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Revision of the Genus *Anchycteis* (Coleoptera, Ptilodactylidae) from Japan

Song-hwa Hwang and Hiroyuki Yoshitomi

Entomological Laboratory, Faculty of Agriculture, Ehime University,
Tarumi 3–5–7, Matsuyama, 790–8566 Japan

Abstract The Japanese species of the genus *Anchycteis* are reviewed, and three species are recognized. Two junior synonyms, *Anchycteis brunneicornis usori* (Nakane, 1958)=*Anchycteis brunneicornis* (Lewis, 1895) and *Anchycteis monticola brunneipennis* (Nakane, 1963)=*Anchycteis monticola* (Nakane, 1952), are newly established. *Epilichas miyatakei* Nakane, 1952 is transferred to the genus *Anchycteis*. Habitus, male and female antennae and genitalia, and distribution map are presented.

Introduction

The genus *Anchycteis* Horn, 1880 belongs to the subfamily Anchytarsinae Champion, 1897 (Lee *et al*., 2005; Satô, 2006; also see Bouchard *et al*., 2011 for synonyms of this subfamily), and is represented by three species with two subspecies from U.S.A. and Japan (Stribling, 1986b; Satô, 2006). From Japan two species and two subspecies are recorded (Satô, 2006), but they have not been revised and the definitions of two subspecies are not clear.

In the present paper, we review the Japanese species of the genus *Anchycteis*.

Material and Methods

Materials. The specimens examined in this paper are preserved in the following institutes and museums: Ehime University Museum, Matsuyama (EUMJ); Systematic Entomology, Hokkaido University, Sapporo, Japan (SEHU).

The holotype of the type species of the genus (*Anchycteis velutina* Horn, 1880) was checked in MCZBASE (the database of the zoological collections, museum of comparative zoology, Harvard University; http://mczbase.mcz.harvard.edu/guid/MCZ:Ent:8014).

Methods. General observation and dissection were made under a stereoscopic microscope (Leica S8APO) and photographed using a microscopy camera system (Nikon DS-Fil-L2). Antennae and male and female genitalia (Figs. 2–4) were observed with a digital microscope (HiROX KH-1300) and photographed using a 2D measurement software SHX-13M ver. 2.9.0.

Terminology. Technical terms refer to Yoshitomi and Hayashi (2013).

Abbreviations used in this paper are as follows. EL: maximum length of elytra; EW: maximum width of elytra; ID: minimum interocular distance; PBF: pale brown form; PL: maximum length of pronotum; PW: maximum width of pronotum; RE: transverse radius of an eye; TL: total length (PL+EL). The average is given in parenthesis after the range.

Taxonomy

Genus *Anchycteis* HORN, 1880

Anchycteis HORN, 1880, 87. —— STRIBLING, 1986 a, 232 [key to New World genera]; SATÔ, 2006, 453 [catalogue].
Amphicteis [misspelling]: BERTRAND, 1966, 145 [larval description]; 1972, 394.
Type species: *Anchycteis velutina* HORN, 1880 (by monotype).

Diagnosis (modified of STRIBLING, 1986 b and LEE *et al*., 2005). Epistomal sulcus present. Distal segment of maxillary palpi securiform, arcuate in apical margin. Rami of male antennomeres VI–X arising from middle or distal part of each antennamere. Pronotal lateral carinae with vaguely indicated, more or less rounded edge. Tarsomere IV with ventral fleshy pad or lobe. Gonostylus well developed and palpiform, occurring from sublateral part of paraproct.

Remarks. This genus is closely related to the American genus *Anchytarsus* GUÉRIN-MÉNEVILLE, 1843 (LEE *et al*., 2005), and differs from it by the presence of ventral fleshy pads in tarsomeres II–IV (STRIBLING, 1986 a). This genus is also related to the genus *Epilichas* WHITE, 1859 in Japan, and differs from it by the following characteristics: epistomal sulcus present (absent in *Epilichas*); distal segment of maxillary palpi securiform, arcuate in apical margin (subtriangular, with shallowly concave apical margin in *Epilichas*); rami of male antennomeres VI–X arising from middle or distal part of each antennamere (rami arising from basal part in *Epilichas*).

Key to the Japanese Species of the Genus *Anchycteis*

1. Head, pronotum and elytra pale brown to black, almost same coloration as in antennae and legs. Compound eyes (Fig. 1G) large, strongly projecting. Distributed in Hokkaido and eastern Honshu (Fig. 5). ····· *A. brunneicornis*
— Head and pronotum black, different coloration to yellowish brown antennomeres I–II and legs; elytra black (except for color variation of *A. monticola* which is pale brown). Compound eyes (Fig. 1H) small, weakly projecting. ····· 2
2. Pronotum weakly and roughly punctate. Ramus of male antennomeres IX–X arising from the middle (Fig. 2B). Female antennomere III weakly serrate (Fig. 2E). Distributed in western Honshu (Fig. 5). ····· *A. monticola*
— Pronotum strongly and densely punctate. Ramus of male antennomeres IX–X arising from distal part (Fig. 2C). Female antennomere III distinctly serrate (Fig. 2F). Distributed in Shikoku (Fig. 5). ····· *A. miyatakei*

Anchycteis brunneicornis (LEWIS, 1895)

[Japanese name: Ezo-higenagahananomi]

(Figs. 1A–C, G; 2A, D; 3A, D; 4A, D; 5)

Epilichas brunneicornis LEWIS, 1895, 100. —— NAKANE, 1948, 9; 1952, 36; 1956, 53; 1963 b, 141, pl. 71, figs. 4b, 4c; SATÔ, 1985, 432, pl. 79, fig. 6.
Anchycteis brunneicornis: SATÔ, 2006, 453; HAYASHI & NAKAMURA, 2008, 280 [larval description].
Epilichas brunneicornis usori NAKANE, 1958, 91. —— NAKANE, 1963 b, 141, pl. 71, fig. 4a. **Syn. nov.**
Anchycteis brunneicornis usori: SATÔ, 2006, 453 [catalogue].

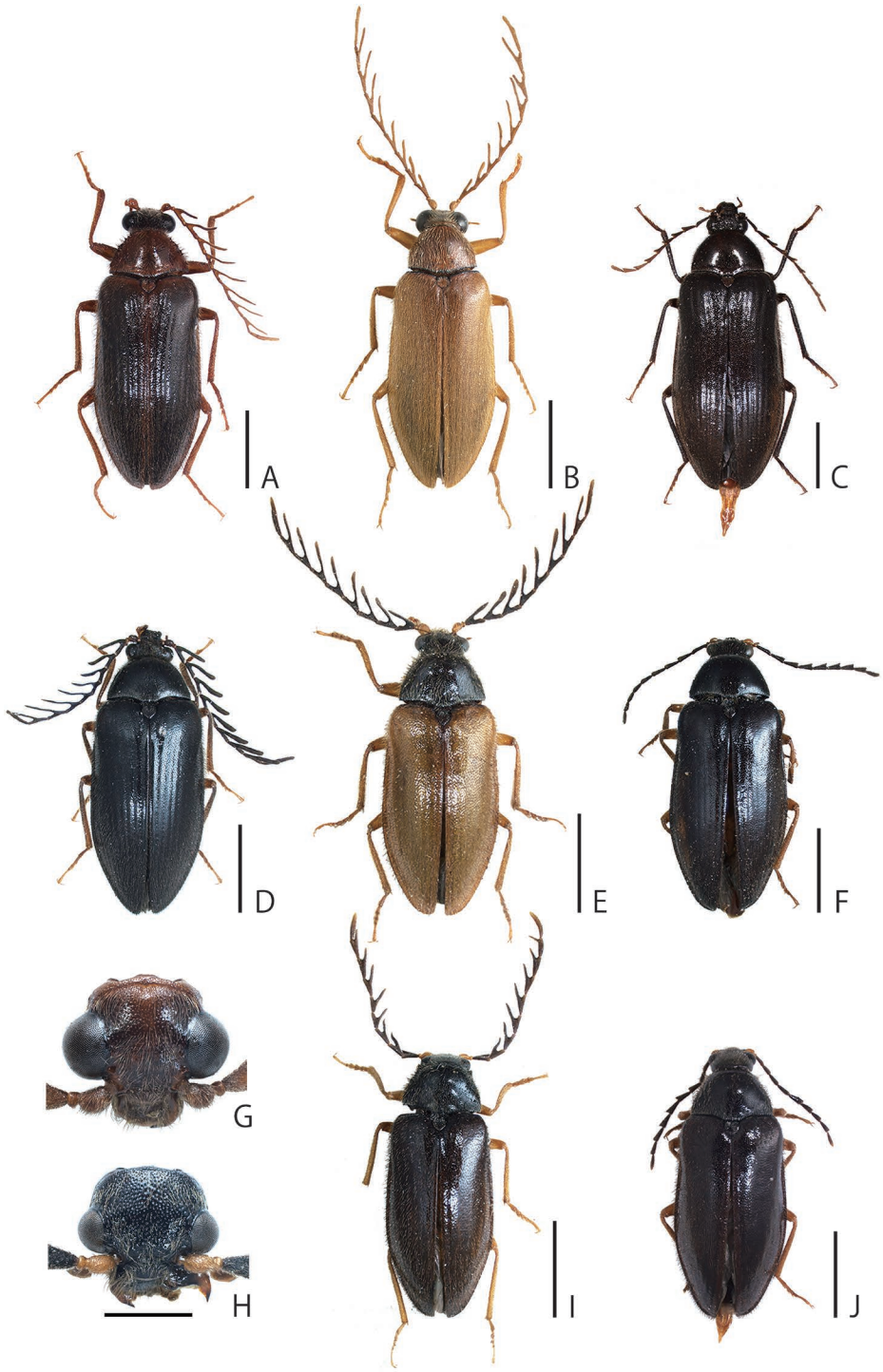

Fig. 1. *Anchycteis* spp. from Japan. —— Habitus in male (A, B, D, E, I) and female (C, F, J) and male head in dorsal view (G, H). —— A–C, G, *Anchycteis brunneicornis*; D–F, *A. monticola*; H–J, *A. miyatakei*. Scales=3.0 mm for A–F, I, J; Scale=1.0 mm for G, H.

Type specimens examined. Paratypes of *Epilichas brunneicornis usori* NAKANE, 1958: 1 ♂ (SEHU, PBF), Yashikidai, Iwate Pref., 27–VII–1917, H. HASEGAWA leg.; 1 ♂ (SEHU, PBF), Osorezan, Shimokita, Aomori Pref., 1–VIII–1956, T. NAKANE leg.; 1 ♂ (SEHU, PBF), ditto, 31–VII–1956, T. NAKANE leg.

Additional specimens examined. <Aomori Pref.> 2 ♀♀ (SEHU), Nenokuchi, Towada, 31–VII–1952, T. KISHII leg.; 1 ♀ (SEHU), Tsuta, 1–VII–1962; 1 ♂ (SEHU, PBF), Kurokawa, Akaishi-gawa, Nishitsugaru-gun, 25–VII, no data of year, A. ABE leg.; 1 ♂ (SEHU), Hachinohe, 18–VII–1938; 1 ♂ (SEHU, PBF), ditto, 20–VII–1962. <Iwate Pref.> 1 ♂ (EUMJ, PBF), Oyamagawa-rindô, Hayachine-san, 30 to 31–VII–1982, N. OHBAYASHI leg. <Fukushima Pref.> 1 ♀ (SEHU), Yunohana, 7 to 10–VII–1948, Y. KUROSAWA leg.; 2 ♂♂ (SEHU), ditto, 7–VII–1948, Y. KUROSAWA leg.; 9 ♂♂, 1 ♀ (SEHU), ditto, 7–VII–1948, T. NAKANE leg.; 2 ♂♂ (SEHU), ditto, 9 to 10–VII–1948, T. NAKANE leg.; 1 ♂ (SEHU), ditto, 4 to 10–VII–1948, T. NAKANE leg.; 1 ♂ (SEHU), ditto, 7 to 8–VII–1948, T. NAKANE leg.; 1 ♂ (SEHU), ditto, 9–VIII–1949, K. NAGAYAMA leg.; 1 ♂ (SEHU), Wakamatsu, 6–VII–1948, M. HAYASHI leg.; 1 ♂ (SEHU), Komagatake, Aizu, 10–VIII–1949, K. NAGAYAMA leg.; 1 ♂ (EUMJ), Kozôdaira, Oku-Tadami, 28–VII–1991, S. TSUYUKI leg.; 1 ♂ (EUMJ), Bunadaira, Hinoemata-mura, 2–VIII–1997, S. TSUYUKI leg.; 1 ♂ (EUMJ), ditto, 11–VIII–2003, M. NONAKA leg.; <Miyagi Pref.> 1 ♂ (EUMJ), Ushiroeboshi-dake, 29–VII–1951; 1 ♂ (EUMJ), Toogatta, 9–VII–1949; 1 ♂ (EUMJ), Oonosawa, Shichikasyuku-machi, 29–VII–1953; 1 ♂ (EUMJ), Kamoshika, 24–VII–1951; 1 ♀ (EUMJ), Zaou-san, 22 to 25–VIII–1978, M. SATÔ leg. <Niigata Pref.> 1 ♂ (SEHU, PBF), Kurokawa, 31–VII–1973, K. BABA leg.; 1 ♂ (SEHU, PBF), ditto, 4–VIII–1960, K. BABA leg.; 1 ♂ (SEHU), Akakura, TAKEUCHI leg.; 2 ♂♂ (SEHU), Echigo, 12 8. 8–14 (original writing on label; not able to detect the exact date), A. NOHIRA leg.; 1 ♂ (SEHU), ditto, 11–VII–1929, A. NOHIRA leg.; 1 ♂ (SEHU), Shiori-tôge, 27–VII–1961, H. KOIKE leg.; 1 ♂ (SEHU), ditto, 27–VII–1961, K. BABA leg.; 1 ♂ (SEHU), Naeba-san, 24–VII–1960, K. BABA leg.; 3 ♂♂ (EUMJ), Gomizawa, Irihirose, 4–VIII–1984, K. BABA leg. <Tochigi Pref.> 2 ♂♂ (EUMJ), Nikkozawa, 28–VII–1983, H. MAKIHARA leg.; 2 ♂♂ (EUMJ), Kôsawa, Oku-Nikko, 23–VII–1977, T. SHIMOMURA leg.; 1 ♂ (EUMJ), Oku-Nikko, 12–VII–1981, Th. ITÔ leg.; 1 ♀ (EUMJ), Kôsawa, Oku-Nikko, 23–VII–1977, T. SHIMOMURA leg.; 1 ♂ (SEHU), Kosabi-gawa, Kuroiso-shi, 23–VII–1979, H. KATO leg.; 1 ♂ (EUMJ), Chûzenzi, Nikkô-shi, 31–VII–1989, H. YOSHITOMI leg.; 1 ♂ (EUMJ), Koutoku-bokujô, Nikkô-shi, 12–VII–1998, M. NONAKA leg.;1 ♂ (EUMJ), Hacchônoyu, 10 to 12–VII–1984, H. MAKIHARA leg. <Gumma Pref.> 3 ♂♂, 1 ♀ (EUMJ), Marunuma, 29–VII–1958, S. HISAMATSU leg.; 1 ♂ (EUMJ), Oze, 1–VIII–1967; 1 ♂ (SEHU), ditto, 24 to 25–VII–1959, T. NAKANE leg. <Yamanashi Pref.> 1 ♀ (EUMJ), Masutomi-onsen, Tokusa-tôge, 2–VIII–1992, S. TSUYUKI leg.; 1 ♂ (EUMJ), Daibosatsu, 25–VII–1981, Th. ITÔ leg.; 2 ♂♂ (EUMJ), ditto, 20–VII–1971, K. MASUMOTO leg.; 1 ♂ (EUMJ), ditto, 28–VII–1973, K. MASUMOTO leg.; 1 ♂ (EUMJ), ditto, 27–VII–1986, N. OHBAYASHI leg.; 1 ♂ (EUMJ), Koganezawa-rindô, 29–VI–1975, S. TSUYUKI leg.; 1 ♂ (EUMJ), Sagashio, 25–VII–1957, T. TAGUCHI leg. <Saitama Pref.> 1 ♀ (EUMJ), Urayama, Chichibu, 17–VII–1996, K. AITA leg. <Nagano Pref.> 1 ♂ (EUMJ), Azusayama, 13–VII–1980, S. TSUYUKI leg; 1 ♂ (EUMJ), Kitaotari, 28–VII–1969, M. TOMOKUNI leg.; 1 ♂ (SEHU), Maruike, Shiga-kôgen, 24–VII–1955. <Locality uncertain> 1 ♂ (SEHU), D. E. b. 3.

Redescription. M a l e. Coloration of body pale brown (PBF, Fig. 1B) to blackish brown (Fig. 1A), almost same coloration as in antennae and legs; antennae, maxillae, maxillary and labial palpi, pronotum, scutellum, elytral base, elytral suture, ventral surface of body and legs often reddish.

Head weakly and densely punctate. Compound eyes (Fig. 1G) large, strongly projecting; ID/RE: 1.16–2.65 (1.78). Antennae (Fig. 2A) slender and long, reaching about proximal 2/3 of elytra; ramus of antennomeres III–VIII arising from base of each antennomere; ramus of antennomeres IX–X arising from middle of each segment; approximate ratio of each antennomere (n=1, ramus in parenthe-

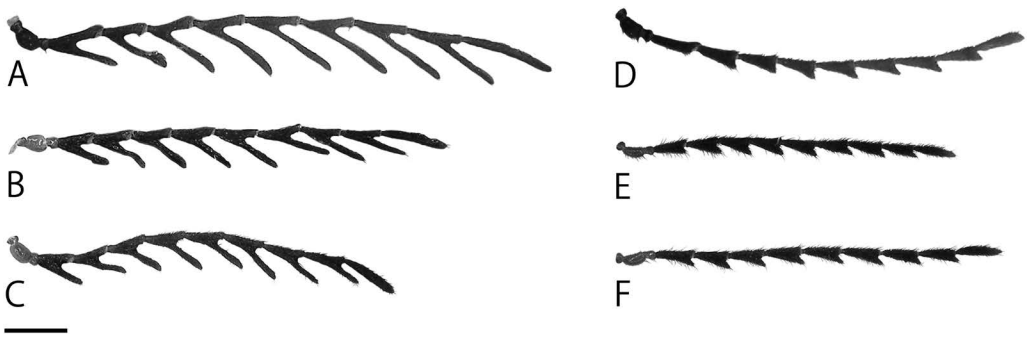

Fig. 2. Antennae of *Anchycteis* spp. in male (A–C) and female (D–F). —— A, D, *Anchycteis brunneicornis*; B, E, *A. monticola*; C, F, *A.miyatakei*. Scale=1.0 mm.

ses) as 3.0 : 1.0 : 5.3 (5.5) : 4.3 (5.9) : 4.4 (6.6) : 5.0 (7.7) : 5.4 (7.7) : 5.2 (8.1) : 5.2 (7.8) : 5.3 (7.5) : 9.3. Pronotum hemiorbicular, strongly convex dorsally; densely and weakly punctate, covered with yellow to brown pubescence; PW/PL: 1.43–1.74 (1.59). Scutellum cordiform, deeply concave in anterior margin, sharply pointed at apex. Elytra oblong-elliptical in basal 5/9, gradually tapered in apical 4/9, strongly and densely punctate; striae somewhat distinct; EL/EW: 1.68–2.39 (2.09).

Aedeagus (Fig. 3A, D) stout, punctate in apical part of median and lateral lobes. Basal piece gently and evenly arcuate in lateral margins, straight in basal margin. Median lobe slender, subparallel-sided from base to basal 3/4, linearly tapered in apical 1/4, with a pair of dull spines at apical 1/4 of lateral parts, about 3.94 times as long as wide, about 1.40 times as long as lateral lobes. Lateral lobes about 0.71 times as long as basal piece, distinctly expanded in apical parts, with small spines at apices.

F e m a l e. Coloration of body darker than male (Fig. 1C). Compound eyes rather large, projecting; ID/RE: 1.65–3.18 (2.46). Antennae (Fig. 2D) short, reaching about proximal 2/5 of elytra; antennomeres VI–X serrate; approximate ratio of each antennomere (n=1) as 2.9 : 1.0 : 4.5 : 3.7 : 3.8 : 3.7 : 3.8 : 3.8 : 3.9 : 3.9 : 4.7. PW/PL: 1.56–1.81 (1.63). Elytral striae and punctures rather weaker than male; EL/EW: 1.88–2.46 (2.08).

Sternite VIII (Fig. 4A) with a stout median strut; lateral struts gradually thinner, with long setae at lateral and distal parts. Ovipositor (Fig. 4D) with paraproct about 2.79 times as long as gonocoxite.

Measurements. Male (n=62). TL: 8.73–11.36 (10.16) mm, ID: 0.72–1.11 (0.94) mm, PL: 1.60–2.12 (1.81) mm, PW: 2.41–3.38 (2.89) mm, EL: 7.12–9.38 (8.34) mm, EW: 3.38–4.87 (4.00) mm. Female (n=8). TL: 10.77–12.48 (11.61) mm, ID: 0.85–1.31 (1.12) mm, PL: 2.00–2.33 (2.14) mm, PW: 3.30–4.00 (3.58) mm, EL: 8.77–10.09 (9.47) mm, EW: 4.08–5.00 (4.58) mm.

Distribution. Japan: Hokkaido, Honshu (Tôhoku, Kantô and Kôshin-etsu Districts).

Remarks. The subspecies *Anchycteis brunneicornis usori* (NAKANE, 1958) was described for PBF which is only color variation. Therefore we treat it as a junior synonym of *Anchycteis brunneicornis* (LEWIS, 1895).

This species is distinguishable from the other species by the larger body size and compound eyes, the long and slender antennae, and the same coloration between elytra and appendages (antennae and legs).

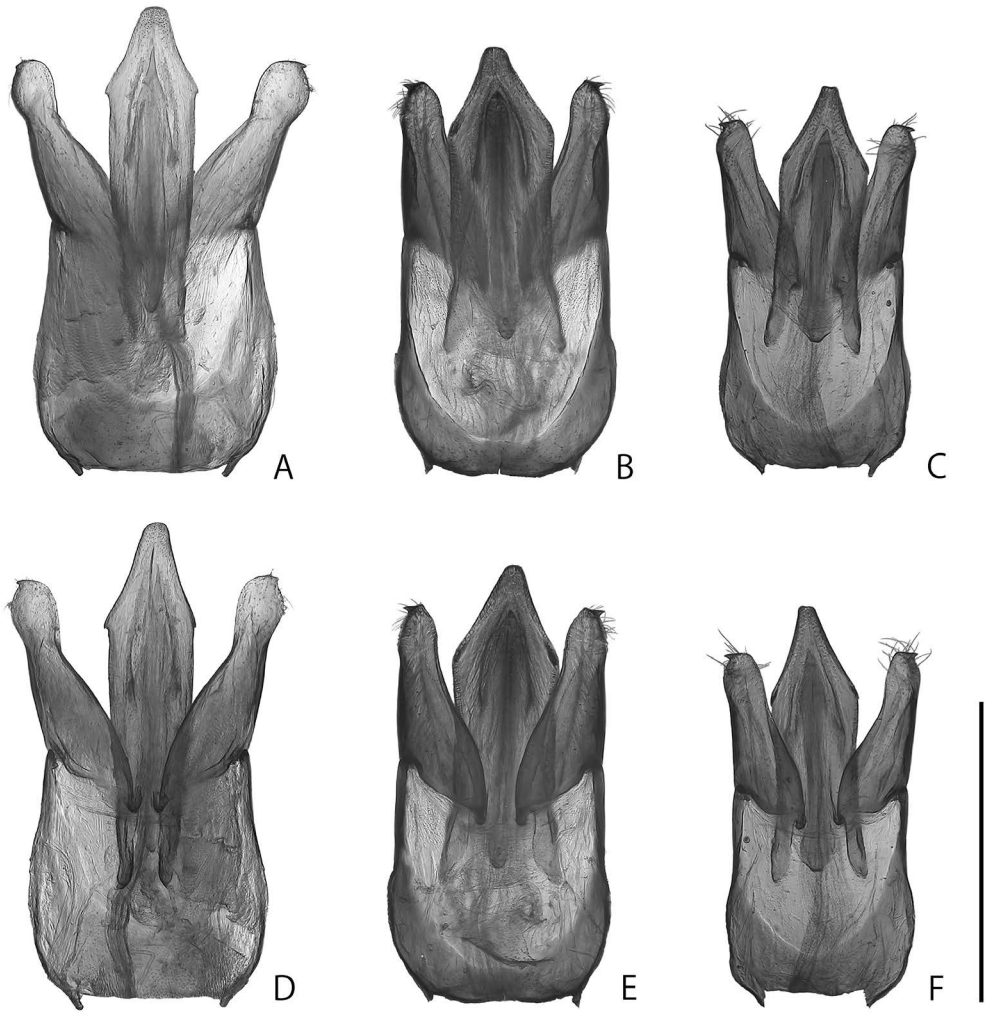

Fig. 3. Aedeagus of *Anchycteis* spp. in dorsal (A–C) and ventral (D–F) views. —— A, D, *Ancycteis brunneicornis*; B, E, *A. monticola*; C, F, *A. miyatakei*. Scale = 1.0 mm.

Anchycteis monticola (NAKANE, 1952)

[Japanese name: Kurotsuya-higenagahananomi]

(Figs. 1D–F; 2B, E; 3B, E; 4B, E; 5)

Epilichas monticola NAKANE, 1952, 36. —— NAKANE, 1956, 54, figs. 1, 13, 20, 25; 1963 b, 141, pl. 71, fig. 5a; SATÔ, 1985, 432, pl. 79, fig. 11.

Anchycteis monticola monticola: SATÔ, 2006, 453 [catalogue].

Epilichas monticola brunneipennis NAKANE, 1963 a, 42. —— NAKANE, 1963 b, 141, pl. 71, fig. 5b. **Syn. nov.**

Anchycteis monticola brunneipennis: SATÔ, 2006, 453 [catalogue].

Type specimens examined. Syntypes of *Epilichas monticola* NAKANE, 1952: 1 ♀ (SEHU), Komanoyu, Kisofukushima, Nagano Pref., 25–VII–1947, T. NAKANE leg.; 1 ♂ (SEHU), ditto, 5–VII–1949,

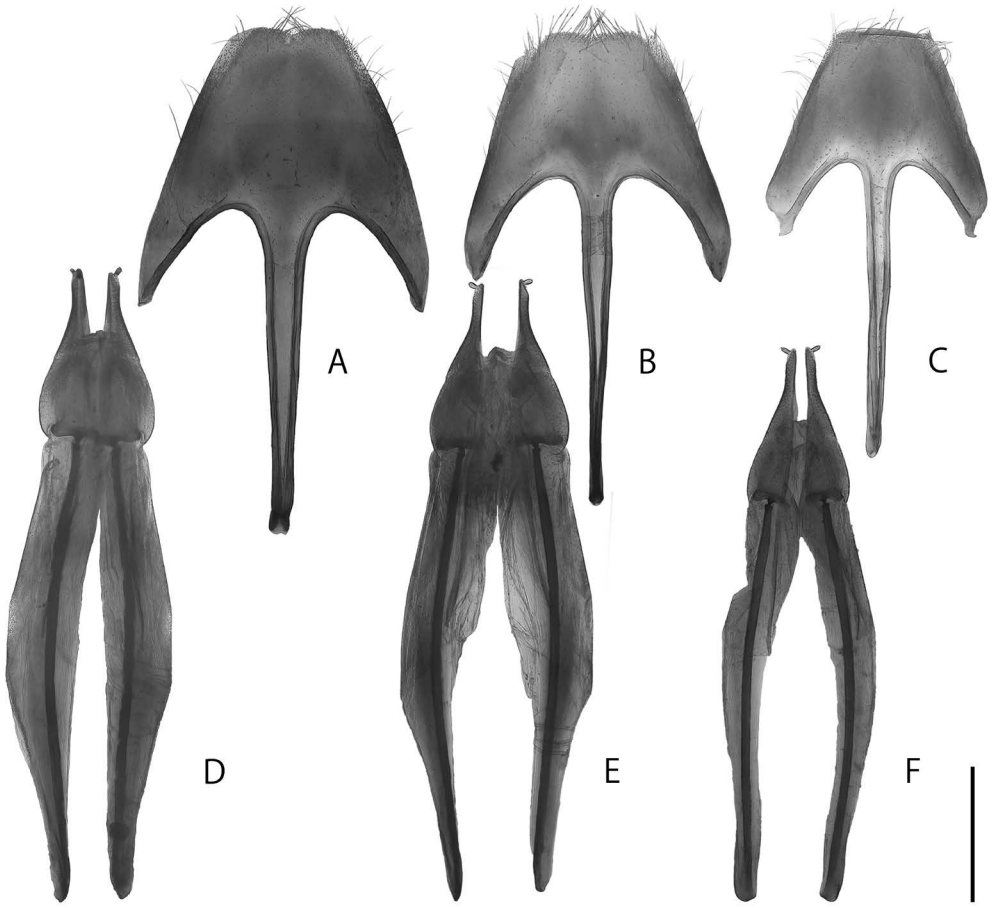

Fig. 4. Female genitalia of *Anchycteis* spp. —— A–C, Sternite VIII; D–F, ovipositor. —— A, D, *Ancycteis brunneicornis*; B, E, *A. monticola*; C, F, *A. miyatakei*. Scale=1.0 mm.

T. NAKANE leg.; 1 ♂ (SEHU), Iwanadome near Kamikochi, Nagano Pref., 11–VIII–1950, T. NAKANE leg.; 1 ♂ (SEHU), Ôdaigahara, Nara Pref., 9–VII–1940, Y. ASHIKAWA leg.; 1 ♀ (SEHU), Yunoyama, Mie Pref., 26–VI–1949, T. NAKANE leg.; 2 ♂♂ (SEHU), Serio, Kyoto Pref., 24–VI–1951, T. KISHII leg.; 1 ♂ (SEHU), Bessyo-tôge, Kyoto Pref., 24–VI–1951, T. KISHII leg.; 1 ♀ (SEHU), Shima, 24–VII–1927, K. TAKEUCHI leg. Paratypes of *Epilichas monticola brunneipennis* NAKANE, 1963: 1 ♂ (SEHU, PBF), Daihi-zan, Kyoto Pref., 15–VI–1957, T. SHIBATA leg.; 1 ♂ (SEHU, PBF), Hyonosen, Hyôgo Pref., 30–VII–1952, T. NAKANE leg.

Additional specimens examined. <Niigata Pref.> 1 ♀ (EUMJ), Sasagamine, Myôko-san, 26–VII–1992, S. TSUYUKI leg; 1 ♂ (SEHU), Mikuni-toge, 30–VI–1962, K. BABA leg. <Nagano Pref.> 2 ♂♂ (EUMJ), Kisofukushima, Kiso-gun, 6–VII–1991, H. YOSHITOMI leg.; 1 ♂ (EUMJ), Ôhara, Kisofukushima, 21–VII–1974, Y. HORI leg., 1 ♀ (EUMJ), Shiojidaira, 10–VIII–1992, S. TSUYUKI leg.; 1 ♀ (EUMJ), Gonbê-tôge, Inadani, 16–VII–1995, Y. HAYASHI leg.; 1 ♀ (SEHU), Shimashima-dani, 15–VII–1950, T. NAKANE leg.; 1 ♀ (SEHU), ditto, 22–VII–1937, K. SAKAGUCHI leg.; 1 ♀ (SEHU), Tokugo-tôge, Kamikôchi, 18 to 21–VII–1969, K. MASU leg.; 1 ♂ (SEHU), Komanoyu, Kisofukushima, 6–VII–1947, T. NAKANE leg.; 1 ♀ (SEHU), Kiso-Koma, 20–VII–1939, K. KUROSA leg.; 1 ♂

(EUMJ), Omekura, Wada-mura, 22–VII–1997, S. TSUYUKI leg.; 1 ♀ (EUMJ), Shirahone, 4–VIII–1959, M. MIYATAKE leg.; 1 ♀ (EUMJ), Adera-keikoku, Ôkuwa-mura, Kiso-gun, 20 to 21–VII–1992, M. YAMAMOTO leg. <Aichi Pref.> 1 ♂ (EUMJ), Mennoki, 3–VII–1996, H. YOSHITOMI leg. <Gifu Pref.> 1 ♂ (EUMJ), Amagodani, 7–VII–1954, I. BITÔ leg.; 1 ♂ (EUMJ), ditto, 9–VII–1954, I. BITÔ leg.; 7 ♂♂ (EUMJ, PBF in 4 exs.), ditto, 10–VII–1954, I. BITÔ leg.; 2 ♂♂ (EUMJ, PBF in 1 ex.), Ôshirakawa 1,300 m, 1 to 3–VII–1988, M. HASEGAWA leg.; 1 ♂ (SEHU, PBF), Okumine, 16–VI–1961, Y. KUROSAWA leg.; 1 ♂ (EUMJ), Suhara, 2–VI–1957, N. OHBAYASHI leg.; 1 ♂ (EUMJ, PBF), Kamuri-tôge, Fujihashi-mura, 27–VII–1995, H. YOSHITOMI leg. 1 ♂ (EUMJ), Hiwada, 10–VII–1955, M. SATÔ leg. <Ishikawa Pref.> 1 ♂ (EUMJ, PBF), Shiraminesyaka-rindô, 19–VII–1992, M. NONAKA leg.; 1 ♂ (EUMJ, PBF), Ôsugidani, Shiramine-mura, 28–VI–1992, M. NONAKA leg.; 1 ♂ (EUMJ, PBF), Okuike, Kawauchi-mura, 4–VII–1992, M. NONAKA leg.; 1 ♂ (EUMJ, PBF), Hakusan, 2–VIII–1957, F. TAKECHI leg. <Kyoto Pref.> 1 ♂ (SEHU), Ashyû, 27–V–1949, S. I. leg. <Hyôgo Pref.> 1 ♂ (SEHU), Hyônosen, Tajima, 22–VII–1957; 1 ♂ (SEHU), ditto, 23–VII–1957, Y. Yamamoto leg. <Hiroshima Pref.> 1 ♂ (EUMJ), Jippô-zan, Sandan-kyô, 19–VI–1983, K. ISHIDA leg.; 1 ♂, 1 ♀ (EUMJ), Yokogô, Togochi, 15–VI–2001, S. TSUYUKI leg.; 2 ♂♂ (EUMJ), ditto, 14–VI–2002, S. TSUYUKI leg.

Redescription. M a l e. Coloration of head, antennomeres III–XI, labrum, pronotum, scutellum black; elytra pale brown (PBF, Fig. 1E) or black (Fig. 1D); antennomeres I–II, maxillae, maxillary and labial palpi, ventral surface of body and legs pale brown, but last segments of maxillary palpi darkened.

Head somewhat roughly and weakly punctate. Compound eyes relatively small, slightly projecting; ID/RE: 2.66–3.50 (3.11). Antennae (Fig. 2B) long, reaching about proximal 2/3 of elytra; ramus of antennomeres III–VIII arising from base of each segment; ramus of antennomeres IX–X arising from middle of each segment; approximate ratio of each antennomere (n=1, ramus in parentheses) as 2.2 : 1.0 : 2.7 (3.5) : 3.0 (3.8) : 3.2 (3.9) : 3.4 (4.1) : 3.4 (4.4) : 3.3 (4.5) : 3.2 (4.3) : 3.2 (4.1) : 5.3. Pronotum hemiorbicular, strongly convex dorsally, somewhat roughly and slightly punctate, covered with yellowish pubescence; PW/PL: 1.33–1.73 (1.55). Scutellum cordiform, deeply concave in anterior margin, strongly curved at lateral margin. Elytra oblong-elliptical at basal 3/5, gradually tapered in apical 2/5, strongly and somewhat densely punctate; striae inconspicuous; EL/EW: 1.72–2.17 (2.00).

Aedeagus (Fig. 3B, E) stout, punctate in distal part of median and lateral lobes. Basal piece slightly curved basally and straight posteriorly in lateral margins, somewhat depressed in basal margin, with a pair of small spines at basal edge. Median lobe subparallel-sided from base to basal 2/3, linearly tapered in apical 1/3, with a pair of acute spines at ventral part of apical 1/3, about 2.90 times as long as wide, about 1.41 times as long as lateral lobe. Lateral lobes about 0.89 times as long as basal piece, slightly rounded at distal part, somewhat acute at apex.

F e m a l e. ID/RE: 3.01–3.97 (3.44). Antennae (Fig. 2E) short, reaching about proximal 2/5 of elytra; antennomere III weakly serrate; antennomeres VI–X distinctly serrate; approximate ratio of each antennomere (n=1) as 2.7 : 1.0 : 3.3 : 3.2 : 3.4 : 3.2 : 3.4 : 3.4 : 3.5 : 3.2 : 4.5. PW/PL: 1.56–1.71 (1.63); EL/EW: 1.87–2.24 (2.05). Elytral striae and puncture weaker than male. Sternite VIII (Fig. 4B) with a long and gradually thinner median strut; lateral strut relatively stout; with long setae at lateral and distal part. Paraproct about 2.79 times as long as gonocoxite (Fig. 4E).

Measurements. Male (n=33). TL: 7.82–9.75 (8.78) mm, ID: 0.96–1.13 (1.05) mm, PL: 1.50–2.02 (1.71) mm, PW: 2.12–2.99 (2.65) mm, EL: 6.27–7.89 (7.07) mm, EW: 3.07–3.91 (3.55) mm. Female (n=12). TL: 8.50–11.28 (10.05) mm, ID: 1.00–1.26 (1.13) mm, PL: 1.60–2.10 (1.84) mm, PW: 2.50–3.30 (3.01) mm, EL: 6.90–9.28 (8.20) mm, EW: 3.57–4.40 (4.40) mm.

Distribution. Japan: Honshu (Shinshû, Chûbu, Hokuriku, Kansai and Chûgoku Districts).

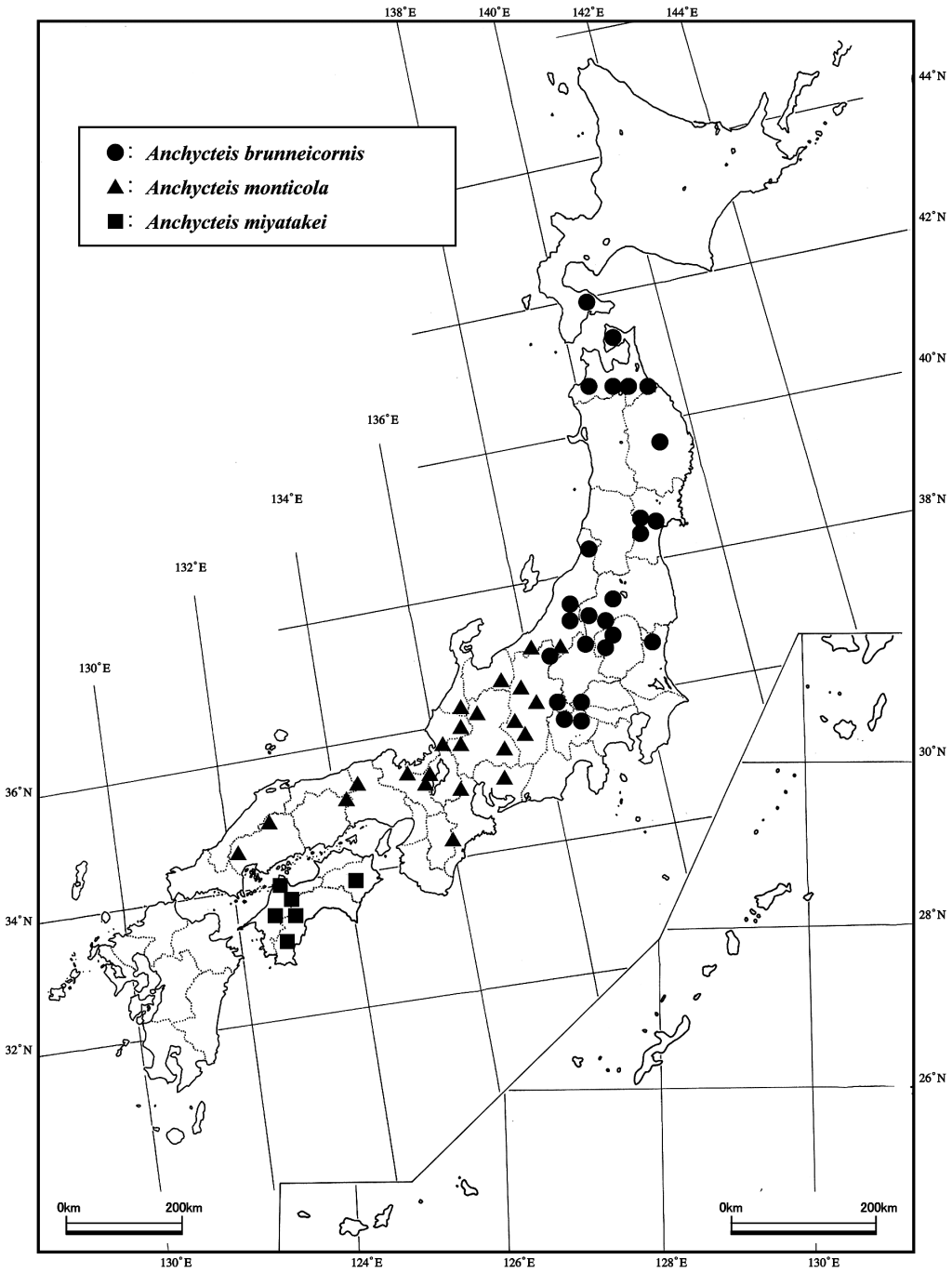

Fig. 5. Distribution map of *Anchycteis* spp. in Japan.

Remarks. The subspecies *Anchycteis monticola brunneipennis* (NAKANE, 1963) was described for PBF which is color variation. Therefore we treat it as a junior synonym of *Anchycteis monticola* (NAKANE, 1952).

This species is closely related to the following species, and distinguished from the latter by the weak pronotal punctuation, ramus of male antennomeres IX–X arising from distal part of each segment, and female antennomere III weakly serrate.

Anchycteis miyatakei (NAKANE, 1952), comb. nov.

[Japanese name: Ko-kurotsuya-higenagahananomi]

(Figs. 1H–J; 2C, F; 3C, F; 4C, F; 5)

Epilichas miyatakei NAKANE, 1952, 36. —— NAKANE, 1956, 54, figs. 22, 26; SATÔ, 1985, 432, pl. 79, fig. 10; 2006, 453 [catalogue].

Epilichas monticola miyatakei NAKANE, 1963 a, 141, pl. 71, fig. 5c.

Type specimens examined. Syntypes: 1 ♂ (SEHU), Omogo-san, Ehime Pref., 26–VII–1947, M. UWAGAWA leg.; 1 ♀ (SEHU), Ishizuchi-san, Ehime Pref., 26–VII–1947, M. MIYATAKE leg.; 1 ♀ (SEHU), ditto, 26–VII–1948, A. TAJIMA leg.; 1 ♀ (SEHU), Ikegawa, Kochi Pref., 7–VII–1941, M. OKAMOTO leg.

Additional specimens examined. <Ehime Pref.> 2 ♂♂ (EUMJ), Takataru, Saijyo-shi, 30–V–2010, K. HASHIMOTO leg.; 2 ♂♂ (EUMJ), Banshôdani, near Tsuchigoya, 18–VII–1981, K. SASAGAWA leg.; 1 ♂ (EUMJ), Tsuchigoya 1,450 m, Mt. Ishizuchi, 25–VI–1994, M. SAKAI leg.; 1 ♂ (EUMJ), West ravine of Mt. Shiratsue, 7–VI–1986, T. NAGATA leg.; 1 ♀ (EUMJ), ditto, 13 to 19–VII–1994; 3 ♂♂ (EUMJ), Saragamine, 4–VII–1976, M. SAKAI leg.; 4 ♀♀ (EUMJ), ditto, 8–VII–1981, K. SASAGAWA leg.; 1 ♀ (EUMJ), ditto, 1–VI–1955, M. MIYATAKE leg.; 1 ♀ (EUMJ), ditto, 24–VII–1990, T. HAMAHARA leg.; 2 ♂♂ (EUMJ), ditto, 15–VI–1974, T. WATANABE leg.; 1 ♂ (EUMJ), ditto, 4–VII–1976, M. SAKAI leg.; 1 ♂ (EUMJ), Iwayaji, 1–VI–1969, M. SAKAI leg.; 1 ♂ (EUMJ), Takanawa-san, 2–VI–1983, K. ISHIDA leg.; 1 ♀ (EUMJ), ditto, 28–V–1978, M. KOTANI leg.; 2 ♂♂ (EUMJ), Ônogahara, 28–V–1978, M. SAKAI leg.; 1 ♀ (EUMJ), Odamiyama, 29–V–1969, M. TAKAGI leg.; 1 ♀ (EUMJ), Mt. Ishizuchi, 21 to 24–VII–1968, M. IGA leg.; 1 ♀(SEHU), Kurosawa, Ishizuchi-san, 4–VI–1952, N. YATO leg.; 1 ♂ (EUMJ), Jyôjyu, Ishizuchi-san, 29–VI–2014, K. SONAKA leg.; 2 ♀♀ (EUMJ), Ishizuchi, Iyo, 27–VI–1958, T. ISHIHARA leg.; 1 ♂ (EUMJ), Odamiyama, 1–VI–1974, N. YASHIRO leg.; 1 ♂ (EUMJ), ditto, 5–VI–1994, M. SATÔ leg.; 1 ♀ (EUMJ), ditto, 14–VIII–1983, E. YAMAMOTO leg.; 1 ♀ (EUMJ), ditto, 5–VIII–1984, E. YAMAMOTO leg.; 1 ♂ (EUMJ), ditto, 23–VI–1985, E. YAMAMOTO leg.; 1 ♀ (EUMJ), ditto, 8–VI–1986, E. YAMAMOTO leg.; 1 ♂ (EUMJ), ditto, 3–VII–1990, E. YAMAMOTO leg.; 1 ♂ (EUMJ), ditto, 21–VII–1993, E. YAMAMOTO leg.; 1 ♂ (EUMJ), ditto, 29–V–1959, M. TAKAGI leg.; 1 ♂ (EUMJ), Mt. Omogo, 3–VII–1990, Y. WAKE leg.; 1 ♀ (EUMJ), ditto, 26–VII–1951, M. MIYATAKE leg.; 2 ♀♀ (EUMJ), ditto, 23–VI–1958, S. HISAMATSU leg.; 1 ♀ (EUMJ), Mt. Ishizuchi, Omogo-mura, 9–VII–1994, N. ÔBAYASHI leg.; 1 ♀ (EUMJ), Omogokei, 15 to 16–VII–1981, M. TSUNEOKA leg.; 1 ♂, 1 ♀ (EUMJ), Keikoku, Odamiyama, 11–VI–1995, SHIRAISHI leg.; 1 ♂ (EUMJ), Hônomata, Odamiyama, 1–VII–1995, H. ONO leg.; 1 ♂ (EUMJ), Mt. Ôkawamine, Yanadani-mura, 3–VII–1994, K. AITA leg.; 1 ♂ (EUMJ), Komenono, Matsuyama City, 26–V–2001, C. TAKAHASHI leg.; 2 ♀♀ (EUMJ), Kamisaruta, Tomisato-chô, Shikokuchûô-shi, 26–VI–2007, J. OGAWA leg.; 1 ♀ (EUMJ), Komeno, Matsuyama-shi, 17–V–2003, Y. KIKUHARA leg. <Tokushima Pref.> 3 ♂♂, 1 ♀ (EUMJ), Tsurugi-san, 3,4–VI–1957, M. CHÛJÔ leg.; 1 ♂ (EUMJ), ditto, 7–VI–1964, Z. NAGAYAMA leg.; 1 ♂ (EUMJ), ditto, 7–VI–1964, Y. OHIRA leg.; 1 ♂ (EUMJ), ditto, 8–VI–1964, Y.

Ohira leg. <Kôchi Pref.> 1 ♂ (EUMJ), Kuroson, 22–V–1999, N. Hamada leg.; 1 ♀ (EUMJ), Matsubagawa, 8–VII–1961, M. Okada leg.; 1 ♂ (EUMJ), Mt. Tebako, 10–VI–1960, M. Miyatake leg.; 1 ♂ (EUMJ), ditto, 23–V–1999, M. Sakai leg.

Redescription. M a l e. Coloration of body black (Fig. 1I); antennomeres I–II, maxillae, maxillary and labial palpi, ventral surface of body and legs pale brown, but last segments of maxillary palpi often darkened.

Head finely and densely punctate. Compound eyes relatively small, slightly projecting; RE/ID: 2.67–3.84 (3.35). Antennae (Fig. 2C) long, reaching about proximal 2/3 of elytra; ramus of antennomeres III–VIII arising from middle of each segment; ramus of antennomeres IX–X arising from distal part of each segment; approximate ratio of each antennomere (n=1, ramus in parentheses) as 3.6 : 1.0 : 4.7 (5.0) : 4.4 (5.2) : 4.9 (5.1) : 4.9 (6.0) : 4.9 (6.1) : 5.0 (6.1) : 5.3 (5.9) : 5.1 (5.2) : 7.3. Pronotum hemiorbicular, strongly convex dorsally, finely and densely punctate and pubescent; PW/PL: 0.99–1.69 (1.54). Scutellum sub-cordiform, weakly concave at anterior margin, rounded at apex. Elytra oblong-elliptical from base to basal 4/7, gradually tapered in apical 3/7; striae considerably vague but central part slightly finer; EW/EL: 1.93–2.21 (2.10).

Aedeagus (Fig. 3C, F) stout, punctate in distal part of median and lateral lobes. Basal piece broadly curved basally in lateral margins, truncate in basal margin, with a pair of spines at basal edge. Median lobe subparallel-sided from base to basal 2/3, linearly tapered in apical 1/3, with a pair of short and acute spines at ventral part of apical 1/3, about 3.50 times as long as wide, about 1.64 times as long as lateral lobe. Lateral lobes about 0.79 times as long as basal piece, slightly rounded posteriorly, with spine at apex.

F e m a l e. ID/RE: 3.39–4.32 (3.79). Antennae (Fig. 2F) short, reaching about proximal 2/5 of elytra; antennomeres III–X serrate; approximate ratio of each antennomere (n=1) as 2.5 : 1.0 : 3.5 : 2.9 : 3.2 : 3.4 : 3.5 : 3.5 : 3.5 : 3.3 : 4.1. PW/PL: 1.43–1.81 (1.56); EL/EW: 1.83–2.22 (2.04). Striae and puncture on elytra somewhat weaker. Sternite VIII (Fig. 4C) with a long and gradually thinner median strut; lateral strut relatively stout, with projecting apically, with long setae at lateral and distal part. Ovipositor (Fig. 4F) with paraproct about 2.69 times as long as gonocoxite.

Measurements. Male (n=21). TL: 7.72–9.32 (8.57) mm, ID: 0.95–1.15 (1.05) mm, PL: 1.43–1.82 (1.65) mm, PW: 1.49–2.85 (2.53) mm, EL: 6.29–7.53 (6.93) mm, EW: 2.91–3.62 (3.30) mm. Female (n=14). TL: 8.89–10.58 (9.52) mm, ID: 1.07–1.28 (1.15) mm, PL: 1.58–2.05 (1.84) mm, PW: 2.62–3.21 (2.89) mm, EL: 7.09–8.53 (7.66) mm, EW: 3.32–4.21 (3.76) mm.

Distribution. Japan: Shikoku.

Remarks. Considering the character states of this species, this species clearly belongs to the genus *Anchycteis*, and transferred to the genus.

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要　　約

黄　聖和・吉富博之：日本産クロツヤヒゲナガハナノミ属 *Anchycteis*（鞘翅目ナガハナノミ科）の再検討．―― 日本から2種2亜種が知られていた *Anchycteis* 属の分類学的再検討を行った．その結果，*Anchyc-*

teis brunneicornis usori (NAKANE, 1958) と *A. monticola brunneipennis* (NAKANE, 1963) の 2 亜種を，それぞれエゾヒゲナガハナノミ *A. brunneicornis* (LEWIS, 1895) とクロツヤヒゲナガハナノミ *A. monticola* (NAKANE, 1952) の新参シノニムとした．従来はヒゲナガハナノミ属 *Epilichas* とされていたコクロツヤヒゲナガハナノミ *Epilichas miyatakei* NAKANE, 1952 は *Anchycteis* 属に所属することが判明した．以上のことから，日本産クロツヤヒゲナガハナノミ属は側所的に分布する 3 種からなり，これら 3 種を図示・再記載するとともに，検索表と分布図を示した．

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