

Taxonomic Changes and New Distribution Records of Four Sawfly Species of the Genus *Tenthredo* (Hymenoptera, Tenthredinidae) in Japan

Akihiko Shinohara

Department of Zoology, National Science Museum,
3–23–1 Hyakunin-cho, Shinjuku-ku, Tokyo, 169–0073 Japan
e-mail: shinohar@kahaku.go.jp

Abstract *Allantus nigripsectus* Matsumura, 1912 is synonymized with *Allantus flavipectus* Matsumura, 1912, because the color characters used to separate them have been found variable and the two taxa are not separable. *Tenthredo nigripleuris* (Enslin, 1910) is newly recorded from Japan based on the specimens previously identified with “*T. devius*”. There is no evidence for the occurrence of *Tenthredo devia* (Konow, 1900) in Japan. Japanese populations of *Tenthredo colon* Klug, 1817 have been called “*T. colon nigriventris* Enslin, 1912” in Japanese literature but this usage of the subspecific name is erroneous. It is proposed not to recognize a subspecific taxon for Japanese populations until more is known about the geographic variations of this widely distributed Holarctic species. *Tenthredo babai* Takeuchi, 1936, previously known only from Honshu and Sado Island, is newly recorded from Kyushu.

Key words: Hymenoptera, Tenthredinidae, *Tenthredo*, taxonomy, Japan.

Tenthredo Linnaeus, 1758, is a huge genus of sawflies comprising well over 800 species. Abe and Togashi (1989) listed 76 taxa of the genus as occurring in Japan and four new species and subspecies were described and some taxonomic changes have been proposed thereafter (e.g., Taeger, 1988; Shinohara, 1994 a, b, 1997; Taeger & Blank, 1996; Shinohara & Kumamoto, 1997). In the course of preparation for a new version of the list of Japanese *Tenthredo*, I have noticed that four taxa needed taxonomic changes. In the following lines, I will point out that *Allantus nigripsectus* Matsumura, 1912, is a junior synonym of *Allantus flavipectus* Matsumura, 1912, and the Japanese records of *T. devia* (Konow, 1900) are based on a misidentification for *T. nigripleuris* (Enslin, 1910). I will also show that the use of the name *T. colon nigriventris* Enslin, 1912, is erroneous and propose not to recognize subspecies for the Japanese populations of *T. colon* Klug, 1817. The first distribution record for a rare species, *T. babai* Takeuchi, 1936, from Kyushu will also be given.

The material used in this work is kept in the

National Science Museum, Tokyo, unless otherwise stated. Abbreviations for the other depositories are: HK: H. Kumamoto collection, Hirakata; HU, College of Agriculture, Hokkaido University, Sapporo; KU: Faculty of Agriculture, Kobe University, Kobe; NIAS: National Institute of Agro-Environmental Sciences, Tsukuba; UOP: College of Agriculture, University of Osaka Prefecture, Sakai; YM: Yamaguchi Museum, Yamaguchi.

I wish to thank T. Hirowatari (UOP), H. Ishikawa (Shizuoka), H. Itami (Shibata), K. Kimura (Tokyo), H. Kumamoto (Hirakata), J. Lacourt (Igé), T. Mitoki (YM), K. Mizuno (Kyoto), T. Naito (KU), T. Niisato (Tokyo), M. Suwa (HU), and K. Yasuda (NIAS) for making the specimens available for the present study.

Tenthredo flavipectus (Matsumura, 1912)

Allantus flavipectus Matsumura, 1912, p. 54; Matsumura, 1930, p. 82, 19 (*Allanthus* [sic]); Matsumura, 1931, p. 81; Takeuchi, 1937, p. 55.

Allantus nigripsectus Matsumura, 1912, p. 55; Matsumura, 1930, p. 83, 20 (*Allanthus* [sic]); Matsumura, 1931,

p. 81. N. Syn.

Tenthredo xanthomelaena Enslin, 1920, p. 67; Takeuchi, 1951, p. 60 [syn.].

Tenthredo nigripectus: Takeuchi, 1919, p. 183 [*nigripecta* [sic]]; Takeuchi, 1927, p. 378.

Tenthredo flavipectus: Takeuchi, 1919, p. 183 [*flavipecta* [sic]]; Takeuchi, 1951, p. 60; Takeuchi, 1952, p. 24; Okutani, 1954, p. 79; Iwata, 1958, p. 55; Togashi, 1965, p. 248; Togashi, 1970, p. 25; Togashi, 1974, p. 12; Chiba *et al.*, 1985, p. 2; Murota & Kurokawa, 1985, p. 256; Nakamura, 2003, p. 263.

Allantus flavipectus var. *nigripectus*: Takeuchi, 1937, p. 55.

Tenthredo flavipectus nigripectus: Takeuchi, 1952, p. 24; Abe & Togashi, 1989, p. 556.

Tenthredo flavipectus flavipectus: Abe & Togashi, 1989, p. 556; Enoki & Nakamura, 1993, p. 14; Haneda *et al.*, 1998, p. 322; Togashi, 1998 a, p. 259; Nambu, 1998, p. 23; Naito *et al.*, 2004, p. 60; Nagase, 2004, p. 1249.

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

Specimens examined. Hokkaido: 1 ♀ (syntype of *Allantus nigripectus* Matsumura, 1912), “6/29 1897 Maruyama”, “1”, “*Allantus nigripectus* Mats., Type [red label]” (HU); 1 ♀, Iwaobetsu, Shiretoko, 27. VI. 1980, A. Shinohara. Honshu: Iwate Pref.: 1 ♀, Omoe, Miyako, 8. VII. 1967, T. Nakane. Fukushima Pref.: 2 ♀, Tajima, 25. VI. 1954, N. Fukuhara (NIAS); 1 ♀, Yunohana, 6. VI. 1976, H. Itami; 1 ♀, Goshiki, 12. VII. 1960, J. Yoshioka. Tochigi Pref.: 1 ♀ 1 ♂, Nasu, 29. V. 1966, A. Shinohara; 1 ♀, Kensetsudaira, Oku-Nikko, 26. VII. 1981, H. Itami. Gumma Pref.: 8 ♀, Hoshi, 5–9. VIII. 1958, J. Yoshioka; 2 ♀, Hoshi-onsen, 22. VII. 1987, H. Akatsuka; 2 ♂, Mt. Komochiyama, Matsuida, 18. VI. 1987, S. Izumiyama; 2 ♂, Mt. Komochiyama, Matsuida, 17. VI. 1987, T. Matsumoto. Ibaraki Pref.: 1 ♂, Mt. Tsukubasan, 6. VII. 1940, J. Yoshioka. Tokyo Met.: 1 ♀, Mitake, Okutama, 9. VI. 1968, A. Shinohara; 1 ♀, Hikagezawa, Mt. Takao, 20. V. 1990, A. Shinohara; 1 ♀, same data, except S. Ueno; 1 ♂, same data, except M. Tomokuni; 3 ♀, Takao, 3. VI. 1933, K. Sato; 1 ♀, Takao, 9. VI. “46”; 1 ♀, Takaosan, 24. V. 1942, J. Yoshioka. Yamanashi Pref.: 2 ♀ 2 ♂, Mt. Minobu, 12. VI. 1928, K. Sato; 1 ♀, Sakeishi, Enzan, 29. VI. 1987, A. Shinohara; 1 ♀, Hikawa-rindo, 6. VIII. 1983, M. Yamamoto;

1 ♀, Mt. Mitsutoge, 12. VII. 1974, K. Kimura; 2 ♀ 1 ♂, Mt. Mitsutoge, 25–26. VI. 1981, Y. Kurosawa; 2 ♀, Mt. Mitsutoge, 28. VII. 1981, Y. Kurosawa; 1 ♂, Mt. Mitsutoge, 31. VII. 1981, Y. Kurosawa; 1 ♂, Mitsutoge, 28. VII. 1985, M. Yamamoto; 1 ♂, Subaru Land, 1000 m, N. slope of Mt. Fujisan, 25–26. VI. 1981, Y. Kurosawa; 1 ♀, Mt. Fujisan, 3–4. VIII. 1974, K. Kimura; 3 ♀ 2 ♂, Mt. Misakayama, 18. VI. 1988, K. Mizuno; 1 ♀, Yashajin-toge, Ashiyasu, 22. VII. 1970, H. Suda (KU). Nagano Pref.: 1 ♀, Mongakudaira, Tateshina, 21–24. VIII. 1992, A. & T. Shinohara; 3 ♀, Karuizawa, 28. VI. 1934, K. Sato; 1 ♂, Karuizawa, 22. VI. 1956, R. Ishikawa; 1 ♀, Togakushi, 21. VI. 1932, K. Sato. Shizuoka Pref.: 2 ♀, Awakura, Tenshokyo, 800 m, Fujinomiya, 8. VIII. 1989, H. Ishikawa; 1 ♀, same locality, 2. VIII. 1988, H. Ishikawa; 1 ♀, Mt. Fuji, 1100 m, 19. VIII. 1980, T. Niisato. Toyama Pref.: 1 ♂, Mt. Tongariyama, 23. V. 1982, A. Shinohara. Shiga Pref.: 1 ♀, Ibuki, 3. VI. 1917, K. Takeuchi (UOP). Kyoto Pref.: 1 ♂, Ashiu, 28. V. 1978, K. Mizuno. Nara Pref.: 1 ♀, Mt. Obakodake, 28. VII.–1. VIII. 1976, K. Mizuno; 1 ♀, Mt. Obakodake, 6. VI. 1981, K. Mizuno; 1 ♀, Mt. Misen, Ominesan, Yoshino-gun, 10. VII. 1987, K. Mizuno; 1 ♀ 1 ♂, Shirakawamata, Mt. Ominesan, 12. V. 1985, K. Mizuno. Osaka Pref.: 2 ♀ 1 ♂, Mino, 15. V. 1930, C. Teranishi; 1 ♀ 1 ♂, Mt. Mino, 8. VI. 1929, C. Teranishi. Hyogo Pref.: 1 ♀, Fujioka, Sasayama, 31. V. 1966, T. Okutani (KU). Yamaguchi Pref.: 1 ♀, Saba-gun, Namera, 2. VI. 1974, K. Tanaka (YM); 1 ♀, Toyoura-gun, Kazan, 3. V. 1964, K. Tanaka (YM); 1 ♀, Abu-gun, Kawakami-gun, Namera, 2. VI. 1974, K. Tanaka (YM). Shikoku: Tokushima Pref.: 1 ♀, Mt. Tsurugisan, 11. VII. 1937, A. Yoshida. Kyushu: Kumamoto Pref.: 1 ♀ (syntype of *Allantus flavipectus* Matsumura, 1912), “Haki 8/10”, “29”, “*Allantus flavipectus* Matsumura, Type [red label]” (HU). Prefecture unknown: 1 ♀, Mt. Ogiyama, 5. VII. 1931, S. Asahina.

Remarks. *Allantus flavipectus* and *Allantus nigripectus* were both described by Matsumura (1912), the former from Kumamoto, Kyushu, and the latter from Sapporo, Hokkaido. Takeuchi

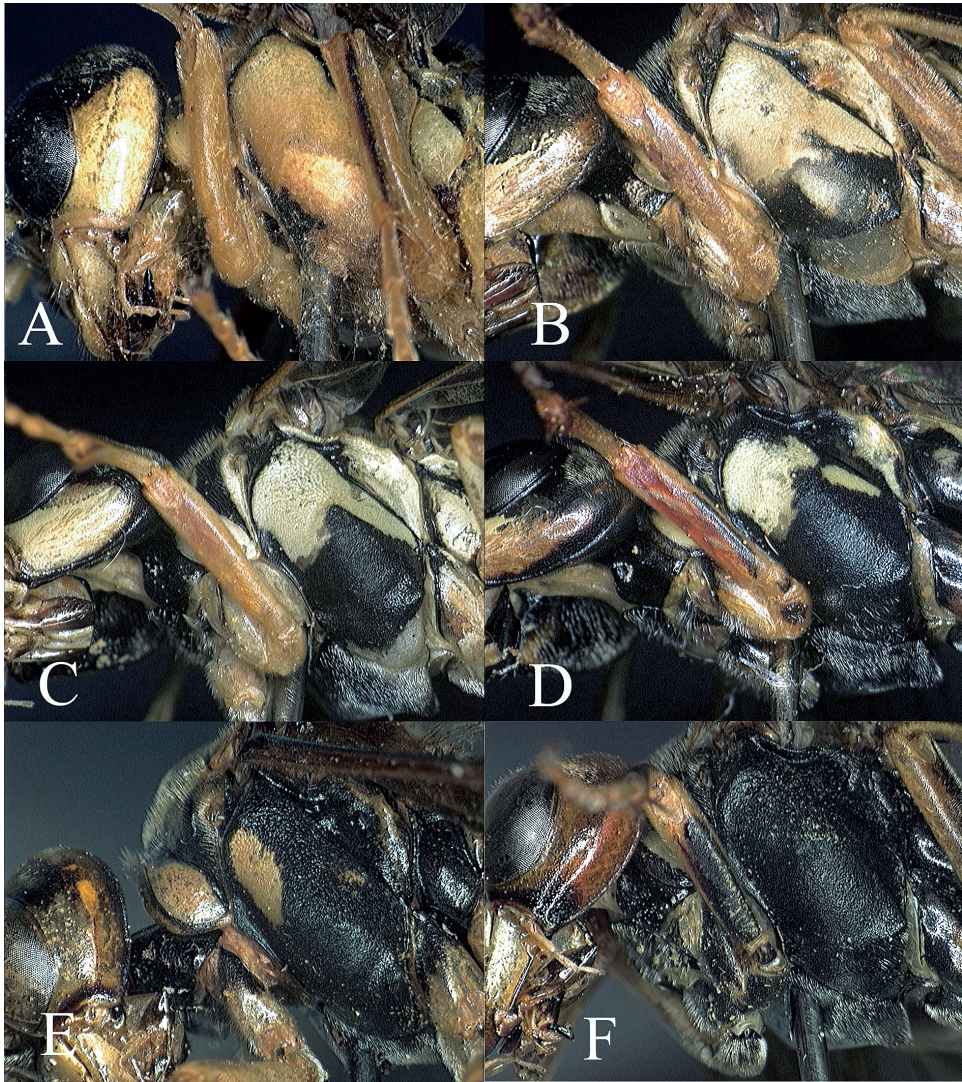


Fig. 1. *Tenthredo flavipectus*, ♀, thorax, ventrolateral view, showing variations in color pattern. — A, Kazan, Yamaguchi Pref.; B, Hikawa-rindo, Yamanashi Pref.; C, Sakeishi, Yamanashi Pref.; D, Mt. Mitsutoge, Yamanashi Pref.; E, Karuizawa, Nagano Pref.; F, Mongakudaira, Nagano Pref.

(1937) noted that *A. nigripectus* was only a color form of *A. flavipectus*, suggesting the infrasub-specific nature of this taxon, and called the former *Tenthredo flavipectus* var. *nigripectus*. Takeuchi (1952) listed *Tenthredo flavipectus* (Matsumura, 1912) and *T. flavipectus nigripectus* (Matsumura, 1912) as valid taxa. Abe and Togashi (1989) treated these two taxa as valid subspecies, *T. flavipectus flavipectus* from Honshu, Shikoku, and Kyushu, and *T. flavipectus ni-*

gripectus from Hokkaido. An examination of a long series of specimens has shown that the alluded differences in coloration of the thorax are not stable and both forms as well as their intermediate forms occur at least in Honshu (Fig. 1). The populations in Hokkaido most probably show a similar pattern of variation because one of the two specimens available is a syntype of *A. nigripectus* and the other is a specimen identifiable with *Tenthredo flavipectus* (one having

mostly pale yellow lateral part of the mesepisternum). Therefore I treat *A. nigripectus* Matsumura, 1912, as a junior synonym of *A. flavipectus* Matsumura, 1912.

***Tenthredo nigripleuris* (Enslin, 1910)**

Allantus brevicornis var. *nigripleuris* Enslin, 1910, p. 355.

Allantus arcuatus var. *nigripleuris*: Enslin, 1926, p. 365; Malaise, 1931, p. 8.

Tenthredo nigripleuris: Taeger, 1985, p. 133; Koch, 1985, p. 68; Taeger, 1988, p. 343; Shinohara *et al.*, 2000, p. 296.

Tenthredo devius: Takeuchi, 1934, p. 20; Takeuchi, 1952, p. 24; Takeuchi, 1956, p. 72; Togashi, 1965, p. 248; Okutani, 1973, p. 20; Abe & Togashi, 1989, p. 556; Togashi, 1998 b, p. 42. [Not Konow, 1900, in part.]

Tenthredo nivalis Lacourt, 1985, p. 76; Taeger, 1988, p. 343 [syn.].

Distribution. Japan (Hokkaido, Honshu); Kamchatka, Mongolia, Ural, Rumania, France.

Specimens examined. Hokkaido: 4 ♀ 2 ♂, Mt. Daisetsu, 19. VII. 1930, K. Takeuchi (UOP); 3 ♀ 1 ♂, Mt. Nagayamadake, 11. VIII. 1967, T. Saigusa (KU); 1 ♀ 1 ♂, Mt. Nagayamadake, 11. VIII. 1967, A. Nakanishi (KU); 1 ♀ 3 ♂, Mt. Kurodake, 12. VII. 1967, H. Shima (KU); 1 ♀ 1 ♂, Mt. Kurodake, 12. VIII. 1967, H. Shima (KU); 1 ♀, Mt. Kurodake, 13. VIII. 1967, T. Saigusa (KU); 1 ♂, Mt. Kurodake, 13. VII. 1967, T. Saigusa (KU); 1 ♀, Mt. Kurodake, 3. VIII. 1984, H. Matsuura; 1 ♀, Mt. Kurodake, 11. VII. 2001, A. Shinohara; 2 ♂, Aizankei, 7. VIII. 1967, T. Saigusa (KU); 1 ♂, Aizankei, 11. VIII. 1967, T. Saigusa (KU); 2 ♀ 2 ♂, Mt. Asahidake, 15. VII. 2001, A. Shinohara; 1 ♀, Niseikaushuppe, Daisetsuzan Mts., 13. VI. 1971, H. Kumamoto (HK); 1 ♀, Daisetsuzan, 6. VIII. 1940, J. Yoshioka; 1 ♀, Mt. Yubaridake, 16. VII. 1967, A. Nakanishi (KU). Honshu: Nagano Pref.: 1 ♀, Mt. Hakuba, 24. VII. 1914, Shibakawa (UOP); 3 ♀ 1 ♂, Mt. Hakuba, 29. VII. 1928, K. Imanishi (UOP); 3 ♀ 2 ♂, Mt. Hakuba, 1. VIII. 1932, K. Takeuchi (UOP); 6 ♀ 1 ♂, Hakuba-Oike, 2400 m, 8. VIII. 1968, K. Baba (KU); 1 ♀, Shou-rence-yama, 2700 m, 8. VIII. 1968, K. Baba (KU); 1 ♀, Yarisawa, 3. VIII. 1934, Y. Nakajima; 1 ♂, Mt. Jonen-

dake, 27. VII. 1935, Y. Nakajima; 2 ♂, Kamikochi, 22. VIII. 1917, K. Takeuchi (UOP); 1 ♀, Kamikochi, 22. VIII. 1918, K. Takeuchi (UOP); 2 ♀ 1 ♂, Utsukushigahara, 17. VIII. 1961, T. Naito (KU). Niigata/Toyama Pref.: 1 ♀, Yukikura-dake, 26. VII. 1961, K. Baba (KU). Toyama Pref.: 2 ♀ 1 ♂, Mt. Tateyama, 23. VII. 1938, K. Takeuchi (UOP); 1 ♀, Mt. Tateyama, 20. VIII. 1962 (KU); 1 ♂, Mt. Tateyama, 21. VIII. 1962 (KU); 1 ♀, Tsurugisawa, Toyama, 31. VII. 1964. France: 1 ♀ (paratype of *T. nivalis*), St. Veran (05), 25. VII. 1974; 1 ♂ (paratype of *T. nivalis*), St. Veran (05), 12. VII. 1975.

Remarks. This species was recorded from Japan under the name of “*Tenthredo devius*” by Takeuchi (1934, 1956), Togashi (1965) and Okutani (1973). I have examined most of Takeuchi’s and Okutani’s material. The Japanese specimens run to *T. nigripleuris* in Taeger’s key and agree with a pair of paratypes of *T. nivalis* Lacourt, 1985, a junior synonym of *T. nigripleuris* (Taeger, 1988). The specimen shown in Fig. 23 in Plate 124 in Togashi (1965) also certainly belongs to this species. I have been unable to confirm the occurrence of *T. devia* (Konow, 1900) in Japan. The specimens from Northern Kuriles (Shumshu and Paramushir Islands) determined as *T. devia* by Takeuchi (1934, 1956) do not belong to *T. nigripleuris*.

Tenthredo nigripleuris is known to occur in the arctic Urals, the Rumanian Carpathians, the French Alps, and Mongolia (Taeger, 1985, 1988), besides Japan. In Japan, this species has been found almost exclusively on the high mountains above the timber line in central Hokkaido and central Honshu.

***Tenthredo colon* Klug, 1817**

Tenthredo colon Klug, 1817, p. 182; Okutani, 1974, p. 196; Shinohara *et al.*, 2000, p. 297.

Tenthredella colon var. *nigriventris*: Takeuchi, 1936, p. 150.

Tenthredella colon nigriventris: Takeuchi, 1952, p. 26; Togashi, 1961, p. 35.

Tenthredella colon: Togashi, 1961, p. 35.

Tenthredo colon nigriventris: Togashi, 1965 a, p. 249; Togashi, 1972, p. 52; Okutani, 1973, p. 21; Togashi,

1978, p. 82; Togashi, 1982, p. 55; Chiba *et al.*, 1985, p. 4; Abe & Togashi, 1989, p. 556; Togashi, 1998 a, p. 259; Togashi, 1998 b, p. 42; Naito *et al.*, 2004, p. 58.

(References relevant only to Japanese fauna are given.)

Distribution. Japan (Hokkaido, Honshu, Sado Is.); Kuriles; Korea; Sakhalin; Siberia; Europe; North America.

Remarks. The Japanese specimens have been usually identified with Enslin's "var. *nigriventris*." However, *nigriventris* is only a color variety found in European and Siberian populations (Enslin, 1912; Malaise, 1931), thus regarded as infrasubspecific under the present Code, and is not applicable to the Japanese populations as a whole. On the other hand, it is possible to interpret that *T. colon nigriventris* with the authorship of Takeuchi (1952) is available, because Takeuchi (1952) first used the trinomen for the Japanese populations of *T. colon*. If the Japanese populations are separable at the subspecific level from the continental populations, the name should be *Tenthredo colon nigriventris* (Takeuchi, 1952). For the moment, however, I would treat the Japanese populations as *T. colon* without recognizing them as a separate subspecies, because the geographical variations of this widely distributed species are still poorly understood.

Tenthredo babai Takeuchi, 1936

Tenthredo babai Takeuchi, 1936, p. 151; Ishii, 1955, p. 11; Takeuchi, 1952, p. 24; Suda, 1972; Abe & Togashi, 1989, p. 556; Nakamura, 2003, p. 263; Naito *et al.*, 2004, p. 58; Nagase, 2004, p. 1249.

Distribution. Japan (Honshu, Sado Is., Kyushu [new record]).

Specimens examined. Honshu: Iwate Pref.: 1 ♂, "Iwate, Ogasawara" (HU). Tochigi Pref.: 1 ♀, "Otawara, 4-V-1949, S. Usuba leg." (KU). Tokyo Met.: 1 ♀, "Mt. Takamizu, Oume City, v-15, 1967, T. & H. Suda" (KU); 1 ♀, "Tamagawa, 29. IV. 1929, K. Kamiya"; 1 ♂, Kamiange, Mt. Jinba, 6. V. 1990, A. Shinohara. Kanagawa Pref.: 1 ♂, "29. IV. 1951, Ogino, Kanagawa, Takeuchi" "*Tenthredo babai* Takeu. det. Takeuchi" (UOP).

Yamanashi Pref.: 1 ♀, Kawaguchi-ko, 22. VI. 2003, A. Shinohara. Kyushu: Fukuoka Pref.: 1 ♀, "Mt. Hikosan, 18. V. 1963, A. Nakanishi" (KU).

Remarks. This species was originally described from Sado Island (Takeuchi, 1936) and later recorded from Kanagawa Prefecture (Ishii, 1955; Nagase, 2004), Tochigi Prefecture (Suda, 1972; Nakamura, 2003), and Hyogo Prefecture (Naito *et al.*, 2004). I have examined specimens from Iwate, Tochigi, Tokyo, Kanagawa, and Yamanashi Prefectures, Honshu, and a female specimen from Mt. Hikosan, Fukuoka Prefecture, Kyushu. This is the first distribution record from Kyushu.

References

- Abe, M. & I. Togashi, 1989. Symphyta. In: Hirashima, Y. (ed. supervisor), A Check List of Japanese Insects. pp. 541–560. (In Japanese.) Entomological Laboratory, Faculty of Agriculture, Kyushu University, Fukuoka.
- Chiba, T., I. Togashi & T. Oku, 1985. [Symphyta of Iwate Prefecture (1).] *Iwate-Mushi-no-Kai Kaiho*, **12**: 1–8. (In Japanese.)
- Enoki, J. & S. Nakamura, 1993. Records of the sawflies from Hiroshima Prefecture. *Hibakagaku (J. Hiba Soc. nat. Hist.)*, **155**: 11–14. (In Japanese.)
- Enslin, E., 1910. Das Tenthrediniden-Genus *Allantus* Jur. *Rev. russe Ent.*, **10**: 335–372.
- Enslin, E., 1912. Die Tenthredinoidea Mitteleuropas. *Dtsch. ent. Z.*, 1912 (Beih.): 1–98.
- Enslin, E., 1920. Die Blattwespengattung *Tenthredo* (*Tenthredella* Rohwer). *Abhandl. zool.-bot. Ges. Wien*, **11**: 1–95.
- Enslin, E., 1926. Die Tenthrediniden (Hymenoptera) der Kamtschatka-Expedition 1908–1909. *Annu. Mus. zool. Acad. Sci. l'URSS*, **27**: 363–381.
- Haneda, Y., T. Tano, H. Okuno, C. Nozaka, T. Murota, H. Kurokawa & S. Inoue, 1998. Hymenoptera. In: Fukui-ken Shizen-kankyo Hozen-chosa Kenkyu-kai Konchu Bukai (ed.), [Catalogue of Insects of Fukui Prefecture, 2nd Ed.], pp. 314–404. Fukui-ken, Kenminseikatsu-bu, Fukui. (In Japanese.)
- Ishii, M., 1955. [Sawflies of Kanto District. First report.] *Insect Mag., Tokyo*, **33**: 10–12. (In Japanese.)
- Iwata, K., 1958. The comparative anatomy of the ovary in Hymenoptera. Part II. Symphyta. *Mushi*, **31**: 47–60, pl. 5.
- Klug, J. C. F., 1817. Die Blattwespen nach ihren Gattungen und Arten zusammengestellt. *Mag. Ges. naturf. Fr. Berlin*, **8** (3): 179–219.

- Koch, F., 1985. Ein Beitrag zur Symphytenfauna (Insecta, Hymenoptera) der Mongolischen Volksrepublik. *Mitteil. zool. Mus. Berlin*, **61**: 63–78.
- Konow, F. W., 1900. Neue Sibirische Tenthrediniden. *Ent. Nachr.*, **26**: 119–126.
- Lacourt, J., 1985. Une nouvelle espèce de *Tenthredo* des Alpes françaises. Groupe *arcuata-schaefferi* (Hymenoptera, Tenthredinidae). *Revue fr. Ent.*, (N. S.), **7**: 76–78.
- Malaise, R., 1931. Entomologische Ergebnisse der schwedischen Kamtschatka-Expedition 1920–1922. 35. Tenthredinidae. *Ark. Zool.*, **23** A (8): 1–68.
- Matsumura, S., 1912. Thousand Insects of Japan, Suppl. IV. 247 pp. + 14 pls. Keiseisha, Tokyo. (In Japanese and English.)
- Matsumura, S., 1930. The Illustrated Thousand Insects of Japan, II (Hymenoptera). 198+89 pp. + 18 pls. Tokoshoin, Tokyo. (In Japanese and English.)
- Matsumura, S., 1931. 6000 Illustrated Insects of Japan-Empire. 1497+189 pp. + 10 pls. Tokoshoin, Tokyo. (In Japanese.)
- Murota, T. & H. Kurokawa, 1985. Symphyta. In: [Catalogue of Insects of Fukui Prefecture], pp. 246–257. Fukui Pref. (In Japanese.)
- Nagase, H., 2004. Hymenoptera (excl. Formicidae). In: Insect Fauna of Kanagawa, pp. 1241–1326. Kanagawa Konchu Danwakai, Odawara, (In Japanese.)
- Naito, T., H. Yoshida, H. Nakamine, T. Morita, T. Ikeda, H. Suzuki & A. Nakanishi, 2004. Species diversity of sawflies in Hyogo Prefecture, central Japan. *Mus. Nat. hum. Act., Hyogo, Mon. nat. Hist. env. Sci.*, (1): [1–2]+[pls. 1–10]+1–85. (In Japanese.)
- Nakamura, K., 2003. [Hymenoptera (excl. Formicidae).] In: Tochigi-ken Shizen-kankyo Chosa Kenkyu-kai Konchu Bukai (ed.), [Insects of Tochigi I, Basic Survey of Natural Environment in Tochigi Prefecture], pp. 249–336. Tochigi-ken, Rimmu-bu, Utsunomiya. (In Japanese.)
- Nambu, T., 1998. [Hymenoptera of Saitama Prefecture.] Saitama-ken Konchu-shi, 3, pp. 9–92. (In Japanese.)
- Okutani, T., 1954. Studies on Symphyta (I). Symphyta of Sasayama with description of a new species. *Sc. Rept. Hyogo Univ. Agric.*, **1** (2): 75–80.
- Okutani, T., 1973. Symphyta of Niigata Pref., with systematic notes on some species. *Essa-konchu-dokokai Kaiho*, (42): 13–27. (In Japanese.)
- Okutani, T., 1974. [Insect fauna of the eastern part of Chugoku Mountain Range.] Higashi Chugoku Sanchi Shizen Kankyo Chosa Hokoku, pp. 177–233. (In Japanese.)
- Shinohara, A., 1994 a. *Tenthredo ornataria* n. sp. (Hymenoptera, Tenthredinidae) from Japan. *Jap. J. Ent.*, **62**: 787–792.
- Shinohara, A., 1994 b. *Tenthredo viridatrix nippon* n. subsp. (Hymenoptera, Tenthredinidae) from Japan and Sakhalin. *Proc. Jap. Soc. syst. Zool.*, (51): 51–58.
- Shinohara, A., 1997. The type material of Japanese *Tenthredo* and *Macrophya* sawflies (Hymenoptera, Tenthredinidae) described by A. Mocsáry and R. Malaise. *Bull. natn. Sci. Mus.*, (A), **23**: 165–175.
- Shinohara, A. & H. Kumamoto, 1997. Two new species of the sawfly genus *Tenthredo* (Hymenoptera, Tenthredinidae) from Japan. *Bull. natn. Sci. Mus.*, (A), **23**: 73–83.
- Shinohara, A., A. Saito & R. B. Kuranishi, 2000. Records of sawflies of the genus *Tenthredo* (Insecta: Hymenoptera: Tenthredinidae) from Kamchatka and the North Kuril Islands. *Nat. Hist. Res., Special Issue*, (7): 295–300.
- Suda, H., 1972. [Collection records of five rare species of Hymenoptera.] *Life Study, Fukui*, **16**: 52. (In Japanese.)
- Taeger, A., 1985. Zur Systematik der Blattwespengattung *Tenthredo* (s. str.) L. (Hymenoptera, Symphyta, Tenthredinidae). *Ent. Abh. Mus. Tierk. Dresden*, **48**: 83–148.
- Taeger, A., 1988. Dritter Beitrag zur Kenntnis der Blattwespengattung *Tenthredo* L. (Hymenoptera, Symphyta, Tenthredinidae). *Beitr. Ent., Berlin*, **38**: 337–359.
- Taeger, A. & S. M. Blank, 1996. Kommentare zur Taxonomie der Symphyta (Hymenoptera). *Beitr. Ent., Berlin*, **46**: 251–275.
- Takeuchi, K., 1919. [A list of the known sawflies from Japan.] *Insect World, Gifu*, **23**: 182–188. (In Japanese.)
- Takeuchi, K., 1927. Some Chalastogastra from Corea. *Trans. nat. Hist. Soc. Formosa*, **17**: 378–387.
- Takeuchi, K., 1934. Sawflies of the Kurile Islands. *Trans. Kansai ent. Soc.*, **5**: 17–24. (In Japanese.)
- Takeuchi, K., 1936. Some sawflies from Sado Island. *Tenthredo, Kyoto*, **1**: 150–164.
- Takeuchi, K., 1937. [Sawflies collected in Shikoku by Mr. I. Okubo.] *Akitu, Kyoto*, **1**: 53–62. (In Japanese.)
- Takeuchi, K., 1951. New and unrecorded sawflies from Shikoku, Japan (I). *Trans. Shikoku ent. Soc.*, **2**: 57–62.
- Takeuchi, K., 1952. A Generic Classification of the Japanese Tenthredinidae. 90 pp. Kyoto.
- Takeuchi, K., 1956. Sawflies of the Kurile Islands (2). *Ins. matsum., Sapporo*, **19**: 71–81.
- Togashi, I., 1961. Sawflies of Mt. Hakusan. *Life Study, Fukui*, **5**: 27–42. (In Japanese with English resumé.)
- Togashi, I., 1965. Tenthredinidae. In: Asahina, S. et al., Iconographia Insectorum Japonicorum Colore Naturali Edita, 3, pp. 245–252, pls. 123–126. Hokuryukan, Tokyo. (In Japanese.)
- Togashi, I., 1970. The comparative morphology of the internal reproductive organs of the Symphyta (Hymenoptera). *Mushi, Fukuoka*, **43** (Suppl.): 1–114.
- Togashi, I., 1972. Sawflies (Hym., Symphyta) from Tohoku district. *New Ent., Ueda*, **21**: 51–52. (In Japanese)

- with English resumé.)
- Togashi, I., 1974. [Sawflies of Mt. Haku (3rd report).] *Habachia*, (1): 12. (In Japanese.)
- Togashi, I., 1978. [Insect fauna of Mekkodani and Maruishidani Valleys of Hakusan.] *In*: Conservation Report of Mekkodani Water-Power Plant Plan in Hakusan National Park. *Rep. Nat. Conserv. Soc., Japan*, (54): 73–95. (In Japanese.)
- Togashi, I., 1982. Sawfly from Niigata Prefecture (1). Sawfly fauna of Nanetsu district. *Essa-konchu-dokodai Kaiho*, (55): 53–56. (In Japanese.)
- Togashi, I., 1998 a. Hymenoptera. *In*: [Insects of Ishikawa Prefecture, pp. 252–304.] Ishikawa Pref. Govt., Kanazawa.
- Togashi, I., 1998 b. Symphyta (Hymenoptera) of Hokkaido, Japan. *Bull. biogeogr. Soc. Japan*, **53** (1): 39–47.