomera much wider than long, protarsi a little dilated, 2nd to 4th segments wider than long in both sexes, very sparsely pubescent dorsally and with modified pale pubescence on planta; meso- and metatarsi almost glabrous except 5th segments; tibiae flattened, strongly dilated apicad, numerously and markedly spinous on latero-inferior surface, each with



Figs. 13-18, *Dorcophilonthus clavicornis* sp. nov.; 13, left anterior angle of pronotum in ventral view (aa=anterior angle; ac=anterior corner; fm=front margin; ill=inferior lateral line; pcc=procoxal cavity; ps=prosternum); 14, meso- and meta thorax in ventral view (isp=intersternal piece; mc=mesocoxa; mcc=mesocoxal cavity; ms=mesosternum); 15, abdominal sternite 6th to 8th of male; 16, 9th abdominal sternite of male; 17, male genitalia in ventral view; 18, ditto in right lateral view.



Figs. 19-23, *Dorcophilonthus clavicornis* sp. nov.; 19, 10th abdominal tergite of female; 20, 2nd gonocoxcite and 9th tergite; 21, protibia and protarsus; 22, mesotibia and mesotarsus; 23, metatibia and metatarsus.

a very long terminal spur on dorsal side, which is a little longer than 1st tarsomere in fore leg and about two-thirds as long as 1st one in mid- and hind leg. Empodial setae absent.

Male genitalia (Figs. 17 & 18) elongate, nearly symmetrical; penis cylindrical, rather weakly sclerotized in dorsum; parameres somewhat inclined to the left, perhaps without peg setae on inner face.

Discussion: The present new genus belongs to the subtribe Philonthina in having the following features: 1) empodial setae absent; 2) mentum bearing single seta at each lateral corner; 3) ligula not emarginate or bilobate but only minutely notched at the middle; 4) prosternum including furcasternum not carinate medially; 5) preclypeus (sensu BLACKWELDER, 1936) corneous. *Dorcophilonthus* is related to the genus *Philonthus* because that the protarsi are dilated and bears modified pale setae on planta, however, the markedly modified 3rd segment of labial palpi seems to show that *Dorcophilonthus* is placed in higher group in Philonthina.

Diagnosis: The genus *Dorcophilonthus* is easily recognized by the combination of the following features: 1) antennae short, strongly clavate, with 1st segment subcordate, apical 5 segment forming marked club and male 11th segment crescent; 2) mandibles similar in shape to those of a *Dorcus* species; 3) 3rd segment of labial palpi securiform in lateral view, strongly thickened distally and elliptical in the cross section; 4) head without front-marginal, supra-

antennal and subgenal macrosetae; 5) neck not constricted anteriorly; 6) inferior lateral line ended at hind margin of prosternum and never united with superior lateral line, so that the latter line only shifting to front margin of pronotum; 7) prosternum without paired long setae at the middle; 8) meso- and metatibiae strongly dilated distally with strong numerous spines as in a histerid beetles; 9) tarsi flat on dorsum.

Etymology: The generic name derived from Greece. "Dorco-" comes from a "*Dorcus*" (Lucanidae), and *Philonthus* is known generic name.

Dorcophilonthus clavicornis sp. nov.

(Figs. 1-23)

Facies well similar to *Philonthus spinipes* SHARP from Japan. Body robust, thick and rather flattened above and well shiny; colour black with sparse yellowish pubescence, elytra yellowish red, labrum brown, palpi and tarsi piceous. Length: 15.5-16.8 mm.

Head (Fig. 3 & 6) subpentagonal, much wider than long (46 : 27), slightly wider and much shorter than pronotum (46 : 44 & 27 : 40), nearly parallel-sided in anterior two-thirds, widely rounded at posterior third, thence rapidly narrowed posteriad; anterior margin rather deeply emarginate, and antennal tubercles markedly emarginate at each outer margin; upper surface nearly flattened, very coarsely, irregularly and rather sparsely punctured, the punctures deep, umbilicate, much sparser in vertex but less sparse in postgenae, and the interstices wide, flat, without microsculpture; genae and postgenae widely impunctate and glassy around eyes; subgenae glassy, with only a few punctures. Eyes large, strongly convex dorso-laterally and three-fourths as long as postgenae. Mandible robust, long, a little longer than head (33 : 27), with a long large tooth at about apical third of dorsum. Antennae (Figs. 4 & 5) short, markedly clavate, especially strongly incrassate in apical 5 segments, basal 3 segments more or less longer than wide, and the following ones distinctly transverse and gradually twisted for 1st segment; 1st segment wide, subcordate, nearly twice as long as wide, nearly as long as the following 2 segments combined together; 2nd about 1.5 times as long as wide, almost hidden in the apical groove of 1st in bending rectangularly; 3rd straight, fully twice as long as wide; axises of 7th to 11th segments biassed insidely, 7th to 10th segment boat-shaped, and 11th markedly crescent, acute at the both tips; all the segments with the following relative length (width; the length measured at each axises): 19.0 (10.5) : 9.5 (6.0) : 12.5 (6.0) : 5.0 (6.0) : 4.5 (7.0) : 4.5 (8.0) : 4.5 (11.0) : 5.0 (15.0) :5.0 (17.0) : 5.0 (18.0) : 7.0 (18.0).

Pronotum (Figs. 3 & 13) subpentagonal, slightly narrowed anteriad, weakly arcuate at sides, widest at about the middle, widely rounded off posteriad, weakly arcuate at anterior margin, a little wider than long (44.0 : 40.0), much narrower and shorter than elytra (44.0 : 57.0 & 40.0 : 60.0); disc moderately convex, weakly humped just behind the middle of anterior margin, coarsely, irregularly and sparsely punctured as on head in both antero-lateral halves and closely so along margins, the punctures much denser just behind anterior margin, antero-median area and hind half almost impunctate; surface even, very minutely and sparsely punctulate all over, without microsculpture but with very fine and seemingly clinging fibre.

Scutellum shallowly depressed, with several coarse punctures in hind half.

Elytra (Fig. 3) subquadrate, slightly widened posteriad, weakly arcuate at sides and gently arcuate at posterior margin in each half, slightly longer than wide (57: 60), rather coarsely,

sparsely and deeply punctured, the punctures much smaller than those on head; interstices smooth, without microsculpture; both sides of suture very narrowly ridged, and the top of the ridge flattened and transversely strigous. Hind wings well developed, functional.

Abdomen (Figs. 15, 16, 19 & 20) slightly dilated before middle, widest at 5th segment; each segment punctured densely in base, very sparsely in middle and rather densely in apical area, the punctures irregular in size, apparently umbilicate, much larger and denser on sternite, and elongate, mostly more than twice as long as wide in hind half of 7th and 8th segments; surface with transversely lineoreticulate microsculpture, which is stronger on sternites; apical margin weakly crenulate in 5th segment, strongly so in 6th, and markedly densely combed in 7th sternite; 8th sternite weakly reflexed posteriad, closely fringed with stiff pubescence at apical margin in both sexes; in male, apex of 8th sternite rather widely and shallowly notched at the mid-dle; in female, apex of 8th sternite gently arcuate and subtruncate in the middle.

Legs (Figs. 21-23) short and robust; protarsi rather narrow, much narrower than apex of protibiae, about 0.9 times as long as protibiae in male, 1st segment much longer than wide in both sexes, 2nd to 4th only slightly wider than long in female but much wider than long in female; meso- and metatarsi each about 0.8 times as long as respective tibiae in male but all tarsi about 0.6 times as long as respective tibiae in female; in male, all segments of meso- and metatarsi much longer than wide, 1st segment of metatarsus nearly as long as the following 3 segments combined together and much longer than 5th segment, but in female 2nd to 4th segments of meso- and metatarsi much wider than long.

Male genitalia (Figs. 17 & 18) slender, nearly symmetrical parallel-sided except basal tumidity; penis nearly straight in basal two-thirds and weakly sinuate in apical third in lateral view, weakly tumid at about apical third, thence rapidly convergent to subacute tip; parameres unilobed, straight, a little narrower than penis in ventral view, nearly parallel-sided, gradually narrowed from apical fourth to subacute tip which reachs the tip of penis, without peg-setae on inner face, with about 4 fine hairs on both sides of apical fourth and gently dilated in middle third in lateral view, the dilated face shallowly depressed.

Holotype: ♂, Jowai Env. (1400 m), 25°30'N 92°10'E, Megalaya, NE. India, 11-15. V. 1999, Z. KOSTÁL leg. (in the collection of the Osaka Museum of Natural History). Paratypes: 2 ♀ ♀, same date as the holotype.

Specimens examined: 1 ♀, same data as the holotype; 1 ♂, 20 km NW Lowang Namtha (21°00'N 109°18.7'E; 900–1000 m), N. Laos, 24-30. V. 1997, E. JENDEK & O. SAUSA leg.

Note: The specimens from Laos very closely resembles in general appearance and male genitalia to the holotype, but the body is somewhat delicate, the punctures are a little smaller and the tip of the parameres of male genitalia is not reaching to apex of penis.

Etymology: The specific name is derived from Latin "Clava" means club-shaped, and "cornu" means a horn.

Some Notes on the Features of Philonthini

HAYASHI, 1994 mentioned that the empodial setae are imperceptible in the genus *Philonthus* CURTIS. Indeed, in all species of the following genera I examined the empodial setae are absent: *Erichsonius*, *Philonthus*, *Rabigus*, *Neobisnius*, *Hesperus*, *Cafius*, *Phucobius*, *Hybridolinus*, *Craspedomerus*, *Belonuchus*, *Gabrius*, *Bisnius*, *Chroaptomus* and *Dorcophilonthus*. Therefore the absence of empodial setae has the possibility to be a important character for the

subtribe Philonthina.

As HAYASHI, 1993 mentioned in the redescription of the genus *Anisolinus* SHARP, the empodial setae are distinctly present but those are generally very poorly developed in all species of the following anisolinine genera I have examined: *Anisolinus*, *Amichrotus*, *Hesperosoma*, *Amaurochlamys* and *Pammegus*. Therefore anisolinine genera are possible to have empodial setae. Asian species of the genus *Tympanophorus* I examined (ex. *Tympanophorus sauteri* BERNHAUER) distinctly belongs to Anisolinina, however, according to Dr. A. NEWTON Jr. (pers. comm.), the genus *Tympanophorus* NORDMANN does not belong to the Anisolinina. I have not yet examined the species of *Tympanophorus* from South America. The genus is originally described from Brazil, so that it is neccesary to reexamine the species described as *Tympanophorus* from Asia.

要　　約

林　靖彦：熱帯アジア産コガシラハネカクシ亜族の新属新種．— 一見オオアカバコガシラハネカクシ *Philonthus spinipes* SHARPに似ているが，触角，口器，頭部の構造，肢などに著しい特徴を持つ，コガシラハネカクシ亜族の新属新種を北東インドから報告した．本種はまたラオスからも発見されたので，東南アジア全体に広く分布しているものと思われる．

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A New Genus and Species of the Selenophori Group from Laos (Coleoptera: Carabidae: Harpalini)

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Abstract A new genus, *Trichoxycentrus*, is established in the Selenophori group of the Harpalinae, based on a new species, *Trichoxycentrus rugiceps* n. sp. from Laos.

Up to date, no genus which is related to the genus *Oxycentrus* CHAUDOIR of the Selenophori group has been known. According to NOONAN (1985), the genus *Hyphaereon* (genera *Coleolissus* BATES and *Calathomimus* BATES are included in the genus as synonyms in his sense, 1985) is treated as the genus related to the genus *Oxycentrus* in having the sharp and more or less elongate mandibles. But the structure of teeth of the mandibles and spines of the styli in the female genitalia are different between the genera *Oxycentrus* and *Coleolissus* and therefore, they must not be so nearly related to each other. Recently, I obtained the strange examples closely related to the genus *Oxycentrus* in the features of teeth of the mandibles and the spines of the styli, but the head and ligula are quite different as mentioned below and thus I am going to describe it as a new genus and new species *Tricoxycentrus rugiceps* gen. et sp. nov. from Laos. This new genus is peculiar within the species of the Harpalini, in the quadrisetose ligula at apex.

I wish to express my cordial thanks to Dr. David W. WRASE, Berlin for his kind loan of material.

Concerning measurement of the body parts and preparation of the male genitalia, see N. ITO (1998). The holotype will be deposited in the Osaka Museum of Natural History and one paratype will be preserved in WRASE collection. The remaining paratypes are preserved in my collection.

Trichoxycentrus N. ITO, gen. nov.

Type species: *Trichoxycentrus rugiceps* N. ITO, sp. nov.

Head sparsely pubescent on dorsal surface and densely setose on ventral surface; frontal impressions not so deep as those of the genus *Oxycentrus*, reaching supraorbital grooves; mandibles (Fig. 2) elongate, pointed at tips, terebral and retinacular teeth similar to those of the genus *Oxycentrus*; antennae (Fig. 3) furnished with pubescence even in 1st and 2nd segments, though a little sparser in the 3rd and the following segments; second segments of labial palpi (Fig. 4) plurisetose; ligula (Fig. 4) quadrisetose at apex; mentum (Fig. 4) with large tooth at apex, completely sutured with submentum.

Pronotum bearing a single marginal seta at each side.

1

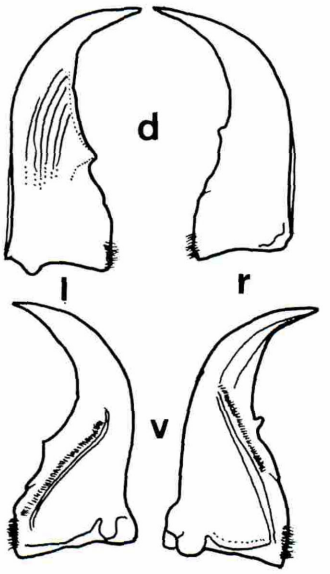

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Fig. 1, *Trichoxycentrus rugiceps* N. ITO, gen. et sp. nov., habitus. Fig. 2, *Trichoxycentrus rugiceps* N. ITO, gen. et sp. nov., mandibles (r, right mandible; l, left mandible; d, dorsal aspect; v, ventral aspect)

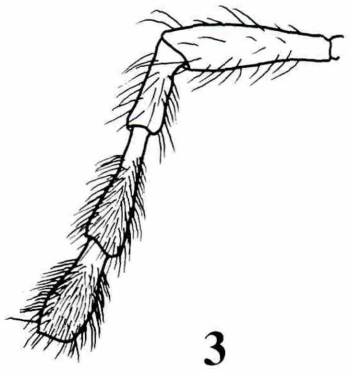

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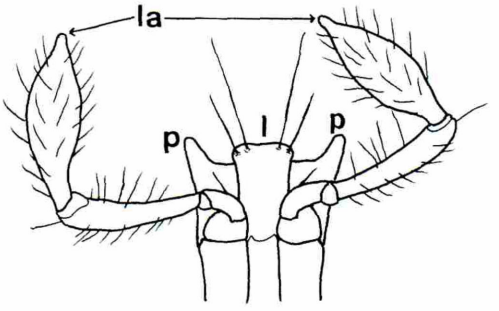
Fig. 3, *Trichoxycentrus rugiceps* N. ITO, gen. et sp. nov., first to 4th antennal segments.



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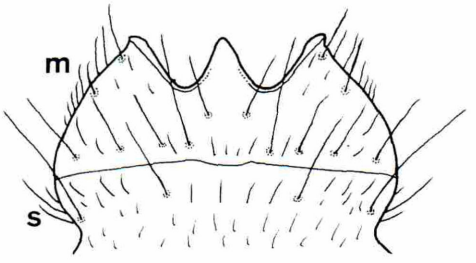

Fig. 4 *Trichoxycentrus rugiceps* N. ITO, gen. et sp. nov., buccal part (l, ligula; la, labial palpi; m, mentum; p, paraglossen; s, submentum).

Elytra without or with short and vague scutellar striole; dorsal pore on 3rd interval lacking; apices subtruncate and comparatively produced at fringes, rather similar in shape to the genus *Dromius*.

Prosternum and preepisterna densely covered with long pubescence. Sixth abdominal sternite in both sexes bisetose at each side, and ciliate along outer margins.

Fore and mid femora densely setose and hind femora plurisetose postero-ventrally; tibiae

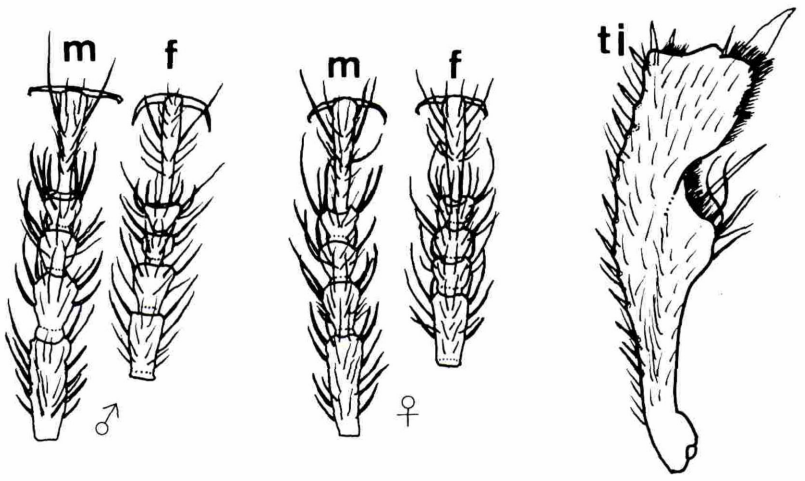

Fig. 5, *Trichoxycentrus rugiceps* N. ITO, gen. et sp. nov., tarsi and tibia (f, fore tarsus; m, mid tarsus; ti, fore tibia).

(Fig. 5) densely setose; tarsi (Fig. 5) densely setose on dorsal surfaces, fore and mid tarsi in ♂ not expanded, not different in shape from those in ♀, ventrally with seriate adhesive squamae only at apex of each segment, 1st segment of hind tarsus a little longer than 2nd and 3rd taken together.

Stylus (Fig.6 A) of female genitalia without or with one or two tiny seta only at basoventral margin.

This new genus belongs to the Selenophori group according to the long 1st segment of hind tarsus and must be related to the genus *Oxycentrus*, as far as being judged from the mandibles sharp, elongate and similar in structures of terebral and retinacular teeth, the elytra subtruncate at apices, and the spinous structure of stylus in female genitalia. But, the present genus is characteristic among the Selenophori group in the ligula quadrisetose at apex and the legs densely setose dorsally. Number of the setae on the ligura is very steady not only in the Selenophori group but also in the tribe Harpalini and the presence of four setae is extremely exceptional. This must be the apomorphic characteristic. The setose legs is often found in several genera of the other genus-groups of the tribe Harpalini, for examples, *Ophonus* STEPHEN and *Piosoma* LATREILLE of the Harpali group, *Chilotomus* CHAUDOIR and *Carterus* DEJEAN of the Ditomi groups, and so on. But, within the Selenophori group, the presence of such long setae on legs are very rare and found only in the genus *Indiophonus* N. ITO. Discovery of additional species will verify its phylogenetic relationship within the Selenophori group.

Trichoxycentrus rugiceps N. ITO, sp. nov.

(Figs. 1-6.)

Body oblong-elongate, rather flattened, fully longer in pronotum than usual, brown to dark brown, shiny, without iridescent lustre; palpi, antennae, mandibles except for black inner margins, lateral portions of pronotum, lateral and sutural intervals of elytra, and legs light reddish

brown, frons to vertex blackish.

Head relatively small, nearly three-fifths of the pronotal width, fairly elevated on vertex, coarsely punctate, rugose laterally on frons, with wide interocular space 0.72–0.74 times as wide as the width of head including eyes; labrum transversely quadrate; clypeus truncate apically, transversely depressed along apex, weakly swollen behind the depression; clypeal suture finely and clearly carved; eyes moderately large, not prominent; temples short, gently sloping; genuine ventral margin of eye very narrowly separated from buccal fissure; antennae (Fig. 3) submonili-form in apical eight segments, rather long, and reaching apical fifth of elytra, 3rd segment pu-bescent in apical four-fifths, one-third longer than the 4th and the 2nd, respectively; mandibles (Fig. 2) strongly curved inwards, terebral tooth of left mandible rectangular and that of right one small, retinacular tooth of both mandibles quite tiny; maxilary palpi massive; 3rd segment of labial palpus (Fig. 4) more or less tumid, as long as the 2nd which is slender; ligula (Fig. 4) rather wide, weakly bisinuate at apex, not angulate at apical corners; paraglossae (Fig. 4) pro-longed forwards beyond ligula, as a narrow lobe on each corner; epilobes of mentum (Fig. 4) well protrudent forwards at apices which are rather well dilated; microsculpture clearly visible as isodiametric meshes.

Pronotum quadrate, widest a little behind apical two-fifths, comparatively long, slightly wider than long (1.10 in ratio), weakly convex; dorsal punctures fine on disc, a little coarse near apex, distinctly coarse in median line, lateral furrows and basal foveae; sides weakly arcuate in apical two-thirds, subparallel in basal third, where the edges are ragged; apex deeply emarginate, straight and unbordered at the bottom; base 1.24–1.29 times as wide as apex, straight or hardly emarginate, and with border obscure at sides and interrupted medially; apical angles protrudent forwards, narrowly rounded; basal angles acute and rectangular; lateral furrows uniformly wide in apical two-thirds, thence expanded basad, conjoining basal foveae, which are flattened and feebly concave at inner sides; front transverse impression vague and the hind one a little clearer; median line extending apex and base, deep and wide lengthwise; microsculpture clearly carved, especially so strong that surface is visible to be coarsened in lateral furrows and basal foveae, mostly consisting of isodiametric meshes and partly of transverse meshes.

Elytra oblong, one-fifth wider than pronotum, parallel-sided, flattened on disc, gently declivous laterad, very sparsely and minutely punctate; sides weakly arcuate in humeri, abruptly curved before apices, with very shallow preapical sinus; apices roundedly separated at tip; bases shallowly emarginate; humeral angles sharp and rectangular; striae wide, not acute, and with crenulation clear and large; intervals uniformly gently convex; marginal series widely separated in middle, consisting of (6–7) + (7–8) umbilicate pores; surface clearly microsculptured, transversely meshed in most portions and isodiametrically so on lateral intervals. Hind wings entire.

Ventral surface so strongly reticulated as to be opaque, sparsely pubescent on metasternum and medially on 2nd to 6th abdominal sternites; metepisterna elongate, nearly three-fifths longer than wide; apical margin of 6th abdominal sternite widely arcuate in both sexes.

Legs relatively long; fore tibiae (Fig.5) arcuate inwards, strongly widened distad, developed at apico-external corner, not sulcate dorsally, and serrate and arranged with spines along external margin, terminal spur lanceolate, mid tibiae also arcuate inwards and distinctly dilated apicad; hind tarsi nearly one-tenth longer in ♂ and one-sixth shorter in ♂ than the width of head, 2nd segment one-tenth longer than the 3rd and one and two-thirds as long as the 4th, claw segment tri- or quadrisetose along each ventral margin.

Aedeagus (Fig.6-B) rather thin and gradually tapered distad, rounded at tip, with large

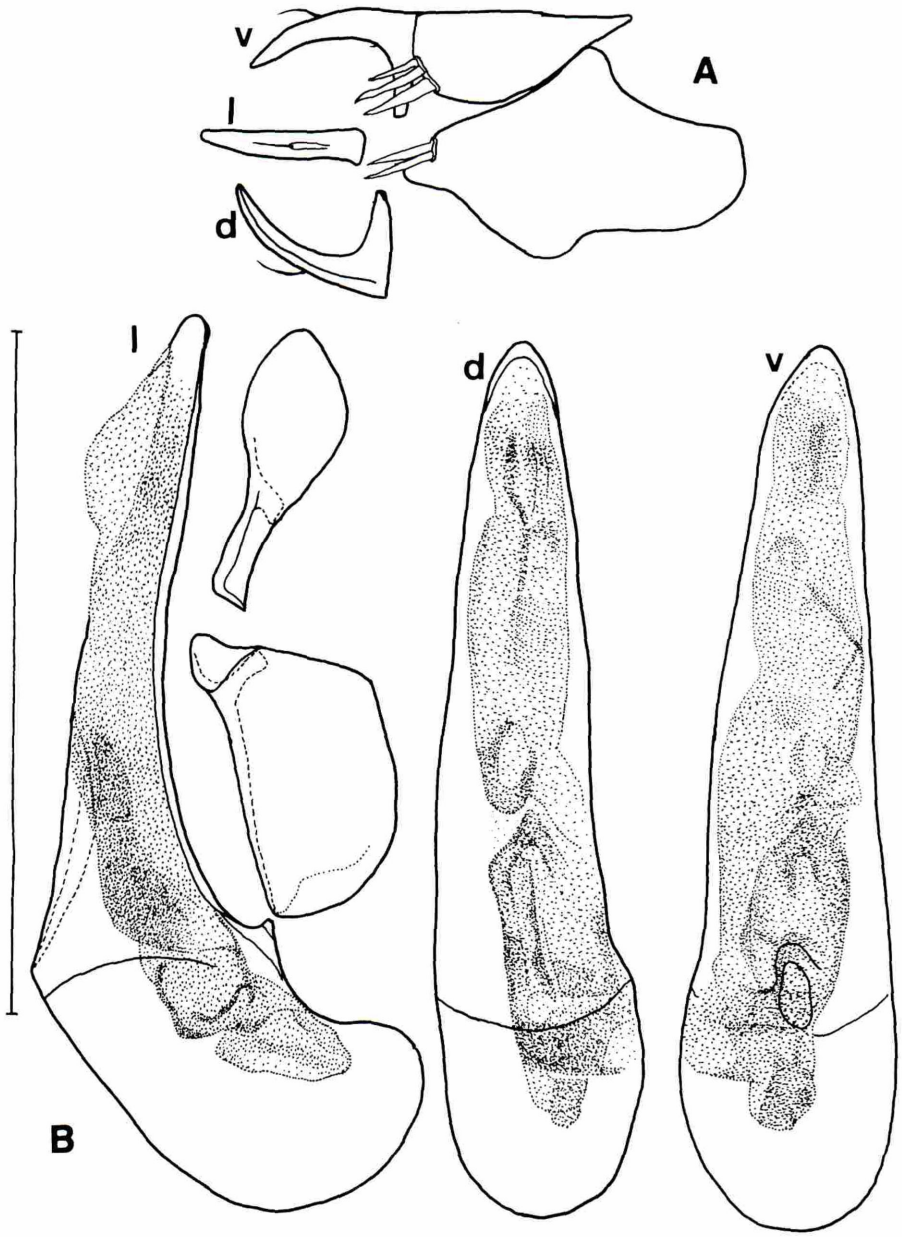

Fig. 6, *Trichoxycentrus rugiceps* N. Ito, gen. et sp. nov., genitalia: A, female genitalia; B, male genitalia (d, dorsal aspect; l, lateral aspect; v, ventral aspect). Scale: 1 mm

basal bulb; apical orifice large (the boundary invisible in the Canada Balsam), inner sac without any armatures; ventral surface hardly depressed, not bordered. Stylus (Fig. 6-A)) slender, clearly curved outwards, with a short seta at middle of inner side; basal segment bi- or trisetose at apico- external corner; valvifer bisetose a little behind apex.

Length: 6.0–6.9 mm. Width: 2.0–2.3 mm.

Holotype: ♂, Ban Phabat env., 18°16.1'N, 103°10.9'E, alt. 150 m, 70 Km NE from Vientiane, North Laos, 27. IV.–1. V. 1997, E. JENDEK and O. SAUSA leg. Paratypes: 3♂♂2♀♀, same data as the holotype; 1♂, 10 km N Luang Prabang,Mekon Riv., 240 km N from Vientiane, hilly country, sparsely settled primary vegitation, Insomsay Somsy leg.; 1♀, Vientiane env., 150 m, Central Laos, IV.1997.

This new species is easily distinguished from all harpaline species by combination of the mandibles sharp and elongate, the head pubescent and coarsely punctate, and the prothorax densely setose ventrally, in additoion to the generic characteristics.

要　　約

伊藤 昇：ラオスからのSelenophori Groupの新属新種.—— ラオスからSelenophori Groupの新属新種*Trichoxycentrus rugiceps* を記載した．この新属は大顎及び雌の交尾器の構造から*Oxycentrus* 属に近縁であるが，付節及び脛節背面に剛毛を有する点，舌先端の剛毛が4本である点で容易に区別できる．Harpalini族では，舌先端の剛毛数は2本の場合が殆どで，4本あるのは極めて例外的で特異な特徴である．

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Tiger Beetles of Indonesia Collected by Mr. Shinji NAGAI (Coleoptera: Cicindelidae)

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Abstract Tiger beetles taken in Indonesia are reported. *Hipparidium shinjii* is described as a new species. It is characterized by its small size, shape of aedeagus and elytral maculation.

Due to the kindness of Mr. Shinji NAGAI, the authors have had an opportunity to study the rich material of tiger beetles collected by him in Indonesia in recent years. Remarkable findings are the rare *Thopeutica aurothoracica* (W. HORN, 1897) and *Wallacedela kalisi* CASSOLA, 1991, and the discovery of so far unknown new species. All species and their corresponding label data are listed in the following lines.

Tricondyla punctulata CHAUDOIR, 1861

Specimens examined: 1♀, To'Rea, Puncak-Palopo, Palopo, Luwu, C. of S. Sulawesi, Indonesia, I. 2000, Becce GALA leg.; 1♂, 1♀, Karum-Ganga, Tanha-Toraja, C of S Sulawesi, Indonesia, I. 2000.

Tricondyla herculeana W. HORN, 1942

Specimens examined: 1♀, Sam Puna (1050 m), Puncak-Palopo, S Sulawesi, Indonesia, 22-23. I. 2000.

Tricondyla cyanea cyanea DEJEAN, 1825

Specimens examined: 2♀♀, Mt. Gumitir, E. Java, Indonesia, VIII. 1998; 1♂, 1♀, Mt. Argopuro, E. Java, Indonesia, X. 1998; 3♂♂, 2♀♀, Mt. Argopuro, E. Java, Indonesia, XI. 1998; 3♀♀, Mt. Argopuro, E. Java, Indonesia, III. 1999.

Tricondyla aptera aptera (OLIVIER, 1790)

Specimens examined: 1♀, Yapen I., Irian-jaya, Indonesia, VII. 1999.

Neocollyris (*Neocollyris*) *celebensis* (CHAUDOIR, 1860)

Specimens examined: 1♂, Kaleakan, Puncak-Palopo, Palopo, Indonesia, 26. I. 2000; 1♀, Salu Buah (700 m), Puncak-Palopo, S. Sulawesi, Indonesia, 24. I. 2000.

Neocollyris (*Stenocollyris*) *horsfieldii* (MACLEAY, 1825)

Specimens examined: 1♀, XI. 1998 & 2♂♂, 2♀♀, I. 1999, Mt. Argopuro, E. Java, Indonesia.

Therates spinipennis xanthophobus W. HORN, 1908

Specimens examined: 3♂♂, 3♀♀, Padang, W. Sumatra, Indonesia, VII. 1996.

Therates dimidiatus wallacei THOMSON, 1857

Specimens examined: 1♂, Padang, W. Sumatra, Indonesia, VII. 1996.

Therates bipunctatus WIESNER, 1988

Specimens examined: 1♂, To'Rea, Puncak-Palopo, Palopo, Luwu, C. of S. Sulawesi, Indonesia, I. 2000, BECCE GALA leg.; 1♀, Puncak-Palopo (700 m), Palopo, Luwu, C. of S. Sulawesi, Indonesia, 2. I. 2000, S. NAGAI leg.; 1♀, Puncak-Palopo, Palopo, C. of S. Sulawesi, Indonesia, 20. I. 2000; 1♀, To'Rea (800 m), Puncak-Palopo, Palopo, C. of S. Sulawesi, Indonesia, 23. I. 2000; 2♀♀, Salu Buah (700 m), Puncak-Palopo, S. Sulawesi, Indonesia, 24. I. 2000; 2♂♂, Kaleakan, Puncak-Palopo, Palopo, Indonesia, 1. II. 2000.

Therates labiatus (FABRICIUS, 1801)

Specimens examined: 1♀, Mamaesa, Tanah Toraja, C of Sulawesi, Indonesia, I. 2000.

Hipparidium heros (FABRICIUS, 1801)

(Figs. 1, 5–6, 7)

Specimens examined: 3♂♂, 1♀, Salu-Bua, Puncak-Palopo, Palopo, Luwu, C. of S. Sulawesi, Indonesia, 18-19. I. 2000, BECCE GALA leg.; 2♂♂, Sa'dam Balusa (2500 m), Tana-Toraja, S Sulawesi,

Indonesia, 21-22. I. 2000; 4♀♀, Sam Puna (1050 m), Puncak-Palopo, S Sulawesi, Indonesia, 22-23. I. 2000; 1♀, Kaleakan, Puncak-Palopo, Palopo, Indonesia, 26. I. 2000; 1♀, Kaleakan, Puncak-Palopo, Palopo, Indonesia, 1. II. 2000; 1♂, Salu Buah (700 m), Puncak-Palopo, S. Sulawesi, Indonesia, 24. I. 2000; 3♂♂2♀♀, Puncak-Palopo (700 m), Palopo, N of S Sulawesi, Indonesia, 2. I. 2000, S. NAGAI leg.

Hipparidium shinjii n. sp.

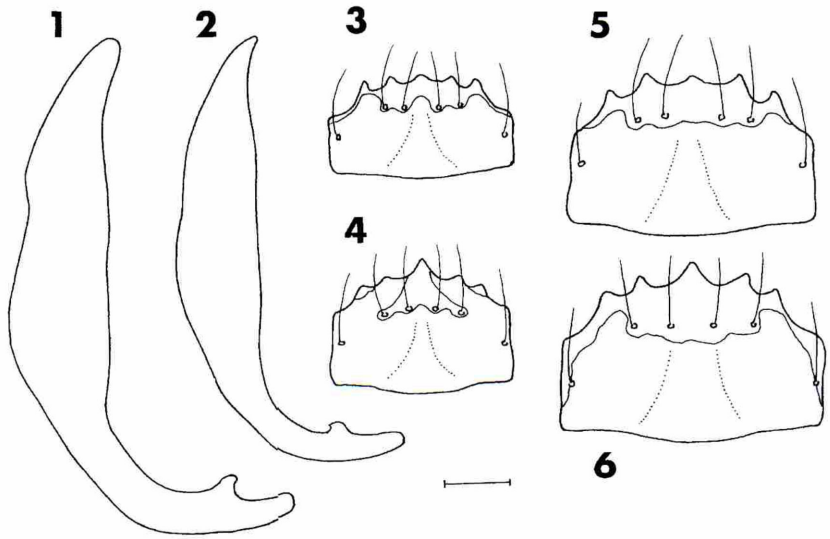
(Figs. 2–4, 8)

Description. Total length (without labrum) 16.9–18.5 mm (mean: 17.6 mm; n = 8).

Head. Dark brown to black above, with some green reflection behind the cheeks and the sensorial bristles near the eyes. Surface except two long sensorial bristles near the eyes glabrous, slightly striated between the eyes. Labrum testaceous, in various extension black at front (Figs. 3–4), wider than long, with five pointed teeth in front (median one shorter in male, longer in female), six long bristles near anterior edge. Mandibles with a small (♀) or larger (♂) testaceous spot at base, black with some green reflection on the remaining. Labial and maxillary palpi testaceous, apical joint metallic green. Antennae not very long, reaching the first third of the elytra, scape and joints two to four glabrous, shiny black, scape with a single apical bristle, joints five to eleven finely and evenly pubescent.

Thorax: Pronotum subsquared, black to coppery with green reflection in the furrows, slightly wider than long, rounded at sides, distinctly narrowed behind the middle, surface bare with a row of white hairs on sides of middle lobe; episterna bare, black or red violet with some coppery reflection; mesepisterna of female with a distinct longitudinal furrow in the middle.

Elytra wider than head with eyes, subparallel-sided; apices microserrulate, rounded, with distinct sutural edge; shoulders well marked, subsquared; surface smooth, ground color black to



Figs. 1–2, Aedeagus: 1, *Hipparidium heros* (FABRICIUS, 1801); 2, *H. shinjii* n. sp., holotype. Figs. 3–6, Labrum: 3, *H. shinjii* n. sp., holotype♂; 4, *H. shinjii* n. sp., paratype♀; 5, *H. heros* (FABRICIUS, 1801)♂; 6, *H. heros* (FABRICIUS, 1801)♀. (Scale: 1 mm)

dark brown, with or without some coppery reflection; elytral yellowish markings comprising humeral lunula, marginal band and apical lunula, all of them connected and enlarged at the margin, a thin and sometimes interrupted middle band, which is connected with the enlarged marginal band, a slender triangulated basal dot, which is connected with a slender longitudinal front humeral dot, more or less connected with a very slender posterior humeral dot, and produced posteriorly towards elytral apex, nearly reaching tip of middle band; epipleura black or metallic.

Underside black with or without violet, red green or blue reflection, first and second abdominal sternite covered all over with white hairs, third, forth and fifth only sparsely setose, the remaining glabrous. Legs long and slender, black, with some metallic reflection, covered with white setae; trochanteres orange red and bare.

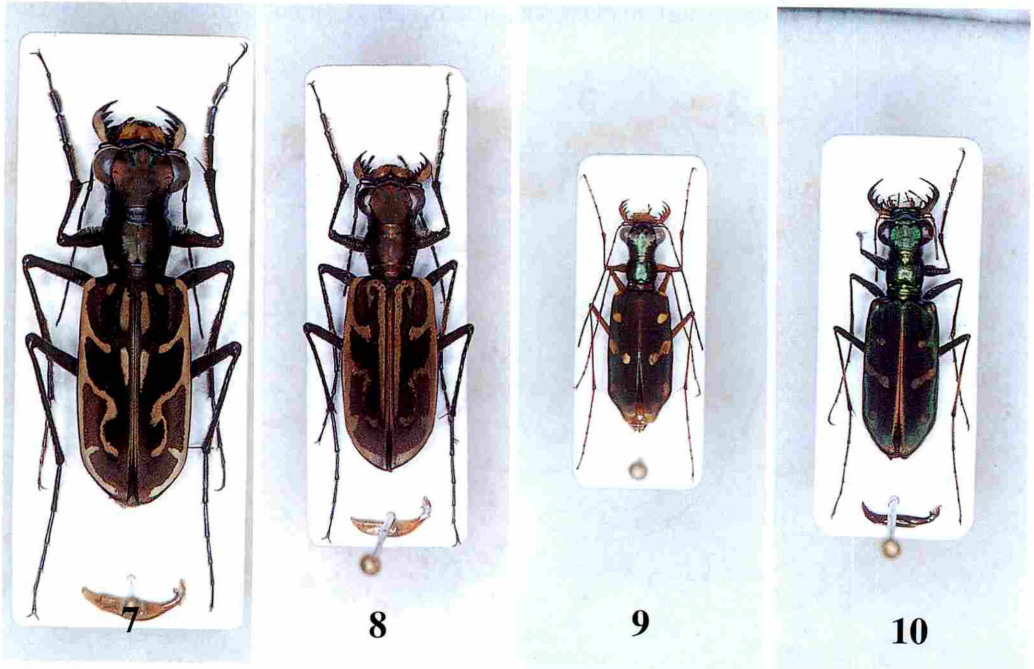
Male Genitalia. Total length 6.4 mm, slender, tapered apically and hooked at the tip.

Holotype: ♂, Mt. Lompo-Battang (1700 m), S Sulawesi, Indonesia, 24–26. XII. 1999, S. NAGAI leg., (in the collection of the State Museum of Natural History, Stuttgart, Germany; at present as a long time loan in coll. WIESNER). Paratypes: same label data, 1♂, 2♀♀ (in coll. WIESNER), 2♂♂1♀ (in coll. SAWADA), 1♂ (in coll. Aomori Pref. Museum).

Distribution. *H. shinjii* sp. nov. is known only from its type locality, Mt. Lompo-Battang.

Remarks. *H. shinjii* looks like a small *H. heros* (FABRICIUS, 1801), the latter ranges about 19 to 24 mm with an average of about 22 mm in length. The aedeagus of *shinjii* is smaller (Fig. 2), tapered at the apex and hooked at the tip, while the apex of *heros* is more robust (Fig. 1). The elytral maculation of *shinjii* is characterized by the broad marginal band and the mostly connected basal dot, ante- and posthumeral dots, the latter dot produced towards elytral apex; in *heros* the marginal band is much smaller, and basal and humeral dots well separated, the latter not so long or produced as in *shinjii*.

Etymology: Designated to the discoverer of this species, Mr. Shinji NAGAI.



Figs. 7-10. Habitus: 7, *H. heros* (FABRICIUS, 1801) ♂; 8, *H. shinjii* n. sp., paratype ♂; 9, *Thopeutica* sp. ♂; 10, *Wallacedela* sp. ♀

Lophyridia decemguttata decemguttata (FABRICIUS, 1801)

Specimens examined: 1 ♀, Puncak-Palopo, Palopo, C. of Sulawesi, Indonesia, 20. 1. 2000.

Cosmodela aurulenta aurulenta (FABRICIUS, 1801)

Specimens examined: 1 ♀, Pusuk, Lombok, XI. 1999; 1 ♀, Lampung, S. Sumatra, Indonesia, XI. 1999.

Polyrhanis funerata (BOISDUVAL, 1835)

Specimens examined: 1 ♀, Timika, Irian Jaya, Indonesia, VIII. 1998.

Thopeutica (*Thopeutica*) *toraja* CASSOLA, 1991

Specimens examined: 6 ♂♂, Salu-Bua, Puncak-Palopo, Luwu, Palopo, C. of S. Sulawesi, Indonesia, 18-19. I. 2000, BECCE GALA leg.; 1 ♂, Sam Puna (1050 m), Puncak-Palopo, S. Sulawesi, Indonesia, 22-23. I. 2000; 1 ♂, Puncak-Palopo (700 m), Palopo, N of S Sulawesi, Indonesia, 2. I. 2000, S. NAGAI leg.

Thopeutica (*Thopeutica*) *bugis* CASSOLA, 1991

Specimens examined: 1 ♂, Puncak-Palopo, Palopo, C of Sulawesi, Indonesia, 20. I. 2000.

Thopeutica (*Thopeutica*) *aurothoracica* (W. HORN, 1897)

Specimens examined: 2 ♂♂, Bulu-Dua, 720 m, Baru, S Sulawesi, Indonesia, XII. 1999, S. NAGAI leg.

Thopeutica (*Thopeutica*) sp.

(Fig. 9)

Specimens examined: 1 ♀, Salu-Bua, Puncak-Palopo, Palopo, Luwu, C. of S. Sulawesi, Indonesia, 18-19. I. 2000, BECCE GALA leg.

This remarkable species is represented by one female specimen only. The authors therefore refrain from naming and are waiting for further material, especially collecting of the male.

Thopeutica (*Pseudotherates*) *major* CASSOLA, 1991

Specimens examined: 1♀, Puncak-Palopo, Palopo, C of Sulawesi, Indonesia, 20. I. 2000; 1♀, Kaleakan, Puncak-Palopo, Palopo, Indonesia, 26. I. 2000.

Wallacedela hirofumii CASSOLA, 1991

Specimens examined: 3♂♂, 1♀, Karum-Ganga, Tanha-Toraja, C. of S. Sulawesi, Indonesia, I. 2000; 1♂, 2♀♀, Puncak-Palopo (700 m), Palopo, N. of S. Sulawesi, Indonesia, 2. I. 2000, S. NAGAI leg.; 2♂♂, 3♀♀, Puncak-Palopo, Palopo, C. of Sulawesi, Indonesia, 20. I. 2000.

Wallacedela horii CASSOLA, 1991

Specimens examined: 1♂, To'Rea, Puncak-Palopo, Palopo, Luwu, C. of S. Sulawesi, Indonesia, I. 2000, BECCE GALA leg.; 1♂, Puncak-Palopo, Palopo, C of Sulawesi, Indonesia, 20. I. 2000; 1♀, Kaleakan, Puncak-Palopo, Palopo, Indonesia, 1. II. 2000.

Wallacedela kobayashii CASSOLA, 1991

Specimens examined: 1♂, Salu-Bua, Puncak-Palopo, Palopo, Luwu, C. of S. Sulawesi, Indonesia, 18-19. I. 2000, Becce GALA leg.

Wallacedela kalisi CASSOLA, 1991

Specimens examined: 1♂1♀, Bulu-Dua (720 m), Baru, S Sulawesi, Indonesia, XII. 1999, S. NAGAI leg.

Wallacedela. sp.

(Fig. 10)

Specimens examined: 1♂, Karum-Ganga, Tanha-Toraja, C of S Sulawesi, Indonesia, I. 2000.

This remarkable species is represented by one male specimen only. It seems to be a close relative of *W. gloriosa* (SCHAUM, 1861), but the authors refrain from naming and are waiting for further materials, especially collecting of the female.

Acknowledgement

The authors are indebted to Messrs. Shinji NAGAI for the material and Karl WERNER for the habitus photos.

要　　約

澤田博史& Jürgen WIESNER：永井信二氏採集のインドネシアのハンミョウ．——永井信二氏がインドネシアに於て採集されたハンミョウを中心に報告した．この中には稀種の *Thopeatica aurothoracica* (W. HORN, 1897) , *Wallacedela kalosi* CASSOLA が含まれており，さらに 1 新種を認めたので，採集者永井氏に因んで *Hipparidium shinnjii* sp. nov. として命名記載した．

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Four New Species of the Genus *Trichotichnus* from West and South China (Coleoptera: Carabidae: Harpalini)

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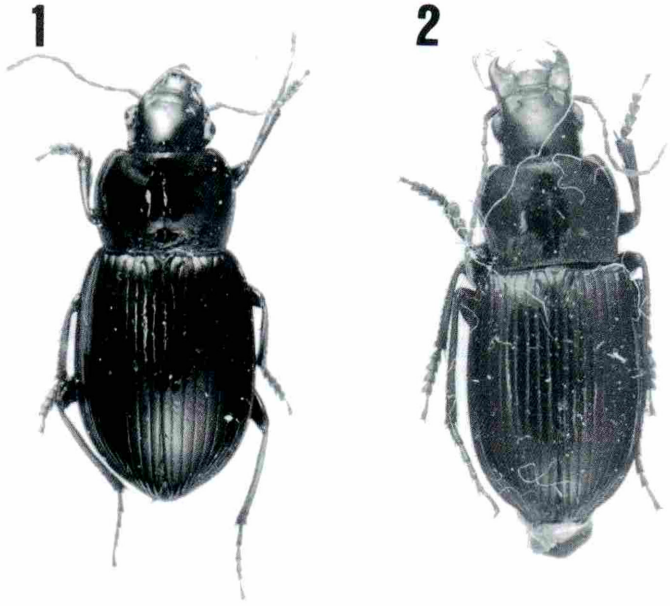
In addition to many new species of the genus *Trichotichnus*, mainly of the subgenus *Amaroschesis*, were described recently from China, I would like to add four new Chinese species of the genus from Sichuan and Yunnan under the names of *Trichotichnus* (*Trichotichnus*) *arcuatomarginatus*, *T.* (*T.*) *anisodactyloides*, *T.* (*Amaroschesis*) *subiridis*, and *T.* (*A.*) *abnormis*. In the Chinese trichotichine species, several peculiar characteristics are often found. *Trichotichnus abnormis* also has such a characteristic as quadrisetose ligula.

I wish to express my cordial thanks to Dr. Fritz HIEKE and Dr. Manfred UHLIG of the Humboldt Universität zu Berlin and Dr. Shun-Ichi UÉNO of the National Science Museum, Tokyo for their kind loan of important materials.

Concerning the measurement of body parts and preparation of male genitalia, see ITO 1998a.



Figs. I &2. Habitus of *Trichorichnus* spp. 1 , *Trichotichnus* (*T.*) *arcuatomarginatus* N. ITO, sp. nov, ; 2, *Trichortichnus* (*Amaroschesis*) *abnormis* N. ITO, sp. nov,

Abbreviation of depository

MHUB: The Museum der Humboldt Universität zu Berlin, Berlin.
NAMN: The National Science Museum (Natural Hostory).
NIc: The author's collection.

Trichotichnus (*Trichotichnus*) *arcuatomarginatus* N. ITO, sp. nov.

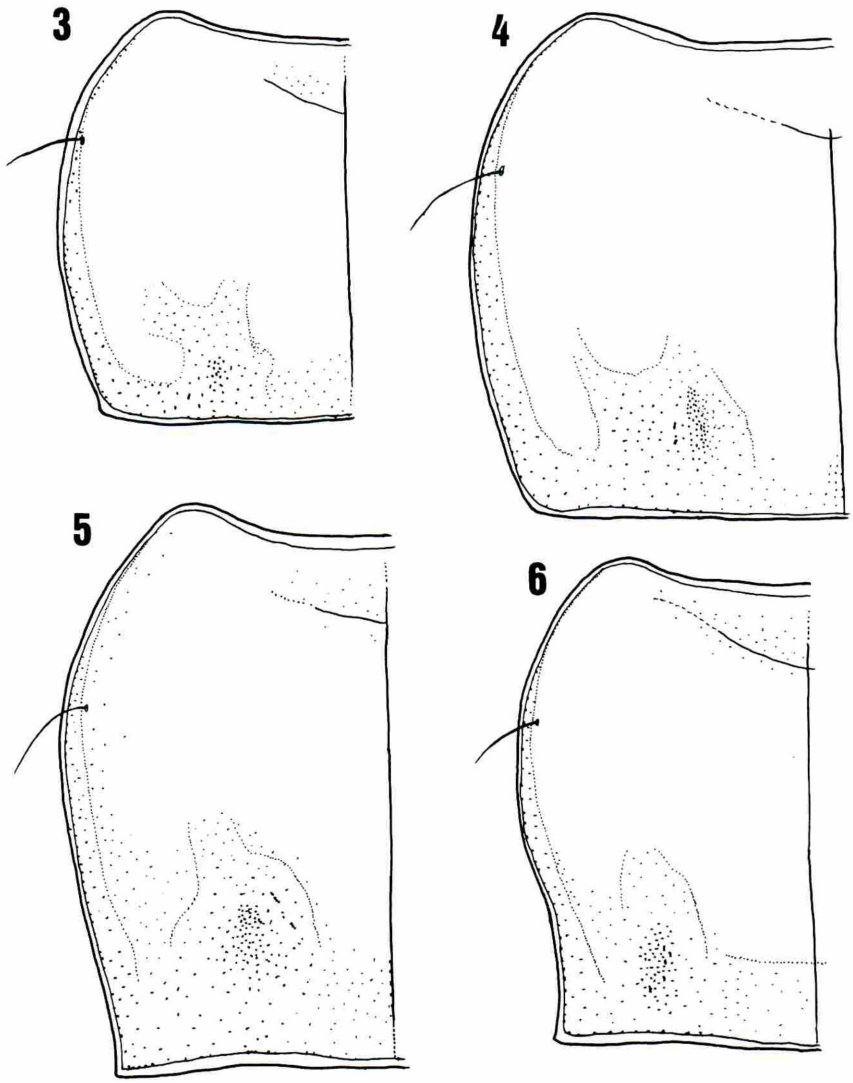
(Figs. 1, 3, 7 & 11-a)

Body weakly oval, not well convex, slightly brownish pitchy black, shiny, iridescent on elytra; palpi, antennae and lateral margins of pronotum light reddish brown, legs brown, mandibles blackish brown.

Head more or less small, 0.62-0.65 times as wide as the pronotal width, fairly convex, very minutely and sparsely punctate, with wide interocular space nearly three-fifths of width of head including eyes; labrum subquadrate, shallowly emarginate at apex; clypeus subtruncate apically, gently swollen, transversely depressed a little behind apex; clypeal suture fine and not deepened; frontal impressions gradually shallowed posteriad, effaced just before supraorbital grooves; eyes rather large, not prominent; temples rather long, a little smaller than the eye length, gently contracted towards neck constriction; mandibles stout, blunt at apices, terebral tooth of left mandible weakly prominent and widely rounded and that of right one hardly produced, retinacular tooth of left one not protruding and that of right one somewaht large and widely rounded; genuine ventral margin of eye moderately separated from buccal fissure; labial palpi long and slender, 1st segment almost as long as the 2nd; ligula rather wide, parallel-sided, weakly expanded a little behind apex which is subtruncate; paraglossae free from ligula in the expansion; epilobes of mentum narrow, not dilated distad; microsculpture clearly visible on clypeus and weakly so on the remaining portions, the former consisting of isodiametric meshes and the latter of transverse ones.

Pronotum (Fig.3) transversely quadrate, uniformly arcuate at sides, weakly convex, largely smooth on disc, minutely and sparsely punctate near apex and rather coarsely and densely so in lateral furrows and basal foveae; apex somewaht deeply emarginate, entirely bordered; base one-third wider than apex, feebly bisinuate, clearly bordered lengthwise; apical angles protrudent forwards, widely rounded; basal angles larger than right angle, angulate, and minutely toothed; lateral furrows each weakly gradually widened basad, conjoining basal fovea which is shallow and bears a weak hump in middle; front transverse impression shallow, though not obsolete like the hind one; median line fine, shallow, reduced near apex and base; microsculpture detectable as rather obscure transverse meshes on disc and as mixtures of square and isodiametric meshes in lateral furrows and basal foveae.

Elytra oval, nearly 1.3 times as wide as the pronotal width, gently convex, very sparsely covered with extremely fine punctures; sides gently arcuate, with preapical sinus quite indistinct; apices more or less produced backwards, weakly rounded at margins, with sutural angles narrowly rounded and separated from each other; bases each slightly oblique at side, forming an obtuse and pointed angle with lateral margin; striae widely and acutely carved, relatively deep throughout, and clearly crenulate, scutellar striole moderate in length; intervals weakly convex on disc, becoming a little more convex basad and latero-apicad, 3rd intervals with a setiferous



Figs. 3-6. Pronota of *Trichotichnus* spp. 3, *Trichotichnus* (*T.*) *arcuatomarginatus* N. ITO, sp. nov.; 4, *T.* (*T.*) *anisodactyloides* N. ITO, sp. nov.; 5, *T.* (*Amaroschesis*) *subiridis* N. ITO, sp. nov.; 6, *Trichotichnus* (*Amaroschesis*) *abnormis* N. ITO. sp. nov.

pore a little behind middle; marginal series continuous, though space between umbilicate pores wider in middle, consisting of 20-23 pores; surface obscurely microlined. Hind wings entire.

Ventral surface mostly smooth, very sparsely punctate on meso- and metepisterna and laterally on metasternum; 6th abdominal sternite in ♂ unisetose at each side and truncate at apex and in ♀ bisetose and widely arcuate.

Hind femora bisetose; fore tibiae not sulcate dorsally, trispinous (bispinous in one example) along apico-external margin, with lanceolate terminal spur; hind tarsi five-sixths times in ♂ and three-fourths times in ♀ as long as the width of head, 1st segment short, two-thirds times as long as the 2nd and 3rd taken together, 2nd segment one-fourth and two-thirds longer

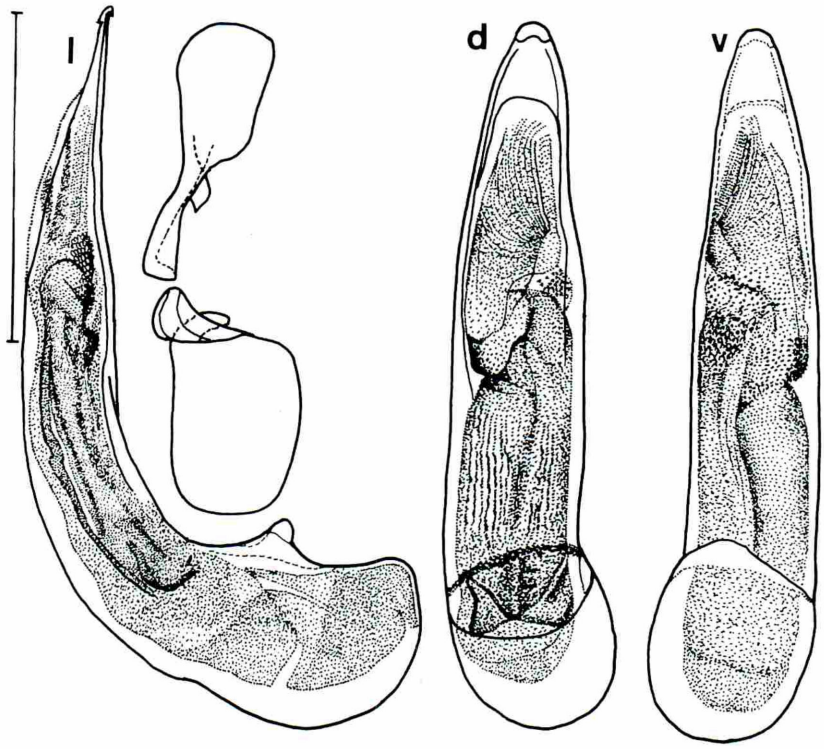


Fig. 7. Male genitalia of *Trichotichnus* (*T.*) *arcuatomarginatus* N. ITO, sp. nov. d, dorsal aspect; l, lateral aspect; v, ventral aspect.

than the 3rd and the 4th, respectively, claw segment trisetose along each ventral margin.

Aedeagus (Fig. 7) not robust, gradually thinned distad, with very small hook ventrally at tip; apical orifice widely open, inner sac not bearing any armatures, sclerotized on surface of narrow portion near apex; apical lobe subtriangular, rounded and thickly bordered at distal margin: ventral surface finely ridged at each side, hardly depressed between the edges. Stylus (Fig. 11-a) weakly arcuate, with a small spine along each outer margin; basal segment bearing three short setae; valvifer trisetose at apex.

Length: 7.9~9.3 mm. Width: 3.8~4.3 mm.

Holotype: ♂, summit Miao'er Shan Mt., 2,120 m, Xing'an Xian, Guangxi, China, 23. V. 1996, S. UÉNO leg. (preserved in NSMN); 2♀♀, same locality as the holotype, 27. V. 1996, Y. IMURA leg.; 1♂, 1♀, above Tieshan Ping, 2,100 m, Miao'er Shan Mt., Xing'an Xian, Guangxi, China, 23-26. V. 1996, M. SATÔ leg.; 3♀♀, Qiaoq, 2,070 m, Baoxing Xian, Sichuan, China, 7. VI. 1997, Y. IMURA leg. (preserved in NSMN and NIc).

The present new species is discriminated from *Trichotichnus* (s. str.) *noctuabundus* HABU by the clypeal suture and frontal impressions shallower, the pronotum fully rounded at sides instead of being straightly convergent behind, the fore tibiae not sulcate dorsally, and the aedeagus with more elongate apical lobe.

Trichotichnus* (*Trichotichnus*) *anisodactyloides N. ITO, sp. nov.

(Figs. 4, 8 & 11b)

Body rather widely oblong, similar in form to *Anisodactylus* (s. str.) *sadoensis* SCHAUBERGER, slightly brownish black, shiny, weakly iridescent on elytra; palpi, antennae and fore tarsi light brown, lateral margins of pronorum, tibiae, femora and mid and hind tarsi dark reddish brown.

Head gently convex, not wide, a little less than two-thirds of the pronotal width, very sparsely covered with minute punctures; labrum subsquare, shallowly and triangularly emargi-

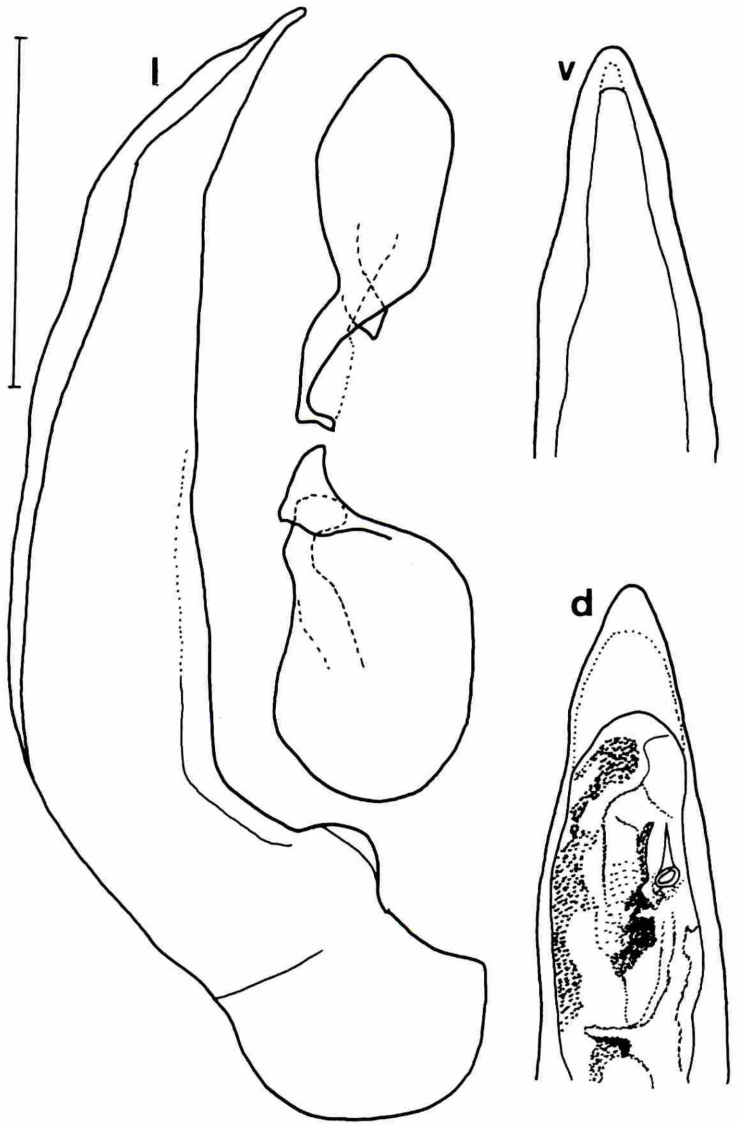


Fig.8. Male genitalia of *Trichotichnus* (*T.*) *anisodactyloides* N. ITO, sp. nov. d, dorsal aspect; l, lateral aspect; v, ventral aspect.

nate at apex; clypeus flat, slant along shallowly emarginate apex, one or two rugosities near setiferous pore at each side, finely and vaguely sutured with frons; frontal impressions obliquely running towards supraorbital grooves from punctiform frontal foveae, moderate in depth, becoming shallower behind, and effaced near the grooves; eyes not large, relatively convex; temples long, two-fifths of the eye length; genuine ventral margin of eye narrowly separated from buccal fissure; mandibles thick, blunt at apices; antennae somewhat thickened, surpassing a little beyond prontal base, 3rd segment pubescent in apical two-thirds, as long as the 4th and twice the 2nd; 3rd segment of labial palpus more or less thickened medially, equal in length to the 2nd; ligula wide, abruptly expanded near apex, free from paraglossae behind the expansion; paraglossae more or less wide, rounded apico-externally, reaching the level of ligular apex; median tooth of mentum rounded at apex, epilobes widened distad; submentum unisetose at each side; microsculpture partly visible, carved in a vague transverse mesh near clypeal apex and laterally on occiput.

Pronotum (Fig. 4) transversely quadrate, widest just behind middle, a half wider than long, arcuate lengthwise and rather thickly bordered at sides, weakly convex on disc and gently declivous latero-apicad; apex deeply emarginate, straight at the bottom, clearly bordered throughout except unbordered middle; base one-third wider than the apex, almost truncate, thickly bordered throughout like the sides; apical angles prominent, widely rounded; basal angles obtuse and subangulate, hardly protuberant at tips; lateral furrows narrow, slightly and gradually widened behind; basal foveae small and not deepened, longitudinally grooved in the middle, isolated from the furrows; front and hind transverse impressions obscure; median line fine, somewhat deep medially, extending only to base; dorsal punctures absent on disc, moderate in density and roughness in lateral furrows and basal foveae where they are partly confluent; microsculpture mostly invisible, vaguely visible as transverse meshes near the punctures.

Elytra widely elliptical, one-fifth wider than the pronotal width, a little more than one and a half as long as wide (1.51 in ratio), gently convex, flat on disc, with very sparse and microscopic punctures; sides gently rounded at humeri, slightly deep in preapical sinus; apices not produced, widely rounded, narrowly separated from each other, not angulate at sutural angles; striae deep and wide, scutellar striole long; intervals flat on disc, weakly raised laterally and apically, a dorsal pore on 3rd interval situated at apical three-tenths; marginal series interrupted medially, composed of (11 + 11) umbilicate pores; microsculpture invisible under 80× magnification. Hind wings developed.

Under surface coarsely and sparsely punctate on metepisterna and lateral of metasternum, sparsely ciliate on prosternum, apico-medial part of metasternum and medially on 2nd and 3rd abdominal segments; metepisternum considerablly contracted behind, one-third longer than wide; 6th abdominal segment in both sexes bisetose along each external margin and hardly arcuate in ♂ and widely arcuate in ♀at apex.

Hind femora bisetose along hind margin; fore tibiae slender, truncate at apex, not sulcate dorsally, trispinouse at apico-external margin, terminal spur short and lanceolate; hind tarsi in ♂ one-eighth shorter than the width of head including eyes, 1st segment one-sixth shorter than the 2nd and 3rd combined and a half longer than the 2nd, 3rd one-third longer than the 4th, claw segment trisetose along each ventral margin.

Aedeagus (Fig. 8) rather thick, gradually tapered distad, not tumid at apex, straight in middele, gently curved near apex, with small basal bulb; apical lobe triangular, rounded at tip; apical orifice widely open, inner sac armed with a peg-shaped sclerite near apex; ventral surface

bordered laterally, shallowly concave between the borders. Stylus (Fig. 11-b) bearing two short spines along ventral outer margin and single one along dorsal margin; basal segment bisetose apico-externally; valvifer with two setae at apex.

Length:9.4~10.8 mm. Width: 4.2~4.5 mm.

Holotype: ♂, mostly 2000-2500 m, 1700-3500 m, Mts. Washan, Sichuan, China, 24. III.–8. V. 1915, G. WEIGOLD leg. (Preserved in MHUB). Paratypes: 1 ♂, 27°55'N, 101°19'E, 15 Km NW Muli (Bowa), ca. 3,100 m, mixed forest, S Sichuan, China, 30. VI. 1998, Jaroslav TURNA leg.; 1 ♀, 25°58'N, 100°21'E, Jizu Shan Mts., alt. 2,500~2,900 m, Yunnan, China, 6–10. VII. 1994, Z. CERNÍ leg. (Preserved in NIc).

The new species is similar to *Trichotichnus* (s. str.) *noctuabundus* HABU, but is easily distinguished from the latter by the body larger in size, the head smaller, and the pronotum not punctate on disc, thicker at basal border, arcuately contracted behind at sides instead of straightly so.

Also the species resembles *T.* (s. str.) *kobayashie* HABU, but is different from the latter in having the eyes less prominent, the pronotum not uniformly emarginate at apex, arcuate-sided throughout and quite smooth on disc and apical portion, and the fore tibiae not sulcate.

Further, the species is closely allied to the previous new species, *Trichotichnus arcuatomarginatus*, but the basal angles of pronotum are not prominent, the scutellar striole is longer, and the aedeagus possesses a sclerite in inner sac.

Trichotichnus* (*Amaroschesis*) *subiridis N. ITO, sp. nov.

(Figs. 5, 9 & 11c)

Body oblong, rather stout, brown to dark brown, iridescent on elytra; palpi, antennae and legs light brown, elytra black to slightly brownish black.

Head moderate-sized, 0.65 to 0.67 times as wide as the pronotal width, weakly elevated on vertex, almost flattened forwards from frons, sparsely punctate, vaguely rugose near frontal impressions; labrum subtrapezoidal, emarginate at apex; clypeus rather thick, weakly produced at apical corners; clypeal suture shallow lengthwise; frontal impressions fovea-like, reduced near supraorbital grooves; interocular space somewaht narrow, about two-thirds times as wide as the width of head; eyes large, gently prominent; temples somewhat long, two-sevenths of eye length, gently sloping towards neck constriction; genuine ventral margin of eye widely separated from buccal fissure; antennae short, slender, and slightly surpassing pronotal base, 3rd segment pubescent in apical three-fifths, as long as the 4th and nearly one and two-thirds of the 2nd; mandibles moderately stout, terebral tooth of left mandible wide and weakly and roundedly produced, and that of right one feebly prominent, retinacular tooth of left one slightly and angularly produced and that of right one more or less protrudent and narrowly rounded; labial palpi slender, 3rd segment as long as the 2nd; ligula wedge-shaped, acute at apical corners, with truncate apex; paraglossae narrow and prolonged forwards beyond ligula at portions which are isolated from ligula; epilobes of mentum gently widened distad; microsculpture relatively clear, mostly observed as isodiametric meshes and partly as square meshes.

Pronotum (Fig. 5) subquadrate, not so transverse, almost two-fifths wider than long, gently declivous apico-laterad, flattened on central area; dorsal punctures sparse and minute on disc, slightly denser near apex than on disc, coarsely and moderately so in lateral furrows and basal

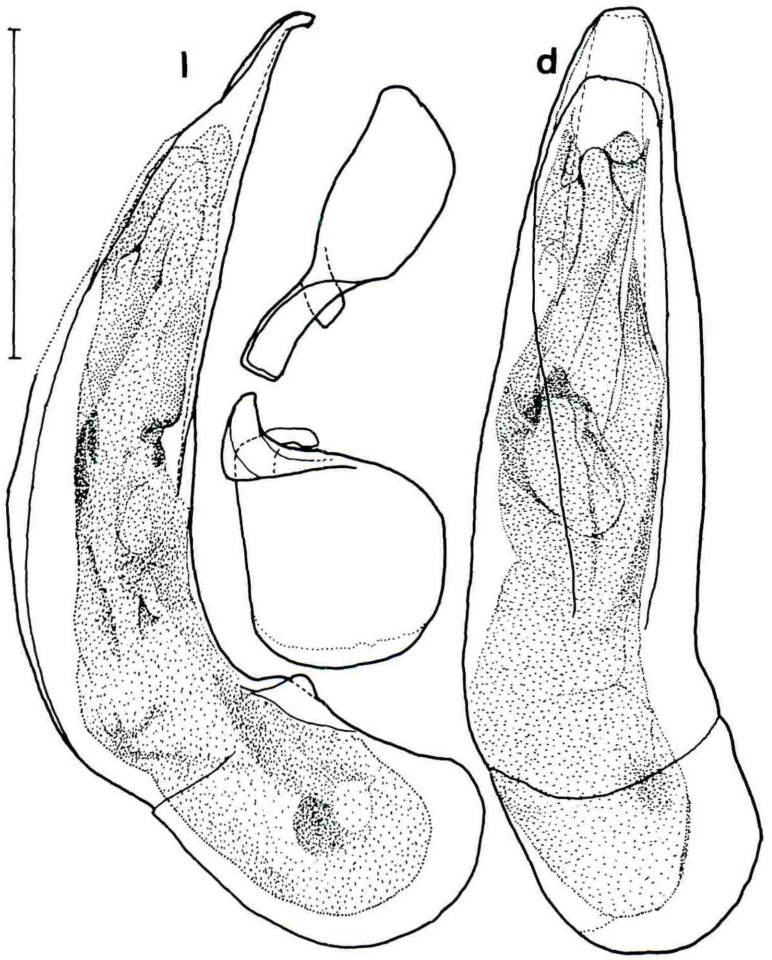


Fig. 9. Male genitalia of *Trichotichnus* (*Amaroschesis*) *subiridis* N. Ito, sp. nov. d, dorsal aspect; l, lateral aspect.

foveae; sides gently arcuately convergent forwards and straightly and obliquely so backwards, barely sinuate before base; apex rather well emarginate, bordered throughout; base one-fifth wider than apex, thickly bordered, shallowly emarginate, and hardly arcuate in middle; apical angles rather strongly protrudent forwards, narrowly rounded; basal angles almost recrangular, feebly produced laterad; lateral furrows engraved in a line to middle from apex, slightly and gradually widened backwards in remaining portions; basal foveae each flattened, shallowly grooved near inner side; both front and hind transverse impressions shallow; median line fine, reaching apex and base, though vague near the ends; microsculpture clear, fine, consisting of transverse meshes.

Elytra oblong-oval, uniformly well convex, very sparsely furnished with very minute punctures; sides rather clearly arcuate at humeri, weakly curved in middle two-thirds, thence gardually strongly convergent backwards, hardly sinuate preapically; apices slightly produced, narrowly roundedly separate at tips; bases not emarginate, humeral angles blunt and much

larger than right angle; striae narrow and shallow throughout, with fine crenulation, scutellar striole relatively short; intervals not raised on disc, slightly convex near apices and bases, 3rd intervals bearing a dorsal pore slightly behind middle; marginal series continuous, composed of 23-25 umbilicate pores; microsculpture visible as mixtures with rather clear transverse meshes and lines. Hind wings rudimentary.

Ventral surface somewaht vaguely punctate on prepisterna, coarsely so on meso- and metepisterna, and lateral portions of prosternum; metepisternum almost equal in length to width; 6th abdominal sternite bisetose at each side in both sexes, in ♂ truncate and in ♀ weakly arcuate at apex.

Legs long; hind femora postero-ventrally quadirisetose in two examples and bisetose in one; fore tibiae weakly dialted distad, trispinous apico-externally, without sulcus; tarsi sparsely furnished with very short pubescence, 1st mid tarsal segment of ♂ biseriately squamose only at apex of ventral side, hind tarsus 1.04 times in ♂ and 0.90 times in ♀ as long as the width of head, 1st segment very short, about two-thirds of the 2nd and 3rd segments taken together, 3rd segment 0.78 times as long as the 2nd and three-tenths longer than the 4th, claw segment qudrisetose along each ventral margin.

Aedeagus (Fig. 9) robust, almost straight in apical part, ventrao-obliquely directed at apex, with a tiny hook at tip; apical orifice widely open near apex and becoming narrower backwards, inner sac without any sclerites; ventral surface bordered at each side, weakly depressed between the borders. Stylus (Fig. 11-c) small, wide, weak in curvature, with a very small spine at each outer margin; basal segment bispinous ventro-apically; valvifer bisetose at apex.

Length: 10.8~11.7 mm. Width: 4.7~5.0 mm.

Holotype: ♂, Jinzhau Gou, alt. 2,780 m, Nanping Xian, Sichuan, China, 28. VII. 1993, S. UÉNO leg. (Preserved in NSMN). Paratypes: 1 ♂, same locality as the holotype; 1 ♀, Daba Shan Mts., Liangjiawan Yakou, alt. 1,690 m, Beiping Xiang, Chengkou Xian, NE Sichuan, China, 27. IX. 1997, Y. NISHIKAWA leg. (Preserved in NSMN and NIc).

This new species is closely allied to *Trichotichnus* (*Amaroschesis*) *brunneus* N. ITO, but the basal angles of prontum are less protrudent laterad and the tarsi are not glabrous dorsally.

Trichotichnus* (*Amaroschesis*) *abnormis N. ITO, sp. nov.

(Figs. 6 & 10)

Body oblong, blackish brown, shiny, with iridescent lustre on elytra; elytra brownish black, lateral margins of pronotum and elytra and sutural intervals of elytra dark reddish brown, palpi, antennae and tarsi yellowish brown, tibiae light brown, femora dark brown.

Head slightly wide, 0.68 times as wide as long, gently elevated, with very sparsely scattered minute punctures; labrum subquadrate, weakly and roundedly produced at apical corners; clypeus thick, shallowly and uniformly emarginate at apex, transversely and rather well humped in basal two-thirds; clypeal suture fine, shallow to more or less deepened lengthwise; frontal impressions shallow, arcuately divergent bihind, reaching supraorbital grooves; eyes moderate-sized, not prominent; temples not developed, one-fourth of eye length; space between buccal fissure and genuine ventral margin of eye fully wide; mandibles robust and blunt at apices, terebral and retibacular teeth in same manner of usual species; antennae slender, short, and reaching basal tenth of elytra, 3rd segment glabrous in apical two-fifths, as long as the 4th, and three-

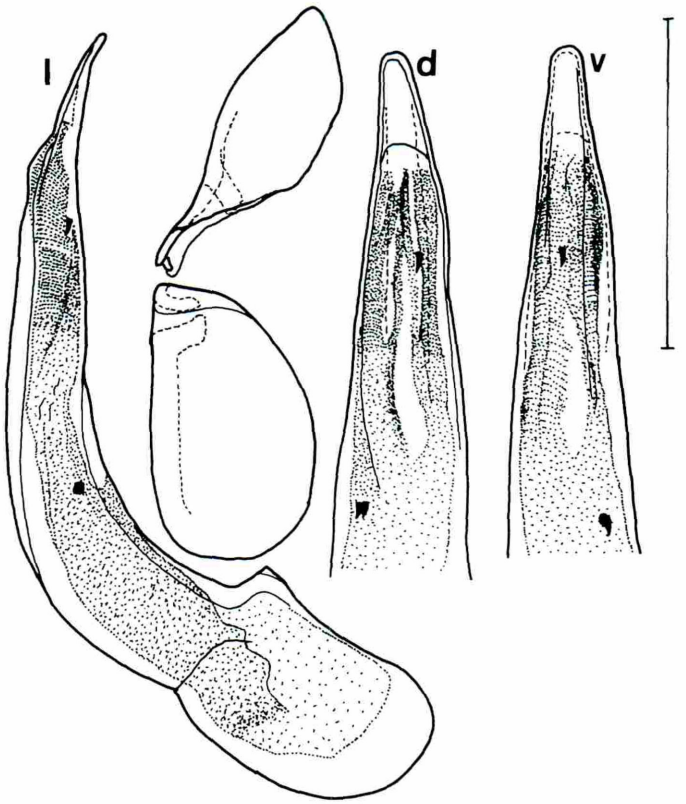


Fig. lO. Male genitalia ofthe genus *Trichotichnus* (*Amaroschesis*) *abnormis* N. ITO, sp. nov. d, dorsal aspect; l, lateral aspect; v, ventral aspect.

fourths longer than the 2nd; labial palpi slender, 3rd segment as long as the 2nd; ligula spatula-shaped, arcuate at apex, with two setae at apex and with two additional setae a little behind apex; paraglossae not surpassing ligula, comparatively deeply incised; mentum with large and regular-triangular median tooth, epilobes gradually widened apicad; microsculpture vaguely and partly detectable, consisting of transverse meshes.

Pronotum (Fig. 6) subquadrate, widest at apical two-fifths, 1.43 times as wide as long, gently convex, flat on disc, largely smooth, covered with several minute punctures near apex, sparse and moderate punctures in lateral furrows and basal foveae; sides weakly convergent apicad and basad from the widest point, shalloly sinuate before base; apex rather deeply emarginate, straight at the bottom, where border is interrupted; base 1.17 times as wide as apex, shallowly bisinuate, rather thickly bordered lengthwise; apical angles fairly protrudent, narrowly rounded; basal angles a little smaller than rectangle, slightly prominent laterad; lateral furrows each narrow, weakly gradually expanded basad from apex, fused with basal fovea, which is wide, shallow, and bears a short and longitudinal groove in the middle; front transverse impression relatively deep, the hind one shallower; median line clear, reaching apex and base, arranged with punctures; microsculpture partly invisible, consisting of mixtures with square and transverse meshes.

Elytra oblong-oval, uniformly weakly convex, with several minute punctures; sides gently

arcuate at humeri, weakly curved in middle, with shallow preapical sinus; apices rather produced behind, narrowly rounded at tips which are isolated from each other; bases barely emarginate; humeral angles angulate and much larger than rectangle; striae clearly carved, slightly deepened near apices and bases, finely crenulate, scutellar striole short and reaching 1st stria; intervals flat on disc, weakly elevated apicad and basad, a dorsal pore situated just behind middle of 3rd interval, adjoining 2nd stria; marginal series continuous, though the space between umbilicate pores is wide in middle, consisting of 19 pores; microsculpture visible as fine transvesre line. Hind wings fully reduced.

Ventral surface sparsely punctate on prepisterna, coarsely and moderately so on meso- and metepistema and lateral areas of metasternurn; metepisternum as wide as long; 6th abdominal stemite almost truncate at tip and quadrisetose at apical margins.

Legs moderately long; hind femora bisetose postero-ventrally; fore tibiae fairly dilated distad, unispinous apico-externally, without dorsal sulcus, terminal spur slim and lanceolate; adhesive squamae in Ist mid tarsal segment of ♂ present only at apex, hind tarsi in ♂ as long as the width of head, Ist segment 0.62 times as long as the 2nd and 3rd taken together, one-tenth longer than the 2nd, 3rd one-eighth longer than the 4th, claw segment quadrisetose along each ventral margin.

Aedeagus (Fig. 10) not robust, weakly arcuate, gradually thinned apicad, not thickened at apex; apical orifice widely occupying on dorsal surface, inner sac armed with a small conical spine before apex and two ones at basal third; apical lobe elongate, twice as long as wide, rounded at tip; ventral surface weakly bordered at sides, shallowly and longitudinally depressed along middle.

Length: 8.8 mm. Width: 3.9 mm.

Female unknown.

Holotype: ♂, Jiuzhai Gou, Wucai Chi, 2,900 m, Napping Xian, Sichuan Sheng, SW China, 27. VII. 1993, S. UÉNO leg. (Preserved in NSMN).

This new species is peculiar within the other species of the subgenus *Amaroschesis* in having the ligula quadrisetose and the aedeagus with conical sclerites in inner sac.

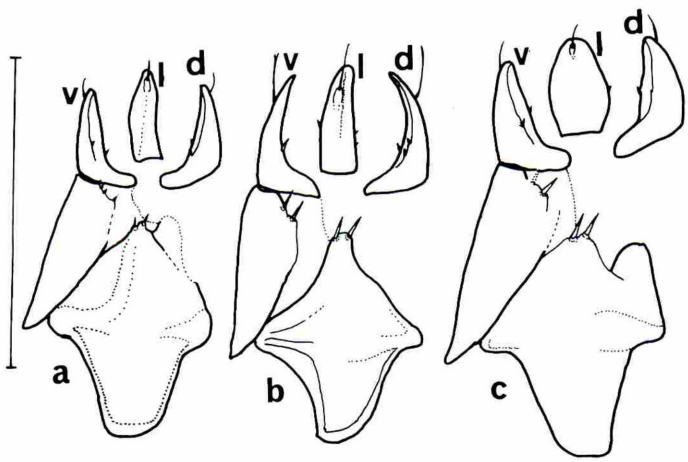


Fig. I I . Female genitalia of *Trichotichnus* spp. a, *Trichotichnus* (*T.*) *arcuatomarginatus* N. ITO, sp. nov; b, *Trichotichnus* (*T.*) *anisodactyloides* N. ITO, sp. nov.; c, *Trichotichnus* (*Amaroschesis*) *subiridis* N. ITO, sp. nov.; d, dorsal aspect; l, lateral aspect; v, ventral aspect.

The species is allied to *Trichotichnus* (*Amaroschesis*) *brunneomarginatus* N. ITO, but the body is wider, the ligula bears four setae at apex intead of two setae, the legs are longer and slenderer, and the aedeagus possesses small conical spines instead of an oval sclerite.

要　　約

伊藤昇．西部及び南部中国からの *Trichotichnus* 属の4新種．—— 近年多数の *Trichotichnus* 属の新種が発見されている中国から更に4新種を記載した．中国産 *Trichotichnus* 属の一部の種は他地域の種では見られない幾つかの特異な特徴を持つが,本稿で記載された*Trichotichnus abnormis* も，舌先端に4本の剛毛を持つ点で顕著である．

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Ent. Rev. Japan, 55 (1): 51, June 30, 2000

Change of a Specific Name in the Genus *Coleolissus* of the Tribe Harpalini (Coleoptera: Carabidae)

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Coleolissus* (*Tenuistilus*) *yunnanus N. ITO et WRASE, nom, nov.

Coleolissus cyanescens N. ITO et WRASE, 1998, Ent. Rev. Japan, 53:43. (nec *Coleolissus cyanescens* N. ITO, 1993, Ent. Rev. Japan, 48:50)

Coleolissus cyanescens N. ITO et WRASE, which was described in 1998, is a homonym of *C. cyanescens* N. ITO, 1993. Therefore, we would like to give a new name, *Coleolissus yunnanus*, to the former.

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Ent. Rev.Japan 55 (1): 53-57, June 30, 2000

A New Species of the Genus *Trox* (Coleoptera: Trogidae) from Kyoto, Japan

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Abstract A new species, *Trox kyotensis* n. sp., is described from Kyoto Prefecture, Japan. This new species is closely related to *Trox scaber* (LINNAEUS, 1767) and *T. niponensis* LEWIS 1895, but can be readily recognized by the fine elytral striae, wide elytral interstriae, and distinctly sinuate lateral margins of the pronotum.

The skin beetle, *Trox scaber* (LINNAEUS), is distributed worldwide and had also been known to occur in "Japan" (NOMURA, 1937; NAKANE & TSUKAMOTO, 1955). MIYAKE (1986), however, revealed that the "Japanese *scaber*" was clearly different from the true *T. scaber* on the morphologies of external and male genitalic characters. He regarded "Japanese *scaber*" as *T. niponensis*, which was described by George LEWIS in 1895 from Hakodate, Hokkaido, northern Japan and had been treated as a junior synonym of *T. scaber* (LINNAEUS) for a long time. This treatment was followed by ISHIDA & FUJIOKA(1988).

Recently, some strange trogid specimens have been collected from Kyoto Prefecture, Japan by the junior author and his father. After a careful examination, it was clarified that these specimens are closely related to *T. scaber* and *T. niponensis* but is an undescribed species and is described in the present paper.

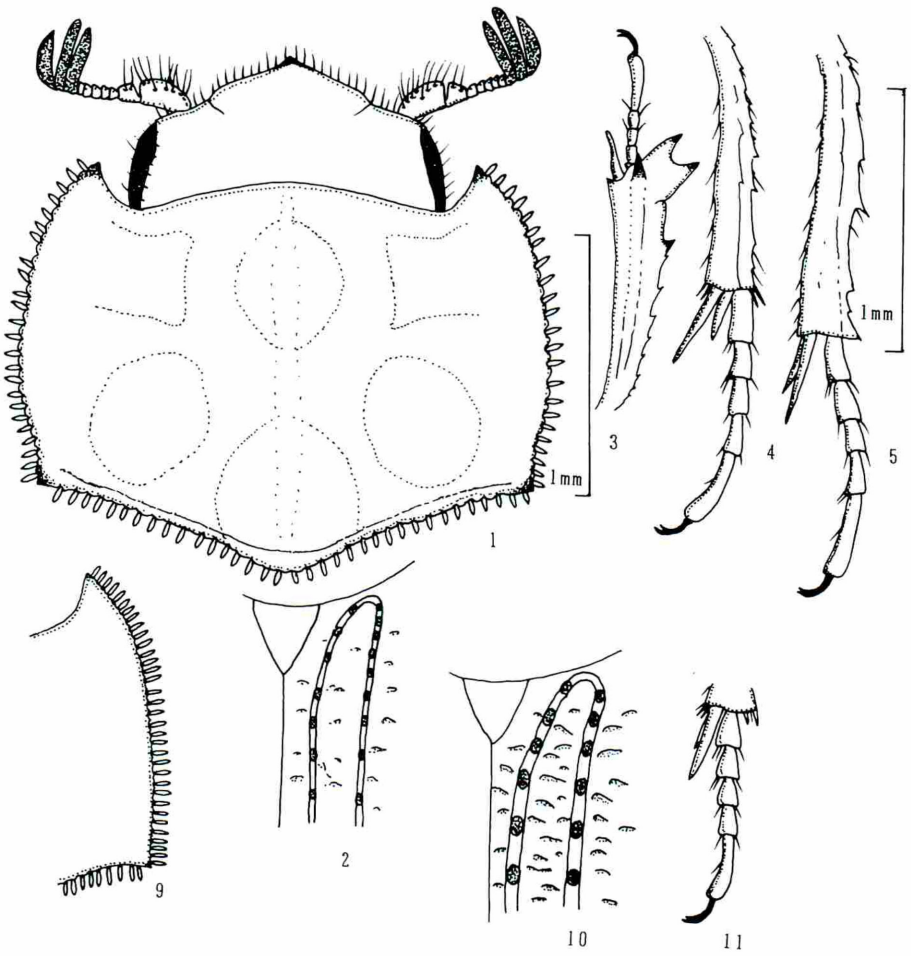
Before going further, we wish to express our hearty thanks to Dr. Kunio ARAYA, Graduate School of Human and Environmental Studies, Kyoto University, Dr. Kimio MASUMOTO, Otsuma Women's Junior College for giving us invaluable advice, kind help and so on. We are also grateful to Mr. Yasutaka KAWAHARA , and Mrs. Tomiko NAKAMURA or their kind aid in this study.

Trox kyotensis sp. nov.

(Figs. 1–8)

Length (excluding mandibles) : 5.3–6.1 mm; width: 2.6–3.0 mm (n=40).

Body fairly small, oblong oval and rather strongly convex; whole surface including legs usually bare, not covered with velvety secretions, at most partly coated with earthy dust. Colour black, sometimes partly reddish; palpi, antennae and tarsi reddish brown.



Figs. 1–8. *Trox kyotensis* sp. nov., male & Figs. 9–11. *Trox niponensis* LEWIS, male; 1, head and pronotum, dorsal view; 2. scutellum and part of right elytron, dorsal view; 3, right protibia, dorsal view; 4, right mesotibia, dorsal view; 5, right metaibia, dorsal view ; 9, lateral margin of pronotum, dorsal view: 10, scutellum and part of right elytron, dorsal view: 11, right metatibia, dorsal view.

Male. Head transverse, wide-pentagonal; clypeus widely and subtriangularly produced forwards, with apex obtusely angulate and a little reflexed at the middle, sides gently rounded; clypeal margin slightly but clearly reflexed throughout; frons and also vertex without any distinct tubercles or carinae though a little uneven; surface irregularly densely and somewhat shallowly covered with small punctures, each puncture bearing a short flattened seta; anterior and ocular margins fringed with fairly long yellowish-brown hairs. Eyes relatively large, a little prominent laterally.

Pronotum transverse, not so strongly convex, about 1.46 -l.57 times as wide as long (n=5), widest at a little behind the middle, and obtusely and shallowly depressed along median line; anterior margin widely arcuate; lateral margins gently rounded, briefly and obviously sinuate in general or rarely almost straight in front of posterior angle; the marginal border of lateral mar-

gins mostly rather finely but distinctly crenate throughout; basal margin a little roundly produced backwards at the middle, with marginal border slightly crenate throughout, and with a subbasal furrow, which is mostly not becoming obsolete in the middle; all margins except for anterior one rather closely fringed with short flattened yellowish-brown setae, the setae a little sparser and clearly larger than those of *T. niponensis*; anterior angles acute, strongly produced forwards; posterior angles distinct, well produced laterally though subrectangular at apex: disc with six obsolete concavities, three before and the rest behind the middle, all the concavities clearly weaker and shallower than in *T. niponensis*; surface with very dense, a little strong and setiferous punctures, the punctures almost the same as those on head, and becoming slightly sparser towards the two median concavities, where one or two slight impunctate areas are often present. Scutellum small, tongue-shaped.

Elytra about 1.32-1.38 times as wide as long (n=5), widest at apical 4/7; each humeral callus well prominent, with a small humeral tooth like in *T. scaber* and also *T. niponensis*; lateral margins very finely crenate, a little sparsely fringed with small flattened yellowish-brown setae, the setae distinctly smaller than those of pronotum along margins; disc with ten punctate-striae, each stria clearly narrow, not very strongly impressed and distinctly ridged throughout on either side; strial punctures rather small, clearly smaller than those of *T. niponensis*; interstriae relatively wide, almost impunctate, weakly wrinkled and slightly uneven, each interstria mostly about 4 to 5 times as wide as stria: odd-numbered interstriae sometimes a little more convex than even-numbered one, with ten or so small tubercles in each interval, each tubercle bearing a bunch of about six to ten short suberect yellowish-brown setae; even-numbered interstriae with ten or more small tubercles in each interval, each tubercle smaller than odd-numbered one, and bearing a bunch of about two to five short suberect yellowish-brown setae.

Legs more or less slender. Protibiae with three outer teeth; the 1st and 2nd teeth distinct, almost of the same in size, and contiguous mutually; the 3rd obviously smaller than the former and a little distant from the 2nd; the remaining margin serrate, with seven to nine small denticles; dorso-subapical portion sharply produced as a spine. Meso- and metatibiae with each outer edge roughly serrate; metatarsi very slightly but clearly longer than those of *T. niponensis*.

Aedeagus. Basal piece well arcuate in proximal half in lateral view, and clearly longer than parameres, about 0.80-0.98 mm in length (n=5), a little longer than in *T. scaber* and *T. niponensis*. Parameres somewhat flat and broadly lobed, about 0.45-0.50 mm in length (n=5).

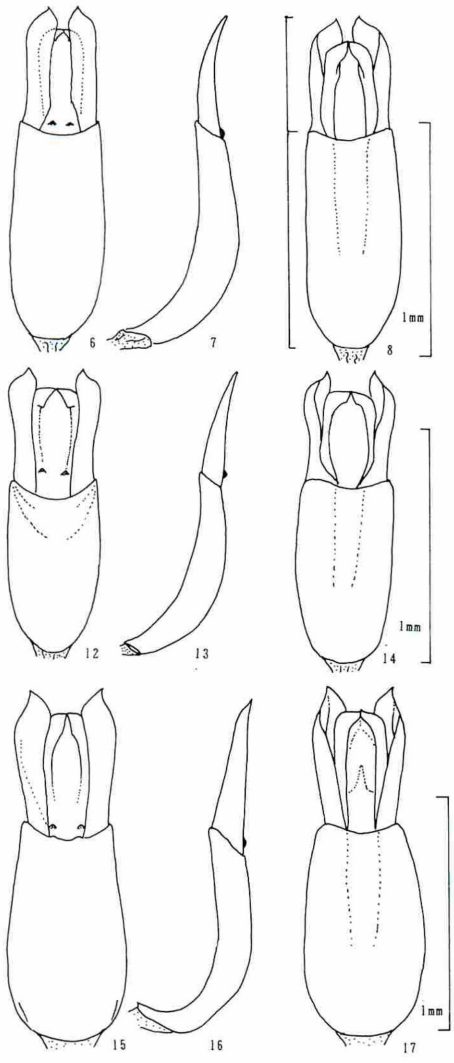
Female. Protibia with apical two teeth somewhat broader and more obtuse.

Type series. Holotype: ♂, Ohyamazaki, Otokuni, Kyoto Prefecture, Japan, 12. IV. 1999, Y. & M. KAWAHARA leg. (preserved in the collection of the Osaka Museum of Natural History). Paratypes: 5 ♂♂ 5 ♀♀, the same data as the holotype; ditto, 7 exs.; 2 exs., the same locality as the holotype, 8-VII-1998, Y. & M. KAWAHARA leg; ditto, 1 ex., 17. VII. 1998, Y. & M. KAWAHARA leg; ditto. 2 exs., 8. VIII. 1998, S. HORI leg; 8 exs., 28. III. 1999, Y. & M. KAWAHARA leg; ditto, 9 exs, 5. IV. 1999, Y. & M. KAWAHARA leg; ditto, 35 exs. 20. V. 1999, Y. & M. KAWAHARA leg; ditto, 2 exs, 27. V. 2000, Y. & M. KAWAHARA leg; ditto, 2 exs, 15. VI. 2000, D. KAWAHARA & K. TAI leg.

Specimens compared. *Trox nipponensis* LEWIS: 1 ♂, Sapporo, Hokkaido, northern Japan, 18. V. 1939, Y. NISHIJIMA leg; 1 ex., Obokutai, Aomori Prefecture, northern Japan, 15. IV. 1951, K. SHIMOYAMA leg; 1 ex., Mikura Is. , Tokyo Prefecture, central Japan, 6. VIII. 1983, N. OBUCHI leg: 1 ex., Kuhonbutsu, Tokyo Prefecture, IX. 1968: 2 exs. NO. 6 Daiba, Tokyo, 18-VII-1984, H. TANAKA leg; 3 ♂♂ 1 ♀, Unoyama, Mihama, Aichi Prefecture, central Japan; 17 ♂♂7♀♀, Nagareoka, Kannonji, Kagawa Prefecture, 26. III. 1999, M. KAWAHARA leg.

Specimens compared. *Trox scaber* (LINNAEUS) : 1 ♂, Lusignan, France, VI-1982, P. BORDAT leg; 2 ♂♂1♀, Geverac, France, 30. XI. 1984. 2 exs, France, 1922.

Notes. The present new species is closely related to *T. niponensis* LEWIS, but is easily distinguished from the latter by the following characteristics; 1) elytra with striae finer and interstriae relatively wider, whereas in *T. niponensis*, the former is very wide and the latter is fairly narrower; 2) pronotum with lateral margins distinctly crenate throughout, whereas in *T. nipponensis*, it is more finely crenate; 3) pronotum with posterior angle well produced postero-laterad, whereas it is very slightly produced postero-laterad in *T. nipponensis*, 4) protibiae with the apical two teeth stronger and well produced antero-laterad, whereas in *T. niponensis* weaker and not so produced antero-laterad; 5) meso- and metatarsi slightly but clearly slenderer; 6) in male, aedeagus with basal piece more elongate.



Figs. 6–8. *Trox kyotensis* sp. nov., male;6, aedeagus, dorsal view: 7, aedeagus, lateral view; 8, aedeagus, ventral view. Figs. 12–14. *Trox niponensis* LEWIS, male; 12, aedeagus, dorsal view: 13. aedeagus, lateral view: 14, aedeagus, ventral view. Figs. 15-17. *Trox scaber* (LINNAEUS), male; 15, aedeagus, dorsal view; 16, aedeagus, lateral view; 17, aedeagus, ventral view.

要　　約

越智輝雄＆河原正和：京都産コブスジコガネムシ科の一新種. ——— ごく最近京都地方から得られたコブスジコガネの１種が *Trox niponensis* LEWIS に非常によく似ているが，上翅の表面構造，前胸背板，雄前脛節，雄交尾器の形態などによって容易に区別出来ることなどから新種として記載した.

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New Records of Tiger Beetles collected in Laos (Coleoptera: Cicindelidae)

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Abstract *Naviauxella davisoni* is reported as new record from Laos. 66 new provincial records are presented. Thus the number of tiger beetle species from Laos raised up to 114.

Again, due to the efforts of the first author, it was possible to study further material of Cicindelidae, which was recently collected in Laos by E. JENDEK, O. SAUSA, M. STRBA, V. KUBÁN and C. HOLZSCHUH. In the following we would like to list up the species.

Tricondyla pulchripes pulchripes WHITE, 1844

Specimens examined: 3♂♂2♀♀, 15°10.4'N 106°05.8'E (GPS), Ban Itou env. (km.35; alt. 800 m), Route (No. 23) Pakse - Paksong, Bolaven Plateau, Champasak prov., Laos South, 10-18. IV. 1999, E. JENDEK O. SAUSA & M. STRBA leg.; 76♂♂2♀♀, Nong Lom (lake) env., 15°02'N, 106°35'E (alt. 800 m), 15 km SE of Ban Houaykong, Bolaven Plateau, Attapu prov., Laos South, 18-30. IV. 1999, E. JENDEK, O. SAUSA & M. STRBA leg.

New record from Attapu province.

Tricondyla gestroi gestroi FLEUTIAUX, 1893

Specimens examined: 3♂♂1♀, 20°33.4'N, 102°1'E, Ban Song Cha (5 km W) (1200 m), N Laos, 24. IV-16. V. 1999, Vìt. KUBÁN leg.; 21 ♂♂34♀♀, Ditto, 24.IV-16. V. 1999, C. HOLZSCHUH leg.

New record from Louangphrabang province.

Tricondyla mellyi CHAUDOIR, 1850

Specimens examined: 2♂♂1♀, Ban Itou env. (km.35), alt. 800 m, 15°10.4'N, 106°05.6'E (GPS), Bolaven Plateau, Route (No. 23) Pakse—Paksong, Champasak prov., Laos South, 10–18. IV. 1999, E. JENDEK, O. SAUSA & M. STRBA leg.; 1♂3♀♀, 20°33.4'N, 102°14'E, Ban Song Cha (5 km W), (1200 m), Louang Phrabang prov., N. Laos, 24. IV–16. V. 1999, Vìt. KUBÁN leg.; 7♂♂12♀♀, Ditto, 24. IV–16. V.

*) 66. Contribution towards the knowledge of Cicindelidae

1999, C. HOLZSCHUH leg.

New record from Louangphrabang province.

Neocollyris (*Brachycollyris*) *purpureomaculata borea* NAVIAUX, 1994

Specimens examined: 1 ♂, Nong Lom (lake) env., 15°02', 106°35' (alt. 800 m), 15 km SE of Ban Houaykong, Bolaven Plateau, Attapu prov., Laos South, 18-30. IV. 1999, E. JENDEK, O. SAUSA & M. STRBA leg.

New record from Attapu province.

Neocollyris (*Neocollyris*) *bonellii bonellii* (GÜELIN, 1834)

Specimens examined: 4 ♂ ♂3 ♀ ♀, Nong Lom (lake) env., 15°02'N, 106°35'E (alt. 800 m), 15 km SE of Ban Houaykong, Attapu prov., S. Laos, 18-30. IV. 1999, E. JENDEK, O. SAUSA & M. STRBA leg.; 1 ♂, 20°43'N 102°41'E, Muang Ngoy (500 m), Louangphrabang pr., N Laos, 22. IV. 1999, Vìt. KUBÁN leg.; 5 ♂ ♂, Ban Song Cha (5 km W) (1200 m), 20°33-4'N, 102°14'E, Louang Phrabang prov., N Laos, 4. IV-16. V. 1999, Vìt. KUBÁN leg.; 3 ♂ ♂7 ♀ ♀, Ditto, 24. IV-16. V. 1999, C. HOLZSCHUH leg.

New record from Louangphrabang and Attapu provinces.

Neocollyris (*Neocollyris*) *cruentata* (SCHMIDT-GOEBEL, 1846)

Specimens examined: 1 ♂, Ban Song Cha (5 km W) (1200 m), 20°33-4'N, 102°14'E, Louang Phrabang prov., N Laos, 24. IV-16. V. 1999, Vìt. KUBÁN leg.

New record from Louangphrabang province.

Neocollyris (Neocollyris) *orichalcina orichalcina* (W. HORN, 1896)

Specimens examined: 1 ♂1 ♀, Ban Song Cha (5 km W) (1200 m), 20°33-4'N, 102°14'E, Louang Phrabang prov., N Laos, 24. IV-16. V. 1999, Vìt. KUBÁN leg. ; 3 ♂ ♂, Ditto, 4. IV-16. V. 1999, C. HOLZSCHUH leg.

New record from Louangphrabang province.

Neocollyris (*Neocollyris*) *intermedia* NAVIAUX, 1994

Specimens examined: 1 ♂, Ban Itou env. (km.35) (alt. 800 m), 15°10.4'N, 106°05.8' (GPS), Bolaven Plateau, Route (No. 23) Pakse - Paksong, Champasak prov., Laos South, 10-18. IV. 1999, E. JENDEK, O. SAUSA & M. STRBA leg.; 11 ♂ ♂10 ♀ ♀, Nong Lom (lake) env., 15°02'N, 106°35'E (alt. 800 m), 15 km SE of Ban Houaykong, Bolaven Plateau, Attapu prov., S. Laos, 18-30. IV. 1999, E. JENDEK O. SAUSA & M. STRBA leg.; 1 ♂1 ♀, Ban Song Cha (5 km W) (1200 m), 20°33-4'N, 102°14'E, Louang Phrabang prov., N Laos, 24. IV-16. V. 1999, Vìt. KUBÁN leg.; 2 ♂ ♂2 ♀ ♀, Ban Song Cha (5 km W) (1200 m), 20°33-4'N 102°14'E, Louang Phrabang prov., N Laos, 24. IV-16. V. 1999, C. HOLZSCHUH leg.

New record from Champasak, Louangphrabang and Attapu provinces.

Neocollyris (*Neocollyris*) *fuscitarsis* (SCHMIDT-GOEBEL, 1846)

Specimens examined: 8♂♂4♀♀, Nong Lom (lake) env., 10°02'N, 106°35'E (800 m), 15 km SE of Ban Houaykong, Bolaven Plateau, Attapu prov., S. Laos, 18-30. IV. 1999, E.JENDEK, O. SAUSA & M. STRBA leg.; 9♂♂9♀♀, Ban Song Cha (5 km W) (± 1200 m), Louang Phrabang prov., N Laos, 20°33-4'N 102°14'E, 24. IV-16. V. 1999, C. HOLZSCHUH leg.

New record from Louangphrabang and Attapu provinces.

Neocollyris (*Neocollyris*) *rufipalpis* (CHAUDOIR, 1864)

Specimens examined: 1♂1♀, Ban Song Cha (5 km W) (± 1200 m), 20°33-4'N 102°14'E, Louang Phrabang prov., N Laos, 24. IV-16.V.1999, Vìt. KUBÄN leg.4♂♂19♀♀, Ditto, 24. IV-16. V. 1999, C. HOLZSCHUH leg.

New record from Louangphrabang province.

Neocollyris (*Orthocollyris*) *crassicornis* (DEJEAN, 1825)

Specimens examined: 1♂, Ban Song Cha (5 km W) (± 1200 m), 20°33-4'N 102°14'E, Louang Phrabang prov., N Laos, 24. IV-16. V. 1999, Vìt. KUBÄN leg.; 2♂♂7♀♀, 24. IV-16. V. 1999, Ditto, C. HOLZSCHUH leg.

New record from Louangphrabang province.

Neocollyris (*Leptocollyris*) *linearis linearis* (SCHMIDT-GOEBEL, 1843)

Specimens examined: 1♂2♀♀, Ban Itou env. (km.35), (alt. 800 m), 15°10.4'N, 106°05.8'E (GPS), Bolaven Plateau, Route (No. 23) Pakse - Paksong, Champasak prov., S. Laos, 10-18. IV. 1999, E. JENDEK, O. SAUSA & M. STRBA leg.; 7♂♂4♀♀, Nong Lom (lake) env., 15°02'N, 106°35'E, (alt. 800 m), Bolaven Plateau, 15 km SE of Ban Houaykong, Attapu prov., S. Laos, 18-30. IV. 1999, E.JENDEK, O. SAUSA & M. STRBA leg.; 16♂♂10♀♀, Ban Song Cha (5 km W), (± 1200 m), 20°33-4'N 102°14'E, Louang Phrabang prov., N Laos, 24. IV-16. V. 1999, Vìt. KUBÄN leg.;10♂♂14♀♀, Ditto 24. IV-16. V. 1999, C. HOLZSCHUH leg.

New record from Louangphrabang and Attapu provinces.

Neocollyris (*Leptocollyris*) *variicornis* (CHAUDOIR, 1864)

Specimens examined: 1♂2♀♀, Nong Lom (lake) env., 15°02'N, 106°35'E (alt. 800 m), 15 km SE of Ban Houaykong, Bolaven Plateau, Attapu prov., S. Laos, 18-30. IV. 1999, E.JENDEK, O. SAUSA & M. STRBA leg.; 11♂♂3♀♀, Ban Song Cha (5 km W) (± 1200 m), 20°33-4'N 102°14'E, Louang Phrabang prov., N Laos, 24. IV-16. V. 1999, Vìt. KUBÄN leg.; 3♂♂5♀♀, Ditto, 24. IV-16. V. 1999, C. HOLZSCHUH leg.

New record from Louangphrabang and Attapu provinces.

Neocollyris (*Leptocollyris*) *subtilis subtilis* (CHAUDOIR, 1863)

Specimens examined: 1 ♂, Nong Lom (lake) env., 15°05'N, 106°35'E (alt. 800 m), 15 km SE of Ban Houaykong, Bolaven Plateau, Attapu prov., Laos South, 18-30. IV. 1999, E. JENDEK, O. SAUSA & M. STRBA leg.

New record from Attapu province.

Neocollyris (*Leptocollyris*) *variitarsis variitarsis* (CHAUDOIR, 1860)

Specimens examined: 5♀♀, Nong Lom (lake) env., 15°02'N, 106°35'E (alt. 800 m), 15 km SE of Ban Houaykong, Bolaven Plateau, Attapu prov., Laos South, 18-30. IV. 1999, E.Jendek, O. SAUSA & M. STRBA leg.; 1♂1♀, Ban Song Cha (5 km W) (± 1200 m), 20°33-4'N 102°14'E, Louang Phrabang prov., N Laos, 24. IV-16. V. 1999, Vìt. KUBÁN leg.; 4♂♂5♀♀, Ditto, 24. IV-16. V. 1999, C. HOLZSCHUH leg.

New record from Louangphrabang and Attapu provinces.

Neocollyris (*Pachycollyris*) *bipartita unicolor* (W. HORN, 1935)

Specimens examined: 1♂1♀, Nong Lom (lake) env., 15°02'N, 106°35'E (alt. 800 m), 15 km SE of Ban Houaykong, Bolaven Plateau, Attapu prov., S. Laos, 18-30. IV. 1999, E.JENDEK, O. SAUSA & M. STRBAleg.

New record from Attapu province and really first actual record from Laos.

Neocollyris (*Pachycollyris*) *feae vitalisi* (W. HORN, 1924)

Specimens examined: 2♂♂1♀, Ban Itou env. (km.35), alt. 800 m, 15°10.4'N, 106°05.8'E (GPS), Bolaven Plateau, Route (No. 23) Pakse - Paksong, Champasak prov., S. Laos, 10-18. IV. 1999, E.JENDEK, O. SAUSA & M. STRBA leg.; 2♀♀, Nong Lom (lake) env., 15°02'N, 106°35'E (alt. 800 m), 15 km SE of Ban Houaykong, Bolaven Plateau, Attapu prov., S. Laos, 18-30. IV. 1999, E.JENDEK, O. SAUSA & M. STRBA leg.; 2♂♂2♀♀, Ban Song Cha (5 km W) (± 1200 m), 20°33-4'N 102°14'E, Louang Phrabang prov., N Laos, 24. IV-16. V.1999, C. HOLZSCHUH leg.

New record from Louangphrabang and Attapu provinces.

Neocollyris (*Pachycollyris*) *mouhotii mouhotii* (CHAUDOIR, 1864)

Specimens examined: 4♀♀, Nong Lom (lake) env., 15°02'N, 106°35'E (alt. 800 m), 15 km SE of Ban Houaykong, Bolaven Plateau, Attapu prov., S. Laos, 18-30. IV. 1999, E. JENDEK, O. SAUSA & M. STRBA leg.

New record from Attapu province.

Prothyma (*Paraprothyma*) *schmidtgoebeli schmidtgoebeli* (W. HORN, 1895)

Specimens examined: 1♀, Ban Song Cha (5 km W) (± 1200 m), 20°33-4'N 102°14'E, Louang Phra-

bang prov., N Laos, 24. IV-16. V. 1999, C. HOLZSCHUH leg.

New record from Louangphrabang province.

Prothyma (Genoprothyma) bouvieri bouvieri W. HORN, 1896

Specimens examined: 3♀♀, Nong Lom (lake) env., 15°02'N, 106°35'E (alt. 800 m), 15 km SE of Ban Houaykong, Bolaven Plateau, Attapu prov., S. Laos, 18-30. IV. 1999, E. JENDEK, O. SAUSA & M. STRBA leg.

New record from Attapu province.

Prothyma (Genoprothyma) fallaciosa fallaciosa RIVALIER, 1964

Specimens examined: 1♀, Ban Song Cha (5 km W) (± 1200 m), 20°33-4'N, 102°14'E, Louang Phrabang prov., N Laos, 24. IV-16. V. 1999, Vìt. KUBÁN leg. 3♂♂, Ditto, 24. IV-16. V. 1999, C. HOLZSCHUH leg.

New record from Louangphrabang province.

Heptodonta eugenia CHAUDOIR, 1865

Specimens examined: 1♂1♀, Nong Lom (lake) env., 15°02'N, 106°35'E (alt. 800 m), 15 km SE of Ban Houaykong, Bolaven Plateau, Attapu prov., Laos South, 18-30. IV. 1999, E. JENDEK, O. SAUSA & M. STRBA leg.; 2♂♂3♀♀, Ban Song Cha (5 km W) (± 1200 m), 20°33-4'N, 102°14'E, Louang Phrabang prov., N Laos, 24. IV-16. V. 1999, C. HOLZSCHUH leg.

New record from Louangphrabang and Attapu provinces.

Therates csorbai WIESNER, 1999

Specimens examined: 1♀, Nong Lom (lake) env., 15°02'N, 106°35'E (alt. 800 m), 15 km SE of Ban Houaykong, Bolaven Plateau, Attapu prov., S. Laos, 18-30. IV. 1999, E.JENDEK, O. SAUSA & M. STRBA leg.

New record from Attapu province.

Therates differens SAWADA et WIESNER, 1999

Specimens examined: 5♂♂5♀♀, Ban Song Cha (5 km W) (± 1200 m), 20°33-4'N, 102°14'E, Louang Phrabang prov., N Laos, 24. IV-16. V. 1999, Vìt. KUBÁN leg.

New record from Louangphrabang province.

Therates fruhstorferi vitalisi W. HORN, 1913

Specimens examined: 1♂, Ban Song Cha (5 km W) (± 1200 m), 20°33-4'N, 102°14'E, Louang Phra-

bang prov., N Laos, 24. IV-16. V. 1999, Vìt. KUBÁN leg.; 1♀, Ditto, 24. IV-16. V. 1999, C. HOLZSCHUH leg.

New record from Louangphrabang province.

Calochroa flavomaculata flavomaculata (HOPE, 1831)

Specimens examined: 1♀, Ban Song Cha (5 km W) (± 1200 m), 20°33-4'N, 102°14'E, Louang Phrabang prov., N Laos, 24. IV-16. V. 1999, C. HOLZSCHUH leg.

New record from Louangphrabang province.

Calochroa mouhotii elegantula (DOKHTOUROFF, 1882)

Specimens examined: 14♂♂4♀♀, Ban Song Cha (5 km W) (± 1200 m), 20°33-4'N, 102°14'E, Louang Phrabang prov., N Laos, 24. IV-16. V. 1999, C. HOLZSCHUH leg.

New record from Louangphrabang province.

Calochroa interruptofasciata flavolineata (CHAUDOIR, 1865)

Specimens examined: 3♂♂4 ♀♀, Nong Lom (lake) env., 15°02'N, 106°35'E (alt. 800 m), 15 km SE of Ban Houaykong, Bolaven Plateau, Attapu prov., S. Laos, 18-30. IV. 1999, E. JENDEK, O. SAUSA & M. STRBA leg.

New record from Attapu province.

Lophyridia chloris (HOPE, 1831)

Specimens examined: 1♀,Muang Ngoy (500 m), 20°43'N 102°41'E, Louang Phrabang prov., N Laos, 22. IV. 1999, C. HOLZSCHUH leg.

New record from Louangphrabang province.

Lophyridia funerea funerea (MACLEAY, 1825)

Specimens examined: 1♂, 21. IV. 1999, Khan riv. (300 m), 19°53'N, 102°09'E, Louang Phrabang prov., N Laos, C. HOLZSCHUH leg.

New record from Louangphrabang province.

Cosmodela duponti duponti (DEJEAN, 1826)

Specimens examined: 3♂♂3♀♀, Nong Lom (lake) env., 15°02'N, 106°35'E (alt. 800 m), 15 km SE of Ban Houaykong, Bolaven Plateau, Attapu prov., S. Laos, 18-30. IV. 1999, E. JENDEK, O. SAUSA & M. STRBA leg.

New record from Attapu province.

Cosmodela aurulenta juxtata (ACCIAVATTI et PEARSON, 1989)

Specimens examined: 1 ♀, Khan riv. (300 m), 19°53'N, 102°09'E, Louang Phrabang prov., N Laos, 21. IV. 1999, C. HOLZSCHUH leg.; 1 ♀, Muang Ngoy (500 m), 20°43'N, 102°41'E, Louangphrabang pr., N Laos, 22. IV. 1999, Vît. KUBÁN leg.; 2 ♀ ♀ Khan riv. (300 m), 19°53'N, 102°09'E, Louang Phrabang prov., N Laos, 17. V. 1999 & 1 ♂2 ♀, Ditto, 21. V. 1999, Vît. KUBÁN leg.

New record from Louangphrabang province.

Cosmodela virgula (FLEUTIAUX, 1893)

Specimens examined: 1 ♂7 ♀ ♀, Ban Song Cha (5 km W) (± 1200 m), 20°33-4'N, 102°14'E, Louang Phrabang prov., N Laos, 24. IV-16. V. 1999, Vît. KUBÁN leg.; 1 ♀, Ditto, 24. IV-16. V. 1999, C. HOLZSCHUH leg.

New record from Louangphrabang province.

Lophyra (*Lophyra*) *fuliginosa* (DEJEAN, 1826)

Specimens examined: 2 ♂ ♂1 ♀, 18-30. IV. 1999, Nong Lom (lake) env., 15°02'N, 106°35'E (alt. 800 m), 15 km SE of Ban Houaykong, Bolaven Plateau, Attapu prov., S. Laos, E.JENDEK, O. SAUSA & M. STRBA leg.; 1 ♂1 ♀, 22. IV. 1999, N Laos, Louang Phrabang prov., 20°437N, 102°41'E, Muang Ngoy, 500 m, C. HOLZSCHUH leg.

New record from Louangphrabang and Attapu provinces.

Lophyra (*Spilodia*) *striolata striolata* (ILLIGER, 1800)

Specimens examined: 2 ♂ ♂1 ♀, Muang Ngoy (500 m), 20°43'N, 102°41'E, Louangphrabang pr., N. Laos, 22. IV. 1999, Vît. KUBÁN leg.; 5 ♂ ♂3 ♀ ♀, Ditto, 22. IV. 1999, C. HOLZSCHUH leg.; 1 ♂, Ban Song Cha (5 km W) (± 1200 m), 20°33-4'N 102°14'E, Louang Phrabang prov., N Laos, 24. IV-16. V. 1999, Vît. KUBÁN leg.; 1 ♂1 ♀, Ditto, V. 1999, C. HOLZSCHUH leg.

New record from Louangphrabang province.

Lophyra (*Spilodia*) *lineifrons* (CHAUDOIR, 1865)

Specimens examined: 1 ♂1 ♀, Muang Ngoy (500 m), 20°43'N, 102°41'E, Louangphrabang pr., N. Laos, 22.IV.1999, Vît. KUBÁN leg.; 3 ♂ ♂2 ♀ ♀, Ban Song Cha (5 km W) (± 1200 m), 20°33-4'N, 102°14'E, Louang Phrabang prov., N Laos, 24. IV-16. V. 1999, C. HOLZSCHUH leg.

New record from Louangphrabang province.

Naviauxella davisoni (GESTRO, 1889)

Specimens examined: 1 ♂, Ban Song Cha (5 km W) (± 1200 m), 20°33-4'N, 102°14'E, Louang Phrabang prov., N Laos, 24. IV-16. V. 1999, Vît. KUBÁN leg. 1 ♂1 ♀, Dditto, C. HOLZSCHUH leg.

New state record from Laos. Previously the species was known from Burma and Thailand only.

Cylindera (*Cylindera*) *delavayi* (FAIRMAIRE, 1886)

Specimens examined: 1♂, Muang Ngoy (500 m), 20°43'N, 102°41'E, Louangphrabang pr., N. Laos, 22. IV. 1999, Vît. KUBÁN leg.; 1♀, Ditto, 22. IV. 1999, C. HOLZSCHUH leg.; 8♂♂12♀♀, Ban Song Cha (5 km W) (± 1200 m), 20°33-4'N, 102°14'E, Louang Phrabang prov., N Laos, 24. IV-16. V. 1999, Vît. KUBÁN leg.; 8♂♂13♀♀, Ditto, 24. IV-16. V. 1999, C. HOLZSCHUH leg.

New record from Louangphrabang province.

Cylindera (*Ifasina*) *foveolata* (SCHAUM, 1863)

Specimens examined: 8♂♂11♀♀, Nong Lom (lake) env., 15°02'N, 106°35'E (alt. 800 m), 15 km SE of Ban Houaykong, Bolaven Plateau, Attapu prov., S. Laos, 18-30. IV. 1999, E. JENDEK, O. SAUSA & M. STRBA leg.; 2♂♂1♀, Ban Song Cha (5 km W) (± 1200 m), 20°33-4'N, 102°14'E, Louang Phrabang prov., N Laos, 24. IV-16. V. 1999, Vît. KUBÁN leg.; 1♂, Ditto, 24. IV-16. V. 1999, C. HOLZSCHUH leg.

New record from Louangphrabang and Attapu provinces.

Cylindera (*Ifasina*) *cyclobregma* (ACCIAVATTI et PEARSON, 1989)

Specimens examined: 1♂2♀♀, Nong Lom (lake) env., 15°02'N, 106°35'E (alt. 800 m), 15 km SE of Ban Houaykong, Bolaven Plateau, Attapu prov., S. Laos, 18-30. IV. 1999, E. JENDEK, O. SAUSA & M. STRBA leg.; 2♀♀, Muang Ngoy (500 m), 20°43'N, 102°41'E, Louangphrabang pr., N. Laos, 22. IV. 1999, C. HOLZSCHUH leg.; 8♂♂10♀♀, Ban Song Cha (5 km W) (± 1200 m), 20°33-4'N, 102°14'E, Louang Phrabang prov., N Laos, 24. IV-16. V. 1999, Vît. KUBÁN leg.; 9♂♂9♀♀, Ditto, 24. IV-16. V. 1999, C. HOLZSCHUH leg.

New record from Louangphrabang and Attapu provinces.

Cylindera (*Ifasina*) *viduata* (FABRICIUS, 1801)

Specimens examined: 5♂♂4♀♀, Nong Lom (lake) env., 15°02'N, 106°35'E (alt. 800 m), 15 km SE of Ban Houaykong, Bolaven Plateau, Attapu prov., S. Laos, 18-30. IV. 1999, E. JENDEK, O. SAUSA & M. STRBA leg.; 2♀♀, Muang Ngoy (500 m), 20°43'N, 102°41'E, Louangphrabang pr., N. Laos, 22. IV. 1999, C. HOLZSCHUH leg.; 2♂♂, Ban Song Cha (5 km W) (± 1200 m), 20°33-4'N, 102°14'E, Louang Phrabang prov., N Laos, 24. IV-16. V. 1999, Vît. KUBÁN leg.; 2♂♂, Khan riv. (300 m), 19°53'N, 102°09'E, Louang Phrabang prov., N. Laos, 17. V. 1999, Vît. KUBÁN leg.; 2♂♂3♀♀, Ban Song Cha (5 km W) (± 1200 m), 20°33-4'N, 102°14'E, Louang Phrabang prov., N Laos, 24. IV-16. V. 1999, C. HOLZSCHUH leg.

New record from Louangphrabang and Attapu provinces.

Cylindera (*Ifasina*) *fallaciosa* (W. HORN, 1897)

Specimens examined: 5♂♂1♀, Nong Lom (lake) env., 15°02'N, 106°35'E (alt. 800 m), 15 km SE

of Ban Houaykong, Bolaven Plateau, Attapu prov., S. Laos, 18-30. IV. 1999, E. JENEDEK, O. SAUSA & M. STRBA leg.; 1 ♂1 ♀, Ban Song Cha (5 km W) (± 1200 m), 20°33-4'N, 102°14'E, Louang Phrabang prov., N Laos, 24. IV-16. V. 1999, Vît. KUBÄN leg.; 2 ♂♂2 ♀♀, Ditto, 24. IV-16. V. 1999, C. HOLZSCHUH leg.

New record from Louangphrabang and Attapu provinces.

Cylindera (Ifasina) spinolae spinolae (GESTRO, 1889)

Specimens examined: 7 ♂♂5 ♀♀, Nong Lom (lake) env., 15°02'N, 106°35'E (alt. 800 m), 15 km SE of Ban Houaykong, Bolaven Plateau, Attapu prov., S. Laos, 18-30. IV. 1999, E. JENEDEK, O. SAUSA & M. STRBA leg.; 1 ♂3 ♀♀, Ban Song Cha (5 km W) (± 1200 m), 20°33-4'N, 102°14'E, Louang Phrabang prov., N Laos, 24. IV-16. V. 1999, Vît. KUBÄN leg.; 10 ♂♂9 ♀♀, Ditto, 24. IV-16. V. 1999, C. HOLZSHUH leg.

New record from Louangphrabang and Attapu provinces.

Cylindera (Ifasina) paucipilina ACCIAVATTI et PEARSON, 1989

Specimens examined: 1 ♀, Ban Song Cha (5 km W) (1200 m), 20°33-4'N, 102°14'E, Louang Phrabang prov., N Laos, 24. IV-16. V. 1999, C. HOLZSCHUH leg.

New record from Louangphrabang province.

Cylindera (Ifasina) kaleea kaleea (BATES, 1866)

Specimens examined: 2 ♂♂3 ♀♀, Ban Song Cha (5 km W) (± 1200 m), 20°33-4'N, 102°14'E, Louang Phrabang prov., N Laos, 24. IV-16. V. 1999, Vît. KUBÄN leg. 6 ♂♂8 ♀♀, Ditto, 24. IV-16. V. 1999, C. HOLZSHUH leg.

New record from Louangphrabang province.

Cicindina mutata (FLEUTIAUX, 1893)

Specimens examined: 1 ♂1 ♀, Khan Riv. (300 m), 19°53'N, 102°09'E, Louang Phrabang prov., N. Laos, 21. IV. 1999, C. HOLZSCHUH leg.; 1 ♂1 ♀, Ditto, 17. V. 1999, Vît. KUBÄN leg.

New record from Louangphrabang province.

The number of Laotian tiger beetle species increases due to these actual records and due to the studies of our friend Roger NAVIAUX (1999) from 108 as recently notified (SAWADA & WIESNER 1999) to 114. The additional species are:

Neocollyris (*Brachycollyris*) *atrata* NAVIAUX, 1999 from Louangnamtha province
Neocollyris (*Leptocollyris*) *granulata* NAVIAUX, 1999 from Borikhan province (also called Bolikhamsai)
Neocollyris (*Leptocollyris*) *laosensis* NAVIAUX, 1999 from Louangnamtha province
Neocollyris (*Leptocollyris*) *tumida* NAVIAUX, 1999 from Borikhan province
Neocollyris (*Pachycollyris*) *valida* NAVIAUX, 1999 from Louangnamtha province

Naviauxella davisoni (GESTRO, 1889) from Louangphrabang province

The number of tiger beetle species known from each province of Laos is as now as follows (changes in brackets): PHôngsali = 0, Louangnamtha = 59 (+3), Houayxay = 2, Xay = 0, Louangphrabang = 41 (+37), Houaphan = 0, Xiangkhoang = 12, Xaignabouri = 0, Vientiane = 40, Borikhan = 49 (+2), Khammouan = 26, Savannakhét = 0, Saravan = 0, Xédôn = 6, Champasak = 27 (+1), Attapu = 23 (+23).

References

NAVIAUX, R. 1999: Diagnoses de dix nouveaux taxons du genre *Neocollyris* HORN (Coleoptera: Cicindelidae). *Bull. mens. Soc. linn. Lyon*, **68** (7): 214–219.

SAWADA, H. & WIESNER, J. 1999: Records of Tiger Beetle collected by Mr. Carolus HOLZSCHUH in Laos (Coleoptera: Cicindelidae). *Ent. Rev. Japan*, **54**: 65–77.

原稿作成の要領

欧文原稿

1. 原稿はプリントアウトしたものとフロッピーディスクに書き込んだものとを提出する．用紙はＡ４判を用い，左右に3 cm 以上の余白をあけ，タイプライター，ワードプロセッサーあるいはコンピューターで打ち出したものとする．行間はダブルスペースとし，人名を除いて，表題や見出しを含めていかなる場合も大文字だけでは打たない．姓名のうち姓は大文字で打つ．フロッピーディスクはマッキントッシュまたはＭＳ－ＤＯＳフォーマットし，テキストファイルで入力すること．フロッピーディスクを提出できない場合は，プリント原稿をスキャナーで読み取るためイタリックやボールドなどの指定のない文字を使用し，下線や訂正の書き込みのない原稿（コピーでもよい）を一部付ける．
2. 報文原稿は，表題，著者名，所属機関とその所在地，または住所，刷り上がり 10 行程度までの（約150語）の英文の著者抄録 (Abstract)，本文，和文要約，文献の順に配列する．
   提出原稿の一部は無処置で，他の一部は動，植物の属およびそれ以下の学名に下線を引き，また人名には二重の下線を引く（第一字を除いて）．引用文献は著者名のアルファベット順に並べ，下記の形式で記す．
   BLACKWELDER, R. E., 1936. Morphology of the coleopterous family Staphylinidae. Smiths. misc. Coll., 94 (13): 1-102
   —1952. The generic names of the beetle family Staphylinidae with an essay on genotypy. Bull. U.S. natn. Mus., 200: i-iv+1-483.
   MüLER, J., 1925. Terzo contributo alla conoscenza del genere Staphylinus L. Boll. Soc.ent.ital., 50: 40-48.
3. 報文中の採集または検視データは以下のように表記する．
   （例）3♂♂, 2♀♀, Amaishi, Hyôgo, 28. V. 1995, Y. HAYASHI leg.
4. 原稿には原稿用紙と同質の表紙をつけ，これに表題，ランニング・タイトル（簡略化した論文表題，— 欧文 40 字内外），著者名，連絡先を明記し，赤字で原稿及び図表の枚数，別刷りの必要部数，その他連絡事項など記入．
5. 図は耐水性黒色インクで鮮明に描き，そのまま印刷出来るようにする．図の拡大（縮小）率を示したい場合は図中にスケールを入れる．原図には薄紙のカバーをかけ，これに著者名，図の番号，上の方向を示し，図の裏にその種名を入れる．もし原図版上に取り扱い指定文字を入れるときには，必ず青鉛筆を用いる．原図の大きさは，台紙を含めてＡ４判 (210 mm × 295 mm) 以内とされたい．また原図の返送が必要な場合は，カバーにその旨を記入する．
6. 図の説明及び表はそれぞれ別紙に書き，原稿末につける．

編集委員からのお願い

投稿される原稿については，投稿規定並びに原稿作製の要領をよく参照されて作成してください．本文の入ったフロッピーディスクはマッキントッシュまたはＭＳ－ＤＯＳのフォーマットされたものに，必ずテキストファイルで入力してください．ワードプロセッサー専用機は専用ＯＳのため，そのままでは取り込みは出来ません．ＤＯＳ変換したものをお送り下さい．

プリント原稿のみの場合には特に段落がはっきり判るように作成してください．，また，段落内の文節や単語の間が開きすぎないようにしてください．スキャナーで取り込むときに文章がバラけて取り込まれ，文章が壊れることがあります．

引用文献については，編集でチェック出来ないものもあるので，本誌の書式をよく確かめてください．また文献名の省略形式も充分確認してください．

人名（欧文）は全て大文字で打ち込んで下さい．中国，韓国，タイなど，日本と同じ順序による姓名表記の場合も，欧米式の姓名表記とします（つまり名，姓の順）．

投稿原稿，別刷について

従来超過ページ負担無しを１０ページまでとしていましたが，当分の間１６ページまでとします．また別刷は全て表紙付きとして，表紙代のみ学会負担とし，他の経費は著者負担とします．現在最も高くついているのが製本代です．

和文要約について

評論への投稿原稿には和文要約を必ず付けて下さい．学術用語で打ち出せない漢字もありますが，できるだけ努力します．

著　作　権

昆虫学評論および“ねじればね”に掲載された著作は原則として本会に属する．

1.. 執筆者自身が自分の著作の一部を複製・翻訳などの形で利用する場合，これに対して当会では原則的に意義申し立てしたり妨げることはしない．ただし，執筆者自身でも全文を複製の形で他の著作物に利用する場合に限り，事前に本会へ文書で申し出を行い，許諾を求めなければならない．

2. 第三者から論文の複製あるいは転載に関する許諾の要請があり，当会において必要と認めた場合は，執筆者に代わって許諾することがある．

投　稿　規　程

1. 投稿は原則として当学会員に限る．登載は原則的には受領順によるが，全額実費負担の原稿は優先的に取り扱うことが可能である．但しレフェリー制の導入により掲載の順位の変更がありうる（原稿は適当な方の校閲を受けたものであることが望ましい）．

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和文原稿について

和文原稿は，原著に付ける和文要約を除いて，“ねじればね”誌上にのみ掲載の予定であるので，新しい分類学的処理を含む内容の論文の掲載は出来ません．“ねじればね”は年２回以上の発行として，１号８~１６頁建てとする．分布，生態などの短報，分類学的な解説やノート，同定の手引き，その他役にたつ論説，情報など幅広い内容で紙面を作っていきたいと考えています．

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