

A Revision of the Japanese Species of the Genus *Velleius* (Coleoptera, Staphylinidae)

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Abstract The Japanese species of the staphylinid genus *Velleius* are revised. All the known species, including two new species, are either described or redescribed, and a key to them is given. One of the new species, *V. japonicus*, is found in Honshu, and the other, *V. amamiensis*, on the Island of Amami-Ohshima.

Recently, the author had an opportunity to examine an interesting species of *Velleius* obtained on the Island of Amami-Ohshima in the Ryukyus. At this opportunity, the author intended to take up a revisional study of the Japanese members of the genus. As the result, the author found two new species, one of which was collected on the Island of Amami-Ohshima and the other in Honshu. Thus, the genus *Velleius* contains six Japanese species, all of which will be either described or redescribed in the present paper.

Before going further, the author wishes to express his hearty thanks to Dr. Shun-ichi UENO of the National Science Museum (Nat. Hist.), Tokyo, and Professor Masataka SATO of Nagoya Women's University, Nagoya, for their kind advice on the present study, and to Professor Katsura MORIMOTO of Kyushu University, Fukuoka, for his kindness in giving the author the opportunity to examine the type specimen of *Velleius elongatus*. Deep gratitude is also due to Messrs. K. BABA, Y. FURIHATA, N. GOKAN, H. HATTORI, H. HAYAKAWA, H. KOIKE, N. MINAGAWA, A. MIYAMOTO, T. NAKAJIMA, M. NISHIMURA, M. OKABE, K. SASAKI, M. SAWADA, R. TERAKOSHI, M. WATANABE and M. YASUKAWA for their kindness in providing the author with the specimens used in this study.

Genus *Velleius* MANNERHEIM

Velleius MANNERHEIM, 1831, Brachel., 16.

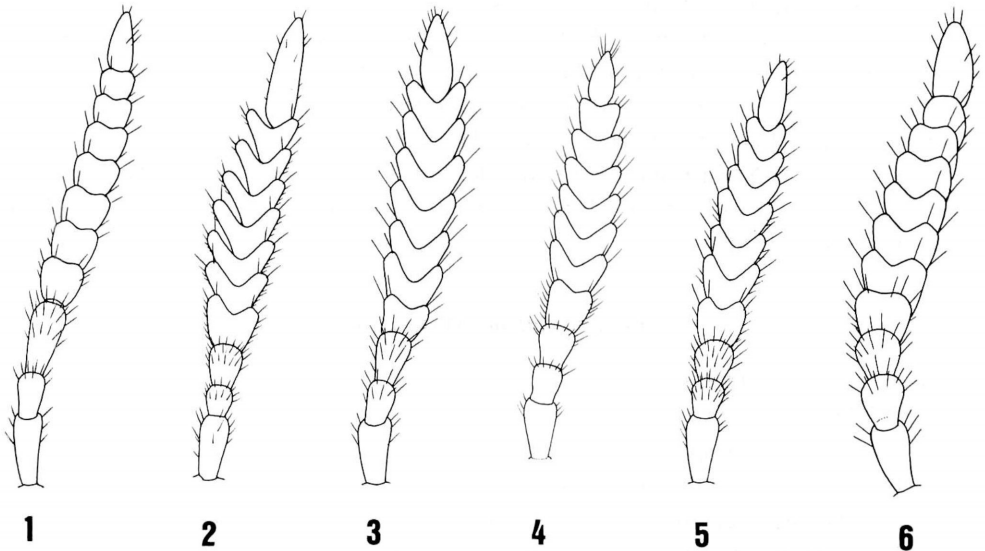
Other references are omitted.

Type species: *Staphylinus dilatatus* FABRICIUS.

The genus *Velleius* is a small group in the tribe Quediini of the subfamily Staphylininae. The members of this genus have very peculiar antennae, of which the 4th to 10th segments are conspicuously serrate. They are often found in the nests of *Vespa* or associated with *Cossus*.

Key to the Japanese Species of *Velleius*

- 1 (6) Body large, more than 15 mm in length.
- 2 (3) Lobed parts of 4th to 10th antennal segments only slightly emarginate at the middle; humeral angles of elytra yellowish. . . . *V. dilatatus* (FABRICIUS).
- 3 (2) Lobed parts of 4th to 10th antennal segments deeply excised at the middle.
- 4 (5) Elytral epipleura uniformly dark reddish black; apical segment of antenna remarkably large, about as long as the three preceding segments together *V. pectinatus* SHARP.
- 5 (4) Elytral epipleura yellowish in anterior two-thirds; apical segment of antenna nearly spindle-shaped and about as long as the two preceding segments together. *V. setosus* SHARP.
- 6 (1) Body small, less than 12 mm in length.
- 7 (10) Postocular part about a half as long as the longitudinal diameter of eye; 3rd antennal segment longer than broad.
- 8 (9) Head semicircular, less than 1.3 times as broad as long, fused paramere of male genital organ gradually tapered towards the apex. *V. elongatus* NAOMI.
- 9 (8) Head subquadrate, more than 1.4 times as broad as long, fused paramere abruptly tapered in apical fourth towards the apex. *V. japonicus* Y. WATANABE, sp. nov.
- 10 (7) Postocular part about one-third as long as the longitudinal diameter of eye;



Figs. 1-6. Antennae of *Velleius* spp. (inside view). — 1, *V. dilatatus* (FABRICIUS); 2, *V. pectinatus* SHARP; 3, *V. setosus* SHARP; 4, *V. elongatus* NAOMI; 5, *V. japonicus* Y. WATANABE, sp. nov.; 6, *V. amamiensis* Y. WATANABE, sp. nov.

3rd segment of antenna as long as broad
 *V. amamiensis* Y. WATANABE, sp. nov.

Velleius dilatatus (FABRICIUS)

(Figs. 1, 7-9)

Staphylinus dilatatus FABRICIUS, 1787, Mant. Ins., 1: 220.

Quedius dilatatus: ERICHSON, 1840, Gen. Spec. Staph., 524; KRAATZ, 1858, Naturg. Ins. Dtschl., 2: 490.

Velleius dilatatus: MANNERHEIM, 1830, Brachel., 16; FAUVEL, 1872, Fn. Gallo-Rhén., 3: 491; SHARP, 1874, Trans. ent. Soc. London, 1874: 23; 1889, Anns. Mag. nat. Hist., (6), 3: 29; GANGLBAUER, 1895, Käf. Mitt.-Eur., 2: 390; REITTER, 1909, Fn. Germ., 2: 115; BERNHAUER & SCHUBERT, 1916, Coleopt. Cat., pars 67 (Staphylinidae V): 416; WINKLER, 1925, Cat. Coleopt. reg. palaeart., pars 4: 388; SCHEERPertz, 1933, Coleopt. Cat., pars 129 (Staphylinidae VII, Supplement I): 426; ADACHI, 1936, Kagaku no Nogyo, Tokyo, 17: 31; YOKOYAMA & ADACHI, 1951, Icon. Ins. Japon., 2nd ed., 1014, fig. 2894; ADACHI, 1957, J. Toyo Univ., (11): 180; NAKANE, 1963, Icon. Japon. Col. nat. ed., 2: 94, pl. 47, fig. 17; YAMASHITA *et al.*, 1963, Ins. Fn. Suzuka Mts., 248; HIGUMA, 1964, Bull. Nagaoka munic. Sci. Mus., (3): 95; LOHSE, 1964, Käf. Mitt.-Eur., 4: 205; OHKURA *et al.*, 1967, Minoo-san no Dôbutsu-sô Chôsa, (rev. ed.), 137; TANAKA, 1971, List Ins. Toyama Pref., 147; KAWABE & SUZUKI, 1972, Ins. Fn. Kiyosato Plateau, (1): 61; TANAKA, 1975, Kita-Kyûshû no Konchû, 21: 68; NAKANE, 1975, Gakken Chû-kô-sei Zukan, 2: 331; COIFFAIT, 1978, Nouv. Rev. Ent., Suppl. 8: 285; TAKAMIZAWA, 1981, New Entomol., Ueda, 30: 60, 62; NAOMI, 1981, Kita-Kyûshû no Konchû, 28: 69; HOZUMI, 1983, Kakôchô, Ichinomiya, 35 (134): 26; SHIBATA, 1984, Annual Bull. Nichidai Sanko, (22): 117; 1985, Coleopt. Japan Col., Osaka, 2: 308, pl. 54, fig. 6; SASAJI & SAITO, 1985, List Ins. Fukui Pref., 111; WATANABE, 1986, Coleopt. News, Tokyo, (71): 3; HIRASHIMA *et al.*, 1989, Check list Jpn. Ins., 1: 277; WATANABE, 1989, Coleopt. Miyagi Pref. Japan, 122.

Velleius pectinatus: MATSUMURA, 1905, Nihon Senchû-zukai, 3: 29, pl. 40, fig. 11; 1915, Konchû Bunrui-gaku, 2: 209; 1931, 6000 Ill. Ins. Jpn.-Emp., 130, fig. 155; YOKOYAMA, 1931, Zoku Nippon no Kôchû, 126, pl. 16, fig. 18; 1932, Icon. Ins. japon., 734, fig. 1441; YAMAJI, 1935, Ins. World, Gifu, 3: 183; WATANABE, 1989, Coleopt. Miyagi Pref. Japan, 122. [Nec SHARP, 1874.]

Body length: 15.0-23 mm (from front margin of head to anal end).

Body robust and shining; colour black, head and pronotum sometimes tinged with dark red, with apical segment of antenna testaceous, and humeral angles of elytra yellowish.

Head subquadrate, transverse (width/length=1.23) and remarkably narrower than pronotum (head/pronotum=0.65); postocular part feebly arcuate and gently constricted at neck, bearing a number of rather coarse setiferous punctures; disc covered with sparse, extremely fine punctures and microscopic coriaceous ground sculpture, both of which are visible under high magnification; eyes relatively large, somewhat prominent laterally, its longitudinal diameter nearly as long as postocular part. Cephalic chaetotaxy as follows: one front seta situated on each side of front margin, one post-antennal seta just behind each antennal tubercle, two orbital setae inside each eye, two basal setae on each side just before basal margin, one internal temporal seta inside temporal bristled area, and one temporal seta in temporal bristled area. Antennae short, not reaching middle of pronotum, basal three segments

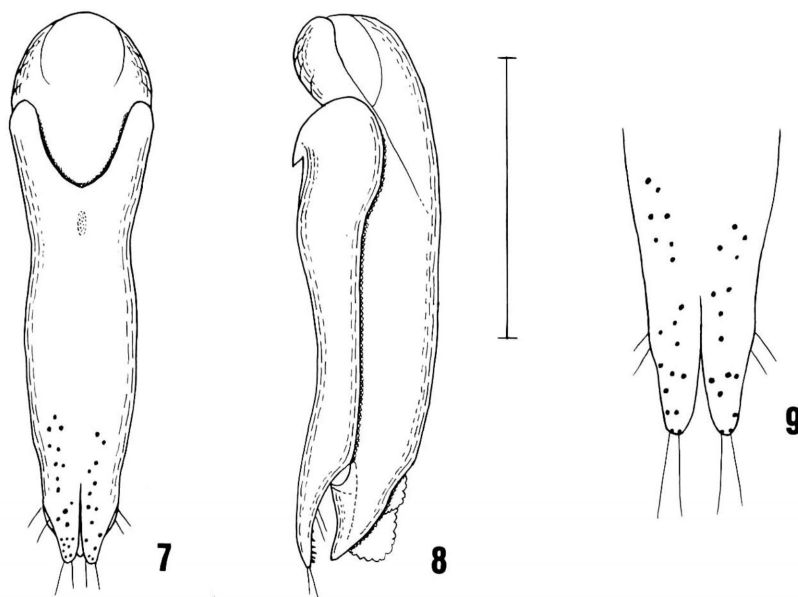
polished and the remainings opaque; 1st segment dilated apically, more than twice as long as broad, 2nd about 1.5 times as long as broad but evidently shorter than 1st ($2\text{nd}/1\text{st}=0.61$), 3rd dilated apically, as long as 1st and about 1.5 times as long as broad, 4th to 10th segments serrate and only slightly emarginate at the middle of each inner margin, 5th to 10th gradually decreasing in size, apical segment nearly spindle-shaped, about 1.8 times as long as 10th.

Pronotum strongly convex and transverse (width/length=1.10), widest behind the middle and more strongly narrowed anteriorly than posteriorly, with lateral portion slightly deplanate; all the margins practically not bordered, except for finely bordered anterior angles, which are narrowly rounded, posterior angles completely rounded off, posterior margin semicircularly expanded posteriorly; surface smooth, with a dorsal series of two small setiferous punctures on each side of the middle in anterior half, sparsely with a number of small setiferous punctures along inner sides of lateral and basal margins. Scutellum triangular, somewhat sparingly covered with brownish pubescence. Elytra nearly quadrate and as broad as pronotum; surface closely covered with rather fine asperate punctures and fine brownish pubescence, and besides, there are outstanding short coarse blackish setae, numerous on each lateral margin, three pairs or so along suture and four or five pairs between inner side of humeral angles and the median portion, but these setae are sometimes missing.

Abdomen gradually tapered towards the anal end; each tergite covered with moderately close, fine punctures and blackish pubescence, basal five visible tergites each provided with five or so conspicuous blackish setae on each side of hind margin, and 3rd to 5th visible tergites each also with two similar setae on each side of the middle, but these setae are sometimes missing; in male, 5th and 6th sternites each provided with a bunch of blackish fine hairs at the middle, last sternite shallowly emarginate at the middle of hind margin, and somewhat depressed and smooth in front of this emargination. Legs relatively stout, front tarsi widened in both sexes.

Male genital organ well sclerotized; median lobe slightly shorter than fused paramere, gradually narrowed posteriorly and abruptly tapered near the apical part; ventral surface excavated before the apex, posterior margin of this excavation somewhat produced ventrally in profile; fused paramere symmetrical, somewhat dilated in the median part, and more evidently narrowed towards the apex than towards the base, apical part divided by a deep cleft into two lobes, which are only narrowly separated from each other, each lobe being fringed with four short setae, two on lateral margin and the remaining two at the apex, internal face with a number of black sensorial tubercles spread over the apical part.

This species can be easily distinguished from the other Japanese members of *Velleius* by the larger body, 4th to 10th antennal segments only slightly emarginate at the middle of respective inner sides, and the structure of male genital organ. Nevertheless, this species had been confused with the following species before the World War II. Because of this confusion, the species recorded by MATSUMURA (1905, 1915, 1931), YOKOYAMA (1931, 1932) and YAMAJI (1935) under the name *V. dilatatus*



Figs. 7-9. Male genital organ of *Velleius dilatatus* (FABRICIUS); 7, ventral view; 8, lateral view; 9, apical part of fused paramere. Scale: 1.0 mm (7, 8); 0.25 mm (9).

seems to belong to the following species.

Specimens examined. 1 ♂, Shikotsu Lake, Iburi, Hokkaido, Japan, 29-VII-1955, Y. WATANABE leg.; 1 ♂, Tachiyazawa, Higashitagawa, Yamagata Pref., Honshu, Japan, 3-VIII-1953, Y. WATANABE leg.; 1 ♂, same locality as above, 4-VIII-1950, Y. WATANABE leg.; 1 ♀, Shizu, Sadogashima Is., Niigata Pref., Japan, 10-IX-1982, N. GOKAN leg.; 1 ♂, Hinoharu, Yamanashi Pref., Honshu, Japan, 8-VII-1979, K. SASAKI leg.; 1 ♂, 2 ♀♀, same locality as above, 4-VII-1985, A. MIYAMOTO leg.; 1 ♀, Anayama, Yamanashi Pref., Honshu, Japan, 30-VIII-1981, R. TERAKOSHI leg.

Distribution. Japan (Hokkaido, Honshu, Sadogashima Is., Awashima Is.); China, Europe.

Remarks. It has been known from old times that this species is frequently found in the nest of *Vespa* in Europe. In Japan, it is also found in the nests of *Vespula schrencki* and *Vespula shidai* (TAKAMIZAWA, 1981, pp. 60, 62). SHARP (1889, p. 29) reported that the staphylinid was associated with the larvae of *Cossus* in Japan. However, it is more commonly found attracted to the sap of broadleaved trees, such as *Quecus acutissima* CARRUTHERUS.

Velleius pectinatus SHARP

(Figs. 2, 10-12)

Velleius pectinatus SHARP, 1874, Trans. ent. Soc. London, 1874: 24; BERNHAUER & SCHUBERT, 1916, Coleopt. Cat., pars 67 (Staphylinidae V): 416; WINKLER, 1925, Cat. Coleopt. reg. palaeart., pars

4: 388; ADACHI, 1936, Kagaku no Nogyo, Tokyo, 17: 32; GYOTOKU, 1941, Kyûshû Konchû Dôkôkai Kaishi, 3: 6; NAKANE, 1949, Trans. Essa ent. Soc., 3: 72; ADACHI, 1957, J. Toyo Univ., (11): 180; ÔMACHI *et al.*, 1960, Bull. Mie Univ. For., (4): 15; NAKANE, 1963, Icon. Ins. Japon. Col. nat. ed., 2: 94, pl. 47, fig. 18; TANAKA, 1975, Kita-Kyûshû no Konchû, 21: 68; NAKANE, 1975, Gakken Chû-kô-sei Zukan, 2: 241, pl. 61; YOSHIDA, 1978, Kôtsuzan no Shizen, 57; NAOMI, 1981, Kita-Kyûshû no Konchû, 28: 69; SHIBATA, 1984, Annual Bull. Nichidai Sanko, (22): 118; 1985, Coleopt. Japan Col., Osaka, 2: 307, pl. 54, fig. 5; HIRASHIMA *et al.*, 1989, Check list Jpn. Ins., 1: 277.

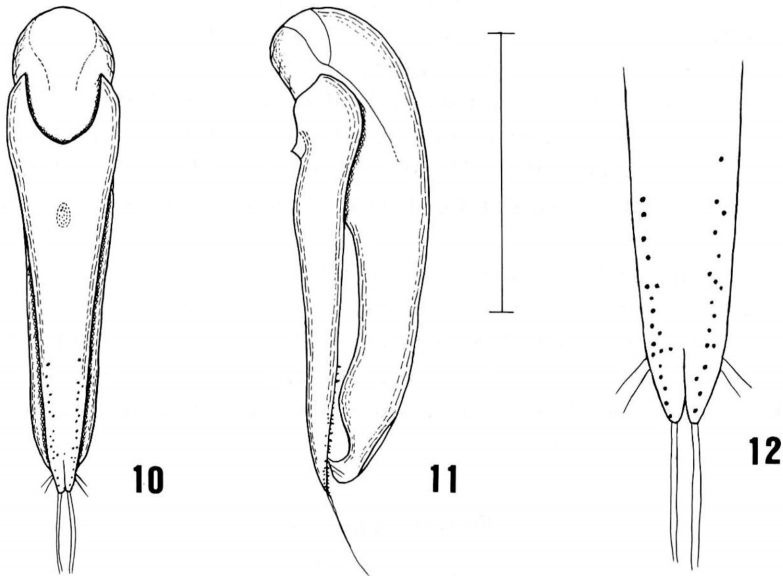
Velleius pectinalis [sic !]: HAGA, 1983, Gekkan-Mushi, Tokyo, (152): 36.

Body length: 14.4–20.9 mm (from front margin of head to anal end).

This species somewhat resembles the preceding in general appearance, but can be distinguished from it by the following points:

Body smaller in size; eyes relatively large, its longitudinal diameter evidently longer than postocular part (1.25–1.60); antennae relatively long, extending a little beyond the middle of pronotum, with 3rd segment apparently shorter than 1st (3rd/1st=0.75–0.80), lobed parts of 4th to 10th segments each deeply excised at the middle, apicalmost stout and remarkably large, about as long as the three preceding segments together; elytral epipleura uniformly dark reddish black; in male, 5th and 6th abdominal sternites lacking in the bunch of fine blackish hairs.

Male genital organ well sclerotized and elongate; median lobe slightly shorter than fused paramere, gradually and slightly tapered posteriad, remarkably excavated before apex and the posterior margin of this excavation markedly projecting ventrad



Figs. 10–12. Male genital organ of *Velleius pectinatus* SHARP; 10, ventral view; 11, lateral view; 12, apical part of fused paramere. Scale: 1.0 mm (10, 11); 0.25 mm (12).

in profile; fused paramere narrower than median lobe, distinctly tapered towards the apex, which is shallowly excised at the middle and fringed with two pairs of setae, lateral pair short and apical pair conspicuously longer than the lateral, internal face scattered with rather numerous black sensorial tubercles in posterior half.

Specimens examined. 1 ♂, near Tadain, Kawanishi-shi, Hyôgo Pref., Honshu, Japan, 9–VII–1989, M. NISHIMURA leg.; 1 ♂, Harada, Kobe, Hyôgo Pref., Honshu, Japan, 5–VI–1912, collector unknown; 1 ♂, Emimura, Mimasaka, Honshu, Japan, 15–VII–1913, collector unknown; 1 ♀, same locality as above, 13–VII–1913, collector unknown; 1 ♀, Matsuki, Mimasaka, Honshu, Japan, VII–1913, J. E. A. LEWIS leg.

Distribution. Japan (western Honshu, Shikoku, Kyushu); Korea, China.

Remarks. In the original description, SHARP (1874, p. 24) pointed out that this species was found in association with *Cossus*, though NAOMI (1981, p. 69) recorded it to have been found at the sap of a broadleaved tree and HAGA (1983, p. 36) in a baited trap (crude sugar syrup).

Although this species was recorded by the present author (1964, p. 23) from Hokkaido and Shikoku, this record was based on a misidentification, and the specimens in question actually belong to the following species. It was also recorded from Taiwan by NAOMI (1984, p. 5), but his illustration does not agree with the male genital organ of this species.

Velleius setosus SHARP

(Figs. 3, 13–15)

Velleius setosus SHARP, 1889, Anns. Mag. nat. Hist., (6), 3: 29; BERNHAUER & SCHUBERT, 1916, Coleopt. Cat., pars 67 (Staphylinidae V): 416; DOI, 1924, Ins. World, Gifu, 28: 304; WINKLER, 1925, Cat. Coleopt. reg. palaeart., pars 4: 388; ADACHI, 1936, Kagaku no Nogyo, Tokyo, 17: 33; 1951, Icon. Ins. Japon., 2nd ed., 1015, fig. 2895; 1957, J. Toyo Univ., (11): 180; NAOMI, 1981, Kita-Kyûshû no Konchû, 28: 69; SHIBATA, 1984, Annual Bull. Nichidai Sanko, (22): 119; 1985, Coleopt. Japan Col., Osaka, 2: 307, pl. 54, fig. 7; SUZUKI, 1986, Bull. Gifu Pref. Mus., (9): 42.

Uelleins [sic !] *setosus*: YAMAWAKI, 1988, Kita-Kyûshû no Konchû, 35: 33.

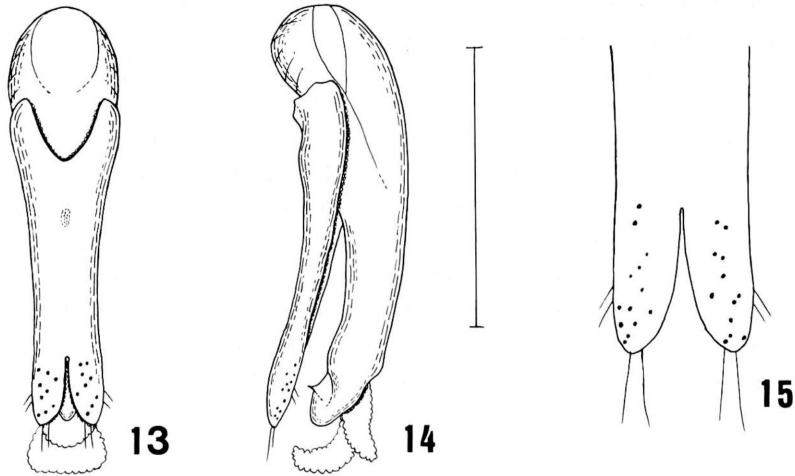
Velleius pectinatus: KAMIYA & ADACHI, 1933, Genshoku Kôchû Zufu, pl. 11, fig. 12; WATANABE, 1964, Ins. Niigata Pref., (8): 22. [Nec SHARP, 1874.]

Body length: 16.0–19.0 mm (from front margin of head to anal end).

This species is closely allied to the preceding species in the characteristics of antennae, of which the 4th to 10th segments are deeply excised at the middle of respective inner sides, though clearly differing from the latter in the following points:

Body much smaller in size; head with postocular part relatively long, about as long as the longitudinal diameter of eye; antennae short, not reaching the middle of pronotum, with 3rd segment about as long as 1st, apicalmost narrow, nearly spindle-shaped and much shorter than the three preceding segments together; elytral epipleura yellowish in anterior two-thirds; in male, median emargination of hind margin of last abdominal sternite much shallower.

Male genital organ decidedly different from those of the other Japanese species.



Figs. 13–15. Male genital organ of *Velleius setosus* SHARP; 13, ventral view; 14, lateral view; 15, apical part of fused paramere. Scale: 1.0 mm (13, 14); 0.25 mm (15).

Fused paramere symmetrical, almost parallel-sided and somewhat longer than median lobe, apical part divided by a deep cleft into two lobes, each of which is fringed with four short setae, two along outer margin and the remaining two at the apex, and provided with a number of black sensorial tubercles on the internal face.

Specimens examined. 1 ♂, Kawayu, Hokkaido, Japan, 10–VIII–1950, R. KANO leg.; 2 ♂♂, 2 ♀♀, near Mt. Apoi-dake, Hidaka, Hokkaido, Japan, 26–VII–1964, M. WATANABE leg.; 1 ♂, 1 ♀, same locality as above, 26~27–VII–1964, M. SAWADA leg.; 1 ♀, Maruyama, Sapporo, Hokkaido, Japan, 18–VIII–1915, S. KUWAYAMA leg.; 2 ♂♂, 4 ♀♀, Mt. Moiwa, Sapporo, Hokkaido, Japan, 11–VIII–1964, K. SASAKI leg.; 1 ♀, Lakeside of Ônuma, Oshima, Hokkaido, Japan, 23–VIII–1953, Y. YASUDA leg.; 1 ♂, Kurokawa, Kitakanbara, Niigata Pref., Honshu, Japan, 14–VIII–1966, K. BABA leg.; 1 ♂, Okutadami, M. Echigo, Niigata Pref., Honshu, Japan, 29–VII–1961, H. KOIKE leg.; 1 ♀, Ozegahara, Gunma Pref., Honshu, Japan, 20~24–VIII–1979, M. SATÔ leg.; 1 ♂, Mt. Daibosatsu, Yamanashi Pref., Honshu, Japan, 22~24–VIII–1931, T. ADACHI leg.; 1 ♂, Mt. Mitsu-tôge, Yamanashi Pref., Honshu, Japan, 8–VIII–1982, R. TERAKOSHI leg.; 3 ♂♂, Fujii-dani, Sotoyamabe, Nagano Pref., Honshu, Japan, 24–VII–1980, Y. FURIHATA leg.; 1 ♀, Mt. Ishizuchi, Shikoku, Japan, 27–VII–1953, M. OKABE leg.

Distribution. Japan (Hokkaido, Honshu, Shikoku, Kyushu, Yakushima Is.).

Velleius elongatus NAOMI

(Fig. 4)

Velleius elongatus NAOMI, 1986, Trans. Shikoku ent. Soc., 17: 244.

Velleius setosus: WATANABE, 1977, Coleopt. News, Tokyo, (37): 6. [Nec SHARP, 1889.]

Body length: 10.0–12.0 mm (from front margin of head to anal end).

The present species can be easily distinguished from the three preceding species by the much smaller body and the male genital organ with median lobe longer than fused paramere.

Specimens examined. 1 ♂, Mt. Gori, Hiroshima Pref., Honshu, Japan, 22–VII–1979, H. ARAMAKI leg. (holotype); 1 ♀, Oguni, Sera, Hiroshima Pref., Honshu, Japan, 8–XI–1976, T. NAKAJIMA leg.

Distribution. Japan (western Honshu).

Remarks. The above-mentioned female specimen was found in the nest of *Vespa mandarinia* SMITH.

Velleius japonicus Y. WATANABE, sp. nov.

(Figs. 5, 16–18)

Velleius setosus: MINAGAWA, 1968, Coleopt. News, Tokyo, (2): 4. [Nec SHARP, 1889.]

Body length: 11.1–11.8 mm (from front margin of head to anal end).

The present new species may be placed near *V. elongatus* in view of the small body and the antennal features, but can be distinguished from the latter by the quadrate head and different configuration of male genital organ.

Head quadrate, a little broader than long (width/length=1.30) and somewhat depressed above; postocular part apparently shorter than the longitudinal diameter of eye, bearing a number of small setiferous punctures; dorsal surface practically impunctate, though covered with sparse, extremely minute punctures and with close microscopic ground sculpture. Cephalic chaetotaxy as follows: one front seta on each side of front margin, one postantennal seta just behind each antennal tubercle, two orbital setae inside each eye, one basal seta on each side just before basal margin, one internal temporal seta inside temporal bristled area, and one temporal seta in temporal bristled area. Antennae relatively short, hardly reaching the median portion of pronotum, basal three segments polished and dilated apically, the remainings opaque, 1st segment more than 1.5 times as long as 2nd, which is almost as long as broad, 3rd somewhat longer than broad (length/width=1.25) but slightly shorter than 1st (3rd/1st=0.91), 4th to 10th segments serrate and deeply excised at middle of respective inner margins, apicalmost nearly elliptical and about as long as the two preceding segments together.

Pronotum convex, transverse (width/length=1.17) and remarkably broader than head (pronotum/head=1.35), widest at about posterior third and more strongly narrowed anteriorly than posteriorly; lateral margin arcuate and continuing onto basal margin, which is broadly rounded, all the margins not bordered, except near anterior angles which are very finely bordered; surface smooth, provided with a pair of dorsal series of setiferous punctures on the middle in about anterior fourth and three or so similar setiferous punctures on each lateral part in anterior half, and fringed with

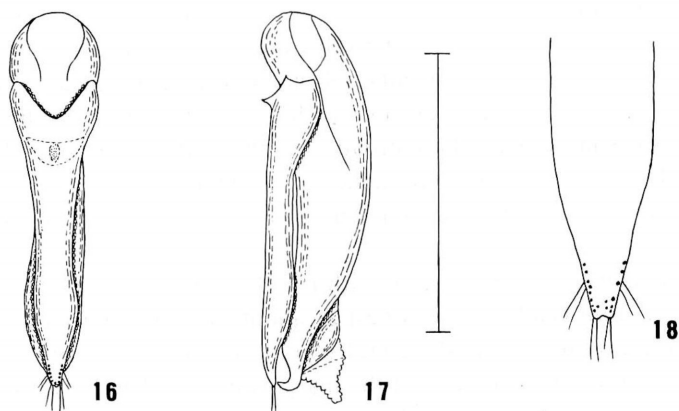
numerous, conspicuous blackish setae inside lateral and basal margins. Scutellum triangular, surface covered with fine brownish pubescence. Elytra nearly quadrate, somewhat transverse (width/length=1.12) and a little broader than pronotum (elytra/pronotum=1.12); surface covered with punctures and pubescence, the former of which are fine and asperate, the latter brownish and relatively long, and fringed with a number of blackish setae as those of pronotum on lateral and posterior margins.

Abdomen elongate, gradually narrowed posteriorly; surface of each tergite rather sparsely punctured and pubescent like elytra, basal four visible tergites each shallowly and transversely depressed along basal margin, and fringed with a number of short blackish setae along posterior margin; last sternite in male subtriangularly excised at the middle of posterior margin and more or less flattened in front of this excision. Legs with widely dilated tarsi in both sexes.

Male genital organ elongate and well sclerotized; median lobe only slightly longer than fused paramere and abruptly tapered before the apex; viewed laterally, ventral surface markedly excavated before the apex and posterior margin of the excavation acutely pointed; fused paramere almost symmetrical, narrowed at the middle and somewhat dilated before the apex, though narrower than median lobe even at the widest part, apical part fringed with four setae, two apical and two lateral, and provided with only a small number of black sensorial tubercles distributed along margins of internal face, apical margin slightly emarginate at the middle.

Holotype: ♂, Higashimurayama, Tokyo Pref., Honshu, Japan, 23-VI-1965, N. MINAGAWA leg. Paratypes: 1 ♂, same data as for the holotype; 1 ♂, Toyoiwa, Akita-shi, Akita Pref., Honshu, Japan, 12-VIII-1987, M. ÔKURA leg. All the types are preserved in the collection of the Laboratory of Entomology, Tokyo University of Agriculture.

Distribution. Japan (central and northeastern Honshu).



Figs. 16-18. Male genital organ of *Velleius japonicus* Y. WATANABE, sp. nov.; 16, ventral view; 17, lateral view; 18, apical part of fused paramere. Scale: 1.0 mm (16, 17); 0.5 mm (18).

Remarks. The holotype and one paratype were obtained at a sap of the broad-leaved tree, *Quercus acutissima* CARRUTHERUS.

Velleius amamiensis Y. WATANABE, sp. nov.

(Figs. 6, 19, 20–22)

Body length: 9.4 mm (from front margin of head to anal end).

This new species resembles the preceding in general appearance, but can be distinguished from the latter by the following points:

Body smaller in size; head suborbicular, with postocular part much shorter, about one-third as long as the longitudinal diameter of eye; antennae with 3rd segment about as long as broad, 5th to 7th only shallowly excised, and 4th and 8th to 10th very shallowly emarginate at the middle of respective inner sides; pronotum less transverse (width/length=1.1), though much broader than head (pronotum/head=1.43).

Male genital organ also similar in general appearance to that of the preceding species, but different from the latter in the following details: Median lobe gradually

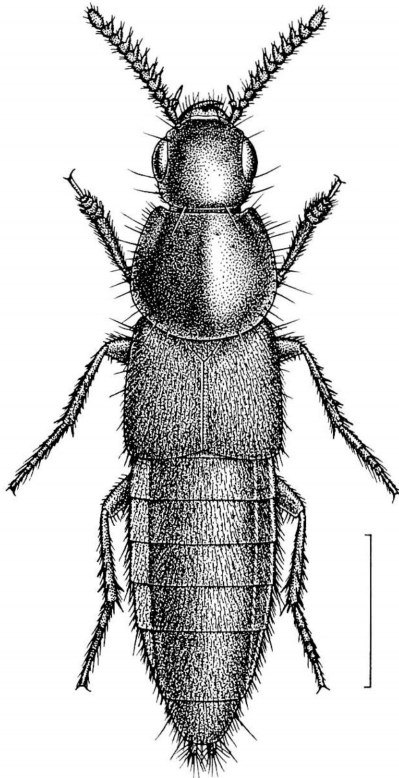
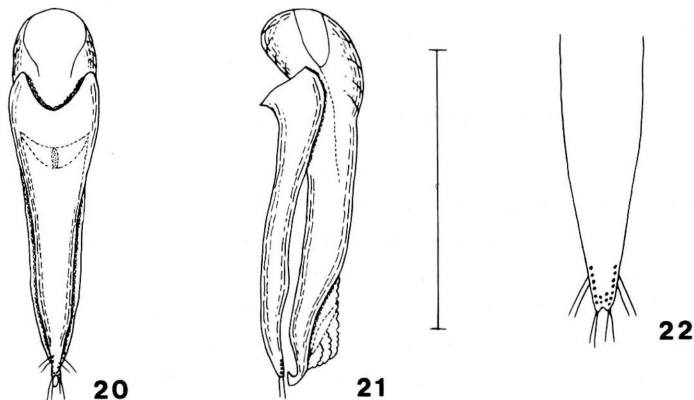


Fig. 19. *Velleius amamiensis* Y. WATANABE, sp. nov. Scale: 2.0 mm.



Figs. 20–22. Male genital organ of *Velleius amamiensis* Y. WATANABE, sp. nov.; 20, ventral view; 21, lateral view; 22, apical part of fused paramere. Scale: 1.0 mm (20, 21); 0.5 mm (22).

narrowed towards the apex; fused paramere narrower, more strongly tapered apicad and hardly dilated before the apical part, which is narrowly prolonged posteriad, and the apex more evidently excised at the middle.

Holotype: ♂, Hatsuno, Amami-Oshima Is., Kagoshima Pref., Japan, 27–VIII–1985, H. HAYAKAWA leg., preserved in the collection of the Laboratory of Entomology, Tokyo University of Agriculture.

Distribution. Japan (Amami-Oshima Is.).

要 約

渡辺泰明：日本産クシヒゲハネカクシ属の再検討。——日本産クシヒゲハネカクシ属の分類学的再検討を行なった結果、新たに下記の2新種を見いだしたので、それらの雄交尾器を含めた形態的特徴を記載すると同時に、既知の種を含めた日本産種の検索表を与えた。

ヤマトクシヒゲハネカクシ *V. japonicus* は、体長および触角の構造が *V. elongatus* NAOMI に類似しているが、四角形に近い頭部の形および雄交尾器の癒合した側片が末端付近前方でゆるやかに広がる点において異なり、後者から区別することができる。

アマミクシヒゲハネカクシ *V. amamiensis* は上記の *V. japonicus* に似ているが、頭部が円形に近く、側頭部の長さは複眼長径の1/3であること、雄交尾器の癒合した側片が末端付近前方でほとんど広がらず、末端付近は細長く伸長していることなどの点で区別することができる。

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