

Notes on Elateridae from Japan and its adjacent
Area (9) (Coleoptera)

by
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by

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Abstract Seven species and two subspecies are described newly from Japan and Taiwan as follows.

Hypolithus motschulskyi hideoanus, subsp. nov. (Gumma Pref.).

Hypolithus motschulskyi ondai, subsp. nov. (Tochigi Pref.).

Thacana shinoharai, sp. nov. (Nan-tou Hsien in Taiwan).

Ampedus (Ampedus) houwau, sp. nov. (Yamanashi Pref.).

Ampedus (Ampedus) gozaishi, sp. nov. (Yamanashi Pref.).

Ampedus (Ampedus) lini, sp. nov. (Tai-pei Hsien in Taiwan).

Ampedus (Ampedus) kiso, sp. nov. (Nagano Pref.).

Ampedus (Ampedus) hosodai, sp. nov. (Yamanashi Pref.).

Melanotus (Spheniscosomus) kawakatsui, sp. nov. (Nan-tou Hsien in Taiwan).

This paper is one of the series by the author since 1981* giving the original descriptions for unknown elaterids from Japan and its adjacent regions. Through the courtesy of many collaborators, recently I have had the opportunity of studying many materials of elaterids from the high mountains in central Japan and from several localities in Taiwan, and as the result I found some interest Elaterid-species, which consist of 7 new species and 2 new subspecies as described as below.

Before going further, I wish to express my deep gratitude to their goodwill: Mr. Kōichi

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- *1981. Notes on Elateridae from Japan and its adjacent area (1), with the description of a new species (Col.). *Bull. Heian High Sch.* 25: 17-25.
1983. Some Elaterid beetles from the Nansei Archipelago collected by Mr. T. OGATA in 1982 (Col., Elat.), ditto (2). *Ent. Rev. Japan* 38(1): 29-40.
1983. On some Elaterid-species from Japan, with the descriptions of two new taxa (Col.). ditto (3). *Bull. Heian High Sch.* 27: 47-64.
1985. 日本とその周辺地域に分布するコメツキムシについての知見 (4). ditto (4). 月刊むし 175: 8-10.
1985. 同上 (5). ditto (5). 月刊むし 177: 19-22.
1986. 同上 (6). ditto (6). 月刊むし 184: 32-35.
1988. Some click-beetles from the Nansei Islands collected by Mr. T. OGATA (Col.: Elat.). ditto (7). *Ent. Rev. Japan* 43(2): 123-134.
1989. Elaterid-beetles from Mt. Houwau-zan and Gozaishi-kōsen Spa in Yamanashi Prefecture, collected by Mr. Kōichi Hosoda in 1987 and 1988 (Col.: Elat.). ditto (8). *Bull. Heian High Sch.* 33: 1-19.

HOSODA (細田倅市), the manager of the Houwau Lodge in Yamanashi Pref., Mr. Mitsuru KAWAKATSU (川勝 満) in Kyoto City, Mr. Kôzô MIZUNO (水野弘造) in Uji City, Mr. Takeshi OGATA (緒方 健), Kyûshû University, Mr. Hideo OHKAWA (大川秀雄) in Ashikaga City, and Mr. Akihikô SHINOHARA (篠原明彦), National Science Museum, Tokyo.

***Hypolithus motschulskyi hideoanus*, subsp. nov.**

(Hypnoidinae, Hypnoidini)

“Akakuna-miyama-hisago-kometsuki”

(Figs. 2, 10 & 23)

The present materials falling within a member of the subspecies group of *H. motschulskyi* (*Corymbites Motschulskyi* FLEUTIAUX, 1902) from Mt. Akakunayama (赤久縄山) (alt. ca. 1500 m) in Gumma Prefecture brought through the kind courtesy of Mr. H. OHKAWA, appear to have an intimate relationship to subsp. *babai* KISHII (Mt. Iide-san in Niigata) and *kuratai* KISHII (the South Japan Alps) in the general outline of body. Namely, the body appearance in these subspecific group has an outline of the typical gourd-shape. As a result of taking into the cautious consideration, however I think finally, it may be a new distinct subspecies and separable by the characteristics shown below.

Male, 10.80~11.00×3.20~4.20 mm. Female, 10.75×3.95 mm. Gourd-shaped, well convex above at pronotum roundly and elytra medio-longitudinally, widest at middle of elytra, plainly narrowed at elytral humeri, and subopaque all over. Black with antennae and legs yellowish brown, anterior angles of pronotum weakly and elytral apices broadly reddish brown, and in female hind angles of pronotum also reddish brown. Pubescence long, dense, tender, recumbent and reddish brown wholly. Frontal edge of frons well expanded roundly ahead (similar to *babai*, but not to *kuratai* with rather substraightened edge). Vertical punctures more circular, sparser and smaller than those of *babai* and *kuratai*, and distinctly uneven in density and scale (*babai*: elliptic longitudinally and large; *kuratai*: subocellated and clearly dense). Median width of pronotum narrower than distance across apices of hind angles (widest at middle in *babai* and *kuratai*). Hind angles of pronotum (fig. 2-A) a little divergent postero-laterally (parallel-sided mutually in *babai* and *kuratai*), rather elongate and narrow, each with uncarination well defined and long. Basal furrows rather distinct. Discal punctures denser and larger than *kuratai*, and denser and smaller than *babai*. Scutellum (fig. 2-B) a little narrower than length. Elytral punctures on striae rather similar to *kuratai*, and finer and denser than *babai*. Male genitalia as figured (figs. 10A, 10B), with apico-lateral expansion of each paramere obviously large. Sclerotic plates of female bursa copulatrix as figured (fig. 10C).

Holotype, ♂, Mt. Akakuna-yama (at point of alt. ca. 1300 m) in Fujioka City, Gumma Prefecture (群馬県藤岡市赤久縄山), June 11, 1989, H. OHKAWA leg. Isotypes, 1♂, 1♀, same data as holotype.

Hypolithus motschulskyi ondai, subsp. nov.

(Hypnoidinae, Hypnoidini)

“Niseyamizo-miyama-hisago-kometsuki”

(Figs. 3, 11 & 24)

In the body measurement and the coloration, this new subspecies is somewhat allied to some subspecies known from the neighbourhood mountainous area: *ohkawai* KISHII

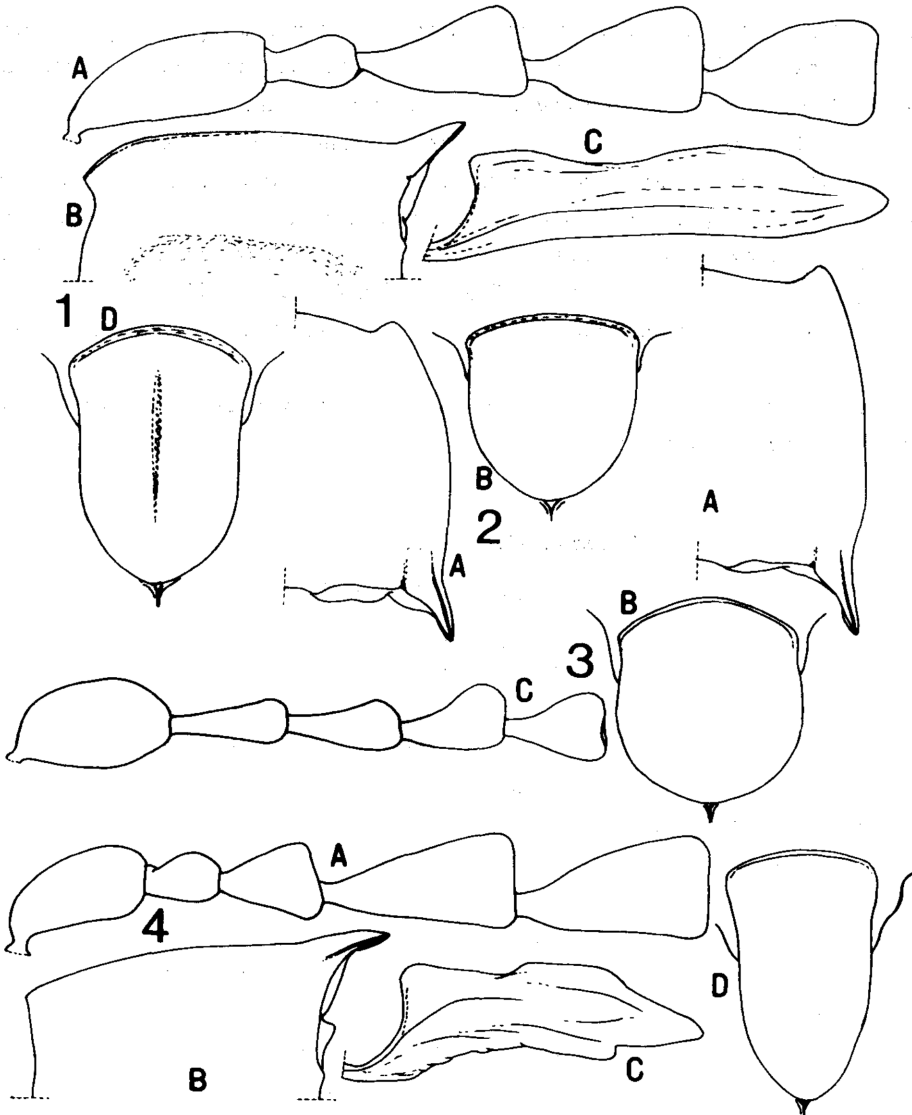


Fig. 1. *Thacana shinoharai* KISHII, sp. nov., ♂. A: five basal joints of right antenna. B: right half of pronotum in dorsal views. C: prosternal process in profile. D: scutellum.

Fig. 2. *Hypolithus motschulskyi hideoanus* KISHII, subsp. nov., ♂. A: right half of pronotum in dorsal views. B: scutellum.

Fig. 3. *Hypolithus motschulskyi ondai* KISHII, subsp. nov., ♀. A: right half of pronotum in dorsal views. B: scutellum. C: five basal joints of right antenna.

Fig. 4. *Ampedus (Ampedus) houwau* KISHII, sp. nov., ♂. A: five basal joints of right antenna. B: right half of pronotum in dorsal views. C: prosternal process in profile. D: scutellum.

from Ashikaga City, *shimotsuke* KISHII from Kuriyama Village, and *yamizo* KISHII from Mt. Yamizo-yama. I want to decide notwithstanding the material from Karasuyama Town has several resemblances to each other as a distinct subspecies by the following structures.

Female, 12.00×4.65 mm. Elongate, subparallel-sided, rather depressed above and subshining (*yamizo*: subgourd-shaped and a little convex). Much more black among these allied subspecies, with elytral apices less brownish. Vertical punctures generally single, a little small and uneven plainly. The 2nd antennal joint equal to 3rd in length (always 2nd shorter than 3rd in *yamizo*, *ohkawai* and *shimotsuke*) (fig. 3-C), and barely expanded apically. Discal punctures microscopically fine and sparse at summit. Basal groove (fig. 3-A) short but obvious (*yamizo*: obsolescent; *ohkawai* & *shimotsuke*: elongate). Scutellum (fig. 3-B), narrower than length (wider in *ohkawai* & *shimotsuke*). Elytral punctures on striae intervals dense and large (sparser in *yamizo* & *ohkawai*, and smaller in *shimotsuke*). Sclerotic plates of bursa copulatrix as figured (fig. 11). Male unknown.

Holotype, ♀, Ôsawa-rindô (at point of alt. ca. 160 m) in Karasuyama Town, Tochigi Pref. (栃木県烏山町大沢林道), April 9, 1990, K. ONDA leg. (恩田賢吾).

So far as I know, it is likely that the example was found from the place of the lowest height up to date.

I examined this specimen through the courtesy of Mr. H. OHKAWA, to whom I wish to express my hearty gratitude.

***Thacana shinoharai*, sp. nov.**

(Denticollinae, Ctenicerini)

“Taiwan-tsuyahirata-kometsuki”

(Figs. 1, 12 & 22)

Male, 13.65×3.40 mm. Elongate, rather slender, plainly flattened above as well as below longitudinally, entirely parallel-sided, and subshining with some bronzy tint. Black with antero-lateral margins of prothorax, hind angles of pronotum, elytral humeri, trochanters, basal ends of femora and claws more or less brownish red. Pubescence long, dense, tender, semierect and pale yellowish brown.

Head distinctly broad and a little depressed widely between eyes; relative extent across eyes and each eye breadth in upper views as 78: 14; frons narrow transversely, declining antero-inferiorly, with lateral edge before each eye obviously carinated, slightly extending antero-inferiorly, but entirely interrupted before middle; antennal sulci broad, shallowly hollowed, and entirely conglutinated with frons at middle. Mouth parts prognathous ahead, with mandibles clearly large, and labrum hemicircular and a little convex. Eyes not so large, but plainly prominent outwards spherically. Vertical punctures large, dense, subocellated, and uneven in density and scale; average extent among punctures subequal to each puncture diameter; ground surface among punctures smooth at anterior area, and microscopically rugose behind vertex.

Antennae rather slender, conspicuously longer than apices of hind angles of prothorax

by apical one joint or more; relative joint lengths and widths from basal joint to 5th as 41/16, 18/12, 32/18, 34/20 and 33/20 respectively (length/width) (fig. 1-A); basal joint distinctly massive, a little expanded apically and well rounded at anterior edge, 2nd obconical, 3rd to 10th rather serrated moderately, 3rd elongate triangular, 4th to 10th at a glance subhanging-bell-formed, and 11th suboval.

Pronotum (fig. 1-B) elongate, subquadrate, widest at middle excepting apices of hind angles, then gently and roundly narrowing ahead as well as back, conspicuously narrowed at bases of hind angles; disc feebly elevated above, with a wide shallow depression medio-longitudinally; sides narrowly margined antero-laterally; relative median length and width as 100:80. Hind angles not so short, exceedingly divergent postero-laterally, bluntly pointed at apices, without any carination, and with a small incision at posterior edge near each angle, but not formed basal furrow. Discal punctures single, small and dense medianly, but generally becoming subocellate, larger and denser anteriorly as well as laterally, and explicitly minute and sparse on posterior slope; average distance among punctures always wider than each puncture diameter at summit; interpunctate surface wholly glabrous.

Scutellum (fig. 1-D) subshield-shaped, declivous ahead, flattened, with an obtuse medio-longitudinal carina-like elevation; widest at fore angles, feebly narrowed behind fore angles, then roundly and gently converging posteriorly; anterior edge rounded and a little elevated; punctures single and rather dense; relative median length and basal width as 37:26.

Elytra barely convex above medio-longitudinally, parallel-sided at basal half, weakly expanded outwards behind middle, then progressively and roundly tapering posteriorly; relative sutural length including scutellum and humeral width as 100:38. Striae fine, narrowly grooved, with elliptic dense and discontinuous punctures; strial interstices a little elevated, with punctures single, not so dense and rather uneven. Strial ends microscopically mucronate.

Prosternum rather narrow, parallel-sided, convex longitudinally beneath, with anterior lobe rounded, slightly bent obliquely antero-inferiorly with large dense and umbilical punctures; general punctures small, sparse and rather subocellate. Prosternal process distinctly elevated between procoxae, then weakly bent inwards and straightly extending backwards, obtuse at apical end (fig. 1-C, in profile). Prosterno-pleural sutures straight, single, closed at fore ends, but having a narrow crevice between sternum and pleuron. Propleural punctures similar to sternal ones, but more or less uneven in density and size. Mesosternal groove broad and suboval. Metasternal punctures single, rather sparse and even. Legs slender, with tarsal joints simple and clearly elongate. Genitalia as figured (fig. 12); apical expansion of each paramere circular; median lobe with apex plainly narrowed. Female unknown.

Holotype, ♂, Sung-kang to Tsui-feng (at point of alt. 2200 m), Nan-tou Hsien, M. Taiwan (台湾南投县松崗~翠峯), March 14, 1977, A. SHINOHARA leg.

According to the literature, this new Ctenicerine-species has many common diagnoses to Indo-chinese genera of FLEUTIAUX, 1936: *Thacana* (type-species: *Corymbites cambodiensis* FLEUTIAUX, 1918, Tonkin) and *Rymcobites* (type-species: *Rymcobites singularis* FLEUTIAUX,

1936, Laos). Although, the one has short subfiliform antennae, and the other lacks lateral sides of the pronotum and elytral striae. And it resembles *Corymbitodes* too in some structures, however, generally in this new species the hind angles of pronotum are plainly long, prosterno-pleural sutures are entirely single, and decisively apices of parameres in the male genitalia are conspicuously and circularly enlarged. As a result of the comparative study among these similarities, the author came to a conclusion that the species should be belonged to the genus *Thacana* in spite of some doubts.

***Ampedus (Ampedus) houwau*, sp. nov.**

(Elaterinae, Ampedini)

“Houwau-hosoaka-kometsuki”

(Figs. 4, 13 & 25)

Male, 7.90 × 2.40 mm. Elongate, slender, flattened above as well as below and subopaque. Black with elytra dull brownish yellow excepting basal margins narrowly and sutural ends briefly infuscate, apices of 5th tarsal joints and claws yellowish. Pubescence long, rather dense, tender and semierect at pronotum and elytral bases near scutellum, but more or less thick and entirely erect at most part of elytra, and blackish excepting pronotum and elytral base more or less fulvous to brown.

Head broad, but not large, feebly convex between eyes, then slightly declining ahead; relative extent across eyes and each eye breadth in upper appearances as 50:8, frons triangularly protruded antero-inferiorly with anterior edge definedly carinated and elevated before eyes, then straightly extending and obscurely conglutinated medianly. Antennal sulci broad, transversely oval, shallowly concave with microscopical sculptures all over. Vertex glabrous entirely, with punctures circular, single, rather sparse, small and more or less uneven in density and size; average extent among punctures plainly wider than each puncture diameter.

Antennae slender, clearly exceeding apices of pronotal hind angles by apical two joints or more; relative joint lengths and widths from basal joint to 5th as 15/8, 7/5, 10/8, 19/9.5 and 18/10 respectively (length/width) (fig. 4-A); basal joint conspicuously massive and a little expanded roundly at antero-median side, 2nd subglobular, 3rd triangular, 4th to 10th elongate triangular and ill-serrated, and 11th narrow ovate and a little sinuate.

Pronotum (fig. 4-B) broad, trapezoid, feebly convex above simply, widest across apices of hind angles, weakly narrowed at base of angle, then gently and roundly convergent ahead; relative median length and width as 84:100. Hind angles elongate, obviously divergent postero-laterally, rather acutely pointed at apices, each with unication short obscure and lying near postero-interior margin of angle. Discal punctures similar to those of vertex, but a little sparser.

Scutellum (fig. 4-D) tongue-shaped, declivous antero-inferiorly, flattened, widest at fore corners, barely narrowed behind fore corners; relative median length and basal width as 23:15; anterior edge rounded; surface microscopically sculptured wholly, with some granular punctures.

Elytra elongate, parallel-sided behind humeri to beyond middle, then roundly converging posteriorly; relative sutural length including scutellum and humeral width as 100:37. Striae fine, narrowly and shallowly grooved, with small elongate and discontinual punctures; strial interstices glabrous, almost plane, with punctures distinctly minute and sparse. Sutural and elytral ends ordinary.

Prosternum narrow, entirely glabrous, weakly widened ahead, and elevated below medio-longitudinally near procoxal cavities; anterior lobe narrow, feebly bent obliquely, with dense large and subocellate punctures; general punctures on sternum a little sparser and larger than ponotal ones. Prosternal process roundly convex between procoxae distinctly, declining postero-interiorly, rather straightly extending back, with a small obtuse subapical projection near end, which is bluntly pointed (fig. 4-C, in profile). Prosterno-pleural sutures straight, double-like by broad smooth margin of each pleural suture, of which anterior end is clearly furrowed. Propleural punctures a little larger than sternal ones. Mesosternal groove fusiform longitudinally, weakly concave medianly. Metasternum microscopically shagreened entirely, with more or less smaller and denser punctures than on prosternum. Legs slender and moderate. Genitalia as figured (fig. 13); apico-lateral expansion of each paramere subright-angledly projected outwards. Female unknown.

Holotype, ♂, Houwau Lodge of Mt. Houwau-zan Yamanashi Prefecture, July 1, 1989, K. Hosoda leg. (山梨県鳳凰山, 鳳凰小屋).

In many diagnoses, this new *Ampedus*-species may be not distinct from *Ampedus* (*Pseud-elater*) *nikkoensis* (OHIRA, 1973), collected originally from Marunuma in Nikko, Tochigi Prefecture, though it can be easily separated from the latter by the unmistakable discrepancy in the form of apico-lateral expansion of each paramere. More, in the general external structures the 3rd joint of each antenna in the present new species is clearly shorter than 4th, namely which is ca. 1.4 times as long as the 3rd, in spite of "a little shorter than fourth" in the original description of OHIRA.

***Ampedus* (*Ampedus*) *gozaishi*, sp. nov.**

(Elaterinae, Ampedini)

"Gozaishi-aka-kometsuki"

(Figs. 5, 14 & 26)

Male, 9.25~10.20×2.70~3.05 mm. Female, 9.85~10.70×3.10~3.15 mm. Elongate fusiform, not so robust, subparallel-sided medianly, moderately convex longitudinally above, and rather shining. Black with apical ends of basal three joints of antennae, elytra, both ends of tibiae, tarsi and claws dull reddish brown, in some specimens basal margins and sutural zone of elytra more or less infusate narrowly. Pubescence long, not so dense, rather thick, semierect and brownish to black mainly, and commingled pale yellowish brown ones partly.

Head broad, barely convex above widely and simply between eyes, then slightly declining antero-inferiorly; relative distance across eyes and each eye breadth in upper views

as 58: 12 (male) and as 60: 10 (female). Frons roundly projected ahead, rather plane, with lateral edge before each eye well defined and a little upheaved upon antennal sulcus, and obscurely conglutinated roundly at middle with another edge. Antennal sulci broad, subfusiform, shallowly concave, with minute shagreen-like sculptures. Labrum rugose with sparse, rather large and pockmarked punctures. Vertex glabrous with punctures subumbilical, large, dense and a little uneven in density and scale; average extent among punctures narrower than each puncture diameter.

Antennae rather long, exceeding apices of prothoracic hind angles by apical one joint or less (male), and hardly exceeding bases of hind angles (female); relative joint lengths and widths from basal joint to 5th respectively as 21/10.5, 10/8, 14/10, 20.5/13 and 20/13 (length/width) (male, holotype, fig. 5-A), and as 21/10, 10/7, 12/8.5, 19/13 and 16/12.5 (female); basal joint clearly massive and expanded at antero-median side, 2nd globular, 3rd triangular, 4th to 10th serrated, and 11th suboval.

Pronotum subtrapezoid, widest across apices of hind angles, then rather progressively and roundly convergent ahead, and simply convex medianly; relative median length and width as 87: 100 (male) and as 84: 100 (female). Hind angles thick, elongate, slightly divergent postero-laterally, each with apex rather acute; unication on interior side of each angle short and hardly exceeding base of angle. Discal surface smooth wholly, with punctures single, rather even, plainly smaller and sparser than those on vertex; average extent among punctures wider than each puncture diameter, but becoming denser to anterior border as well as lateral sides.

Scutellum (fig. 5-B) shield-formed, declivous antero-inferiorly, roundly convex above, widest at fore corners, weakly narrowed behind angles, then roundly and gently narrowing back, with posterior end rounded; anterior edge feebly rounded ahead and scarcely elevated; relative median length and basal width as 31: 22; surface microscopically sculptured all over with punctures fine and sparse.

Elytra parallel from humeri to beyond middle, then gently tapering back, longitudinally convex above; relative sutural length including scutellum and humeral width as 100: 40. Striae fine, discontinuously grooved narrowly, with punctures rather circular, small and shallow; strial interstices glabrous entirely and rather flattened with punctures conspicuously fine and sparse. Sutural apices and elytral ends ordinary.

Prosternum narrowed medianly, feebly widened at anterior angles as well as near procoxae, not so broad, obviously elevated below basally, and smooth wholly with punctures single, distinctly sparse and small; anterior lobe clearly bent and roundly expanded antero-inferiorly, with punctures explicitly dense, subumbilical and a little larger than general sternal ones. Prosternal process in profile (fig. 5-C) thick, weakly declining postero-interiorly behind procoxae, with a small obtuse subapical projection before hind end, which is also obtusely pointed. Prosterno-pleural sutures sinuate, glabrous entirely, double-like by broad pleural sutures, each with anterior end clearly furrowed. Propleural punctures elliptic longitudinally, denser and larger than sternal ones. Metasternal groove elongate subfusiform, a little concave medianly. Metasternal punctures similar to propleural ones, but somewhat smaller. Legs moderate. Male genitalia and spines on female bursa copulatrix as figured (fig. 14).

Holotype, ♂, Gozaishi-kôsen Spa near Mt. Houwau-zan, Yamanashi Prefecture (山梨県鳳凰山御座石鉱泉), May 20, 1989, K. Hosoda leg. Isotypes, 1♂, 4♀♀, same data as holotype. Paratypes: 2♂♂, ditto, May 24, 1989; 1♂, ditto, May 28, 1989; 1♀, ditto, May 30, 1989; 1♀, ditto, June 3, 1989; 2♀♀, ditto, June 5, 1989; 1♀, ditto, June 7, 1989; 1♀, ditto, June 13, 1989; 1♀, ditto, June 25, 1989; 2♀♀, ditto, June 29, 1989; 1♂, 1♀, ditto, July 7, 1989.

Four specimens (2♀♀, May 20; 1♂, May 28; 1♀, June 7) among these type-series were attracted by the benzyl-acetate.

In the dull reddish brown elytra this new *Ampedus* is unique among many species of

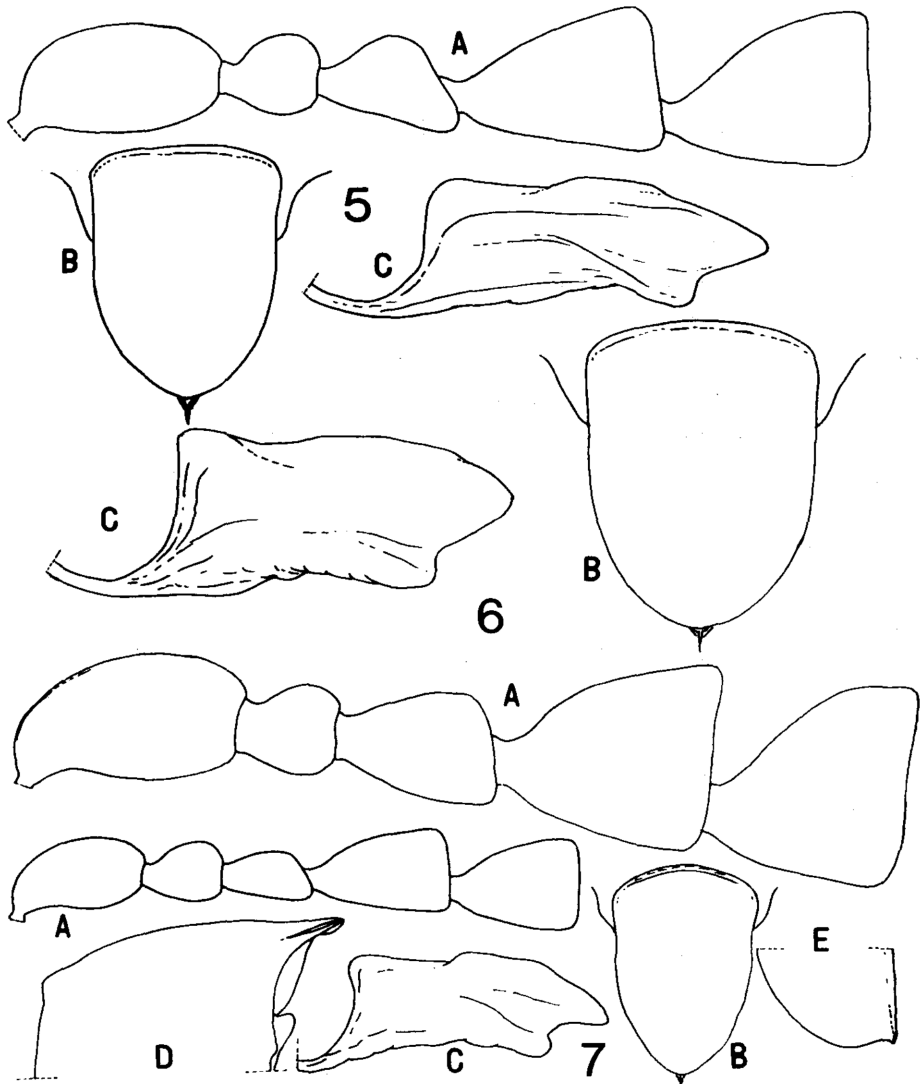


Fig. 5. *Ampedus (Ampedus) gozaishi* KISHII, sp. nov., ♂.

Fig. 6. *Ampedus (Ampedus) lini* KISHII, sp. nov., ♀.

Fig. 7. *Ampedus (Ampedus) kiso* KISHII, sp. nov., ♂.

A: five basal joints of right antenna. B: scutellum. C: prosternal process in profile.
D: right half of pronotum in dorsal views. E: apex of left elytra.

the Asian *Ampedus* with the reddish elytra.

Somewhat it resembles infuscate examples of *Ampedus orientalis* (LEWIS, 1894), though in the latter generally the pubescence is fulvous entirely, punctures on the vertex is a little sparser and smaller than those of this new species, the prosternal process is narrower in profile, the apico-lateral expansion of each paramere in the aedeagus is plainly narrower, and spines on the female bursa copulatrix are more thick, shorter and distinctly many.

Ampedus (Ampedus) lini, sp. nov.

(Elatrinae, Ampedini)

“Taiwan-aka-kometsuki”

(Figs. 6, 15 & 27)

Clearly allied to *Ampedus masculatus* OHIRA, 1966 (*Kontyû* 34: 269, fig. 30, Sung kang & Fenchihu) in the general appearance and coloration, but may be easily distinguishable by the following diagnoses.

Female, 12.50 × 3.65 mm. Robust, barely convex, parallel-sided and distinctly shining with pronotal disc obviously opalescent. Black with elytra clear reddish and legs partly dusky brownish. Pubescence not so long and dense, semierect, and pale fulvous wholly.

Head broad, simply convex between eyes, then slightly declivous antero-inferiorly; relative extent across eyes and each eye breadth in upper sights as 75: 10. Frons roundly enlarged antero-inferiorly, with fore edge before each eye well defined, extending sinuately to middle, and conglutinated obtusely with another edge medianly. Antennal sulci shallow, broad and finely sculptured shagreen-likely all over. Labrum small, faced ahead, with small sparse and pockmarked punctures on rugose surface. Vertex smooth with punctures single, small, plainly dense and subeven; average extent among punctures exceedingly narrower than each puncture diameter.

Antennae short, robust and hardly exceeding base of each prothoracic hind angle; relative joint lengths and widths from basal joint to 5th as 22/11.5, 9/9, 16/12, 20/18 and 18/9 respectively (length/width) (fig. 6-A); basal joint distinctly voluminous and sub-barrel-formed, 2nd globular, 3rd triangular, 4th to 10th plainly serrated, and 11th oval with a feeble excavation at antero-apical side.

Pronotum subtrapezoid, well convex above roundly and simply, with a vestige of medio-longitudinal impression on posterior slope, widest across apices of hind angles and subparallel at bases of angles, then gently narrowing anteriorly; relative median length and width as 87: 100. Hind angles short, scarcely divergent postero-laterally, with apices not so acute; uncarination short and well-defined. Discal surface entirely glabrous, with punctures single, conspicuously smaller and sparser than vertical ones; average extent among punctures distinctly wider than each puncture diameter.

Scutellum (fig. 6-B) subtongue-shaped, not so elongate, declivous antero-inferiorly, feebly convex above, parallel-sided medianly; anterior edge feebly rounded and weakly upheaved; hind end obtusely pointed; relative median length and width as 35: 27; surface smooth with sparse punctures.

Elytra parallel from humeri to beyond middle, then gently convergent posteriorly; relative sutural length including scutellum and humeral width as 100: 42. Striae distinct, narrowly grooved with round punctures rather discontinuously; strial interstices elevated with punctures plainly minute and sparse. Sutural apices obtusely mucronate. Elytral ends moderate.

Prosternum narrow, weakly widened at fore corners, medio-longitudinally elevated beneath, with punctures larger and denser than pronotal ones; anterior lobe feebly bent antero-inferiorly, with punctures sparser and denser than general punctures on sternum. Prosternal process in profile (fig. 6-C) strongly bent inwards behind procoxae and rather thick, with a small excavation near hind end, which is obtusely rounded. Prosterno-pleural sutures substraightened, broadly glabrous at pleural sutures, with distinct furrow at each anterior end. Propleural punctures larger and denser than sternal ones. Mesosternal groove fusiform and concave medianly. Mesosternal punctures similar to those of prosternum, but a little smaller. Legs moderate. Sclerotic spines on bursa copulatrix as figured (fig. 15), many (ca. 60), short and thick. Male unknown.

Holotype, ♀, Mt. Rara-san, Tai-pei Hsien, N. Taiwan (台湾台北县拉拉山), June 23, 1970, K. LIN leg.

From *Ampedus (Ampedus) masculatus* OHIRA, 1966 the new present species may be distinguishable by the following characteristics: pronotal disc opalescent, pubescence pale fulvous, vertical punctures dense and close each other, scutellum parallel-sided medianly, and spines on bursa copulatrix many (ca. 60). On the other hand, these diagnoses in *masculatus* are as follows: pronotal disc simply lustrous, pubescence blackish, vertical punctures with average extent subequal to puncture diameter, scutellum widest at fore angles, and spines on bursa copulatrix ca. 30 to 35.

***Ampedus (Ampedus) kiso*, sp. nov.**

(Elaterinae, Ampedini)

“Kiso-kokuro-kometsuki”

(Figs. 7, 16 & 28)

Male, 6.50~6.75 × 1.80~1.90 mm. Female, 6.05 × 1.75 mm. Narrow, robust, not so convex above, parallel-sided and distinctly shining. Black with tarsi a little brownish. Pubescence long, rather dense, thick, erect and mainly black to somewhat brownish, but partly greyish commingledly, especially at hind corners of pronotum obvious.

Head broad, slightly convex simply between eyes, then gently declining ahead; relative distance across eyes and each eye breadth in above sights as 48: 8. Frons rather flattened, ill-triangularly enlarged antero-inferiorly, with fore edge before eyes well-definedly carinated and plainly upheaved near each base, then sinuately extending medianly, and rounded at middle. Antennal sulci broad, transversely oval, with surface entirely microscopically and shagreen-likely sculptured. Labrum faced ahead, feebly convex, hemicircular, with some obscure pits on shagreened surface. Vertex smooth, with punctures dense, single, rather large and a little uneven in density and size; average extent

among punctures narrower than each puncture diameter.

Antennae rather thick, subequal to combined length of head and prothorax together (male) and shorter by apical one joint (female); relative joint lengths and widths from basal joint to 5th respectively as 13.5/7, 7/6.5, 8.5/5.5, 13.5/8 and 12/9 (length/width) (male, fig. 7-A), and as 12/7.5, 6/5.5, 7/5, 11.5/7 and 10/7.5 (female); basal joint robust, expanded apically and a little rounded at antero-median side, 2nd globular, 3rd narrowest and subclavate, 4th to 10th plainly serrated, and 11th elongate oval.

Pronotum (fig. 7-D) subtrapezoid, roundly convex above simply, widest across apices of hind angles, weakly narrowed at bases of hind angles, feebly expanded outwards at middle, and then roundly and gently convergent ahead; relative median length and width as 80:100. Hind angles not so elongate, thick, scarcely divergent postero-laterally, each with unication distinct and not so long. Discal surface glabrous wholly, with punctures single, small, a little uneven and obviously sparse; average extent among punctures two or three times as wide as puncture diameter or more.

Scutellum (fig. 7-B) tongue-shaped, slightly elevated wholly, but rather flattened medianly, declivous antero-inferiorly, widest at fore angles, clearly narrowed behind fore angles, then roundly narrowing back; relative median length and width as 21:15; anterior edge rounded and elevated; posterior end rounded; surface smooth posteriorly, but shagreened ahead, with punctures exceedingly minute and sparse.

Elytra convex medio-longitudinally, parallel-sided from humeri to beyond middle; sutural length including scutellum and humeral width as 100:39. Striae distinct and grooved with small, elliptic, even and deep punctures discontinually; strial interstices feebly elevated with punctures small, uneven and a little denser than those on pronotum, obscurely rugose transversely at basal area. Sutural ends (fig. 7-E) mucronate. Elytral ends feebly emarginated near sutural apices.

Prosternum glabrous, not so broad, narrowed near middle, widened clearly at fore angles as well as near procoxae less, and convex below; anterior lobe bent obliquely and rounded; punctures a little larger and coarser than those of pronotum. Prosternal process in profile (fig. 7-C) thick, distinctly declining postero-interiorly, with a small obtuse subapical projection near hind end, which is bluntly pointed. Prosterno-pleural sutures sinuated, broadly glabrous at pleural sutures, with fore ends furrowed. Propleural punctures elliptic longitudinally, rather even and clearly denser than sternal ones. Mesosternal groove elongate fusiform, horizontal at anterior half and declivous plainly at posterior half. Metasternal punctures somewhat smaller and sparser than propleural ones. Legs slender and ordinary. Male genitalia as figured (figs. 16A, 16B); apico-lateral side of apical expansion in each paramere explicitly emarginated, and lateral projection bluntly pointed. Spines on bursa copulatrix in female genitalia as figured (fig. 16C), exceedingly thick, ca. 20 and with commingledly some minute projections.

Holotype, ♂, Chigo-no-sawa in Kiso-Fukushima (長野県木曾福島稚児ノ沢), Nagano Prefecture, May 8, 1982, A. UEDA leg. Isotypes, 1♂, 1♀, same data as holotype.

This small black *Ampedus*-species has the intimate relationship to known species with the small body and the black coloration, in special *A. nanus* SILFVERBERG, 1977, *A. tamba* KISHII, 1976, and *A. akihikoi* KISHII, 1985 are conspicuously difficult to divide mutually

including the new species. Generally in the external structures, these resemblers may be distinguishable each other by the following diagnostic characteristics: body length, coloration of pubescence, pronotal form, pronotal punctures, condition of strial interstices of elytra, outline of prosternal process in profile etc. Above all, however, the comparative examination on the form of apical expansion of paramere is effective more than anything else (see figs. 18, 19 & 20).

I received the examples through the courtesy of Mr. T. OGATA, to whom I express my hearty thanks.

Ampedus (Ampedus) hosodai, sp. nov.

(Elaterinae, Ampedini)

“Hosoda-kokuro-kometsuki”

(Figs. 8, 17 & 29)

Ampedus nanus SILFVERBERG: KISHII, 1989, *Gekkan-mushi* 219: 49 (Gozaishi-kôsen in Yamanashi).

I misdetermined the example cited above in 1989. As the result of my latest study,

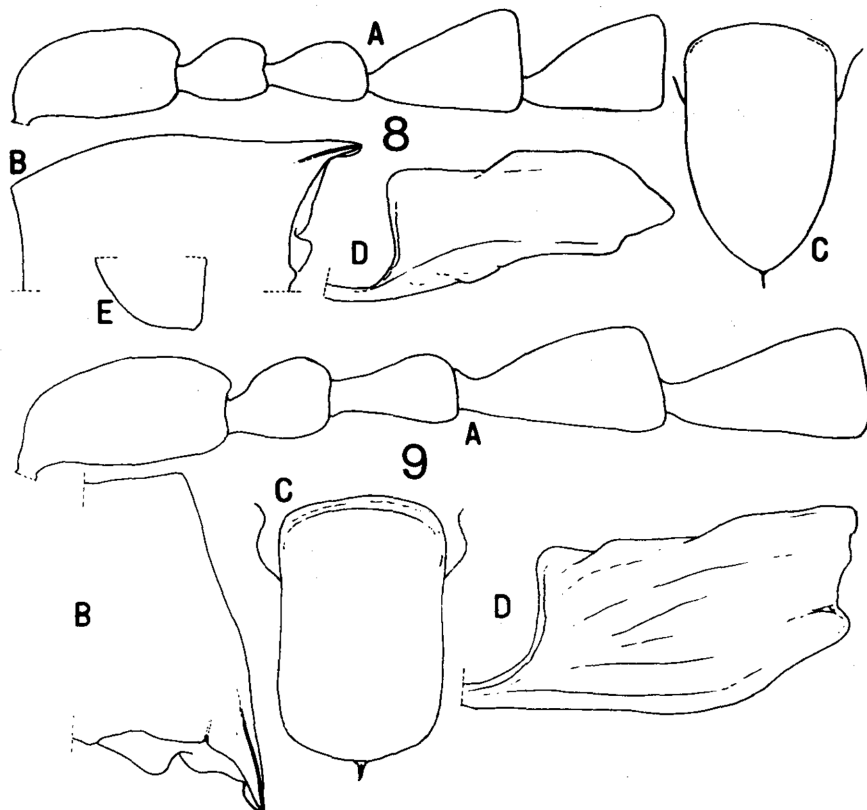


Fig. 8. *Ampedus (Ampedus) hosodai* KISHII, sp. nov., ♂.

Fig. 9. *Melanotus (Spheniscosomus) kawakatsui* KISHII, sp. nov., ♂.

A: five basal joints of right antenna. B: right half of pronotum in dorsal views.
C: scutellum. D: prosternal process in profile. E: apex of left elytra.

it is a good species, and describe newly below.

The general appearance in this species has a distinct resemblance to *A. tamba* and *kiso*, though it finally may be separated from the latter by the continual structures.

Male, 7.45 × 2.25 mm. A little larger and stouter. Vertical punctures similar to *tamba*, slightly denser than *kiso*. Antennae feebly longer than both species; relative joint lengths and widths from basal joint to 5th as 15/9, 8.5/6.2, 9.5/6, 15/10 and 14/9 respectively (length/width) (fig. 8-A); 3rd joint obviously longer than other resembling species, 4th clearly triangular and plainly wider. Pronotal hind angles somewhat divergent postero-laterally (parallel-sided in *tamba* and *kiso*) (fig. 8-B). Pronotal punctures similar to *kiso*, but denser and larger than *tamba*. Strial interstices of elytra perfectly flattened, with punctures a little larger and denser than both species. Elytral surface obviously rugose transversely. Mucronate at sutural ends of elytra almost obsolescent (fig. 8-E). Prosternal and propleural punctures larger and denser than both species. Prosternal process short and thick (fig. 8-D, in profile). Genitalia as figured (fig. 17), with apico-lateral expansion of each paramere regular triangular, and lateral projection rounded.

Holotype, ♂, Gozaishi-kōsen near Mt. Houwau-zan, Yamanashi Prefecture (山梨県鳳凰山御座石鉦泉), May 20, 1988, K. Hosoda leg. Paratypes: 1♂, Gozaishi-kōsen near Mt. Houwau-zan, Yamanashi Prefecture, April 25, 1989, K. Hosoda leg.; 1♂, ditto, March 8, 1990, ditto; 1♂, ditto, April 23, 1990, ditto.

***Melanotus (Spheniscosomus) kawakatsui*, sp. nov.**

(Melanotinae)

“Kawakatsu-kushi-kometsuki”

(Figs. 9 & 21)

Male, 18.05 × 4.80 mm. Elongate, subfusiform, robust, rather flattened above, but a little convex beneath medio-longitudinally, and lustrous. Dark reddish brown entirely to more or less infusate laterally. Pubescence long, dense, rather thick, semierect and pale fulvous with some tint.

Head broad, rather flattened widely between eyes; relative extent across eyes and each eye breadth in upper views as 96:26. Frons a little declivous antero-inferiorly, generally flattened broadly but ill-depressed behind frontal edge, with a wide weak elevation at middle; anterior edge well developed, carinated and rounded medianly. Frontal groove deep, broad, faced ahead, and not narrowed medianly; surface microscopically shagreened with some obscure foveae. Vertex surface finely shagreened in high magnification, with punctures generally large, dense and single, but distinctly uneven in density and scale; average extent among punctures entirely narrower than each puncture diameter.

Antennae feebly exceeding tips of prothoracic hind angles; relative joint lengths and widths from basal joint to 5th as 37/15, 14/11, 18.5/11, 31/15 and 29/15 respectively (length/width) (fig. 9-A); basal joint obviously massive and well expanded medio-anteriorly, 2nd subobconical, 3rd subclavate or somewhat elongate obconic, 4th to 10th serrated, and 11th widened near apex.

Pronotum (fig. 9-B) trapezoid perfectly slightly convex above simply, but with a broad shallow impression on basal slope only, widest across tips of hind angles, then straightly narrowing to anterior angles; relative median length and width as 90:100. Hind angles thick, rather short, distinctly divergent postero-laterally, each with apex acute but seemingly truncated broadly by postero-interior expansion of propleuron in dorsal appearances; uncarination elongate, a little sinuated and conspicuous; basal furrows rather obsolescent with a small incision at each base. Disc entirely glabrous, with punctures single, even, clearly smaller and sparser than those on vertex; average extent among punctures two or three times as wide as each puncture diameter or more.

Scutellum (fig. 9-C) quadrate, a little widened at anterior angles, plane entirely, and declivous antero-inferiorly; fore edge thickly margined, elevated above and substraightened; relative median length and basal width as 45:35; widest at fore angles, weakly narrowed behind angles, then subparallel-sided medianly, and rather transverse at hind end; surface smooth with some fine sculptures partly and punctures rather large and dense, but ill-limited at outline.

Elytra widest at humeri, progressively and straightly narrowing to beyond middle, then roundly converging posteriorly; relative sutural length including scutellum and humeral width as 135:48. Striae indistinct, shallowly and obscurely grooved excepting basal part, with punctures small and discontinuous. Strial interstices glabrous, flattened with punctures finer and sparser than pronotal ones. Sutural ends scarcely mucronate.

Prosternum glabrous, narrow, feebly widened at anterior angles, and slightly convex medio-longitudinally; anterior lobe rounded and weakly bent antero-inferiorly; punctures larger and denser than pronotal ones. Prosternal process in profile (fig. 9-D) distinctly thick, a little bent inwards beyond middle, with an obtuse subapical projection before apex, which is bluntly pointed, with lateral sides widely depressed. Prosterno-pleural sutures somewhat curved and widening ahead, broadly glabrous at pleural sutures, with anterior ends furrowed. Propleural punctures longitudinally ellipse, distinctly denser than sternal ones. Mesosternal groove subrhombic longitudinally, horizontal at anterior half, perpendicularly bent below at middle, then obliquely extending posteriorly. Metasternal punctures smaller and sparser than prosternal ones. Legs moderate. Genitalia as figured (figs. 21B, 21C), explicitly broad; apico-lateral expansion of each paramere regular-triangular entirely; median lobe distinctly broad having apical point short but well projected. Female unknown.

Holotype, ♂, Puli, Nan-tou Hsien, M. Tawian (台湾南投县埔里), July 4, 1984, M. KAWAKATSU leg.

This new *Spheniscosomus*-species has a close resemblance to *M. (S.) frequens* (MIWA, 1930) and *M. (S.) babai* KISHII, 1989, though it may be easily divided from the latter by the length of antennae, pronotal punctures, the shape of scutellum, the outline of prosternal process in profile, and the unique form of male genitalia finally.

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PLATE I

- Fig. 10.** *Hypolithus motschulskyi hideoanus* KISHII, subsp. nov.
A. male genitalia, Mt. Akakuna-yama, June 11, 1989, H. OHKAWA leg., holotype.
B. ditto, paramere.
C. sclerotic plates on bursa copulatrix of female, same data as holotype.
- Fig. 11.** *Hypolithus motschulskyi ondai* KISHII, subsp. nov.
sclerotic plates on bursa copulatrix of female, Ôsawa-rindô, April 9, 1990, K. ONDA leg., holotype.
- Fig. 12.** *Thacana shinoharai* KISHII, sp. nov.
A. male genitalia, Sung-kang to Tsui-feng, March 14, 1977, A. SHINOHARA leg., holotype.
B. ditto, paramere and median lobe.
- Fig. 13.** *Ampedus (Ampedus) houwau* KISHII, sp. nov.
A. male genitalia, Mt. Houwau-zan, July 1, 1989, K. HOSODA leg., holotype.
B. ditto, paramere and median lobe.
- Fig. 14.** *Ampedus (Ampedus) gozaishi* KISHII, sp. nov.
A. male genitalia, Gozaishi-kôsen, May 20, 1989, K. HOSODA leg., isotype.
B. ditto, paramere.
C. spines on bursa copulatrix of female, Gozaishi-kôsen, June 29, 1989, K. HOSODA leg., paratype.
- Fig. 15.** *Ampedus (Ampedus) lini* KISHII, sp. nov.
spines on bursa copulatrix of female, Mt. Rara-san, June 23, 1970, K. LIN leg., holotype.

PLATE I

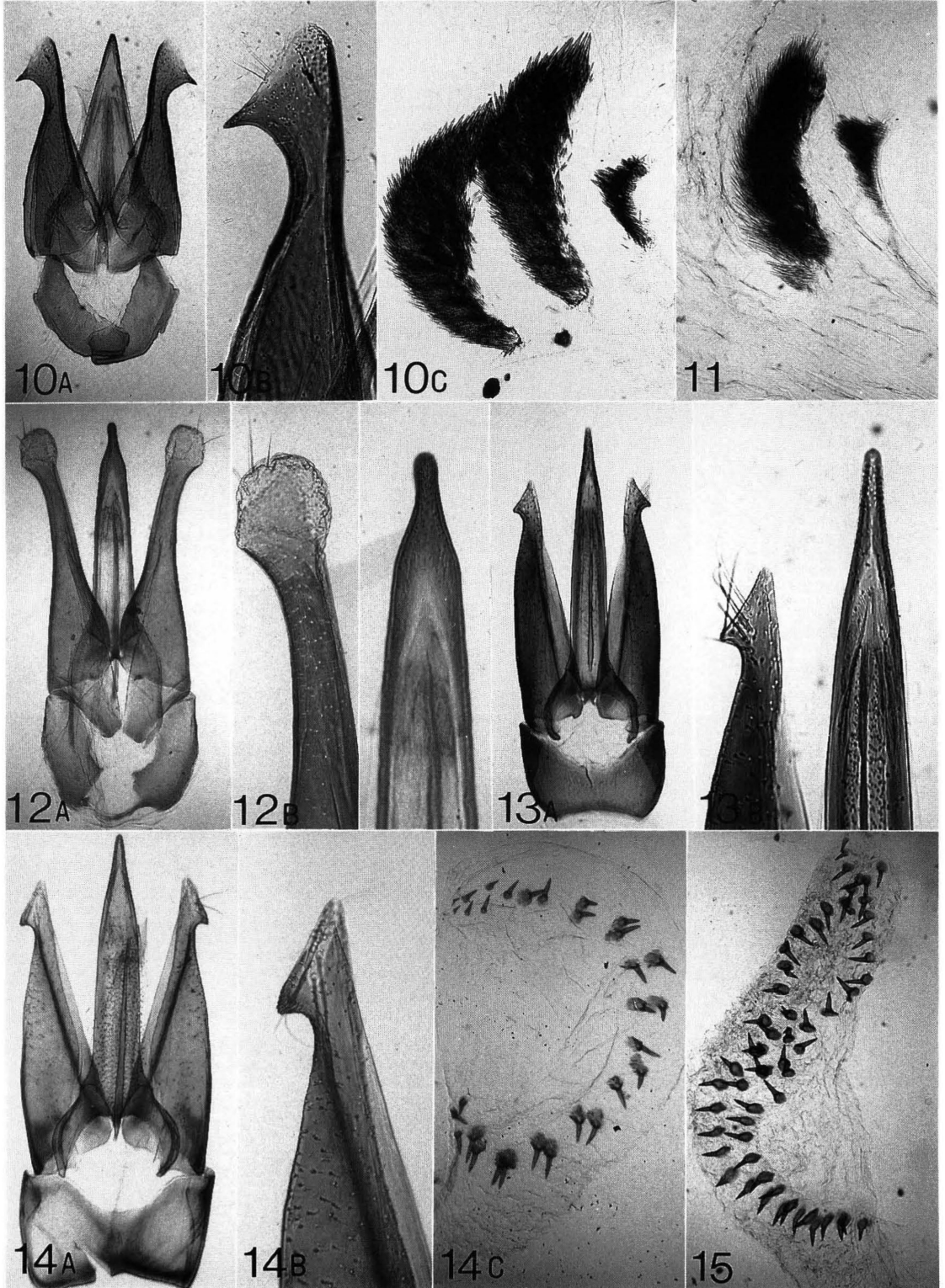


PLATE II

Fig. 16. *Ampedus (Ampedus) kiso* KISHII, sp. nov.

A. male genitalia, Chigo-no-sawa, May 8, 1982, A. UEDA leg., holotype.

B. ditto, paramere.

C. spines on bursa copulatrix of female, ditto, isotype.

Fig. 17. *Ampedus (Ampedus) hosodai* KISHII, sp. nov.

A. male genitalia, Gozaishi-kôsen, May 20, 1988, K. HOSODA leg., holotype.

B. ditto, paramere.

Fig. 18. *Ampedus (Ampedus) nanus* SILFVERBERG, 1977

paramere, Yunoki in Ôita, May 3, 1984, K. ARAMAKI leg.

Fig. 19. *Ampedus (Ampedus) tamba* KISHII, 1976

paramere, Ashiu Valley, May 18-19, 1974, K. MIZUNO leg., holotype.

Fig. 20. *Ampedus (Ampedus) akihikoi* KISHII, 1985

paramere, Nishiyama in Okayama, April 25, 1976, A. WATANABE leg.,
holotype.

Fig. 21. *Melanotus (Spheniscosomus) kawakatsui* KISHII, sp. nov.

A. male, Puli, July 4, 1984, M. KAWAKATSU leg., holotype, 18.05 mm.

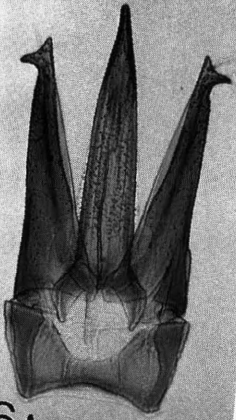
B. male genitalia, holotype.

C. ditto, paramere and median lobe.

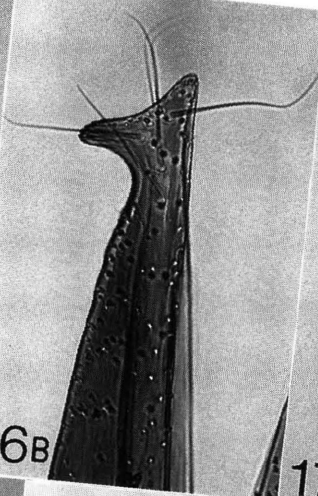
Fig. 22. *Thacana shinoharai* KISHII, sp. nov.

male, Sung-kang to Tsui-feng, March 14, 1977, A. SHINOHARA leg., holotype,
13.65 mm.

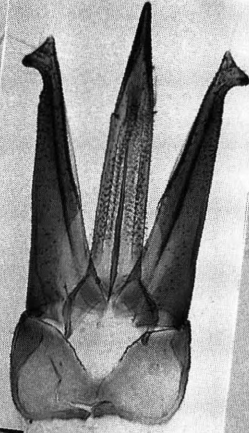
PLATE II



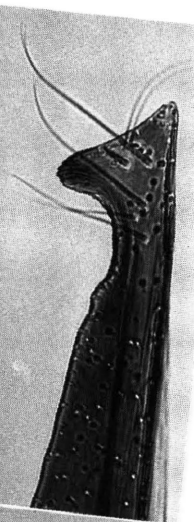
16A



16B



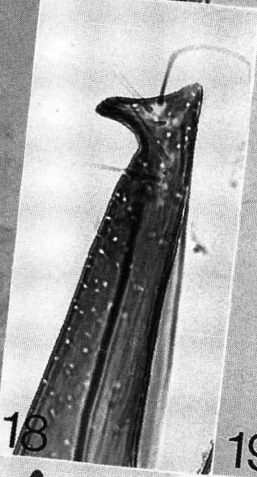
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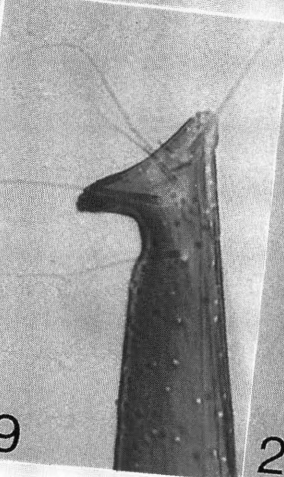
17B



16C



18



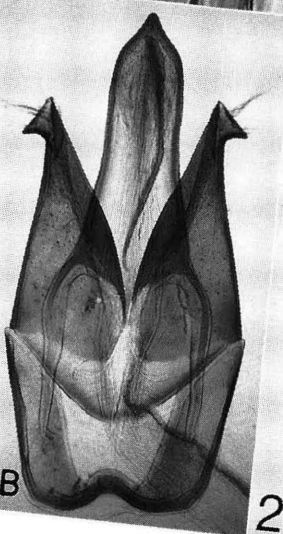
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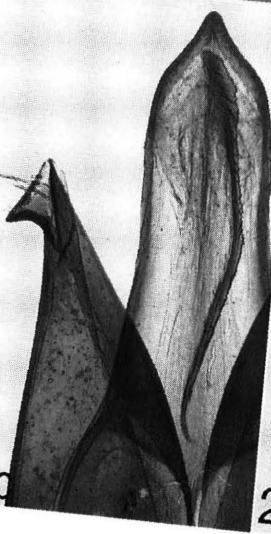
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21A



21B



21C



22

PLATE III

- Fig. 23. *Hypolithus motschulskyi hideoanus*** KISHII, subsp. nov.
A. male, Mt. Akakuna-yama, June 6, 1989, H. OHKAWA leg., holotype, 10.80 mm.
B. female, ditto, isotype, 10.75 mm.
- Fig. 24. *Hypolithus motschulskyi ondai*** KISHII, subsp. nov.
female, Ôsawa-rindô, April 9, 1990, K. ONDA leg., holotype, 12.00 mm.
- Fig. 25. *Ampedus (Ampedus) houwau*** KISHII, sp. nov.
male, Mt. Houwau-zan, July 1, 1989, K. HOSODA leg., holotype, 7.90 mm.
- Fig. 26. *Ampedus (Ampedus) gozaishi*** KISHII, sp. nov.
A. male, Gozaishi-kôsen, May 20, 1989, K. HOSODA leg., holotype, 10.40 mm.
B. female, ditto, July 7, 1989, K. HOSODA leg., isotype, 10.75 mm.
- Fig. 27. *Ampedus (Ampedus) lini*** KISHII, sp. nov.
female, Mt. Rara-san, June 23, 1970, K. LIN leg., holotype, 12.50 mm.
- Fig. 28. *Ampedus (Ampedus) kiso*** KISHII, sp. nov.
A. male, Chigo-no-sawa, May 8, 1982, A. UEDA leg., holotype, 6.75 mm.
B. female, ditto, isotype, 6.05 mm.
- Fig. 29. *Ampedus (Ampedus) hosodai*** KISHII, sp. nov.
male, Gozaishi-kôsen, May 20, 1988, K. HOSODA leg., holotype, 7.45 mm.

PLATE III

