

A Study of *Ampedus (Ampedus) ivanovi* (JAKOBSON, 1913)
and its allied Species from Japan, with Descriptions
of some new Taxa
(Some new forms of Elateridae in Japan, XXI)

by
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A Study of *Ampedus* (*Ampedus*) *ivanovi* (JAKOBSON, 1913)
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Abstract Four new *Ampedus* (*Ampedus*) species are described: *A. (A.) nubatama* sp. nov., from Kyoto and Fukushima Prefectures, *A. (A.) yamato* sp. nov., from Nara Prefecture, *A. (A.) mizunoanus* sp. nov., from Kyoto and Nara Prefectures, and *A. (A.) aureopilosus* sp. nov., from Kyoto Prefecture. Keys of the known species belonging to this group are also given.

Introduction

The genus *Ampedus* De JEAN, 1833 consists of about 80 species or more in Japan, and it is a well-known fact that *Ampedus* species is one of the most difficult group in the taxonomic classification mutually. Among this genus, the medium or rather large-sized species (more than 10 mm in length) with black elytra represented by *A. hypogastricus* (CANDÈZE, 1873), are hitherto known seven species from Japan: *A. hypogastricus*, *A. vestitus* (LEWIS, 1894), *A. ivanovi* (JAKOBSON, 1913), *A. ogatai* KISHII, 1983, *A. yaku* KISHII, 1983, *A. takahachi* KISHII, 1985, and *A. sawadai* KISHII, 1985. In these species *A. vestitus* and *A. ivanovi* are especially hard to divide taxonomically each other and besides there are some undescribed and well-allied species.

Through the courtesy of many collaborators, recently I have had the opportunity of studying some materials of this small group of the *Ampedus* from Japan proper, and found four new species. Therefore, in the present paper I wish to describe newly these undescribed species and to state on the relations among already-known species.

On this occasion I wish to express my deep gratitude to Messrs. Dr. Kintarô BABA in Niigata Prefecture, Kôzô MIZUNO in Uji City, Nobuyuki NARUKAWA in Tsu City, Takeshi OGATA of Kyûshû University, Masahiro SAITÔ in Fukui Prefecture, Taichi SHIBATA in Osaka City, Ryûichi SHIMAMOTO of Kôchi Agricultural Experiment Station, Syô TAKAHASHI, Prof. of Kyoto University, Akihiko WATANABE of Okayama Agricultural Experiment Station, and Shigeto YAMAYA of Nagaoka Municipal Scientific Museum of Natural History.

Descriptions of new taxa

Ampedus(*Ampedus*) *nubatama* sp. nov.

“*Nubatama-kuro-kometsuki*”

(Figs. 1, 9 & 19)

Female, 11.5×3.2 mm (holotype) and $11.05 \sim 11.3 \times 3.2 \sim 3.25$ mm (2 paratypes). Elongate, rather stout, subparallel-sided, weakly depressed above as well as beneath. Shining generally. Black wholly, with tibiae and tarsi dark reddish brown, and 2nd and 3rd joints of antennae more or less reddish terminally, though in a paratype (Yunohana Spa) having legs wholly reddish brown and basal three joints of antennae reddish entirely. Pubescence not so dense, long, semierect, a little curved roundly, and generally black mixed compoundly with white or fulvous ones partly.

Head broad, simply and a little convex above; relative vertex breadth across eyes and each eye width in upper views as 60 : 11 ; anterior margin of frons well-ridged upon antennal sulci, then substraightly extending antero-downwards, and obtusely united each other medianly. Vertex punctures a little dense, not so small, rather circular and single; interstices among punctures smooth entirely, as wide as puncture diameter, but generally uneven in density and size.

Antennae shorter than combined length of head and prothorax together including hind angles; relative joint lengths and widths from 1st to 5th as 22/10, 11/9, 14/9, 22/13 and 20/12 respectively (length/width) (fig. 1a); basal joint cylindrical, 2nd subquadrate, 3rd elongate triangular, and 4th to 10th clearly serrated.

Pronotum a little spherically convex above simply; sides widest at hind apices, straightly and slightly narrowing from hind angles to near middle, then roundly convergent ahead; hind angles elongate, thick, straightly protruding posteriorly, and each with acute carina; punctures distinctly smaller and sparser than on vertex medianly; interstices across punctures plainly wider than puncture diameter averagely.

Scutellum (fig. 1c) shield-formed, declivous antero-downwards, feebly convex above roundly, subparallel-sided at anterior half, with posterior end rounded; punctures very fine and sparse.

Elytra moderately elevated medio-longitudinally, parallel-sided from humeri to beyond middle, then gently converging posteriorly; sutural length and humeral width relatively as 100 : 38; striae distinct, rather deep, grooved with plain discontinual punctures; strial interstices weakly elevated longitudinally, having minute sparse punctures; interpunctate surface with feeble transverse creases; sutural ends slightly pointed acutely.

Prosternal punctures a little denser and larger than on pronotum, uneven in density and size generally; interstices among punctures smooth. Prosternal process in profile (fig. 1d) moderately bent inwards behind procoxal cavities, then straightly projecting posteriorly, with a small weak process before apex. Prosterno-pleural sutures broad, double and clearly divergent antero-outwards, obviously furrowed at fore ends.

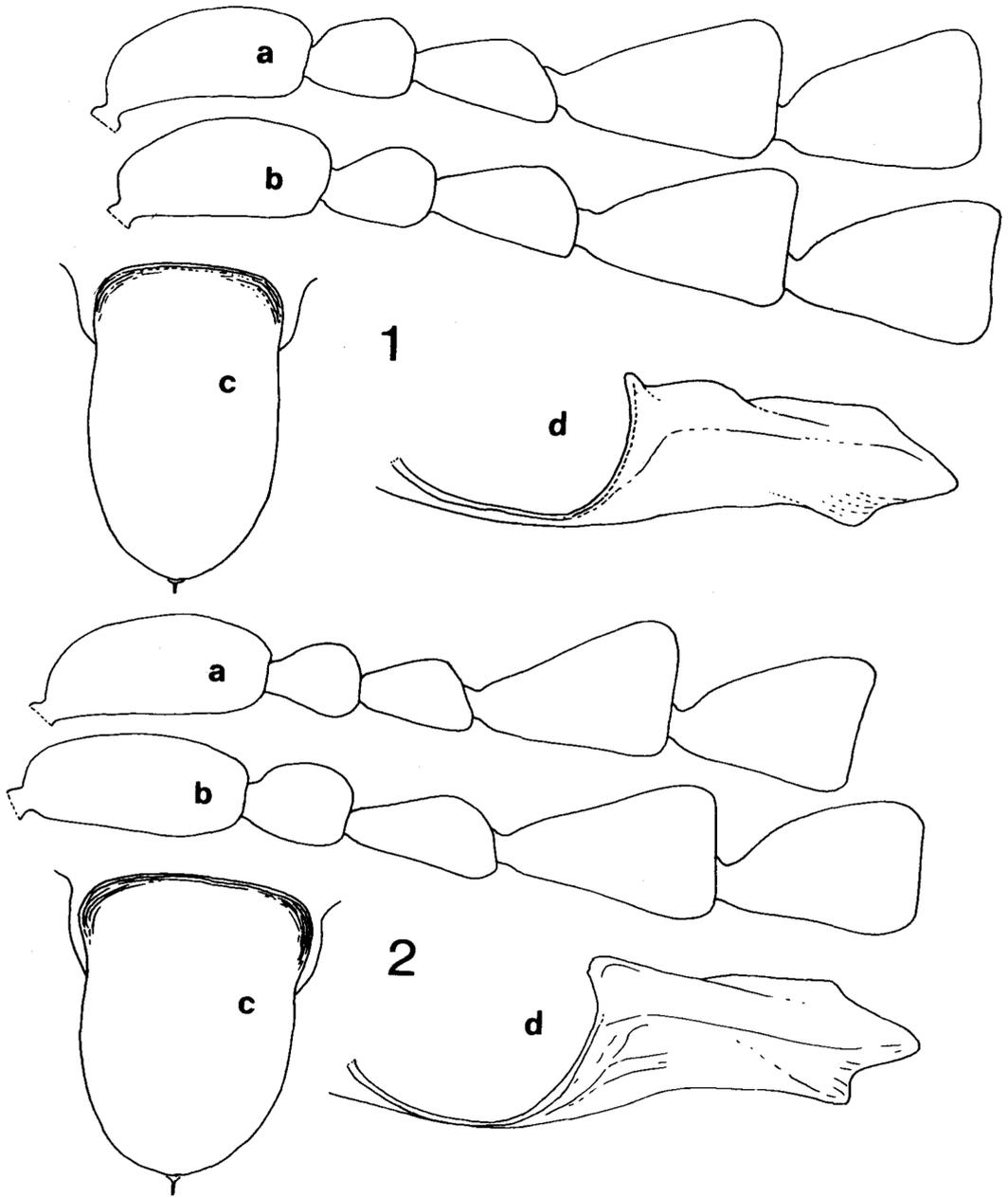


Fig. 1. *Ampedus (Ampedus) nubatama* sp. nov.

a. five basal joints of right antenna in female (holotype). b. ditto in male. c. scutellum.
 d. prosternal process in profile.

Fig. 2. *Ampedus (Ampedus) yamato* sp. nov.

a. five basal joints of right antenna in male (holotype). b. ditto in female. c. scutellum.
 d. prosternal process in profile.

Propleural punctures a little elongate longitudinally in shape, denser than prosternal ones; interval surface among punctures smooth. Metasternal punctures similar to those on prosternum in size, but a little denser; interpunctate surface shagreen-likely sculptured microscopically.

Prickles in bursa copulatrix as figured (figs. 9c & 9d), ca. 110 in number, formed by two elongate rows or partly by three ones; each prickle elongate, narrow and rather acute with base not so broad.

Male, 11.65 × 3.15 mm. General structures as in female. Relative joint lengths and widths in antennae from 1st to 5th as 24/10, 11/9, 16/9, 24/16 and 23/17 respectively (fig. 1b). Genital organ as figured (figs. 9a & 9b).

Holotype, female, Yunohana Spa, Fukushima Pref., July 26–31, 1975, K. MIZUNO leg. Paratypes: a female, ditto, July 28–29, 1974, K. MIZUNO leg.; a male, ditto, June 13, 1982, Y. MIYAKE leg.; a female, Ashiu Valley, Kyoto Pref., May 28, 1978, K. MIZUNO leg.

The present new species appears to have a close relationship to *A. (A.) ivanovi*, but prickles in bursa copulatrix are many and more slender (see figs. 8c, 8d, 9c & 9d).

***Ampedus (Ampedus) yamato* sp. nov.**

“*Yamato-kuro-kometsuki*”

(Figs. 2, 10 & 18)

In general form and coloration, this new species is almost similar to *A. nubatama* described above. But, it may be distinguishable by the combination of following different structures mutually.

Male, 11.35 × 3.15 mm (holotype) and 11.95 × 3.30 mm (paratype). Female, 10.80~12.85 × 2.95~3.50 mm (4 paratypes). Anterior carination of frons rounded. Vertex breadth across eyes and each eye width in upper sights as 70 : 14 relatively. Vertex punctures denser and more uneven in density and size. The 2nd antennal joint in male not quadrate, but rather triangular; 3rd in male a little longer than 2nd, but in female distinctly longer; relative joint lengths and widths from 1st to 5th as 26/10, 11/9, 12.5/9, 24.5/15 and 21/15 respectively (length/width) (male, holotype) (fig. 2a), and 25/11, 12/9, 17/9, 24/15 and 22/15 (female) (fig. 2b). Pronotum more elongate than that of *nubatama*. Pronotal punctures very sparse and minute, but a little denser than those of *nubatama*. Scutellum (fig. 2c) clearly widest at anterior angles, which are roundly angled, a little constricted inwards behind fore angles, then sides slightly and roundly convergent to posterior apex, and not parallel-sided. Strial interstices of elytra distinctly rugose by transverse creases, especially conspicuous on basal parts. Apex of prosternal process with obvious emargination (fig. 2d). Male genitalia as figured (fig. 10a); median lobe gently narrowing substraightly and apically from base; apex of median lobe elongate and exceedingly narrow; apex of each paramere as figured (fig. 10b). Prickles in bursa copulatrix as figured (figs. 10c & 10d), ca. 220~240 in num-

ber, formed by two elongate rows, partly with short 3rd row, and each prickle elongate, and robuster than that of *nubatama*.

Holotype, male, Nara Park, Nara Pref., Feb. 9, 1986, S. TAKAHASHI leg. Paratypes: a female, data as in holotype; a male, Nara Park, Nara Pref., April 13, 1986, S. TAKAHASHI leg.; a female, ditto, April 1, 1984, S. TAKAHASHI leg.; a female, ditto, April 6, 1986, S. TAKAHASHI leg.; a female, Akiho Spa, Miyagi Pref., January 8, 1983, B. YAMAYA leg.

In the general outline this species is closely intimate to the above-described species and *A. ivanovi*, and it is very difficult to separate each other in the external structures only. Maybe and always it is necessary for the distinction to examine the structures of genital organs.

***Ampedus (Ampedus) mizunoanus* sp. nov.**

“ *Mizuno-kuro-kometsuki* ”

(Figs. 3, 11 & 20)

The present new species closely resembles two new above-described species in the general body features and coloration. Although, the combination of continuous structures may be divided from these resemblers mutually.

Male, 11.85 × 3.40 mm (holotype), and female, 11.35 × 3.35 mm. Pubescence short, sparse, rather erect, and generally fulvous wholly, though on pronotum rather long. Anterior margin of frons rather obscure at middle. Vertex punctures coarse and partly subocellated. Relative vertex breadth across eyes and each eye width in upper sights as 74 : 16. The 2nd antennal joint rather triangular, and 3rd clearly longer than 2nd in male; relative joint lengths and widths from 1st to 5th as 24/12, 10/8.5, 15/9, 25/15 and 21/16 (length/width) (male, holotype) (fig. 3a), and 22/10, 13/9, 14/9, 23/14 and 22/14 (female) (fig. 3b). Pronotal outline similar to *nubatama*. Pronotal punctures sparse and minute, and plainly uneven in density. Scutellum (fig. 3c) with sides conspicuously constricted behind anterior corners, which are rounded. Strial interstices of elytra almost not rugose transversely. Prosternal process in profile as figured (fig. 3d). Male genitalia as figured (fig. 11a), somewhat allied to that of *nubatama*, but latero-apical projection of paramere a little thick, with many creases (fig. 3b). Prickles in bursa copulatrix also closely similar to *nubatama*, though in number ca. 70 and sparser (fig. 3c).

Holotype, male, Ashiu Valley, Kyoto Pref., June 1-2, 1974, K. MIZUNO leg. Paratype, a female, Mt. Obako-dake, Nara Pref., July 4, 1982, K. MIZUNO leg.

As compared with *nubatama* and *yamato*, the present new species have the elongate pronotum and more plainly parallel-sided body in general outline.

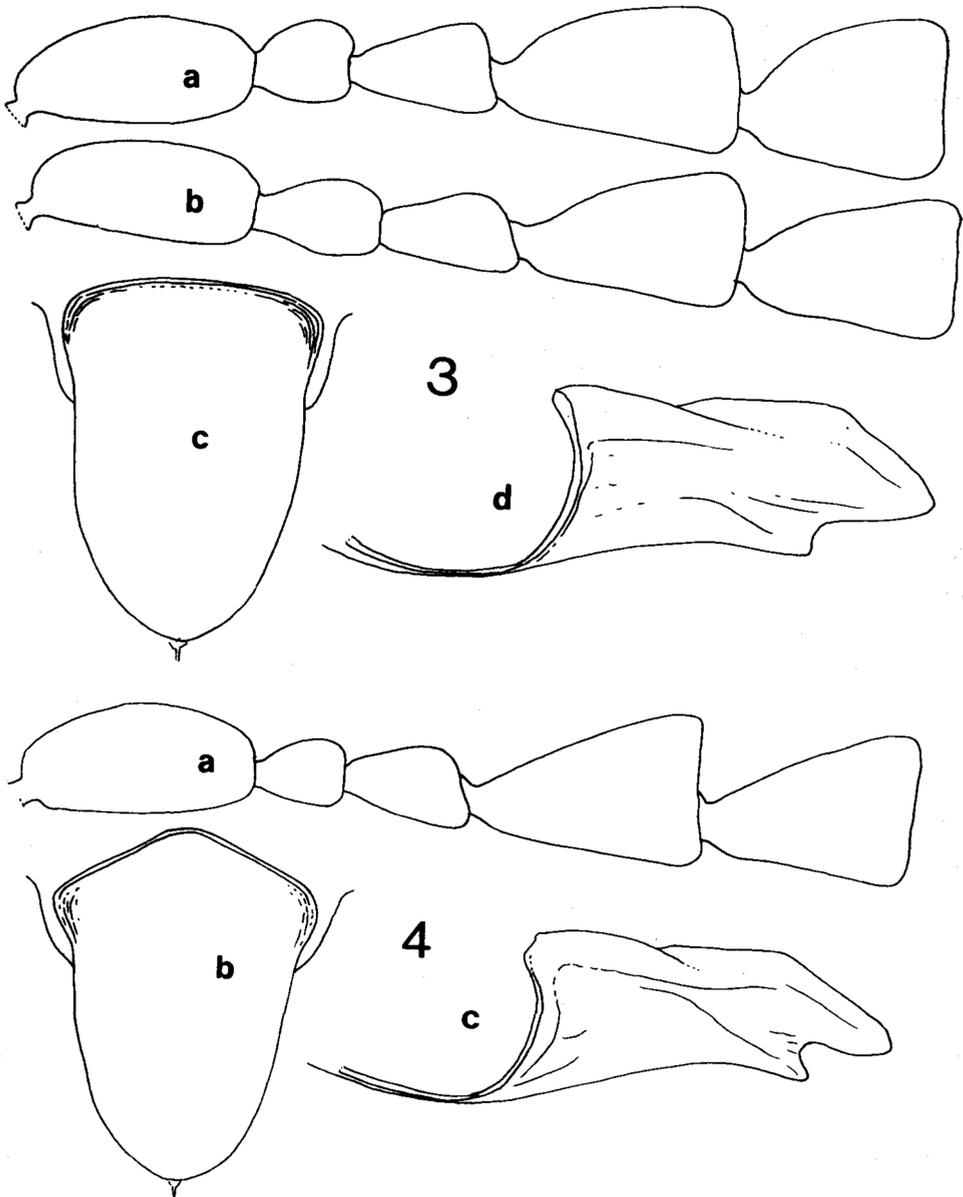


Fig. 3. *Ampedus (Ampedus) mizunoanus* sp. nov.

a. five basal joints of right antenna in male (holotype). b. ditto in female. c. scutellum.

Fig. 4. *Ampedus (Ampedus) aureopilosus* sp. nov.

a. five basal joints of right antenna in male (holotype). b. scutellum. c. prosternal process in profile.

Ampedus (Ampedus) aureopilosus sp. nov.

“ *Higenaga-kuro-kometsuki* ”

(Figs. 4, 11 & 21)

Male, 11.20 × 3.00 mm. Rather slender, parallel-sided, slightly depressed above as well as beneath longitudinally. Clearly shining. Wholly black with 2nd and 3rd antennal joints, dark reddish brown femora and tibiae, and with paler tarsi. Pubescence slender, soft, rather dense, semierect, and generally fulvous with golden luster distinctly.

Head broad, simply convex above roundly, with some irregular impressions; relative vertex breadth across eyes and each eye width in upper views as 70 : 15; anterior margin of frons well carinated and a little elevated upon antennal sulci roundly, then protruding medianly, but carination almost obscure at middle. Vertex punctures dense, rather large, more or less umbilicate, and uneven in density and size.

Antennae longer than head and pronotum combined together including hind angles by apical joint; relative joint lengths and widths from 1st to 5th as 24/10.5, 9/9, 14/10, 23/15 and 21/15 (length/width) (fig. 4a); 2nd joint subtriangular or a little bulbous-formed, 3rd triangular, 4th to 10th serrated, 4th and 5th moderately triangular, and 6th to 10th becoming progressively longer and narrower terminally.

Pronotum spherically and simply convex above without any medio-longitudinal line nor canaliculation; widest at apices of hind angles, a little narrowed at base of hind angles, then arcuately converging ahead; unicarination on each hind corner very distinct, thick, straight, and extending divergingly from lateral side; punctures conspicuously fine, sparse, and single; interpunctate space smooth, and distinctly wider than each puncture diameter, namely 2 to 4 times in general.

Scutellum (fig. 4b) shield-formed, feebly declivous antero-downwards, weakly convex above or rather ill-flattened; anterior edge obviously protruded ahead medianly, rather triangular and a little elevated above; fore angles widest, and roundly angled; sides strongly constricted behind anterior angles, then subparallelly extending posteriorly; rear apex rather rounded; punctures fine and exceedingly sparse.

Elytra parallel-sided from humeri to beyond middle; striae finely grooved with elongate discontinuous punctures; strial intervals rather flattened, with obscure, fine and sparse punctures; surface among punctures smooth without transverse rugosities; sutural ends moderate, not pointed.

Prosternal punctures single, sparse, even and circular, but denser than on pronotum; interstices among punctures smooth entirely. Prosternal process in profile (fig. 4c) plainly bent inwards behind procoxal cavities, then straightly projecting posteriorly, with distinct emargination at apex. Prosterno-pleural sutures broad, double, smooth, a little divergent antero-outwards with apical ends foveolate clearly. Propleural punctures somewhat similar to those on prosternum, but a little denser and elongate in shape on anterior border. Metasternal punctures plainly denser than on prosternum,

with interstices microscopically and shagreen-likely sculptured wholly. Genitalia as figured (fig. 12a), elongate in general shape; median lobe parallel-sided from base to apical one-third, then narrowing to apex; latero-apical projection of paramere (fig. 12b) well-developed outwards, and somewhat hook-formed.

Holotype, male, Ashiu Valley, Kyoto Pref., May 5-6, 1973, K. MIZUNO leg.

In some view points, this new species resembles the large examples of *Ampedus tenuistriatus* (LEWIS, 1894), though the elongate and slender antennae and different form of male genitalia are easily distinguishable mutually.

**Keys to the species by external structures belonging to the group of
Ampedus vestitus (LEWIS, 1894) and *A. ivanovi* (JAKOBSON, 1913)**

1. Elytral pubescence fulvous, generally rather recumbent, long, slender, with golden luster. 2
- Elytral pubescence black, generally semierect, not so long, and rather stout. 6
2. Antennae shorter than combined length of head and prothorax together including hind angles. Scutellar fore edge rather transverse. Legs more or less reddish. ... 3
- Antennae longer than combined length of head and prothorax together including hind angles. Scutellar fore edge triangularly protruded ahead. Legs infusate. *A. aureopilosus* sp. nov. (fig. 21)
3. Pubescence not so dense. Pronotal punctures fine and sparse, average breadth across punctures generally wider than each puncture diameter. *A. ivanovi* (JAKOBSON, 1913) (fig. 17)
- Pubescence clearly dense. Pronotal punctures large and dense, average breadth across punctures generally as wide as each puncture diameter or a little narrower. 4
4. Body generally slender and parallel-sided. Three basal joints of antennae yellowish-red, and others generally brown to infusate. Pronotal punctures single and small. *A. vestitus vestitus* (LEWIS, 1894) (fig. 14)
- Body stout, broad and not parallel-sided. Antennae yellowish red wholly. Pronotal punctures subocellated and rather large. 5
5. Distr. Is. Miyake-jima. *A. vestitus watanabei* KISHII, 1979 (fig. 15)
- Distr. Is. Yaku-shima & Is. Nakano-shima. *A. vestitus yakuinsulanus* KISHII, 1983 (fig. 16)
6. Strial interstices of elytra on basal part more or less rugose by transverse creases. 7
- Strial interstices of elytra on basal part not rugose. *A. mizunoanus* sp. nov. (fig. 20)
7. Scutellar sides parallel at anterior half. 8
- Scutellar sides a little constricted inwards behind anterior angles, and not parallel-sided. *A. yamato* sp. nov. (fig. 18)
8. Pronotal median punctures very fine and distinctly sparse.

- *A. takahachi* KISHII, 1985 (fig. 22)
 - Pronotal median punctures rather large and moderately sparse.
 *A. nubatama* sp. nov. (fig. 19)

**Keys to the species by male genitaliae belonging to the group of
A. vestitus (LEWIS, 1894) and *A. ivanovi* (JAKOBSON, 1913)**

1. Paramere with many hairs on lateral sides widely. 2
- Paramere without hairs on lateral sides, exclusive of latero-apical projection. ... 4
2. Apex of paramere moderately triangular (figs. 5a, 5b, 5c & 5d).
 *A. vestitus vestitus* (LEWIS, 1894)
- Apex of paramere elongately triangular (figs. 6a & 7a). 3
3. Latero-apical projection of paramere right-angledly emarginate at base (fig. 6a).
 *A. vestitus watanabei* KISHII, 1979
- Latero-apical projection of paramere roundly emarginate at base (fig. 7a).
 *A. vestitus yakuinsulanus* KISHII, 1983
4. Latero-apical projection of paramere shorter than the narrowest width of paramere
 at projection wrist (figs. 8a, 8b, 9b, 10b, 11b & 12b). 5
- Latero-apical projection of paramere clearly longer than the narrowest width of
 paramere at projection wrist (fig. 13b). *A. takahachi* KISHII, 1985
5. Latero-apical projection of paramere thick and rather rounded (figs. 8a, 8b, 10b,
 11b & 12b). 6
- Latero-apical projection of paramere rather acutely projected outwards (fig. 9b). ...
 *A. nubatama* sp. nov.
6. Apex of paramere moderately triangular (figs. 8a, 8b, 11b & 12b). 7
- Apex of paramere elongately triangular (fig. 10b). *A. yamato* sp. nov.
7. Latero-apical projection of paramere simply projected outwards (figs. 8a, 8b &
 11a). 8
- Latero-apical projection of paramere hook-likely projected outwards (fig. 12b).
 *A. aureopilosus* sp. nov.
8. Latero-apical projection of paramere distinctly thick, and rather roundly expanded
 (figs. 8a & 8b). *A. ivanovi* (JAKOBSON, 1913)
- Latero-apical projection of paramere not so thick, and rather triangularly expanded
 outwards (fig. 11b). *A. mizunoanus* sp. nov.

**Keys to the species by prickles in bursa copulatrix of female
 genitaliae belonging to the group of *A. vestitus* (LEWIS, 1894)
 and *A. ivanovi* (JAKOBSON, 1913)**

1. Elongate, not broad at base (figs. 5e, 5f, 5g, 5h, 6b, 9c, 9d, 10c, 10d, 11c & 13c)
 3

- Thick, distinctly broadened at base (figs. 7b, 8c & 8d). 2
- 2. Ca. 60 to 70 in number (fig. 7b). ***A. vestitus yakuiinsulanus*** KISHII, 1983
- Ca. 90 to 110 in number (figs. 8c & 8d). ***A. ivanovi*** (JAKOBSON, 1913)
- 3. Formed two or three elongate rows (figs. 5e, 5f, 5g, 5h, 9c, 9d, 10c, 10d & 11c).
..... 5
- Not formed elongate rows (figs. 6b & 13c). 4
- 4. Ca. 100 in number (fig. 6b). ***A. vestitus watanabei*** KISHII, 1979
- Ca. 50 in number (fig. 13c). ***A. takahachi*** KISHII, 1985
- 5. More than 100 in number (figs. 5e, 5f, 5g, 5h, 9c, 9d, 10c & 10d). 6
- Less than 100 in number (fig. 11c). ***A. mizunoanus*** sp. nov.
- 6. More than 190 in number (figs. 5e, 5f, 5g, 5h, 10c & 10d). 7
- Ca. 100 to 120 in number (figs. 9c & 9d). ***A. nubatama*** sp. nov.
- 7. Distinctly elongate, formed 4 rows (figs. 5e, 5f, 5g & 5h).
..... ***A. vestitus vestitus*** (LEWIS, 1894)
- Not so elongate, formed 2 or 3 rows (figs. 10c & 10d). ***A. yamato*** sp. nov.

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-1985. Some new forms of Elateridae in Japan (XVII). *Bull. Heian High School*, **29**: 19 ~20.
-1987. *A taxonomic study of the Japanese Elateridae (COLEOPTERA), with the keys to the subfamilies, tribes and genera*. Kyoto: 146 ~148.
- LEWIS, G. 1894. On the Elateridae of Japan. *Ann. Mag. nat. Hist.* (6) **13**: 39.

**Correction for "A taxonomic study of the Japanese Elateridae
(Coleoptera), with the keys to the subfamilies, tribes and genera"**

- 39p. line 2 : O & Q). to **O & Q)** 4.
- 44p. last line : Korea & Is. Saishu-to. to **Korea, Is. Saishû-to & China.**
- 53p. between line 2 & 3, additional insertion as follows :
***Adelocera (Brachylacon) iriei* OHIRA, 1978 b : 32, fig. 1-c (Kyûsuikei in Oita),
synonymized by OHIRA, 1986, *Gensei*, 50 : 11 & 12, figs.**
line 8 to 11 : omitted.
- 60p. last line : Okinawa-honto to **Okinawa-honto & Is. Ishigaki-jima.**
- 66p. last line : Is. Izena-jima. to **Is. Izena-jima ; Korea & N-E China.**
- 74p. line 1 : KISHII, 1977 b to **KISHII, 1979 b.**
- 87p. No. 98. revises as follows :
**98. *D. varians* (GERMAR, 1846) "(Shirouzu-beni-kometsuki)"
Campylus varians GERMAR, 1846, *Linnaea Entomologica* 1 : 153 (E.
Sibirien).
Range : USSR & Japan.**
- 98a. *D. varians shirozui* OHIRA, 1963 "Shirouzu-beni-kometsuki"
Denticollis shirozui OHIRA, 1963 a : 178, fig. 3 (Mt. Daisetsu in Hok-
kaido), reduced to subspecific status by OHIRA, 1987, *jezoensis* 14 :
80-81, fig. 4.
Distr. : Hokkaido & Is. Rishiri-to.**
- 93p. No. 115 a. : (MIWA, 1894) to **(LEWIS, 1894).**
- 95p. next of No. 118, additional insertion :
**118'. *H. (H.) yamawakii* OHIRA, 1987 "Kebuka-tsuyahada-kometsuki"
Hemicrepidius (Pseudathous) yamawakii OHIRA, 1987, *Trans. Shiko-
ku ent. Soc.* 18(3/4) : 287-288, fig. 2 (Onago-jima Is. of Danjo Iss.).
Distr. : Is. Onago-jima in Iss. Danjo-gunto.**
- 104p. first line : Subgenus *Anostirus* to **Subgenus *Anostirus*.**
line 14 : *Ludius parumcostatus* to ***Ludius (Calostirus) purpuratus* PODA, 1761,
var. *parumcostatus*.**
- 121p. line 7, additional insertion to the Distr. : **Honshu (Chiba Pref.).**
- 125p. line 6, additional insertion to the Distr. : **Is. Miyako-jima (?)**
- 128p. line 6, 138 (Osore Aru). to **190-191 (Iles Arou).**
- 149p. line 5 : Is. Nakano-shima (?) to **Is. Nakano-shima.**
- 154p. line 10 : *Anchastus aquilis* to ***Anchastus aquillus*.**
- 169p. line 9 : additional insertion to the Distr. : **Is. Tsushima.**
- 173p. No. 356. : "(Midori-hime-kometsuki)" to **"Midori-hime-kometsuki"**
last line : Range : Japan to **Distr. : Honshu, Shikoku & Kyushu.**
- 174p. No. 356 a : omitted.
line 3 : No. 356 b. revises as follows :
356'. *V. elongatus* (NAKANE et KISHII, 1958) "Yakushima-midori-hime-

kometsuki"

***Metaricus viridus* (sic) *elongatus* NAKANE et KISHII, 1958 : 36, Pl. 1, fig. 7 (Kosugi-dani & Hananoego in Is. Yakushima), raised to specific status by OHIRA, 1986, *New Entomologist* 35 (1-4) : 36, figs. 6 ; 8-F (Kosugidani).**

Distr. : Is. Yaku-shima.

next of No. 356', additional insertion :

356'. *V. yamazakii* OHIRA, 1987 "Tsuya-midori-hime-kometsuki"

***Vuilletus yamazakii* OHIRA, 1987, *Trans. Shikoku ent. Soc.* 18 (3/4) : 285-287, fig 1 (Mt. Dando in Aichi, Kamikochi in Nagano, Hirakura in Mie).**

Distr. : Honshu (Nagano, Aichi & Mie Prefs.)

183p. No. 391. *G. (G.) pallidus* to *G. (G.) pallidipes*.

next line of No. 391. : *Glyphonyx pallidus* to *Glyphonyx pallidipes*.

192p. line 19 : Hokkaido is omitted from the Distr.

194p. line 20, additional insertion to the Distr. : **Is. Ishigaki-jima.**

197p. line 7 : 1894 : 139 to 1894 : 193.

202p. between line 3 & 4, additional insertion as follows :

***Migiwa gifuensis* OHIRA, 1973 a : 97, fig. 2 (Mt. Kinka-zan in Gifu & Yahagi river-side in Aichi), synonymized by OHIRA, 1987, *Kakocho* 39 (151) : 43-44, fig.**

No. 444., line 5 to 8 omitted.

209p. between line 14 & 15, additional insertion as follows :

469'. *P. (C.) amamiensis* (ARIMOTO, 1987) "Amami-chibi-mizugiwa-kometsuki"

***Yamatostrius amamiensis* ARIMOTO, 1987, *Ent. Rev. Jap.* 42 (2) : 133-135, figs. 1-3 (Amami-Oshima).**

Distr. : Is. Amami-oshima & Is. Tokuno-shima.

212p. first line : "Taiwan-hoso-kometsuki" to "Taiwan-hosomame-kometsuki".

Explanation of plate I

Fig. 5. *Ampedus (Ampedus) vestitus vestitus* (LEWIS, 1894)

a to d. apical part of right paramere. e to h. prickles in bursa copulatrix in female genitalia.

- a. Aokigahara at Mt. Fuji-san, Yamanashi Pref., May 27, 1978, A. SHINOHARA leg. (4721)
- b. Ohsugi-dani Valley, Mié Pref., June 10, 1952, F. TAKAHASHI leg. (676)
- c. Mt. Irazu-yama, Kôchi Pref., June 5, 1982, R. SHIMAMOTO leg. (4283)
- d. Mt. Unzen, Nagasaki Pref., May 25, 1976, S. IMASAKA leg. (3486)
- e. Ashiu Valley, Kyoto Pref., May 16-19, 1974, K. MIZUNO leg. (3412)
- f. Suzuka Pass, Mié Pref., July 21, 1970, S. INOUE leg. (4722)
- g. Mt. Sasayama, Kôchi Pref., May 25, 1980, R. SHIMAMOTO leg. (4024)
- h. Tamonkyô, Fukuoka Pref., July 21, 1974, Y. MATSUNAGA leg. (3488)

Fig. 6. *Ampedus (Ampedus) vestitus watanabei* KISHII, 1979

- a. apical part of right paramere. Holotype, Tairo-ike, Is. Miyake-jima, May 8, 1976, T. OGASAWARA leg. (4753)
- b. prickles in bursa copulatrix in female genitalia. Paratype, ditto, (3359)

Fig. 7. *Ampedus (Ampedus) vestitus yakuinsulanus* KISHII, 1983

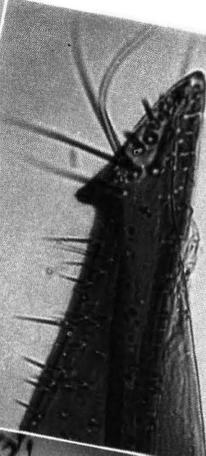
- a. apical part of right paramere. Is. Nakano-shima, Tokara Archipelago, April 29, 1987, T. OGATA leg. (4933)
- b. prickles in bursa copulatrix in female genitalia. Holotype, Miyanoura in Is. Yakushima, Kagoshima Pref., July 11, 1967, Y. KUZUGAMI leg. (3410)

PLATE I

5a



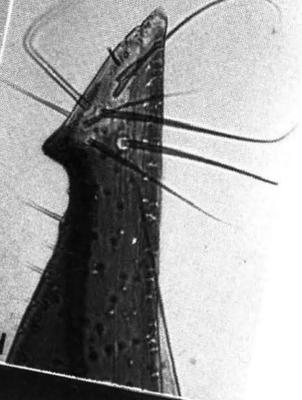
5b



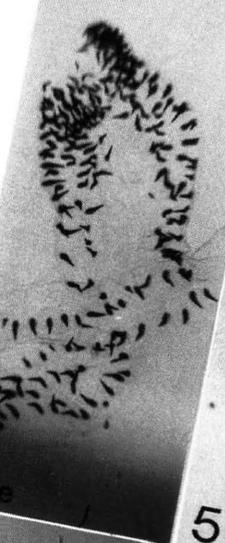
5c



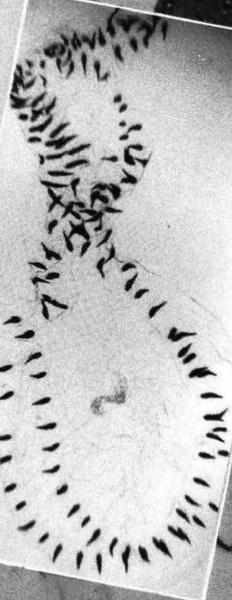
5d



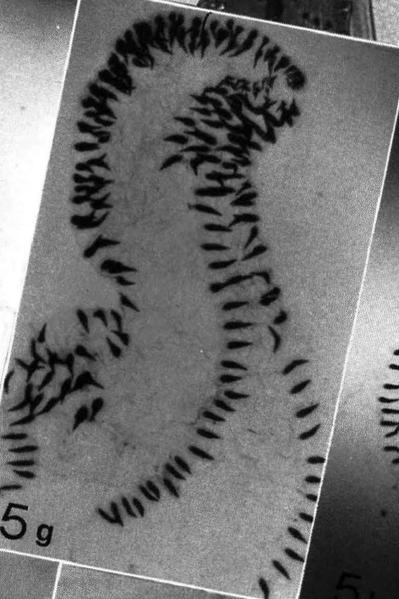
5f



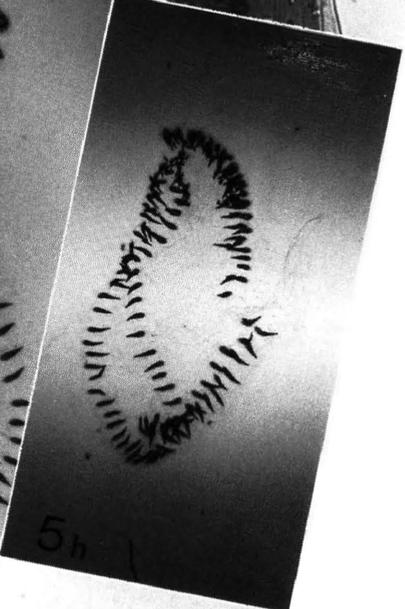
5g



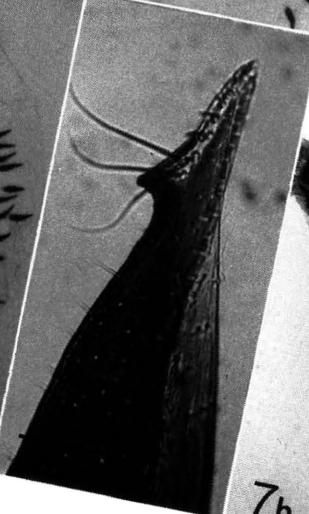
5h



5i



6b



7b



Explanation of plate II

Fig. 8. *Ampedus (Ampedus) ivanovi* (JAKOBSON, 1913)

- a. apical part of right paramere. Kurokawa, Niigata Pref., Dec. 14, 1955, K. BABA leg. (4720)
- b. ditto. Tanuki Pass, Mié Pref., April 13, 1986, H. OTOBE leg. (4751)
- c. prickles in bursa copulatrix. Karikomi-ike, Fukui Pref., June 4, 1977, M. SAITÔ leg. (4288)
- d. ditto. Mt. Ohmine-san, Nara Pref., July 22, 1979, K. MIZUNO leg. (4735)

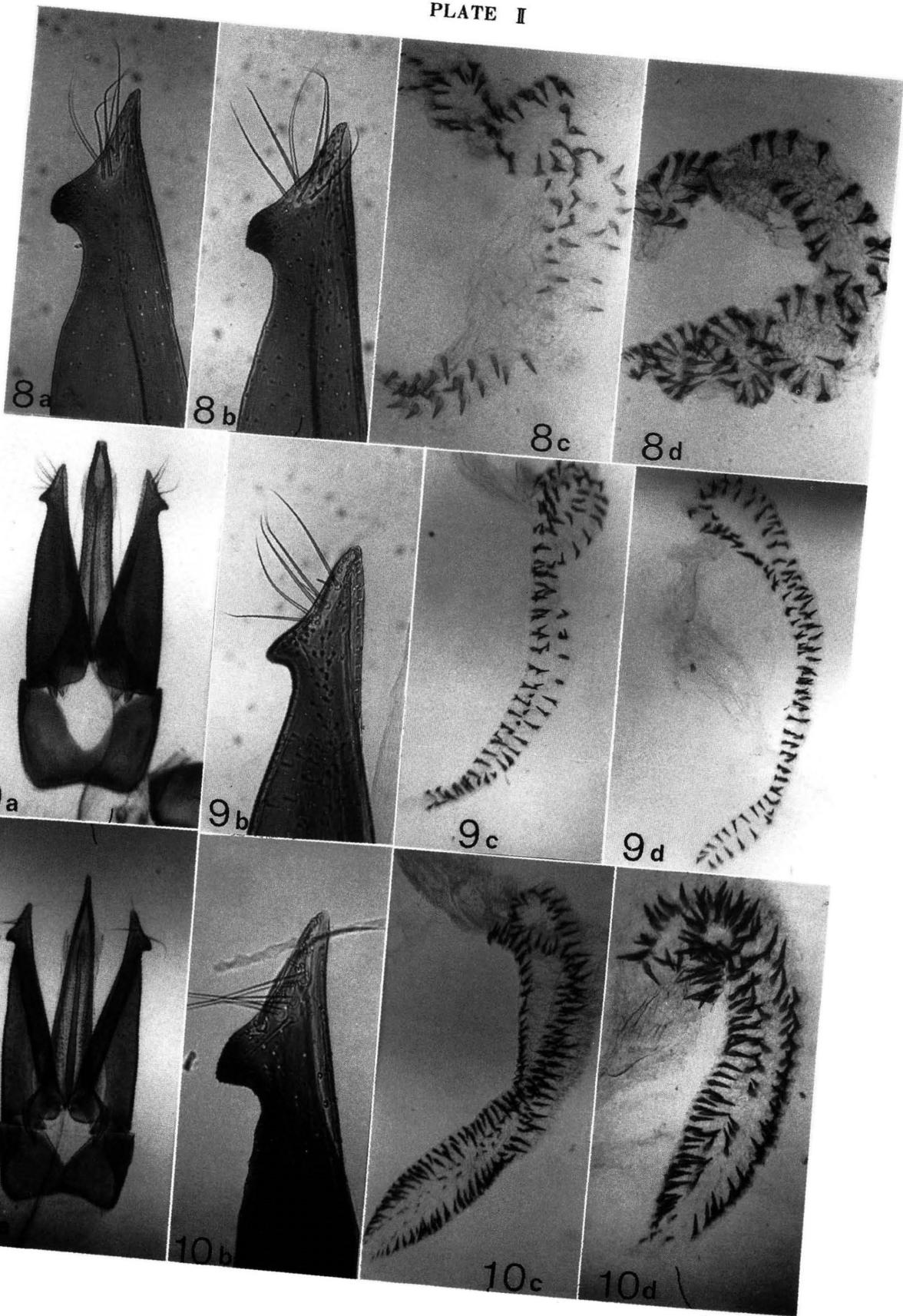
Fig. 9. *Ampedus (Ampedus) nubatama* sp. nov.

- a. male genitalia. Paratype, Yunohana Spa, Fukushima Pref., June 13, Y. MIYAKE leg. (4754)
- b. apical part of right paramere. Ditto.
- c. prickles in bursa copulatrix. Paratype, Ashiu Valley, Kyoto Pref., May 28, 1978, K. MIZUNO leg. (3725)
- d. ditto. Holotype, Yunohana Spa, Fukushima Pref., July 26-31, 1975, K. MIZUNO leg. (3204)

Fig. 10. *Ampedus (Ampedus) yamato* sp. nov.

- a. male genitalia. Holotype, Nara Park, Nara Pref., Feb. 9, 1986, S. TAKAHASHI leg. (4708)
- b. apical part of right paramere. Ditto.
- c. prickles in bursa copulatrix. Paratype, ditto, April 1, 1984, S. TAKAHASHI leg. (4709)
- d. ditto. Paratype, Akiho Spa, Miyagi Pref., Jan. 8, 1983, B. YAMAYA leg. (4409)

PLATE I



Explanation of plate III

a. male genitalia. b. apical part of right paramere. c. prickles in bursa copulatrix.

Fig. 11. *Ampedus (Ampedus) mizunoanus* sp. nov.

- a. Holotype, Ashiu Valley, Kyoto Pref., April 4, 1982, K. MIZUNO leg. (2453)
- b. ditto.
- c. Paratype, Mt. Obako-dake, Nara Pref., July 4, 1982, K. MIZUNO leg. (4390)

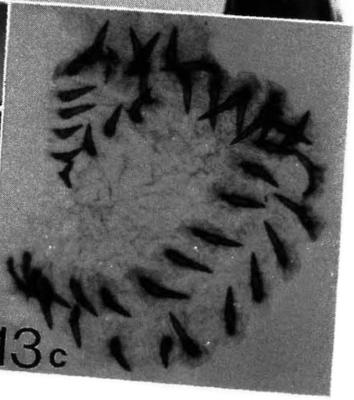
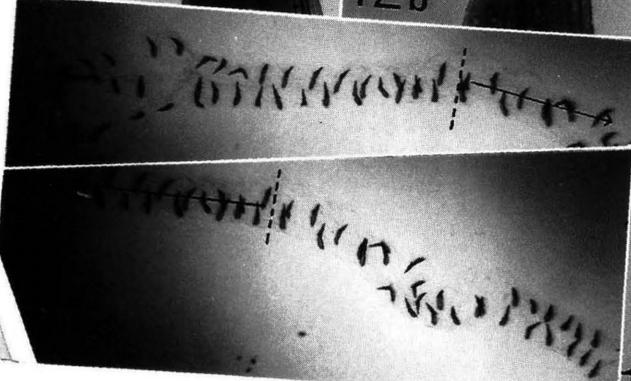
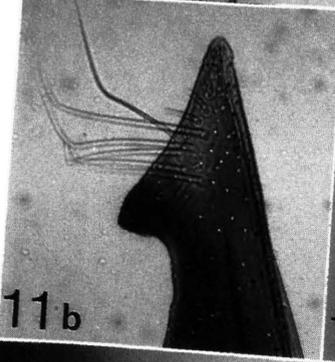
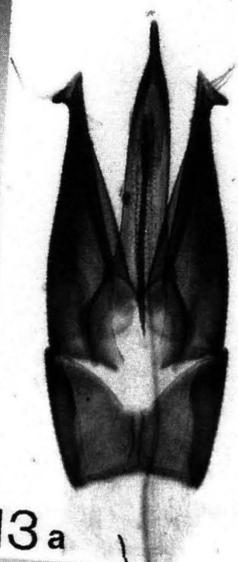
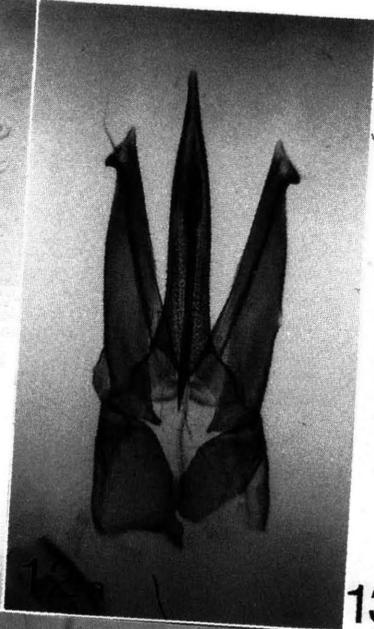
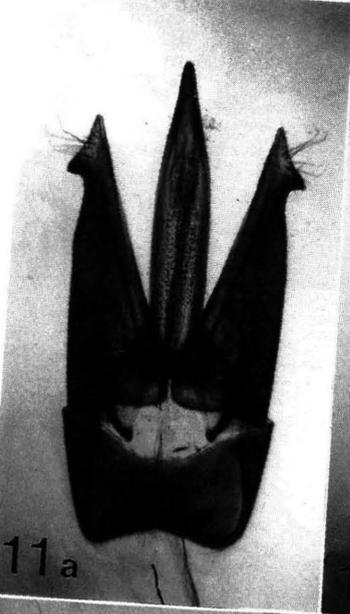
Fig. 12. *Ampedus (Ampedus) aureopilosus* sp. nov.

- a. Holotype, Ashiu Valley, Kyoto Pref., May 5-6, 1973, K. MIZUNO leg. (3892)
- b. ditto.

Fig. 13. *Ampedus (Ampedus) takahachi* KISHII, 1985

- a. Paratype, Mt. Takahachi, Tottori Pref., June 10, 1979, A. WATANABE leg. (4338)
- b. ditto.
- c. Paratype, Yakô-dani, Tottori Pref., June 2, 1979, O. YAMAJI leg. (4340)

PLATE I



Explanation of plate IV

- Fig. 14.** *Ampedus (Ampedus) vestitus vestitus* (LEWIS, 1894)
- Male, Mt. Ohmine-san, Nara Pref., May 12, 1985, K. MIZUNO leg., 13.7 mm.
 - Female, Tamonkyô, Fukuoka Pref., July 21, 1974, Y. MATSUNAGA leg., 12.3 mm.
- Fig. 15.** *Ampedus (Ampedus) vestitus watanabei* KISHII, 1979
- Holotype, male, Tairo-ike, Is. Miyake-jima, May 8, 1976, T. OGASAWARA leg., 12.0 mm.
 - Paratype, female, ditto, 11.1 mm.
- Fig. 16.** *Ampedus (Ampedus) vestitus yakuinsulanus* KISHII, 1983
- Male, Miyanoura, Is. Yaku-shima, May 4, 1984, K. MIZUNO leg., 13.8 mm.
 - Holotype, female, ditto, July 11, 1967, Y. KUZUGAMI leg., 13.5 mm.
- Fig. 17.** *Ampedus (Ampedus) ivanovi* (JAKOBSON, 1913)
- Male, Tanuki Pass, Mié Pref., April 13, 1986, H. OTOBE leg., 12.6 mm.
 - Female, Hirakura, Mié Pref., June 8, 1986, H. NARUKAWA leg., 13.1 mm.
- Fig. 18.** *Ampedus (Ampedus) yamato sp. nov.*
- Holotype, male, Nara Park, Nara Pref., Feb. 9, 1986, S. Takahashi leg., 11.4 mm.
 - Paratype, female, ditto, April 6, 1986, S. TAKAHASHI leg., 12.6 mm.
- Fig. 19.** *Ampedus (Ampedus) nubatama sp. nov.*
- Holotype, female, Yunohana Spa, Fukushima Pref., July 26–31, 1975, K. MIZUNO leg., 11.5 mm.
- Fig. 20.** *Ampedus (Ampedus) mizunoanus sp. nov.*
- Holotype, male, Ashiu Valley, Kyoto Pref., June 1–2, 1974, K. MIZUNO leg., 11.9 mm.
 - Paratype, female, Mt. Obako-dake, Nara Pref., July 4, 1982, K. MIZUNO leg., 11.4 mm.
- Fig. 21.** *Ampedus (Ampedus) aureopilosus sp. nov.*
- Holotype, male, Ashiu Valley, Kyoto Pref., May 5–6, 1973, K. MIZUNO leg., 11.2 mm.
- Fig. 22.** *Ampedus (Ampedus) takahachi* KISHII, 1985
- Holotype, male, Mt. Takahachi, Tottori Pref., May 14, 1978, M. KANEDA leg., 10.0 mm.
 - Paratype, female, Yakô-dani, Tottori Pref., June 2, 1979, O. YAMAJI leg., 11.0 mm.

PLATE IV

