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JAPANESE RECORDS OF ANTHOMYIID FLIES (DIPTERA: ANTHOMYIIDAE)

By MASAOKI SUWA

Abstract

SUWA, M. 1999. Japanese records of anthomyiid flies (Diptera: Anthomyiidae). *Ins. matsum. n. s.* 55: 203–244.

Up to the present 216 species of Anthomyiidae belonging to 29 genera have been recorded from Japan. Of them 42 species (19.4 %) are restricted to Japan in their known distribution. For future discussion on the biogeography, all the known species of the family from Japan are enumerated together with their localities including newly added ones if present. Each species is given the reference which recorded the species for the first time in Japan. New host records or additional information on their biology is given for some species.

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Contents. Introduction — Japanese records of Anthomyiidae — Acknowledgements — References.

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INTRODUCTION

Some anthomyiid species, e.g., *Delia platura*, *Delia antiqua*, *Pegomya cunicularia* and *Strobilomyia laricicola*, are serious pests to agricultural crops or to coniferous trees, and there have been a lot of reports in applied field on these injurious insects in Japan. The first record of Anthomyiidae in Japan goes back to a book on the control of insect pests written by Matsumura (1897), who mentioned *Delia floralis* and *Delia antiqua* under the names *Phorbia brassicae* and *Anthomyia antiqua*, respectively. On the other hand, only several taxonomic works on the family had been published in Japan until three decades ago (e.g., Kato, 1939, 1941, 1950; Hori & Kurahashi, 1969).

In these decades the number of the anthomyiid species recorded from Japan has much increased, and 216 species belonging to 29 genera are now recognized. Of them 42 species (19.4 %) are restricted to Japan in their known distribution. The number will decrease with the progress of faunal investigations in continental Asia. For future discussion on the biogeography of Anthomyiidae, a list of the known species from Japan is given in this paper together with their locality records.

Each species is given the reference in which the species was recorded from Japan for the first time, followed by other references if additional localities are found there. Localities in "Japanese records" are marked with an asterisk (*) when they are newly recorded in the present paper. To compile the known localities I have looked over the literature as far as I am aware. There may, however, be omissions especially of records found in applied works or in local faunistic reports.

In this paper new host records or additional notes on their biology are given for some species: *Botanophila isikariana*, ex *Lathyrus maritimus*, as a rolled leaf feeder; *Botanophila lobata*, ex *Epichloe typhina* on timothy grass, *Phleum pratense*; *Chirosia asperistilata*, ex *Dryopteris monticola* and *Dryopteris crassirhizoma*, as a leaf-miner; *Chirosia betuleti*, ex *Pteridium aquilinum* var. *latiusculum*, as a rolled leaf-tip feeder; *Chirosia frontata*, ex *Pteridium aquilinum* var. *latiusculum*, as a stalk-borer; *Egle longipalpis*, ex *Salix pet-susu*, as a catkin-feeder; *Hylemya nigrimana*, ex dung of a deer, *Cervus nippon yesoensis*; *Lasiomma japonicum*, ex withering flower-head of *Cirsium pendulum*; *Pegomya acklandi*, ex *Sasa kurilensis*, as a young shoot feeder; *Pegomya alticola*, ex *Cacalia hastata* subsp. *orientalis* and *Petasites japonicus* subsp. *giganteus*, as a leaf-miner; *Pegomya auricolor*, ex *Synurus pungens*, as a leaf-miner; *Pegomya dulcamarae*, ex *Solanum nigrum* and *Solanum megacarpum*, as a leaf-miner; *Pegomya falciforcipis*, ex *Cirsium kamschaticum*, as a leaf-miner; *Pegomya quadrivittata*, ex *Polygonum longisetum*, as a leaf-miner; *Pegomya rubivora*, ex *Aruncus dioicus*, as a stem-borer; *Pegomya winthemi*, ex a mushroom, *Leccinum scabrum*.

1. *Acklandia subgrisea* (Ringdahl, 1930)

Phorbia subgrisea: Suwa, 1974: 180.

Japanese records. Honshû: *Niigata-ken (Mikagura-dake, Kamikawa-mura); *Tochigi-ken (Mt. Shakagatake; Mt. Keichô-san); Nagano-ken (Mt. Yatsugatake).

Distribution. Japan; NE China; Kamchatka.

2. *Adia cinerella* (Fallén, 1825)

Paregle cinerella: Shiraki, 1950: 1685; Suwa, 1974: 95; Hara, 1978: 154.

Adia cinerella: Fukushi, 1990: 53.

Japanese records. I have examined specimens collected at the following localities. Hokkaidô (Sapporo; Jôzankei; Toyotomi; Hamatombetsu; Kunneppu; Notoro-ko; Shari; Otofuke; Nakasatsunai). Honshû: Aomori-ken (Hirosaki; Mt. Iwaki; Fukaura-chô; Mt. Hakkôda); Iwate-ken (Mt. Hayachine); Tochigi-ken (Nikkô); Saitama-ken (Okegawa; Kumagaya; Kônan; Honjô; Kamikawa; Karisaka-tôge; Mt. Kumotori; Mt. Mitsumine; Nagatoro); Tôkyô-to (Tôkyô); Shizuoka-ken (Gotemba); Yamanashi-ken (Mt. Daibosatsu); Nagano-ken (Mt. Yatsugatake; Mt. Kimpû; Shiga-kôgen; Mt. Asama); Ishikawa-ken (Kanazawa); Nara-ken (Katsuragi-yama). Kyûshû: Nagasaki-ken (Tsushima); Miyazaki-ken. Nansei Iss. (Amami-Ôshima).

Distribution. Holarctic and Oriental regions.

Remarks. This species is coprophagous, and abundant especially in the vicinities of pasture.

3. *Alliopsis billbergi* (Zetterstedt, 1838)

Paraprosalpia billbergi: Suwa, 1974: 66; Suwa, 1976: 265.

Japanese records. Hokkaidô (Shikotsu-ko; Mt. Soranuma; Mt. Daisetsu; *Ashoro-chô). *Honshû: Yamanashi-ken (Mt. Daibosatsu; Mt. Kita-dake); Nagano-ken (Shiga-kôgen; Mt. Nyûkasa; Mt. Togakushi); Toyama-ken/Niigata-ken (Asahi-dake, Mt. Shirouma).

Distribution. Japan; Korea; China; Europe.

4. *Alliopsis conifrons* (Zetterstedt, 1845)

Alliopsis conifrons: Suwa, 1998: 46.

Japanese records. Honshû: Nagano-ken (Konashi-daira).

Distribution. Japan; NE China; Europe; N. America.

5. *Alliopsis kurahashii* (Suwa, 1977)

Paraprosalpia kurahashii Suwa, 1977: 4; Hara, 1987: 284.

Japanese records. Honshû: Ishikawa-ken (Sunodani, type locality; *Mt. Iozen; *Mt. Hakusan); Miyagi-ken (Futakuchi-onsen); *Gumma-ken (Kazawa); Saitama-ken (Mt. Bukô, Chichibu); *Yamanashi-ken (Masutomi); *Nagano-ken (Shiga-kôgen; Shimashima-dani); *Niigata-ken (Mikagura-dake, Kamikawa-mura). *Kyûshû: Miyazaki-ken (Kuruson-kyô).

Distribution. Japan.

6. *Alliopsis pilatarsis* (Stein, 1900)

Paraprosalpia pilatarsis: Suwa, 1974: 66.

Alliopsis pilatarsis: Fukushi, 1990: 52.

Japanese records. *Hokkaidô (Mt. Soranuma). Honshû: Aomori-ken (Nishimeya-mura); *Tochigi-ken (Mt. Nasu); Nagano-ken (Mt. Senjô; *Shiga-kôgen).

Distribution. Japan; China; Europe; N. America.

7. *Alliopsis silvatica* (Suwa, 1974)

Paraprosalpia silvatica Suwa, 1974: 62; Suwa, 1976: 265; Suwa, 1981: 11; Oku et al., 1989: 245.

Alliopsis silvatica: Fukushi, 1990: 52.

Japanese records. Hokkaidô (Mt. Shokambetsu, type locality; Sapporo; Nopporo; Shikotsu-ko; Mt. Soranuma; Mt. Apoi; Obihiro; Mt. Poroshiri; Shikaribetsu-ko; Nukabira; Akkeshi; Daikoku-jima; Nemuro; Kawayu; Kunneppu; Wakkanai; Rishiri-tô; Bifuka; Moshiri; Toikambetsu; Toyotomi; Horokanai; Mt. Daisetsu; Mt. Yûbari; Mt. Ashibetsu; Niseko; *Mt. Shari-dake; *Rubeshibe; *Shirataki; *Mt. Meakan; *Ashoro; *Uryû-numa; *Tomuraushi-onsen; *Mt. Muka-yama; *Shumarinai-ko; *Mt. Kamihorokamettoku-yama; *Noboribetsu; *Tomakomai; *Jôzankei). South Kuriles (Kunashiri). Honshû: Aomori-ken (Hirosaki; Sôma-mura; Mt. Iwaki; Mt. Hakkôda); Akita-ken (Hachimantai; Mt. Komagatake); Iwate-ken (*Mt. Hayachine; Mt. Waga-dake); *Miyagi-ken (Mt. Zaô; Futakuchi-onsen; Mt. Kurikoma); *Niigata-ken (Mt. Naeba); *Gumma-ken (Tsumakoi); *Tochigi-ken (Nikkô; Nishi-Nasuno; Ôshiozawa-rindô; Kobugahara); *Saitama-ken (Mt. Kumotori; Mt. Mitsumine; Karisaka-tôge); *Tôkyô-to (Takao-san); *Yamanashi-ken (Mt. Daibosatsu; Momokura-yama); *Shizuoka-ken (Mt. Chausu); *Nagano-ken (Mt. Senjô; Mt. Hodaka; Mt. Shirouma; Mt. Togakushi); *Gifu-ken (Shinhodaka-onsen – Wasabi-daira); *Ishikawa-ken (Mt. Hakusan).

Distribution. Japan; NE China.

8. *Alliopsis silvestris* (Fallén, 1824)

Paraprosalpia silvestris: Suwa, 1974: 64; Suwa, 1976: 265; Hara, 1978: 154.

Japanese records. Hokkaidô (Mt. Daisetsu; Sôun-kyô; Mt. Rausu, Shiretoko; Mt. Poroshiri; *Mt. Meakan; *Nukabira; *Mt. Muka-yama). Honshû: Saitama-ken (Karisaka-tôge); Shizuoka-ken (Mt. Chausu); Nagano-ken (Mt. Hodaka; Mt. Chôgatake; Mt. Yatsugatake; Mt. Senjô; Mt. Asama; *Mt. Shiomi); *Ishikawa-ken (Mt. Hakusan); *Toyama-ken (Mt. Tateyama).

Distribution. Japan; NE China; Sakhalin; Kamchatka; Irkutsk; Europe; N. America.

9. *Alliopsis tibialis* (Fan et Wang, 1983)

Paraprosalpia tibialis: Suwa, 1983a: 4.

Japanese records. Hokkaidô (Shirataki-mura, Kitami; *Mt. Soranuma). Honshû: Yamanashi-ken (Masutomi); Nagano-ken (Shimashima-dani).

Distribution. Japan; China.

10. *Anthomyia avisignata* Suwa, 1987

“Anthomyia pluvialis (Linné)”: Suwa, 1974: 48.

Anthomyia avisignata Suwa, 1987: 10; Fukushi, 1990: 52; Mitsui, 1993: 19.

Japanese records. Hokkaidô (Nopporo, type locality; Sapporo; Asahikawa). Honshû: Aomori-ken (Mt. Iwaki; Itayanagi; Hirosaki; Tokiwa-mura); Fukushima-ken (Urabandai); Saitama-ken (Tokorozawa); Nagano-ken (Aoki-ko; Mt. Asama; Ina; *Shiga-kôgen).

Distribution. Japan; Korea; Ussuri.

11. *Anthomyia illocata* Walker, 1856

Anthomyia illocata: Hori, 1951: 24; Kano & Shinonaga, 1964: 6; Kano et al., 1964: 131; Suwa, 1974: 50; Hara, 1978: 154; Shinonaga, 1978: 163; Hara, 1981: 77; Suwa, 1987: 35; Mitsui, 1987: 51; Fukushi, 1990: 52; Mitsui, 1993: 19; Mitsui, 1994: 18.

Japanese records. Honshû; Shikoku; Kyûshû; Hachijô-jima; Ogasawara Iss.; Nansei Iss.

Distribution. Japan; Korea; China; Oriental region.

Remarks. Mitsui (1994) reared the species from fermented fowl droppings and dog feces.

12. *Anthomyia latifasciata* Suwa, 1987

Anthomyia sp. B: Suwa, 1974: 52.

Anthomyia latifasciata Suwa, 1987: 25.

Japanese records. Honshû: Kanagawa-ken (Mt. Tanzawa; Mt. Komagatake); *Nagano-ken (Shiga-kôgen); *Wakayama-ken (Kozagawa); Hiroshima-ken (Mt. Osorakan). Shikoku: Tokushima-ken (Bizan; Mt. Tsurugi); Ehime-ken (Mt. Ishizuchi). Kyûshû: Fukuoka-ken (Inunakiyama; *Karayama; Hikosan); Nagasaki-ken (Unzen); Kumamoto-ken (Mt. Hakuchô [= Shiratori-yama], type locality; Amakusa); Kagoshima-ken (Terayama; Mt. Eboshi). Nansei Iss. (Yakushima; Amami-Ôshima).

Distribution. Japan; Korea.

13. *Anthomyia pectoralis* Suwa, 1987

Anthomyia pectoralis Suwa, 1987: 29.

Japanese records. Honshû: Nagano-ken (Shiga-kôgen, type locality).

Distribution. Japan.

14. *Anthomyia plumiseta* Stein, 1918

Anthomyia sp. A: Suwa, 1974: 51.

Anthomyia plumiseta: Suwa, 1987: 32; Fukushi, 1990: 52; Mitsui, 1993: 19.

Japanese records. Hokkaidô (Sapporo; Nopporo; Shikotsu-ko). Honshû: Aomori-ken (Hirosaki); Akita-ken (Akita); Iwate-ken (Morioka); Toyama-ken (Ôtani); Tôkyô-to (Takao-san; Tôkyô); Saitama-ken (Chichibu; Tokorozawa). Kyûshû: Nagasaki-ken (Tsushima). Nansei Iss. (Amami-Ôshima).

Distribution. Japan; Korea; China; Ussuri; Oriental region.

15. *Anthomyia procellaris* Rondani, 1866

Anthomyia procellaris: Suwa, 1974: 49; Suwa, 1987: 14.

Japanese records. Hokkaidô (Sapporo; Mt. Soranuma; Jôzankei). Honshû: Tôkyô-to (Takao-san).

Distribution. Japan; Korea; China; Ussuri; Europe; N. America.

16. *Botanophila angulosa* (Ringdahl, 1930)

Pegohylemyia angulosa: Suwa, 1974: 104; Suwa, 1976: 265.

Japanese records. Hokkaidô (Mt. Daisetsu; Shikaribetsu-ko; Akkeshi; Daikoku-jima; Mt. Rausu; Mt. Shari-dake; Kunneppu; Jôzankei; *Mt. Yûbari; *Mt. Shokambetsu; *Mt. Muka-yama).

Distribution. Japan; Kuriles; Kamchatka.

17. *Botanophila appendiculata* (Malloch, 1920)

Pegohylemyia appendiculata: Suwa, 1974: 117.

Japanese records. Hokkaidô (Daikoku-jima).

Distribution. Japan; N. America.

18. *Botanophila askoldica* (Schnabl, 1911)

Pegohylemyia askoldica: Suwa, 1974: 134.

Japanese records. Hokkaidô (Sapporo; Jôzankei; Nopporo; Shikotsu-ko).

Distribution. Japan; NE China; Littoral Siberia.

19. *Botanophila betarum* (Lintner, 1883)
Pegohylemyia macra: Suwa, 1974: 119; Suwa, 1981: 12.
Botanophila betarum: Suwa, 1998: 43.
Japanese records. Hokkaidô (Hamatombetsu). South Kuriles (Etorofu). Honshû: Nagano-ken (Mt. Hodaka); Toyama-ken (Yukikura-dake, Mt. Shirouma).
Distribution. Japan; China; Irkutsuk; Eastern Turkestan; Finland; N. America.
20. *Botanophila cordifrons* (Zetterstedt, 1845)
Pegohylemyia subfuscisquama: Suwa, 1974: 100; Suwa, 1983b: 50.
Japanese records. Hokkaidô (Mt. Daisetsu; Mt. Poroshiri). Honshû: Fukushima-ken (Hinoemata).
Distribution. Japan; Europe.
21. *Botanophila cylindrica* Suwa, 1998
Botanophila cylindrica Suwa, 1998: 34.
Japanese records. Honshû: Nagano-ken (Mt. Yatsugatake, type locality); Yamanashi-ken (Mt. Kitadake).
Distribution. Japan.
22. *Botanophila dissecta* (Meigen, 1826)
Botanophila dissecta: Suwa, 1986: 44; Suwa, 1998: 44.
Japanese records. Hokkaidô (Kyôwa-chô, Shiribeshi). Honshû: Yamanashi-ken (Masutomi).
Distribution. Japan; China; Europe.
23. *Botanophila fugax* (Meigen, 1826)
Botanophila fugax: Suwa, 1986: 43; Suwa, 1998: 43.
Japanese records. Hokkaidô (Sapporo; Mt. Shokambetsu). Honshû: Toyama-ken (Yukikura-dake, Mt. Shirouma).
Distribution. Japan; China; Ural; Europe; N. America.
24. *Botanophila gemmata* (Zetterstedt, 1860)
Botanophila gemmata: Suwa, 1974: 95.
Japanese records. Hokkaidô (Jôzankei; Mt. Poroshiri; Shikaribetsu-ko; *Maruseppu; *Shirataki; *Rubeshibe).
Distribution. Japan; Sweden.
25. *Botanophila higuchii* (Suwa, 1974)
Pegohylemyia higuchii Suwa, 1974: 110.
Japanese records. Hokkaidô (Rebun-tô, type locality; Mt. Kariba).
Distribution. Japan.
26. *Botanophila hucketti* (Ringdahl, 1935)
Pegohylemyia hucketti: Suwa, 1974: 118.
Botanophila hucketti: Suwa, 1998: 44.
Japanese records. Honshû: Nagano-ken (Mt. Hodaka); Gifu-ken (Kagamidaira – Yumiori-dake).
Distribution. Japan; China; Europe; N. America.

27. *Botanophila isikariana* (Suwa, 1974)

Pegohylemyia isikariana Suwa, 1974: 125.

Japanese records. Hokkaidô (Ishikari-hama, type locality; *Hamatombetsu; *Shari, ex *Lathyrus maritimus*, as a rolled leaf feeder; *Toyohama, Shimamaki). *Honshû: Ishikawa-ken (Kanazawa).

Distribution. Japan.

28. *Botanophila karibae* (Suwa, 1974)

Pegohylemyia karibae Suwa, 1974: 108.

Japanese records. Hokkaidô (Mt. Kariba, type locality; *Mt. Shokambetsu; *Sapporo; *Mt. Soranuma).

Distribution. Japan.

29. *Botanophila kenji* (Suwa, 1983)

Pegohylemyia kenji Suwa, 1983b: 44.

Japanese records. Honshû: *Tochigi-ken (Mt. Shakagatake); *Gumma-ken (Kazawa); Nagano-ken (Shirakaba-ko; *Shiga-kôgen); Yamanashi-ken (Mt. Daibosatsu). Kyûshû: Kumamoto-ken (Haki, type locality; Mt. Hakuchô).

Distribution. Japan.

30. *Botanophila kitadakeana* Suwa, 1998

Botanophila kitadakeana Suwa, 1998: 38.

Japanese records. Honshû: Yamanashi-ken (Mt. Kita-dake, type locality).

Distribution. Japan.

31. *Botanophila kitayamae* (Suwa, 1974)

Pegohylemyia kitayamae Suwa, 1974: 112.

Japanese records. Honshû: Kyôto-fu (Kitayama).

Distribution. Japan.

32. *Botanophila lobata* (Collin, 1967)

Botanophila lobata: Suwa, 1986: 46; Suwa, 1998: 44.

Japanese records. *Hokkaidô (Kunneppu, ex *Epichloe typhina* on timothy grass, *Phleum pratense*). Honshû: Tochigi-ken (Mt. Shakagatake); Yamanashi-ken (Masutomi).

Distribution. Japan; Korea; NE China; Europe.

33. *Botanophila maculipedella* (Suwa, 1974)

Pegohylemyia maculipedella Suwa, 1974: 138; Suwa, 1976: 265; Suwa, 1983b: 48.

Japanese records. Hokkaidô (Mt. Kariba; Mt. Daisetsu; Mt. Yûbari; *Mt. Soranuma; *Nukabira; *Mt. Muka-yama). Honshû: *Yamanashi-ken (Mt. Kita-dake); Nagano-ken (Mt. Hodaka, type locality; Mt. Yatsugatake; Mt. Kiso-Komagatake; *Mt. Chôgatake); *Toyama-ken (Yukikura-dake, Mt. Shirouma); Ishikawa-ken (Mt. Hakusan).

Distribution. Japan; Korea; NE China.

34. *Botanophila maculipes* (Zetterstedt, 1845)

Pegohylemyia pseudomaculipes: Hennig, 1970: 399; Suwa, 1974: 137; Suwa, 1976: 265.

Botanophila pseudomaculipes: Fukushi, 1990: 53.

Japanese records. Hokkaidô (Mt. Soranuma; Tomakomai; Rishiri-tô; Mt. Shokambetsu; Mt. Daisetsu;

Mt. Kariba; *Rebun-tô). Honshû: Aomori-ken (Mt. Hakkôda; Mt. Iwaki; Towada-ko); Akita-ken (Mt. Chôkai); Iwate-ken (Morioka; Mt. Hayachine); Miyagi-ken (Mt. Kurikoma); Fukushima-ken (Mt. Bandai); *Tochigi-ken (Mt. Nasu); Yamanashi-ken (Mt. Daibosatsu; *Mt. Kita-dake); Nagano-ken (Mt. Yatsugatake; Mt. Senjô; Mt. Kiso-Komagatake; Mt. Hodaka; Mt. Shirouma; *Mt. Togakushi; *Mt. Asama); *Niigata-ken (Renge-onsen – Hakuba-ôike, Mt. Shirouma); *Toyama-ken/Niigata-ken (Asahi-dake, Mt. Shirouma); *Ishikawa-ken (Mt. Hakusan; Iozen). Shikoku: Ehime-ken (Mt. Ishizuchi).

Distribution. Japan; Korea; China; Tibet; Europe; Taiwan.

35. *Botanophila nigrigenis* (Suwa, 1974)

Pegohylemyia nigrigenis Suwa, 1974: 140; Hara, 1978: 154.

Japanese records. *Hokkaidô (Mt. Daisetsu; Mt. Kamihorokamettoku-yama). Honshû: Fukushima-ken (Mt. Bandai, type locality); Saitama-ken (Mt. Mitsumine; Jûmonji-tôge); Yamanashi-ken (Mt. Daibosatsu); Nagano-ken (Mt. Hodaka; Mt. Shirouma; Mt. Kiso-Komagatake); *Ishikawa-ken (Mt. Hakusan).

Distribution. Japan; NE China; Taiwan.

36. *Botanophila nigrodorsata* Suwa, 1986

“Pegohylemyia gnava (Meigen)”: Suwa, 1974: 113.

Botanophila nigrodorsata Suwa, 1986: 36.

Japanese records. Hokkaidô (Mt. Daisetsu, type locality; Sôun-kyô; Mt. Soranuma; Rebun-tô; Yagishiri-tô). Honshû: Yamanashi-ken (Mt. Daibosatsu).

Distribution. Japan.

37. *Botanophila nitiditheca* (Suwa, 1974)

Pegohylemyia nitiditheca Suwa, 1974: 123; Suwa, 1976: 265.

Botanophila nitiditheca: Fukushi, 1990: 53.

Japanese records. Hokkaidô (Mt. Soranuma, type locality; Rishiri-tô; Mt. Yûbari; Mt. Poroshiri; Mt. Daisetsu; *Rebun-tô; *Shumarinai-ko; *Mt. Sengen). Honshû: Aomori-ken (Mt. Hakkôda); *Iwate-ken (Mt. Hayachine); Nagano-ken (Mt. Yatsugatake); *Niigata-ken (Renge-onsen – Hakuba-ôike, Mt. Shirouma); *Toyama-ken/Niigata-ken (Asahi-dake, Mt. Shirouma); *Ishikawa-ken (Mt. Hakusan).

Distribution. Japan.

38. *Botanophila okai* (Suwa, 1974)

Pegohylemyia okai Suwa, 1974: 126; Suwa, 1976: 265.

Botanophila okai: Fukushi, 1990: 53.

Japanese records. Hokkaidô (Akkeshi, type locality; Nemuro; Shikaribetsu-ko; Mt. Daisetsu; Rishiri-tô; Mt. Yûbari; Mt. Ashibetsu; Mt. Apoi; Moshiri; *Tomuraushi-onesen; *Sôun-kyô; *Mt. Muka-yama; *Rubeshibe; *Mt. Poroshiri). Honshû: *Iwate-ken (Mt. Hayachine); Akita-ken/Yamagata-ken (Mt. Chôkai); Yamagata-ken (Mt. Zaô); *Tochigi-ken (Nikkô); *Gumma-ken (Marunuma); Yamanashi-ken (Mt. Daibosatsu); Nagano-ken (Mt. Yatsugatake; Mt. Kiso-Komagatake; Mt. Senjô; Mt. Akashi; Mt. Hodaka; Mt. Shirouma; *Mt. Chôgatake; *Mt. Kimpu; *Mt. Asama); *Ishikawa-ken (Mt. Hakusan).

Distribution. Japan; China.

39. *Botanophila parvicornis* (Malloch, 1920)

Pegohylemyia parvicornis: Suwa, 1974: 121.

Japanese records. Honshû: Nagano-ken (Mt. Yatsugatake).

Distribution. Japan; NE China; N. America.

40. *Botanophila profuga* (Stein, 1916)

Pegohylemyia profuga: Suwa, 1974: 107; Suwa, 1976: 265.

Botanophila profuga: Fukushi, 1990: 53.

Japanese records. Hokkaidô (Mt. Daisetsu; *Mt. Soranuma; *Mt. Shokambetsu; *Mt. Kariba). Honshû: Akita-ken (Hachimantai); Fukushima-ken (Mt. Bandai); Nagano-ken (Mt. Yatsugatake; Mt. Kiso-Komagatake; Mt. Hodaka).

Distribution. Japan; China; Europe; N. America.

41. *Botanophila rectangularis* (Ringdahl, 1952)

Pegohylemyia rectangularis: Suwa, 1974: 105; Suwa, 1976: 265.

Japanese records. Hokkaidô (Mt. Daisetsu; *Mt. Muri-dake; *Mt. Poroshiri).

Distribution. Japan; Sweden.

42. *Botanophila rotundivalva* (Ringdahl, 1937)

Botanophila rotundivalva: Suwa, 1998: 41.

Japanese records. Honshû: Toyama-ken (Yukikura-dake, Mt. Shirouma); Toyama-ken/Niigata-ken (Asahi-dake, Mt. Shirouma).

Distribution. Japan; Scandinavia.

43. *Botanophila rubrifrons* (Ringdahl, 1933)

Botanophila rubrifrons: Suwa, 1986: 46.

Japanese records. Hokkaidô (Mt. Daisetsu).

Distribution. Japan; NE China; Europe.

44. *Botanophila rubrigena* (Schnabl, 1915)

Pegohylemyia rubrigena: Suwa, 1974: 102; Suwa, 1976: 265.

Japanese records. Hokkaidô (Mt. Daisetsu; Rishiri-tô; *Mt. Kamihorokamettoku-yama). Honshû: Nagano-ken (Mt. Kiso-Komagatake; Mt. Hodaka; Mt. Shirouma).

Distribution. Japan; Kamchatka; Siberia; Europe; Greenland.

45. *Botanophila sanctimarci* (Czerny, 1906)

Pegohylemyia sanctimarci: Suwa, 1974: 120.

Japanese records. Hokkaidô (Sapporo).

Distribution. Japan; China; Europe.

46. *Botanophila sansa* (Suwa, 1974)

Pegohylemyia sansa Suwa, 1974: 101.

Japanese records. Honshû: Nagano-ken (Mt. Kiso-Komagatake, type locality).

Distribution. Japan.

47. *Botanophila seneciella* (Meade, 1892)

Pegohylemyia seneciella: Suwa, 1974: 107.

Japanese records. Honshû: Fukushima-ken (Mt. Bandai).

Distribution. Japan; Europe. Introduced to N. America and New Zealand.

48. *Botanophila sericea* (Malloch, 1920)

"*Pegohylemyia obscura* (Zetterstedt)": Suwa, 1983: 48.

Japanese records. Honshû: Ishikawa-ken (Mt. Hakusan); *Gifu-ken (Kagami-daira – Yumiori-dake).

Distribution. Japan; Europe.

49. *Botanophila silva* (Suwa, 1974)

Pegohylemyia silva Suwa, 1974: 129; Hara, 1978: 154.

Japanese records. Honshû: *Fukushima-ken (Hinoemata); Gumma-ken (Tsumakoi; *Oze); Saitama-ken (Mt. Mitsumine; Karisaka-tôge); Nagano-ken (Mt. Yatsugatake, type locality; Mt. Hodaka; Mt. Shirouma; *Mt. Togakushi; *Mt. Asama); Yamanashi-ken (Mt. Hôô; *Yashajin-tôge; *Mt. Daibosatsu); Shizuoka-ken (Mt. Chausu); *Ishikawa-ken (Mt. Hakusan; Kuragadake); *Niigata-ken (Mt. Naeba; Renge-onsen – Tengunoniwa, Mt. Shirouma). Shikoku: Tokushima-ken (Mt. Tsurugi; Mt. Miune); Ehime-ken (Mt. Ishizuchi).

Distribution. Japan; NE China.

50. *Botanophila sonchi* (Hardy, 1872)

Pegohylemyia sonchi: Suwa, 1974: 116.

Botanophila sonchi: Suwa, 1986: 48.

Japanese records. Hokkaidô (Shiretoko).

Distribution. Japan; China; Sakhalin; Europe.

51. *Botanophila spinisternata* (Suwa, 1974)

Pegohylemyia spinisternata Suwa, 1974: 131; Suwa, 1976: 265; Hara, 1978: 154.

Japanese records. Hokkaidô (Mt. Soranuma, type locality; Sapporo; Shikotsu-ko; Rishiri-tô; Toyotomi; Toikambetsu; Bifuka; Moshiri; Horokanai; Mt. Daisetsu; Mt. Yûbari; Mt. Poroshiri; Mt. Rausu; Akkeshi; Kitami-Esashi; Mt. Kariba; Mt. Sengen; *Sôun-kyô; *Tomuraushi-onsen; *Yamada-onsen; *Nukabira; Mt. Muri-dake; *Shirataki; *Mt. Furano; *Mt. Muine; *Mt. Shokambetsu; *Otoineppu; *Matsuyama-shitsugen). Honshû: Yamagata-ken (Mt. Asahi); Fukushima-ken (Mt. Bandai); *Tochigiken (Nikkô); *Gumma-ken (Oze); Saitama-ken (Mt. Ryôkami; Mt. Mitsumine; Karisaka-tôge; Jûmonji-tôge); Yamanashi-ken (Mt. Daibosatsu; *Mt. Kita-dake); Shizuoka-ken (Mt. Chausu); Nagano-ken (Mt. Shirouma; Mt. Kashimayari; Mt. Hodaka; Mt. Chôgatake; Mt. Kiso-Komagatake; Mt. Yatsugatake; Mt. Senjô; *Mt. Shiomi; *Shimashima-dani; *Mt. Asama); *Toyama-ken/Niigata-ken (Asahi-dake, Mt. Shirouma); *Niigata-ken (Mt. Naeba; Renge-onsen – Hakuba-ôike, Mt. Shirouma); *Toyama-ken (Mt. Tateyama); *Ishikawa-ken (Mt. Hakusan; Kuragadake).

Distribution. Japan; Korea; NE China.

52. *Botanophila striolata* (Fallén, 1824)

Pegohylemyia striolata: Suwa, 1974: 99; Suwa, 1976: 265; Suwa, 1981: 12.

Japanese records. Hokkaidô (Nopporo; Mt. Soranuma; Ônuma; *Mt. Daisetsu). South Kuriles (Kunashiri). Honshû: Nagano-ken (Mt. Senjô; Mt. Shirouma; *Mt. Kiso-Komagatake); *Toyama-ken (Yukikura-dake, Mt. Shirouma); *Toyama-ken/Niigata-ken (Asahi-dake, Mt. Shirouma); *Ishikawa-ken (Kanazawa).

Distribution. Japan; Korea; China; Kamchatka; Siberia; Europe; Nepal.

53. *Botanophila tridentifera* Suwa, 1986

"*Pegohylemyia dziedickii* Séguy": Suwa, 1974: 114.

Botanophila tridentifera Suwa, 1986: 39; Fukushi, 1990: 53.

Japanese records. Hokkaidô (Nopporo, type locality; Shikotsu-ko; Mt. Ashibetsu; Mt. Poroshiri; Mt. Daisetsu). Honshû: Aomori-ken (Aomori); Yamagata-ken (Atsumi-onsen); Shizuoka-ken (Shizuoka); Yamanashi-ken (Masutomi); Nagano-ken (Mt. Yatsugatake; Shimo-Suwa; *Shiga-kôgen). Kyûshû: Fukuoka-ken (Wakasugi-yama); Ôita-ken (Chôjabaru).

Distribution. Japan; China.

54. *Botanophila trifida* Suwa, 1986

Botanophila trifida Suwa, 1986: 41; Hara, 1987: 284.

"*Pegohylemyia dziedickii* Séguy": Hara, 1987: 284.

Japanese records. Honshû: Saitama-ken (Yokose [Obokawa, Mt. Bukô], type locality).

Distribution. Japan.

55. *Chiastocheta latispinigera* Fan et al., 1982

"*Chiastocheta trollii* (Zetterstedt)": Suwa, 1974: 19; Suwa, 1976: 265.

Chiastocheta latispinigera: Suwa, 1989: 7.

Chiastocheta I 5: Pellmyr, 1992: 348.

Japanese records. Hokkaidô (Mt. Daisetsu; Mt. Furano; Mt. Shokambetsu).

Distribution. Japan; China; Siberia.

Remarks. According to Pellmyr (1992), the Japanese form of *latispinigera* is different from the continental form in oviposition biology and egg morphology, and should be treated as a separate species. This is a seed feeder of *Trollius riederianus* var. *riederianus* and *T. riederianus* var. *japonicus*.

56. *Chiastocheta pellmyri* Suwa, 1989

Chiastocheta pellmyri Suwa, 1989: 2; Pellmyr, 1992: 346.

Japanese records. Honshû: Nagano-ken (Kirigamine, type locality; Mt. Senjô).

Distribution. Japan.

Remarks. This species is a seed feeder of *Trollius ledebouri* and *T. riederianus* var. *japonicus*.

57. *Chirosia albitarsis* (Zetterstedt, 1845)

Chirosia albitarsis: Suwa, 1983a: 1; Fukushi, 1990: 52.

Japanese records. Honshû: Aomori-ken (Mt. Bonju; Mt. Iwaki); Iwate-ken (Mt. Hayachine); Tochigi-ken (Nikkô; *Nishi-Nasuno; *Mt. Keichô-san); Yamanashi-ken (Masutomi); Nagano-ken (Norikura-kôgen; Utsukushigahara; Mt. Kiso-Ontake); *Ishikawa-ken (Iozen).

Distribution. Japan; Tibet; Uzbekistan; Europe.

58. *Chirosia asperistilata* Suwa, 1974

Chirosia asperistilata Suwa, 1974: 22; Hara, 1981: 77.

Japanese records. Hokkaidô (Eniwa, type locality; Sapporo; Jôzankei; Mt. Soranuma; *Naganuma, ex *Dryopteris monticola* and *Dryopteris crassirhizoma*, as a leaf-miner). Honshû: *Tochigi-ken (Mt. Keichô-san); Saitama-ken (Yorii; *Hidaka, ex *Dryopteris* sp., as a leaf-miner); *Yamanashi-ken (Masutomi); *Nagano-ken (Shimashima-dani); *Kyôto-fu (Kibune, as a leaf-miner of a fern); *Tottori-ken (Mt. Ôginosen). *Kyûshû: Fukuoka-ken (Hikosan).

Distribution. Japan.

59. *Chirosia betuleti* (Ringdahl, 1935)

Chirosia betuleti: Suwa, 1974: 33.

Japanese records. Hokkaidô (Sapporo; Nopporo; Eniwa; Mt. Soranuma; Shikotsu-ko; Mt. Shokambetsu; Mt. Daisetsu; *Kunneppu, ex *Pteridium aquilinum* var. *latiusculum*, as a rolled leaf-tip feeder). Honshû: *Niigata-ken (Mikagura-dake, Kamikawa-mura); *Tochigi-ken (Mt. Keichô-san); *Gifu-ken (Wasabi-daira – Yumiori-dake); Nagano-ken (Mt. Yatsugatake; *Mt. Nyûkasa; *Shiga-kôgen; *Mt. Togakushi); *Yamanashi-ken (Mt. Daibosatsu; Masutomi; Mt. Kita-dake).
Distribution. Japan; Korea; NE China; Europe.

60. *Chirosia bisinuata* (Tiensuu, 1939)

Meliniella bisinuata: Suwa, 1974: 43.

Japanese records. Hokkaidô (Sapporo; *Mt. Soranuma; *Sôun-kyô). *Honshû: Tochigi-ken (Mt. Shakagatake; Mt. Keichô-san); Yamanashi-ken (Mt. Daibosatsu); Nagano-ken (Shiga-kôgen; Mt. Yatsugatake; Mt. Togakushi).

Distribution. Japan; Korea; NE China; Scandinavia.

61. *Chirosia cinerosa* (Zetterstedt, 1845)

Chirosia cinerosa: Suwa, 1974: 25.

Japanese records. Hokkaidô (Sapporo; Nopporo; Mt. Soranuma; Eniwa; Mt. Shokambetsu; *Mt. Yûbari; *Mt. Poroshiri). Honshû: *Yamagata-ken (Atsumi-onsen); *Niigata-ken (Mikagura-dake, Kamikawa-mura; Renge-onsen – Tengenoniwa, Mt. Shirouma); *Tochigi-ken (Kaniyu – Kinu-numa); Tôkyô-to (Takao-san); *Kanagawa-ken (Mt. Tanzawa); *Yamanashi-ken (Masutomi; Mt. Daibosatsu; Hirogawara; Mt. Kita-dake; Yanagawa); Nagano-ken (Mt. Kiso-Komagatake; Mt. Hodaka; *Shimashima-dani; *Mt. Togakushi; *Mt. Yatsugatake; *Yunomaru-keikoku); *Gifu-ken (Shinhodaka-onsen – Kagami-daira); *Ishikawa-ken (Sunodani; Iozen). *Kyûshû: Fukuoka-ken (Hôman-zan; Inunaki-yama; Hikosan); Ôita-ken (Mt. Kujû); Kumamoto-ken (Mt. Hakuchô; Haki; Kikuchi-suigen).

Distribution. Japan; Korea; NE China; Europe.

62. *Chirosia flavipennis* (Fallén, 1823)

Chirosia flavipennis: Suwa, 1974: 24.

Japanese records. Hokkaidô (Shimamatsu; Kunneppu; Obihiro; Kenebetsu; Teuri-tô). Honshû: Niigata-ken (Naeba); Gumma-ken (Tsumakoi).

Distribution. Japan; Sakhalin; Europe; N. America.

63. *Chirosia frontata* Suwa, 1983

Chirosia frontata Suwa, 1983a: 2.

Japanese records. *Hokkaidô (Kunneppu, ex *Pteridium aquilinum* var. *latiusculum*, as a stalk-borer). Honshû: Ishikawa-ken (Kanazawa, type locality). Kyûshû: Fukuoka-ken (Hikosan).

Distribution. Japan; Tibet.

64. *Chirosia griseifrons* (Séguy, 1923)

Meliniella watanabei Suwa, 1974: 45.

Meliniella luteipennis: Suwa, 1977: 3.

Japanese records. Hokkaidô (Sapporo; Jôzankei; Shimamatsu; Mt. Shokambetsu; Rishiri-tô; Mt. Kariba; *Ashoro; *Mt. Soranuma; *Nopporo; *Yukomambetsu). Honshû: *Niigata-ken (Mt. Ninôji); *Tochigi-ken (Mt. Keichô-san); *Yamanashi-ken (Mt. Daibosatsu); Nagano-ken (Mt. Yatsugatake; *Mt. Togakushi).

Distribution. Japan; Korea; ; NE China; Ussuri; Europe.

65. *Chirosia grossicauda* Strobl, 1899

“Chirosia parvicornis (Zetterstedt)”: Suwa, 1974: 20; Fukushi, 1990: 52.

Japanese records. Hokkaidô (Sapporo; Eniwa). Honshû: Aomori-ken (Mt. Iwaki); Fukushima-ken (Shibahara); Tochigi-ken (Nishi-Nasuno; *Mt. Keichô-san); *Nagano-ken (Mt. Yatsugatake; Utsukushigahara).

Distribution. Japan; NE China; Europe.

Remarks. This is a leaf-miner of ferns. *Pteridium aquilinum* var. *latiusculum* has been recorded as a host plant in Japan.

66. *Chirosia hirtipedella* Suwa, 1974

Chirosia hirtipedella Suwa, 1974: 20.

Japanese records. Hokkaidô (Sapporo, type locality).

Distribution. Japan.

67. *Chirosia histicina* (Rondani, 1866)

Chirosia hystrix: Suwa, 1974: 26; Fukushi, 1990: 52.

Japanese records. Honshû: Aomori-ken (Hirosaki; Mt. Iwaki); Saitama-ken (Hannô). *Kyûshû: Ôita-ken (Mt. Kujû).

Distribution. Japan; NE China; Europe; N. America.

68. *Chirosia latipennis* (Zetterstedt, 1838)

Acrostilpna latipennis: Suwa, 1974: 53; Suwa, 1976: 265.

Japanese records. Hokkaidô (Nopporo; Mt. Soranuma; Rishiri-tô; Shikaribetsu-ko; Mt. Daisetsu). Honshû: Niigata-ken (Mt. Naeba); *Gumma-ken (Kazawa); *Yamanashi-ken (Mt. Daibosatsu; Masutomi); Nagano-ken (Mt. Yatsugatake; Mt. Senjô; *Mt. Kiso-Komagatake).

Distribution. Japan; NE China; Europe; N. America.

69. *Chirosia miyazakii* (Suwa, 1974)

Meliniella miyazakii Suwa, 1974: 41; Hara, 1987: 284.

Japanese records. Honshû: Saitama-ken (Mt. Bukô; *Koma); *Yamanashi-ken (Mt. Daibosatsu); Hyôgo-ken (Mt. Seppiko, type locality). *Kyûshû: Fukuoka-ken (Karayama; Hikosan).

Distribution. Japan.

70. *Chirosia nigripes* Bezzi, 1895

Chirosia nigripes: Suwa, 1974: 28; Suwa, 1983a: 4.

Japanese records. Hokkaidô (Toyotomi). Honshû: Iwate-ken (Mt. Hayachine); Nagano-ken (Norikura-kôgen). Kyûshû: Fukuoka-ken (Hikosan).

Distribution. Japan; Italy.

71. *Chirosia nudisternata* Suwa, 1974

Chirosia nudisternata Suwa, 1974: 31; Fukushi, 1990: 52.

Japanese records. Hokkaidô (Mt. Soranuma, type locality; Mt. Shokambetsu; Yukomambetsu; *Sapporo; *Nopporo). Honshû: Aomori-ken (Mt. Iwaki; *Sukayu); Akita-ken (Mt. Chôkai); Nagano-ken (Mt. Yatsugatake; *Yunomaru-keikoku); *Gifu-ken (Wasabi-daira – Kagami-daira); *Toyama-ken/Niigata-ken (Asahi-dake, Mt. Shirouma).

Distribution. Japan.

72. *Chirosia rametoka* (Suwa, 1974)

Shakshainia rametoka Suwa, 1974: 36; Hara, 1987: 284; Fukushi, 1990: 52.

Japanese records. Hokkaidô (Shikotsu-ko, type locality; Sapporo; Jôzankei; Mt. Soranuma; Nopporo; Kita-Hiroshima; Eniwa; Mt. Shokambetsu; *Ashoro; *Shibecha; *Yamabe; *Hamamasu). Honshû: Aomori-ken (Hirosaki; Mt. Bonju; Sôma-mura); *Iwate-ken (Morioka); Saitama-ken (Mt. Bukô); *Yamanashi-ken (Masutomi); *Nagano-ken (Shimashima-dani; Shiga-kôgen; Mt. Yatsugatake); *Ishikawa-ken (Kanazawa; Sunodani; Mt. Sunagozen; Kuragadake; Mt. Hakusan).

Distribution. Japan; NE China.

73. *Chirosia sapporensis* Suwa, 1974

Chirosia sapporensis Suwa, 1974: 29.

Japanese records. Hokkaidô (Sapporo, type locality).

Distribution. Japan.

74. *Chirosia sikisima* (Suwa, 1974)

Meliniella sikisima Suwa, 1974: 38; Hara, 1978: 154; Fukushi, 1990: 52.

Japanese records. Honshû: Aomori-ken (Mt. Hakkôda; Hirosaki; Mt. Iwaki; Mt. Bonju); Akita-ken (Mt. Chôkai; Mt. Komagatake); *Miyagi-ken (Futakuchi-onsen); *Niigata-ken (Mikagura-dake, Kamikawa-mura; Renge-onsen – Tengunoniwa, Mt. Shirouma); *Tochigi-ken (Mt. Shakagatake); *Gumma-ken (Kazawa); Saitama-ken (Yoshida); *Tôkyô-to (Mt. Mitake); *Yamanashi-ken (Masutomi; Mt. Kita-dake); Nagano-ken (Mt. Hodaka, type locality; Mt. Shirouma; Mt. Yatsugatake; Mt. Kiso-Komagatake; *Norikura-kôgen; *Mt. Senjô; *Yunomaru-keikoku); *Gifu-ken (Shinhodaka-onsen – Kagami-daira); *Toyama-ken/Niigata-ken (Asahi-dake, Mt. Shirouma); *Ishikawa-ken (Kanazawa; Mt. Hakusan; Sunodani; Mt. Sunagozen; Okuchi-mura; Senami; Mt. Takakura).

Distribution. Japan.

75. *Chirosia similata* (Tiensuu, 1939)

Chirosia similata: Suwa, 1974: 34.

Japanese records. Hokkaidô (Sapporo; Nopporo; *Mt. Soranuma; *Mt. Shokambetsu). *Honshû: Yamanashi-ken (Mt. Kita-dake); Nagano-ken (Shiga-kôgen; Norikura-kôgen); Tottori-ken (Mt. Ôginosen). *Kyûshû: Kumamoto-ken (Naidaijin – Kunimi-dake).

Distribution. Japan; NE China; Tibet; Europe.

76. *Chirosia yukara* Suwa, 1974

Chirosia yukara Suwa, 1974: 29.

Japanese records. Hokkaidô (Mt. Soranuma, type locality; Mt. Shokambetsu; *Mt. Yûbari). *Honshû: Ishikawa-ken (Sunodani); Nagano-ken (Mt. Yatsugatake); Yamanashi-ken (Mt. Kita-dake).

Distribution. Japan; NE China.

77. *Chirosiomima curtigena* (Ringdahl, 1935)

Lasiomma curtigena: Suwa, 1977: 6; Hara, 1978: 154; Hara, 1987: 284.

Japanese records. Honshû: Saitama-ken (Karisaka-tôge; Chichibu-Ontake; Mt. Ryôkami; Mt. Bukô); *Yamanashi-ken (Masutomi; Mt. Daibosatsu); *Hiroshima-ken (Mt. Osorakan).

Distribution. Japan; China; Finland.

78. *Craspedochoeta angulata* (Tiensuu, 1938)

Craspedochoeta angulata: Suwa, 1974: 46.

Japanese records. Hokkaidô (Sapporo).

Distribution. Japan; Korea; NE China; Finland.

79. *Delia antiqua* (Meigen, 1826)

Anthomyia antiqua: Matsumura, 1897: 249.

Hylemyia antiqua: Kato, 1939: 1529; Kato, 1951: 28.

Delia antiqua: Suwa, 1974: 146; Fukushima, 1990: 54.

Japanese records. Hokkaidô (Sapporo; Nopporo; Jôzankei; Mt. Soranuma; Bifuka; Kitami; Rishiri-tô; Kunneppu; Mt. Ashibetsu). Honshû: Aomori-ken (Aomori; Hirosaki; Itayanagi; Mt. Iwaki; Hachinohe); Iwate-ken (Morioka); Akita-ken; Niigata-ken; Okayama-ken; Hyôgo-ken; Hiroshima-ken; Yamaguchi-ken; Shimane-ken. Kyûshû: Ôita-ken; Kumamoto-ken. *D. antiqua* is a well known pest of onion, and there may be a lot of records of this species from various localities in literature of applied entomology of which I am not aware.

Distribution. Japan; Korea; China; Sakhalin; Siberia; Europe; N. America; S. America (introduced).

80. *Delia auricolor* Suwa, 1974

Delia auricolor Suwa, 1974: 165; Hara, 1978: 154.

Japanese records. Honshû: Yamanashi-ken (Mt. Daibosatsu, type locality; *Masutomi); Tochigi-ken (Oku-Kinu; *Nikkô; *Mt. Nasu); Saitama-ken (Mt. Ryôkami; Ôtaki); Nagano-ken (Mt. Kiso-Komagatake; Mt. Shirouma; Mt. Hodaka; *Nakabusa-onsen; *Mt. Asama); *Ishikawa-ken (Mt. Hakusan).

Distribution. Japan.

81. *Delia bacilligera* Hennig, 1974

Delia bacilligera: Suwa, 1984b: 45.

Japanese records. Hokkaidô (Kenebetsu).

Distribution. Japan; NE China.

82. *Delia bipartita* Suwa, 1977

“*Delia criniventris* (Zetterstedt)”: Suwa, 1974: 152.

Delia bipartita Suwa, 1977: 9.

Japanese records. Hokkaidô (Rishiri-tô, type locality; Sarobetsu).

Distribution. Japan; China.

83. *Delia brunnescens* (Zetterstedt, 1845)

“*Delia nuda* (Strobl)”: Suwa, 1974: 148.

Delia brunnescens: Suwa, 1977: 8; Suwa, 1981: 5; Fukushima, 1990: 54.

Japanese records. Hokkaidô (Rishiri-tô; Toyotomi; Mombetsu; Mt. Kariba; *Rebun-tô; *Hamatombetsu; *Mt. Shokambetsu; *Mt. Poroshiri; *Mt. Muine). South Kuriles (Kunashiri). Honshû: Aomori-ken (Towada-ko; Mt. Iwaki; Mt. Hakkôda; *Sukayu); Akita-ken/Yamagata-ken (Mt. Chôkai); Iwate-ken (Mt. Hayachine; Hachimantai); *Yamagata-ken (Mt. Zaô); Niigata-ken (Yahiko-san; *Sado); *Toyama-ken/Niigata-ken (Asahi-dake, Mt. Shirouma); *Ishikawa-ken (Iozen).

Distribution. Japan; Europe.

84. *Delia dovreensis* Ringdahl, 1953

Delia dovreensis: Suwa, 1998: 44.

Japanese records. Honshû: Yamanashi-ken (Mt. Kita-dake).

Distribution. Japan; Mongolia; Norway; N. America.

85. *Delia echinata* (Séguy, 1923)

Phorbia (Delia) echinata: Sasakawa, 1955: 64.

Delia echinata: Suwa, 1974: 144; Suwa, 1976: 265; Hara, 1978: 154; Hara, 1981: 77; Suwa, 1981: 9; Hara, 1987: 284; Mitsui, 1987: 51; Kumazawa, 1988: 59; Fukushi, 1990: 54.

Japanese records. Common species, collected at various localities of the following prefectures. Hokkaidô. South Kuriles (Etorofu). Honshû: Aomori-ken; Akita-ken; Iwate-ken; Yamagata-ken; Fukushima-ken; Niigata-ken; Tochigi-ken; Saitama-ken; Tôkyô-to; Kanagawa-ken; Yamanashi-ken; Nagano-ken; Gifu-ken; Toyama-ken; Ishikawa-ken; Ôsaka-fu; Nara-ken; Hyôgo-ken. Shikoku: Kagawa-ken; Tokushima-ken. Kyûshû: Fukuoka-ken; Ôita-ken.

Distribution. Holarctic and Oriental regions.

Remarks. I have examined some Japanese specimens reared from *Spinacia oleracea*, *Stellaria media*, *Dianthus caryophyllus* and *Gypsophila elegans* as a leaf-, stem- or shoot-feeder.

86. *Delia echinopyga* Suwa, 1974

Delia echinopyga Suwa, 1974: 154.

Japanese records. Hokkaidô (Sapporo, type locality; *Mt. Soranuma).

Distribution. Japan.

87. *Delia fabricii* (Holmgren, 1872)

Delia fabricii: Suwa, 1977: 10; Suwa, 1998: 46.

Japanese records. Honshû: Nagano-ken (Mt. Kiso-Komagatake; Mt. Shirouma); *Toyama-ken (Mt. Tateyama).

Distribution. Japan; Kamchatka; Novaya Zemlya; Europe; N. America.

88. *Delia floralis* (Fallén, 1824)

"*Phorbia brassicae* (Bouché)": Matsumura, 1897: 249.

Anthomyia flavopicta Matsumura, 1915: 55, *partim*.

Hylemyia floralis: Kato, 1939: 1368; Kuwayama, 1967: 127.

Delia floralis: Suwa, 1974: 146; Suwa, 1981: 9.

Hylemia floralis: Ishitani, 1979: 27.

Japanese records. Hokkaidô (Sapporo; Tomakomai; Shibetsu, Nemuro; Sarobetsu). South Kuriles (Kunashiri; Etorofu). Honshû: Aomori-ken (Shimokita-hantô; Tsugaru-hantô). This species is a serious pest known as the turnip root fly, and may have been recorded from various localities unknown to me in Hokkaidô by applied entomologists.

Distribution. Japan; Sakhalin; Kamchatka; Korea; China; Siberia; Europe; N. America.

89. *Delia interflua* (Pandellé, 1900)

Delia karasawana Suwa, 1974: 150.

Delia interflua: Suwa, 1977: 8.

Japanese records. Honshû: *Yamanashi-ken (Mt. Kita-dake); Nagano-ken (Mt. Hodaka; *Mt. Yatsugatake; *Mt. Senjô; *Yunomaru-keikoku); *Toyama-ken/Niigata-ken (Asahi-dake, Mt. Shirouma); *Ishikawa-ken (Mt. Hakusan).

Distribution. Japan; China; Europe.

90. *Delia linearis* (Stein, 1898)

Delia tristriata: Suwa, 1974: 157.

Delia flabellifera: Suwa, 1977: 10; Suwa, 1981: 9.

Japanese records. Hokkaidô (Sapporo; Eniwa; Mt. Apoi; Kushiro; Shari; Toyotomi; *Hamatombetsu; *Kunneppu; *Shibecha; *Ashoro; *Tomakomai; *Yûfutsu; *Teuri-tô). South Kuriles (Etorofu).

Distribution. Japan; Sakhalin; China; Europe; N. America.

91. *Delia lineariventris* (Zetterstedt, 1845)

Delia lineariventris: Suwa, 1974: 150.

Japanese records. Honshû: *Yamanashi-ken (Mt. Kita-dake); Nagano-ken (Mt. Senjô); *Gifu-ken (Kagami-daira – Yumiori-dake).

Distribution. Japan; NE China; Kamchatka; Europe; N. America.

92. *Delia longithecæ* Suwa, 1974

Delia longithecæ Suwa, 1974: 160; Suwa, 1976: 265; Hara, 1978: 154; Suwa, 1981: 10; Hara, 1987: 284; Fukushi, 1990: 54.

Japanese records. Hokkaidô (Mt. Soranuma, type locality; Sapporo; Jôzankei; Shikotsu-ko; Rebun-tô; Rishiri-tô; Toyotomi; Toikambetsu; Horokanai; Kumaneshiri; Mt. Daisetsu; Mt. Yûbari; Shikaribetsu-ko; Kushiro; Akkeshi; Nemuro; Mt. Rausu; Abashiri; Mt. Kariba; Mt. Sengen; *Mt. Ashibetsu; *Mt. Meakan; *Yukomambetsu; *Shumarinai-ko; *Mt. Shokambetsu; *Nukabira; *Shirataki; *Noboribetsu). South Kuriles (Kunashiri). Honshû: Aomori-ken (Mt. Hakkôda; Hirotsaki; Ôwani; Kuroishi; Mt. Bonju; Mt. Iwaki; *Sukayu); Aomori-ken/Akita-ken (Towada-ko); Iwate-ken (Mt. Hayachine); Akita-ken/Iwate-ken (Hachimantai); Akita-ken/Yamagata-ken (Mt. Chôkai); Yamagata-ken (Mt. Asahi; Mt. Zaô); Fukushima-ken (Mt. Bandai; *Mt. Iide); Gumma-ken (Tairampyô; *Kazawa); Tochigi-ken (Nikkô; *Kobugahara; *Mt. Shakagatake; *Mt. Keichô-san); Saitama-ken (Kamikawa; Mt. Mitsumine; Mt. Kumotori; Karisaka-tôge; Jûmonji-tôge; Mt. Bukô); Tôkyô-to (Mt. Mitake; Mt. Kawanori; *Nippara); Yamanashi-ken (Masutomi; Mt. Daibosatsu); Nagano-ken (Mt. Yatsugatake; Mt. Kiso-Komagatake; Mt. Senjô; Mt. Hodaka; Mt. Chôgatake; *Mt. Togakushi; *Mt. Shiomi; *Yunomaru-keikoku; *Shimo-Suwa; *Mt. Asama); Niigata-ken (Sado; Mt. Sumon; Mt. Naeba); *Toyama-ken/Niigata-ken (Asahi-dake, Mt. Shioura); *Ishikawa-ken (Mt. Hakusan; Kuragadake). Shikoku: Tokushima-ken (Mt. Miune; *Mt. Tsurugi); Ehime-ken (Mt. Ishizuchi; *Omogo-kei). Kyûshû: *Ôita-ken (Mt. Kujû; Mt. Sobo; Chôjabaru); *Kumamoto-ken (Mt. Hakuchô; Momiki, Gokanoshô); *Miyazaki-ken (Shiiba); Kagoshima-ken (Mt. Kirishima).

Distribution. Japan; Korea; China; Taiwan.

93. *Delia pectinator* Suwa, 1984

Delia pectinator Suwa, 1984b: 41.

Japanese records. Honshû: Gumma-ken (Mt. Shibutsu, Oze, type locality).

Distribution. Japan; China; N. America.

94. *Delia pilicerca* Suwa, 1974

Delia pilicerca Suwa, 1974: 158.

Japanese records. Honshû: Yamanashi-ken (Mt. Daibosatsu, type locality); *Nagano-ken (Shiga-kôgen).

Distribution. Japan.

95. *Delia planipalpis* (Stein, 1898)

"*Chortophila gnava* (Meigen)": Kuwayama, 1938: 138.

Hylemyia pilipyga: Kato, 1939: 1371; Kuwayama, 1967: 127.

Delia pilipyga: Suwa, 1974: 147.

Delia planipalpis: Suwa, 1977: 8; Suwa, 1981: 10.

Japanese records. Hokkaidô (Kenebetsu; Nakashibetsu; Memuro; Toyotomi; Abashiri). South Kuriles (Shikotan; Kunashiri; Etorofu). This species is injurious to cruciferous crops like radish and turnip, and there may be other records unknown to me.

Distribution. Japan; China; Europe; N. America.

96. *Delia platura* (Meigen, 1826)

"*Anthomyia flavopicta* Matsumura": Matsumura, 1915: 55, *partim*.

Hylemyia cilicrura: Harukawa & Kondo, 1930: 449.

Hylemyia platura: Kato, 1939: 1532.

Delia platura: Suwa, 1974: 144; Suwa, 1976: 265; Hara, 1978: 154; Mitsui, 1987: 51; Fukushi, 1990: 53; Mitsui, 1993: 19.

Japanese records. Hokkaidô; South Kuriles; Honshû; Shikoku; Kyûshû; Nansei Iss. This is the most abundant anthomyiid species, and is found from seashores to high mountains in Japan.

Distribution. Cosmopolitan.

97. *Delia seticauda* Suwa, 1984

Delia seticauda Suwa, 1984b: 43.

Japanese records. Honshû: Ishikawa-ken (Komatsu). Kyûshû: Fukuoka-ken (Hikosan); Ôita-ken (Chôjajbaru); Miyazaki-ken (Takachiho-kyô). Nansei Iss. (Yakushima, type locality).

Distribution. Japan.

98. *Delia takizawai* Suwa, 1974

Delia takizawai Suwa, 1974: 155; Hara, 1978: 154; Hara, 1981: 77; Suwa, 1981: 10; Hara, 1987: 284.

Delia robustiseta: Fukushi, 1990: 54.

Japanese records. Hokkaidô (Sapporo, type locality; Jôzankei; Mt. Soranuma; Nopporo; Shikotsuko; Eniwa; Yamabe; Mt. Shokambetsu; *Mashike; *Hamamasu; *Kita-Hiroshima; *Sôun-kyô). South Kuriles (Kunashiri). Honshû: Aomori-ken (Tsukimino; Hirosaki; Mt. Iwaki); *Iwate-ken (Morioka); *Tochigi-ken (Nikkô; Ôshiozawa-rindô; Mt. Keichô-san); Saitama-ken (Kamikawa; Nagatoro; Chichibu; Mt. Bukô; Yoshida; Ogano; Yorii); Tôkyô-to (Takao-san; Mt. Mitake; *Nippara); Kanagawa-ken (Mt. Tanzawa); *Shizuoka-ken (Arari, Kamo-mura); *Yamanashi-ken (Masutomi; Mt. Daibosatsu); *Nagano-ken (Mt. Nyûkasa; Shiga-kôgen; Norikura-kôgen; Shimashima-dani; Shimo-Suwa; Mt. Yatsugatake); *Ishikawa-ken (Kanazawa; Kuragadake; Mt. Hakusan); *Nara-ken (Ômine-san); *Wakayama-ken (Kozagawa). Kyûshû: Fukuoka-ken (Fukuoka; *Inunaki-yama; *Hikosan; *Wakasugi-yama); *Ôita-ken (Mt. Kujû); *Kumamoto-ken (Haki; Mt. Hakuchô; Kikuchi-suigen); *Miyazaki-ken (Mukabaki; Takachiho); *Kagoshima-ken (Shigetomi).

Distribution. Japan; Korea; NE China; Siberia; Taiwan.

99. *Delia tenuiformis* Suwa, 1977

Delia tenuis Suwa, 1974: 163, preoccupied.

Delia tenuiformis Suwa, 1977: 10, new name for *tenuis* Suwa, 1974.

Japanese records. Hokkaidô (Kitami-Esashi, type locality; Sarobetsu; Moshiri; Obihiro).

Distribution. Japan; Sakhalin.

100. *Delia tenuiventris* (Zetterstedt, 1860)

Delia conversata: Suwa, 1974: 162; Suwa, 1976: 265; Hara, 1978: 154.

Delia angustitarsis: Suwa, 1984: 47.

Delia tenuiventris: Fukushi, 1990: 55.

Japanese records. Hokkaidô (Mt. Soranuma; Rishiri-tô; Toyotomi; Toikambetsu; Mt. Daisetsu; Kunneppu; Mt. Rausu; Kawayu; Daikoku-jima; Kushiro; Obihiro; Mt. Apoi; Mt. Niseko; *Sôunkyô; *Mt. Muine; *Mt. Poroshiri; *Mt. Shokambetsu). Honshû: Akita-ken/Yamagata-ken (Mt. Chôkai); Saitama-ken (Mt. Ryôkami); Yamanashi-ken (Mt. Hôdô); Nagano-ken (Mt. Kiso-Komagatake; Mt. Kashimayari; Mt. Hodaka; Mt. Shirouma; *Mt. Akashi; *Mt. Shiomi); *Ishikawa-ken (Mt. Hakusan; Kuragadake).

Distribution. Japan; Korea; China; Sakhalin; Kamchatka; Siberia; Europe; N. America.

101. *Egle ciliata* (Walker, 1849)

"Egle muscaria (Fabricius)": Suwa, 1974: 88.

Egle ciliata: Fukushi, 1990: 53.

Japanese records. Hokkaidô (Sapporo; Jôzankei; Nopporo; Shikotsu-ko). Honshû: Aomori-ken (Aomori; Mt. Bonju; Mt. Iwaki). *Kyûshû: Fukuoka-ken (Hikosan).

Distribution. Japan; Korea; NE China; Kamchatka; Europe; N. America.

102. *Egle korpokkur* Suwa, 1974

Egle korpokkur Suwa, 1974: 91.

Japanese records. Hokkaidô (Nopporo, type locality; Sapporo).

Distribution. Japan; Korea; NE China.

103. *Egle longipalpis* (Malloch, 1924)

Egle longipalpis: Suwa, 1974: 89; Kumazawa, 1988: 59; Fukushi, 1990: 53.

Japanese records. Hokkaidô (Sapporo; Nopporo; *Kunneppu, ex *Salix pet-susu*, as a catkin-feeder). Honshû: Aomori-ken (Hirosaki; Mt. Bonju); Tochigi-ken (Utsunomiya).

Distribution. Japan; Korea; NE China; N. America.

104. *Egle minuta* (Meigen, 1826)

Egle minuta: Suwa, 1974: 90.

Japanese records. Honshû: Nagano-ken (Saku).

Distribution. Japan; NE China; Burma; Europe; ? N. America.

105. *Egle parva* (Robineau-Desvoidy, 1830)

Egle parva: Suwa, 1974: 91.

Japanese records. Hokkaidô (Jôzankei).

Distribution. Japan; Korea; China; Kamchatka; Europe.

106. *Emmesomyia dorsalis* (Stein, 1915)

Emmesomyia dorsalis: Suwa, 1991b: 14.

Japanese records. Honshû: Tochigi-ken (Kobugahara). Kyûshû: Kagoshima-ken (Kirishima-jingû). Nansei Iss. (Yakushima).

Distribution. Japan; Taiwan.

107. *Emmesomyia flavitarsis* Suwa, 1974

Emmesomyia flavitarsis Suwa, 1974: 184; Hara, 1987: 284; Suwa, 1991b: 17.

Japanese records. Hokkaidô (Sapporo; Zenibako-tôge). Honshû: Aomori-ken (Hirosaki); Iwate-ken (Shizukuishi); Saitama-ken (Mt. Bukô; Chichibu-Ontake); Tôkyô-to (Mt. Kariyose, type locality; Mt. Mitake). Kyûshû: Kumamoto-ken (Haki).

Distribution. Japan; China.

108. *Emmesomyia grisea* (Robineau-Desvoidy, 1830)

“Emmesomyia socia (Fallén)*”*: Suwa, 1974: 186.

Emmesomyia sp.: Oku et al., 1989: 245; Fukushi, 1990: 55.

Emmesomyia grisea: Suwa, 1991b: 5.

Japanese records. Hokkaidô (Mt. Apoi; Nukabira; Shikaribetsu-ko; Tomuraushi-onsen; Mt. Tomuraushi; Mt. Meakan; Mt. Shari-dake). Honshû: Aomori-ken (Mt. Bonju; Ôwani; Mt. Hakkôda); Iwate-ken (Mt. Waga-dake); Akita-ken (Tashiro-dake); Fukushima-ken (Mt. Iide; Oze); Tochigi-ken (Shiobara); Yamanashi-ken (Momokura-yama; Mt. Daibosatsu); Nagano-ken (Mt. Yatsugatake); Niigata-ken (Renge-onsen – Hakuba-ôike). Shikoku: Tokushima-ken (Mt. Tsurugi). Kyûshû: Fukuoka-ken (Hikosan); Kumamoto-ken (Mt. Hakuchô); Ôita-ken (Mt. Sobo); Miyazaki-ken (Mt. Takachiho); Kagoshima-ken (Mt. Kurino; Mt. Eboshi; Mt. Takakuma).

Distribution. Japan; Korea; China; Europe; India.

109. *Emmesomyia hasegawai* Suwa, 1979

Emmesomyia hasegawai Suwa, 1979: 1; Suwa, 1991b: 12.

Japanese records. Hokkaidô (Otofuke, near Obihiro, type locality). Honshû: Iwate-ken (Shizukuishi).

Distribution. Japan; Korea; China.

Remarks. This species has been reared from cow-dung.

110. *Emmesomyia kurahashii* Suwa, 1991

“Emmesomyia villica (Meigen)*”*: Hara, 1978: 155; Hara, 1987: 284.

Emmesomyia kurahashii Suwa, 1991b: 22.

Japanese records. Honshû: Ishikawa-ken (Kanazawa, type locality); Saitama-ken (Mt. Bukô, Chichibu); Tôkyô-to (Takao-san). Kyûshû: Fukuoka-ken (Hikosan); Kumamoto-ken (Mt. Hakuchô); Miyazaki-ken (Kuruson-kyô).

Distribution. Japan.

111. *Emmesomyia megastigmata* Ma, Mou et Fan, 1982

Emmesomyia megastigmata: Suwa, 1991b: 27.

Japanese records. Tôkyô-to (Takao-san); Saitama-ken (Yorii); Hiroshima-ken (Mt. Osorakan). Kyûshû: Fukuoka-ken (Hikosan); Kumamoto-ken (Mt. Hakuchô).

Distribution. Japan; China.

112. *Emmesomyia oriens* Suwa, 1974

Emmesomyia oriens Suwa, 1974: 187, *partim*; Hara, 1978: 155; Oku et al., 1989: 245; Suwa, 1991b: 8.

Japanese records. Hokkaidô (Mt. Tomuraushi). Honshû: Iwate-ken (Mt. Waga-dake); Miyagi-ken (Mt. Zaô); Saitama-ken (Mt. Kumotori); Ishikawa-ken (Mt. Kuragadake); Niigata-ken (Tengunoniwa – Hakuba-ôike, Mt. Shirouma); Nagano-ken (Mt. Kiso-Komagatake, type locality).

Distribution. Japan.

113. *Emmesomyia similata* Suwa, 1991

"*Emmesomyia oriens* Suwa": Suwa, 1974: 187, *partim*.

Emmesomyia similata Suwa, 1991b: 10.

Japanese records. Hokkaidô (Otofuke). Honshû: Iwate-ken (Morioka); Tôkyô-to (Mt. Kariyose). Kyûshû: Fukuoka-ken (Hikosan); Nagasaki-ken (Mt. Iwaya); Miyazaki-ken (Miike); Kagoshima-ken (Terayama; Ôkuchi; Tarumizu; Mt. Kirishima). Nansei Iss. (Yakushima, type locality; Amami-Ôshima).

Distribution. Japan; Korea.

Remarks. This species has been reared from cow-dung.

114. *Emmesomyia suwai* Ge et Fan, 1988

"*Emmesomyia villica* (Meigen)": Suwa, 1974: 184.

Emmesomyia suwai: Suwa, 1991b: 20.

Japanese records. Hokkaidô (Sapporo; Jôzankei; Nopporo; Eniwa; Bifuka; Sarobetsu; Tomakomai; Gamushi; Mt. Apoi; Obihiro; Otofuke; Nukabira; Mt. Obihiro; Tomuraushi-onsen; Kenebetsu; Kushiro; Shirataki). Honshû: Aomori-ken (Mt. Iwaki); Iwate-ken (Shizukuishi; Kuji); Tochigi-ken (Nikkô; Shiobara); Nagano-ken (Shiga-kôgen; Norikura-kôgen). Kyûshû: Ôita-ken (Mt. Sobo); Kumamoto-ken (Mt. Hakuchô).

Distribution. Japan; China; India.

Remarks. This species has been reared from cow-dung.

115. *Eustalomyia festiva* (Zetterstedt, 1845)

Eustalomyia festiva: Suwa, 1974: 71.

Japanese records. Hokkaidô (Jôzankei; Otoineppu; Sôun-kyô; Horoka; *Aizan-kei; *Nopporo). *Honshû: Gumma-ken (Oze); Yamanashi-ken (Mt. Daibosatsu).

Distribution. Japan; China; Europe; N. America.

116. *Eustalomyia hilaris* (Fallén, 1823)

Eustalomyia hilaris: Suwa, 1974: 69; Hara, 1978: 154.

Japanese records. Honshû: *Niigata-ken (Mt. Naeba); *Ishikawa-ken (Mt. Hakusan; Mt. Kuragadake); *Gumma-ken (Oze); Tochigi-ken (Oku-Kinu); Saitama-ken (Jûmonji-tôge); Nagano-ken (Mt. Shiomi; *Shiga-kôgen); Shizuoka-ken (Mt. Chausu).

Distribution. Japan; China; Europe.

117. *Eustalomyia histrio* (Zetterstedt, 1838)

Eustalomyia histrio: Suwa, 1974: 73.

Japanese records. Hokkaidô (Sapporo; Mt. Soranuma; Mt. Apoi; *Mt. Yûbari).

Distribution. Japan; Korea; Kamchatka; Europe; N. America.

118. *Eustalomyia vittipes* (Zetterstedt, 1845)

Eustalomyia vittipes: Suwa, 1974: 69; Kurahashi, 1975: 19; Hara, 1981: 77; Fukushi, 1990: 52.

Japanese records. Hokkaidô (Nopporo; Mt. Soranuma; Mt. Apoi; Tokachi-Iwanai). Honshû: Aomori-ken (Mt. Bonju); Yamagata-ken (Mt. Zaô); *Fukushima-ken (Hinoemata); *Gumma-ken (Oze); *Tochigi-ken (Kobugahara); Saitama-ken (Yorii; *Hatoyama); Tôkyô-to (Nippara; Mt. Mitô; Mt. Mitake); Yamanashi-ken (Yashajin-tôge; *Momokura-yama; *Masutomi); *Ishikawa-ken (Mt. Hakusan); Kyôto-fu (Kitashirakawa). *Kyûshû: Fukuoka-ken (Hikosan); Kumamoto-ken (Mt. Hakuchô).

Distribution. Japan; China; Europe; N. America.

Remarks. Kurahashi (1975) recorded the present species as reared from a nest of a crabronid wasp, *Rhopalum nipponicum* Kohl.

119. *Eutrichota frigida* (Zetterstedt, 1845)

Eutrichota frigida: Suwa, 1974: 235; Suwa, 1976: 266.

Japanese records. Hokkaidô (Sapporo; Mt. Muine; Rishiri-tô; Mt. Daisetsu; *Mt. Soranuma).

Distribution. Japan; Kamchatka; Europe; N. America.

120. *Eutrichota inornata* (Loew, 1873)

Eutrichota inornata: Suwa, 1974: 232.

Japanese records. Hokkaidô (Sapporo; Ishikari-hama; Kita-Hiroshima; Obihiro).

Distribution. Japan; China; Europe.

121. *Eutrichota labradorensis* (Malloch, 1920)

Eutrichota labradorensis: Suwa, 1974: 240; Suwa, 1976: 266.

Japanese records. Hokkaidô (Mt. Daisetsu; *Mt. Kamihorokamettoku-yama; *Mt. Furano).

Distribution. Japan; NE China; Sweden; N. America.

122. *Eutrichota longimana* (Pokorny, 1887)

Eutrichota longimana: Suwa, 1974: 234; Suwa, 1976: 266.

Japanese records. Hokkaidô (Sapporo; Mt. Soranuma; Nopporo; Kita-Hiroshima; Eniwa; Mt. Shokambetsu; Mt. Daisetsu; Akkeshi; Nemuro; Kawayu; *Hamamasu; *Tomakomai; *Takinoue; *Shirataki; *Sôun-kyô).

Distribution. Japan; Europe; N. America.

123. *Eutrichota praepotens* (Wiedemann, 1817)

Pegomyia praepotens: Kato, 1950: 1683.

Eutrichota praepotens: Suwa, 1974: 233.

Japanese records. Hokkaidô (Sapporo; Shimamatsu). Honshû (any definite localities not given).

Distribution. Japan; China; Europe.

124. *Eutrichota schineri* (Schnabl, 1911)

"*Eutrichota socculata* (Zetterstedt)": Suwa, 1974: 238.

Japanese records. Hokkaidô (Sapporo; Jôzankei; Nopporo; Zenibako; Mt. Daisetsu; *Mt. Shokambetsu; *Mt. Soranuma).

Distribution. Japan; Korea; NE China; Europe.

125. *Eutrichota similis* (Schnabl, 1911)

Pegomyza sylvia Séguy, 1926: 43.

Eutrichota sylvia: Suwa, 1974: 242.

Japanese records. Honshû: Tochigi-ken (Chûzenji-ko, type locality of *sylvia* Séguy).

Distribution. Japan; NE China; Karakoram; Caucasus; Lebanon; Europe.

Remarks. There has been no record of this species in Japan except that by Séguy (1926).

126. *Eutrichota socculata* (Zetterstedt, 1845)

Eutrichota consanguinea: Suwa, 1974: 237; Hara, 1978: 155.

Parapegomyia socculata: Fukushi, 1990: 56.

Japanese records. Hokkaidô (Sapporo; Mt. Soranuma; Nopporo; Shimamatsu; Nukabira; Toikambetsu; Mt. Daisetsu). Honshû: Aomori-ken (Hirosaki; Mt. Iwaki; Mt. Hakkôda); Akita-ken (Towada-ko; Hachimantai; Tashiro-chô); Iwate-ken (Mt. Hayachine); Yamagata-ken (Mt. Zaô); *Tochigi-ken (Mt. Shakagatake; Kaniyu – Kinunuma); *Gumma-ken (Kazawa); Saitama-ken (Chichibu; Karisaka-tôge); *Yamanashi-ken (Mt. Kita-dake; Masutomi; Mt. Daibosatsu); Nagano-ken (Mt. Kiso-Komagatake; *Mt. Yatsugatake; *Shiga-kôgen; *Mt. Nyûkasa; *Shimashima-dani; *Mt. Togakushi); *Gifu-ken (Kagami-daira – Yumiori-dake); *Toyama-ken/Niigata-ken (Asahi-dake, Mt. Shirouma); *Niigata-ken (Mt. Ninôji); *Ishikawa-ken (Mt. Hakusan; Sunodani). *Kyûshû: Ôita-ken (Mt. Sobo); Kumamoto-ken (Mt. Hakuchô).

Distribution. Japan; Korea; NE China; Ural; Europe; N. America.

127. *Fucellia apicalis* Kertész, 1908

Fucellia apicalis: Hori, 1961: 36; Snyder, 1965: 203; Hennig, 1966: 7; Kuwayama, 1967: 127; Hori & Kurahashi, 1969: 239; Suwa, 1974: 17; Shinonaga, 1978: 163; Suwa, 1981: 3; Fukushi, 1990: 51; Mitsui, 1993: 19.

Japanese records. Hokkaidô (Rishiri-tô; Ômu; Mombetsu; Abashiri; Shiretoko; Akkeshi; Fuyujima; Tomakomai; Noboribetsu; *Utoro; *Rebun-tô; *Teuri-tô; *Yagishiri-tô; *Haboro; *Onishika; *Shakotan; *Otaru; *Zenibako; *Erimo). South Kuriles (Kunashiri). Honshû: Aomori-ken (Fukaura-chô; Kodomari-mura; Jûsan-ko; Tappi-misaki; Hachinohe; Ôma-chô; Sai-mura; Kazamaura-mura); Iwate-ken (Noda; Omoto; *Kamaishi); *Miyagi-ken (Kinkazan); Ishikawa-ken (Uchiura-chô, Notohantô; Kanazawa); Tôkyô-to (Tôkyô); *Kanagawa-ken (Kamakura); *Shizuoka-ken (Arari); Aichi-ken (Nishiura); Mie-ken (Ise; Kumano; *Toba); Hyôgo-ken (Kôbe); Yamaguchi-ken (Nagato; Shimonoseki). Shikoku: Kagawa-ken (Shôdoshima); *Tokushima-ken (Mt. Tsurugi); Ehime-ken (Uwajima); Kochi-ken (Tosashimizu). Kyûshû: Fukuoka-ken (Fukuoka; *Hikosan); *Ôita-ken (Tsukumi); Nagasaki-ken (Tsushima; Sasebo; *Kuchinotsu; *Tomiooka; *Shimabara; *Danjo Iss.); Kumamoto-ken (Amakusa); Miyazaki-ken (Aoshima); Kagoshima-ken (Fukiage-hama; Satamisaki; Sakurajima; *Kagoshima; *Noma-dake; *Kurino-dake; *Kushikino). Ogasawara Iss. Nansei Iss. (Miyako-jima).

Distribution. Japan; Korea; China.

128. *Fucellia boninensis* Snyder, 1965

Fucellia boninensis Snyder, 1965: 204; Hori & Kurahashi, 1969: 243; Suwa, 1974: 17; Shinonaga, 1978: 163; Fukushi, 1990: 51.

Japanese records. Hokkaidô (Noboribetsu; *Ishikari-hama; *Zenibako; *Haboro; *Onishika). Honshû: Aomori-ken (Kodomari-mura); Iwate-ken (Omoto); Chiba-ken (Inubô-saki); *Tôkyô-to (Tôkyô; Takao-san); *Shizuoka-ken (Arari); *Toyama-ken (Toyama); Ishikawa-ken (Kanazawa); Mie-ken (Ise); *Wakayama-ken (Gobô; Shirahama). Kyûshû: *Fukuoka-ken (Fukuoka; Hikosan); *Nagasaki-ken (Kuchinotsu; Shimabara); Kumamoto-ken (Amakusa); Kagoshima-ken (Fukiage-hama; Sakurajima; *Kagoshima; *Shigetomi). Ogasawara Iss. (Chichi-jima, type locality). Nansei Iss. (Amami-Ôshima; Yoron-tô; *Okinawa-hontô).

Distribution. Japan; Korea; China.

129. *Fucellia chinensis* Kertész, 1908

Fucellia chinensis: Kurahashi, 1981: 64.

Japanese records. *Hokkaidô (Abashiri). Honshû: Tottori-ken (Kasaura). *Kyûshû: Fukuoka-ken (Fukuoka).

Distribution. Japan; China.

130. *Fucellia fucorum* (Fallén, 1819)

Fucellia fucorum: Hori & Kurahashi, 1969: 239; Suwa, 1974: 18; Suwa, 1981: 4.

Japanese records. Hokkaidô (Rishiri-tô; Kitami-Esashi; Ômu; Mombetsu; Abashiri; Shiretoko; Akkeshi; Fuyujima; Noboribetsu; *Zenibako; *Wakkanai; *Hamatombetsu; *Haboro; *Onishika). South Kuriles (Etorofu).

Distribution. Japan; Kuriles; Sakhalin; Kamchatka; Europe; N. America.

131. *Fucellia hypopygialis* Ringdahl, 1930

Fucellia hypopygialis: Hori & Kurahashi, 1969: 245; Suwa, 1974: 18; Fukushi, 1990: 51.

Japanese records. Hokkaidô (Wakasakanai; Ômu; Mombetsu; Abashiri; Akkeshi; Noboribetsu; Zenibako; *Haboro; *Tomakomai). Honshû: Aomori-ken (Ôma-chô).

Distribution. Japan; Kuriles; Kamchatka; Alaska; Greenland.

132. *Fucellia kamtschatica* Ringdahl, 1930

Protofucellia syuitimorii Séguy, 1936: 282.

Fucellia kamtschatica: Kuwayama, 1967: 127; Hori & Kurahashi, 1969: 241; Suwa, 1974: 18; Suwa, 1981: 4; Fukushi, 1990: 51.

Japanese records. Hokkaidô (Kitami-Esashi; Ômu; Mombetsu; Abashiri; Shiretoko; Akkeshi; Fuyujima; Noboribetsu; Zenibako; Ishikari-hama; *Tomakomai; *Shiraoi; *Haboro; *Onishika). South Kuriles (Shikotan; Kunashiri). Honshû: Aomori-ken (Aomori; Fukaura-chô; Kodomari-mura; Jûsan-ko; Hachinohe; Ôma-chô); Iwate-ken (Omoto; Noda); Ishikawa-ken (Kanazawa).

Distribution. Japan; Kuriles; Korea; NE China; Sakhalin; Kamchatka; Aleutian Iss.; Alaska.

133. *Heterostylodes pilifera* (Zetterstedt, 1845)

Heterostylodes pilifera: Suwa, 1998: 47.

Japanese records. Honshû: Nagano-ken (Hakuba-ôike – Korengetayama, Mt. Shirouma); Toyama-ken (Yukikura-dake, Mt. Shirouma); Toyama-ken/Niigata-ken (Asahi-dake, Mt. Shirouma).

Distribution. Japan; NE China; Europe; N. America.

134. *Hydrophoria bavarica* Hennig, 1969

Hydrophoria bavarica: Suwa, 1983a: 9.

Japanese records. *Hokkaidô (Mt. Soranuma). Honshû: Tochigi-ken (Mt. Nasu); Nagano-ken (Mt. Asama).

Distribution. Japan; Europe (Bavarian Alps).

135. *Hydrophoria montana* Suwa, 1970

Hydrophoria montana Suwa, 1970b: 248; Suwa, 1974: 173; Hara, 1978: 155; Hara, 1981: 78; Suwa, 1985: 6; Fukushi, 1990: 55.

Japanese records. Hokkaidô (Mt. Soranuma; Mt. Shokambetsu; *Jôzankei; *Mt. Shari-dake; *Matsuyama-shitsugen). Honshû: Aomori-ken (Mt. Iwaki); Akita-ken (Tashiro-chô; Towada-ko); Iwate-ken (Yahaba); Miyagi-ken (Mt. Kurikoma); Yamagata-ken (Mt. Zaô); Fukushima-ken (Mt. Bandai); *Tochigi-ken (Nikkô; Kaniyu – Kinunuma; Kobugahara); *Gumma-ken (Kazawa); Saitama-ken (Kamikawa; Minano; Chichibu; Ryôkami; Mt. Kumotori; Karisaka-tôge; Yorii; Yokose; Mt. Bukô); Tôkyô-to (Mt. Mitake, type locality; Mt. Mitô; Mt. Kariyose; Takao-san); Yamanashi-ken (Mt. Daibosatsu; Masutomi); Nagano-ken (Mt. Asama; Mt. Chôgatake; Shimashima-dani; Mt.

Shirouma; *Shiga-kôgen; *Yunomaru-keikoku; *Mt. Yatsugatake); *Gifu-ken (Shinhodaka-onsen – Wasabi-daira); *Niigata-ken (Renge-onsen – Hakuba-ôike, Mt. Shirouma; Asahi-dake, Mt. Shirouma); Toyama-ken (Ôtani); Ishikawa-ken (Kuragadake; Iozen; Mt. Hakusan). Shikoku: Tokushima-ken (Mt. Tsurugi; *Bizan).

Distribution. Japan; Korea; China; Taiwan.

136. *Hydrophoria ruralis* (Meigen, 1826)

Hydrophoria ruralis: Kato, 1950: 1682; Suwa, 1970b: 248; Suwa, 1974: 173; Suwa, 1976: 265; Hara, 1978: 155; Hara, 1981: 78; Hara, 1987: 284; Oku et al., 1989: 245; Fukushi, 1990: 55.

Japanese records. Hokkaidô; Honshû; Shikoku; Kyûshû. Very common species.

Distribution. Japan; Korea; China; Ussuri; Europe.

137. *Hylemya nigrimana* (Meigen, 1826)

Hylemya nigrimana: Suwa, 1974: 82; Hara, 1978: 154; Oku et al., 1989: 245; Fukushi, 1990: 52.

Japanese records. Hokkaidô (Mt. Apoi; Mt. Poroshiri; *Mt. Meakan; *Mt. Shari-dake; *Rubeshibe, ex dung of a deer, *Cervus nippon yesoensis*). Honshû: Aomori-ken (Towada-ko; Hirosaki; Mt. Iwaki; Mt. Hakkôda); Akita-ken (Tashiro-chô; Towada-ko); Iwate-ken (Mt. Hayachine; Mt. Waga-dake); Tochigi-ken (Nikkô; *Mt. Keichô-san; *Mt. Shakagatake; *Kobugahara); Saitama-ken (Jûmonji-tôge); *Kanagawa-ken (Mt. Tanzawa); *Yamanashi-ken (Mt. Daibosatsu; Mt. Kita-dake); Nagano-ken (Mt. Kiso-Komagatake; *Shiga-kôgen; *Mt. Yatsugatake); *Toyama-ken/Niigata-ken (Asahi-dake, Mt. Shirouma); *Nara-ken (Ômine-san). Shikoku: Tokushima-ken (Mt. Tsurugi; Mt. Miune). Kyûshû: *Kumamoto-ken (Mt. Hakuchô; Haki); Kagoshima-ken (Mt. Kirishima).

Distribution. Japan; China; Europe; Taiwan.

138. *Hylemya urbica* Van der Wulp, 1896

Hylemya latifrons: Suwa, 1974: 81; Hara, 1978: 154; Fukushi, 1990: 52.

Japanese records. Hokkaidô (Sapporo; Nopporo; Eniwa; Shimamatsu; Obihiro; Kunneppu; *Shumarinai-ko). Honshû: Aomori-ken (Aomori; Hirosaki; Mt. Iwaki; Ôma-chô); *Tochigi-ken (Mt. Shakagatake; Mt. Keichô-san); Saitama-ken (Kitakawabe; Okegawa; Ageo); Nagano-ken (Mt. Yatsugatake; *Kirigamine; *Shirakaba-ko). *Kyûshû: Fukuoka-ken (Hikosan); Ôita-ken (Mt. Sobo; Jizôbaru; Chôjabaru); Kumamoto-ken (Mt. Aso).

Distribution. Japan; Kuriles; Kamchatka; China; Europe; Taiwan; N. America.

139. *Hyporites shakshain* Suwa, 1974

Hyporites shakshain Suwa, 1974: 59; Suwa, 1977: 3.

Hyporites sp. A: Suwa, 1974: 60.

Japanese records. Hokkaidô (Jôzankei, type locality; Mt. Daisetsu; Shirataki; Rubeshibe; Maruseppu).

Distribution. Japan; NE China.

140. *Lasiomma atricaudum* (Zetterstedt, 1845)

Acrostilpna atricauda: Suwa, 1974: 54; Suwa, 1976: 265; Hara, 1978: 154.

Japanese records. Hokkaidô (Mt. Daisetsu; Yukomambetsu; Mt. Kariba; *Mt. Meakan; *Mt. Shokambetsu). Honshû: Saitama-ken (Jûmonji-tôge); *Yamanashi-ken (Mt. Kita-dake); Nagano-ken (Mt. Yatsugatake; Mt. Senjô); *Ishikawa-ken (Mt. Hakusan).

Distribution. Japan; Scandinavia; N. America.

141. *Lasiomma collini* (Ringdahl, 1929)

Acrostilpna collini: Suwa, 1974: 56.

Japanese records. *Hokkaidô (Nopporo). Honshû: Nagano-ken (Mt. Yatsugatake); *Yamanashi-ken (Mt. Daibosatsu).

Distribution. Japan; Sweden; N. America.

142. *Lasiomma iwasai* Suwa, 1978

Lasiomma iwasai Suwa, 1978b: 1.

Japanese records. Hokkaidô (Toyoni, type locality; Tokachi-Mitsumata).

Distribution. Japan.

Remarks. This species was originally described on the basis of some specimens reared from dung of the brown bear, *Ursus arctos yesoensis*.

143. *Lasiomma japonicum* Suwa, 1971

Lasiomma japonicum Suwa, 1971a: 36; Suwa, 1974: 87.

Japanese records. Hokkaidô (Sapporo; Jôzankei; Mt. Soranuma; Nopporo; Shikotsu-ko; Rishiri-tô, type locality; *Toyokoro, ex withering flower head of *Cirsium pendulum*; *Shimizu, ex withering flower head of *Cirsium* sp.). Honshû: Aomori-ken (Mt. Hakkôda); Iwate-ken (Mt. Hayachine); Yamanashi-ken (Mt. Daibosatsu).

Distribution. Japan; Korea.

Remarks. It is uncertain whether the species feeds on fresh tissue or on decaying tissue of the host plants.

144. *Lasiomma morionellum* (Zetterstedt, 1845)

Lasiomma morionella: Suwa, 1971a: 33; Suwa, 1974: 85; Suwa, 1976: 265.

Japanese records. Hokkaidô (Mt. Daisetsu; *Mt. Kamihorokamettoku-yama). *Honshû: Nagano-ken (Mt. Shirouma).

Distribution. Japan; Siberia (Tobolsk); Scandinavia; N. America.

145. *Lasiomma picipes* (Meigen, 1826)

Lasiomma octoguttatum: Suwa, 1971a: 35; Suwa, 1974: 87; Suwa, 1976: 265; Hara, 1978: 154; Hara, 1987: 284.

Japanese records. Hokkaidô (Sapporo; Jôzankei; Nopporo; Mt. Soranuma; Mt. Yûbari; Mt. Shokambetsu; Mt. Daisetsu; Rishiri-tô; Eniwa; Shikotsu-ko). Honshû: *Aomori-ken (Mt. Hakkôda); Niigata-ken (Mt. Sumon); Saitama-ken (Yoshida; Mt. Mitsumine; Karisaka-tôge; Mt. Bukô); Nagano-ken (Mt. Yatsugatake; Mt. Senjô; *Mt. Shirouma); *Ishikawa-ken (Kuragadake); *Aichi-ken (Saimyôji-san); Hyôgo-ken (Rokkô-san). *Kyûshû: Fukuoka-ken (Hikosan).

Distribution. Japan; Kuriles; Korea; China; Tibet; Europe; N. America.

146. *Lasiomma seminitidum* (Zetterstedt, 1845)

Lasiomma meadei: Suwa, 1974: 85; Suwa, 1976: 265; Hara, 1978: 154; Hara, 1981: 77; Fukushi, 1990: 53; Mitsui, 1993: 19; Mitsui, 1994: 18.

Japanese records. Hokkaidô (Sapporo; Nopporo; Mt. Soranuma; Mt. Daisetsu). Honshû: Aomori-ken (Mt. Iwakî); Saitama-ken (Kônan; Yorii; Mt. Mitsumine; Tokorozawa; *Koma; *Higashiagano); Tôkyô-to (Jimba-yama; Tôkyô); Yamanashi-ken (Mt. Daibosatsu); Nagano-ken (Mt. Yatsugatake; Mt. Kiso-Komagatake); *Ishikawa-ken (Kanazawa; Iozen; Kuragadake; Mt. Hakusan); *Aichi-ken (Saimyôji-san, Nishio); Hyôgo-ken (Rokkô-san). Kyûshû: *Ôita-ken (Mt. Sobo); Kumamoto-ken

(Kumamoto); Kagoshima-ken (Mt. Kirishima).

Distribution. Japan; Korea; NE China; Europe.

Remarks. Mitsui (1994) reported the species as reared from some breeding media, namely fermented oil cake, fermented fowl droppings, dog feces (abundantly), and minced pork (rarely), placed at various habitats in urban or suburban areas.

147. *Leucophora grisella* Hennig, 1967

Leucophora grisella: Suwa, 1974: 74; Hara, 1978: 154.

Japanese records. Honshû: Fukushima-ken (Mt. Bandai); *Tochigi-ken (Nikkô; Mt. Nasu); Saitama-ken (Mt. Ryôkami; Jûmonji-tôge); Yamanashi-ken (Sai-ko; *Mt. Daibosatsu); Nagano-ken (Mt. Hodaka); *Niigata-ken (Tenngunoniwa – Hakuba-ôike, Mt. Shirouma); *Ishikawa-ken (Mt. Hakusan; Yoshino-dani).

Distribution. Japan; Korea; NE China; Europe.

148. *Leucophora obtusa* (Zetterstedt, 1838)

Leucophora obtusa: Suwa, 1974: 76.

Japanese records. Honshû: Kanagawa-ken (Mt. Tanzawa); *Ishikawa-ken (Kanazawa).

Distribution. Japan; Europe; N. America.

149. *Leucophora personata* (Collin, 1922)

Leucophora personata: Suwa, 1974: 74.

Japanese records. Hokkaidô (Eniwa).

Distribution. Japan; Korea; China; Europe.

150. *Leucophora sericea* Robineau-Desvoidy, 1830

Leucophora sericea: Suwa, 1974: 76; Suwa & Usui, 1978: 1.

Japanese records. Hokkaidô (Mt. Apoi; Obihiro; Higashi-Urimaku; Kunneppu; Noto-ko; Abashiri).

Distribution. Japan; China; Europe.

Remarks. In Japan, this species has been recorded by Suwa & Usui (1978) as reared from the nest of *Eucera sociabilis* Smith.

151. *Leucophora sponsa* (Meigen, 1826)

Leucophora sponsa: Suwa, 1974: 80; Fukushi, 1990: 52.

Japanese records. Hokkaidô (Sapporo; Jôzankei; Shikotsu-ko). Honshû: Aomori-ken (Mt. Iwaki; Hirosaki); *Saitama-ken (Koma); *Ishikawa-ken (Kanazawa; Iozen); Kyôto-fu (Kyôto).

Distribution. Japan; Korea; China; Europe.

152. *Leucophora unilineata* (Zetterstedt, 1838)

Leucophora unilineata: Suwa, 1974: 77.

Japanese records. Hokkaidô (Sapporo).

Distribution. Japan; China; Kamchatka; Europe; N. America.

153. *Leucophora unistriata* (Zetterstedt, 1838)

Leucophora unistriata: Suwa, 1974: 78; Fukushi, 1990: 52.

Japanese records. Hokkaidô (Sapporo; Nopporo; Jôzankei; Shikotsu-ko). Honshû: Aomori-ken (Mt. Iwaki).

Distribution. Japan; Korea; China; Europe; N. America.

154. *Mycophaga testacea* (Gimmerthal, 1834)

Mycophaga testacea: Suwa, 1974: 181; Hara, 1987: 284; Mitsui, 1993: 19.

Japanese records. Hokkaidô (Sapporo; Mt. Soranuma; Jôzankei; *Hamatombetsu). Honshû: Aomori-ken (Towada-ko); *Iwate-ken (Mt. Hayachine); Saitama-ken (Mt. Bukô; Tokorozawa); *Yamanashi-ken (Mt. Daibosatsu); *Nagano-ken (Shiga-kôgen); *Hiroshima-ken (Mt. Osorakan). *Kyûshû: Ôita-ken (Mt. Kujû; Mt. Sobo); Kumamoto-ken (Mt. Hakuchô); Kagoshima-ken (Mt. Kirishima).

Distribution. Japan; Korea; Europe.

155. *Paradelia brunneonigra* (Schnabl, 1911)

Pseudonupedia brunneonigra: Suwa, 1974: 168; Fukushi, 1990: 55.

Japanese records. Hokkaidô (Nopporo; Mt. Soranuma; Shikotsu-ko; *Sapporo). Honshû: Aomori-ken (Towada-ko); *Nagano-ken (Mt. Nyûkasa; Norikura-kôgen).

Distribution. Japan; Europe; N. America.

156. *Paradelia lunatifrons* (Zetterstedt, 1846)

Paradelia lunatifrons: Suwa, 1974: 167.

Japanese records. Hokkaidô (Mt. Muine; *Mt. Daisetsu).

Distribution. Japan; Kamchatka; Europe; N. America.

157. *Paregle atrisquama* (Ringdahl, 1948)

Paregle atrisquama: Suwa, 1998: 47.

Japanese records. Honshû: Nagano-ken (Mt. Shirouma); *Yamanashi-ken (Mt. Kita-dake).

Distribution. Japan; Europe.

158. *Paregle audacula* (Harris, 1780)

"*Paregle radicum* (Linné, 1758)": Suwa, 1974: 94; Suwa, 1976: 265.

Japanese records. Hokkaidô (Mt. Daisetsu).

Distribution. Japan; China; Europe; N. America.

159. *Paregle vetula* (Zetterstedt, 1838)

Hylemyia vetula: Kato, 1950: 1685.

Paregle vetula: Suwa, 1974: 93; Hara, 1981: 77; 89 Fukushi, 1990: 53.

Japanese records. Hokkaidô (Sapporo; Nopporo; Kenebetsu). Honshû: Aomori-ken (Hirosaki); Saitama-ken (Yorii); *Yamanashi-ken (Mt. Daibosatsu).

Distribution. Japan; Korea; China; Europe.

160. *Pegomya acklandi* Suwa, 1974

Pegomya acklandi Suwa, 1974: 217; Suwa, 1976: 265; Fukushi, 1990: 56.

Japanese records. Hokkaidô (Sapporo, type locality; Jôzankei; Nopporo; Mt. Soranuma; Zenibako; Eniwa; Shikotsu-ko; Mt. Shokambetsu; Mt. Daisetsu; Kaminokuni; Gabino; Rishiri-tô; Mt. Kariba; *Nakayama-tôge, ex *Sasa kurilensis*, as a young shoot feeder; *Mt. Niseko; *Kyôwa-chô; *Hamamasu; *Mashike; *Shirataki; *Yamabe; *Sôun-kyô; *Mt. Tokachi; *Mt. Poroshiri). Honshû: Aomori-ken (Hirosaki; Mt. Iwaki; Iwasaki-mura; Mt. Bonju; Towada-ko; *Sukayu); *Iwate-ken (Morioka); *Miyagi-ken (Futakuchi-onsen); *Tochigi-ken (Mt. Keichô-san; Mt. Shakagatake; Kaniyu – Kinunuma); Gumma-ken (Mt. Tanigawa); *Tôkyô-to (Nippara); *Kanagawa-ken (Mt. Tanzawa); *Shizuoka-ken (Shizuoka); *Yamanashi-ken (Mt. Daibosatsu; Masutomi); Nagano-ken (Mt. Yatsugatake; *Shimashima-dani; *Mt. Nyûkasa; *Shiga-kôgen; *Norikura-kôgen; *Mt. Shirouma;

*Mt. Togakushi; *Yunomaru-keikoku; *Aoki-ko); *Gifu-ken (Shinhodaka-onsen – Kagami-daira); *Niigata-ken (Mt. Ninôji; Renge-onsen – Hakuba-ike, Mt. Shirouma); *Toyama-ken/Niigata-ken (Asahi-dake, Mt. Shirouma); Ishikawa-ken (Hakui; *Mt. Hakusan; *Sunodani; *Iozen; *Kuragadake; *Fukami); Kyôto-fu (Hanase). *Shikoku: Tokushima-ken (Mt. Tsurugi). Kyûshû: Fukuoka-ken (Hikosan); *Ôita-ken (Chôjaboru; Mt. Sobo; Takeda); *Kumamoto-ken (Mt. Hakuchô; Haki); *Miyazaki-ken (Kuruson-kyô).

Distribution. Japan.

161. *Pegomya alticola* Hockett, 1939

“*Pegomya criniventris* Suwa”: Hara, 1978: 155; Hara, 1981: 78.

Pegomya alticola: Suwa, 1984a: 12.

Japanese records. Hokkaidô (Sapporo; *Nopporo, ex *Cacalia hastata* subsp. *orientalis* and *Petasites japonicus* subsp. *giganteus*, as a leaf-miner; *Mt. Shari-dake, ex *Cacalia hastata* subsp. *orientalis* and *Petasites japonicus* subsp. *giganteus*, as a leaf-miner). Honshû: Saitama-ken (Yorii; Chichibu).

Distribution. Japan; N. America.

162. *Pegomya auricolor* Suwa, 1971

Pegomya auricolor Suwa, 1971b: 269; Suwa, 1974: 192.

Japanese records. Hokkaidô (Sapporo, type locality). *Honshû: Yamanashi-ken (Mt. Daibosatsu, ex *Synurus pungens*, as a leaf-miner).

Distribution. Japan.

Remarks. This species was originally described from a few specimens reared from *Arctium lappa* as a leaf-miner.

163. *Pegomya avida* Hennig, 1973

Pegomya avida: Suwa, 1974: 200.

Japanese records. Honshû: Nagano-ken (Mt. Senjô).

Distribution. Japan; Scandinavia.

164. *Pegomya bicolor* (Wiedemann, 1817)

Pegomya bicolor sapporensis Kato, 1941: 62.

Pegomya bicolor: Suwa, 1974: 195; Mitsui, 1987: 51; Fukushi, 1990: 56.

Japanese records. Hokkaidô (Sapporo; Nopporo; Jôzankei; Eniwa; Kita-Hiroshima; Shimamatsu; Shikotsu-ko; Mt. Apoi; Hamatombetsu; Akkeshi; Ôno; *Mt. Soranuma; *Tomakomai; *Hamamasu; *Asahikawa; *Obihiro; *Mt. Esaoman-Tottabetsu). Honshû: Aomori-ken (Hirosaki; Itayanagi; Mt. Iwaki); *Yamagata-ken (Atsumi-onsen); Saitama-ken (Shiki; *Sayama; *Yoshikawa); Tôkyô-to (Tôkyô); Chiba-ken (Kiyosumi-yama); *Kanagawa-ken (Mt. Tanzawa); *Shizuoka-ken (Shizuoka; Yokokawa; Arari); *Yamanashi-ken (Mt. Kita-dake; Masutomi); *Nagano-ken (Shimashima-dani; Norikura-kôgen); *Toyama-ken (Toyama); *Ishikawa-ken (Kanazawa; Mt. Hakusan; Kuragadake; Sunodani); *Aichi-ken (Saimyôji-san); *Wakayama-ken (Kozagawa). *Shikoku: Kagawa-ken (Shôdo-shima). Kyûshû: Fukuoka-ken (Fukuoka; Hikosan; *Inunaki-yama); *Ôita-ken (Mt. Kujû); *Miyazaki-ken (Kuruson-kyô; Takachiho); *Kagoshima-ken (Mt. Kirishima).

Distribution. Japan; Korea; China; Europe; N. America.

Remarks. This species has been reared from *Rumex acetosa*, *R. acetosella* and *R. obtusifolius* as a leaf-miner in Japan.

165. *Pegomya conformis* (Fallén, 1825)

Pegomya esuriens: Suwa, 1974: 201.

Japanese records. Hokkaidô (Sapporo; Kita-Hiroshima; *Nopporo; *Shibecha).

Distribution. Japan; China; Europe; N. America.

166. *Pegomya criniventris* Suwa, 1974

Pegomya criniventris Suwa, 1974: 193; Suwa, 1976: 265; Suwa, 1984a: 17.

Japanese records. Hokkaidô (Mt. Soranuma; Mt. Yûbari; Mt. Daisetsu; Rishiri-tô; Mt. Kariba). Honshû: Fukushima-ken (Mt. Bandai); Nagano-ken (Mt. Yatsugatake, type locality; Mt. Kiso-Komagatake); Ishikawa-ken (Mt. Hakusan).

Distribution. Japan; Kuriles; Korea; NE China.

167. *Pegomya cunicularia* (Rondani, 1866)

"*Pegomya hyoscyami* (Panzer)": Kato, 1941: 56, as var. *betae* Curtis, *partim*.

"*Pegomya betae* (Curtis)": Suwa, 1970a: 155, *partim*; Suwa, 1971b: 263.

Pegomya mixta: Suwa, 1974: 192.

Pegomya cunicularia: Michelsen, 1980: 301; Fukushi, 1990: 56.

Japanese records. Hokkaidô (Sapporo; Zenibako; Ishikari-hama; Oshoro; Kaminokuni; Asahikawa; Yamabe; Obihiro; Urahoro; Kushiro; Teshikaga; Shari; Abashiri; Kunneppu, Utanobori; Toyotomi; *Shibetsu, Nemuro; *Ikeda; *Teuri-tô and *Yagishiri-tô, ex *Chenopodium album*, as a leaf-miner). Honshû: Aomori-ken (Noheji; Ôma-chô); Iwate-ken (Kuji; Noda; Omoto). Kyûshû: Fukuoka-ken (Fukuoka; Ômuta; Yukuhashi). There may be other records in publications of applied field unknown to me.

Distribution. Japan; Korea; China; Europe; N. Africa.

Remarks. This is a leaf-mining species of the following plants of Chenopodiaceae in Japan: *Atriplex subcordata*, *Beta vulgaris*, *Chenopodium album*, *C. ficifolium*, *C. glaucum*, and *Spinacia oleracea*.

168. *Pegomya dulcamarae* Wood, 1913

Pegomya dulcamarae: Suwa, 1971b: 264; Suwa, 1974: 192.

Japanese records. Hokkaidô (Hamatombetsu; Utanobori; Otoshibe, Kitami-Esashi; Otoineppu; Teshikaga; Memuro, ex *Solanum tuberosum* and *Solanum nigrum*, as a leaf-miner; Naganuma, ex *Solanum megacarpum*, as a leaf-miner).

Distribution. Japan; England.

Remarks. This species has been known as a leaf-miner of potato, *Solanum tuberosum*, in Japan.

169. *Pegomya exilis* (Meigen, 1826)

"*Pegomya hyoscyami* (Panzer)": Kato, 1941: 56, as var. *betae* Curtis, *partim*; Suwa, 1970a: 155, *partim*; Suwa, 1971b: 263; Suwa, 1974: 191.

Pegomya exilis: Michelsen, 1980: 303; Mitsui, 1987: 51.

Japanese records. Hokkaidô (Sapporo; Eniwa; Zenibako; Ishikari-hama; Asahikawa; Kenebetsu; Teshikaga; Shibetsu, Nemuro; Kunneppu; Mombetsu; Toyotomi; Rishiri-tô). Honshû: Tôkyô-to (Tôkyô); Nagano-ken (Matsubara-ko). A record of "*Pegomya hyoscyami* (Panzer)" from Kunashiri, South Kuriles, by Kuwayama (1967) should be verified.

Distribution. Japan; Tibet; Europe; N. America.

Remarks. This is a leaf-miner of *Chenopodium album*, *C. glaucum* and *Spinacia oleracea*

in Japan.

170. *Pegomya falciforcipis* Suwa, 1971

Pegomya falciforcipis Suwa, 1971b: 267; Suwa, 1974: 192.

Japanese records. Hokkaidô (Sapporo, type locality; Nopporo; *Jôzankei, ex *Cirsium* sp, as a leaf-miner; *Mt. Soranuma, ex *Cirsium* sp., as a leaf-miner; *Naganuma, ex *Cirsium kamtschaticum*, as a leaf-miner).

Distribution. Japan.

Remarks. This species has been known as a leaf-miner of *Cirsium* sp.

171. *Pegomya flavifrons* (Walker, 1849)

Pegomya albimargo: Suwa, 1971b: 264; Suwa, 1974: 195; Hara, 1978: 155; Hara, 1981: 78.

Pegomya flavifrons: Fukushi, 1990: 56; Mitsui, 1993: 19.

Japanese records. Hokkaidô (Sapporo; Nopporo; Ôno; Mt. Kariba; *Shumarinai-ko; *Akabira). Honshû: Aomori-ken (Mt. Hakkôda); *Miyagi-ken (Futakuchi-onsen); Saitama-ken (Mt. Mitsumine; Yorii; Tokorozawa); *Yamanashi-ken (Mt. Daibosatsu); Nagano-ken (Mt. Yatsugatake; *Shiga-kôgen; *Mt. Nyûkasa; *Shimashima-dani); *Ishikawa-ken (Kanazawa); *Hiroshima-ken (Mt. Osorakan). *Kyûshû: Fukuoka-ken (Inunaki-yama; Hikosan); Kumamoto-ken (Mt. Hakuchô; Haki); Miyazaki-ken (Mt. Takachiho; Shiiba; Kuruson-kyô); Kagoshima-ken (Kaseda).

Distribution. Japan; Korea; NE China; Europe; N. Africa; N. America.

Remarks. In Japan, this species has been reared from *Melachium aquaticum*, *Stellaria media*, *S. neglecta* and *S. sessiliflora* as a leaf-miner.

172. *Pegomya geniculata* (Bouché, 1834)

Pegomya geniculata: Suwa, 1974: 211; Suwa, 1976: 265; Hara, 1978: 155; Suwa, 1981: 13; Oku et al., 1989: 245; Fukushi, 1990: 56.

Japanese records. Hokkaidô (Sapporo; Nopporo; Jôzankei; Mt. Soranuma; Mt. Yûbari; Mt. Shokambetsu; Mt. Daisetsu; Toyotomi; Mt. Apoi; Nukabira; Mt. Kariba; *Mt. Niseko; *Mt. Shari-dake; *Mt. Meakan; *Rubeshibe; *Shirataki; *Maruseppu; *Rishiri-tô; *Tomuraushi-onsen; *Sôun-kyô; *Mt. Poroshiri). South Kuriles (Kunashiri). Honshû: Aomori-ken (Mt. Hakkôda; Mt. Iwaki); Akita-ken (Tashiro-dake); Iwate-ken (Hachimantai; Mt. Waga-dake; *Mt. Hayachine); Fukushima-ken (Mt. Bandai; *Hinoemata); Tochigi-ken (Oku-Kinu; *Nikkô; *Mt. Nasu); Saitama-ken (Jûmonji-tôge); Yamanashi-ken (Masutomi; *Mt. Kita-dake; *Mt. Daibosatsu; *Yanagawa); Nagano-ken (Mt. Yatsugatake; Mt. Kiso-Komagatake; Mt. Senjô; Mt. Chôgatake; Mt. Shirouma; *Shimashima-dani; *Yunomaru-keikoku; *Mt. Asama); *Gifu-ken (Shinhodaka-onsen – Kagami-daira); *Toyama-ken/ Niigata-ken (Asahi-dake, Mt. Shirouma); *Ishikawa-ken (Mt. Hakusan).

Distribution. Japan; China; Europe; N. America.

173. *Pegomya haemorrhoum* (Zetterstedt, 1838)

Pegomya haemorrhoum: Suwa, 1971b: 266; Suwa, 1974: 197; Suwa, 1976: 265; Hara, 1978: 155; Fukushi, 1990: 56.

Japanese records. Hokkaidô (Sapporo; Mt. Apoi; Mt. Daisetsu; Rishiri-tô; Kaminokuni). Honshû: Akita-ken/Yamagata-ken (Mt. Chôkai); Saitama-ken (Minano); Nagano-ken (Mt. Hodaka; Mt. Shirouma).

Distribution. Japan; Europe.

Remarks. This species is a leaf-miner of *Polygomum nakaii*, *P. sachalinense* and *P. weyrichii* var. *alpinum* in Japan.

174. *Pegomya holosteeae* (Hering, 1924)

Pegomya holosteeae: Suwa, 1974: 203; Fukushima, 1990: 56.

Japanese records. Hokkaidô (Sapporo; Nopporo). Honshû: Akita-ken (Tashiro-chô); Chiba-ken (Kiyosumi-yama); *Ishikawa-ken (Kanazawa). *Kyûshû: Fukuoka-ken (Inunaki-yama; Tachibana-yama). Nansei Iss. (Amami-Ôshima).

Distribution. Japan; China; Europe; N. America.

175. *Pegomya japonica* Suwa, 1974

Pegomya japonica Suwa, 1974: 225; Hara, 1978: 155; Hara, 1981: 78; Mitsui, 1987: 51; Fukushima, 1990: 56.

Japanese records. Hokkaidô (Nopporo, type locality; Sapporo; Jôzankei; Mt. Soranuma; Shimamatsu; Eniwa; Kita-Hiroshima; Mt. Shokambetsu; Mt. Apoi; Gabino; Kaminokuni; *Shirataki; *Ashoro; *Mt. Shakotan; *Hamamasu). Honshû: Aomori-ken (Mt. Iwaki; Mt. Bonju); *Fukushima-ken (Hinoemata); Gumma-ken (Tsumakoi; *Kazawa); Tochigi-ken (Utsunomiya; *Nikkô); Saitama-ken (Sayama; Yorii; *Koma); Tôkyô-to (Tôkyô); Kanagawa-ken (Zushi; *Mt. Tanzawa); Shizuoka-ken (Amagi); *Yamanashi-ken (Mt. Daibosatsu); *Nagano-ken (Mt. Nyûkasa; Shiga-kôgen; Mt. Togakushi; Yunomaru-keikoku); *Ishikawa-ken (Kanazawa; Iozen; Sunodani; Kuragadake; Mt. Hakusan); Okayama-ken (Gôkei); Shimane-ken (Tachikue-kyô); Hiroshima-ken (Sandankyô; *Shôbara). Kyûshû: Fukuoka-ken (Fukuoka); *Ôita-ken (Mt. Kujû); Kumamoto-ken (Kumamoto; *Mt. Hakuchô).

Distribution. Japan; China.

176. *Pegomya kusigematii* Suwa, 1974

Pegomya kusigematii Suwa, 1974: 208; Suwa, 1984b: 56; Fukushima, 1990: 56.

Japanese records. Hokkaidô (Mt. Soranuma, type locality; Sapporo; Jôzankei; Mt. Shokambetsu; Rebun-tô; Mt. Rausu). Honshû: Aomori-ken (Hirosaki; Mt. Iwaki); Iwate-ken (Mt. Hayachine); Ishikawa-ken (Iozen); Toyama-ken (Bijo-daira); Gumma-ken (Suge-numa); *Nagano-ken (Shiga-kôgen). Kyûshû: Kumamoto-ken (Mt. Hakuchô).

Distribution. Japan.

177. *Pegomya latifrons* Suwa, 1984

Pegomya latifrons Suwa, 1984b: 49.

Japanese records. Hokkaidô (Tomakomai, type locality). Kyûshû: Kagoshima-ken (Myôken-onsen, Mt. Kirishima).

Distribution. Japan.

178. *Pegomya maculata* Stein, 1906

Pegomya maculata: Suwa, 1977: 12.

Japanese records. Hokkaidô (Mt. Kamihorokamettoku-yama). *Honshû: Nagano-ken (Mt. Yatsugatake).

Distribution. Japan; Europe; N. America.

179. *Pegomya meridiana* (Villeneuve, 1923)

Pegomya meridiana: Suwa, 1986: 50.

Japanese records. Hokkaidô (Mt. Ashibetsu; Mt. Shokambetsu).

Distribution. Japan; Europe.

180. *Pegomya nigra* Suwa, 1974

Pegomya nigra Suwa, 1974: 201; Suwa, 1997: 6.

Japanese records. Honshû: Nagano-ken (Mt. Yatsugatake, type locality; Mt. Senjô); Yamanashi-ken (Mt. Kita-dake).

Distribution. Japan; NE China; N. America.

181. *Pegomya nigricrus* Suwa, 1984

Pegomya nigricrus Suwa, 1984b: 48.

Japanese records. Honshû: Yamanashi-ken (Hirogawara, type locality).

Distribution. Japan.

182. *Pegomya orientis* Suwa, 1974

Pegomya orientis Suwa, 1974: 219; Hara, 1978: 155; Hara, 1981: 78; Mitsui, 1987: 51; Fukushi, 1990: 56; Mitsui, 1993: 19.

Japanese records. Hokkaidô (Sapporo, type locality; Jôzankei; Nopporo; Mt. Soranuma; Eniwa; Ebetsu; Katsurazawa; Shimamatsu; Akkeshi; Shikaribetsu-ko; Shiretoko; Mt. Apoi; Gabino; Kita-Hiroshima; *Zenibako-tôge; *Yamabe; *Toyotomi; *Shirataki; *Hamatombetsu; *Mt. Daisetsu; *Tomuraushi-onsen; *Kaminokuni; *Ashoro). Honshû: Aomori-ken (Hirosaki; Mt. Iwaki; Mt. Bonju; Towada-ko); Iwate-ken (Morioka; Mt. Hayachine); Tochigi-ken (Mt. Shakagatake; Kobugahara; Nikkô); Gumma-ken (Kazawa; Oze); Saitama-ken (Sayama; Kônan; Yorii; Kamikawa; Minano; Tokorozawa; *Koma); Tôkyô-to (Tôkyô; Jimba-yama; *Mt. Usuki); Chiba-ken (Kiyosumi-yama); Kanagawa-ken (Mt. Tanzawa; Hatano); Shizuoka-ken (Arari); Yamanashi-ken (Mt. Daibosatsu; Momokura-yama); Nagano-ken (Mt. Yatsugatake; *Shiga-kôgen; *Shimo-Suwa; *Mt. Nyûkasa; *Norikura-kôgen; *Mt. Togakushi); Toyama-ken (Toyama); Ishikawa-ken (Kanazawa; Iizen); Kyôto-fu (Hanase). Shikoku: Kagawa-ken (Shôdo-shima). Kyûshû: Fukuoka-ken (Fukuoka; Hikosan; *Wakasugi-yama; *Tachibana-yama); Nagasaki-ken (Nagasaki); Kumamoto-ken (Kumamoto); Kikuchi-suigen; *Mt. Hakuchô; *Haki); Ôita-ken (Mt. Sobô; Mt. Kujû; *Chôjbaru; *Takeda); Miyazaki-ken (Shiiba; Takachiho); Kagoshima-ken (Kagoshima). Nansei Iss. (Amami-Ôshima).

Distribution. Japan; China.

183. *Pegomya pulchripes* (Loew, 1857)

Pegomya pulchripes: Suwa, 1974: 213; Suwa, 1976: 265; Hara, 1978: 155; Suwa, 1981: 13; Fukushi, 1990: 56.

Japanese records. Hokkaidô (Sapporo; Nopporo; Mt. Soranuma; Shikotsu-ko; Bifuka; Moshiri; Mt. Daisetsu; Mt. Shokambetsu; Rishiri-tô; Mt. Apoi; Kushiro; Akkeshi; Erimo; Shiretoko; Mt. Kariba; *Mt. Meakan; *Shirataki; *Takinoue; *Nukabira; *Aizan-kei; *Mt. Poroshiri; *Rebun-tô; *Horokanai; *Shumarinai-ko; *Mt. Yûbari). South Kuriles (Kunashiri). Honshû: Aomori-ken (Mt. Hakkôda; Mt. Iwaki; Kuroishi); Akita-ken (Tashiro-dake); Iwate-ken (Hiraniwa; Mt. Hayachine); Miyagi-ken (Mt. Kurikoma); Yamagata-ken (Mt. Zaô); Fukushima-ken (Mt. Bandai; Mt. Adatarai); Tochigi-ken (Kaniyu – Kinunuma; Nikkô; Mt. Nasu); Gumma-ken (Oze); Saitama-ken (Karisaka-tôge); Yamanashi-ken (Mt. Daibosatsu); Nagano-ken (Mt. Yatsugatake; Mt. Kiso-Komagatake; Mt. Senjô; Mt. Hodaka; *Tokugô-tôge; *Shimashima-dani; *Yunomaru-keikoku; *Shiga-kôgen; *Mt. Asama); Gifu-ken (Shinhodaka-onsen – Wasabi-daira); Niigata-ken (Renge-onsen – Hakuba-ôike, Mt. Shirouma); Ishikawa-ken (Mt. Hakusan; Kuragadake).

Distribution. Japan; Europe;

184. *Pegomya quadrivittata* Karl, 1935

"Pegomya setaria (Meigen)": Suwa, 1971b: 264.

Pegomya quadrivittata: Suwa, 1974: 196; Suwa, 1978a: 122; Hara, 1978: 155; Hara, 1981: 78; Fukushi, 1990: 56.

Japanese records. Hokkaidô (Sapporo; Chitose; Tomakomai; Kita-Hiroshima; Mt. Shokambetsu; *Asahikawa; *Otaru; *Atsuta; *Gamushi; *Ônuma; *Memuro). Honshû: Aomori-ken (Hirosaki); Akita-ken (Tazawa-ko; Kosaka-chô); Akita-ken/Iwate-ken (Hachimantai); Miyagi-ken (Mt. Kurikoma; *Futakuchi-onsen); Fukushima-ken (Urabandai); *Gumma-ken (Kazawa); *Tochigi-ken (Mt. Nasu); Saitama-ken (Kamikawa; Yorii); *Yamanashi-ken (Momokura-yama; Masutomi); *Nagano-ken (Shimashima-dani; Shiga-kôgen; Matsubara-ko; Mt. Yatsugatake; Yunomaru-keikoku); *Ishikawa-ken (Kanazawa; Kuragadake); *Wakayama-ken (Kozagawa). *Shikoku: Kôchi-ken (Kajigamori). Kyûshû: Fukuoka-ken (Hikosan); *Ôita-ken (Mt. Kujû; Chôjabaru); *Kumamoto-ken (Kikuchi-keikoku; Mt. Hakuchô; Haki; Tomochi; Naidaijin); *Miyazaki-ken (Shiiba; Kuruson-kyô); *Kagoshima-ken (Kagoshima; Tarumizu, ex *Polygonum longisetum*, as a leaf-miner). Nansei Iss. (Yakushima).

Distribution. Japan; Korea; China; Taiwan; India; Burma; Sri Lanka.

Remarks. This is a leaf-mining species. *Polygonum filiforme*, *P. nepalense*, *P. sieboldi* and *P. thumbergi* have been recorded as host plants of the species in Japan.

185. *Pegomya robusta* Suwa, 1974

Pegomya robusta Suwa, 1974: 228; Fukushi, 1990: 56.

Japanese records. Hokkaidô (Sapporo, type locality; Jôzankei; Mt. Soranuma; Nopporo; Shikotsu-ko; Eniwa; Shimamatsu; Kita-Hiroshima; Gabino; Rebun-tô; Rishiri-tô; Moshiri; Mt. Apoi; Akkeshi; Kawayu; Tôya; *Toyotomi; *Hamamasu; *Atsuta; *Mt. Shari-dake; *Shirataki; *Ashoro; *Yamabe; *Mt. Daisetsu; *Mt. Tokachi; *Tomuraushi-onsen; *Mt. Niseko; *Zenibako-tôge; *Mt. Shakotan; *Kaminokuni). Honshû: Aomori-ken (Aomori; Hirosaki; Ikarigaseki; Mt. Iwaki; Mt. Bonju; *Sukayu); Iwate-ken (Hachimantai; *Morioka); *Yamagata-ken (Atsumi-onsen); *Tochigi-ken (Mt. Keichô-san; Mt. Shakagatake; Nikkô); Gumma-ken (Mt. Tanigawa; *Kazawa); Shizuoka-ken (Amagi); *Yamanashi-ken (Mt. Daibosatsu); *Nagano-ken (Shiga-kôgen; Shimo-Suwa; Norikura-kôgen; Mt. Togakushi; Mt. Yatsugatake); *Toyama-ken (Toyama); *Ishikawa-ken (Kanazawa; Sunodani; Iozen; Fukami; Kuragadake; Mt. Hakusan); *Kyôto-fu (Hanase). *Kyûshû: Ôita-ken (Kurodake; Mt. Kujû; Takeda).

Distribution. Japan.

186. *Pegomya rubivora* (Coquillett, 1897)

Pegomya rubivora: Suwa, 1974: 204; Fukushi, 1990: 56.

Japanese records. Hokkaidô (Sapporo; Jôzankei; Mt. Soranuma; Shikaribetsu-ko; Mt. Daisetsu; *Kunneppu, ex *Aruncus dioicus*, as a stem-borer). Honshû: Aomori-ken (Hirosaki; Mt. Bonju); Saitama-ken (Izugatake); *Kanagawa-ken (Mt. Tanzawa); *Shizuoka-ken (Arari); *Yamanashi-ken (Masutomi); *Nagano-ken (Shiga-kôgen; Shimashima-dani; Shimo-Suwa); *Toyama-ken/Niigata-ken (Asahi-dake, Mt. Shirouma); *Ishikawa-ken (Kanazawa; Kuragadake; Sunodani; Mt. Hakusan). *Kyûshû: Fukuoka-ken (Inunaki-yama; Hikosan); Kumamoto-ken (Haki; Mt. Hakuchô); Miyazaki-ken (Kuruson-kyô).

Distribution. Japan; Korea; NE China; Kamchatka; Europe; N. America.

187. *Pegomya ruficeps* (Zetterstedt, 1838)

Pegomya ruficeps: Suwa, 1974: 205; Hara, 1978: 155.

Japanese records. Hokkaidô (Mt. Muine; Mt. Kariba; *Mt. Daisetsu; *Mt. Ashibetsu). Honshû: Yamagata-ken (Mt. Zaô); *Gumma-ken (Oze); Saitama-ken (Mt. Kobushi).

Distribution. Japan; NE China; Kamchatka; Europe; N. America.

188. *Pegomya rufina* (Fallén, 1825)

Pegomya rufina: Suwa, 1986: 48.

Japanese records. Hokkaidô (Mt. Soranuma).

Distribution. Japan; Europe.

189. *Pegomya scapularis* (Zetterstedt, 1846)

Pegomya pilosa: Suwa, 1974: 215.

Japanese records. *Hokkaidô (Mt. Daisetsu). Honshû: Nagano-ken (Mt. Yatsugatake; Mt. Kiso-Komagatake).

Distribution. Japan; Scandinavia; N. America.

190. *Pegomya seitenstettensis* (Strobl, 1880)

Pegomya angustiorbitae Suwa, 1974: 198.

Pegomya seitenstettensis: Suwa, 1977: 12.

Japanese records. *Hokkaidô (Mt. Daisetsu). Honshû: *Yamanashi-ken (Mt. Kita-dake); Nagano-ken (Mt. Yatsugatake; Mt. Senjô).

Distribution. Japan; NE China; Europe.

191. *Pegomya solennis* (Meigen, 1826)

Pegomya nigratarsis: Suwa, 1974: 197; Hara, 1978: 155; Hara, 1981: 78.

Japanese records. Hokkaidô (Eniwa; *Tomakomai; *Mt. Daisetsu). Honshû: Saitama-ken (Nagatoro; Ogano; Yorii); *Shizuoka-ken (Shizuoka; Arari); *Ishikawa-ken (Mt. Hakusan; Sunodani; Kanazawa); *Wakayama-ken (Kozagawa). *Kyûshû: Fukuoka-ken (Hikosan); Kumamoto-ken (Haki); Miyazaki-ken (Kuruson-kyô).

Distribution. Japan; Europe; N. America.

192. *Pegomya spiraculata* Suwa, 1974

Pegomya spiraculata Suwa, 1974: 207; Suwa, 1984b: 55.

Japanese records. Hokkaidô (Kaminokuni, type locality). Honshû: Ishikawa-ken (Mt. Hakusan); Gumma-ken (Oze); *Nagano-ken (Shiga-kôgen). Kyûshû: Kumamoto-ken (Mt. Hakuchô).

Distribution. Japan; Korea; NE China.

193. *Pegomya valgenovensis* Hennig, 1973

Pegomya valgenovensis: Suwa, 1984b: 52.

Japanese records. Hokkaidô (Mt. Daisetsu; Mt. Furano). Honshû: Yamanashi-ken (Masutomi); Nagano-ken (Shimashima-dani).

Distribution. Japan; NE China; Europe; N. America.

Remarks. This species has been reared from *Saussurea* sp. as a leaf-miner in Japan.

194. *Pegomya vera* Suwa, 1974

Pegomya vera Suwa, 1974: 223; Suwa, 1981: 13; Fukushi, 1990: 56; Mitsui, 1993: 19.

Japanese records. Hokkaidô (Sapporo, type locality; Jôzankei; Mt. Soranuma; Nopporo; Eniwa; *Zenibako-tôge; *Sôun-kyô; *Shirataki; *Shibecha; *Ashoro). South Kuriles (Kunashiri). Honshû:

Aomori-ken (Hirosaki; Mt. Iwaki); Iwate-ken (Hachimantai; *Morioka); *Tochigi-ken (Mt. Keichô-san; Mt. Shakagatake; Nikkô); Gumma-ken (Mt. Tanigawa); Saitama-ken (Sayama; Tokorozawa); Tôkyô-to (Nippara; Jimba-yama); *Kanagawa-ken (Mt. Tanzawa); *Yamanashi-ken (Mt. Daibosatsu; Masutomi); *Nagano-ken (Mt. Nyûkasa; Shiga-kôgen; Mt. Togakushi; Mt. Yatsugatake); *Niigata-ken (Mt. Ninôji); *Ishikawa-ken (Kanazawa; Kuragadake). *Shikoku: Tokushima-ken (Mt. Tsurugi). Kyûshû: *Fukuoka-ken (Hikosan); *Ôita-ken (Takeda); *Miyazaki-ken (Takachiho); Kagoshima-ken (Kagoshima).

Distribution. Japan.

195. *Pegomya winthemi* (Meigen, 1826)

Pegomya winthemi: Suwa, 1974: 211; Suwa, 1978a: 122.

Japanese records. Hokkaidô (Sapporo; Jôzankei; Nopporo; Mt. Soranuma; Chitose; Tomakomai; Kôshunai; Shimamatsu; Tôya; Rebun-tô; Mt. Apoi; Kushiro; Akkeshi; Kawayu; *Kunneppu, ex a mushroom, *Leccinum scabrum*; *Noboribetsu). *Honshû: Tochigi-ken (Nikkô); Nagano-ken (Shiga-kôgen). *Kyûshû: Kagoshima-ken (Kirishima-jingû).

Distribution. Japan; NE China; Europe; N. America.

196. *Pegomya zonata* (Zetterstedt, 1838)

“Pegomya tenera (Zetterstedt)”: Suwa, 1974: 215.

Japanese records. Honshû: Nagano-ken (Mt. Chôgatake; Mt. Hodaka; *Mt. Asama).

Distribution. Japan; Europe; N. America.

197. *Pegoplata fukushii* Suwa, 1990

Pegoplata sp.: Fukushi, 1990: 55.

Pegoplata fukushii Suwa, 1990: 46.

Japanese records. Honshû: Akita-ken (Tashiro-chô, type locality).

Distribution. Japan.

198. *Pegoplata infirma* (Meigen, 1826)

Pegoplata infirma: Suwa, 1983a: 9.

Japanese records. Hokkaidô (Sapporo; Nopporo; Horokanai; Mt. Daisetsu; Mt. Poroshiri).

Distribution. Japan; China; Kamchatka; Europe; N. America.

199. *Pegoplata juvenilis* (Stein, 1898)

“Pegomyia virginea (Meigen)”: Kato, 1950: 1683.

“Pegoplata virginea (Meigen)”: Suwa, 1974: 172; Hara, 1978: 155; Hara, 1981: 77; Hara, 1987: 284.

Pegoplata juvenilis: Oku et al., 1989: 245; Fukushi, 1990: 55; Mitsui, 1993: 19.

Japanese records. Hokkaidô; Honshû; Shikoku; Kyûshû. Very common species.

Distribution. Japan; Korea; China; Europe; N. America.

200. *Pegoplata nigroscutellata* (Stein, 1920)

Nupedia nigroscutellata: Suwa, 1974: 169.

Japanese records. Hokkaidô (Sapporo; Nopporo). Honshû: Nagano-ken (Mt. Yatsugatake; Mt. Kiso-Komagatake; Mt. Chôgatake; Mt. Hodaka).

Distribution. Japan; Korea; China; Europe; N. America.

201. *Pegoplatia palposa* (Stein, 1897)

Pegoplatia palposa: Suwa, 1974: 171; Oku et al., 1989: 245; Fukushi, 1990: 55.

Japanese records. Hokkaidô (Mt. Daisetsu; Nukabira; Mt. Apoi; *Shirataki; *Mt. Shari-dake). Honshû: Aomori-ken (Hirosaki; Mt. Bonju); Iwate-ken (Mt. Waga-dake; *Mt. Hayachine); *Fukushima-ken (Hinoemata); Gumma-ken (Mikuni-tôge; *Kazawa); Tochigi-ken (Oku-Kinu; Mt. Sukai; *Nikkô; *Fujiwara; *Kobugahara; *Mt. Nasu); Tôkyô-to (Nippara); Saitama-ken (Urayama); Kanagawa-ken (Hatano); *Shizuoka-ken (Abe-tôge); *Yamanashi-ken (Masutomi; Mt. Daibosatsu; Mt. Kita-dake); Nagano-ken (Mt. Senjô; *Mt. Yatsugatake; *Shimashima-dani; *Shiga-kôgen; *Yunomaru-keikoku; *Nakabusa-onsen); *Gifu-ken (Shinhodaka-onsen – Wasabi-daira); *Niigata-ken (Renge-onsen – Tengenoniwa, Mt. Shirouma); *Toyama-ken/Niigata-ken (Asahi-dake, Mt. Shirouma). Shikoku: Tokushima-ken (Mt. Tsunagi; Mt. Miune).

Distribution. Japan; Korea; NE China; Europe; N. America.

202. *Phorbia asiatica* Hsue, 1981

Phorbia asiatica: Suwa, 1983a: 16.

Japanese records. Kyûshû: Miyazaki-ken (Takachiho-kyô).

Distribution. Japan; NE China.

203. *Phorbia asymmetrica* Suwa, 1974

Phorbia asymmetrica Suwa, 1974: 177; Suwa, 1976: 265.

Japanese records. Hokkaidô (Mt. Daisetsu). Honshû: Yamagata-ken (Mt. Chôkai); *Yamanashi-ken (Mt. Kita-dake); Nagano-ken (Mt. Kiso-Komagatake, type locality; Mt. Yatsugatake; Mt. Senjô; Mt. Hodaka; *Mt. Kashimayarigatake; *Mt. Shirouma; *Mt. Togakushi; *Mt. Nyûkasa); *Gifu-ken (Wasabi-daira – Yumiori-dake); *Toyama-ken/Niigata-ken (Asahi-dake, Mt. Shirouma).

Distribution. Japan.

204. *Phorbia hikosana* Suwa, 1983

Phorbia hikosana Suwa, 1983a: 18.

Japanese records. Kyûshû: Fukuoka-ken (Hikosan, type locality).

Distribution. Japan.

205. *Phorbia kochai* Suwa, 1974

Phorbia kochai Suwa, 1974: 176.

Japanese records. Honshû: *Gumma-ken (Kazawa); Tôkyô-to (Mt. Mitô); *Yamanashi-ken (Mt. Daibosatsu; Masutomi); Nagano-ken (Mt. Yatsugatake, type locality; *Shimo-Suwa). *Kyûshû: Ôita-ken (Mt. Kujû; Chôjabaru).

Distribution. Japan.

206. *Phorbia longipilis* (Pandellé, 1900)

Phorbia sp. A: Fukushi, 1990: 55.

Phorbia longipilis: Suwa, 1991a: 57.

Japanese records. Honshû: Aomori-ken (Todate).

Distribution. Japan; Korea; NE China; Europe.

207. *Phorbia sho* Suwa, 1991

Phorbia sp. B: Fukushi, 1990: 55.

Phorbia sho Suwa, 1991a: 58.

Japanese records. Honshû: Aomori-ken (Mt. Bonju, Namioka-machi, type locality).

Distribution. Japan.

208. *Phorbia subfascicularis* Suwa, 1994

"*Phorbia fascicularis* Tiensuu": Suwa, 1974: 178; Hara, 1981: 78.

Phorbia subfascicularis Suwa, 1994: 529.

Japanese records. Honshû: Yamanashi-ken (Mt. Daibosatsu, type locality; Masutomi); Tôkyô-to (Higashi-Murayama; Mt. Usuki); Saitama-ken (Yorii; Hannô; Koma); Nagano-ken (Mt. Kiso-Komagatake; Mt. Senjô); Toyama-ken/Niigata-ken (Asahi-dake, Mt. Shirouma); Gifu-ken (Wasabi-daira – Kagami-daira, near Mt. Kasagatake); Yamanashi-ken (Mt. Kita-dake).

Distribution. Japan; Korea; NE China; Europe; N. America.

209. *Strobilomyia anthracina* (Czerny, 1906)

Lasiomma anthracinum: Suwa, 1971a: 30; Suwa, 1974: 84.

Strobilomyia anthracina: Kamijo, 1991: 5; Kamijo, 1993: 98.

Japanese records. Hokkaidô (Jôzankei; Shikotsu-ko, ex *Picea jezoensis*, as a cone-feeder; Asahikawa, ex *Picea jezoensis* and *Picea glehnii*, as a cone-feeder; Mt. Apoi; Shikaribetsu-ko).

Distribution. Japan; NE China; Europe.

Remarks. The infestation of the present species to the cones of *Picea jezoensis* and *P. glehnii* in Hokkaido was precisely reported by Kamijo (1993).

210. *Strobilomyia laricicola* (Karl, 1928)

Hylemya laricicola: Yamada et al., 1965: 362; Yamada et al., 1972: 18.

Lasiomma laricicola: Suwa, 1971a: 30; Suwa, 1974: 84.

Strobilomyia laricicola: Kamijo, 1991: 4; Kamijo, 1993: 89.

Japanese records. I have examined specimens reared from cones of *Larix leptolepis* collected at the following localities. Hokkaidô (Nopporo; Bibai; Kimobetsu; Kyôwa-chô, Shiribeshi). Honshû: Nagano-ken (Komoro; Kawakami-mura, Minamisaku-gun).

Distribution. Japan; China; Siberia; Europe.

Remarks. According to Yamada et al. (1972), this species is widely distributed in Hokkaido and Honshu, and infests the cones of *Larix leptolepis* (in Hokkaido and Honshu), *L. koreana* (in Hokkaido) and *L. dahurica* var. *japonica* (in Hokkaido). As pointed out by Kamijo (1993), their "*laricicola*" from Honshu may include two or more species. Any species of the *laricicola* group other than the true *laricicola* has not been found in Hokkaido.

211. *Strobilomyia oriens* (Suwa, 1983)

"*Lasiomma abietis* (Huckett)": Suwa, 1971a: 30; Suwa, 1974: 85.

Lasiomma oriens Suwa, 1983: 7.

Strobilomyia oriens: Michelsen, 1988: 312.

Japanese records. Hokkaidô (Nopporo, type locality; Mt. Soranuma; *Ashibetsu, ex *Abies sachalinensis*, as a cone-feeder).

Distribution. Japan; Korea; NE China.

Remarks. This species is injurious to the cone of *Abies sachalinensis*.

212. *Strobilomyia suwai* Michelsen, 1988

Strobilomyia suwai Michelsen, 1988: 308.

Japanese records. Hokkaidô (Mt. Soranuma, type locality).

Distribution. Japan.

213. *Strobilomyia todocola* (Suwa, 1971)

Lasiomma todocola Suwa, 1971a: 32; Suwa, 1974: 85.

Strobilomyia todocola: Michelsen, 1988: 310; Kamijo, 1991: 5; Kamijo, 1993: 96.

Japanese records. Hokkaidô (Nopporo, type locality; Bibai, ex *Abies sachalinensis*, as a cone-feeder; Ashibetsu, ex *Abies sachalinensis*, as a cone-feeder).

Distribution. Japan.

Remarks. This is a injurious species to the cone of *Abies sachalinensis*. Its biology was precisely reported by Kamijo (1993).

214. *Zaphne ambigua* (Fallén, 1823)

Hydrophoria ambigua: Suwa, 1970b: 247; Suwa, 1974: 175.

Japanese records. Hokkaidô (Sapporo; Nopporo; Kushiro; *Yûfutsu).

Distribution. Japan; NE China; Kamchatka; Europe; N. America.

215. *Zaphne frontata* (Zetterstedt, 1838)

Hydrophoria frontata: Suwa, 1974: 174; Suwa, 1976: 265; Suwa, 1977: 11.

Zaphne frontata: Fukushi, 1990: 55.

Japanese records. Hokkaidô (Mt. Daisetsu; *Mt. Rausu). Honshû: Yamagata-ken (Mt. Chôkai); Shizuoka-ken (Mt. Akashi).

Distribution. Japan; Siberia; Europe; Greenland; N. America.

216. *Zaphne inuncta* (Zetterstedt, 1838)

Hydrophoria hyalipennis: Suwa, 1974: 175.

Japanese records. Hokkaidô (Eniwa; Sapporo; Nemuro; Sarobetsu).

Distribution. Japan; NE China; Europe.

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