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Auchenorrhyncha (Hemiptera) of Yahata High School, Kyushu, Japan

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Abstract. Hemipteran insects belonging to the suborder Auchenorrhyncha of Fukuoka prefectural Yahata High School, Kyushu, are listed. We enumerate 200 species (154 species under 6 families in the infraorder Cicadomorpha and 46 species under 9 families in the infraorder Fulgoromorpha). Among these species listed, 29 species (26 leafhoppers and 3 planthoppers) are new to Kyushu proper. Some brief notes on taxonomy, distribution and bionomics are also given for peculiar species.

Key words: leafhopper, planthopper, Kitakyushu, Fukuoka Prefecture, list.

Introduction

Yahata High School (school area: 0.066 km^2) is situated in lowland area (about 90 m alt.) of Kiyota, Yahatahigashi-ku, Kitakyushu, Fukuoka Prefecture, Kyushu (Fig. 1). In spite of its closeness to the city center (only 4 km apart), the surrounding area of this school still preserves a relatively good condition of nature (Fig. 2). The site of this school (Fig. 3a) is surrounded with *Chamaecyparis obtusa* Sieb. & Zucc., *Cryptomeria japonica* D.Don [Cupressaceae], *Prunus jamasakura* Sieb. [Rosaceae] and *Cinnamomum camphora* (L.) [Lauraceae] in the north side (Fig. 3b), with the dense growth of bushes and bamboos in the south side (Fig. 3c). Many trees, mainly *Myrica rubra* Lour. [Myricaceae], *Castanopsis sieboldii* (Makino), *Lithocarpus edulis* (Makino) [Fagaceae] and *Rhododendron* spp. [Ericaceae] grow around the main entrance (Fig. 3d). In the schoolyard, various trees, *Prunus mume* (Sieb.) [Rosaceae], *Morus australis* Poir. [Moraceae], *Acer* sp. [Aceraceae], *Ginkgo biloba* L. [Ginkgoaceae], *Celtis sinensis* Pers. [Cannabaceae] and so on, are planted (Fig. 3e). The Kyudo (Japanese archery) ground is covered with the lawn grasses managed periodically (Fig. 3f).

A part of this study was conducted as the research project of science and mathematics course. The field work and taxonomic study for the Auchenorrhyncha fauna was made by authors and students from 2012 to 2013 (Fig. 4a–c). As a result of our taxonomic investigation, we recognized 200 species of Auchenorrhyncha, 154 cicadomorphans and 46 fulgoromorphans, including 29 species newly recorded from Kyushu proper. Here, we list them with the collecting date, comparative notes and/or ecological remarks for noticeable species. The species newly recorded from Kyushu proper are shown by an asterisk (*), and the Japanese name newly proposed are shown by double asterisks (**). In the material data, the light trap is abbreviated to 'LT' in parentheses. After each family name, the number of species is also added in parentheses. All materials treated in this study are deposited in the Entomological Laboratory, Faculty of Agriculture, Kyushu University, Fukuoka (ELKU). The classification of Cicadomorpha used in this list follows Dietrich (2005) and Zahniser & Dietrich (2013), and Fulgoromorpha follows Wilson (2005).

Cicadomorpha

[Japanese name: Semigata-kamoku]

Cicadidae (5) [Japanese name: Semi-ka]

Platypleura kaempferi (Fabricius, 1794)
[Japanese name: Niinii-zemi] (Fig. 5)

Specimens examined. 1♂, 6. VII. 2013 (LT); 1♂, 8. VII. 2013 (LT); 1♀, 10. VII. 2013 (LT); 1♀, 11. VII. 2013

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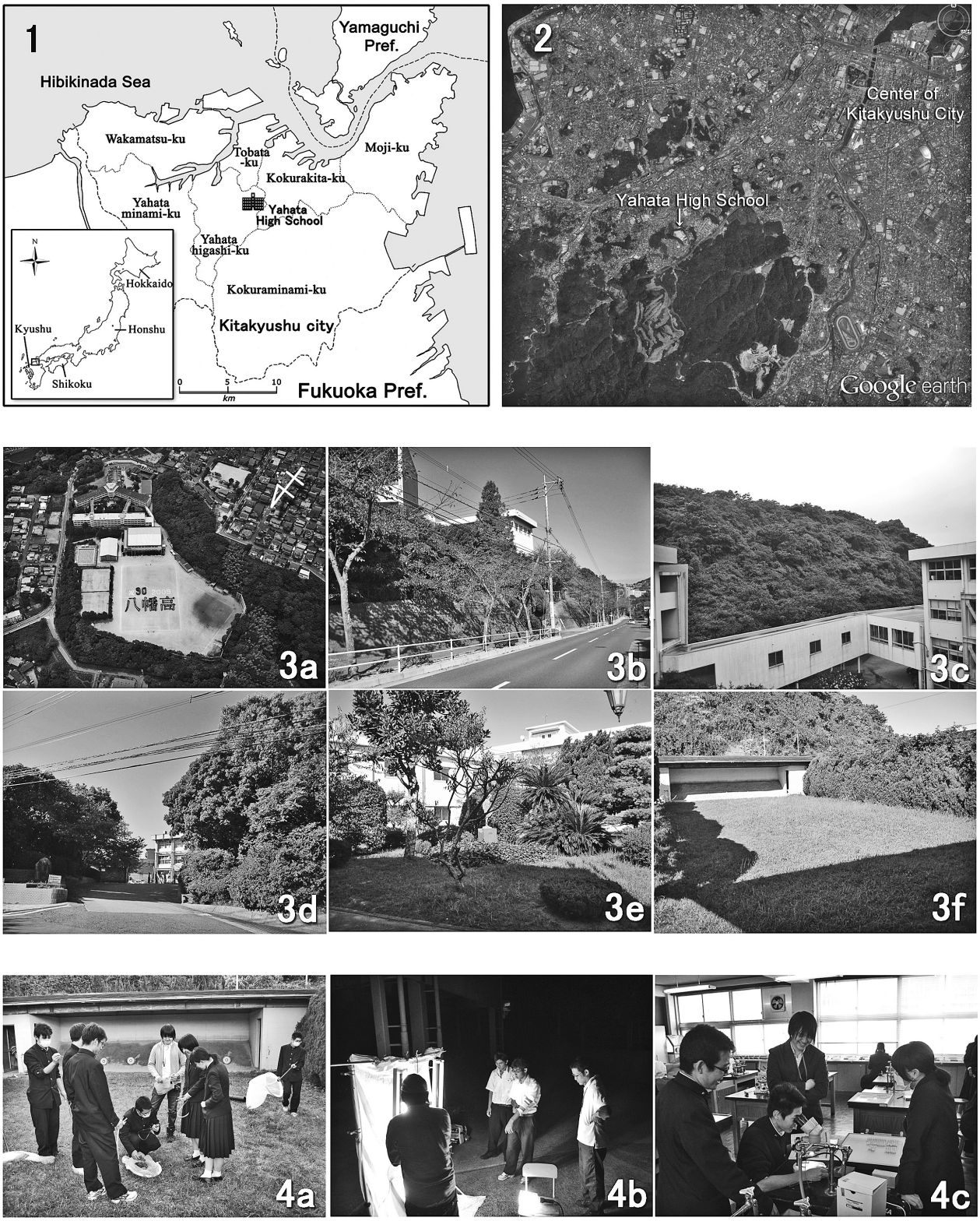


Figs. 1-4. Fukuoka Prefectural Yahata High School. — 1, Map of Yahata High School and Kitakyushu City of the Fukuoka Prefecture; 2, Yahata High School and adjacent area; 3, environment of panoramic view (a), north side (b), south side (c), main entrance (d), schoolyard (e) and Kyudo ground (f); 4, research project of high school students – collecting by sweeping (a), light trap (b), microscopic examination (c).

(LT); 1♂, 14. VII. 2013 (LT); 1♂, 16. VII. 2013 (LT); 1♂, 21. VII. 2013 (LT).

Cryptotympana facialis (Walker, 1858)
[Japanese name: Kuma-zemi] (Fig. 6)

Specimen examined. 1♂, 4. VIII. 2012 (LT).

Graptopsaltria nigrofuscata (Motschulsky, 1866)
[Japanese name: Abura-zemi] (Fig. 7)

Specimens examined. 1♂, 29. VII. 2012; 1♀, 4. VIII. 2012 (LT); 1♂, 25. VII. 2013; 1♂, 28. VII. 2013 (LT); 1♂, 10. VIII. 2013 (LT).

Tanna japonensis (Distant, 1892)
[Japanese name: Higurashi] (Fig. 8)

This cicada often sings in planted forests of *Chamaecyparis obtuse* Sieb. & Zucc. and *Cryptomeria japonica* D.Don [Cupressaceae] in the early morning and the evening.

Specimens examined. 1♂, 29. VII. 2013 (LT); 1♂, 30. VII. 2013 (LT).

Meimuna opalifera (Walker, 1850)
[Japanese name: Tsukutsuku-bôshi] (Fig. 9)

Specimens examined. 1♀, 29. VIII. 2013 (LT); 1♀, 10. IX. 2013 (LT).

Cercopidae (1) [Japanese name: Kogashira-awafukimushi-ka]

Eoscarta assimilis (Uhler, 1896)
[Japanese name: Kogashira-awahuki] (Fig. 10)

Specimens examined. 1♂, 12. VI. 2013 (LT); 3♂, 17. VI. 2013 (LT); 37♂ 37♀, 30. VI. 2013 (LT); 59♂ 113♀, 8. VII. 2013 (LT); 1♀, 4. VIII. 2013 (LT); 1♀, 11. VIII. 2013 (LT).

Aphrophoridae (2) [Japanese name: Awafukimushi-ka]

Aphrophora intermedia Uhler, 1896
[Japanese name: Shiro-obi-awafuki] (Fig. 11)

Specimens examined. 3♀, 22. VI. 2012; 2♂ 1♀, 26. VI. 2012; 3♂, 28. VI. 2012 (LT); 1♂, 6. VII. 2012 (LT); 1♂, 1. IX. 2012; 1♂ 1♀, 6. X. 2012; 1♀, 12. VI. 2013 (LT); 2♂, 15. VI. 2013 (LT); 1♂, 16. VI. 2013 (LT); 1♀, 8. VII. 2013 (LT); 1♀, 12. VII. 2013 (LT); 1♀, 5. VIII. 2013 (LT).

Aphrophora maritima Matsumura, 1903
[Japanese name: Hamabe-awafuki] (Fig. 12)

Specimen examined. 1♂, 29. VII. 2013 (LT).

Machaerotidae (1) [Japanese name: Toge-awafukimushi-ka]

Hindoloides bipunctata (Haupt, 1923)
[Japanese name: Muneaka-awafuki] (Fig. 13)

The host plant is recognized to be cherry trees, *Prunus* spp. [Rosaceae]. In this school, some adults were collected from *Prunus jamasakura* from the late of April to May.

Specimens examined. 1♂ 1♀, 24. IV. 2012; 1♀, 1. V. 2012; 1♂ 2♀, 2. V. 2012; 1♀, 23. V. 2012.

Membracidae (1) [Japanese name: Tsunozemi-ka]

Gargara genistae (Fabricius, 1775)
[Japanese name: Maru-tsunozemi] (Fig. 14)

Specimen examined. 1♀, 8. VII. 2013 (LT).

Cicadellidae (144) [Japanese name: Yokobai-ka]

Megophthalminae [Japanese name: Shida-yokobai-aka]

Japanagallia pteridis (Matsumura, 1905)
[Japanese name: Sida-yokobai] (Fig. 15)

Specimen examined. 1♂, 2. V. 2013.

Macropsinae [Japanese name: Hirozu-yokobai-aka]

Macropsis illota (Horváth, 1899)
[Japanese name: Ko-hatomune-yokobai] (Fig. 16)

Specimen examined. 1♂, 15. VI. 2013 (LT).

Macropsis irrorata (Matsumura, 1912)
[Japanese name: Gomafu-hatomune-yokobai] (Fig. 17)

Some adults found on *Castanopsis sieboldii* (Makino) and *Quercus serrata* Murray [Fagaceae].

Specimens examined. 1♀, 23. XI. 2012; 1♀, 18. XII. 2012; 1♀, 24. I. 2013; 1♀, 31. V. 2013 (LT); 7♂ 3♀, 18. VI. 2013 (LT); 5♂ 4♀, 5. VII. 2013 (LT); 1♂ 7♀, 10. VIII. 2013 (LT); 1♀, 4. IX. 2013 (LT).

Macropsis sp.

This leafhopper may be identical with "*Macropsis* sp. 3" of Hayashi (1998), and host plant is recognized on *Morus australis* Poir. [Moraceae].

Specimens examined. 1♂, 29. V. 2013 (LT); 1♂, 6. VI. 2013 (LT); 2♂ 1♀, 12. VI. 2013 (LT); 1♂, 18. VI. 2013 (LT); 1♀, 4. VII. 2013 (LT).

Pedionis venosa Hamilton, 1980
[Japanese name: Ô-kagoshima-hatomune-yokobai] (Fig. 18)

This species is similar to *P. kagoshimensis* (Matsumura, 1912), occurring in western Japan, but is easily distinguished by the body coloration and the shape of male genitalia; dorsal connective and apical process of aedeagus (Okudera, 2009).

Specimen examined. 1♂, 10. VII. 2013 (LT).

Ledrinae [Japanese name: Mimizuku-aka]

Ledra auditura Walker, 1858
[Japanese name: Mimizuku] (Fig. 19)

The host plant is recognized to be fagaceous trees. The body shape of nymph is very flat.

Specimens examined. 1♂, 3. VI. 2013 (LT); 3♂, 27. VI. 2013 (LT); 3♂ 2♀, 8. VII. 2013 (LT); 1♀, 30. VII. 2013 (LT); 1♂ 1♀, 6. X. 2013 (LT).

Ledropsis discolor (Uhler, 1896)
[Japanese name: Ko-mimizuku] (Fig. 20)

Specimens examined. 1♀, 28. IV. 2012; 1♂, 4. VI.

2013 (LT); 2♀, 8. VI. 2013 (LT); 1♀, 16. VI. 2013 (LT).

Cicadellinae [Japanese name: Ô-yokobai-aka]

Bothrogonia ferruginea (Fabricius, 1787)

[Japanese name: Tsumaguro-ô-yokobai] (Fig. 21)

The body coloration of this leafhopper is yellowish green in live, but it becomes orange in dry specimens.

Specimens examined. 1♀, 28. IV. 2012; 1♂ 2♀, 1. IX. 2012; 2♂ 3♀, 27. IX. 2012; 2♂ 1♀, 28. X. 2012; 3♂ 1♀, 27. XI. 2012; 1♂, 8. III. 2013; 1♀, 2. V. 2013; 1♂, 16. V. 2013.

Cicadella viridis (Linnaeus, 1758)

[Japanese name: Ô-yokobai] (Fig. 22)

Specimens examined. 1♂, 4. VI. 2013 (LT); 1♂, 18. VII. 2013 (LT).

Kolla atramentaria (Motschulsky, 1859)

[Japanese name: Maejiro-ô-yokobai] (Fig. 23)

Specimens examined. 1♂ 2♀, 2. V. 2013; 1♂, 16. V. 2013; 1♂, 14. VII. 2013 (LT); 1♂, 15. VIII. 2013 (LT); 1♂, 11. IX. 2013 (LT).

Evacanthinae [Japanese name: Kammuri-yokobai-aka]

Evacanthus interruptus (Linnaeus, 1758)

[Japanese name: Kisuji-kammuri-yokobai] (Fig. 24)

Specimens examined. 1♂, 17. V. 2013; 1♂, 23. V. 2013.

Pagaronia okadai Anufriev, 1971

[Japanese name: Okada-kuwaki-yokobai] (Fig. 25)

This genus have been much diversified in East Asia, especially in Japan. Eighty four described species are known from Japan, and eight species are recognized from Fukuoka Prefecture. Because most *Pagaronia* species are very similar to each other in body hue, the examination of the male genitalia is needed to identify those leafhoppers.

Specimens examined. 7♂ 6♀, 28. IV. 2012; 5♂ 2♀, 2. V. 2012; 13♂ 6♀, 23. V. 2013; 2♀, 12. VI. 2013 (LT).

Pagaronia minor Anufriev, 1970

[Japanese name: Ko-kuwaki-yokobai] (Fig. 26)

This species had been known only from Honshu, but it was recently recorded from Fukuoka prefecture (Okudera *et al*., 2013). *P. minor* is distinguishable from former specie by the body size, black spots on the head and the shape of male genitalia; aedeagal shaft with two pairs apical processes.

Specimens examined. 25♂ 5♀, 23. V. 2012; 1♂ 2♀, 22. VI. 2012; 4♂ 3♀, 16. V. 2013.

Sophonia orientalis (Matsumura, 1912)

[Japanese name: Kurosuji-hososaji-yokobai] (Fig. 27)

Specimens examined. 1♀, 28. IV. 2012; 2♂, 28. VI. 2012; 4♀, 3. VIII. 2012; 1♂ 5♀, 23. XI. 2012 (LT); 2♀, 28. X. 2012; 4♀, 8. I. 2013; 1♀, 21. II. 2013; 1♀, 8. III. 2013.

Idiocerinae [Japanese name: Zukin-yokobai-aka]

Metidiocerus rutilans (Kirschbaum, 1868)

[Japanese name: Munaguro-zukin-yokobai] (Fig. 28)

Specimen examined. 1♂, 9. VII. 2013 (LT).

Idiocerus yanonis Matsumura, 1912

[Japanese name: Yano-zukin-yokobai] (Fig. 29)

The host plant is recognized to be *Myrica rubra* Lour. [Myricaceae]. (Yamada *et al*., 2009a).

Specimens examined. 2♂ 2♀, 28. X. 2012; 3♂, 24 I. 2013; 3♂ 3♀, 21. II. 2013; 8♀, 16. V. 2013; 3♂ 1♀, 17. VI. 2013 (LT); 3♂ 4♀, 8. VII. 2013 (LT).

Iassinae [Japanese name: Aozukin-yokobai-aka]

Batracomorphus chlorophana (Melichar, 1903) (Fig. 30)

This leafhopper is known from Honshu, Kyushu and the Ryukyus (Hayashi, 1997; Kamitani & Ôtsuka, 2001). This species is similar to *B. mundus*, but differs in the small body size and aedeagal shaft of male genitalia.

Specimens examined. 3♂, 14. VI. 2013 (LT); 7♂, 25. VII. 2013 (LT); 4♂, 2. VIII. 2013 (LT); 1♂, 12. XI. 2013 (LT); 3♂, 21. X. 2013 (LT).

Batracomorphus diminutus (Matsumura, 1912)

[Japanese name: Hime-aozukin-yokobai] (Fig. 31)

Specimen examined. 1♂, 18. IX. 2013 (LT).

Batracomorphus mundus (Uhler, 1896)

[Japanese name: Aozukin-yokobai] (Fig. 32)

Specimens examined. 1♂, 28. VI. 2012; 1♂, 1. IX. 2012; 1♂, 17. VI. 2013 (LT); 1♂, 10. VII. 2013 (LT); 1♂, 27. VII. 2013 (LT); 1♂, 2. IX. 2013 (LT).

Batracomorphus stigmaticus (Matsumura, 1912)

[Japanese name: Hoshi-aozukin-yokobai] (Fig. 33)

Specimens examined. 1♂, 21. IX. 2012; 1♂, 1. VIII. 2013 (LT); 2♂, 2. VIII. 2013 (LT); 1♂, 5. IX. 2013 (LT); 1♂, 6. X. 2013 (LT); 2♂, 11. X. 2013 (LT); 1♂, 19. X. 2013 (LT).

Batracomorphus sp. 1

This leafhopper is similar to *B. diminutus*, and it can be distinguished by the shape of male genitalia (pygofer process and style).

Specimens examined. 2013 (LT); 1♂, 15. VI. 2013 (LT); 1♂, 17. VI. 2013 (LT); 1♂, 18. VI. 2013 (LT); 1♂, 20. VI. 2013 (LT); 1♂, 14. VII. 2013 (LT); 1♂, 25. VII. 2013 (LT); 1♂, 2. VIII. 2013 (LT); 2♂, 26. VIII. 2013 (LT); 1♂, 29. VIII. 2013 (LT); 1♂, 4. IX. 2013 (LT); 2♂, 5. IX. 2013 (LT); 3♂, 21. X. 2013 (LT).

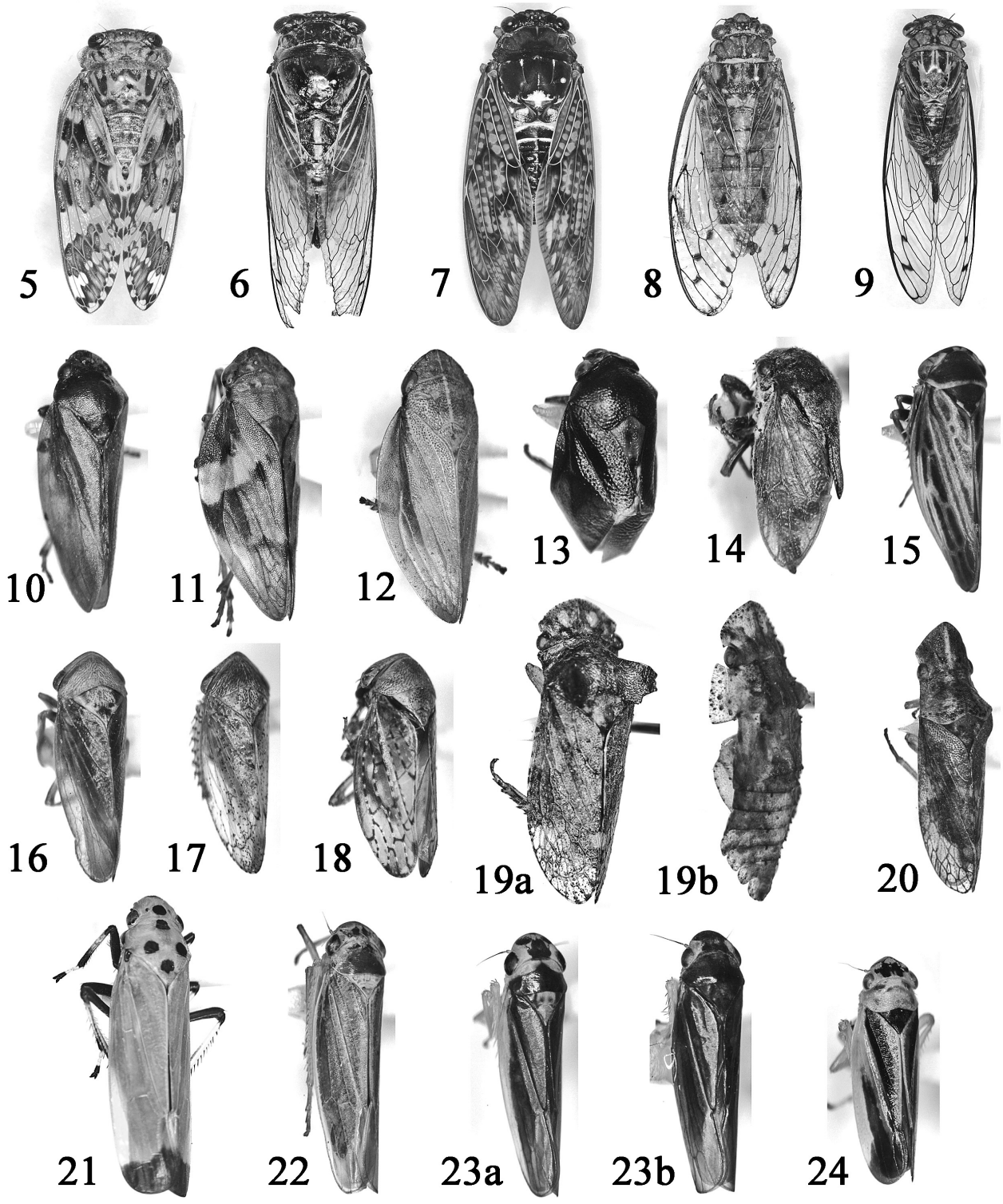
Batracomorphus sp. 2

This species is unique in the feature of male genitalia, especially configuration of the pygofer process trifurcated at tip.

Specimen examined. 1♂, 19. VI. 2013 (LT).

Batracomorphus sp. 3

This species is similar in general habitus to *B.*



Figs. 5-24. Auchenorrhyncha-Cicadomorpha (1). — 5, *Platypleura kaempferi* (♂, 33 mm); 6, *Cryptotympana facialis* (♂, 60 mm); 7, *Graptopsaltria nigrofuscata* (♂, 54 mm); 8, *Tanna japonensis* (♂, 43 mm); 9, *Meimuna opalifera* (♀, 44 mm); 10, *Eoscarta assimilis* (♂, 6.7 mm); 11, *Aphrophora intermedia* (♂, 10.9 mm); 12, *Aphrophora maritima* (♂, 9.6 mm); 13, *Hindoloides bipunctata* (♂, 4.1 mm); 14, *Gargara genistae* (♀, 6.3 mm); 15, *Japanagallia pteridis* (♂, 4.6 mm); 16, *Macropsis illota* (♂, 3.6 mm); 17, *Macropsis irrorata* (♂, 3.2 mm); 18, *Pedionis venosa* (♂, 3.9 mm); 19, *Ledra auditura* – (a) (♂, 13.7 mm), (b) (nymph, 10.8 mm); 20, *Ledropsis discolor* (♂, 9.2 mm); 21, *Bothrogonia ferruginea* (♂, 12.3 mm); 22, *Cicadella viridis* (♂, 7.3 mm); 23, *Kolla atramentaria* – (a) yellowish specimen (♂, 5.4 mm), (b) dark specimen (♂, 5.6 mm); 24, *Evacanthus interruptus* (♂, 6.5 mm).

chlorophana, but differs in the shape of male genitalia; tip of style not bifid but hook-like, aedeagus slender and elongate.

Specimen examined. 1♂, 12. VIII. 2013 (LT).

Batracomorphus sp. 4

This leafhopper is similar to *B. stigmaticus*, and it can be distinguished by the shape of male genitalia; pygofer process not hook-like but bifid, aedeagus shorter.

Specimen examined. 1♂, 18. VI. 2013 (LT).

Aphrodinae [Japanese name: Hirata-yokobai-aka]

Planaphrodes nigricans (Matsumura, 1912)

[Japanese name: Kurosaji-yokobai] (Fig. 34)

Specimen examined. 1♀, 28. X. 2012.

Stroggylocephalus agrestis (Fallén, 1806)

[Japanese name: Inehirata-yokobai] (Fig. 35)

Specimens examined. 1♀, 2. VII. 2013 (LT); 1♂, 4. VII. 2013 (LT); 1♀, 5. VII. 2013 (LT); 1♀, 18. VII. 2013 (LT); 1♀, 25. VII. 2013 (LT); 1♀, 27. VII. 2013 (LT); 1♀, 29. VII. 2013 (LT).

Deltocephalinae [Japanese name: Yokobai-aka]

Athysanini

Amimenus mojiensis (Matsumura, 1914)

[Japanese name: Moji-yokobai] (Fig. 36)

Specimens examined. 1♀, 7. VI. 2013 (LT); 2♂ 1♀, 12. VI. 2013 (LT); 2♂ 1♀, 30. VI. 2013 (LT); 1♂, 2. VII. 2013 (LT); 1♂, 18. VII. 2013 (LT); 1♀, 2. VIII. 2013 (LT).

Matsumurella kogotensis (Matsumura, 1914)

[Japanese name: Kochairo-yokobai] (Fig. 37)

Specimens examined. 1♂, 20. VI. 2013 (LT); 1♂, 26. VI. 2012; 1♂, 29. V. 2013 (LT); 1♀, 5. VI. 2013 (LT).

Orientus ishidae (Matsumura, 1902)

[Japanese name: Ringo-madara-yokobai] (Fig. 38)

Specimens examined. 2♂, 26. VI. 2013 (LT); 2♂, 30. VI. 2013 (LT); 2♂, 8. VII. 2013 (LT); ♂ 1♀, 25. VII. 2013 (LT); 1♂, 5. VIII. 2013 (LT); 1♀, 11. VIII. 2013 (LT).

Chiasmini

Aconurella orientalis (Matsumura, 1914)

(Fig. 39)

This species is distributed in central Honshu, Shikoku, Tsushima Is. and Taiwan. In Kyushu proper, it was first recorded from Yatsushiro, Kumamoto Pref. by Ôtsuka (1996).

Specimens examined. 1♂, 1. VIII. 2013 (LT); 1♀, 13. VIII. 2013 (LT).

Exitianus indicus (Distant, 1908)

[Japanese name: Kuromyaku-ichimonji-yokobai] (Fig. 40)

This species is similar to *E. nanus* (Distant, 1908), and it different from the shape of male genitalia; the number of macrosetae of pygofer lobe.

Specimens examined. 1♀, 16. V. 2013; 1♂ 1♀, 8. VII. 2013 (LT); 1♂, 28. VII. 2013 (LT); 1♂, 13. VIII. 2013 (LT); 1♂, 28. VIII. 2013 (LT); 3♂, 10. IX. 2013 (LT).

Nephotettix cincticeps (Uhler, 1896)

[Japanese name: Tsumaguro-yokobai] (Fig. 41)

Specimens examined. 2♂ 1♀, 6. VII. 2013 (LT); 4♀, 16. VIII. 2013 (LT); 11♂ 1♀, 4. IX. 2013 (LT); 3♂, 11. IX. 2013 (LT).

Deltocephalini

Alobaldia tobae (Matsumura, 1902)

[Japanese name: Toba-yokobai] (Fig. 42)

Specimens examined. 1♀, 2. V. 2013; 3♀, 13. VI. 2013 (LT); 1♂ 2♀, 15. VI. 2013 (LT); 1♂, 21. VII. 2013 (LT); 1♂, 10. VIII. 2013 (LT); 1♂, 11. IX. 2013 (LT).

Ctenurellina paludosa (Vilbaste, 1968)

[Japanese name: Usuaka-ichimonji-yokobai] (Fig. 43)

Specimens examined. 1♀, 7. VII. 2013 (LT); 1♀, 6. IX. 2013 (LT).

Maiestas akashiensis (Matsumura, 1914)

[Japanese name: Akashi-madara-yokobai] (Fig. 44)

Specimens examined. 1♂, 26. VI. 2012; 7♂, 9. X. 2012; 3♀, 28. X. 2012; 1♂, 6. VI. 2013 (LT); 1♂, 10. VII. 2013 (LT); 1♂, 12. VIII. 2013 (LT).

Maiestas dorsalis (Motschulsky, 1859)

[Japanese name: Inazuma-yokobai] (Fig. 45)

Specimens examined. 1♂, 30. V. 2013 (LT); 1♀, 5. VIII. 2013 (LT); 1♀, 5. IX. 2013 (LT); 1♂, 12. IX. 2013 (LT).

Maiestas latifrons (Matsumura, 1902)

[Japanese name: Hirozu-madara-yokobai] (Fig. 46)

Specimen examined. 1♂, 18. VII. 2013 (LT).

Maiestas nakaharae (Matsumura, 1914)*

[Japanese name: Nakahara-madara-yokobai] (Fig. 47)

This species has been known from Honshu and Tsushima Is. (Yamada *et al.*, 2009a, b), and it is first recorded from Kyushu proper.

Specimens examined. 13♂ 4♀, 16. V. 2013; 3♂ 4♀, 8. VII. 2013 (LT); 4♂ 1♀, 16. VII. 2013 (LT); 3♂ 1♀, 10. VIII. 2013 (LT); 1♂, 8. IX. 2013 (LT); 1♂ 1♀, 18. IX. 2013 (LT).

Maiestas sp. 1

This species resembles *M. latifrons* in general habitus, but differing in the marking of fore wing and Shape of aedeagus in the male genitalia.

Specimens examined. 1♀, 18. VII. 2013 (LT); 1♂, 31. VII. 2013 (LT); 1♂, 1. IX. 2013 (LT).

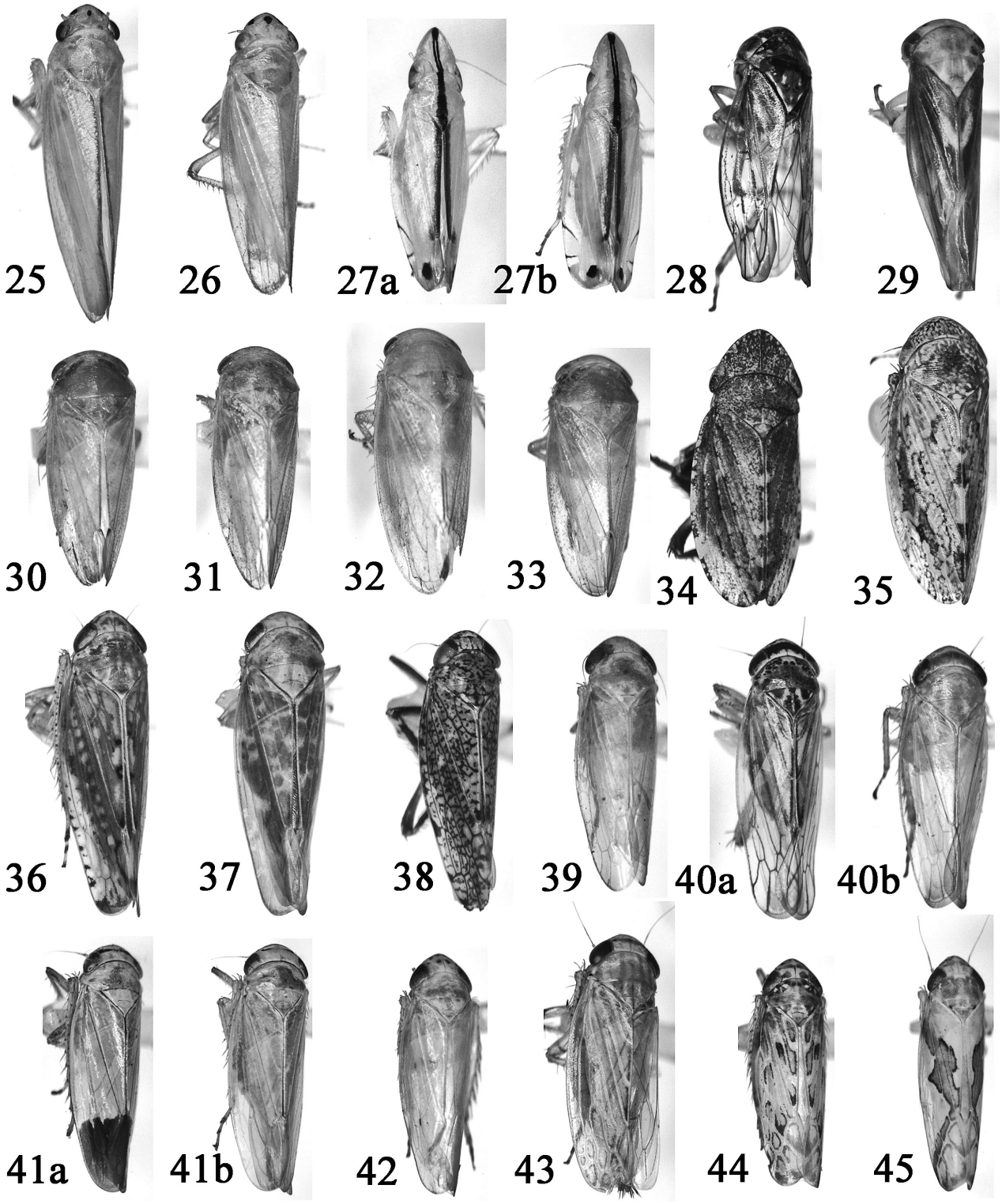
Maiestas sp. 2

This deltocephaline leafhopper is similar to *M. akashiensis*, and it is distinguishable by the shape of male genitalia.

Specimens examined. 1♂, 11. VII. 2013 (LT).

Maiestas sp. 3

This species is very similar to *M. nakaharae*, and it



Figs. 25-45. Auchenorrhyncha-Cicadomorpha (2). — 25, *Pagaronia okadai* (♂, 8.0 mm); 26, *Pagaronia minor* (♂, 7.1 mm); 27, *Sophonia orientalis* – (a) (♂, 4.1 mm), (b) (♀, 5.0 mm); 28, *Metidiocerus rutilans* (♂, 5.1 mm); 29, *Idiocerus yanonis* (♂, 4.6 mm); 30, *Batracomorphus chlorophana* (♂, 4.7 mm); 31, *Batracomorphus diminutus* (♂, 4.6 mm); 32, *Batracomorphus mundus* (♂, 6.0 mm); 33, *Batracomorphus stigmatticus* (♂, 4.3 mm); 34, *Planaphrodes nigricans* (♀, 5.4 mm); 35, *Stroggylocephalus agrestis* (♂, 6.3 mm); 36, *Amimenus mojiensis* (♂, 7.1 mm); 37, *Matsumurella kogotensis* (♂, 7.0 mm); 38, *Orientus ishidae* (♂, 5.0 mm); 39, *Aconurella orientalis* (♂, 3.0 mm); 40, *Exitianus indicus* – (a) normal dark form (♂, 4.7 mm), (b) pale-colored specimen (♂, 4.3 mm); 41, *Nephotettix cincticeps* – (a) (♂, 4.5 mm), (b) (♀, 5.1 mm); 42, *Alobaldia tobae* (♂, 3.5 mm); 43, *Ctenurellina paludosa* (♀, 6.0 mm); 44, *Maiestas akashiensis* (♂, 3.3 mm); 45, *Maiestas dorsalis* (♂, 3.8 mm).

can be distinguished by the small body size and the subgenital plate of male genitalia.

Specimens examined. 4♂ 4♀, 1. IX. 2012; 13♂ 7♀, 9. X. 2012; 11♂, 16. V. 2013; 1♂, 9. VIII. 2013 (LT).

Recilia coronifer (Marshall, 1866)

(Fig. 48)

This leafhopper was recorded from Kyushu (Kumamoto Pref.) by Ôtsuka (1996).

Specimens examined. 1♂, 6. VI. 2013 (LT); 1♂, 12. VI. 2013 (LT); 2♀, 15. VI. 2013 (LT); 1♂ 1♀, 17. VI. 2013 (LT); 1♂, 30. VII. 2013 (LT).

Paramesodes albinervosus (Matsumura, 1902)

[Japanese name: Shiromyaku-ichimonji-yokobai] (Fig. 49)

Specimens examined. 1♀, 30. VI. 2013 (LT); 1♀, 8. VIII. 2013 (LT); 1♀, 28. X. 2013 (LT).

Drabescini

Bhatia satsumensis (Matsumura, 1914)

[Japanese name: Satsuma-hirozu-kusabi-yokobai] (Fig. 50)

Specimens examined. 1♂, 27. IX. 2012; 4♂ 2♀, 18. VI. 2013 (LT); 4♂ 2♀, 3. VII. 2013 (LT); 5♂ 3♀, 5. VII. 2013 (LT); 3♀, 17. VII. 2013 (LT); 1♀, 31. VII. 2013 (LT).

Drabescus formosanus Matsumura, 1912

[Japanese name: Taiwan-buchimyaku-yokobai] (Fig. 51)

This species was recorded from Honshu, Kyushu, Tsushima Is. and the Ryukyus by Hayashi (1997).

Specimens examined. 1♂, 12. VI. 2013 (LT); 1♂, 14. VI. 2013 (LT); 1♂, 15. VI. 2013 (LT); 1♂, 16. VI. 2013 (LT); 1♂, 20. VI. 2013 (LT); 1♂, 2. VII. 2013 (LT); 1♀, 9. VIII. 2013 (LT); 1♀, 10. VIII. 2013 (LT).

Drabescus nigrifemoratus (Matsumura, 1905)

[Japanese name: Buchimyaku-yokobai] (Fig. 52)

Specimens examined. 2♀, 22. VI. 2012 (LT); 1♂, 10. VI. 2013 (LT); 1♂, 13. VI. 2013 (LT); 1♀, 2. VII. 2013 (LT); 1♂, 24. VI. 2013 (LT).

Drabescus nitobei Matsumura, 1912

[Japanese name: Nitobe-buchimyaku-yokobai] (Fig. 53)

Specimens examined. 1♂, 17. VII. 2012; 1♂, 27. IX. 2012; 1♂, 5. VII. 2013 (LT); 1♂, 6. VII. 2013 (LT); 1♂, 10. VII. 2013 (LT); 1♂, 11. VII. 2013 (LT); 1♂ 1♀, 13. VII. 2013 (LT); 1♀, 14. VII. 2013 (LT); 1♂, 18. VII. 2013 (LT).

Dryadomorpha pallida Kirkaldy, 1906

[Japanese name: Midori-togari-kusabi-yokobai]** (Fig. 54)

Specimens examined. 1♀, 12. IX. 2012 (LT); 2♀, 31. VII. 2013 (LT); 3♀, 5. VIII. 2013 (LT); 1♂ 11♀, 10. VIII. 2013 (LT); 4♀, 13. VIII. 2013 (LT); 1♂ 2♀, 29. VIII. 2013 (LT).

Favintiga camphorae (Matsumura, 1912)

[Japanese name: Kusu-hoshisaji-yokobai]** (Fig. 55)

Specimens examined. 1♀, 5. VI. 2013 (LT); 5♂ 1♀, 18. VI. 2013 (LT); 3♂ 1♀, 6. VII. 2013 (LT); 1♂, 29. VII. 2013 (LT); 1♂, 9. VIII. 2013 (LT); 1♀, 26. VI. 2013 (LT).

Parabolopona guttata (Uhler, 1896)

[Japanese name: Hoshisaji-yokobai] (Fig. 56)

In Kyushu, only this species is known. Recently, *P. mutabilis* N. Ohara et Kogure, 2012 was described from the Ryukyus, and three congeners are distributed in Japan (Ohara & Kogure, 2012).

Specimens examined. 1♂, 19. VI. 2013 (LT); 1♀, 4. VII. 2013 (LT); 1♀, 6. VII. 2013 (LT); 1♂, 29. VII. 2013 (LT); 1♀, 3. VIII. 2013 (LT).

Waigara boninensis (Matsumura, 1914)

[Japanese name: Usuiro-futaten-kusabi-yokobai]** (Fig. 57)

Specimens examined. 1♂, 18. VI. 2013 (LT); 1♂ 1♀, 8. VII. 2013 (LT); 1♂, 23. VII. 2013 (LT); 1♂, 2. VIII. 2013 (LT).

Macrostelini

Balclutha rubrinervis (Matsumura, 1902)

[Japanese name: Aka-kasuri-yokobai] (Fig. 58)

At present, 16 species are known to occur in Japan, and three species are recognized in Kyushu (Ohara *et al.*, 2008; Yamada, 1999).

Specimens examined. 6♂ 11♀, 22. VI. 2012; 19♂ 18♀, 28. VI. 2012; 2♂ 7♀, 6. VII. 2012 (LT); 1♂, 3. VIII. 2012; 6♂ 12♀, 28. X. 2012; 3♂ 2♀, 28. VI. 2012.

Balclutha saltuella (Kirschbaum, 1868)

[Japanese name: Hime-kasuri-yokobai] (Fig. 59)

Specimens examined. 7♂ 6♀, 27. IX. 2012; 8♂ 5♀, 9. X. 2012; 3♂ 3♀, 23. X. 2012; 10♂ 21♀, 28. X. 2012; 2♂ 3♀, 23. XI. 2012.

Macrosteles brunnescens Anufriev, 1968*

[Japanese name: Usuguro-usuba-yokobai]** (Fig. 60)

This species known from Honshu and Tsushima Is. is recorded from Kyushu proper for the first time.

Specimen examined. 1♂, 20. VII. 2013 (LT).

Macrosteles cyanea (Boheman, 1845)

[Japanese name: Hishi-yokobai] (Fig. 61)

Specimens examined. 1♀, 17. VI. 2013 (LT); 1♀, 18. VI. 2013 (LT); 1♀, 22. VI. 2013 (LT); 1♀, 12. VII. 2013 (LT); 3♀, 18. VII. 2013 (LT); 3♀, 22. VII. 2013 (LT); 1♀, 12. VIII. 2013 (LT).

Macrosteles quadrimaculatus (Matsumura, 1900)

[Japanese name: Yotsuten-yokobai] (Fig. 62)

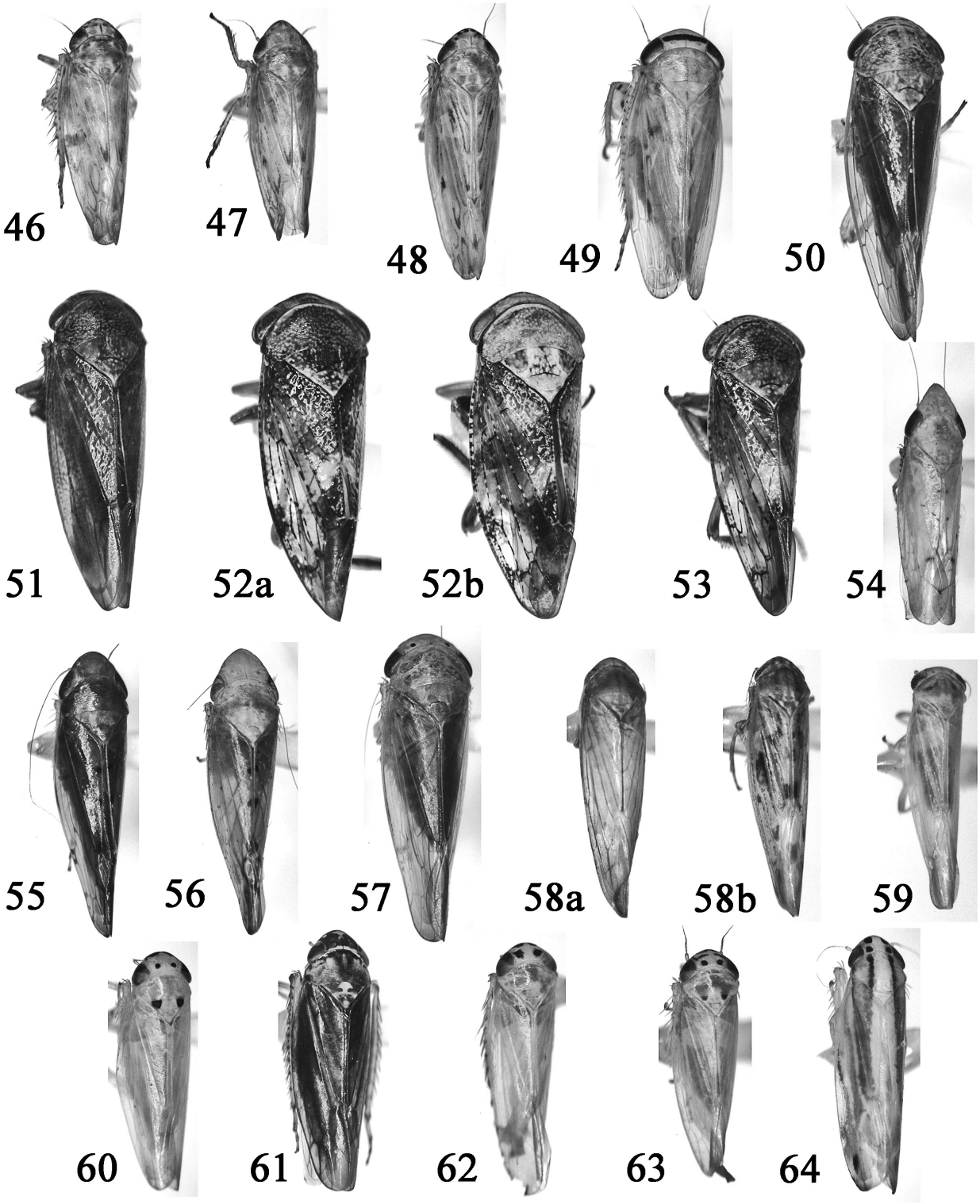
Specimens examined. 1♂, 10. VII. 2012 (LT); 2♂ 1♀, 17. VII. 2012 (LT); 1♂, 22. VII. 2012 (LT).

Macrosteles striifrons Anufriev, 1968

[Japanese name: Hime-futaten-yokobai] (Fig. 63)

This species is similar to *M. abludens* Anufriev, 1968, recently recorded from Japan (Honshu, Kyushu and Tsushima Is.) by Hayashi & Kogure (2013), but differs in the shape of male genitalia, especially aedeagal apical process.

Specimens examined. 1♂ 2♀, 16. V. 2013; 4♂ 2♀, 15.



Figs. 46-64. Auchenorrhyncha-Cicadomorpha (3). — 46, *Maiestas latifrons* (♂, 3.6 mm); 47, *Maiestas nakaharae* (♂, 2.8 mm); 48, *Recilia coronifer* (♂, 4.0 mm); 49, *Paramesodes albinervosus* (♀, 5.6 mm); 50, *Bhatia satsumensis* (♂, 6.5 mm); 51, *Drabescus formosanus* (♂, 7.7 mm); 52, *Drabescus nigrifemoratus* – (a) (♂, 7.0 mm), (b) (♀, 8.5 mm); 53, *Drabescus nitobei* (♂, 6.6 mm); 54, *Dryadomorpha pallida* (♂, 5.2 mm); 55, *Favintiga camphorae* (♂, 6.1 mm);56, *Parabolopona guttata* (♀, 6.6 mm); 57, *Waigara boninensis* (♂, 6.8 mm); 58, *Balclutha rubrinervis* – (a) green form (♂, 3.7 mm), (b) dark red form (♂, 3.7 mm); 59, *Balclutha saltuella* (♂, 2.8 mm); 60, *Macrosteles brunnescens* (♀, 4.0 mm); 61, *Macrosteles cyane* (♀, 4.6 mm); 62, *Macrosteles quadrimaculatus* (♂, 3.5 mm); 63, *Macrosteles striifrons* (♂, 2.8 mm); 64, *Yamatotettix flavovittatus* (♂, 3.8 mm).

VI. 2013 (LT); 3♂ 11♀, 22. VII. 2013 (LT); 1♂ 3♀, 11. VIII. 2013 (LT); 1♀, 8. IX. 2013 (LT).

Macrosteles sp.

This leafhopper resembles *M. quadrimaculatus*, and it can be distinguished by the shape of aedeagal apical process in male genitalia.

Specimen examined. 1♂, 11. IX. 2013 (LT).

Yamatotettix flavovittatus (Matsumura, 1914)

[Japanese name: Yamato-yokobai] (Fig. 64)

Specimens examined. 1♀, 13. VI. 2013 (LT); 1♀, 17. VI. 2013 (LT); 1♂, 18. VI. 2013 (LT); 1♀, 19. VI. 2013 (LT); 1♀, 2. VII. 2013 (LT); 1♀, 22. VII. 2013 (LT); 1♀, 10. IX. 2013 (LT).

Opsiini

Hishimonoides miaolingensis Li et Zhang, 2006*

[Japanese name: Hime-hishimon-modoki] (Fig. 65)

This leafhopper was recently recorded from Japan (Honshu) by Okudera & Imai (2012), and it is also collected from Kyushu for the first time.

Specimens examined. 1♀, 15. VII. 2013 (LT); 1♀, 31. VII. 2013 (LT); 1♂, 3. VIII. 2013 (LT).

Hishimonus araii Okada, 1978

[Japanese name: Arai-hishimon-yokobai] (Fig. 66)

Specimens examined. 1♂, 29. V. 2013 (LT); 1♂ 2♀, 8. VII. 2013 (LT); 4♂ 2♀, 12. VII. 2013 (LT); 2♂, 12. VIII. 2013 (LT); 4♂ 2♀, 15. VIII. 2013 (LT); 1♂, 5. IX. 2013 (LT).

Hishimonus sellatus (Uhler, 1896)

[Japanese name: Hishimon-yokobai] (Fig. 67)

Specimens examined. 1♂, 15. VI. 2013 (LT); 1♂, 6. VII. 2013 (LT); 1♂, 27. VII. 2013 (LT); 2♂, 1. VIII. 2013 (LT); 1♂, 3. VIII. 2013 (LT); 1♂, 27. VIII. 2013 (LT).

Hishimonus sp.

This species is similar to *H. sellatus*, and it can be distinguished by the body coloration and the shape of aedeagal shaft of male genitalia.

Specimens examined. 1♂, 4. VI. 2013 (LT); 2♂, 7. VI. 2013 (LT); 2♂ 1♀, 12. VI. 2013 (LT); 2♂, 17. VI. 2013 (LT); 1♂, 1. VIII. 2013 (LT).

Japananus hyalinus (Osborn, 1900)

[Japanese name: Misuji-togari-yokobai] (Fig. 68)

The host plant is recognized to be some *Acer* maple trees. In Fukuoka Pref., this leafhopper was recorded from Yamada Park, Kitakyushu (Saigusa *et al*., 1992).

Specimens examined. 1♂ 7♀, 9. X. 2012; 1♂, 12. VI. 2013 (LT); 1♂ 1♀, 26. VI. 2013 (LT); 3♂ 3♀, 2. VII. 2013 (LT); 1♀, 15. VIII. 2013 (LT); 1♂, 6. IX. 2013 (LT).

Orosius orientalis (Matsumura, 1914)

[Japanese name: Minami-madara-yokobai] (Fig. 69)

Specimen examined. 1♀, 14. VII. 2013 (LT).

Satsumanus satsumae (Matsumura, 1914)

[Japanese name: Satsuma-yokobai] (Fig. 70)

Specimens examined. 1♂ 1♀, 13. VI. 2013 (LT); 1♂, 12. VI. 2013 (LT); 3♂ 1♀, 17. VII. 2013 (LT); 2♂, 27. VII. 2013 (LT); 1♂ 1♀, 2. VIII. 2013 (LT); 1♀, 28. VIII. 2013 (LT).

Paralimnini

Futasujinus candidus (Matsumura, 1914)

[Japanese name: Futasuji-togari-yokobai] (Fig. 71)

Specimen examined. 1♂,28. X. 2012.

Hengchunia koshunensis (Matsumura, 1914)

[Japanese name: Kôshun-yokobai] (Fig. 72)

Specimens examined. 1♂, 28. VI. 2012; 1♂, 3. VIII. 2012; 1♀, 27. IX. 2012; 1♂, 30. VII. 2013 (LT); 1♀, 2. VIII. 2013 (LT).

Paralimnus tamagawanus Matsumura, 1914

[Japanese name: Tamagawa-yoshi-yokobai] (Fig. 73)

This leafhopper was recorded from Kyushu (Kumamoto Pref.) by Ôtsuka (1996).

Specimens examined. 1♂, 30. V. 2013 (LT); 3♂ 5♀, 5. VI. 2013 (LT); 1♂ 4♀, 12. VI. 2013 (LT); 1♂, 22. VII. 2013 (LT); 1♀, 9. IX. 2013 (LT).

Paralaevicephalus nigrifemoratus (Matsumura, 1902)

[Japanese name: Momoguro-yokobai] (Fig. 74)

Specimens examined. 1♂, 27. IX. 2012; 1♀, 28. X. 2012.

Psammotettix striatus (Linnaeus, 1758)

[Japanese name: Madara-yokobai] (Fig. 75)

Specimens examined. 9♂ 11♀, 2. V. 2013; 7♂ 18♀, 16. V. 2013; 1♂ 1♀, 12. VI. 2013 (LT); 1♂, 14. VII. 2013 (LT); 1♂ 1♀, 1. VII. 2013 (LT); 2♂, 12. VIII. 2013 (LT).

Takagiella tezuyae (Matsumura, 1902)

(Fig. 76)

Specimens examined. 1♂ 1♀, 3. VIII. 2012; 1♀, 27. IX. 2012.

Penthimiini

Penthimia nitida Lethierry, 1876

[Japanese name: Kurohirata-yokobai] (Fig. 77)

The body coloration is generally black and very glossy, but sometimes the dark brown specimens appear in female (Hayashi & Machida, 1996).

Specimens examined. 1♀, 28. IV. 2012; 1♀, 23. V. 2012; 1♀, 28. VI. 2012; 1♂ 1♀, 3. VIII. 2012; 1♀, 23. V. 2013; 1♂, 24. VII. 2013; 1♀, 29. VIII. 2013.

Scaphoideini

Phlogotettix cyclops (Mulsant et Rey, 1855)

[Japanese name: Hitotsume-yokobai] (Fig. 78)

The congenic species, *P. longicornis* Kamitani, 2007, was also recognized in Fukuoka Pref. But this species is easily distinguishable from *P. cyclops* by black spot on vertex and male genitalia (Kamitani, 2007).

Specimens examined. 1♂, 19. VI. 2013 (LT); 3♂ 1♀, 8. VII. 2013 (LT); 3♂, 19. VII. 2013 (LT); 2♂ 1♀, 5. VIII. 2013 (LT); 2♂ 1♀, 29. VII. 2013 (LT); 1♂ 1♀, 8. IX. 2013 (LT).

Scaphoideus festivus Matsumura, 1902
[Japanese name: Shirahoshi-sukasi-yokobai] (Fig. 79)

Specimens examined. 1♂, 6. VII. 2012 (LT); 1♀, 9. VII. 2013 (LT); 1♂, 15. VII. 2013 (LT); 1♂, 20. VII. 2013 (LT); 1♀, 30. VII. 2013 (LT); 1♂, 13. VIII. 2013 (LT).

Scaphoideus kumamotonis Matsumura, 1914
[Japanese name: Hime-shirosesuji-yokobai] (Fig. 80)

This species is similar to *S. albovittatus* Matsumura, 1913, occurring in western Japan, but is clearly distinguished by shape of male genitalia; aedeagal apical process, style and processes on connective (Kamitani & Hayashi, 2013).

Specimens examined. 1♂, 6. VII. 2012 (LT); 1♂, 10. VII. 2013 (LT); 1♂, 17. VII. 2013 (LT); 1♀, 30. VII. 2013 (LT).

Stenometopiini

Doratulina grandis (Matsumura, 1914)
[Japanese name: Ô-togari-yokobai] (Fig. 81)

Specimen examined. 1♂, 28. X. 2012.

Doratulina producta (Matsumura, 1902)
[Japanese name: Togari-yokobai] (Fig. 82)

Specimens examined. 5♂ 1♀, 22. VI. 2012; 6♂ 8♀, 3. VIII. 2012; 12♂ 6♀, 21. IX. 2012; 10♂ 8♀, 9. X. 2012.

Xestocephalinae [Japanese name: Hoshi-yokobai-aka]

Xestocephalus ishidae Matsumura, 1914*
[Japanese name: Ishida-hoshi-yokobai]** (Fig. 83)

This species is known from Honshu, Shikoku, Tsushima Is. and the Ryukyus (Kamitani, 2005), and it is newly recorded from Kyushu.

Specimens examined. 1♂, 9. X. 2012; 1♂, 23. X. 2012; 3♂, 14. VII. 2013 (LT); 1♀, 30. VII. 2013 (LT); 1♂ 1♀, 10. VIII. 2013 (LT); 1♀, 9. IX. 2013 (LT).

Xestocephalus japonicus Ishihara, 1961
[Japanese name: Hoshi-yokobai] (Fig. 84)

Specimens examined. 1♂ 4♀, 6. X. 2012; 1♀, 9. X. 2012; 3♂ 2♀, 17. VII. 2013 (LT); 2♂ 2♀, 25. VII. 2013 (LT); 2♀, 9. VIII. 2013 (LT); 1♂, 10. IX. 2013 (LT).

Typhlocybinae [Japanese name: Himeyokobai-aka]

Alebrini

Alebra pallida Dworakowska, 1968
(Fig. 85)

This species was recently recorded from Japan (Kyushu) by Ohara (2014a). It is similar to *A. costatella* Matsumura, 1931 in habitus, but is discriminated by the male genitalia.

Specimens examined. 1♂, 30. V. 2013 (LT); 1♂, 31. V. 2013; 1♀, 19. VI. 2013 (LT); 1♂, 1. VII. 2013 (LT); 1♀, 26. VII. 2013 (LT).

Dikraneurini

Aruena apicimaculata (Anufriev, 1969)
(Fig. 86)

This leafhopper was recorded from Japan (Kyushu) by Hayashi *et al.* (2005).

Specimens examined. 1♀, 17. VII. 2012 (LT); 1♂ 3♀, 18. VII. 2012 (LT).

Dikraneura orientalis Dworakowska, 1993
(Fig. 87)

Specimens examined. 1♂ 1♀, 23. V. 2012.

Motschulskyia* (*Togaritettix*) *serrata (Matsumura, 1931)
[Japanese name: Sesuji-himeyokobai]

The major host plant of this species is *Rosa wichuraiana* Crép. [Rosaceae].

Specimen examined. 1♂, 12. VIII. 2013 (LT).

Naratettix inornatus (Matsumura, 1920)*
[Japanese name: Kawari-obi-himeyokobai] (Fig. 88)

This species is distributed in Hokkaido, Honshu, Tsushima Is. and the Ryukyus, and it is newly recorded from Kyushu proper. This leafhopper shows noticeable variations in the markings of head, thorax and fore wing.

Specimens examined. 1♂, 26. VI. 2012; 1♂ 1♀, 23. XI. 2012.

Naratettix matsumurai Dworakowska, 1980
[Japanese name: Matsumura-obi-himeyokobai] (Fig. 89)

Specimens examined. 1♂, 17. VII. 2012; 1♂ 1♀, 23. XI. 2012.

Naratettix rubrovittatus (Matsumura, 1920)*
[Japanese name: Akasuji-obi-himeyokobai]** (Fig. 90)

This leafhopper originally described from Japan (Honshu) is recognized from Kyushu for the first time.

Specimens examined. 1♀, 23. V. 2012; 6♂ 2♀, 17. VII. 2012; 10♂ 9♀, 23. XI. 2012; 8♂ 7♀, 18. XII. 2012; 1♀, 24. I. 2013.

Trifida bilobata N.Ohara, 2014
[Japanese name: Yahata-himeyokobai]** (Fig. 91)

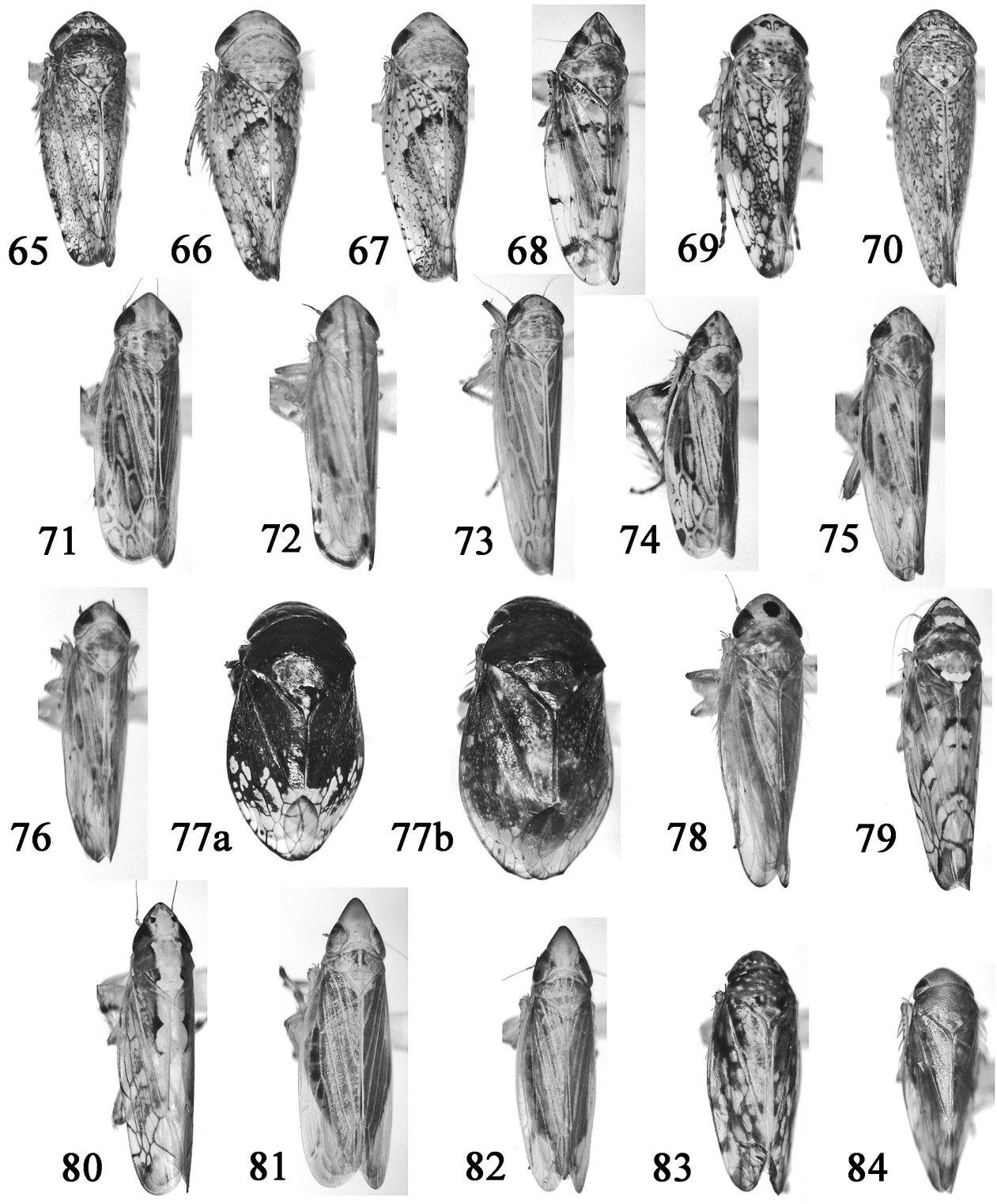
This leafhopper recently described is found only at this school right now (Ohara, 2014b).

Specimens examined. 1♂ 2♀, 19. VI. 2012 (LT); 5♂ 28♀, 20. VI. 2012 (LT); 5♀, 22. VI. 2012; 9♂, 16♀, 22. VI. 2012 (LT); 2♂, 28. VI. 2012; 20♂ 6♀, 28. VI. 2012 (LT); 1♂ 1♀, 8. VII. 2012 (LT); 1♂ 2♀, 14. VII. 2012 (LT); 8♀, 27. VII. 2012 (LT); 4♀, 3. VIII. 2012; 2♀, 4. VIII. 2012 (LT); 1♂ 1♀, 28. X. 2012; 1♂, 23. XI. 2012.

Erythroneurini

Alnetoidia* (*Alnetoidia*) *alneti (Dahlbom, 1850)*
[Japanese name: Hanno-himeyokobai] (Fig. 92)

This yellowish leafhopper distributed widely in the Palearctic region, is known from Hokkaido, Honshu, Tsushima Is., and it is newly recorded from Kyushu



Figs. 65-84. Auchenorrhyncha-Cicadomorpha (4). — 65, *Hishimonoides miaolingensis* (♂, 3.7 mm); 66, *Hishimonus araii* (♂, 3.7 mm); 67, *Hishimonus sellatus* (♂, 3.9 mm); 68, *Japananus hyalinus* (♂, 4.3 mm); 69, *Orosius orientalis* (♂, 2.9 mm); 70, *Satsumanus satsumae* (♂, 3.8 mm); 71, *Futasujinus candidus* (♂, 3.9 mm); 72, *Hengchunia koshunensis* (♂, 3.2 mm); 73, *Paralimnus tamagawanus* (♂, 5.2 mm); 74, *Paralaevicephalus nigrifemoratus* (♀, 3.0 mm); 75, *Psammotettix striatus* (♂, 3.7 mm); 76, *Takagiella tezuyae* (♂, 3.0 mm); 77, *Penthimia nitida* – (a) specimen black (♂, 4.4 mm), (b) dark brown specimen (♀, 4.8 mm); 78, *Phlogotettix cyclops* (♂, 4.3 mm); 79, *Scaphoideus festivus* (♂, 5.0 mm); 80, *Scaphoideus kumamotonis* (♂, 4.4 mm); 81, *Doratulina grandis* (♂, 5.3 mm); 82, *Doratulina producta* (♂, 4.0 mm); 83, *Xestocephalus ishidae* (♂, 2.7 mm); 84. *Xestocephalus japonicus* (♂, 2.8 mm).

proper. This species is collected on various plants of aceraceous, betulaceous and tiliaceous trees.

Specimens examined. 2♂, 16. V. 2013; 1♂, 8. VI. 2013 (LT); 1♂, 15. VI. 2013 (LT).

Anufrievia akazu (Matsumura, 1932)
(Fig. 93)

This species was recently redescribed and recorded from Kyushu (Ohara, 2013b).

Specimen examined. 1♂, 28. VI. 2012; 1♀, 17. VII. 2012.

Arboridia apicalis (Nawa, 1913)
[Japanese name: Futaten-himeyokobai] (Fig. 94)

Specimens examined. 1♀, 9. VI. 2013 (LT); 1♂, 11. VII. 2013 (LT); 1♀, 9. X. 2012.

Arboridia jonella (Matsumura, 1932)
[Japanese name: Jôno-futaten-himeyokobai]

Specimens examined. 1♀, 9. X. 2012; 1♀, 23. XI. 2012.

Arboridia okamotonis (Matsumura, 1932)
[Japanese name: Okamoto-futaten-himeyokobai] (Fig. 95)

This leafhopper is known from Honshu, Kyushu, Tsushima Is., but no male specimens have been found in Japan (Hayashi *et al.*, 2005; Ohara, 2012). The host plants are *Ampelopsis glandulosa* (Wall.) var. *heterophylla* (Thunb.) and *A. glandulosa* (Wall.) var. *glabrifolia* (Honda) [Vitaceae] growing near the coast.

Specimens examined. 1♀, 18. VII. 2012 (LT); 1♀, 9. X. 2012.

Arboridia suzukii (Matsumura, 1916)
[Japanese name: Suzuki-futaten-himeyokobai] (Fig. 96)

Specimens examined. 1♀, 4. VIII. 2012 (LT); 1♀, 23. XI. 2012.

Arboridia yanonis (Matsumura, 1932)
[Japanese name: Yano-futaten-himeyokobai] (Fig. 97)

Specimen examined. 1♀, 16. V. 2013.

Diomma pulchra (Matsumura, 1916)
[Japanese name: Madara-himeyokobai] (Fig. 98)

Specimen examined. 1♂, 22. VI. 2012 (LT).

Empoascanara limbata (Matsumura, 1907)
[Japanese name: Yotsumon-himeyokobai] (Fig. 99)

Six congeneric species are known from Japan, and this leafhopper can be distinguished by the body coloration and the male genitalia (Ohara, 2013b).

Specimens examined. 1♂, 22. IV. 2012; 1♀, 17. VII. 2012; 1♀, 21. IX. 2012 (LT); 1♀, 6. X. 2012; 1♀, 9. X. 2012; 2♂ 6♀, 23. X. 2012; 6♀, 23. XI. 2012; 10♀, 24. I. 2013.

Tautoneura japonica (Dworakowska, 1972)
[Japanese name: Kuzu-himeyokobai] (Fig. 100)

The host plant is *Pueraria lobata* (Willd.) [Fabaceae].

Specimens examined. 2♂ 4♀, 23. V. 2012; 1♂ 1♀, 17. VII. 2012; 7♂ 9♀, 27. IX. 2012; 3♂ 2♀, 6. X. 2012; 3♂ 4♀, 23. XI. 2012; 1♀, 18. XII. 2012.

Tautoneura mori (Matsumura, 1910)
[Japanese name: Chimadara-himeyokobai] (Fig. 101)

Specimens examined. 1♂ 1♀, 17. VII. 2012; 2♂ 7♀, 27. IX. 2012; 2♂ 2♀, 6. X. 2012; 1♀, 23. XI. 2012.

Ziczacella dworakowskae (Anufriev, 1970)
(Fig. 102)

Four congeners are known from Japan (Ohara, 2013a). In Kyushu, this species is only recognized.

Specimens examined. 1♂, 27. VIII. 2013 (LT).

Zygina yamashiroensis Matsumura, 1916
[Japanese name: Yamashiro-himeyokobai] (Fig. 103)

Specimens examined. 1♀, 17. VII. 2012; 1♀, 3. VIII. 2012; 2♂ 1♀, 27. IX. 2012; 1♂ 2♀, 23. XI. 2012; 1♀, 8. I. 2013.

Zygina rubriclavus Matsumura, 1932*

This leafhopper known from Honshu and Shikoku is newly collected from Kyushu, but the changed combination and redescription of this species are needed.

Specimens examined. 5♀, 27. IX. 2012; 1♀, 16. V. 2013 (LT).

Zygina takasagonis Matsumura, 1932*

This species originally described from Japan (Honshu) is found from Kyushu for the first time, but the changed combination and redescription are needed.

Specimens examined. 1♀, 25. IX. 2013 (LT); 1♀, 9. X. 2012.

Empoascini

Alebrasca actinidiae M.Hayashi et Okada, 1994
[Japanese name: Kiui-himeyokobai] (Fig. 104)

Specimens examined. 1♂, 27. VII. 2012 (LT); 1♂, 18. VI. 2013 (LT).

Alebroides akashianus Matsumura, 1931*
(Fig. 105)

This orange-colored species known from Honshu, Tsushima Is. is newly recognized from Kyushu proper.

Specimen examined. 1♀, 22. VI. 2012 (LT).

Alebroides flavifrons Matsumura, 1931*
(Fig. 106)

This leafhopper is known from Honshu and the Ryukyus (Ohara, 2011), and it is recorded from Kyushu for the first time.

Specimens examined. 2♂, 28. VI. 2012; 2♂ 1♀, 4. VIII. 2012 (LT); 1♂, 28. X. 2012.

Alebroides nigroscutellatus (Distant, 1918)
(Fig. 107)

This leafhopper is newly recorded from Kyushu (Fukuoka and Ôita Pref's) by Ohara (2013c).

Specimens examined. 3♂ 5♀, 28. IV. 2012; 3♂ 2♀, 23. V. 2012; 3♂ 1♀, 1. IX. 2012; 5♂ 1♀, 28. X. 2012; 2♂

2♀, 24. I. 2013.

Alebroides marginatus Matsumura, 1931
(Fig. 108)

Specimens examined. 12♂ 13♀, 4. VIII. 2012 (LT); 1♂ 1♀, 23. XI. 2012.

Alebroides rubicundus Ishihara 1953*
[Japanese name: Aka-himeyokobai] (Fig. 109)

This reddish leafhopper is known from Honshu and Shikoku, and it is newly collected from Kyushu. This species resembles *A. akashianus*, but is distinguishable by the comparatively bull coloration and the future of male genitalia.

Specimens examined. 1♂, 23. IX. 2012; 1♂, 8. I. 2013.

Apheliona ferruginea (Matsumura, 1931)
[Japanese name: Kankitsu-himeyokobai] (Fig. 110)

Specimens examined. 1♂, 22. VI. 2012 (LT); 1♂ 2♀, 17. VII. 2012; 2♂, 21. IX. 2012 (LT); 1♂, 27. IX. 2012; 2♂ 3♀, 23. XI. 2012; 1♀, 8. VII. 2013 (LT).

Austroasca vittata (Lethierry, 1884)
[Japanese name: Kisuji-midori-himeyokobai] (Fig. 111)

This species feeds on *Artemisia* spp. [Asteraceae].

Specimens examined. 3♂ 10♀, 23. V. 2012; 1♂, 4. VIII. 2012 (LT); 2♂, 1. IX. 2012; 1♂, 6. X. 2012; 1♀, 23. XI. 2012.

Dayus takagii Dworakowska, 1971
[Japanese name: Beni-himeyokobai] (Fig. 112)

The major host plant of this species is recognized to be *Eurya japonica* Thunb. [Theaceae].

Specimens examined. 3♂, 9.X. 2012; 3♀, 18. XII. 2012; 5♀, 24. I. 2013.

Dayus membranaceus Qin et Zhang, 2007
(Fig. 113)

This leafhopper was recorded from Kyushu and the Ryukyus, and it appears remarkable sexual dimorphic coloration showing red in male, white in female (Ohara *et al.*, 2008; Ohara, 2013c).

Specimens examined. 1♂, 4. VIII. 2012 (LT); 1♂, 13. VII. 2013 (LT); 1♂, 16. VII. 2013 (LT); 1♂, 11. VIII. 2013 (LT).

Empoasca rubricepus (Matsumura, 1931)*
[Japanese name: Akasuji-himeyokobai]

This species known from Honshu and Tsushima Is. is recognized to occur in Kyushu proper for the first time. But the changed combination and redescription of this species are needed.

Specimens examined. 1♀, 24. VI. 2013 (LT); 1♂, 2. VII. 2013 (LT); 1♂, 3. VII. 2013 (LT); 1♂, 13. VII. 2013 (LT); 1♂, 23. VII, 2013 (LT); 1♂, 24. VII, 2013 (LT); 1♂, 4. VIII, 2013 (LT); 1♂, 14. VIII, 2013 (LT).

Empoasca* (*Asymmetrasca*) *cienka Dworakowska, 1982*

This leafhopper recorded from Japan (Honshu) by Hayashi & Higashikawa (1997) is newly recognized from Kyushu. It is discriminated from the congeners by the shape of aedeagus.

Specimens examined. 1♂, 22. VI. 2012 (LT); 1♂, 4. VIII. 2012 (LT); 1♂, 28. X. 2012.

Empoasca* (*Asymmetrasca*) *cisiana Dworakowska, 1971
(Fig. 114)

This species was recently recorded from Japan (Kyushu) by Ohara (2014a).

Specimens examined. 2♂, 4. VIII. 2012 (LT).

Empoasca* (*Asymmetrasca*) *kaicola Dworakowska, 1982*
(Fig. 115)

This species known from Honshu and Tsushima Is. is first recorded from Kyushu proper (Hayashi *et al.* 2005; Yamada *et al*., 2009a).

Specimens examined. 5♂, 22. VI. 2012 (LT); 2♂, 18. VII. 2012 (LT); 6♂, 4. VIII. 2012 (LT).

Empoasca* (*Asymmetrasca*) *nipponica Dworakowska 1982*
[Japanese name: Kakino-midori-himeyokobai] (Fig. 116)

This species known from Honshu, Shikoku and Tsushima Is. is first collected from Kyushu proper.

Specimens examined. 3♂, 6. VII. 2012 (LT); 1♂, 4. VIII. 2012 (LT).

Empoasca* (*Asymmetrasca*) *sakaii Dworakowska, 1971
[Japanese name: Mameno-midori-himeyokobai] (Fig. 117)

Specimens examined. 1♂, 23. V. 2012; 2♂, 22. VI. 2012 (LT); 4♂, 28. VI. 2012 (LT); 1♂, 6. VII. 2012 (LT); 1♂, 17. VII. 2012 (LT).

Empoasca* (*Distantasca*) *atica Dworakowska, 1982*

This leafhopper known from Hokkaido, Honshu and the Ryukyus (Ohara, 2011) is first recognized to occur in Kyushu.

Specimens examined. 1♂, 19. VI. 2012 (LT); 1♂, 22. VI. 2012 (LT); 4♂, 28. VI. 2012.

Empoasca* (*Empoasca*) *altaica Vilbaste 1965*
[Japanese name: Arutai-midori-himeyokobai]**

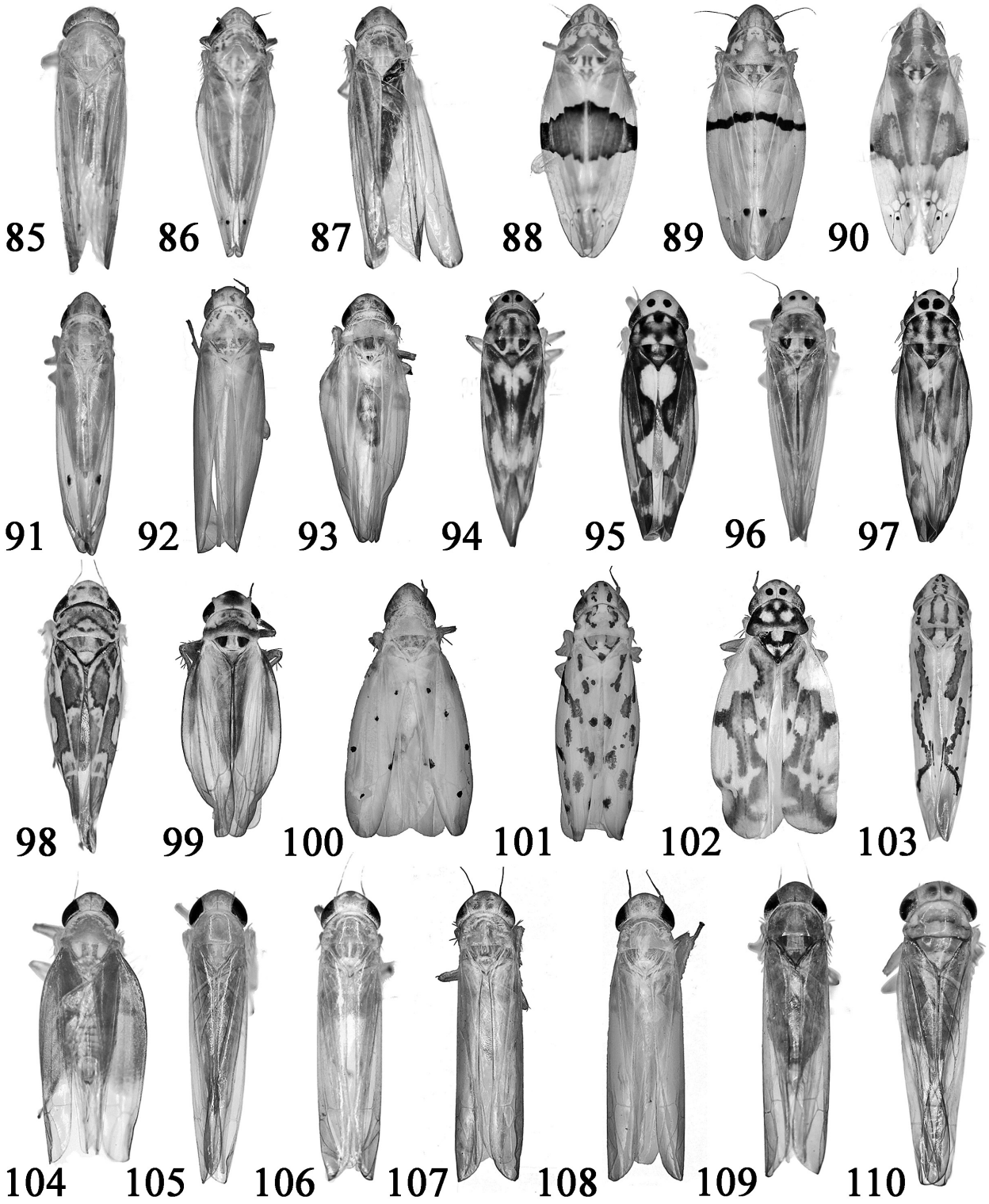
This leafhopper was recorded from Japan (central Honshu) by Hayashi & Higashikawa (1997), and it is newly collected from Kyushu.

Specimens examined. 1♂, 22. VI. 2012 (LT); 5♂, 3. VIII. 2012; 1♂, 14. VIII. 2012 (LT); 1♂, 1. IX. 2012; 2♂, 6. X. 2012.

Empoasca* (*Empoasca*) *flavovittella (Matsumura, 1931)*
[Japanese name: Gobôno-midori-himeyokobai]

This species is known from Hokkaido and Honshu, and it is newly found from Kyushu.

Specimen examined. 1♂, 9. X. 2012.



Figs. 85-110. Auchenorrhyncha-Cicadomorpha (5). — 85, *Alebra pallida* (♂, 3.8 mm); 86, *Aruena apicimaculata* (♀, 3.3 mm); 87, *Dikraneura orientalis* (♀, 3.6 mm); 88, *Naratettix inornatus* (♂, 3.5 mm); 89, *Naratettix matsumurai* (♀, 3.4 mm); 90, *Naratettix rubrovittatus* (♀, 3.4 mm); 91, *Trifida bilobata* (♀, 3.1 mm); 92, *Alnetoidia* (*Alnetoidia*) *alneti* (♂, 3.3 mm); 93, *Anufrievia akazu* (♂, 2.7 mm); 94, *Arboridia apicalis* (♀, 3.1 mm); 95, *Arboridia okamotonis* (♀, 3.0 mm); 96, *Arboridia suzukii* (♀, 2.9 mm); 97, *Arboridia yanonis* (♀, 2.8 mm); 98, *Diomma pulchra* (♂, 2.6 mm); 99, *Empoascanara limbata* (♀, 2.5 mm); 100, *Tautoneura japonica* (♂, 2.4 mm); 101, *Tautoneura mori* (♀, 2.4 mm); 102, *Ziczacella dworakowskae* (♂, 2.7 mm: specimen from Kagoshima, Kagoshima Pref.); 103, *Zygina yamashiroensis* (♂, 2.8 mm); 104, *Alebrasca actinidiae* (♂, 3.5 mm); 105, *Alebroides akashianus* (♀, 3.7 mm); 106, *Alebroides flavifrons* (♂, 3.5 mm); 107, *Alebroides nigroscutellatus* (♂, 3.6 mm); 108, *Alebroides marginatus* (♂, 3.4 mm); 109, *Alebroides rubicundus* (♂, 3.8 mm); 110, *Apheliona ferruginea* (♂, 4.0 mm).

Empoasca* (*Empoasca*) *matsudai Dworakowska, 1972
[Japanese name: Matsuda-midori-himeyokobai]**

Specimens examined. 1♂, 26. VI. 2012; 1♂, 28. VI. 2012; 1♂, 3. VIII. 2012; 4♂, 4. VIII. 2012 (LT); 1♂, 27. IX. 2012; 1♂, 28. X. 2012; 1♂ 2♀, 18. XII. 2012.

Empoasca* (*Empoasca*) *mochidai Dworakowska, 1972
[Japanese name: Mochida-midori-himeyokobai] (Fig. 118)

Specimens examined. 1♂, 19. VI. 2012 (LT); 2♂, 22. VI. 2012; 1♂, 28. VI. 2012; 2♂, 6. VII. 2012 (LT); 1♂, 17. VII. 2012 (LT); 1♂, 26. VII. 2012 (LT); 6♂, 27. VII. 2012 (LT); 4♂, 3. VIII. 2012; 8♂, 4. VIII. 2012 (LT); 2♂, 1. IX. 2012; 2♂, 27. IX. 2012; 1♂, 6. X. 2012; 1♂, 28. X. 2012.

Empoasca* (*Empoasca*) *reducta Dworakowska, 1972
(Fig. 119)

This leafhopper was recently recorded from Japan (Kyushu) by Ohara (2014a).

Specimens examined. 1♂, 4. VIII. 2012 (LT); 1♂, 4. VIII. 2012 (LT); 1♂, 28. X. 2012.

Empoasca* (*Empoasca*) *vitis (Göthe, 1875)
[Japanese name: Budôno-midori-himeyokobai]**

Specimens examined. 1♂, 22. VI. 2012 (LT); 1♂, 27. VII. 2012 (LT).

Empoasca* (*Matsumurasca*) *diversa Vilbaste, 1968
(Fig. 120)

This leafhopper was recently recorded from Japan (Kyushu) by Ohara (2014a).

Specimens examined. 1♂, 22. VI. 2012 (LT); 1♂, 4. VIII. 2012 (LT).

Empoasca* (*Matsumurasca*) *onukii Matsuda, 1952
[Japanese name: Chano-midori-himeyokobai] (Fig. 121)

Specimens examined. 1♂, 22. VI. 2012; 3♂, 22. VI. 2012 (LT); 1♂, 28. VI. 2012 (LT); 1♂, 26. VII. 2012 (LT).

Helionides singularis Matsumura, 1931*
[Japanese name: Chairo-ôzu-himeyokobai] (Fig. 122)

This brownish species ornamented with large head is known from Honshu and Tsushima Is. and the Ryukyus, and it is collected from Kyushu proper for the first time.

Specimen examined. 1♂, 21. IX. 2012.

Ishiharella polyphemus (Matsumura, 1931)
[Japanese name: Hitotsume-himeyokobai] (Fig. 123)

This species resembles *I. donanensis* N. Ohara, 2010 in general habitus, but is difference from the characters of male genitalia (Ohara, 2010).

Specimens examined. 2♂, 28. IV. 2012; 1♀, 3. VIII. 2012; 1♀, 23. X. 2012; 1♀, 18. XII. 2012; 6♂ 2♀, 23. XI. 2012; 1♂, 24. I. 2013.

Jacobiasca boninensis (Matsumura, 1931)
[Japanese name: Usuba-midori-himeyokobai] (Fig. 124)

Specimens examined. 1♂, 22. VI. 2012 (LT); 13♂, 6. VII. 2012 (LT); 2♂, 17. VII. 2012 (LT); 1♂, 18. VII. 2012 (LT); 1♂, 27. VII. 2012 (LT); 43♂, 4. VIII. 2012 (LT); 1♂, 14. VIII. 2012 (LT); 1♂, 21. IX. 2012 (LT): 1♂, 27. IX. 2012.

Jacobiasca furcostylus (Ramakrishnan et Menon, 1972)*

This leafhopper known from Honshu, Tsushima Is. and the Ryukyus is newly recorded from Kyushu proper. It closely resembles *J. boninensis*, but it is discriminated by the abdominal sternal apodemes of male and male genitalia.

Specimens examined. 1♂, 19. VI. 2012 (LT); 12♂, 22. VI. 2012 (LT); 13♂, 6. VII. 2012 (LT); 4♂, 17. VII. 2012 (LT); 1♂, 26. VII. 2012 (LT); 2♂, 27. VII. 2012 (LT); 19♂, 4. VIII. 2012 (LT); 1♂, 1. IX. 2012.

Schizandrasca rubrifrons (Matsumura, 1931)
[Japanese name: Zuaka-himeyokobai] (Fig. 125)

Specimens examined. 1♂ 1♀, 8. I. 2013; 1♂, 11. VI. 2013 (LT).

Typhlocybini

Agnesiella sp.

Two congeners are distributed in Japan (Hokkaido and Honshu). The detail identification cannot be, because only female specimen was collected.

Specimen examined. 1♀, 27. VII. 2012 (LT).

Aguriahana niisimai (Matsumura, 1932)*
[Japanese name: Niijima-himeyokobai] (Fig. 126)

This leafhopper distributed in Hokkaido and Tsushima Is. is first recorded from Kyushu proper. *Acer palmatum* Thunberg [Aceraceae] is recognized to be one of the host plants.

Specimens examined. 13♂ 28♀, 23. V. 2012.

Aguriahana quercus (Matsumura, 1916)
[Japanese name: Kashi-himeyokobai] (Fig. 127)

Specimen examined. 1♂, 6. VII. 2012.

Aguriahana triangularis (Matsumura, 1932)
[Japanese name: Shirozu-himeyokobai] (Fig. 128)

Specimen examined. 1♂, 2. V. 2013.

Empoa* (*Empoides*) *omani Dworakowska, 1977*
[Japanese name: Ôman-himeyokobai]** (Fig. 129)

This species originally described from Japan (Honshu) is recorded from Kyushu for the fist time.

Specimens examined.1♂, 17. VII. 2012 (LT); 1♂ 1♀, 26. VII. 2012 (LT); 1♂, 4. VIII. 2012 (LT).

Eupteryx minuscula Lindberg, 1929
[Japanese name: Yomogi-himeyokobai] (Fig. 130)

Specimens examined. 1♂, 23. V. 2012; 1♂ 1♀, 27. IX. 2012; 1♂ 1♀, 23. XI. 2012.

Eurhadina betularia Anufriev, 1969*
[Japanese name: Shiro-himeyokobai] (Fig. 131)

This species distributed in Hokkaido, Honshu, Shikoku and Tsushima Is. is newly recorded from Kyushu proper.

Specimens examined. 1♂, 26. VII. 2012 (LT); 1♂, 4.

VIII. 2012 (LT).

Eurhadina japonica Dworakowska, 1971*

[Japanese name: Nippon-himeyokobai] (Fig. 132)

This leafhopper known from Honshu and Tsushima Is. is first recorded from Kyushu proper. It is similar to previous species in general habitus, but can be distinguished by the configuration of male genitalia, especially aedeagus.

Specimens examined. 1♂, 17. VII. 2012 (LT); 2♂, 4. VIII. 2012 (LT).

Paracyba akashiensis (Takahashi, 1928)

[Japanese name: Akashi-himeyokobai] (Fig. 133)

Specimens examined. 2♀, 6. VII. 2012 (LT); 1♀, 17. VII. 2012 (LT); 1♀, 27. VII. 2012 (LT); 2♀, 4. VIII. 2012 (LT); 1♂, 23. XI. 2012.

Warodia hoso (Matsumura, 1932)*

[Japanese name: Hoso-himeyokobai] (Fig. 134)

This species is known from Honshu and Tsushima Is., and it is recorded from Kyushu proper.

Specimens examined. 1♂, 26. VII. 2012 (LT); 1♂, 4. VIII. 2012 (LT).

Zyginellini

Limassolla multipunctata (Matsumura, 1920)

[Japanese name: Hoshi-himeyokobai] (Fig. 135)

Rhus javanica L. [Anacardiaceae] is major host plant of this species.

Specimens examined. 6♀, 23. V. 2012; 1♂, 3. VIII. 2012; 1♂, 14. VIII. 2012 (LT); 2♂ 3♀, 21. IX. 2012 (LT); 2♂ 1♀, 27. IX. 2012; 1♂ 1♀, 6. X. 2012; 1♂ 2♀, 9. X. 2012; 1♂ 43♀, 23. XI. 2012; 1♂ 11♀, 18. XII. 2012; 3♀, 24. I. 2013.

Fulgoromorpha

[Japanese name: Hagoromogata-kamoku]

Cixiidae (5) [Japanese name: Hishiunka-ka]

Cixius sp.

This species is similar to *C. iguchii* (Matsumura, 1914) described from Kyushu, but slightly different in the body coloration.

Specimens examined. 1♂ 2♀, 23. V. 2012; 1♂ 3♀, 16. V. 2012.

Oecleopsis artemisiae (Matsumura, 1914)*

[Japanese name: Yomogi-hishiunka] (Fig. 136)

This species known from Hokkaido, Honshu, Shikoku and Tsushima Is., is first recorded from Kyushu proper.

Specimen examined. 1♂, 26. VII. 2013 (LT).

Oliarus subnubilus (Uhler, 1896)

[Japanese name: Ô-hishiunka] (Fig. 137)

Specimen examined. 1♂, 6. VII. 2012 (LT).

Oliarus sp.

This planthopper is similar to previous species, and it can be distinguished by the body size and the carination on head.

Specimens examined. 3♂ 1♀, 18. VI. 2013 (LT); 3♂ 2♀, 4. VII. 2013 (LT); 2♂ 1♀, 7. VII. 2013 (LT); 3♂ 1♀, 25. VII. 2013 (LT); 2♂ 1♀, 5. VIII. 2013 (LT).

Reptalus quadricinctus (Matsumura, 1914)

[Japanese name: Yosuji-hishiunka] (Fig. 138)

Specimens examined. 1♂ 1♀, 28. VI. 2012.

Delphacidae (26) [Japanese name: Unka-ka]

Stenocraninae [Japanese name: Nagaunka-aka]

Stenocranus tamagawanus Matsumura, 1935

[Japanese name: Sesuji-nagaunka] (Fig. 139)

Specimens examined. 5♂, 22. VI. 2012 (LT); 1♂ 1♀, 6. VII. 2013 (LT); 2♀, 8. VII. 2013 (LT); 1♂, 9. VIII. 2013 (LT); 1♀, 12. VIII. 2013 (LT).

Stenocranus matsumurai Metcalf, 1943

[Japanese name: Ezo-nagaunka] (Fig. 140)

Specimens examined. 2♂ 1♀, 22. VI. 2013 (LT); 6♂ 1♀, 2. VII. 2013 (LT); 2♂, 13. VII. 2013 (LT); 1♂ , 22. VII. 2013 (LT); 1♀, 29. VIII. 2013 (LT).

Delphacinae [Japanese name: Unka-aka]

Saccharosydnini

Saccharosydne procerus (Matsumura, 1931)

[Japanese name: Hosomidori-unka] (Fig. 141)

Specimens examined. 1♂, 31. V. 2013 (LT); 1♂, 15. VI. 2013 (LT).

Tropidocephalini

Epeurysa nawaii Matsumura, 1900

[Japanese name: Take-unka] (Fig. 142)

Specimens examined. 9♂ 11♀, 22. VI. 2012 (LT); 1♂, 6. VII. 2012 (LT); 15♂ 27♀, 4. VIII. 2012 (LT); 3♂ 4♀, 23. XI. 2012 (LT).

Tropidocephala brunneipennis Signoret, 1860

[Japanese name: Kobu-unka] (Fig. 143)

The host plant is *Imperata cylindrica* L. [Poaceae].

Specimens examined. 1♂ 3♀, 17. VII. 2012; 4♂ 3♀, 3. VIII. 2012; 3♂ 4♀, 1. IX. 2012; 1♂, 21. IX. 2012; 1♂ 4♀, 27. IX. 2012.

Tropidocephala nigra (Matsumura, 1900)

[Japanese name: Kurokobu-unka] (Fig. 144)

The body coloration of male is black to dark brown, and female is pale ochraceous.

Specimen examined. 1♀, 30. VII. 2013 (LT).

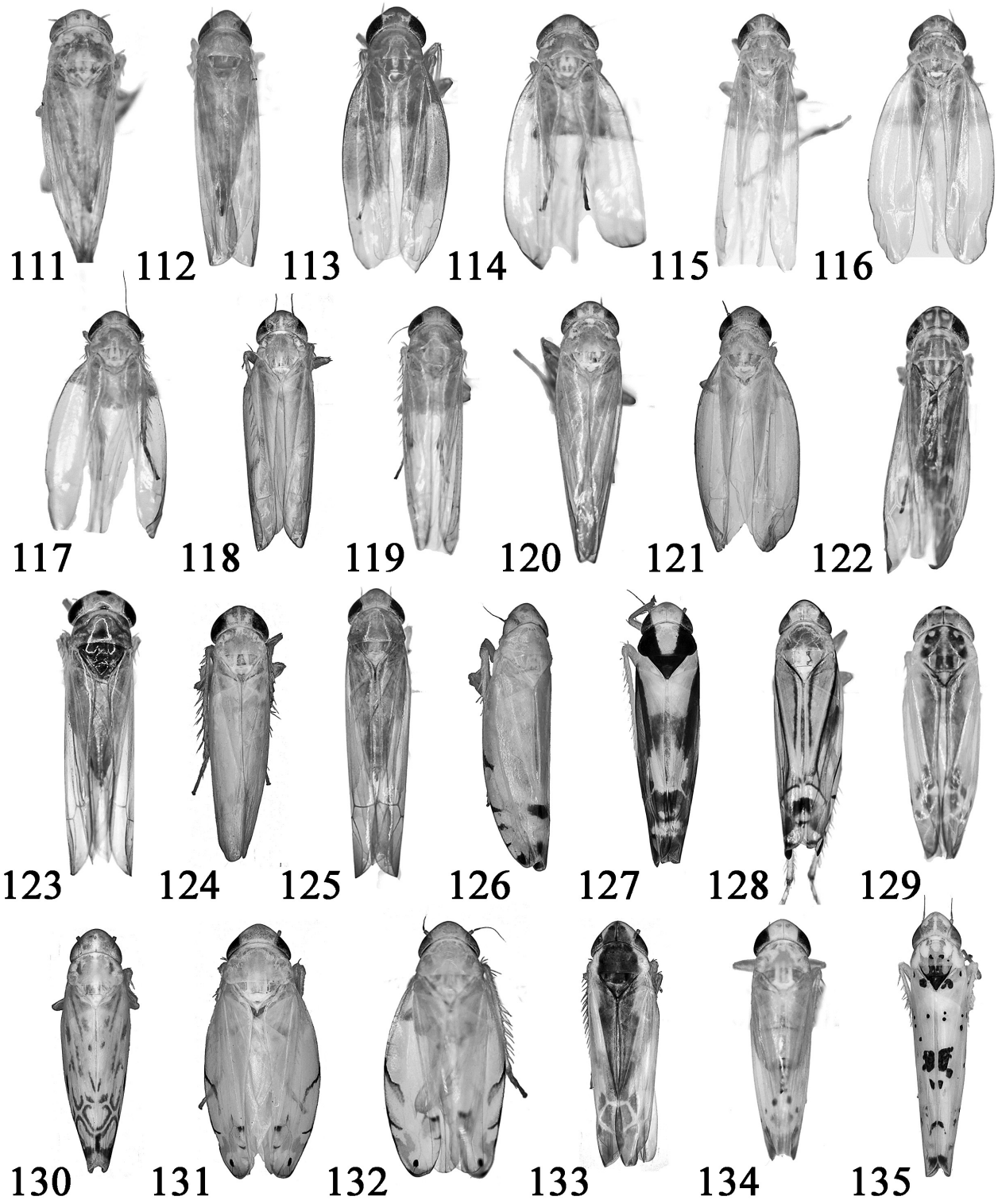
Delphacini

Cemus nigromaculosus (Muir, 1917)

[Japanese name: Kuromon-hiraashi-unka] (Fig. 145)

The macropterous and brachypterous form appears in both sexes.

Specimens examined. 2♀, 4. VIII. 2012 (LT); 2♀, 21. IX. 2012 (LT); 9♂ 4♀, 27. IX. 2012; 1♂, 9. X. 2012; 2♂



Figs. 111-135. Auchenorrhyncha-Cicadomorpha (6). — 111, *Austroasca vittata* (♀, 3.3 mm); 112, *Dayus takagii* (♀, 3.3 mm); 113, *Dayus membranaceus* (♂, 3.5 mm); 114, *Empoasca* (*Asymmetrasca*) *cisiana* (♂, 2.8 mm); 115, *Empoasca* (*Asymmetrasca*) *kaicola* (♂, 2.9 mm); 116, *Empoasca* (*Asymmetrasca*) *nipponica* (♂, 2.8 mm); 117, *Empoasca* (*Asymmetrasca*) *sakaii* (♂, 3.0 mm); 118, *Empoasca* (*Empoasca*) *mochidai* (♂, 2.9 mm); 119, *Empoasca* (*Empoasca*) *reducta* (♂, 3.2 mm); 120. *Empoasca* (*Matsumurasca*) *diversa*, ♂ (3.7 mm); 121, *Empoasca* (*Matsumurasca*) *onukii* (♂, 3.0 mm); 122, *Helionides singularis* (♂, 3.6 mm); 123, *Ishiharella polyphemus* (♀, 4.4 mm); 124, *Jacobiasca boninensis* (♂, 3.1 mm); 125, *Schizandrasca rubrifrons* (♀, 4.5 mm); 126, *Aguriahana niisimai* (♀, 3.4 mm); 127, *Aguriahana quercus* (♂, 3.6 mm); 128, *Aguriahana triangularis* (♂, 3.4 mm); 129, *Empoa* (*Empoides*) *omani* (♂, 2.8 mm); 130, *Eupteryx minuscula* (♀, 2.6 mm); 131, *Eurhadina betularia* (♂, 3.0 mm); 132, *Eurhadina japonica* (♂, 2.9 mm); 133, *Paracyba akashiensis* (♀, 2.7 mm); 134, *Warodia hoso* (♂, 2.6 mm); 135, *Limassolla multipunctata* (♀, 3.0 mm).

1♀, 28. X. 2012.

Cemus nigropunctatus (Matsumura, 1940)
[Japanese name: Gomafu-unka] (Fig. 146)

This planthopper is similar to previous species, and it can be distinguished by tiny black spots on fore wing and the male genitalia.

Specimens examined. 2♂ 2♀, 3. VIII. 2012; 4♂ 2♀, 4. VIII. 2012 (LT); 1♂, 27. IX. 2012; 7♂ 4♀, 9. X. 2012.

Chloriona tateyamana Matsumura, 1935
[Japanese name: Tateyama-yoshi-unka] (Fig. 147)

Specimen examined. 1♂, 22. VI. 2012 (LT).

Dicranotropis tikuzenensis Matsumura et Ishihara, 1945
[Japanese name: Chikuzen-unka]

Specimens examined. 1♂, 2. VII. 2013 (LT); 1♂, 30. VII. 2013 (LT); 1♂, 1. VIII. 2013 (LT); 1♂, 11. VIII. 2013 (LT); 1♂ 1♀, 8. IX. 2013 (LT); 1♂, 10. IX. 2013 (LT).

Garaga nagaragawana (Matsumura, 1900)
[Japanese name: Nagaragawa-unka] (Fig. 148)

Specimens examined. 3♂, 22. VI. 2012 (LT); 1♂, 4. VIII. 2012 (LT); 1♂, 12. VI. 2013 (LT); 2♂, 18. VI. 2013 (LT); 1♂, 2. VII. 2013 (LT); 1♂, 26. VIII. 2013 (LT).

Garaga sp.

This species is similar to previous species, and it can be distinguished by the style and aedegal apical process of male genitalia.

Specimens examined. 1♂, 16. VI. 2013 (LT); 1♂, 17. VI. 2013 (LT); 1♂, 19. VI. 2013 (LT); 2♂, 14. VII. 2013 (LT); 2♂, 18. VII. 2013 (LT); 1♂, 20. VII. 2013 (LT).

Harmalia sirokata (Matsumura et Ishihara, 1945)
[Japanese name: Shirokata-unka] (Fig. 149)

This species feeds on *Persicaria thunbergii* (Sieb. et Zucc.), *P. biconvexum* (Hayata) [Polygonaceae] and *Commelina diffusa* Burm. [Commelinaceae] (Fujinuma, 2013).

Specimens examined. 1♂, 18. VII. 2013 (LT); 1♂, 27. VII. 2013 (LT).

Kakuna kuwayamai Matsumura, 1935
[Japanese name: Kuwayama-unka] (Fig. 150)

Specimens examined. 1♂, 2. VII. 2013 (LT); 1♂, 7. VII. 2013 (LT).

Laodelphax striatellus (Fallén, 1826)
[Japanese name: Himetobi-unka] (Fig. 151)

Specimens examined. 1♂, 31. V. 2013 (LT); 1♂ 3♀, 3. VI. 2013 (LT); 5♂ 3♀, 12. VII. 2013 (LT); 3♂ 5♀, 9. VIII. 2013 (LT); 8♂ 15♀, 29. VIII. 2013 (LT); 12♂ 33♀, 10. IX. 2013 (LT).

Laoterthrona nigrigena (Matsumura et Ishihara, 1945)
[Japanese name: Hôguro-unka] (Fig. 152)

Specimens examined. 2♂ 1♀, 14. VI. 2013 (LT); 2♂ 1♀, 17. VI. 2013 (LT); 1♂, 28. VI. 2013 (LT); 1♀, 27. VII. 2013 (LT).

Metadelphax propinqua (Fieber, 1866)
[Japanese name: Sirôzu-unka] (Fig. 153)

Specimens examined. 2♂, 3. VIII. 2012; 2♂, 1. IX. 2012; 1♂ 1♀, 21. IX. 2012 (LT); 4♂ 3♀, 27. IX. 2012; 3♂, 9. X. 2012; 8♂ 7♀, 9. X. 2012.

Nilaparvata lugens (Stål, 1854)
[Japanese name: Tobiiro-unka] (Fig. 154)

Specimens examined. 1♂ 1♀, 31. VII. 2013 (LT); 9♂ 19♀, 26. VIII. 2013 (LT); 18♂ 11♀, 8. IX. 2013 (LT).

Nilaparvata muiri (China, 1925)
[Japanese name: Nisetobiiro-unka] (Fig. 155)

Specimens examined. 1♂, 19. VI. 2013 (LT); 1♂ 1♀, 31. VII. 2013 (LT); 1♂, 29. VI. 2013 (LT); 1♂ 1♀, 31. VII. 2013 (LT); 1♂, 1. VII. 2013 (LT); 2♂, 27. VII. 2013 (LT); 1♂, 15. VIII. 2013 (LT).

Numata corporaali (Muir, 1923)*
[Japanese name: Chigaya-shiro-unka] (Fig. 156)

This species known from Honshu and the Ryukyus, is first recognized to occur in Kyushu.

Specimens examined. 2♂, 22. VI. 2012 (LT); 1♂, 4. VIII. 2013 (LT).

Paradelphacodes paludosus (Flor, 1861)
[Japanese name: Ezo-tobi-unka] (Fig. 157)

Specimens examined. 1♂, 15. VI. 2013 (LT); 1♂, 2. VII. 2013 (LT); 1♂, 11. VIII. 2013 (LT).

Sogata hakonensis (Matsumura, 1935)
[Japanese name: Hakone-hoso-unka] (Fig. 158)

Specimens examined. 1♂ 3♀, 20. VI. 2012 (LT); 8♂ 7♀, 22. VI. 2012 (LT); 2♀, 6. VII. 2012 (LT); 1♂ 1♀, 21. IX. 2012 (LT); 1♀, 14. VIII. 2012 (LT); 1♀, 28. X. 2012.

Sogatella furcifera (Horváth, 1899)
[Japanese name: Sejiro-unka] (Fig. 159)

Specimens examined. 1♀, 31. V. 2013 (LT); 1♂ 2♀, 19. VI. 2013 (LT); 29♂ 36♀, 26. VII. 2013 (LT); 25♂ 37♀, 27. VIII. 2013 (LT); 2♂ 10♀, 9. IX. 2013 (LT).

Sogatella kolophon (Kirkaldy, 1907)
[Japanese name: Sejiro-unka-modoki] (Fig. 160)

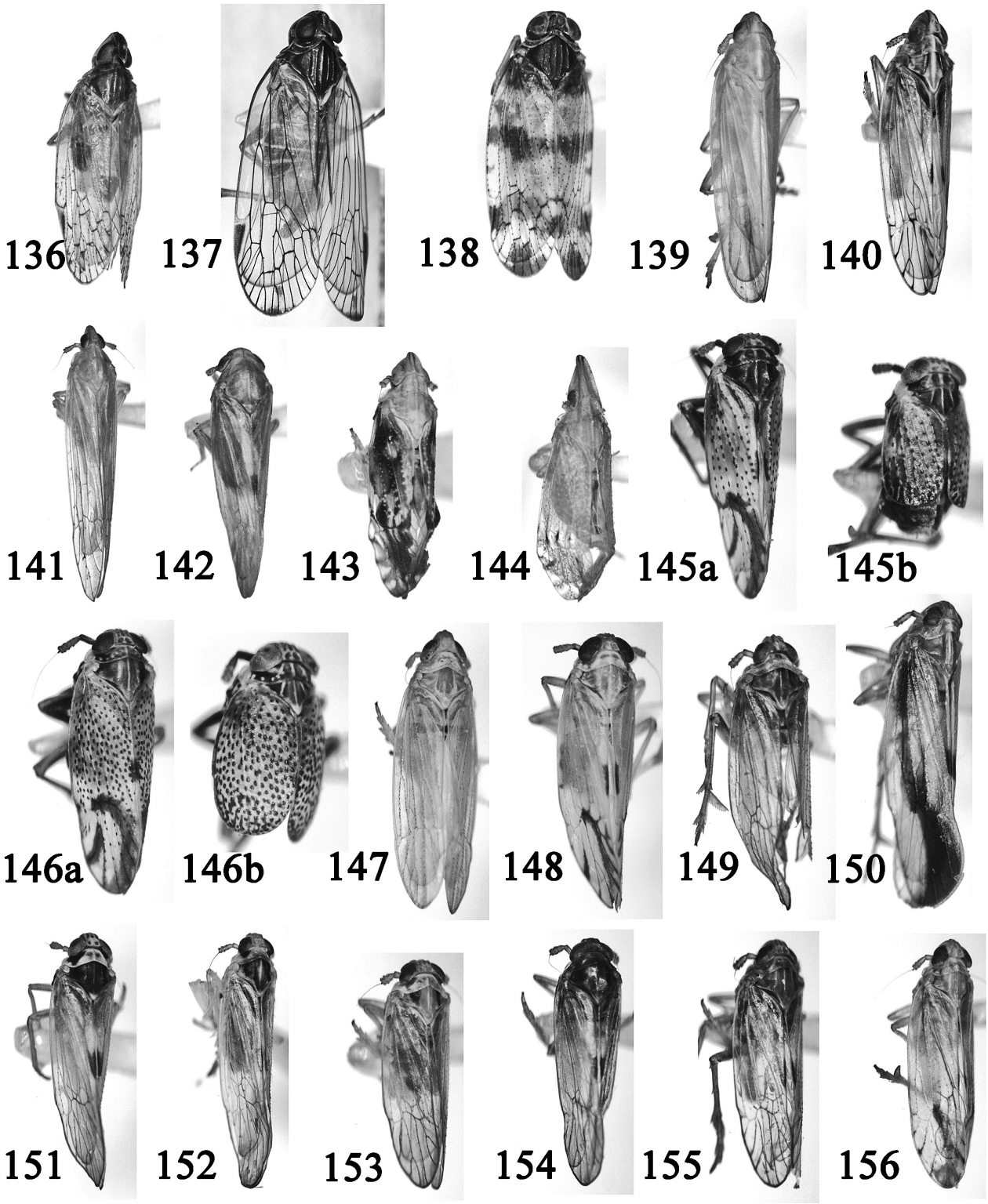
Specimens examined. 2♂ 1♀, 23. IX. 2012; 4♂, 27. IX. 2012; 1♂, 9. X. 2012; 2♂, 23. X. 2012; 13♂ 1♀, 28. X. 2012.

Terthron albovittatum (Matsumura, 1900)
[Japanese name: Sesuji-unka] (Fig. 161)

Specimens examined. 2♂, 19. VII. 2013 (LT); 1♂, 25. VII. 2013 (LT); 1♂, 14. VIII. 2013 (LT); 1♀, 27. VIII. 2013 (LT); 1♂, 18. IX. 2013 (LT).

Toya terryi (Muir, 1917)
[Japanese name: Haikibi-unka] (Fig. 162)

Specimen examined. 1♂, 2. IX. 2013 (LT).



Figs. 136-156. Auchenorrhyncha-Fulgoromorpha (1). — 136, *Oecleopsis artemisiae* (♂, 5.1 mm); 137, *Oliarus subnubilus* (♂, 10.3 mm); 138, *Reptalus quadricinctus* (♂, 5.5 mm); 139, *Stenocranus tamagawanus* (♂, 5.5 mm); 140, *Stenocranus matsumurai* (♂, 5.6 mm); 141, *Saccharosydne procerus* (♂, 5.8 mm); 142, *Epeurysa nawaii* (♂, 3.6 mm); 143, *Tropidocephala brunneipennis* (♂, 3.1 mm); 144, *Tropidocephala nigra* (♀, 3.6 mm); 145, *Cemus nigromaculosus* – (a) (♂, 3.5 mm), (b) (♂, 1.8 mm); 146. *Cemus nigropunctatus* – (a) (♂, 3.5 mm), (b) (♂, 2.0 mm); 147, *Chloriona tateyamana* (♂, 4.3 mm); 148, *Garaga nagaragawana* (♂, 4.5 mm); 149, *Harmalia sirokata* (♂, 3.5 mm); 150, *Kakuna kuwayamai* (♂, 6.0 mm); 151, *Laodelphax striatellus* (♂, 3.5 mm); 152, *Laoterthrona nigrigena* (♂, 4.6 mm); 153, *Metadelphax propinqua* (♂, 2.8 mm); 154, *Nilaparvata lugens* (♂, 4.0 mm); 155, *Nilaparvata muiri* (♂, 3.4 mm); 156, *Numata corporaali* (♂, 3.8 mm).

Meenoplidae (1) **[**Japanese name: Shima-unka-ka]
Nisia nervosa (Motschulsky, 1863)
[Japanese name: Shima-unka] (Fig. 163)
Specimens examined. 1♂, 27. IX. 2012; 1♂, 12. VIII. 2013 (LT); 1♂, 27. VIII. 2013 (LT).

Derbidae (3) **[**Japanese name: Hanenaga-unka-ka]
Zoraidinae [Japanese name: Hanenaga-unka-aka]
Losbanosia hibarensis (Matsumura, 1935)
[Japanese name: Ayaheri-hanenaga-unka] (Fig. 164)
Specimen examined. 1♀, 10. VII. 2013 (LT).
Derbinae [Japanese name: Hanebiro-unka-aka]
Rhotana satsumana Matsumura, 1914
[Japanese name: Kisuji-hanebiro-unka] (Fig. 165)
Specimens examined. 1♂ 1♀, 8. VII. 2013 (LT); 2♂ 1♀, 12. VII. 2013 (LT); 1♂ 1♀, 22. VII. 2013 (LT); 1♂, 3. VIII. 2013 (LT); 1♂, 11. IX. 2013 (LT).
Vekunta malloti Matsumura, 1914
[Japanese name: Akamegashiwa-hanebiro-unka] (Fig. 166)
Specimens examined. 1♂, 26. VIII. 2013 (LT); 1♂, 27. VIII. 2013 (LT); 1♂, 28. VIII. 2013 (LT); 2♂, 29. VIII. 2013 (LT).

Achilidae (3) [Japanese name: Kogashira-unka-ka]
Akotropis fumata Matsumura, 1914
[Japanese name: Usuguro-kogashira-unka] (Fig. 167)
Specimen examined. 1♀, 20. IX. 2013 (LT).
Cixidia shikokuana (Ishihara, 1954)*
[Japanese name: Shikoku-kogashira-unka] (Fig. 168)
This species is known from eastern Honshu and Shikoku (Hayashi & Higashikawa, 1997), and it is first collected from Kyushu.
Specimens examined. 1♀, 18. VI. 2013 (LT); 1♀, 8. VII. 2013 (LT).
Deferunda rubrostigma (Matsumura, 1914)
[Japanese name: Akafu-kogashira-unka] (Fig. 169)
Specimens examined. 1♀, 3. VIII. 2013 (LT); 1♀, 9. VIII. 2013 (LT); 3♀, 10. VIII. 2013 (LT); 4♀, 12. VIII. 2013 (LT); 5♀, 13. VIII. 2013 (LT); 3♀, 15. VIII. 2013 (LT); 1♀, 5. IX. 2013 (LT); 1♀, 6. IX. 2013 (LT); 1♀, 12. IX. 2013 (LT).

Tropiduchidae (2) [Japanese name: Gumbai-unka-ka]
Kallitaxila sinica (Walker, 1851)
[Japanese name: Midori-gumbai-unka] (Fig. 170)
Specimens examined. 1♂ 1♀, 18. VII. 2013 (LT); 3♂, 1. VIII. 2013 (LT); 1♂ 1♀, 8. VII. 2013 (LT); 1♂ 1♀, 15. VIII. 2013 (LT); 2♂, 2. IX. 2013 (LT).
Ossoides lineatus Bierman, 1910
[Japanese name: Hirata-gumbai-unka] (Fig. 171)
Specimens examined. 1♀, 1. IX. 2012; 1♀, 13. VIII. 2013 (LT); 1♀, 15. VIII. 2013 (LT).

Issidae (1) [Japanese name: Maru-unka-ka]
Sarima amagisana Melichar, 1906
[Japanese name: Kusabi-unka] (Fig. 172)
Specimens examined. 1♂, 22. VI. 2012; 1♂ 3♀, 17. VII. 2012; 1♀, 28. X. 2012; 1♀, 23. XI. 2012.

Flatidae (3) [Japanese name: Aoba-hagoromo-ka]
Atracis formosana Jacobi, 1915
[Japanese name: Kinokawa-hagoromo] (Fig. 173)
Specimen examined. 1♀, 13. VII. 2013 (LT).
Geisha distinctissima (Walker, 1858)
[Japanese name: Aoba-hagoromo] (Fig. 174)
Specimens examined. 4♂ 2♀, 17. VII. 2012; 4♂ 3♀, 3. VIII. 2012; 5♂ 4♀, 1. IX. 2012; 1♂ 2♀, 9. X. 2012.
Mimophantia maritima Matsumura, 1900
[Japanese name: Tobiiro-hagoromo] (Fig. 175)
Specimen examined. 1♀, 21. IX. 2012.

Ricaniidae (2) [Japanese name: Hagoromo-ka]
Orosanga japonicus (Melichar, 1898)
[Japanese name: Bekkô-hagoromo] (Fig. 176)
Specimens examined. 10♂ 5♀, 17. VII. 2012; 3♂ 1♀, 4. VIII. 2012 (LT).
Pochazia albomaculata (Uhler, 1896)
[Japanese name: Amigasa-hagoromo] (Fig. 177)
Specimens examined. 1♂, 4. VIII. 2012 (LT); 1♀, 12. VII. 2013 (LT); 1♀, 15. VII. 2013 (LT); 1♂, 29. VII. 2013 (LT).

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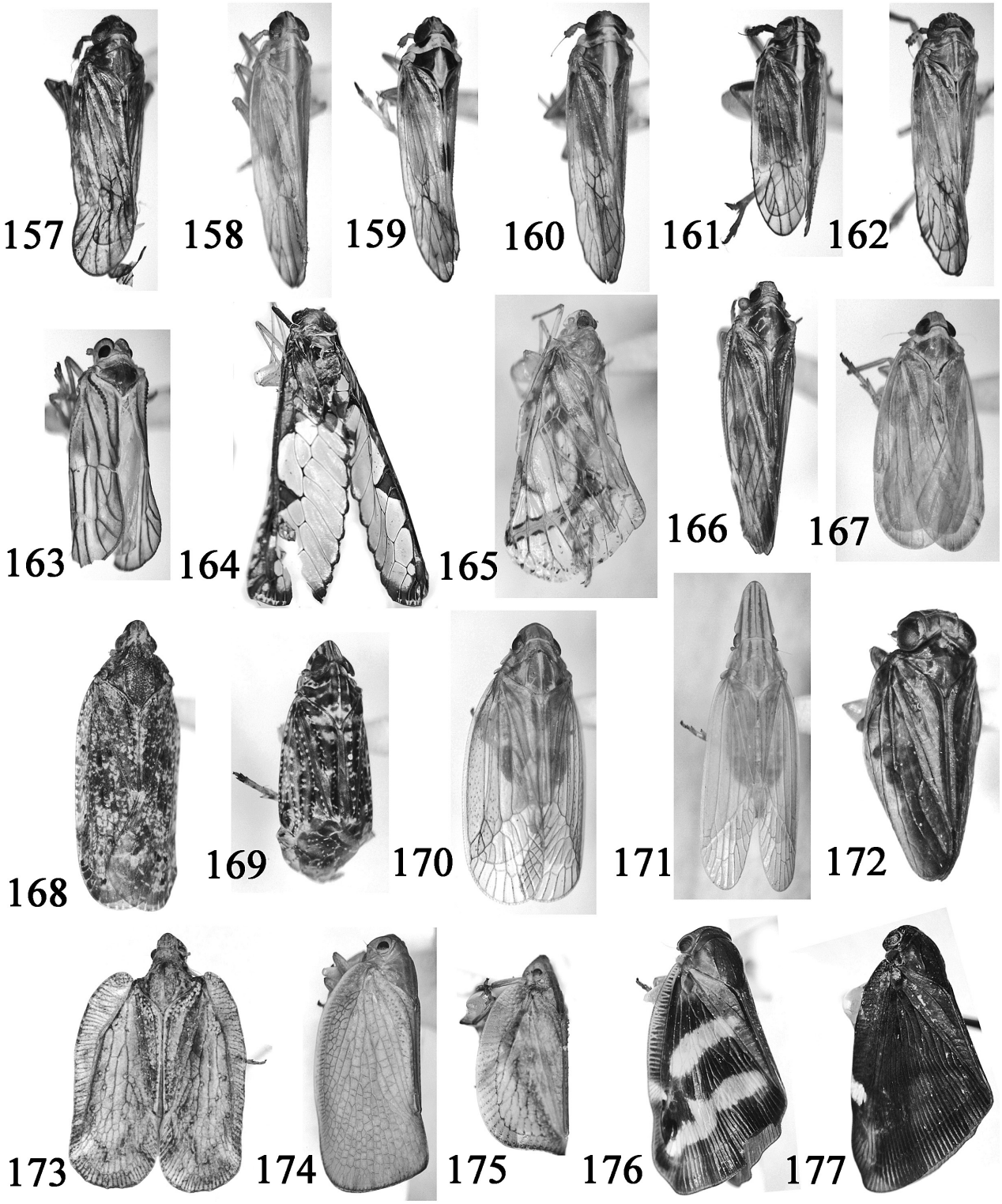

Figs. 157-177. Auchenorrhyncha-Fulgoromorpha (2). — 157, *Paradelphacodes paludosus* (♂, 4.0 mm); 158, *Sogata hakonensis* (♂, 4.0 mm); 159, *Sogatella furcifera* (♂, 3.8 mm); 160, *Sogatella kolophon* (♂, 3.5 mm); 161, *Terthron albovittatum* (♂, 2.8 mm); 162, *Toya terryi* (♂, 3.2 mm); 163, *Nisia nervosa* (♂, 3.5 mm); 164, *Losbanosia hibarensis* (♂, 13.1 mm); 165, *Rhotana satsumana* (♂, 6.0 mm); 166, *Vekunta malloti* (♂, 5.3 mm); 167, *Akotropis fumata* (♂, 4.0 mm); 168, *Cixidia shikokuana* (♂, 6.3 mm); 169, *Deferunda rubrostigma* (♂, 3.7 mm); 170, *Kallitaxilla sinica* (♂, 6.1 mm); 171, *Ossoides lineatus* (♂, 9.2 mm); 172, *Sarima amagisana* (♂, 5.7 mm); 173, *Atracis formosana* (♂, 12.5 mm: from Mt. Hiko-san, Fukuoka Pref.); 174, *Geisha distinctissima* (♂, 10.0 mm); 175, *Mimophantia maritima* (♀, 5.6 mm); 176, *Orosanga japonicus* (♂, 11.0 mm); 177, *Pochazia albomaculata* (♂, 11.9 mm).

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