

The Leaf Beetle Fauna (Coleoptera, Chrysomelidae) of Yoron-jima Is., the Amami Isls., Central Ryukyus, Southwestern Japan

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Abstract The chrysomelid fauna of Yoron-jima Is. in the Amami Isls., central Ryukyus, southwestern Japan is reviewed based on literature and own field surveys. Consequently, a total of 33 species in six subfamilies have been known from the island, including 21 species new to the fauna: 1) *Lilioceris formosana*, 2) *Cryptocephalus perelegans insulanus*, 3) *Diachus auratus*, 4) *Abirus fortunei*, 5) *Acrothinium gaschkevitchii shirakii*, 6) *Gastrophysa mannerheimi*, 7) *Phaedon brassicae*, 8) *Phola octodecimguttata*, 9) *Aulacophora bicolor*, 10) *Aulacophora lewisii*, 11) *Monolepta miyamotoi*, 12) *Altica birmanensis*, 13) *Aphthona albescens*, 14) *Batophila latissima*, 15) *Chaetocnema confinis*, 16) *Hespera lomasa*, 17) *Lanka fulva*, 18) *Longitarsus boraginicolus*, 19) *Psylliodes balyi*, 20) *Psylliodes viridana*, and 21) *Cassida obtusata*. A list of all the known species is given with new collection records of 29 species. This review revealed that Yoron-jima Is. shares more species with Okinawa-jima Is. than with three major islands of the Amami Isls, Amami-Ōshima Is., Tokunoshima Is., and Okinoerabujima Is. The faunal similarity of Yoron-jima Is. and each four islands calculated by NOMURA-SIMPSON's Coefficient (NSC) ranges from 0.909 (Okinawa-jima Is.) to 0.484 (Tokunoshima Is.).

Introduction

Yoron-jima Is. is located at the southernmost part of the Amami Isls., and in about 23 km north of Okinawa-jima Is. in the Okinawa Isls. This island is small and flat (area 20.8 km², highest altitude 98 m), and has been almost entirely developed into farmland and residential areas, leaving very few forests.

Twelve chrysomelid species have been recorded from Yoron-jima Is. to date (KIMOTO & GRESSITT, 1966; KIMOTO & TAKIZAWA, 1994; NAGATA, 1993; OGAI, 2015; SASAKI *et al.*, 2002; SHIGETOH *et al.*, 2020; SUENAGA, 2020), all of which are common in the Ryukyus. This is much less compared to the number of chrysomelid species in its neighboring islands. For example, Amami-Ōshima Is. and Okinawa-jima Is. have about 100 species, and Tokunoshima Is. and Okinoerabu-jima Is. have about 50 species, respectively (KIMOTO & GRESSITT, 1966; KIMOTO & TAKIZAWA, 1994; KOBAYASHI *et al.*, 1984; SASAKI *et al.*, 2002; SUENAGA, 2020; SUENAGA *et al.*, 2018; TAKAI, 1991). In addition, previously published records of chrysomelid species from Yoron-jima Is. have not so far been organized.

To clarify the chrysomelid fauna of this island, I recently conducted field and literature surveys. In this paper, a total of 33 chrysomelid species from Yoron-jima Is. are listed, including 21 species new to the fauna. Then I compare the chrysomelid fauna of Yoron-jima Is. with those of its neighboring islands.

Material and Methods

The examined specimens collected during my field surveys on Yoron-jima Is. in March and May, 2019 are preserved in my private collection. In collection records, “Yoron-chō, Kagoshima Pref.” was omitted from the locality data of each record. The similarity of species composition for Yoron-jima Is. and each four islands (Amami-Ōshima Is., Tokunoshima Is. and Okinoerabu-jima Is. in the Amami Isls., and Okinawa-jima Is. in the Okinawa Isls.) are calculated by NOMURA-SIMPSON's Coefficient (NSC).

Scientific names follow the recent catalog of LÖBL and SMETANA (2010), but follow MEDVEDEV (2006) for *Aphthona albescens*, NADEIN and LEE (2012) for *Psylliodes viridana*, REID and BEATSON (2015) for *Altica birmanensis*, and SUENAGA *et al.* (2018) for *Phola octodecimguttata*.

List of Leaf Beetles from Yoron-jima Is. with New Collection Records

Family **Chrysomelidae** LATREILLE, 1802

Subfamily **Criocerinae** LATREILLE, 1804

1. *Lilioceris formosana* HEINZE, 1943

Specimens examined. 1 ex., Mugiya, 24.III.2019; 1 ex., Nama, 23.III.2019; 11 exs., Ritchô 23.III.2019; 1 ex., ditto, 11.V.2019; 1 ex., ditto, 12.V.2019.

Distribution. Japan: Tokara Isls. (Nakanoshima Is. and Takara-jima Is.), Amami Isls. (Amami-Ôshima Is., Uke-jima Is., and Okinoerabu-jima Is.; Yoron-jima Is. — new record), and Okinawa Isls. (Okinawa-jima Is., Yabuchi-jima Is., Tsuken-jima Is., Izena-jima Is., Kerama Isls., Tonaki-jima Is., Kume-jima Is., and Ou-shima Is. near Kume-jima Is.); Taiwan (EHIRA, 1995; KANAI & MORIYAMA, 2014; KIMOTO & TAKIZAWA, 1994; KOHAMA, 2013; MATSUMURA *et al.*, 2018; SHIGETOH, 2019 b, 2020; SHIGETOH & YOSHITAKE, 2018 a; SHIGETOH *et al.*, 2019; TAKIZAWA, 2006; YASUI & UTOO, 2010).

Notes. New to Yoron-jima Is. This species was collected on *Smilax china* (Smilacaceae).

Subfamily **Cryptocephalinae** GYLLENHAL, 1813

2. *Cryptocephalus perelegans insulanus* CHÛJÔ, 1935

Cryptocephalus perelegans: SHIGETOH & KOJIMA, 2018, 13 (Ukejima Is.); SHIGETOH, 2019 a, 20 (Tonaki-jima Is.); SHIGETOH, 2019 b, 41 (Yabuchi-jima Is.).

Specimens examined. 9 exs., Asato, 11.V.2019.

Distribution. Japan: Tokara Isls. (Nakanoshima Is. and Takara-jima Is.), Amami Isls. (Amami-Ôshima Is. and Uke-jima Is.; Yoron-jima Is. — new record), Okinawa Isls. (Okinawa-jima Is., Yabuchi-jima Is., Tonaki-jima Is., and Kume-jima Is.), and Yaeyama Isls. (Ishigaki-jima Is., Hateruma-jima Is., and Iriomote-jima Is.); Taiwan (AZUMA & KIMOTO, 1981; CHÛJÔ, 1935 a; KIMOTO & GRESSITT, 1966; KIMOTO & TAKIZAWA, 1994; NAKANE & KIMOTO, 1961 a; SHIGETOH, 2019 a, b; SHIGETOH & KOJIMA, 2018).

Notes. New to Yoron-jima Is. SHIGETOH (2019 a, b) and SHIGETOH and KOJIMA (2018) recorded this subspecies as *C. perelegans* BALY, 1873 from Uke-jima Is., Tonaki-jima Is., and Yabuchi-jima Is., respectively. However, these specimens were identified as *C. p. insulanus* based on the coloration of the pronotum in this study.

3. *Diachus auratus* (FABRICIUS, 1801)

Specimen examined. 1 ex., Asato, 23.III.2019.

Distribution. Japan: Amami Isls. (Tokunoshima Is.; Yoron-jima Is. — new record), Okinawa Isls. (Okinawa-jima Is., Tsuken-jima Is., and Tonaki-jima Is.), Miyako Isls. (Miyako-jima Is.), and Yaeyama Isls. (Yonaguni-jima Is.); Australia, Canada, Fiji, Hawaii, Indonesia, Mexico, New Caledonia, New

Zealand, North America, Papua New Guinea, Philippines, Vanuatu (HIRANO, 1995; KIMOTO, 1993; KIMOTO & TAKIZAWA, 1994; RILEY *et al.*, 2002; SHIGETOH, 2019 a, 2020; TAKIZAWA, 1975, 2007).

Notes. New to Yoron-jima Is. This is the second record of *D. auratus* in the Amami Isls. This species, which was originally recorded from North America (RILEY *et al.*, 2002), first invaded to the Pacific Islands (KIMOTO, 1993). In Japan, TAKIZAWA (1975) described this species as *Melixanthus* (*Melixanthus*) *hisamatsui* from Okinawa-jima Is., but KIMOTO (1993) synonymized it with *D. auratus*. Then, it was recorded from Tokunoshima Is., Okinawa-jima Is., Tsuken-jima Is., Tonaki-jima Is., and Miyako-jima Is. (HIRANO, 2005; HIRANO *et al.*, 2012; SHIGETOH, 2019 a, 2020; TAKIZAWA, 2007). This species is euryphagous (CLARK *et al.*, 2004) and known as a pest of *Fragaria* sp. (Rosaceae) and *Caesalpinia pulcherrima*, *Leucaena leucocephala* and *Lespedeza* sp. (Fabaceae) (HIRANO *et al.*, 2012; WOOD & KNOWLTON, 1949). However, the Japanese population of this species has been found only on *L. leucocephala* and flowers of Asteraceae in Japan (HIRANO, 1995; TAKIZAWA, 2007).

Subfamily **Eumolpinae** HOPE, 1840

4. *Abirus fortunei* BALY, 1861

Specimens examined. 1 ex., Mugiya, 12.V.2019; 3 exs., Ritchô, 23.III.2019; 2 exs., ditto, 11.V.2019.

Distribution. Japan: Amami Isls. (Okinoerabu-jima Is.; Yoron-jima Is. — new record), Okinawa Isls. (Okinawa-jima Is., Miyagi-jima Is., Hamahiga-jima Is., Yabuchi-jima Is., Tsuken-jima Is., Senaga-jima Is., Aguni-jima Is., Tonaki-jima Is., Kume-jima Is., and Ou-shima Is. near Kume-jima Is.), Miyako Isls. (Miyako-jima Is.), and Yaeyama Isls. (Ishigaki-jima Is. and Iriomote-jima Is.); China, Laos, Myanmar, South Korea, Taiwan, Thailand, and Vietnam (AZUMA & KIMOTO, 1981; CHÛJÔ, 1935 a; KIMOTO, 1980; KUSUI, 2017; KUSUI & MIYAGI, 2017; LEE & AHN, 2001; SASAKI *et al.*, 2002; SHIGETOH, 2019 a, b, 2020; SHIGETOH *et al.*, 2019; TAKIZAWA, 2009; YUASA, 1930).

Notes. New to Yoron-jima Is. This species was collected on *Morus australis* (Moraceae).

5. *Acrothinium gaschkevitchii shirakii* NAKANE, 1956

Specimens examined. 1 ex., Asato, 11.V.2019; 5 exs., ditto, 12.V.2019; 4 exs., ditto, 12.V.2019; 1 ex., Mugiya, 12.V.2019; 2 exs., Ritchô, 11.V.2019.

Distribution. Japan: Amami Isls. (Amami-Ôshima Is. and Tokunoshima Is.; Yoron-jima Is. — new record) (NAKANE & KIMOTO, 1961 b; SUENAGA *et al.*, 2018).

Notes. New to Yoron-jima Is. This species was collected on *Ampelopsis brevipedunculata* var. *glabrifolia* (Vitaceae).

6. *Colasposoma viridicoeruleum* MOTSCHULSKY, 1860

Specimens examined. 1 ex., Asato, 11.V.2019; 2 exs., ditto, 12.V.2019; 1 ex., Mugiya, 24.III.2019; 5 exs., ditto, 12.V.2019; 1 ex., Ritchô, 11.V.2019; 6 exs., ditto, 12.V.2019.

Distribution. Japan: Ôsumi Isls. (Yaku-shima Is.), Tokara Isls. (Kuchinoshima Is., Nakanoshima Is., Suwanose-jima Is., Akuseki-jima Is., and Takara-jima Is.), Amami Isls. (Amami-Ôshima Is., Kakeroma-jima Is., Kikai-jima Is., Tokunoshima Is., Okinoerabu-jima Is., and Yoron-jima Is.), Okinawa Isls. (Okinawa-jima Is., Hamahiga-jima Is., Yabuchi-jima Is., Tsuken-jima Is., Senaga-jima Is., Aka-jima Is., Geruma-jima Is., Tonaki-jima Is., and Kume-jima Is.), Miyako Isls. (Miyako-jima Is., Irabu-ji-

ma Is., and Tarama-jima Is.), and Yaeyama Isls. (Ishigaki-jima Is., Aragusuku (Kamiji)-jima Is., Iriomote-jima Is., and Yonaguni-jima Is.); China, India, Indochina, Malaysia, Myanmar, and Taiwan (AZUMA & KIMOTO, 1981; HIGO, 1981; KIMOTO, 1964 a, 1980; KIMOTO & GRESSITT, 1966; KOBAYASHI *et al.*, 1984; KOHAMA, 2010; KUSUI, 2010, 2017; NAGATA, 1993; NAKANE & KIMOTO, 1961 a, b; SATÔ *et al.*, 1994; SHIGETO, 2019 a; SHIGETO & YOSHITAKE, 2019; SUENAGA *et al.*, 2018; TAKIZAWA, 1998, 2009; YAMAZAKI *et al.*, 2016; YOSHIMICHI & TAKIZAWA, 2007).

Note. This species had been recorded from “Furusata”, “Asato”, and “Yagô” (KIMOTO & GRESSITT, 1966; NAGATA, 1993).

7. *Lypesthes fulvus* (BALY, 1878)

Specimens examined. 3 exs., Asato, 12.V.2019; 2 exs., Mugiya, 12.V.2019; 1 ex., Ritchô, 12.V.2019.

Distribution. Japan: Honshu, Shikoku, Kyushu, Ōsumi Isls. (Tanegashima Is., Yaku-shima Is., and Kuchinoerabu-jima Is.), Tokara Isls. (Nakanoshima Is. and Takara-jima Is.), Amami Isls. (Amami-Ōshima Is., Okinoerabu-jima Is., and Yoron-jima Is.), Okinawa Isls. (Okinawa-jima Is., Iheya-jima Is., and Kume-jima Is.), Miyako Isls. (Miyako-jima Is. and Irabu-jima Is.), and Yaeyama Isls. (Ishigaki-jima Is. and Yonaguni-jima Is.); China, South Korea, and Taiwan (AZUMA & KIMOTO, 1975, 1981; KIMOTO & TAKIZAWA, 1994; LEE & AHN, 2001; MATSUMURA *et al.*, 2018; NAGATA, 1993; NAKANE, 1958; SATÔ *et al.*, 1994).

Note. This species had been recorded from “Asato” in Yoron-jima Is. (NAGATA, 1993).

8. *Pagria* sp.

Colposcelis signata: KIMOTO & GRESSITT, 1966, 503 (Yoron-jima Is.).

Pagria signata: KIMOTO & TAKIZAWA, 1994, 125 (Yoron-jima Is.).

Notes. *Pagria signata* (MOTSCHULSKY, 1858) has been recorded from Yoron-jima Is. (KIMOTO & GRESSITT, 1966; KIMOTO & TAKIZAWA, 1994). However, as a result of taxonomic revision of the genus *Pagria* LEFÈVRE, 1884, “*P. signata*” distributed in Japan were identified into three species, *P. consimile* (BALY, 1874), *P. flavopustulata* (BALY, 1874), and *P. ingibbosa* PIC, 1929 (MOSEYKO & MEDVEDEV, 2005). After that, IMASAKA and MINAMI (2008) revised Japanese *Pagria*, and recorded *P. ussuriensis* MOSEYKO et MEDVEDEV, 2005 from Japan. ISOWA (2012) revised distribution records of *Pagria* species in Japan. However, the species from Yoron-jima Is. was not confirmed in these studies. I could not find any *Pagria* species during my field survey. Therefore, the *Pagria* species occurring on this island is still unknown which species it belongs to.

Subfamily Chrysomelinae LATREILLE, 1802

9. *Gastrophysa mannerheimi* (STÅL, 1858)

Specimens examined. 56 exs., Asato, 23.III.2019.

Distribution. Japan: Hokkaido, Honshu, Sadogashima Is., Shikoku, Kyushu, Iki Is., Tsushima Is., Hirado-jima Is., Koshikijima Isls. (Shimokoshiki-jima Is.), Amami Isls. (Amami-Ōshima Is.; Yoron-jima Is. — new record), Okinawa Isls. (Okinawa-jima Is.); China, Indochina, Sakhalin, and Taiwan (IMASAKA, 2019; SUENAGA *et al.*, 2019; TAKIZAWA, 2007).

Notes. New to Yoron-jima Is. This is the second record of *G. mannerheimi* in the Amami Isls.

Recently, this species was recorded from Okinawa-jima Is., located to the south of Yoron-jima Is. (SUENAGA *et al.*, 2019). Adults and larvae of this species were observed feeding on *Rumex* sp. (Polygonaceae) growing in grassland.

10. *Phaedon brassicae* BALY, 1874

Specimens examined. 9 exs., Mugiya, 22.III.2019.

Distribution. Japan: Hokkaido, Honshu, Sadogashima Is., Shikoku, Kyushu, Tsushima Is., Hirado-jima Is., Koshikijima Is. (Shimokoshiki-jima Is.), Ōsumi Is. (Yaku-shima Is. and Kuchinoerabu-jima Is.), Tokara Is. (Nakanoshima Is.), Amami Is. (Amami-Ōshima Is.; Yoron-jima Is. — new record), and Okinawa Is. (Okinawa-jima Is.); China, Indochina, North Korea, South Korea, Taiwan, and Vietnam (IMASAKA, 2019; KIMOTO & GRESSITT, 1966; LEE & AHN, 2001; LÖBL & SMETANA, 2010; NAKANE & KIMOTO, 1961 a; SCHÖNFELDT, 1890; TAKIZAWA, 2007).

Notes. New to Yoron-jima Is. This species was collected on *Raphanus sativus* (Brassicaceae) growing in a vegetable field.

11. *Phola octodecimguttata* (FABRICIUS, 1775)

Specimens examined. 2 exs., Ritchō, 24.III.2019.

Distribution. Japan: Honshu, Shikoku, Kyushu, Ōsumi Is. (Tanegashima Is. and Yaku-shima Is.), Tokara Is. (Nakanoshima Is. and Takara-jima Is.), Amami Is. (Amami-Ōshima Is., Kikai-jima Is., Yoro-jima Is., Tokunoshima Is., and Okinoerabu-jima Is.; Yoron-jima Is. — new record), Okinawa Is. (Okinawa-jima Is., Tsuken-jima Is., Iheya-jima Is., Noho-jima Is., Tonaki-jima Is., Yakabi-jima Is., and Ou-shima Is. near Kume-jima Is.), Miyako Is. (Tarama-jima Is.), and Yaeyama Is. (Ishigaki-jima Is., Hateruma-jima Is., Iriomote-jima Is., and Yonaguni-jima Is.); Australia, China, India, Malaysia, Myanmar, New Caledonia, Philippines, Sri Lanka, Taiwan, and Vietnam (AZUMA & KIMOTO, 1981; KAMEZAWA, 2015; KIMOTO, 1964 b, 1980; KIMOTO & GRESSITT, 1966; MATSUMURA *et al.*, 2018; NAKANE & KIMOTO, 1961 a; REID, 1993; SHIGETOH, 2019 a, 2020; SHIGETOH *et al.*, 2019; SHIGETOH & YOSHITAKE, 2018 b; SUENAGA *et al.*, 2018; TAKAHASHI, 2012).

Notes. New to Yoron-jima Is. In this survey, adults and larvae of this species were observed feeding on *Vitex rotundifolia* (Lamiaceae) growing on the coast.

Subfamily Galerucinae LATREILLE, 1802

12. *Aulacophora bicolor* (WEBER, 1801)

Specimens examined. 2 exs., Asato, 21.III.2019; 4 exs., Mugiya, 22.III.2019; 2 exs., ditto, 24.III.2019; 1 ex., ditto, 12.V.2019.

Distribution. Japan: Tokara Is. (Takara-jima Is.), Amami Is. (Amami-Ōshima Is., Kikai-jima Is., Tokunoshima Is., and Okinoerabu-jima Is.; Yoron-jima Is. — new record), Okinawa Is. (Okinawa-jima Is., Yabuchi-jima Is., Tsuken-jima Is., and Tonaki-jima Is.), Miyako Is. (Miyako-jima Is. and Irabu-jima Is.), and Yaeyama Is. (Ishigaki-jima Is., Kuroshima Is., Aragusuku (Kamiji)-jima Is., Hateruma-jima Is., Iriomote-jima Is., and Yonaguni-jima Is.); China, India, Indonesia, Laos, Malaysia, Philippines, Sri Lanka, Taiwan, Thailand, and Vietnam (CHŪJŌ, 1935 a; IMASAKA & IWAI, 2007; KIMOTO, 1964 c, 1980; KIMOTO & GRESSITT, 1966; LEE & BEENEN, 2015; NAKANE & KIMOTO, 1961 b; OSA-DA & SUENAGA, 2015; SHIGETOH, 2019 a, b, 2020; SUENAGA *et al.*, 2018; TAKAHASHI, 2012; TAKI-
ZAWA, 2007).

WA, 2011; YAMAZAKI *et al.*, 2016).

Note. New to Yoron-jima Is.

13. *Aulacophora indica* (GMELIN, 1790)

Specimens examined. 1 ex., Ritchô, 23.III.2019; 1 ex., ditto, 12.V.2019.

Distribution. Japan: Honshu, Tobishima Is., Izu Is. (Miyake-jima Is. and Hachijô-jima Is.), Oki Is., Kyushu, Ôsumi Is. (Tanegashima Is., Yaku-shima Is., Kuchinoerabu-jima Is., and Kuroshima Is.), Tokara Is. (Kuchinoshima Is., Nakanoshima Is., Suwanose-jima Is., Akuseki-jima Is., and Taka-ra-jima Is.), Amami Is. (Amami-Ôshima Is., Uke-jima Is., Kikai-jima Is., Tokunoshima Is., Okinoerabu-jima Is., and Yoron-jima Is.), Okinawa Is. (Okinawa-jima Is., Yabuchi-jima Is., Tsuken-jima Is., Iheya-jima Is., Izena-jima Is., Tokashiki-jima Is., Aka-jima Is., Zamami-jima Is., Geruma-jima Is., Aguni-jima Is., Tonaki-jima Is., and Kume-jima Is.), Daitô Is. (Kitadaitô-jima Is. and Minamidaitô-jima Is.), Miyako Is. (Miyako-jima Is., Irabu-jima Is., and Tarama-jima Is.), and Yaeyama Is. (Ishigaki-jima Is., Taketomi-jima Is., Kohama-jima Is., Aragusuku (Kamiji)-jima Is., Hateruma-jima Is., Hatoma-jima Is., and Iriomote-jima Is.); Afghanistan, Bhutan, Cambodia, China, Fiji, India, Laos, Micronesia, Myanmar, Nepal, New Guinea, Pakistan, Philippines, Russia, Samoa, South Korea, Sri Lanka, Taiwan, Thailand, and Vietnam (AZUMA & KIMOTO, 1975, 1981; EHIRA & ONODA, 1996; HIGO, 1981; HIROMORI, 1999; KIMOTO, 1964 c, 1980, 2003; LÖBL & SMETANA, 2010; NAGATA, 1993; NAKAMINE, 2006; NAKANE, 1958; SASAKI *et al.*, 2002; SATÔ *et al.*, 1994; TAKIZAWA, 2011).

Notes. Until this study, this species had been recorded from “Chabana” and “Asato” in Yoron-jima Is. (KIMOTO & GRESSITT, 1966; NAGATA, 1993). SASAKI *et al.* (2002) also recorded it from Yoron-jima Is., without detailed locality data.

14. *Aulacophora lewisii* BALY, 1886

Specimens examined. 2 exs., Asato, 23.III.2019.

Distribution. Japan: Ôsumi Is. (Yaku-shima Is. and Kuroshima Is.), Amami Is. (Amami-Ôshima Is., Tokunoshima Is., Okinoerabu-jima Is., and Yoron-jima Is. — new record), Okinawa Is. (Okinawa-jima Is., Miyagi-jima Is., Yabuchi-jima Is., Tsuken-jima Is., Tokashiki-jima Is., Zamami-jima Is., Aka-jima Is., Geruma-jima Is., and Tonaki-jima Is.), Miyako Is. (Miyako-jima Is.), and Yaeyama Is. (Ishigaki-jima Is., Hateruma-jima Is., Iriomote-jima Is., and Yonaguni-jima Is.); Afghanistan, Bhutan, Cambodia, China, India, Indonesia, Laos, Nepal, Pakistan, Sri Lanka, Taiwan, Thailand, and Vietnam (AZUMA & KIMOTO, 1975, 1981; LEE & BEENEN, 2015; CHÛJÔ, 1935 a; KIMOTO, 1964 c, 1980; KIMOTO & GRESSITT, 1966; LÖBL & SMETANA, 2010; MIWA, 1933; NAKAMINE *et al.*, 2007; NAKANE, 1958; NAKANE & KIMOTO, 1961 b; SASAKI *et al.*, 2002; SHIGETO, 2019 a, b, 2020; SUENAGA *et al.*, 2018).

Note. New to Yoron-jima Is.

15. *Aulacophora nigripennis nitidipennis* CHÛJÔ, 1935

Distribution. Japan: Amami Is. (Amami-Ôshima Is., Tokunoshima Is., Okinoerabu-jima Is., and Yoron-jima Is.), Okinawa Is. (Okinawa-jima Is., Hamahiga-jima Is., and Yabuchi-jima Is.), Daitô Is., Miyako Is. (Miyako-jima Is.), and Yaeyama Is. (Ishigaki-jima Is., Iriomote-jima Is., and Yonaguni-jima Is.) (CHÛJÔ, 1935 a; KIMOTO & GRESSITT, 1966; KUSUI & MIYAGI, 2017; SASAKI *et al.*, 2002; SHIGETO, 2019 b; TAKIZAWA, 2011).

Notes. SASAKI *et al.* (2002) and TAKIZAWA (2011) were recorded this species from Yoron-jima

Is., without detailed locality date. Precise localities of this species in the Daitô Isls. has been unknown (TAKIZAWA, 2011). I could not find this species during my field survey.

16. *Monolepta miyamotoi* KIMOTO, 1965

Specimen examined. 1 ex., Mugiya, 22.III.2019.

Distribution. Japan: Amami Isls. (Amami-Ôshima Is., Tokunoshima Is., and Okinoerabu-jima Is.; Yoron-jima Is. — new record), and Okinawa Isls. (Okinawa-jima Is.) (KIMOTO, 1965 a, 1980; KIMOTO & GRESSITT, 1966; KIMOTO & TAKIZAWA, 1994; SUENAGA *et al.*, 2018).

Note. New to Yoron-jima Is.

17. *Morphosphaera caerulea* (SCHÖNFELDT, 1890)

Specimens examined. 23 exs., Asato, 23.III.2019; 2 exs., Chabana, 21.III.2019; 3 exs., Mugiya, 22.III.2019; 1 ex., ditto, 12.V.2019; 4 exs., Ritchô, 23.III.2019; 1 ex., ditto, 11.V.2019; 2 exs., ditto, 12.V.2019.

Distribution. Japan: Honshu (Chiba Pref.), Ôsumi Isls. (Yaku-shima Is.), Amami Isls. (Amami-Ôshima Is., Yoro-jima Is., Uke-jima Is., Kikai-jima Is., Okinoerabu-jima Is., and Yoron-jima Is.), Okinawa Isls. (Okinawa-jima Is., Yabuchi-jima Is., Tsuken-jima Is., Iheya-jima Is., Izena-jima Is., Aka-jima Is., and Tonaki-jima Is.), Miyako Isls. (Miyako-jima Is., Ikema-jima Is., and Irabu-jima Is.), and Yaeyama Isls. (Ishigaki-jima Is. and Iriomote-jima Is.) (AZUMA & KIMOTO, 1975, 1981; KIMOTO, 1980; MIYAUCHI *et al.*, 2014; NAKANE & KIMOTO, 1961 b; OGAI, 2015; SHIGETO, 2019 a, b, 2020; SHIGETO & YOSHITAKE, 2018 a, b; TAKIZAWA, 2011).

Notes. Until this study, this species had been recorded from “Asato” in Yoron-jima Is. (NAGATA, 1993). OGAI (2015) also recorded it from this island, without detailed locality data.

18. *Altica aenea* (OLIVIER, 1808)

Distribution. Japan: Honshu, Sadogashima Is., Shikoku, Gotô Isls. (Fukue-jima Is.), Kyushu, Ôsumi Isls. (Yaku-shima Is.), Tokara Isls. (Nakanoshima Is.), Amami Isls. (Amami-Ôshima Is., Kikai-jima Is., Tokunoshima Is., Okinoerabu-jima Is., and Yoron-jima Is.), Okinawa Isls. (Okinawa-jima Is. and Kume-jima Is.), Daitô Isls. (Kitadaitô-jima Is.), Miyako Isls. (Miyako-jima Is. and Tarama-jima Is.), and Yaeyama Isls. (Ishigaki-jima Is., Iriomote-jima Is., and Yonaguni-jima Is.); Afghanistan, Australia, Bhutan, Brunei, Cambodia, China, Fiji, India, Indonesia, Malaysia, Myanmar, Nepal, New Caledonia, Pakistan, Papua New Guinea, Philippines, Singapore, Solomon Isls., South Korea, Sri Lanka, Taiwan, Thailand, Timor Leste, Vanuatu, and Vietnam (KIMOTO & GRESSITT, 1966; KIMOTO & TAKIZAWA, 1994; SUENAGA, 2020).

Notes. This species had been recorded as *A. cyanea* (WEBER, 1801) from Yoron-jima Is. (KIMOTO & GRESSITT, 1966). However, SUENAGA (2020) synonymized it with *A. aenea*, which was newly recorded from Japan in his revision of Japanese species of the genus. I could not find this species during my field survey.

19. *Altica birmanensis* (JACOBY, 1896)

Specimens examined. 3 exs., Asato, 21.III.2019; 5 exs., Mugiya, 22.III.2019; 20 exs., ditto, 24.III.2019; 8 exs., near Maehama-kaigan, Mugiya, 22.III.2019.

Distribution. Japan: Tokara Isls. (Nakanoshima Is.), Amami Isls. (Amami-Ôshima Is.; Yoron-jima Is. — new record), Okinawa Isls. (Okinawa-jima Is.), and Yaeyama Isls. (Yonaguni-jima Is.); China, India, Indonesia, Myanmar, New Guinea, Sri Lanka, Taiwan, Thailand, Timor-Leste, and Vietnam (REID & BEATSON, 2015; SUENAGA, 2020; YOSHIMICHI & TAKIZAWA, 2007; YOSHITAKE *et al.*, 2016).

Notes. New to Yoron-jima Is. This is the first record of *A. birmanensis* in the Amami Isls. In Japan, this species was first recorded from Yonaguni-jima Is. as *A. caerulea* (OLIVIER, 1791) (YOSHIMICHI & TAKIZAWA, 2007). Then, YOSHITAKE *et al.* (2016) revised this record and corrected the species identification to *A. birmanensis*. The examined specimens were identified as *A. birmanensis* based on examination of the male genitalia with reference to REID & BEATSON (2015). Adults and larvae of this species were observed feeding on *Persicaria chinensis* (Polygonaceae) during my field survey.

20. *Aphthona albescens* MOTSCHULSKY, 1866

Specimen examined. 1 ex., Mugiya, 22.III.2019.

Distribution. Japan: Amami Isls. (Yoron-jima Is. — new record), Okinawa Isls. (Okinawa-jima Is., Geruma-jima Is., and Tonaki-jima Is.), Miyako Isls. (Miyako-jima Is.), and Yaeyama Isls. (Ishigaki-jima Is. and Iriomote-jima Is.); Cambodia, China, Indonesia, Nepal, Taiwan, Thailand, Vietnam (LÖBL & SMETANA, 2010; SHIGETO, 2019 a; TAKIZAWA, 2012).

Notes. New to Yoron-jima Is. This is the first record of *A. albescens* from the Amami Isls.

21. *Batophila latissima* CHÛJÔ, 1957

Specimen examined. 1 ex., Mugiya, 24.III.2019.

Distribution. Japan: Tokara Isls. (Nakanoshima Is.), Amami Isls. (Amami-Ôshima Is.; Yoron-jima Is. — new record), and Daitô Isls. (Minamidaitô-jima Is.) (AZUMA, 1989; YASUI & UTOO, 2010).

Notes. New to Yoron-jima Is. This is the second record of *B. latissima* from the Amami Isls.

22. *Chaetocnema confinis* CROTCH, 1873

Specimens examined. 1 ex., Asato, 21.III.2019; 1 ex., ditto, 11.V.2019; 12 exs., Chabana, 21.III.2019; 1 ex., Mugiya, 22.III.2019; 2 exs., ditto, 24.III.2019; 1 ex., Ritchô, 23.III.2019; 2 exs., ditto, 12.V.2019.

Distribution. Japan: Ogasawara Isls. (Chichi-jima Is.), Kyushu, Ôsumi Isls. (Tanegashima Is.), Amami Isls. (Kikai-jima Is., Uke-jima Is., Yoro-jima Is., Tokunoshima Is., and Okinoerabu-jima Is.; Yoron-jima Is. — new record), Okinawa Isls. (Okinawa-jima Is., Iheya-jima Is., Noho-jima Is., Izena-jima Is., Ie-jima Is., Kouri-jima Is., Minna-jima Is., Ikei-jima Is., Miyagi-jima Is., Hamahiga-jima Is., Yabuchi-jima Is., Tsuken-jima Is., Kudaka-jima Is., Zamami-jima Is., Aguni-jima Is., Tonaki-jima Is., and Kume-jima Is.), Daitô Isls. (Minamidaitô-jima Is.), Miyako Isls. (Miyako-jima Is., Ôgami-jima Is., Kurima-jima Is., and Tarama-jima Is.), and Yaeyama Isls. (Ishigaki-jima Is., Taketomi-jima Is., Kohama-jima Is., Hateruma-jima Is., Iriomote-jima Is., and Yonaguni-jima Is.); Africa, Borneo Is., Malaysia, Micronesia, North America, Palau, South America, and Taiwan (IMASAKA & ISHIZEKI, 2012; IMASAKA & IWAI, 2007; KOHAMA, 2010; KOHAMA & ANDOU, 2018; LÖBL & SMETANA, 2010; Miyazaki Prefectural Plant Protection and Fertilizer Inspection Center, 2012; SHIGETO, 2019 b; SHIGETO & YOSHITAKE, 2018 a, b; TAKIZAWA, 1998, 2012; Tokyo Metropolitan Plant Protection Office, 2012).

Note. New to Yoron-jima Is.

23. *Hespera lomasa* MAULIK, 1926

Specimens examined. 2 exs., near Maehama-kaigan, Mugiya, 22.III.2019.

Distribution. Japan: Tokara Isls., Amami Isls. (Amami-Ôshima Is. and Yoron-jima Is.; Yoron-jima Is. — new record), Okinawa Isls. (Okinawa-jima Is. and Tsuken-jima Is.), Miyako Isls. (Miyako-jima Is.), and Yaeyama Isls. (Ishigaki-jima Is.); China, India, Myanmar, Nepal, Sri Lanka, Taiwan, and Vietnam (AZUMA & KIMOTO, 1975; LÖBL & SMETANA, 2010; SHIGETOH, 2020; SHIGETOH & YOSHITAKE, 2018 b; TAKIZAWA, 2012).

Note. New to Yoron-jima Is.

24. *Lanka fulva* (CHÛJÔ, 1937)

Specimens examined. 9 exs., Mugiya, 12.V.2019; 2 exs., Ritchô, 23.III.2019; 3 exs., ditto, 11.V.2019.

Distribution. Japan: Ôsumi Isls. (Yaku-shima Is.), Amami Isls. (Amami-Ôshima Is. and Tokunoshima Is.; Yoron-jima Is. — new record), Okinawa Isls. (Okinawa-jima Is.), Yaeyama Isls. (Ishigaki-jima Is. and Iriomote-jima Is.); Taiwan (CHÛJÔ & OHNO, 1961; KIMOTO, 1966 a, 1980; KIMOTO & GRESSITT, 1966; OHNO & HIRANO, 1970; SUENAGA *et al.*, 2018).

Note. New to Yoron-jima Is.

25. *Longitarsus boraginiculus* OHNO, 1968

Specimen examined. 1 ex., Chabana, 21.III.2019.

Distribution. Japan: Hokkaido, Honshu, Tobishima Is., Awa-shima Is., Sadogashima Is., Izu Isls. (Miyake-jima Is., Hachijô-jima Is., and Aogashima Is.), Oki Isls., Awaji-shima Is., Mishima Is., Shikoku, Kyushu, Tokara Isls. (Nakanoshima Is.), Amami Isls. (Tokunoshima Is.; Yoron-jima Is. — new record), and Okinawa Isls. (Okinawa-jima Is. and Tsuken-jima Is.) (IJIMA, 2005; OHNO, 1968; SHIGETOH, 2020; SHIGETOH *et al.*, 2019; TAKIZAWA, 2012).

Notes. New to Yoron-jima Is. Recently, *L. boraginiculus* was recorded from the Ryukyus (Nakanoshima Is., Tokunoshima Is., and Okinawa-jima Is.) (SHIGETOH *et al.*, 2019). This is the second record for the species in the Amami Isls.

26. *Phyllotreta striolata* (FABRICIUS, 1801)

Specimens examined. 1 ex., Asato, 11.V.2019; 22 exs., Mugiya, 22.III.2019; 1 ex., ditto, 11.V.2019.

Distribution. Japan: Hokkaido, Chishima Isls. (Shikotan-tô Is., Kunashiri-tô Is., and Etorofu-tô Is.), Rishiri-tô Is., Honshu, Sadogashima Is., the Izu Isls. (Miyake-jima Is. and Hachijô-jima Is.), Shikoku, Okinoshima Is., Tsushima Is., Iki Is., Gotô Isls., Hirado-jima Is., Kyushu, Koshikijima Isls. (Kamikoshiki-jima Is. and Shimokoshiki-jima Is.), Ôsumi Isls. (Yaku-shima Is.), Tokara Isls. (Nakanoshima Is. and Takara-jima Is.), Amami Isls. (Amami-Ôshima Is., Kikai-jima Is., Okinoerabu-jima Is., and Yoron-jima Is.), Okinawa Isls. (Okinawa-jima Is., Yabuchi-jima Is., Tsuken-jima Is., Tonaki-jima Is., and Kume-jima Is.), Daitô Isls. (Kitadaitô-jima Is. and Minamidaitô-jima Is.), Miyako Isls. (Miyako-jima Is.), and Yaeyama Isls. (Ishigaki-jima Is., Iriomote-jima Is., and Yonaguni-jima Is.); Africa, Australia, Borneo, China, Europe, India, Indonesia (Sumatra), Kazakhstan, Mongolia, Nepal, North America, Russia, South Korea, Taiwan, Thailand, Turkey, and Vietnam (AZUMA, 1989; IMASAKA, 2019; KIMOTO,

1980; LEE & AHN, 2001; LÖBL & SMETANA, 2010; SHIGETO, 2019 a, b, 2020; TAKIZAWA, 2007, 2013).

Notes. TAKIZAWA (2007, 2013) recorded this species from Yoron-jima Is. without detailed data. This is the first record of this species from this island, based on a specimen with decent data.

27. *Psylliodes balyi* JACOBY, 1884

Specimens examined. 3 exs., Chabana, 21. III. 2019.

Distribution. Japan: Tokara Isls., Amami Isls. (Amami-Ōshima Is., Okinoerabu-jima Is.; Yoron-jima Is. — new record), Okinawa Isls. (Okinawa-jima Is., Yabuchi-jima Is., Tsuken-jima Is., and Kume-jima Is.), Miyako Isls. (Miyako-jima Is.), Yaeyama Isls. (Ishigaki-jima Is., Iriomote-jima Is., and Yonaguni-jima Is.), and Senkaku Isls. (Uotsuri-jima Is.); Bali Is., China, India, Philippines, Sumatra, Taiwan, and Vietnam (SHIGETO, 2019 b, 2020; TAKIZAWA, 2005).

Note. New to Yoron-jima Is.

28. *Psylliodes viridana* MOTSCHULSKY, 1858

Specimens examined. 4 exs., Chabana, 21.III.2019; 1 ex., Mugiya, 22.III.2019; 4 exs., Ritchô, 23.III.2019; 1 ex., ditto, 12.V.2019.

Distribution. Japan: Hokkaido, Chishima Isls. (Kunashiri-tô Is.), Rebun-tô Is., Rishiri-tô Is., Honshu, Sadogashima Is., the Izu Isls. (Miyake-jima Is. and Hachijô-jima Is.), Ogasawara Isls., Oki Isls., Shikoku, Kyushu, Iki Is., Tsushima Is., Ōsumi Isls. (Yaku-shima Is.), Tokara Isls. (Nakanoshima Is.), Amami Isls. (Amami-Ōshima Is., Okinoerabu-jima Is.; Yoron-jima Is. — new record), Okinawa Isls. (Okinawa-jima Is., Yabuchi-jima Is., and Tsuken-jima Is.), Daitô Isls. (Kitadaitô-jima Is.), Miyako Isls. (Miyako-jima Is.), and Yaeyama Isls. (Yonaguni-jima Is.); China, India, Nepal, Sakhalin, South Korea, Sri Lanka, Taiwan, and Vietnam (KIMOTO, 1980; LEE & AHN, 2001; SHIGETO, 2019 b, 2020; TAKIZAWA, 2005, 2013).

Notes. New to Yoron-jima Is. Precise locality of this species in the Ogasawara Isls. is unknown (TAKIZAWA, 2013). This species had been known as *P. angusticollis* BALY, 1874, but NADEIN and LEE (2012) synonymized it with *P. viridana*. During my field survey, this species was observed feeding on *Solanum americanum* (Solanaceae).

29. *Sphaeroderma quadrimaculatum* CHÛJÔ, 1935

Specimens examined. 1 ex., Asato, 23.III.2019; 5 exs., ditto, 12.V.2019; 1 ex., Chabana, 21. III.2019; 1 ex., Ritchô, 12.V.2019.

Distribution. Japan: Kyushu, Ōsumi Isls. (Tanegashima Is. and Yaku-shima Is.), Tokara Isls. (Nakanoshima Is. and Takara-jima Is.), Amami Isls. (Amami-Ōshima Is., Tokunoshima Is., Okinoerabu-jima Is., and Yoron-jima Is.), Okinawa Isls. (Okinawa-jima Is., Tonaki-jima Is., and Kume-jima Is.), Miyako Isls. (Miyako-jima Is.), and Yaeyama Isls. (Ishigaki-jima Is., Kuroshima Is., and Iriomote-jima Is.) (CHÛJÔ, 1935 b; KIMOTO, 1965 b; KIMOTO & GRESSITT, 1966; NAGATA, 1993; NAGATA *et al.*, 1993; NAKANE & KIMOTO, 1961 c; SHIGETO, 2019 a; SUENAGA *et al.*, 2018; TAKAHASHI, 2012; TAKIZAWA, 2013; YAMAZAKI *et al.*, 2016).

Note. This species had been recorded from “Asato” in Yoron-jima Is. (NAGATA, 1993).

Subfamily **Cassidinae** GYLLENHAL, 181330. *Brontispa longissima* (GESTRO, 1885)

Distribution. Japan: Ogasawara Isls. (Chichi-jima Is. and Hahajima Is.), Amami Isls. (Okinoerabu-jima Is. and Yoron-jima Is.), Okinawa Isls. (Okinawa-jima Is.), Miyako Isls. (Miyako-jima Is. and Tarama-jima Is.), and Yaeyama Isls. (Ishigaki-jima Is. Kohama-jima Is., and Iriomote-jima Is.); American Samoa, Australia, Borneo, Cambodia, China (Hainan Is.), Indonesia (Java), Laos, Myanmar, New Caledonia, Papua New Guinea, Philippines, Samoa, Singapore, Tahiti, Taiwan, Thailand, Vanuatu, and Vietnam (AYRI & RAMAMURTHY, 2012; KIMOTO & TAKIZAWA, 1994; TAKASU & TAKANO, 2011; TAKASU *et al.*, 2010; TAKIZAWA, 2014).

Notes. This species, which was originally recorded from Papua New Guinea and Indonesia, first invaded to the Pacific Islands (TAKASU & TAKANO, 2011). In Japan, this species invaded to Okinawa-jima Is. (AZUMA & KINJO, 1978). Then it was recorded from the Ogasawara Isls. and eight islands in the Ryukyus (AZUMA, 1985; TAKASU & TAKANO, 2011; TAKASU *et al.*, 2010). I could not find this species during my field survey.

31. *Cassida circumdata* HERBST, 1799

Specimens examined. 4 exs., Asato, 21.III.2019; 1 ex., ditto, 11.V.2019; 2 exs., Mugiya, 22.III.2019; 1 ex., ditto, 21.III.2019.

Distribution. Japan: Honshu (Osaka and Okayama Prefs.), Izu Isls. (Hachijō-jima Is.), Ogasawara Isls. (Iwo-tō Is.), Ōsumi Isls. (Tanegashima Is. and Yaku-shima Is.), Tokara Isls. (Takara-jima Is.), Amami Isls. (Amami-Ōshima Is., Kikai-jima Is., Tokunoshima Is., Okinoerabu-jima Is., and Yoron-jima Is.), Okinawa Isls. (Okinawa-jima Is., Yabuchi-jima Is., Tsuken-jima Is., Iheya-jima Is., and Tonaki-jima Is.), Daitō Isls. (Minamidaitō-jima Is.), Miyako Isls. (Miyako-jima Is.), Yaeyama Isls. (Ishigaki-jima Is., Hateruma-jima Is., Iriomote-jima Is., and Yonaguni-jima Is.), and Senkaku Isls.; Bangladesh, China, India, Indonesia, Laos, Malaysia, Nepal, Pakistan, Philippines, Sri Lanka, Taiwan, Thailand, and Vietnam (AZUMA & KIMOTO, 1981; BOROWIEC, 1999; IMASAKA & IWAI, 2007; KAWABATA, 2010; KIMOTO, 1966 b, 1980; KOHAMA, 2010; NAGAMINE, 2007; NAKANE & KIMOTO, 1961 a, c; OGAI, 2015; SHIGETOH, 2019 a, b; SUENAGA, 2016; TAKAHASHI, 2012; TAKIZAWA, 2014).

Notes. Until this study, this species had been recorded from “Asato” in Yoron-jima Is. (NAGATA, 1993). OGAI (2015) also recorded it from this island, without detailed locality data.

32. *Cassida obtusata* BOHEMAN, 1854

Specimens examined. 2 exs., Asato, 21.III.2019.

Distribution. Japan: Amami Isls. (Okinoerabu-jima Is.; Yoron-jima Is. — new record), Okinawa Isls. (Okinawa-jima Is., Yabuchi-jima Is., Tsuken-jima Is., and Ie-jima Is.), Daitō Isls. (Minamidaitō-jima Is.), Miyako Isls. (Miyako-jima Is.), and Yaeyama Isls. (Ishigaki-jima Is., Kuroshima Is., and Iriomote-jima Is.); Cambodia, China, India, Indonesia, Laos, Malaysia, Myanmar, Nepal, Pakistan, Philippines, Sri Lanka, Taiwan, Thailand, and Vietnam (BOROWIEC, 2001; BOROWIEC & ŚWIĘTOJAŃSKA, 2018; HIRANO *et al.*, 2012; KIMOTO & TAKIZAWA, 1994; KOHAMA, 2017, 2018; KOHAMA & SUNAGAWA, 2017; LÖBL & SMETANA, 2010; MATSUHIRA, 2009; OGAI, 2016; SHIGETOH, 2019 b, 2020; SHIGETOH & SOUMA, 2019; TAKIZAWA, 2014; YOSHIMICHI & TAKIZAWA, 2007).

Notes. New to Yoron-jima Is. This is the second record of *C. obtusata* in the Amami Isls. This

species has been widely settled in the south of Okinawa-jima Is. In the Amami Isls., this species has so far been recorded from only two islands, but it might have invaded to the other islands. Further investigation is needed to elucidate its distribution in the Amami Isls.

33. *Lacoptera nepalensis* BOHEMAN, 1855

Specimens examined. 28 exs., Asato, 21.III.2019; 1 ex., ditto, 11.V.2019; 1 ex., Chabana, 21.III.2019; 1 ex., Mugiya, 22.III.2019; 10 exs., ditto, 24.III.2019; 2 exs., ditto, 12.V.2019; 5 exs., Ritchô, 23.III.2019; 2 exs., ditto, 11.V.2019; 2 exs., ditto, 12.V.2019.

Distribution. Honshu, Izu Isls. (Izu-Ôshima Is., Miyake-jima Is., and Hachijô-jima Is.), Mukô-shima Is., Futaoi-jima Is., Shikoku, Kyushu, Shikanoshima Is., Muku-shima Is., Ao-shima Is., Ônyû-jima Is., Koshikijima Isls. (Shimokoshiki-jima Is.), Ôsumi Isls. (Tanegashima Is. and Yaku-shima Is.), Amami Isls. (Amami-Ôshima Is., Kikai-jima Is., Tokunoshima Is., Okinoerabu-jima Is., and Yoron-jima Is.), Okinawa Isls. (Okinawa-jima Is., Ikei-jima Is., Miyagi-jima Is., Henza-jima Is., Hamahiga-jima Is., Yabuchi-jima Is., Tsuken-jima Is., Iheya-jima Is., Kôri-jima Is., Yagaji-shima Is., Sesoko-jima Is., Minna-jima Is., Ie-jima Is., Senaga-jima Is., Aguni-jima Is., Tonaki-jima Is., and Kume-jima Is.), Miyako Isls. (Miyako-jima Is., Ikema-jima Is., Irabu-jima Is., Shimoji-jima Is., and Kurima-jima Is.), Yaeyama Isls. (Ishiaki-jima Is., Taketomi-jima Is., Kohama-jima Is., Kuroshima Is., Aragusuku (Kamiji)-jima Is., Hateruma-jima Is., Iriomote-jima Is., and Yonaguni-jima Is.), and Senkaku Isls. (Uotsuri-jima Is.); China, India, Indonesia, Laos, Malaysia, Myanmar, Nepal, Pakistan, Singapore, Taiwan, Thailand, and Vietnam (BOROWIEC, 2001; LEE & CHENG, 2007; LÖBL & SMETANA, 2010; SHIGETO *et al.*, 2020; ŚWIĘTOJAŃSKA, 2001).

Note. This species was collected on *Ipomoea batatas* and *I. indica* (Convolvulaceae) during my field survey.

Results and Discussion

As a result of this study, the number of chrysomelid species known from Yoron-jima Is. has greatly been increased from twelve to 33 (Table 1). All of these species are common in the Amami Isls. and Okinawa Isls., and four of them are alien species: *Diachus auratus*, *Chaetocnema confinis*, *Brontispa longissima*, and *Cassida obtusata*.

Yoron-jima Is. shares the highest number of species with Okinawa-jima Is. (30 spp.), and the fewest number with Tokunoshima Is. (16 spp.) (Table 1). The NSC value for the comparison of faunal similarity between Yoron-jima Is. with the other four islands was as follows: 0.909 (with Okinawa-jima Is.), 0.758 (with Amami-Ôshima Is.), 0.636 (with Okinoerabu-jima Is.), and 0.484 (with Tokunoshima Is.), respectively. In conclusion, the chrysomelid fauna of Yoron-jima Is. is the closest to that of Okinawa-jima Is.

Considering that Yoron-jima Is. is a small island with monotonous vegetation, the number of chrysomelid species of this island would not increase drastically in future research. While some alien species, such as *Lema (Petauristes) trivittata* SAY, 1824 and *Plagiosterna formosana* (BATES, 1866), may have invaded to Yoron-jima Is. since these species occur in the vicinity of Motobu-port in Okinawa-jima Is. which is an previous anchorage to Yoron-port in a regular ferry route connecting Okinawa and Kagoshima. In addition, we need to examine the *Pagria* species occurring on this island, in order to determine its taxonomic identity. Therefore, a continual field survey on Yoron-jima Is. is necessary for elucidation of the chrysomelid fauna, as well as for regional monitoring of alien species in the central Ryukyus.

Table 1. Chrysomelid species recorded from Yoron-jima Is. (Yoron), and the number of common species and the NSC value between Yoron-jima Is. and other four islands: Amami-Ôshima Is. (Amami), Tokunoshima Is. (Tokunoshima), Okinoerabu-jima Is. (Okinoerabu), and Okinawa-jima Is. (Okinawa).

Species	Amami	Tokunoshima	Okinoerabu	Yoron	Okinawa
1. <i>Lilioceris formosana</i> HEINZE	+		+	+	+
2. <i>Cryptocephalus perelegans insulanus</i> CHÛJÔ	+			+	+
3. <i>Diachus auratus</i> (FABRICIUS)		+		+	+
4. <i>Abirus fortunei</i> (BALY)			+	+	+
5. <i>Acrothinium gaschkevitchii shirakii</i> NAKANE	+	+		+	
6. <i>Colasposoma viridicoeruleum</i> MOTSCHULSKY	+	+	+	+	+
7. <i>Lypsthes fulvus</i> (BALY)	+		+	+	+
8. <i>Pagria</i> sp.				+	
9. <i>Gastrophysa mannerheimi</i> MOTSCHULSKY	+			+	+
10. <i>Phaedon brassicae</i> BALY	+			+	+
11. <i>Phola octodecimguttata</i> (FABRICIUS)	+	+	+	+	+
12. <i>Aulacophora bicolor</i> (WEBER)	+	+	+	+	+
13. <i>Aulacophora indica</i> (GMELIN)	+	+	+	+	+
14. <i>Aulacophora lewisii</i> BALY	+	+	+	+	+
15. <i>Aulacophora nigripennis nitidipennis</i> CHÛJÔ	+	+	+	+	+
16. <i>Monolepta miyamotoi</i> KIMOTO	+	+	+	+	+
17. <i>Morphosphaera caerulea</i> (SCHÖNFELDT)	+		+	+	+
18. <i>Altica aenea</i> (OLIVIER)	+	+	+	+	+
19. <i>Altica birmanensis</i> (JACOBY)	+			+	+
20. <i>Aphthona albescens</i> MOTSCHULSKY				+	+
21. <i>Batophila latissima</i> (CHÛJÔ)	+			+	
22. <i>Chaetocnema confinis</i> CROTCH		+	+	+	+
23. <i>Hespera lomasa</i> MAULIK	+			+	+
24. <i>Lanka fulva</i> (CHÛJÔ)	+	+		+	+
25. <i>Longitarsus boraginicolus</i> OHNO		+		+	+
26. <i>Phyllotreta striolata</i> (FABRICIUS)	+		+	+	+
27. <i>Psylliodes balyi</i> JACOBY	+		+	+	+
28. <i>Psylliodes viridana</i> MOTSCHULSKY	+		+	+	+
29. <i>Sphaeroderma quadrimaculatum</i> CHÛJÔ	+	+	+	+	+
30. <i>Brontispa longissima</i> (GESTRO)			+	+	+
31. <i>Cassida circumdata</i> HERBST	+	+	+	+	+
32. <i>Cassida obtusata</i> BOHEMAN			+	+	+
33. <i>Lacoptera nepalensis</i> BOHEMAN	+	+	+	+	+
The number of species sheard with Yoron	25	16	21	—	30
The number of species of each island	98	50	53	33	108
The value of NSC between Yoron and other islands	0.758	0.484	0.636	—	0.909

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要 約

重藤裕彬：奄美群島与論島のハムシ類（鞘翅目ハムシ科）。——奄美群島に属する与論島は面積約20.8 m²，最高標高約98 mの平坦な小島であり，島の大半が開拓され，耕作地や住宅地となっている。これまで奄美大島や徳之島，沖永良部島，沖縄島などの近隣の島々ではハムシ類の分布調査が比較的進んでいるが，与論島からはわずか12種が記録されているのみであった。今回，与論島のハムシ相を野外調査と文献調査に基づいて再検討した。その結果，野外調査で得られた29種を含む33種のハムシ類の分布が認められた（うち21種は同島初記録）。また，この結果に基づいて与論島と近隣の4島（奄美大島および徳之島，沖永良部島，沖縄島）とのハムシ相を比較すると，沖縄島との共通種数が最も多く（30種），徳之島との共通種数が最も少なかった（16種）。さらに，与論島と各島間の類似度指数を野村シンプソン指数（NSC）によって計算したところ，沖縄島との値が最も高く（0.909），徳之島との値が最も低かった（0.484）。以上の結果により，与論島のハムシ相は，奄美群島の他の島と比較して沖縄島との共通性が高いことが示唆された。

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