

Some New or Little Known Species of the Meconematinae (Orthoptera, Tettigoniidae) from Japan

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The meconematine insects are small tettigonids living in forests and on leaves. They are poorly known in Japan, and the classification of Japanese members is not satisfactory at present.

Three meconematine species are hitherto known in Japan, that is, *Meconema subpunctatum*, "*M. ?*" *albicorne* now under the genus *Alloteratura*, and *Teratura suzukii* now placed in the genus *Xiphidiopsis*. Though the first two species were described by MOTSCHULSKY in 1866, his descriptions are so incomplete, being written only in four or five lines, that it is very difficult to determine what their true entities are. Up to the present, no body can determine the true identity of *Meconema subpunctatum*. The third is the species described by MATSUMURA and SHIRAKI in 1908.

In this paper, I am going to deal with three long-winged species including MATSUMURA and SHIRAKI's and one of MOTSCHULSKY's forms in order to elucidate the Japanese members of the Meconematinae and, in addition, to give descriptions of two new genera and a new brachypterous species.

Genus *Leptoteratura* YAMASAKI, nov.

Type-species. *Meconema albicorne* MOTSCHULSKY, 1866.

Meconematinae. Small, pale green, winged and delicate insect.

Head small, shallow; fastigium flat, thin, strongly protruded and from above, triangular with bluntly round apex, and with very weak mesal sulcus on dorsum. Maxillary palpi elongate; last segment wide at apex. Pronotum weakly protruded caudad, anterior margin almost straight and posterior margin round, dorsal surface convex longitudinally, with weak lateral carinae and with weak humeral sini. Lateral foramina of thorax (thoracic auditory spiracles) narrow from lateral sides, but clearly visible from latero-caudal point in both sexes, but sometimes with wide foramen on each side visible from lateral point.

Fore and hind wings moderately developed. Fore wings reticulated. Stridulatory fields of male fore wings covered in almost half by posterior part of pronotum. Tip of hind wings reaching tip of fore wings or extending a very little beyond these. Ultimate tergite weakly protruded with caudal margin concave. Male styli very short. Male cerci tender, showing strong differentiation and furnishing good specific character.

Female cerci unusually large-sized, showing some swelling in the middle; apex

blunt. Female subgenital plate large, roundly elliptical with slight emargination along each side in posterior half. This plate is often deformed in dried specimens. Ovipositor curving dorsad, more recurved than usual if apical one third.

Tibial auditory structure typically open, oblong elliptical. Middle tibiae becoming slenderer in distal part.

Fore and middle tibiae with some inconspicuous spines on both the ventral margins and three to four pairs of short distal spurs. Hind femora rugose on external surface.

Coloration pale green with pale yellowish streak on both the lateral carinae of pronotum and with brownish colour on hind margins of hind wings.

Note. In addition to the species here described, one Chinese (Szechwan) species *omeiensis* described by TINKHAM (1956) as a member of *Xiphidiopsis* seems to belong to the present genus.

***Leptoteratura albicorne* (MOTSCHULSKY, 1866), comb. nov.**

[Japanese name: Hime-tsuyu-mushi]

(Figs. 1–9)

Meconema? albicorne MOTSCHULSKY, 1866, Bull. Soc. Imp. Nat. Moscou, **39**, p. 181; WALKER, 1869, Cat. Der. Salt. Brit. Mus., **2**, p. 279; JACOBSON and BIANCHI, 1902/03, Orthopt. Pseudoneuropt. Rus. Emp., p. 380; KIRBY, 1906, Synon. Cat. Orthopt., **2**, p. 371.

Meconema albicorne?: MATSUMURA, 1904, Thous. Ins. Japan, **1**, p. 129, pl. 5, fig. 9.

Amytta albicorne: MATSUMURA & SHIRAKI, 1908, J. Coll. Agric. Tohoku Imp. Univ., **3**, pp. 2 and 26; CAUDELL, 1912, Gen. Ins., **138**, p. 6.

Amytta albicornis: MATSUMURA, 1931, 6000 Illust. Ins. Japan-Emp., p. 1352, 1 fig.

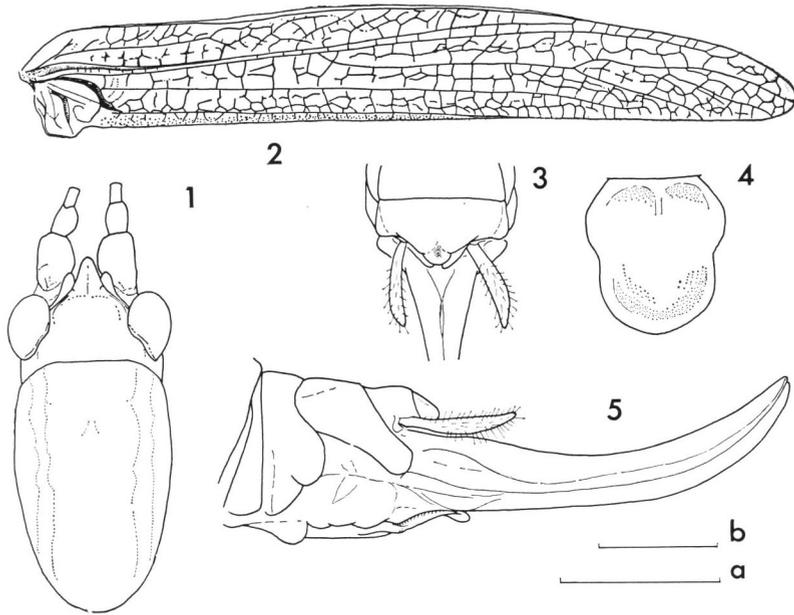
Xiphidiopsis sp. C: HIURA, Nature Study, **10**, p. 112.

Alloteratura albicorne: BEIER, 1966, Orthop. Cat., **9**, p. 278.

Male. Head and pronotum as shown in Fig. 1. Eyes reddish brown to blackish brown. Pronotum with a shallow V-shaped suture just cephalad to centre on dorsum; lateral carinae yellow. Venation of fore wings as shown in Fig. 2, longitudinal veins pale green and cross or accessory veins becoming yellow in most cases, especially in basal parts. Abdominal end and cerci as shown in Figs. 6–9; cerci greatly modified. As the cerci are soft, they are sometimes deformed.

Female. Supra-anal plate as shown in Fig. 3. Cerci long. Subgenital plate large as shown in Fig. 4. This plate is sometimes deformed in dried specimens. Ovipositor as shown in Fig. 5; tip blunt without hook.

Measurements (mm). Body length to tip of cerci, ♂ 10.4–12.2; body length to tip of ovipositor, ♀ 13.3–18.3; body length to base of ovipositor, ♀ 8.4–12.8; body length to tip of fore wing, ♂ 15.3–17.3, ♀ 18.0–18.8; body length to tip of hind wing, ♂ 15.8–17.8, ♀ 18.5–19.3; head width between both eyes, ♂ 1.85–1.9, ♀ 1.9–2.0; pronotal length, ♂ 3.1–3.4, ♀ 3.0–3.2; fore wing length, ♂ 12.5–14.8, ♀ 14.7–18.3; hind wing length, ♂ 11.8 (in one specimen); hind femoral length, ♂ 6.8–8.7, ♀ 7.4–7.9; hind tibial length, ♂ 7.2–8.0, ♀ 8.0–8.7; cercal length, ♂ 2.2–2.6; ovipositor length, 5.1–5.8.

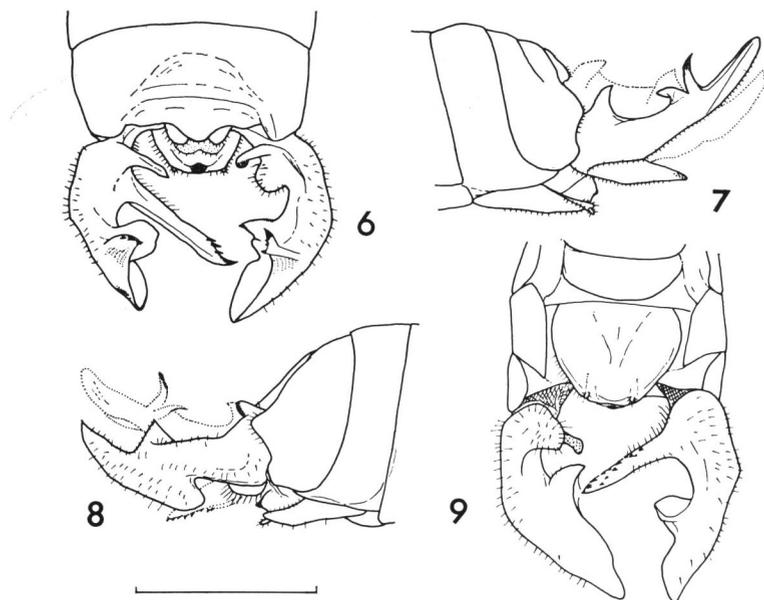


Figs. 1-5. *Leptoteratura albicorne* (MOTSCHULSKY). —1. Male head and pronotum, dorsal view. —2. Male right fore wing. —3. Female abdominal end, dorsal view. —4. Female subgenital plate, ventral view. —5. Female abdominal end and ovipositor, lateral view. Scales, 2 mm. Scale a is for Fig. 1, and b for Fig. 2.

Discussion. Description of the species by MOTSCHULSKY was given by only five lines. Though it is difficult to say the entity from this short and vague sentences, the specimens from Japan before me, whose head and pronotum, elytron, and abdominal ends of both the sexes are illustrated in Figs. 1-9, were considered to fall under *albicorne*.

This species was counted by BEIER under the genus *Alloteratura* established by HEBARD (1922), but it does not belong to the genus beyond all doubt because of great difference in the characters of pronotum, abdominal end and hind leg, etc. Therefore, the present new combination is proposed.

Material examined. 2 ♂♂, Tobi-shima, Yamagata, ix-1967 (K. SHIRAHATA), 1 ♀, same locality, 5-x-1969 (K. SHIRAHATA); 1 ♂, Nihongi-tôge 400-620 m, Minano, Saitama, 25-x-1981 (T. YAMASAKI); 18 ♂♂ 10 ♀♀, Hiwada-yama 400m, Hannô, Saitama, 2~3-ix-1981 (T. YAMASAKI); 2 ♂♂, Mt. Takao-san, Tokyo, 3-ix-1932 (S. ASAHINA), 1 ♀, same locality, 31-viii-1964 (T. YAMASAKI), 1 ♂, same locality, 26-ix-1978 (T. YAMASAKI), 2 ♂♂ 9 ♀♀, same locality, 2~10-ix-1979 (T. YAMASAKI); 2 ♂♂, Mt. foot of Mt. Tanzawa near Shiomizu, Kanagawa, 14-ix-1975 (T. YAMASAKI); 1 ♂ 1 ♀, Sumata-keikoku, Shizuoka, 31-viii-1964 (S. ASAHINA); 1 ♂, Shirahone, Nagano, 23-ix-1934 (S. ASAHINA); 1 ♀, Ootani, Niigata, 3-ix-1981 (K. KINEBUCHI); 2 ♂♂ 2 ♀♀, Jôkôji, Seto, Aichi, 2~3-x-1976 (T. YAMASAKI).



Figs. 6–9. Male abdominal end of *Leptotera albicorne* (MOTSCHULSKY). — 6. Dorsal view. — 7 and 8. Lateral views from left (7) and right (8) sides, respectively. — 9. Ventral view. Scale, 2 mm.

Xiphidiopsis suzukii (MATSUMURA et SHIRAKI, 1908)

[Japanese name: Sasakiri-modoki]

(Figs. 10–15)

Teratura suzukii MATSUMURA et SHIRAKI, 1908, J. Coll. Agric. Tohoku Imp. Univ., **3**, p. 48, pl. 1, figs. 3–6; KARNY, 1912, Gen. Ins., **135**, p. 4, pl. 1, figs. 3–6.

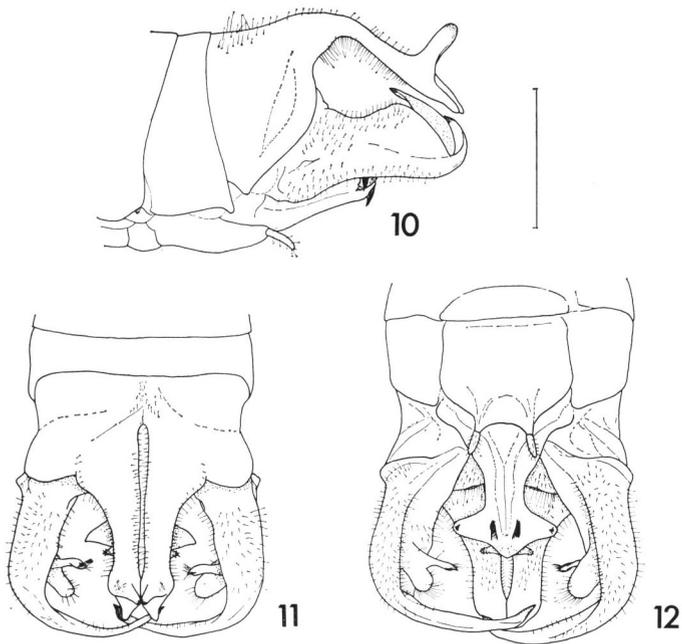
Teratura? suzukii: TINKHAM, 1936, Lingnan Sci. J., **15**, p. 213.

Xiphidiopsis? suzukii: HEBARD, 1922, Proc. Acad. nat. Sci. Philad., **74**, p. 250.

Xiphidiopsis suzukii: SHIRAKI, 1932, Icon. Ins. Japon., ed. prima, p. 2097, fig. 4118; TINKHAM, 1943, Notes Ent. chin., **10**, pp. 41–42; TINKHAM, 1944, Proc. U. S. nat Mus., **94**, pp. 508 and 517–518; SHIRAKI, 1950, Icon. Ins. Japon., ed. sec. reform., p. 37, fig 92; TINKHAM, 1956, Tr. Amer. ent. Soc., **82**, pp. 4, 5 and 15; BEY-BIENKO, 1962, Trud. zool. Inst. Moskva, **30**, p. 126; BEIER, 1966, Orthopt. Cat., **9**, p. 275; ISHIHARA, 1965, Icon. Ins. Japon. Col. nat. edit., **3**, p. 54, pl. 27, fig. 17; BEY-BIENKO, 1971, Ent. Oboz., **50**, pp. 832–833, figs. 2, 10 and 11; HIURA, 1977, Col. Illust. Ins. Japan, **2**, p. 67, pl. 22, fig. 237.

Male. Head without any marking. Disc of pronotum with longitudinal narrow whitish mesal line accompanied by dark bands along both its sides and with a shallow brownish V-shaped marking just cephalad to centre. Fore wings with about 17 small scattered spots; each humeral part with a small dark marking. Abdominal end as shown in Figs. 10–12; ultimate tergite, supra-anal plate and cerci much transformed.

Female. Head and pronotum the same as in male. Small black spots on fore wings smaller in number than in male. Abdominal end as shown in Figs. 13–15.



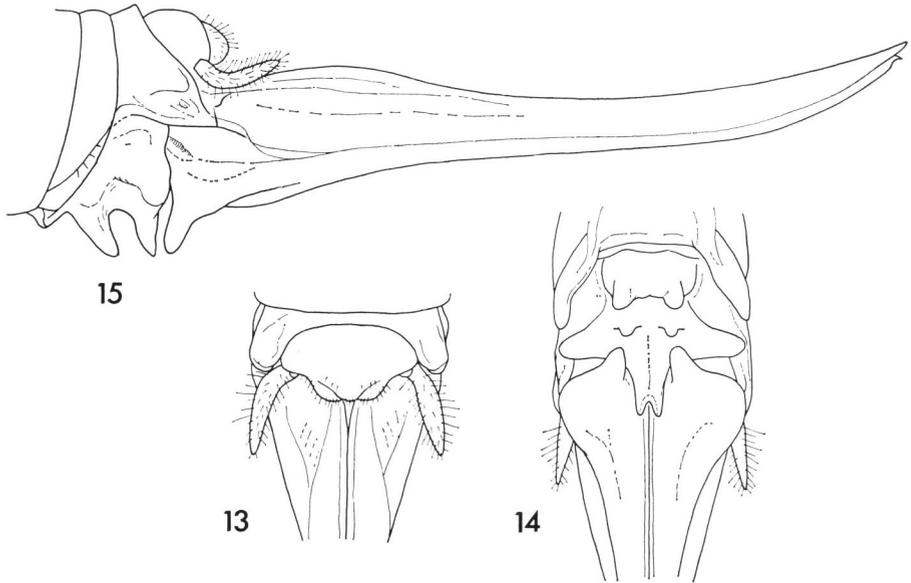
Figs. 10–12. Male abdominal end of *Xiphidiopsis suzukii* (MATSUMURA et SHIRAKI). — 10. Lateral view. — 11. Dorsal view. — 12. Ventral view. Scale, 2 mm.

Ovipositor as shown in Fig. 15.

Measurements (mm). Body length to tip of cercus, ♂ 13.3–14.9; body length to tip of ovipositor, ♀ 18.9–21.5; body length to base of ovipositor, ♀ 10.8–13.4; body length to tip of fore wing, ♂ 15.4–20.7, ♀ 19.3–20.7; body length to tip of hind wing, ♂ 22.2–24.0, ♀ 22.3–25.0; head width between both eyes, ♂ 2.2–2.3, ♀ 2.2–2.3; pronotal length, ♂ 3.7–4.0, ♀ 3.3–3.6; fore wing length, ♂ 14.8–16.5, ♀ 15.6–16.6; hind wing length, ♂ 18.3–20.5, ♀ 18.0–20.8; hind femoral length, ♂ 10.5–11.3, ♀ 10.3–11.5; hind tibial length, ♂ 10.7–11.7, ♀ 10.7–11.9; cercal length, ♂ 1.8–2.6; ovipositor length, 8.6–10.3.

Discussion. This species is easily distinguished from any other species by unique characters of male supra-anal plate and cerci and of female subgenital plate and ovipositor which forms three pairs of downwardly projecting prongs at the ventral base. It is closely related to *Xiphidiopsis cervicercus* TINKHAM from Chekiang and Kiangsi, China, and *X. denticulata* KARNY from Malaya (Kuala Lumpur), Yunnan and E. Nepal. The former may probably be a vicarious species to the west of the distributional area of *suzukii*, and the latter is distinctly the westernmost vicarious species.

Material examined. 1 ♂, Hiwada-yama, Hannô, Saitama, 28–viii–1979 (T. YAMASAKI, 1 ♂ 2 ♀♀, same locality, 2–ix–1979 (T. YAMASAKI); 2 ♂♂ 3 ♀♀, Wada-tôge, Fujino, Kanagawa, 19–ix–1971 (Y. KUROSAWA); 1 ♀, Nagano Pref., viii–1960



Figs. 13–15. Female abdominal end and ovipositor of *Xiphidiopsis suzukii* (MATSUMURA et SHIRAKI). — 13. Dorsal view. — 14. Ventral view. — 15. Lateral view.

(A. SHIMIZU); 1 ♀, Nakai-samurai, Tenryû-mura, Shimo-ina, Nagano, 14-ix-1964 (M. KOBAYASHI); 1 ♀, Senpuku, Minami-Alps, Shizuoka, 28-viii-1962 (T. HARUTA); 2 ♂♂ 3 ♀♀, Jôkôji, Seto, Aichi, 2~3-x-1976 (T. YAMASAKI); 1 ♀, Mitake, Tsushima Is., 29-viii-1968 (I. FUJIYAMA); 2 ♂♂ 3 ♀♀, Naka spa, E. Taiwan, 27-xi-1962 (K. BABA); 2 ♂♂, Taroko, E. Taiwan, 29-xi-1962 (K. BABA).

Distribution. Japan: Honshu (Saitama, Kanagawa, Nagano, Shizuoka, Aichi, Mie, Kyoto, Osaka and Hyogo); Shikoku (Ehime); Kyushu; Tsushima Is., China: Shantung (Taian and Liaoshan); Kiangsu (Ihing); Szechwan (Chengtu and Suifu), Taiwan, and Hong Kong.

Xiphidiopsis spathulata TINKHAM, 1944

[Japanese name: Usuiro-hoshi-sasakiri-modoki]

(Figs. 16–23)

Xiphidiopsis spathulata TINKHAM, 1944, Proc. U. S. nat Mus., **94**, pp. 507, 509, and 520–521, fig. 157 h, i; TINKHAM, 1956, Tr. Amer. ent. Soc., **82**, pp. 3 and 6; BEIER, 1966, Orthopt. Cat., **9**, p. 275; BEYBIENKO, 1971, Ent. Oboz., **50**, p. 840.

Male. Body pale green. Head and pronotum as shown in Fig. 16; occiput of head with brownish marking whose sides are blackish; disc of pronotum brownish, its sides blackish in the anterior part. Fore wings pale brownish with some 20 dark brown spots as shown in Fig. 17; main veins pale brown. Tibial auditory structure darkish. Abdominal end as shown in Figs. 21–23; cerci long, simple, with apical half

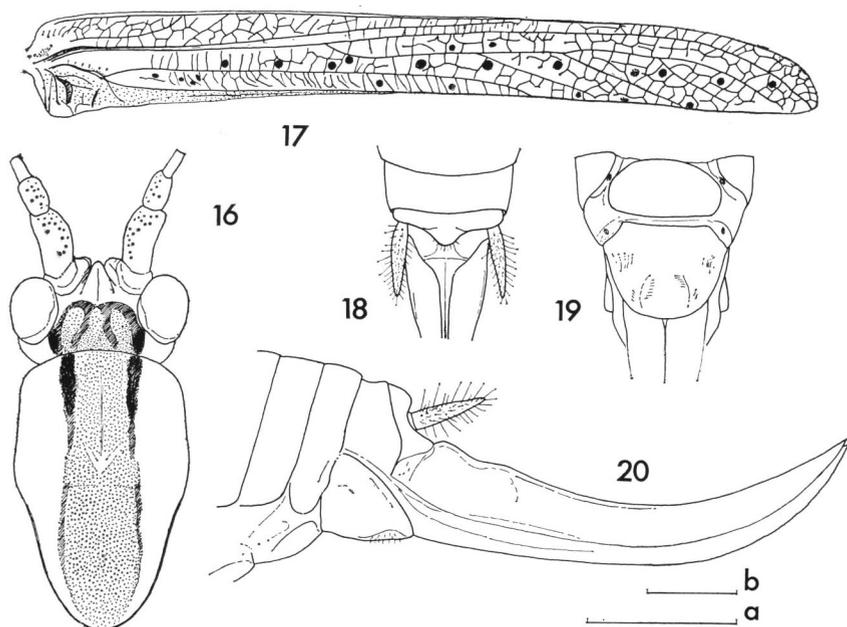
slightly spatulate and gently incurved; styli slender and long.

Female. Colour pattern the same as in the male. Abdominal end as shown in Figs. 18–20; subgenital plate round in the posterior margin. Ovipositor as shown in Fig. 20.

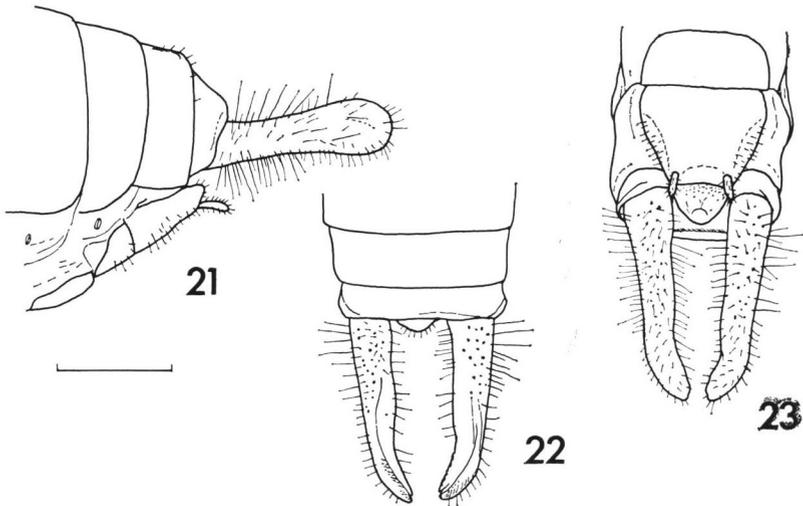
Measurements (mm). Body length to tip of cercus, ♂ 12.5–13.5; body length to tip of ovipositor, ♀ 16.9–18.0; body length to the base of ovipositor, ♀ 11.0–12.0; body length to tip of fore wing, ♂ 20.5–22.0, ♀ 21.9–22.9; body length to tip of hind wing, ♂ 22.2–23.7, ♀ 23.2–24.9; head width between both eyes, ♂ 2.3–2.35, ♀ 2.3–2.4; pronotal length, ♂ 3.1–3.6, ♀ 3.4–3.6; fore wing length, ♂ 16.8–18.1, ♀ 17.9–19.3; hind wing length, ♂ 18.0–19.3, ♀ 19.4–20.8; hind femoral length, ♂ 10.2–11.1, ♀ 10.1–11.4; hind tibial length, ♂ 10.9–11.5, ♀ 11.8–12.4; cercal length, ♂ 1.8–2.0; ovipositor length, 5.6–6.3.

Discussion. This species was originally described from Szechwan, China, by TINKHAM (1944). Chinese specimens are a little smaller than the Japanese, but any other difference can not be detected. According to TINKHAM, this species has the nearest relationship with *X. szechwanensis* TINKHAM, also from Szechwan, China.

Material examined. 1 ♀, Hiwada-yama, Hannô, Saitama, 2-ix-1979 (T. YAMASAKI); 1 ♂, Mt. Takao-san, Tokyo, 31-viii-1964 (T. YAMASAKI), 16 ♂♂ 20 ♀♀, same



Figs. 16–20. *Xiphidiopsis spathulata* TINKHAM. — 16. Male head and pronotum, dorsal view. — 17. Male right fore wing. — 18, 19. Female abdominal end, dorsal (18) and ventral (19) views. — 20. Female abdominal end and ovipositor, lateral view. Scale a shows 2 mm for Fig. 16, and scale b 3 mm for Fig. 17.



Figs. 21-23. Male abdominal end of *Xiphidiopsis spathulata* TINKHAM. — 21. Lateral view. — 22. Dorsal view. — 23. Ventral view. Scale, 1 mm.

locality, 2~10-ix-1979 (T. YAMASAKI), 1 ♀, same locality, 22-ix-1933 (S. ASAHINA), 3 ♂♂ 2 ♀♀, same locality, 11-ix-1958 (S. ASAHINA); 2 ♀♀, Shiroyama, Asakawa, Tokyo, 18-ix-1962 (S. ASAHINA); 1 ♀, Oodarumi, Tokyo, 19-ix-1971 (Y. KUROSAWA); 2 ♂♂ 2 ♀♀, Sumata-keikoku, Shizuoka, 31-viii-1964 (S. ASAHINA); 1 ♂ 1 ♀, Jôkôji, Seto, Aichi, 2-x-1976 (T. YAMASAKI); 2 ♀♀, Nakai-samurai, Tenryu-mura, Shimo-ina, Nagano, 10-ix-1974 (M. KOBAYASHI); 1 ♀, Mt. Aoi-dake, Miyazaki, 3-viii-1938 (S. ASAHINA).

Distribution. Known so far only from Japan: Honshu (Saitama, Tokyo, Nagano, Shizuoka and Aichi); Kyushu (Miyazaki), and from China: Szechwan (Mt. Omei and Tseo Jia Geo near Suifu).

Genus *Tettigoniopsis* YAMASAKI, nov.

Type-species: *Tettigoniopsis forcipicercus* YAMASAKI, sp. nov.

Meconematinae. Small-sized. Brachypterous. Closely related to *Xiphidiopsis*.

Head robust; fastigium forming fastigial cone (Fig. 24) which is moderately protruded and without sulcus. Eyes relatively small. Pronotum broad, its dorsal surface roundly convex, with V-shaped sulcus, though weak, situated at the centre of disc, and without humeral sini. Lateral foramina of thorax (thoracic auditory spiracles) clearly visible from latero-caudal point in both sexes. Fore wings degenerated, usually concealed under the posterior part of pronotum, and showing typical degenerated neuration; stridulatory veins conspicuous and burly. Hind wings absent. Tibial auditory structure open, long elliptical. Middle tibiae normal.

Ultimate tergite normal. Male cerci usually look like a pair of forceps, but

sometimes modified. Male style short and stout. Female cerci normal. Ovipositor sword-like, but not so narrow as in *Xiphidiopsis*; tip without hook.

Coloration bright grass-green or greenish, disc of pronotum with reddish brown band, making small miniature of *Tettigonia* in appearance. Abdomen sometimes with brownish colour in dorso-mesal part.

Tettigoniopsis forcipicercus YAMASAKI, sp. nov.

[Japanese name: Hime-yabukiri-modoki]

(Figs. 24–33)

Xiphidiopsis ? sp. WATANABE, 1941, Ent. World, 9, pp. 154–155, 1 fig.

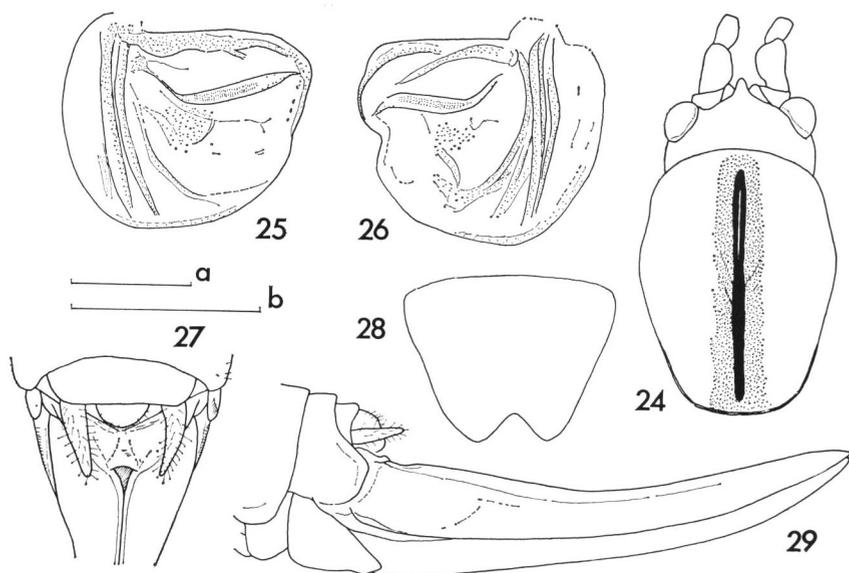
Xiphidiopsis sp. YAMASAKI, 1967, Bull. Sugadaira biol. Lab., 1, p. 51; YAMASAKI, 1978, Saitama-ken dôbutsu-shi (Fauna of Saitama Pref.), p. 391, pl. 2, fig. 6.

Small, bright grass-green, with reddish brown band on the disc of pronotum. Brachypterous, but the fore wings are cannot be observed from outside being concealed under the posterior margin of pronotum. Cerci as shown in Figs. 30–32. Ovipositor ensiform, slightly recurved.

Male. Size small. Head robust and broad as shown in Fig. 24; fastigial cone moderately protruded; occiput smooth and round. Eyes subglobular, relatively small. Pronotum short and wide as shown in Fig. 24, smooth and shining on the surface; anterior margin slightly roundish and posterior margin round; disc with weak V-shaped sulcus at the centre; metazona slightly convex for keeping fore wings. Fore wings as shown in Figs. 25 and 26, with degenerated veins; stridulatory vein broad and distinct; stridulatory teeth about 15 in number. Hind wings absent. Fore legs with unarmed femora; fore tibiae with 3 or 4 pairs of long spines between the auditory structure and the apical third and with one small ventro-apical spine each at both external and internal marginal ends. Middle legs with unarmed femora; middle tibiae with 3 or 4 pairs of long spines and with two ventro-apical small spines. Hind legs with unarmed femora; hind tibiae with 23 external and 21 internal dorsal teeth and its apex with four spurs.

Abdominal end as shown in Figs. 30–33. Supra-anal plate as shown in Fig. 30, shield-shaped, protruded caudad, and often becoming curved downwards in dried specimens. Cerci as shown in Figs. 30–32; cerci long, simple like a pair of forceps, heavy at base, with apical half strongly incurved, recurved upward and gradually tapering as if curling, but its apex is wide and blunt; inner surface of apical two-thirds excavate. Subgenital plate as shown in Fig. 32 (dried specimen) and 33 (freshly killed specimen); lateral sides incurved in the posterior half; styli short, stout and widely spaced.

Coloration bright grass-green. Eyes reddish brown to blackish brown. Pronotum shiny and with reddish brown, mesal and longitudinal, band on the disc, this band sometimes becoming paler or sometimes with additional blackish brown narrow band mesally as shown in Fig. 24; apical half of this band with a white line mesally as



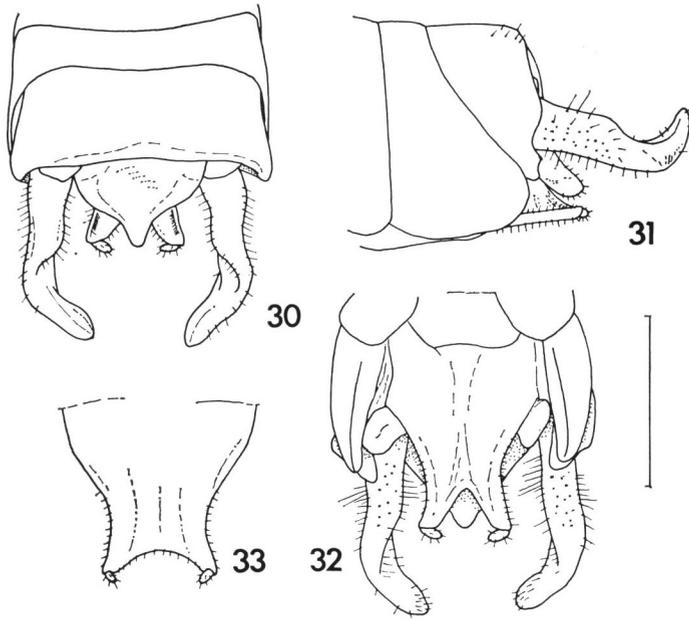
Figs. 24–29. *Tettigoniopsis forcipicercus* YAMASAKI, sp. nov. — 24. Male head and pronotum. — 25. Male left fore wing. — 26. Male right fore wing. — 27. Female abdominal end, dorsal view. — 28. Female subgenital plate, ventral view. — 29. Female abdominal end and ovipositor, lateral view. Scales, 2 mm. Scale **a** is for Figs. 24–26 and 29, and scale **b** for Figs. 27 and 28.

shown in Fig. 24. Abdomen dorso-mesally brownish.

Female. Abdominal end as shown in Figs. 27 and 29. Supra-anal plate short, semicircular. Cerci moderate, their apex blunt. Subgenital plate as shown in Fig. 28; posterior margin incised shallowly in a V-shape. Ovipositor as shown in Fig. 29; slightly recurved in apical half, then gently tapering distally from apical one-fourth and becoming narrower at subapical portion, apex of dorsal valve of ovipositor pointed, but ventral valve has a mild tip.

Measurements (mm). Body length to tip of cercus, ♂ 12.1–14.1 (14.1 in holotype); body length to tip of ovipositor, ♀ 17.7–20.8; body length to the base of ovipositor, ♀ 11.9–14.5; greatest head width, ♂ 2.3–2.5 (2.5 in holotype), ♀ 2.4–2.6; pronotal length, ♂ 3.7–4.4 (4.4 in holotype), ♀ 4.2–4.3; fore wing length, ♂ 1.68 (in one specimen); hind femoral length, ♂ 9.0–10.8 (10.7 in holotype), ♀ 10.7–11.4; hind tibial length, ♂ 9.8–11.4 (11.4 in holotype), ♀ 11.3–12.2; cercal length, ♂ 1.8–2.5 (2.0 in holotype); ovipositor length, 7.5–8.2.

Type-series. Holotype: ♂, Mt. Oyama, Kanagawa, Honshu, Japan, 15–viii-1979 (T. YAMASAKI). Paratypes (including allotype): 3 ♂♂ 7 ♀♀ (one female is designated as the allotype), same data as the holotype; 1 ♂, Hatomachi-tôge, Oze, Gunma, Honshu, 22–ix-1950 (S. ASAHINA); 5 ♂♂ 3 ♀♀, Mt. Kintoki-yama, Kanagawa/Shizuoka, Honshu, 20–viii-1981 (T. YAMASAKI); 1 ♂, Hakuba-mura, Nagano, Honshu,



Figs. 30–33. Male abdominal end of *Tettigoniopsis forcipicercus* YAMASAKI, sp. nov. — 30. Dorsal view. — 31. Lateral view. — 32. Ventral view. — 33. Subgenital plate (freshly killed specimen), ventral view. Scale, 2 mm.

11–viii–1964 (T. YAMASAKI); 2 ♀♀, Sugadaira, Nagano, Honshu, 24–viii–1964 (T. YAMASAKI), 2 ♀♀, same locality, 20–viii–1965 (T. YAMASAKI); 1 ♂, Utsukushi-nomori, Nagano, Honshu, 26–ix–1965 (T. YAMASAKI).

The type material deposited is in the collection of the National Science Museum (Nat. Hist.), Tokyo.

Other material. 1 ♀, Futase, Otaki-mura, Chichibu, Saitama, 30–ix–1981 (T. YAMASAKI); 1 ♂, Mt. Mitumine, Chichibu, Saitama, 18–vii–1971 (T. YAMASAKI); 2 ♂♂, Mt. Ryôgami, Chichibu, Saitama, 18–viii–1974 (T. YAMASAKI); 1 ♂, Nasu, Tochigi, 27–vii–1965 (T. YAMASAKI); 1 ♂ 1 ♀, Mt. Tenso-zan, Okutama, Tokyo, 21/23–ix–1976 (Y. Kurosawa); 1 ♀, Amagi-tôge, Izu, Shizuoka, 28–ix–1980 (M. TOMOKUNI); 1 ♂ 1 ♀, Mt. Banjiro-dake, Amagi, Izu, Shizuoka, 5–x–1980 (M. TOMOKUNI); 1 ♀, Jôkôji, Seto, Aichi, 3–x–1976 (T. YAMASAKI).

Type-locality. Mt. Oyama, Sagami, Kanagawa, Honshu, Japan.

Distribution. Known so far only from Honshu, Japan, excluding its northern part.

Notes. This species appears in August to October and lives in foliage of *Quercus* of mountainous areas. According to WATANABE (1941), the male of this insect stridulates fore wings. Its song is very weak and can be heard like tsu tsu tsu tsu ... or ti ti ti ti ..., when someone approaches closely to this singing male insect.

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