

# 琉球大学学術リポジトリ

## 琉球産カイガラムシ類目録

メタデータ	言語: 出版者: 沖縄農業研究会 公開日: 2009-01-29 キーワード (Ja): キーワード (En): 作成者: Takara, Tetsuo, Higashihirachi, Seiji, 高良, 鉄夫, 東平地, 清二 メールアドレス: 所属:
URL	<a href="http://hdl.handle.net/20.500.12000/0002015125">http://hdl.handle.net/20.500.12000/0002015125</a>

# Provisional list of Coccoidea (Homoptera) in the Ryukyu Islands

by

Tetsuo Takara \* and Seiji Higashihirachi \*\*

## Introduction

There are a few reports concerning Coccoidea which originated in the Ryukyu Islands, but most of these reports not cover all the order.

In the first time, 5 species of Coccoidea are recorded by Kuwana (1909, 1911, 1917, 1931), after that 37 species are recorded by Takahashi (1930, 1933, 1940, 1953, 1956). Some other investigators reported a few new and unrecordec species, but the subject still calls for closs and further study.

We have been studing these insects during the past few years. In this report an attempt is made to list all of the recorded species, and new knowledges pertaining to distribution and host plant of the species are added. Since here included some specise which are in original literatures but not seen by the authors, it is unaboidable to have some incompleteness in it. These points will be reconsidered as specimens are completed.

In publishing this report, grateful acknowledgement is given to Messers. Rinichi Kawasaki, Noboru Kimura and Dr. Kenichi Umeya of the Yokohama Plant Protection Station and Messers. Terunobu Hidaka and Yorio Miyatake of Kyushu University for their kind instructions and advices, and furthermore, for their generosity of lending us their literatures in publishing the report, and in writing this report, we received valuable specimens from Messrs. K. Nohara, S. Takara, K. Kiyohara, Y. Yogi and S. Nakaza of the Ryukyu Plant Protection Station of whom we wish to express our hearty thanks.

1. The Ryukyu Islands in this report include Okinawa, Miyako and Yaeyama Islands which were previously referred to as Okinawa Prefecture.
2. Host Plant in the report are those growing in the Ryukyus.
3. Specimens examined was collected for the most part by the junior auther.

\* Division of Agriculture, Home Econymics & Engineering University of the Ryukyus.

\*\* Ryukyu Plant Protection Station.

## I FAMILY MONOPHLEBIDAE (WATAFUKIKAIGARAMUSHI-KA)

### 1. *Icerya purchasi* Maskell (*Iseriya-kaigaramushi*)

- 1925 *Icerya purchasi* Nōshōmushō-Nōmukyoku, Ins. World, 29, p. 395 (Okinawa).
- 1927 *Icerya purchasi* Yashiro, List Ins. Roo-choo Is., P.14 (Okinawa).
- 1930 *Icerya purchasi* Takahashi, Dept. Agri. Res Ins. Formosa, Rept. No. 48, P. 41 (Okinawa).
- 1939 *Icerya purchasi* Yashiro, Biogeographica, 3 (2), p. 208 (Okinawa Is., Minami daitō Is.).
- 1940 *Icerya purchasi* Takahashi, Trans. Nat. Hist. Soc. Formosa, 30, p. 370 (Minami-daitō Is.).
- 1940 *Icerya purchasi* Yashiro, Agri. and Hort., 15 (12), p. 61 (Okinawa Is. Minami-aitō Is.).
- 1950 *Icerya purchasi* Shiraiwa, Iconog. Ins. Jap., p. 357 (Okinawa).
- 1953 *Icerya purchasi* Takahashi, Yokohama Pla. Pro. Keneki-Shiryō, No. 29, p. 18 (Okinawa Is.).
- 1954 *Icerya purchasi* Shiraki, Cat. Inju. Ins. Ryukyu Is., p. 34 (Iriomote Is., Ishigaki Is., Okinawa Is.).
- 1956 *Icerya purchasi* Takahashi and Tachikawa, Trans. Shikoku Ent. Soc., 5 (1-2), P. 1 (Ryukyus).
- 1959 *Icerya purchasi* Yashiro et al., Ann. List Ani. Okinawa Is., p. 274 (Okinawa Is., Ishigaki Is., Iriomote Is.).

Specimens examined: Yabu, 14. VIII. 1963;  
Shirahama, 8. III. 1964.

Host plant: Citrus spp. (Kankitsu),  
*Boehmeria densiflora* (Mokumaō).

Local distr.: Okinawa Is., Ishigaki Is.,  
Iriomote Is., Minami-daitō Is.

Foreign distr.: Japan, Korea, Formosa,  
Widely distribution.

They are very commonly seen on

**Boehmeria densiflora.****2. *Icerya seychellarum* Westwood  
(Ki-ro-watafukikaigaramushi)**

- 1950 *Icerya seychellarum* Shiraiwa, Iconogr. Ins. Jap., p. 357 (Okinawa).
- 1953 *Icerya seychellarum* Takahashi, Yokohama Pla. Pro. Keneki-Shiryō, No. 29, p. 18 (Ishigaki Is.).
- 1954 *Icerya seychellarum* Shiraki, Cat. Inju. Ins. Ryukyu Is., p. 34 (Ishigaki Is. Okinawa Is.).
- 1956 *Icerya seychellarum* Takahashi and Tachikawa, Trans. Shikoku Ent. Soc. 5 (1-2), p. 2 (Ryukyus).
- 1959 *Icerya seychellarum* Yashiro et al., Ann. List Ani. Okinawa Is., p. 274 (Ishigaki Is.).  
Specimens examined: Nakijin, 13. II. 1963; Yabu, 3. II. 1963; Gogayama, 15. VIII. 1963.  
Host plant: *Vitex rotundifolia* (Hamagō), *Cycas revoluta* (Sotetsu), *Citrus* spp. (Kankitsu).  
Local distr.: Okinawa Is., Ishigaki Is.  
Foreign distr.: Japan, Formosa.

**3. *Drosicha* sp.  
(Waraji-kaigaramushi)**

- 1953 *Drosicha* sp. Takahashi, Yokohama Pla. Pro. Keneki-Shiryō, No. 29, p. 18 (Ishigaki Is.).
- 1954 *Drosicha* sp. Shiraki, Cat. Inju. Ins. Ryukyu Is., p. 34 (Ishigaki Is.).
- 1959 *Drosicha* sp. Yashiro et al., Ann. List Ani. Okinawa Is., p. 274 (Ishigaki Is.).  
Specimens examined: Shuri, 12. VII. 1963; Nakijin, 13. II. 1963; Ishigaki Is., 14. III. 1964.  
Host plant: *Garcinia spicata* (Fukugi), *Ficus foveolata* (Itabi-kazura), *Ananas comosus* (pain-apuru).  
Local distr.: Ishigaki Is., Okinawa Is. (hab. nov.).  
Foreign distr.: Japan (Amami-ōshima).  
This species not rare in Okinawa Island.

**II FAMILY PSEUDOCOCCIDAE  
(KONAKAIGARAMUSHI-KA)****4. *Antonina crawii* Cookerell  
(Take-shirokaigaramushi)**

- 1930 *Antonina crawii* Takahashi, Dept. Agri. Res. Inst. Formosa, Rept. No. 48, p. 42 (Okinawa).
- 1953 *Antonina crawii* Takahashi, Yokohama Pla. Prot. Keneki-Shiryō, No. 29, p. 16 (Ishigaki Is., Okinawa Is.).
- 1954 *Antonina crawii* Shiraki, Cat. Inju. Ins., Ryukyu Is., p. 35 (Ishigaki Is., Okinawa Is.).
- 1959 *Antonina crawii* Yashiro et al., Ann. List Ani. Okinawa Is., p. 275 (Okinawa Is., Ishigaki Is.).  
Specimens examined: Nago, 15. II. 1963.  
Host plant: *Bumusa* spp. (Take).  
Local distr.: Okinawa Is., Ishigaki Is.  
Foreign distr.: Japan, Formosa, China.

**5. *Antonina graminus* Maskell  
(Chigaya-shirokaigaramushi)**

- 1932 *Antonina indica* Kuwana, Zool. Mag., (44), p. 215 (Yaeyama).
- 1933 *Antonina graminus* Takahashi, Yokohama Pla. Prot. Keneki-Shiryō, No. 29, p. 17 (Yaeyama).
- 1954 *Antonina graminus* Shiraki, Cat. Inju. Ins. Ryukyu Is., p. 35 (Yaeyama).
- 1959 *Antonina graminus* Yashiro et al., Ann. List Ani. Okinawa Is., p. 375 (Okinawa Is.).  
Specimens examined: Hentona, 20. I. 1964.  
Host plant: *Imperata cylindrica* (Chigaya), *Panicum repens* (Haikibi).  
Local distr.: Okinawa Is., Yaeyama (Ishigaki Is.).  
Foreign distr.: Japan.  
This species is commonly seen in Okinawa and Ishigaki Island.

**6. *Pseudococcus adonidum* Linne  
(Nagao-konakaigaramushi)**

- 1959 *Pseudococcus adonidum* Yashiro et al., Ann. List Ani. Okinawa Is., p. 375 (Cosmopolitan).  
Host plant: Unknown.  
Local distr.:?

Foreign distr.: Japan, Formosa, Hawaii, Europe, Africa, America, Australia.

We have never collected this species for specimens yet.

### 7. *Pseudococcus brevipes* Cockerell (Painapuru-konakaigaramushi)

- 1940 *Pseudococcus brevipes* Yashiro, Agri. and Horti., 15 (12), p. 60 (Ishigaki Is.).
- 1953 *Dysmicoccus brevipes* Takahashi, Yokohama Pla. Pro. Keneki-Shiryō, No. 29, p. 15 (Ishigaki Is., Miyako Is.).
- 1954 *Dysmicoccus brevipes* Shiraki, Cat. Inju. Ins. Ryukyu Is., P. 35 (Ishigaki Is., Miyako Is.).
- 1955 *Dysmicoccus brevipes* Takahashi, Bull. Biogeog. Soc. Jap., 16-19, p. 239 (Ishigaki Is., Miyako Is.).
- 1959 *Dysmicoccus brevipes* Yashiro et al., Ann. List. Ani. Okinawa Is., p. 275 (Ishigaki Is., Miyako Is., Okinawa Is.).

Specimens examined: Izumi, 15. III. 1963; ōgimi, 13. VIII. 1958; Iriomote-Inaba, 10. III. 1964.

Host plant: *Ananas comosus* (pain-apuru), *Areca catechu* (Binrōji), *Gardenia jasminoides* (Kuchinashi).

Local distr.: Okinawa Is., Miyako Is., Ishigaki Is., Iriomote Is. (hab. nov.).

Foreign distr.: Japan (Amami-ōshima), Formosa, Philippine, Hawaii.

This species is widely distributed among the island of Ryukyu and it is known as injurious insects of pineapple.

### 8. *Pseudococcus boninsis* Kuwana (Ogasawara-Konakaigaramushi)

- 1940 *Pseudococcus boninsis* Takahashi, Trans. Nat. Hist. Soc. Formosa, 30, p. 331 (Minami-daitō Is.).
- 1958 *Pseudococcus boninsis* Takara, Ryukyu Tōgyō Shinkō-kaiho, No. 3, 36 (Minami-daitō Is.).

We have never collected this species for specimens yet.

Host Plant: *Saccharum officinarum* (Satō-kibi).

Local distr.: Minami-daitō Is.

Foreign distr.: Bonin Is., Formosa, Hawaii.

### 9. *Planococcus lilacinus* Cockerell (Taiwan-konakaigaramushi)

- 1930 *Pseudococcus lilacinus* Takahashi, Dept. Agri. Res. Inst. Formosa, Rept. No. 40, p. 41 (Ishigaki).
- 1953 *Planococcus lilacinus* Takahashi, Yokohama Pla. Pro. Keneki-Shiryō, No. 29, p. 14 (Ishigaki Is., Miyako Is.).
- 1953 *Planococcus lilacinus* Kawasaki, Yokohama Pla. Pro. Keneki-Shiryō, No. 32, p. 13 (Ryukyu).
- 1954 *Planococcus lilacinus* Shiraki, Cat. Inju. Ins. Ryukyu Is., p. 36 (Iriomote Is., Ishigaki Is., Miyako Is.).
- 1959 *Planococcus lilacinus* Yashiro et al., Ann. List. Ani. Okinawa Is., p. 275 (Miyako Is., Ishigaki Is., Iriomote Is.).

Specimens examined: Yabu, 14. VIII. 1963; Miyako Is., 23. VI. 1963.

Host plant: *Citrus* spp. (Kankitsu), *Mallotus japonica* (Akamegashiwa), *Calophyllum inophyllum* (Terihaboku), *Psidium guajava* (Banjirō).

Local distr.: Miyako Is., Ishigaki Is., Okinawa Is.

Foreign distr.: Formosa.

They are very commonly seen on *Psidium guajava*

### 10. *Planococcus citri* Risso (Mikan-konakaigaramushi)

- 1940 *Pseudococcus citri* Takahashi, Trans. Nat. Hist. Soc. Formosa, 30, p. 370 (Minami-daitō Is., Kita-daitō Is.).
- 1953 *Planococcus citri* Takahashi, Yokohama Pla. Pro. Keneki-Shiryō, No. 29, p. 14 (Miyako Is.).
- 1954 *Planococcus citri* Shiraki, Cat. Inju. Ins. Ryukyu Is., p. 36 (Miyako Is., Okinawa Is.).
- 1955 *Planococcus citri* Takahashi, Bull. Biogeog. Soc. Jap., 16-19, p. 39 (Miyako Is.).
- 1959 *Planococcus citri* Yashiro et al., Ann. List. Ani. Okinawa Is., p. 275 (Miyako Is.).
- 1959 *Pseudococcus citri* Yashiro et al., Ann. List. Ani. Okinawa Is., p. 275 (Okinawa Is., Miyako Is.).

Specimens examined: Gogayama, 15. VIII. 1963; Shioya, 21. II. 1964; Izumi, 16. VIII. 1963.

Host plant: *Citrus* sp. (Kankitsu), *Psidium guajava* (Banjirō), *Perilla frutescens acuta* (Shiso).

Local distr.: Okinawa Is., Miyako Is., Minami-daitō Is. Kita-daitō Is.

Foreign distr.: Japan, Korea, Formosa, China.

### 11. *Nipaeococcus vastater* Maskel (Tama-konakaigramushi)

1953 *Nipaeococcus vastater* Takahashi, Yokohama Pla. Pro. Keneki-Shiryō, No. 29, p. 15 (Miyako Is., Okinawa Is.).

1954 *Nipaeococcus vastater* Shiraki, Cat. Inju. Ins. Ryukyu Is., p. 35 (Miyako Is., Okinawa Is.).

1955 *Nipaeococcus vastater* Takahashi, Bull. Biogeog. Soc. Jap., 16-19, p. 239 (Miyako Is., Okinawa Is.).

1959 *Nipaeococcus vastater* Yashiro et al., Ann. List. Ani. Okinawa Is., p. 276 (Miyako Is., Okinawa Is.).

No specimens examined.

Host plant: *Citrus* spp. (Kankitsu), *Eryobotrya japonica* (Biwa).

Local distr.: Okinawa Is., Miyako Is., Ishigaki Is.

Foreign distr.: Formosa.

### 12. *Sacharicoccus sachari* Cokerell (Kansha-konakaigaramushi)

1940 *Sacharicoccus hirsutus* Yashiro, Agri. and Hort., 15 (12), p. 58 (Okinawa).

1940 *Trionymus sachari* Takahashi, Trans. Nat. Hist. Soc. Formosa, 30, p. 331 (Minami-daitō Is.).

1953 *Sacharicoccus sachari* Takahashi, Yokohama Pla. Pro. Keneki-Shiryō, No. 29, p. 16 (Okinawa Is.).

1954 *Sacharicoccus sachari* Shiraki, Cat. Inju. Ins. Ryukyu Is., p. 36 (Okinawa Is.).

1958 *Sacharicoccus sachari* Takara, Ryukyu Tōgyō Shinkō-kaihō, No. 3, p. 36 (All Ryukyu Islands.)

1959 *Sacharicoccus sachari* Yashiro et al., Ann. List. Ani. Okinawa Is., p. 275 (Okinawa Is.)

Specimens examined: Yabu, 14. VIII. 1963; Minami-daitō Is., 26. II. 1960; Miyako Is., 9. II. 1964.

Host plant: *Saccharum officinarum* (Satō-

kibi).

Local distr.: All Ryukyu Is.

Foreign distr.: Japan, Formosa.

The injurious insect of the Sugar-cane in the Ryukyus. It comes out in a limited area, but rarely causes great damage because it is controlled by natural enemies.

### III FAMILY ASTEROLECANIDAE (FUSAKAIGARAMUSHI-KA)

#### 13. *Asterolecanium bambusarum* Boisduval (Take-fusakaigaramushi)

1917 *Asterolecanium bambusae* Kuwana, Illust. Scale Ins. Jap., 2, p. 81 (Ryukyu).

1930 *Asterolecanium bambusae* Takahashi, Dept. Agri. Res. Inst. Formosa, Rept. No. 48, p. 41 (Loochoo).

1940 *Asterolecanium bambusae* Takahashi, Trans. Nat. Hist. Soc. Formosa, 30, p. 331 (Minami-daitō-Is.).

1950 *Asterolecanium bambusae* Shiraiwa, Iconog. Ins. Jap., p. 359 (Okinawa).

1953 *Asterolecanium bambusarum* Takahashi, Yokohama Pla. Pro. Keneki-Shiryō, No. 29, p. 17 (Okinawa Is.).

1954 *Asterolecanium bambusarum* Shiraki, Cat. Inju. Ins. Ryukyu Is., p. 34 (Ishigaki Is., Okinawa Is.).

1959 *Asterolecanium bambusae* Yashiro et al., Ann. List. Ani. Okinawa Is., p. 275 (Okinawa Is., Ishigaki Is.).

Specimens examined: Hentona, 20. I. 1964; Komesu, 28. VIII. 1963.

Host plant: *Bambusa* spp. (Take).

Local distr.: Okinawa Is., Ishigaki Is., Minami-daitō Is.

Foreign distr.: Japan, Formosa, India, Ceylon, Java, Hawaii, Africa, S. America.

#### 14. *Asterolecanium minutum* Takahashi (Take-hitofusa-kaigaramushi)

1954 *Asterolecanium minutum* Shiraki, Cat. Inju. Ins. Ryukyu Is., p. 35 (Okinawa Is.).

1959 *Asterolecanium minutum* Yashiro et al., Ann. List. Ani. Okinawa Is., p. 275 (Okinawa Is.).

No specimens examined.

Host plant: *Bumusa* spp. (Take).

Local distr.: Okinawa Is.

Foreign distr.: Japan, Formosa.

#### IV FAMILY COCCIDAE. (KATAKAIGARAMUSHI-KA)

##### 15. *Ericerus pela* Charannes (Ibotaromushi)

1953 *Ericerus pela* Takahashi, Yokohama Pla. Pro. Kenki-Shiryō, No. 29, p. 13 (Okinawa Is.).

1954 *Ericerus pela* Shiraki, Cat. Inju. Ins. Ryukyu Is., p. 37 (Okinawa Is.).

1956 *Ericerus pela* Takahashi and Tachikawa, Trans. Shikoku Ent. Soc. 5(1-2), p. 7 (Ryukyus).

Specimens examined: Chinen, 20. III. 1964

Host plant: *Ligustrum liukiense* (Okinawa-ibota), L. *Japonicum* (Nezumimochi).

Local distr.: Okinawa Is.

Foreign distr.: Japan, Korea, China, Europe.

##### 16. *Coccus acutissimus* Green (Hoso-katakaigaramushi)

1953 *Coccus acutissimus* Takahashi, Yokohama Pla. Pro. Kenki-Shiryō, No. 29, p. 11 (Okinawa Is.).

1954 *Coccus acutissimus* Shiraki, Cat. Inju. Ryukyu Is., (Okinawa Is.).

1955 *Coccus acutissimus* Takahashi, Bull. Biogeog. Soc., Jap. 16-19, p. 240 (Okinawa Is.).

1959 *Coccus acutissimus* Yashiro et al., Ann. List. Ani. Okinawa Is., p. 275 (Okinawa Is., Ishigaki Is., Iriomote Is.).

No specimens examined.

Host plant: *Litchi chinensis* (Reishi).

Local distr.: Okinawa Is., Ishigaki Is., Iriomote Is.

Foreign distr.: Hawaii, Formosa.

##### 17. *Coccus elongatus* Signoret (Naga-katakaigaramushi)

1930 *Coccus elongatus* Takahashi, Rept. Agr. Res. Inst. Formosa, Rept. No. 48, p. 41 (Ishigaki Is.).

1940 *Coccus elongatus* Takahashi Trans. Nat. Hist. Soc. Formosa, 30, p. 331 (Minami-daitō Is., Kta-daitō Is.).

1950 *Coccus elongatus* Shiraiwa, Iconog. Ins. Jap., p. 365 (Ishigaki Is.).

1953 *Coccus elongatus* Takahashi, Yokohama Pla. Pro. Kenki-Shiryō, No. 29, p. 10 (Ishigaki Is., Miyako Is.).

1953 *Coccus elongatus* Kawasaki, Yokohama Pla. Pro. Kenki-Shiryō, No. 32, p. 10. (Ryukyu).

1954 *Coccus elongatus* Shiraki, Cat. Inju. Ins. Ryukyu Is., p. 36 (Iriomote Is., Ishigaki Is., Miyako Is., Okinawa Is.).

1955 *Coccus elongatus* Takahashi, Bull. Biogeog. Soc. Jap., 16-19, p. 339 (Miyako Is.).

1958 *Coccus elongatus* Takara, Ryukyu Tōgyō-shinko-kaihō, No. 3, p. 36 (Okinawa Is., Miyako Is., Ishigaki Is., Iriomote Is.).

1959 *Coccus elongatus* Yashiro et al., Ann. List. Ani. Okinawa Is., (Okinawa Is., Miyako Is., Ishigaki Is., Iriomote Is.).

Specimens examined: Nakijin, 15. VIII. 1963.

Host plant: *Citrus* spp. (Kankitsu), *Saccharum officinarum* (Satokibi), *Morus australis* (Shimagawa), *Codiaeum variegatum* (Kuroton), *Orchid plant* (Ran).

Local distr.: Okinawa Is., Miyako Is., Ishigaki Is., Iriomote Is., Minami-daitō Is., Kita-daitō Is.

Foreign distr.: Japan, Formosa, Bonin Is., Philippine, Melanesia, Hawaii.

##### 18. *Coccus pseudomagnoliarum* Kuwana (Kankitsu-katakaigaramushi)

1927 *Lecanium pseudomagnoliarum* Yashiro, List. Ins. Roo-Choo Is., p. 14 (Okinawa).

1930 *Lecanium pseudomagnoliarum* Takahashi, Rept. Agr. Res. Inst. Formosa, Rept. No. 48, p. 41 (Loo Choo).

No specimens examined.

Host plant: *Citrus* sp. (Kankitsu).

Local distr.: Okinawa Is.

Foreign distr.: Japan, Hawaii.

##### 19. *Coccus hesperidum* Linne (Hirata-katakaigaramushi)

1956 *Coccus hesperidum* Takahashi and Tachi-

kawa, Trans. Shikoku Ent. Soc., 5(1-2) p. 4 (Ryukyu).

No specimens examined.

Host Plant: ?

Local distr.: Ryukyu (? Okinawa Is.).

Foreign distr.: Japan, Cosmopolitan.

## 20. *Ceroplastes japonica* Comstock (Kamenoko-romushi)

1930 *Ceroplastes floridensis* Takahashi, Rept. Agri. Res. Inst. Formosa, Rept. No. 48, p. 43 (Miyako).

1940 *Ceroplastes floridensis* Takahashi, Trans. Nat. Hist. Soc. Formosa, 30, p. 332 (Daitō Is.).

1850 *Ceroplastes floridensis* Shiraiwa, Iconog. Ins. Jap., p. 369, (Okinawa).

1953 *Ceroplastes japonica* Takahashi, Yokohama pla. pro. Keneki-Shiryō, No. 29, p. 14 (Miyako Is.).

1954 *Ceroplastes japonica* Shiraki, Cat. Inju. Ins. Ryukyu Is., p. 36 (Miyako Is.).

1956 *Ceroplastes japonica* Takahashi and Tachikawa, Trans. Shikoku Ent. Soc., 5(1-2), p. 7 (Ryukyus.).

1959 *Ceroplastes floridensis* Yashiro et al., Ann. List Ani. Okinawa Is., p. 276 (Okinawa Is., Miyako Is., Ishigaki Is., Iriomote Is.).

1959 *Ceroplastes japonica* Yashiro et al., Ann. List Ani. Okinawa Is. p. 276 (Miyako Is.).

Specimens examined: Shuri, 16. IX. 1963.

Host plant: *Citrus* spp. (Kankitsu), *Eryobotrya japonica* (Biwa).

Local distr.: Okinawa Is., Miyako Is., Ishigaki Is., Iriomote Is., Daitō Is.

Foreign distr.: Japan, Formosa, Philippine, Ceylon.

This species is relatively rare in the islands.

## 21. *Ceroplastes rubens* Maskell (Rubii-romushi)

1971 *Ceroplastes rubens* Kuwana, Illusts. scale Ins. Jap., 2, p. 65 (Okinawa).

1929 *Ceroplastes rubens* Yokoyama, Ins. World, 29, p. 189 (Okinawa).

1952 *Ceroplastes rubens* Shiraki, Inju. Ins. Jap., p. 27 (Okinawa).

1953 *Ceroplastes rubens* Takahashi, Yokohama Pla. Pro. Keneki-Shiryō, No. 29, p. 13 (Okinawa Is.).

1954 *Ceroplastes rubens* Shiraki, Cat. Inju. Ins. Ryukyu Is., p. 36 (Iriomote Is., Ishigaki Is., Okinawa Is.).

1956 *Ceroplastes rubens* Takahashi and Tachikawa, Trans. Shikoku Ent. Soc., 5 (1-2), p. 8 (Ryukyus).

1959 *Ceroplastes rubens* Yashiro et al., Ann. List Ani. Okinawa Is., p. 276 (Okinawa Is., Ishigaki Is., Iriomote Is.).

Specimens examined: Shioya, 21. II. 1964; Yabu, 14. VIII. 1963.

Host plant: *Garcinia spicata* (Fukugi), *Pouteria obobata* (Akatetsu), *Cinnamomum floureirii* (Nikkei).

Local distr.: Okinawa Is., Ishigaki Is., Iriomote Is.

Foreign distr.: Japan, Korea, Formosa, China, Philippine, India, Australia.

Almost we can find this species through the year.

## 22. *Ceroplastes pseudoceriferus* Green (Tsuno-rokaigaramushi)

Specimens examined: Yabu, 14. VIII. 1963 (S. Takara leg); Gogayama, 15. VIII. 1963; Kochinda, 23. IX. 1963; Izumi, 2. 11. 1963 (Yogi leg); Isagawa, 14. II. 1963 (Nakaza leg); Hentona, 20. I. 1964; Nago, 22. I. 1964 (Kiyohara leg.).

Host plant: *Garcinia spicata* (Fukugi), *Diospyros ferra* var. *buxifelia* (Ryukyukokutan), *D. Kaki* (Kaki), *Citrus* spp. (Kankitsu), *Prunus mume* (Ume), *Bischofia javanica* (Akagi), *Vaccinium Donianum* (Okinawa-shashanbo), *Eryobotrya japonica* (Biwa), *Viburnum suspensum* (Komoju).

Local distr.: Okinawa Is. (hab. nov.).

Foreign distr.: Japan, Formosa, India, Ceylon.

## 23. *Parasaissetia nigra* Nietner (Kuro-katakaigaramushi)

1909 *Lecanium (Saissetia) nigra* Kuwara, Jour. New York Ent. Soc., p. 8 (Liukiu).

1930 *Saissetia nigra* Takahashi, Dept. Agr. Res. Inst. Formosa, Rept. No. 48, p. 42 (Iriomote

- Is., Ishigaki Is., Miyako Is., Okinawa Is.).
- 1939 *Saissetia nigra* Esaki, Biogeog., 3, p. 227 (Okinawa Is., Ishigaki Is., Iriomote Is.).
- 1940 *Saissetia nigra* Takahashi, Trans. Nat. Hist. Soc. Formosa, 30, p. 331 (Kita-daitô Is. Minami-daitô Is.).
- 1950 *Saissetia nigra* Shiraiwa, Iconog. Ins. Jap., p. 12 (Okinawa).
- 1952 *Saissetia nigra* Shiraki, Cat. Inju. Ins. Jap., p. 54 (Loo-choo).
- 1953 *Saissetia nigra* Takahashi, Yokohama Pla. Pro. Keneki-Shiryô, No. 29, p. 12, (Iriomote Is., Ishigaki Is., Miyako Is., Okinawa Is., Kume Is.).
- 1954 *Saissetia nigra* Shiraki, Cat. Inju. Ins. Ryukyu Is., 38 (Iriomote Is., Ishigaki Is., Miyako Is., Okinawa Is.).
- 1955 *Parasaissetia nigra* Takahashi, Bull. Biogeog. Soc. Jap., 16—19, p. 293 (Ishigaki Is., Miyako Is., Okinawa Is., Kume Is.).
- 1959 *Lecanium pseudonigrum* Yashiro et al., Ann. List Ani. Okinawa Is., p. 276 (Daitô Is.).
- 1959 *Lecanium sideronylum* Yashiro et al., Ann. List Ani. Okinawa Is., p. 276 (Daitô Is.).
- 1959 *Saissetia nigra* Yashiro et al., Ann. List Ani. Okinawa Is., p. 277 (Miyako Is., Ishigaki Is., Iriomote Is.).
- 1959 *Parasaissetia nigra* Yashiro et al., Ann. List Ani. Okinawa Is., p. 277 (Okinawa Is., Miyako Is., Ishigaki Is., Kume Is.).
- Specimens examined: Hentona, 21. I. 1964; Miyako Is., 9. II. 1964.
- Host plant: *Citrus* spp. (Kankitsu), *Morus australis* (Shimaguwa), *Codiaeum variegatum* (Kuroton), *Ficus carica* (Ichijiku), *Alpinia speciosa* (Getto).
- Local distr.: Okinawa Is., Miyako Is., Ishigaki Is., Iriomote Is., Kume Is., Kita-daitô Is., Minami-daitô Is.
- Foreign distr.: Japan, Formosa, Iran, Bonin Is., Melanesia, India, Ceylon, Hawaii, Australia, N. America.
- This species is very commonly seen in any of the islands of Ryukyu, and it injures every useful plant.
- 24. *Saissetia oleae* Bern**  
(**Oriibu-katakaigaramushi**)
- 1930 *Saissetia oleae* Takahashi, Dept. Agr. Res. Inst. Formosa, Rept. No. 48, p. 42 (Okinawa Is.).
- 1950 *Saissetia oleae* Shiraiwa, Iconog. Ins. Jap., p. 368 (Okinawa).
- 1953 *Saissetia oleae* Takahashi, Yokohama Pla. Pro. Keneki-Shiryô, No. 29, p. 13 (Okinawa).
- 1959 *Saissetia oleae* Yashiro et al., Ann. List Ani. Okinawa Is., p. 277 (Okinawa).
- Specimens examined: Nago, 3. X. 1963.
- Host plant: Tree sp., *Musa paradisiaca* (Banana).
- Local distr.: Okinawa Is.
- Foreign distr.: Formosa, China, Philippine, Melanesia, Hawaii, Australia, Europe.
- 25. *Saissetia hemisphaericum* Targioni**  
(**Hanen-katakaigaramushi,**  
**Yamataka-kaigaramushi**)
- 1930 *Saissetia hemisphaericum* Takahashi, Dept. Agr. Res. Inst. Formosa, Rept., No. 48, p. 42 (Iriomote Is., Ishigaki Is., Miyako Is., Okinawa Is.).
- 1933 *Saissetia hemisphaericum* Sonan, Ins. World, 37, p. 367 (Okinawa).
- 1940 *Saissetia hemisphaericum* Takahashi, Trans. Nat. Hist. Soc. Formosa, 30, p. 331 (Minami-daitô Is.).
- 1950 *Saissetia hemisphaericum* Shiraiwa, Iconog. Ins. Jap., p. 366 (Okinawa).
- 1952 *Saissetia hemisphaericum* Shiraki, Cat. Inju. Ins. Jap., p. 54 (Okinawa).
- 1953 *Saissetia hemisphaericum* Takahashi, Yokohama Pla. Pro. Keneki-Shiryô, No. 29, p. 12 (Iriomote Is., Ishigaki Is., Miyako Is., Okinawa Is.).
- 1954 *Saissetia hemisphaericum* Shiraki, Cat. Inju. Ins. Ryukyu Is., p. 38 (Iriomote Is., Ishigaki Is., Miyako Is., Okinawa Is.).
- 1955 *Saissetia hemisphaericum* Takahashi, Bull. Biogeog. Soc. Jap., 16—19, p. 240 (Ishigaki).
- 1956 *Saissetia hemisphaericum* Takahashi and Tachikawa, Trans. Shikoku Ent. Soc., 5(1—2), p. 7 (Ryukyu).
- 1959 *Saissetia hemisphaericum* Yashiro et al., Ann. List Ani. Okinawa Is., p. 277 (Okinawa Is., Miyako Is., Ishigaki Is., Iriomote Is.).
- 1959 *Saissetia* sp. Yashiro et al., Ann. List. Ani. Okinawa Is., p. 277 (Ishigaki Is.).



Specimens examined: Yabu, 14. VIII. 1963; Miyako, 16. VI. 1963; Iriomote-Shirahama, 8. III. 1964.

Host plants: *Citrus* spp. (Kankitsu), *Psidium guajava* (Banjirô), *Cucurbita* spp. (Uri-rui), *Gardenia jasminoides* (Kuchinashi), *Barringtonia Asiatica* (Gobannoashi), *Viburnum Awabuki* (Sangoju), *Diospyros Morrisiana* (Tokiwagaki), *Clerodendron trichotomum* (Kusagi), *Melia Azedarach* (Sendan) *Luffa cylindrica* (Hechima), *Murraya paniculata* (Gekkitsu).

Local distr.: Okinawa Is., Ishigaki Is., Iriomote Is.

Foreign distr.: Japan, Formosa, Bonin Is., Hawaii, Melanesia, Widely distribution.

They are commonly seen in any of islands of Ryukyu.

## 26. *Paralecanium expansum* Green (Ohirata-kaigaramushi)

1930 *Paralecanium expansum* Takahashi, Dept. Agr. Res. Inst. Formosa, Rep. No. 48, p. 42 (Miyako, Okinawa Is.).

1953 *Paralecanium expansum* Takahashi, Yokohama Pla. Pro. Keneki-Shiryô, No. 29, p. 12 (Yonaguni Is., Miyako Is., Okinawa Is.).

1954 *Paralecanium expansum* Shiraki, Cat. Inju. Ins. Ryukyu Is., p. 38 (Yonaguni Is., Miyako Is., Okinawa Is.).

1959 *Paralecanium expansum* Yashiro et al. Ann. List Ani. Okinawa Is., p. 276 (Okinawa Is., Miyako Is., Yonaguni Is.).

No specimens examined.

Host plant: *Ficus retusa* (Gajumarû).

Local distr.: Okinawa Is., Miyako Is., Yonaguni Is.

Foreign distr.: Tropical area (Asia).

## 27. *Paralecanium graduratum* Green (Terihaboku-hirata-kaigaramushi)

1953 *Paralecanium graduratum* Takahashi, Yokohama Pla. Pro. Keneki-Shiryô, No. 29, p. 12 (Ishigaki Is.).

1954 *Paralecanium graduratum* Shiraki, Cat. Inju. Ins. Ryukyu Is., p. 38 (Ishigaki Is.).

1955 *Paralecanium graduratum* Takahashi, Bull.

Biogeog. Soc. Jap., 16—19, p. 239 (Ishigaki Is.).

1959 *Paralecanium graduratum* Yashiro et al., Ann. List Ani. Okinawa Is., p. 276 (Okinawa Is.).

No specimens examined.

Host plant: *Calophyllum Inophyllum* (Terihaboku).

Local distr.: Ishigaki Is.

Foreign distr.: Formosa, Ceylon.

## 28. *Pulvinaria gosteræpha* Icery (Kansha-no-konamushi)

1927 *Pulvinaria gosteræpha* Yashiro, List Ins. Roo-choo Is., p. 14 (Okinawa).

No specimens examined.

Host plant: *Saccharum officinarum* (Satô-kibi)

Local distr.: Okinawa Is.

Foreign distr.: ?

## 29. *Pulvinaria polygonata* Cockerell (Taiwan-katakaigaramushi)

1930 *Pulvinaria polygonata* Takahashi, Dept. Agr. Res. Inst. Formosa, Rept. No. 48, p. 42 (Miyako, Okinawa).

1953 *Pulvinaria polygonata* Takahashi, Yokohama Pla. Pro. Keneki-Shiryô, No. 29, p. 13 (Miyako Is., Okinawa Is.).

1954 *Pulvinaria polygonata* Shiraki, Cat. Inju. Ins., p. 33 (Miyako Is., Okinawa Is.).

Specimens examined: Nakijin, 13. II. 1963.

Host plant: *Citrus* spp. (Kankitsu), *Murraya paniculata* (Gekkitsu).

Local distr.: Okinawa Is., Miyako Is.

Foreign distr.: Formosa, Tropical area (Asia).

## 30. *Pulvinaria* sp. (Take-no-sedaka-katakaigaramushi)

1953 *Pulvinaria* sp. Takahashi, Yokohama Pla. Pro. Keneki-Shiryô, No. 29, p. 13 (Ishigaki Is.).

1954 *Pulvinaria* sp. Shiraki, Cat. Ins. Ryukyu Is., p. 38 (Ishigaki Is.).

1959 *Pulvinaria* sp. Yashiro et al., Ann. List. Ani. Okinawa, p. 277 (Ishigaki Is.).

Specimens examined: Miwa, 26. VIII. 1963.

Host plant: **Bumbusa** spp. (Take).

Local distr.: Ishigaki Is.

Foreign distr. Unknown.

V FAMILY DIASPIDIDAE  
(MARUKAIGARAMUSHI-KA)

31. **Fiorinia pinicola** Maskell  
(Byakushin-konohakaigaramushi)

1930 **Fiorinia juniperi** Takahashi, Dept. Agr. Res., Formosa, Rept. No. 48, p. 42 (Okinawa).

1950 **Fiorinia pinicola** Shiraiwa, Iconog. Ins. Jap., p. 375 (Okinawa).

1952 **Fiorinia juniperi** Shiraki, Cat. Inju. Ins. Jap., p. 35 (Loo-choo).

1953 **Fiorinia pinicola** Takahashi, Yokohama Pla. Pro. Keneki-Shiryō, No. 29, p. 6 (Ishigaki Is., Miyako Is., Okinawa Is.).

1954 **Fiorinia pinicola** Shiraki, Cat. Inju. Ins. Ryukyu Is., p. 40 (Ishigaki Is., Miyako Is., Okinawa Is.).

1956 **Fiorinia pinicola** Takahashi and Tachikawa, Trans. Shikoku Ent. Soc., 5 (1-2), p. (Ryukyus).

1959 **Fiorinia pinicola** Yashiro et al., Ann. List. Ani. Okinawa Is., p. 278 (Okinawa Is., Miyako Is., Ishigaki Is.).

Specimens examined: Hentona, 20. II, 1964; Shioya, 21. 11. 1964.

Host plant: **Ficus foveolata** var. **nipponica** (Itabikazura), **Podocarpus macrophyllus** (Inumaki), **Morus australis** (Shimaguwa), **Camellia japonica** (Yabutsubaki).  
Local distr., Okinawa Is., Miyako Is., Ishigaki Is.

Foreign distr.: Japan, Formosa, Ceylon.

32. **Fiorinia proboscidea** Green  
(Zobi-konohakaigaramushi)

1940 **Fiorinia proboscidea** Yashiro, Agr. and Hort., 15 (1-2), p. 61 (Okinawa).

1953 **Fiorinia proboscidea** Takahashi, Yokohama Pla. Pro. Keneki-Shiryō, No. 29, p. 6 (Okinawa Is.).

1953 **Fiorinia proboscidea** Kawasaki, Yokohama Pla. Pro. Keneki-Shiryō, No. 32, p. 11 (Ryukyu).

1954 **Fiorinia proboscidea** Shiraki, Cat. Inju. Ins.

Ryukyu Is., p. 41 (Okinawa Is.).

1955 **Fiorinia proboscidea** Takahashi, Bull. Biogeog. Soc. Jap., 16-19, p. 241 (Okinawa Is.).

1959 **Fiorinia proboscidea** Yashiro et al., Ann. List. Ani. Okinawa Is., p. 278 (Okinawa Is.).

No specimens examined.

Host plant: **Citrus** spp. (Kankitsu).

Local distr.: Okinawa Is.

Foreign distr.: Formosa, Ceylon.

33. **Aspidiotus stauntoniae** Takahashi  
(Kata-marukaigaramushi)

1954 **Aspidiotus stauntoniae** Takahashi, Yokohama Pla. Pro. Keneki-Shiryō, No. 29, p. 7 (Okinawa Is.).

1954 **Aspidiotus stauntoniae** Shiraki, Cat. Inju. Ins. Ryukyu Is., p. 39 (Okinawa Is.).

1955 **Aspidiotus stauntoniae** Takahashi, Bull. Biogeog. Soc. Jap., 16-19, p. 242 (Okinawa Is.).

1959 **Aspidiotus stauntoniae** Yashiro et al., Ann. List. Ani. Okinawa Is., p. 277 (Okinawa Is.).

No specimens examined.

Host plant: **Citrus** spp. (Kankitsu).

Local distr.: Okinawa Is.

Foreign distr.: Japan, Formosa.

34. **Aulacaspis rosae** Bouche  
(Bra-shirokaigaramushi)

1956 **Aulacaspis rosae** Takahashi and Tachikawa, Trans. Shikoku Ent. Soc., 5 (1-2), p. 9 (Ryukyu).

Specimens examined: Shuri, 17. 11. 1964.

Host plant: Rose spp. (Bara).

Local distr.: Okinawa Is.

Foreign distr.: Japan, Sagalin, Bonin Is., Korea, Formosa, etc.

35. **Aulacaspis distylii** Takahashi  
(Isunoki-shirokaigaramushi)

1953 **Aulacaspis** sp. Takahashi, Yokohama Pla. Pro. Keneki-Shiryō, No. 29, p. 2 (Okinawa Is.).

1954 **Aulacaspis distylii** Shiraki, Cat. Inju. Ins. Ryukyu Is., p. 39 (Okinawa Is.).

1955 **Aulacaspis distylii** Takahashi, Bull. Biogeog. Soc. Jap., 16-19, (Nakijin-Okinawa).

1956 **Aulacaspis distylii** Takahashi and Tachikawa,

Trans. Shikoku Ent. Soc., 5 (1-2), p. 10 (Ryukyus).

1959 *Aulacaspis distrylii* Yashiro et al., Ann. List. Ani. Okinawa Is., p. 277 (Okinawa Is.).

Specimens examined: Yabu, 14. II. 1963; Miyako Is., 9. II. 1964; Nakijin, 14. II. 1963; Hentona, 20II 1964.

Host plant: *Distylium racemoum* (Isunoki).

Local distr.: Okinawa Is., Miyako Is. (hab. nov.).

Foreign distr.: Japan.

We can find this species all the year round.

### 36. *Aulacaspis yabunikkei* Kuwana (*Yabunikkei-marukaigaramushi*)

1953 *Aonidia yabunikkei* Takahashi, Yokohama Pla. Pro. Keneki-Shiryō, No. 29, p. 8 (Ishigaki Is.).

1954 *Aonidia yabunikkei* Shiraki, Cat. Inju. Ins. Ryukyu Is., p. 38 (Ishigaki Is.).

1955 *Aonidiay abunikkei* Takahashi, Bull. Biogeog. Soc. Jap., 16-19, p. 242 (Ishigaki Is.).

1956 *Aulacaspis yabunikkei* Takahashi and Tachikawa, Trans. Shikoku Ent. Soc., 5 (1-2), p. 9 (Ryukyus).

1959 *Aonidia yabunikkei* Yashiro et al., Ann. List Ani. Okinawa Is., p. 277 (Ishigaki Is., Miyako Is.).

Specimens examined: We have many specimens (Miyako, Okinawa).

Host plant: *Cinnamomum japonica* (Yabunikkei), *Machilus Thunbergii* (Tabu).

Local distr.: Miyako Is., Ishigaki Is., Okinawa Is. (hab. nov.).

Foreign distr.: Japan (Amami-ōshima), Formosa.

### 37. *Aulacaspis* sp. (*Kansha-shiromarukaigaramushi*)

1962 *Aulacaspis tegelensis* Iha & Higashihirachi, Ryukyu Shokubutsu-boeki-jōho, No. 10 (Miyako Is., Ishigaki Is.).

1962 *Aulacaspis* sp. Tachikawa, Agr. & Hort., 37 (11), p. 1814 (Miyako).

1962 *Aulacaspis tegalensis* Tou, Jour. Taiwan Pla. Protec. Asso, 4 (3), p. 88 (Miyako, Yaeyama).

Specimens examined: Miyako, 29. XI. 1961.

Host plant: *Saccharum officinarum* (Satō-

kibi), *Miscanthus sinensis* (Susuki).

Local distr.: Miyako Is. Ishigaki Is.

Foreign distr.: Formosa, etc.

This species is known as injurious insects of sugar cane, and first time it was found at Miyako Island in 1961.

### 38. *Chionaspis* sp. (*Ryukyu-shirokaigaramushi*)

1953 *Chionaspis* sp. Takahashi, Yokohama Pla. Pro. Keneki-Shiryō, No. 29, p. 3 (Okinawa Is.).

1954 *Chionaspis* sp. Shiraki, Cat. Inju. Ins. Ryukyu Is., p. 40 (Okinawa Is.).

1959 *Chionaspis* sp. Yashiro et al., Ann. List Ani. Okinawa Is., p. 278 (Okinawa Is.).

Specimens examined: Nakijin, 13. II. 1963; Mabuni, 28. VIII. 1963; Miyako, 9. II. 1964.

Host plant: *Acer oblongum* var. *Itoanum*. (Kusunoha-kaede).

Local distr.: Okinawa Is., Miyako Is. (hab. nov.).

Foreign distr.: Unknown.

### 39. *Unaspis yanonensis* Kuwana (*Yanone-kaigaramushi*)

1911 *Chionaspis citri* Kuwana, Illust. scale Ins. Jap., 1, p. 117 (Okinawa pref.).

1956 *Unaspis yanonensis* Takahashi and Tachikawa, Trans. Shikoku Ent. Soc. 5 (1-2) p. 11 (Ryukyus).

Host plant: *Citrus* spp. (Kankitsu), *Trachycarpus Wagnerianus* (Tōjuro).

Local distr.: ? Okinawa Is.

Foreign distr.: Japan, China.

We have never collected this species for specimens yet.

### 40. *Phenacaspis cockerell* Cooley (*Miyako-shiromarukaigaramushi*)

1931 *Chionaspis miyakoensis* Kuwana, Zool. Mag., 43, p. 649 (Miyako).

1953 *Chionaspis miyakoensis* Takahashi, Yokohama Pla. Pro. Keneki-Shiryō, No. 29, p. 34 (Miyako Is., Kume Is.).

1954 *Chionaspis miyakoensis* Shiraki, Cat. Inju. Ins. Ryukyu Is., p. 40 (Kume Is., Miyako

Is.).

- 1959 *Chionaspis miyakoensis* Yashiro et al., Ann. List Ani. Okinawa Is., p. 278 (Kume Is., Miyako Is.).

- 1961 *Phenacaspis cockerell* Takagi, Ins. Matsu, 24 (1), p. 30 (Kume-jima).

Specimens examined: Miyako Is., 15. VI. 1963, Yabu, 14. VIII. 1963; Hentona, 21. I. 1964; Shioya, 21. I. 1964.

Host plant: *Morus australis* (Shimaguwa), *Aphananthe aspera* (Mukunoki).

Local distr.: Miyako Is., Kume Is., Okinawa Is. (hab. nov.).

Foreign distr.: Unknown.

This species was recorded from Miyako and Kume Island in the past. This time we could obtain many specimens which was found in Okinawa Island.

#### 41. *Diaspidiotus makii* Kuwana (Maki-marukaigaramushi)

- 1953 *Diaspidiotus makii* Takahashi, Yokohama Pla. Pro. Keneki-Shiryō, No. 29, p. 8 (Ishigaki Is.).

- 1954 *Diaspidiotus makii* Shiraki, Cat. Inju. Ins. Ryukyu Is., p. 40 (Ishigaki Is.).

- 1959 *Diaspidiotus makii* Yashiro et al., Ann. List Ani. Okinawa Is., p. 278 (Ishigaki Is.).

Specimens examined: Naha 20. II. 1964.

Host plant: *Pinus luchuensis* (Ryukyu-matsu).

Local distr.: Ishigaki Is., Okinawa Is. (hab. nov.).

Foreign distr.: Japan (Amami-ōshima).

#### 42. *Diaspis bromeliae* Kerner (Ananasu-shiromarukaigaramushi)

- 1953 *Diaspis bromeliae* Takahashi, Yokohama Pla. Pro. Keneki-Shiryō, No. 29, p. 2 (Okinawa Is.).

- 1954 *Diaspis bromeliae* Shiraki, Cat. Inju. Ins. Ryukyu Is., p. 40 (Ishigaki Is., Okinawa Is.).

- 1955 *Diaspis bromeliae* Takahashi, Bull. Biogeog. Soc. Jap., 16-19, p. 240 (Okinawa Is.).

- 1959 *Diaspis bromeliae* Yashiro et al., Ann. List Ani. Okinawa Is., p. 278 (Okinawa Is., Ishigaki Is.).

Specimens examined: Gogayama, 15. VIII. 1963.

Host plant: *Ananas comosus* (Painapuru).

Local distr.: Oinawa Is., Ishigaki Is.

Foreign distr.: Japan, Formosa, Hawaii, Widely distributed.

The important injurious insect of the Pineapple in the Ryukyus. We can find this species all the year round.

#### 43. *Hemiberlesia lataniae* Signoret (Yashi-marukaigaramushi)

- 1953 *Hemiberlesia lataniae* Takahashi, Yokohama Pla. Pro. Keneki-Shiryō, No. 29, p. 8 (Ishigaki Is., Okinawa Is.).

- 1954 *Hemiberlesia lataniae* Shiraki, Cat. Inju. Ins. Ryukyu Is., p. 41 (Ishigaki Is., Okinawa Is.).

- 1959 *Hemiberlesia lataniae* Yashiro et al., Ann. list Ani. Okinawa Is., p. 278 (Okinawa Is., Ishigaki Is.).

Specimens examined: Shuri, 15. V. 1963.

Host plant: *Trachycarpus Fortunei* (Shuro), *Citrus* spp. (Kankitsu), *Psidium guajava* (Banjirō), *Musa paradisiaca* subsp. *sapientum* (Banana), *Morus australis* (Shimaguwa), *Tea sinensis* (Chanoki), *Cycas revoluta* (Sotetsu).

Local distr.: Okinawa Is., Ishigaki Is.

Foreign distr.: Japan, Bonin Is., Formosa, Melanesia.

#### 44. *Leucaspis japonica* Cockerell (Nashi-shironagakaigaramushi)

- 1940 *Leucaspis japonica* Takahashi, Trans. Nat. Hist. Soc. Formosa, 30, p. 332 (Daitō Is.).

No specimens examined.

Host plant: *Cinnamomum* sp. (Kusu).

Local distr.: Daitō Is. (? Minami-daitō Is.).

Foreign distr.: Japan, Korea, N. America.

#### 45. *Lepidosaphes gloverii* Pachard (Mikan-nagakaki-kaigaramushi)

- 1940 *Lepidosaphes gloverii* Takahashi, Trans. Nat. Hist. Soc. Formosa, 30, p. 332 (Daitō-Is.).

- 1952 *Lepidosaphes gloverii* Shiraki, Cat. Inju. Ins. Jap., p. 41 (Okinawa).

- 1953 *Lepidosaphes gloverii* Takahashi, Yokohama Pla. Pro. Keneki-Shiryō, No. 29 p. 4 (Okinawa Is., Kume Is.).

1954 *Lepidosaphes gloverii* Shiraki, Cat. Inju. Ins. Ryukyu Is., p. 41 (Kume Is.).

1956 *Lepidosaphes gloverii* Takahashi and Tachikawa Trans. Shikoku Ent. Soc., 5 (1-2), p. 12 (Ryukyus).

1959 *Lepidosaphes gloverii* Yashiro et al., Ann. List Ani. Okinawa Is., p. 278 (Okinawa Is., Kume Is.).

Specimens examined: Izumi, 21. II. 1963; Gogayama, 15. VIII. 1963; Hentona, 21. I. 1964.

Host plant: *Citrus* spp. (Kankitsu), Orchid plants (Ran).

Local distr.: Okinawa Is., Kume Is., Daitō Is. (? Minami-daitō Is.).

Foreign distr.: Japan, Korea, Formosa, China, India, Hawaii, N. America.

#### 46: *Lepidosaphes beckii* Newman (Mikan-kakikaigaramushi)

1940 *Lepidosaphes beckii* Takahashi, Trans. Nat. Hist. Soc. Formosa, 30, p.332 (Minami-daitō Is.).

1953 *Lepidosaphes beckii* Takahashi, Yokohama Pla. Pro. Keneki-Shiryō, No.29, p.4 (Okinawa Is.).

1954 *Lepidosaphes beckii* Shiraki, Cat. Inju. Ins. Ryukyu Is., p. 41 (Okinawa Is.).

1959 *Lepidosaphes beckii* Yashiro et al., Ann. List Ani. Okinawa Is., p. 278 (Okinawa Is.).

Specimens examined: Izumi, 16. VIII. 1963; Hentona, 21. I. 1964.

Host plant: *Citrus* spp. (Kankitsu), *Trachycarpus Fortunei* (Shuro), *Ficus carica* (Ichijiku), Orchid plant (Ran).

Local distr.: Okinawa Is., Minami-daitō Is.  
Foreign distr.: Japan, Korea, Formosa,  
Widely distributed.

#### 47. *Lepidosaphes maskelli* Cockerell (Hime-nagakakikaigaramushi)

1956 *Lepidosaphes maskelli* Takahashi and Tachikawa, Trans. Shikoku Ent. Soc., 5(1-2), p. 12 (Ryukyus).

Specimens examined: Hentona, 20. I. 1964; Onna, 21. VII. 1963 (Nohara leg).

Host plant: *Podocarpus macrophylla* (Inumaki).

Local distr.: Okinawa Is.

Foreign distr.: Japan, Korea, Formosa,

Bonin Is., Hawaii, Ceylon, Europe, etc.

#### 48. *Linlingaspis setiger* Maskell (Kuro-marukaigaramushi)

1952 *Chrysomphalus setiger* Shiraki, Cat. Inju. Ins. Jap., p. 30 (Okinawa).

1954 *Linlingaspis setiger* Shiraki, Cat. Inju. Ins. Ryukyu Is., p. 42 (Okinawa Is.).

1959 *Linlingaspis setiger* Yashiro et al., Ann. List Ani. Okinawa Is., p. 278 (Okinawa Is.).

No Specimens examined.

Host plant: *Euonymus lutchuensis* (Ryukyu-mayumi).

Local distr.: Okinawa Is.

Foreign distr.: Japan.

#### 49. *Pseudaulacaspis pentagona* Targioni (Kuwa-shiromarukaigaramushi)

1956 *Pseudaulacaspis pentagona* Takahashi and Tachikawa, Trans. Shikoku Ent. Soc., 5 (1-2), p. 10 (Ryukyus).

1959 *Pseudaulacaspis pentagona* Yashiro et al., Ann. List Ani. Okinawa Is., p. 279 (Cosmopolitan).

Specimens examined: Yabu, 14. VIII. 1963; Nago, 22. I. 1964.

Host plant: *Prunus persica* (Momo), *P. salicina* (Sumomo).

Local distr.: Okinawa Is.

Foreign distr.: Japan, Formosa, Widely distributed.

#### 50. *Microparlatoria itabicola* Kuwana (Itabi-himemarukaigaramushi)

1953 *Parlatoria itabicola* Takahashi, Yokohama Pla. Pro. Keneki-Shiryō, No. 29, p. 7 (Kume Is.).

1954 *Parlatoria itabicola* Shiraki, Cat. Inju. Ins. Ryukyu Is., p. 42 (Kume Is.).

1955 *Parlatoria itabicola* Takahashi, Bull. Biogeog. Soc. Jap., 16-19, p. 241 (Kume Is.).

1955 *Parlatoria itabicola* Yashiro et al., Ann. List Ani. Okinawa Is., p. 279 (Kume Is.).

1960 *Microparlatoria itabicola* Takagi, Ins. Matsu., 23 (2), p. 74 (Ryukyu).

Specimens examined: Nakijin, 13. II. 1963;

Yabu, 14. VIII. 1963; Hentona, 20. I. 1964.

Host plant: *Ficus foreolata* var. *nipponica* (Itabikazura).

Local distr.: Kume Is., Okinawa Is. (hab. nov.).

Foreign distr.: Japan (Amami-ōshima).

### 51. *Parlatoria pergandii* Comstock (Maru-kurohoshi-kaigaramushi)

1959 *Parlatoria pergandii* Yashiro et al., Ann. List. Ani. Okinawa Is., p. 279 (Cosmopolitan).  
Specimens examined: Izumi, 16. VIII. 1963; Shuri, 27. IX. 1963.

Host plant: *Citrus* spp. (Kankitsu).

Local distr.: Okinawa Is.

Foreign distr.: Japan, cosmopolitan.

### 52. *Parlatoria proteus* Curtis (Naga-kurohoshi kaigaramushi)

1959 *Parlatoria proteus* Yashiro et al., Ann. List Ani. Okinawa Is., p. 279 (Cosmopolitan).

No Specimens examined.

Host plant: ?

Local distr.: ?

Foreign distr.: Japan, Formosa, Bonin Is., Widely distributed.

### 53. *Parlatoria camelliae* Comstock (Tsubaki-hime-kaigaramushi)

1953 *Parlatoria camelliae* Takahashi, Yokohama Pla. Pro. Keneki-Shiryō, No. 29, p. 7 (Miyako Is.).

1954 *Parlatoria camelliae* Shiraki, Cat. Inju. Ins. Ryukyu Is. p. 42 (Miyako Is.).

1955 *Parlatoria camelliae* Takahashi, Bull. Biogeog. Soc. Jap., 16—19, p. 24 (Miyako Is.).

1956 *Parlatoria camelliae* Takahashi and Tachikawa, Trans. Shikoku Ent. Soc., 5 (1—2), p. 13 (Ryukyus).

1959 *Parlatoria camelliae* Yashiro et al., Ann. List Ani. Okinawa Is., p. 279 (Miyako Is.).

Specimens examined: Hentona, 20. I. 1964.

Host plant: *Camellia* spp. (Tsubaki), *Ficus retusa* (Gajumaru).

Local distr.: Miyako Is., Okinawa Is. (hab. nov.).

Foreign distr.: Japan.

### 54. *Parlatoria zizyphus* Lucas (Kuroiro-kurohoshi-kaigaramushi)

1911 *Parlatoria zizyphus* Kuwana, Illust. scale Ins. Jap., 1, p. 133 (Okinawa).

1925 *Parlatoria zizyphus* Kuwana, Pla. Quar. Serv., Techn. Bull. No. 1, p. 6 (Liuchoo Is.).

1927 *Parlatoria zizyphus* Yashiro, List Ins. Roo-choo Is., p. 14 (Okinawa).

1930 *Parlatoria zizyphus* Takahashi, Dept. Agri. Res. Inst. Formosa, Rept. No. 48, p. 43 (Okinawa).

1950 *Parlatoria zizyphus* Shiraiwa, Iconog. Ins. Jap., p. 380 (Okinawa).

1952 *Parlatoria zizyphus* Shiraki, Cat. Inju. Ins. Jap., p. 46 (Okinawa).

1953 *Parlaotria zizyphus* Takahashi, Yokohama Pla. Pro. Keneki-Shiryō, No. 29, p. 6 (Okinawa Is., Kume Is.).

1954 *Parlatoria zizyphus* Shiraki, Cat. Inju. Ins. Ryukyu Is., p. 43 (Ishigaki Is., Kume Is., Okinawa Is.).

1959 *Parlatoria zizyphus* Yashiro et al., Ann. List Ani. Okinawa Is. p. 279 (Okinawa Is., Kume Is., Ishigaki Is.).

Specimens examined: Nakijin, 13. II. 1963; Nago, 15. II. 1963; Izumi, 21. II. 1963; Yabu, 14. VIII. 1963.

Host Plant: *Citrus* spp. (Kankitsu).

Local distr.: Okinawa Is., Kume Is., Ishigaki Is.

Foreign distr.: Japan, Formosa, China, N. America, Europe, Oriental Tropics.

Though they are commonly seen in Okinawa Islands, they seem to be very rare in Ishigaki Island.

### 55. *Thysanaspis litseae* Takagi

1961 *Thysanaspis litseae* Takagi, Ins. Matsu., 24 (2), p. 95 (Loochoo-ōgimi).

No specimens examined.

Host plant: *Pouteria obovata* (Akatetsu)

Local distr.: Okinawa Is.

Foreign distr.: Unknown.

**56. Pseudaonidia duplex Cockerell**  
(Mikan-marukaigaramushi)

- 1953 *Pseudaonidia duplex* Takahashi, Yokohama Pla. Pro. Keneki-Shiryō, No. 29, p. 10 (Ishigaki Is., Okinawa Is.).
- 1954 *Pseudaonidia duplex* Shiraki, Cat. Inju. Ins. Ryukyu Is., p. 43 (Ishigaki Is., Okinawa Is.).
- 1955 *Pseudaonidia duplex* Takahashi, Bull. Biogeog. Soc. Jap., 16—19, p. 242 (Ishigaki Is., Okinawa Is.).
- 1959 *Pseudaonidia duplex* Yashiro et al., Ann. List Ani. Okinawa Is., p. 278 (Okinawa Is., Ishigaki Is.).

Specimens examined: Hentona, 21. I. 1964.

Host plant: *Ficus erecta* (Inubiwa), *Citrus* spp. (Kankitsu), *Camellia* spp. (Tsubaki), *Thea sinensis* (Cha).

Local distr.: Okinawa Is., Ishigaki Is.

Foreign distr.: Japan, Formosa, Hawaii, etc.

**57. Pseudaonidia taclobitiformis Green**  
(Goban-marukaigaramushi)

- 1952 *Pseudaonidia taclobitiformis* Shiraki, Cat. Inju. Ins. Jap. 49 (Okinawa).
- 1953 *Pseudaonidia taclobitiformis* Takahashi, Yokohama Pla. Pro. Keneki-Shiryō, No. 29, p. 10 (Ishigaki Is.).
- 1954 *Pseudaonidia taclobitiformis* Shiraki, Cat. Inju. Ins. Ryukyu Is., p. 43 (Ishigaki Is., Okinawa Is.).
- 1959 *Pseudaonidia taclobitiformis* Yashiro et al., Ann. List Ani. Okinawa Is., p. 278 (Okinawa Is., Ishigaki Is.).

Specimens examined: Yabu, 3. II. 1963; Nago, 15. II. 1963; Shuri, 12. IV. 1963.

Hentona, 20. I. 1964.

Host plant: *Ficus erecta* (Inubiwa), *Citrus* spp. (Kan-kitsu), *Thea sinensis* (Cha), *Camellia* spp. (Tsubaki), *Marus australis* (Shima-guwa), *Ligustrum japonicum* (Nezuminochi).

Local distr.: Okinawa Is., Ishigaki Is.

Foreign distr.: Japan, Formosa, Widely distributed.

**58. Chrysomphalus ficus Ashemd**  
(Tobihiro-marukaigaramushi)

- 1927 *Aspidiotus ficus* Yashiro, List Ins. Roo-choo

Is., p. 14 (Okinawa).

- 1930 *Chrysomphalus aonidium* Takahashi, Dept. Agr. Res. Inst. Formosa, Rept. No. 48, p. 43 (Okinawa).
- 1953 *Chrysomphalus ficus* Takahashi, Yokohama Pla. Pro. Keneki-Shiryō, No. 29, p. 9 (Ishigaki Is.).
- 1954 *Chrysomphalus ficus* Shiraki, Cat. Inju. Ins. Ryukyu Is., p. 40 (Ishigaki Is., Okinawa Is.).
- 1955 *Chrysomphalus ficus* Takahashi, Bull. Biogeog. Soc. Jap., 16—19, p. 242 (Ishigaki Is., Okinawa Is.).
- 1959 *Chrysomphalus ficus* Yashiro et al., Ann. List Ani. Okinawa Is., p. 278 (Okinawa Is., Ishigaki Is.).

Specimens examined: Nakijin, 13. II. 1963; Yabu, 14. VIII. 1963; Gogayama, 15. VIII. 1963; Shioya, 21. I. 1964.

Host plant: *Garcinia spicata* (Fukugi), *Citrus* spp. (Kankitsu), *Pandanus tectorius liukuensis* (Adan).

Local distr.: Okinawa Is., Ishigaki Is.

Foreign distr.: Japan, Formosa, Bonin Is., Widely distributed.

**59. Pinnaspis aspidistrae Signoret**  
(Haran-nagakaigaramushi)

- 1940 *Pinnaspis aspidistrae* Takahashi, Trans. Nat. Hist. Soc. Formosa, 30, p. 332 (Minami-daitō Is.).

Specimens examined: Nakijin, 13. II. 1963.

Host plant: *Neottopteris australasica* (Otanawatari), *N. cordifolia* (Tamashida).

Local distr.: Okinawa Is. (hab. nov.), Minami-daitō Is.

Foreign distr.: Japan, Cosmopolitan.

**60. Pinnaspis piperis Takahashi**

- 1963 *Pinnaspis piperis* Takahashi, Ins. Matsu., 26 (1), p. 64 (Okinawa-Tamagusuku).

No specimens examined.

Host plant: *Piper kadzura* (Fūtokazura).

Local distr.: Okinawa Is. (Tamagusuku).

Foreign distr.: Unknown.

**61. Aonidiella sotetsu Takahashi**  
(Sotetsu-marukaigaramushi)

- 1933 *Chrysomphalus sotetsu* Takahashi, Dept. Agr.

- Res. Inst. Formosa, Rept., No. 60, p. 57 (Ishigaki Is., Miyako Is.).
- 1938 *Aonidiella sotetsu* Mchenzie, Microentomology, 3, p. 13 (Ishigaki, Miyako).
- 1953 *Aonidiella sotetsu* Takahashi, Yokohama Pla. Pro. Keneki-Shiryō, No. 29, p. 9 (Ishigaki Is., Miyako Is.).
- 1954 *Aonidiella sotetsu* Shiraki, Cat. Inju. Ins. Ryukyu Is., p. 39 (Ishigaki Is., Miyako Is.).  
Specimens examined: Shioya, 21. II. 1964.  
Host plant: *Cycas revoluta* (Sotetsu), *Ficus retusa* (Gajumaru).  
Local distr.: Miyako Is., Ishigaki Is., Okinawa Is. (hab. nov.).  
Foreign distr.: China, Guam Is.

### 62. *Aonidiella messengeri* Mchenzie (*Yuzuriha-marukaigaramushi*)

- 1953 *Aonidiella inernata* Takahashi, Yokohama Pla. Pro. Keneki-Shiryō, No. 29, p. 9 (Miyako Is.).
- 1954 *Aonidiella messengeri* Shiraki, Cat. Inju. Ins. Ryukyu Is., p. 39 (Miyako Is.).
- 1955 *Aonidiella messengeri* Takahashi, Bull. Biogeog. Soc. Jap., 16-19, p. 242. (Miyako Is.).
- 1956 *Aonidiella messengeri* Takahashi and Tachikawa, Trans., Shikoku Ent. Soc., 5 (1-2), p. 15 (Ryukyus).
- 1959 *Aonidiella messengeri*, Yashiro et al., Ann. List Ani. Okinawa Is., p. 277 (Miyako Is.).  
No specimens examined.  
Host plant: *Ficus retusa* (Gajumaru),  
*Cycas revoluta* (Sotetsu).  
Local distr.: Miyako Is.  
Foreign distr.: Japan (Kyusyu), Formosa.

### 63. *Aonidiella aurantii* Maskell (*Aka-marukaigaramushi*)

- 1927 *Aonidiella aurantii* Yashiro, List Ins. Roo-choo Is., p. 14 (Okinawa).
- 1940 *Aonidiella aurantii* Sakai et al., Kagoshima Agr. Exp. Sta. Special Reports., No. 1, p. 3. (Okinawa pref.).
- 1950 *Aonidiella aurantii* Shiraiwa, Iconog. Ins. Jap., p. 381 (Okinawa).
- 1953 *Aonidiella aurantii* Takahashi, Yokohama Pla. Pro. Keneki-Shiryō, No. 29, p. 8 (Ishigaki

Is.).

- 1954 *Aonidiella aurantii* Shiraki, Cat. Inju. Ins. Ryukyu Is., p. 39 (Ishigaki Is., Okinawa Is.).
- 1959 *Aonidiella aurantii* Yashiro et al., Ann. List Ani. Okinawa Is., p. 277 (Okinawa Is., Ishigaki Is.).

Specimens examined: Oku (Kunigami), 7. VII. 1963.

Host plant: Citrus spp. (Kankitsu), *Thea sinensis* (Cha), *Rosa* spp. (Bara), *Ficus carica* (Ichijiku), *Cinnamomum camphora* (Kusunoki).

Local distr.: Okinawa Is., Ishigaki Is.

Foreign distr.: Japan, Bonin Is., Formosa, Melanesia, Europ.

### Literature cited

1. Esaki, T., 1939. クロカタカヒガラ九州南部に発見さる Biogeographica 3 (2) P. 227.
2. Iha and Higashihirachi, 1962. 甘蔗の新害虫介殻虫発生す。琉球植物防疫情報 (Ryukyu Shokyubutsu bo-eki jooho) No.10
3. Kawasaki, R., 1953. 最近検疫の際に発見された従来未発見の害虫類について。横浜植物防疫所検疫資料、(Yokohama Plant Protection Station, Keneki-shiryō) No. 32.
4. Kuwana, I., 1909. Coccidae-of Japan III, Journal of New York Entomologist Society vol. 17, P. 150~158.
5. \_\_\_\_\_, 1911. 日本介殻虫図説 (前) (Illustrated scale Insects of Japan vol. 1).
6. \_\_\_\_\_, 1917. 日本介殻虫図説 (後) (Illustrated scale Insects of Japan vol. 2)
7. \_\_\_\_\_, 1925. Diaspine Coccidea of Japan, 植物検疫所研究報告 (Plant Quarantine service Technical Bulletin) No. 1.
8. Kuwana, I. and K. Matsumura, 1931. 植物検査の際発見したる新介殻虫と粉虱。動物学雑誌 (Zoological Magazine) vol. 43, P. 647.
9. Kuwana, I., 1932. 日本産 Antonina 属 (介殻虫科) に就きて。動物学雑誌。(Zoological Magazine) vol. 44: 215.
10. Mckenze, H.L., 1938. The genus Aonidiella, Microentomology III. P.1~36.



11. No-Shô musho-No-mukyoku, 1925. 矢根介殼虫、ルビー蠟虫及びイセリヤ介殼虫駆除予防指針(5) 昆虫世界、(Insect World) vol. 29, P. 39.
12. Sakai, H., D. Haruta and Y. Ikeda, 1940. 赤丸介殼虫の生態及び防除に関する研究。鹿児島農事試験場特別報告。(Kagoshima Agricultural Experimental Station, Special Reports) No.1
13. Sonan, Z., 1933. 茶樹昆虫目録。昆虫世界 (Insect world) vol. 37, P. 265~276.
14. Tachikawa, T., 1962. 注目すべきサトウキビの新害虫。農業及園芸 (Agriculture and Horticulture) vol. 37, No. 11. P. 1814.
15. Takagi S., 1960. A contribution to the knowledge of the Diaspidini of Japan (Homoptera: Coccoidea): Part 1, Insecta Matsumurana, vol. 23, No. 2.
16. \_\_\_\_\_, 1961. Ibid II. Insecta Matsumurana vol. 24, No.1.
17. \_\_\_\_\_, 1961. Ibid III. vol. 24, No. 2.
18. \_\_\_\_\_, 1963. Notes on the Aspidistrae-complex of Pinnaspis, with Description of New species (Homoptera: Coccoidea), Ins. Matsu. vol. 26, No. 1, P. 64.
19. Takahashi, R., 1930. Observation on the Coccidae of Formosa II (Some Coccidae of Loo choo) 台湾中央研究所農業務報告。(Dept. Agri. Res. Inst. Formosa Report) No. 48, p. 41~44.
20. \_\_\_\_\_, 1933. Observation on the Coccidae of Formosa III. (A new species of Chrysomphalus from Loo choo). Ibid No. 60, P. 47~57.
21. \_\_\_\_\_, 1940. 大東島の半翅類腹吻群の昆虫、台湾博物学会報(Transactions of the Natural History Society of Formosa). vol. 30, P. 317~332.
22. \_\_\_\_\_, 1953. 琉球産介殼虫の目録、横浜植物防疫所検査資料。(Yokohama Plant Protection station Keneki-shryo) No. 29.
23. \_\_\_\_\_, 1955. Some scale insects of the Loo-choo Islands (Homoptera.). Bulletin of the Biogeographical Society of Japan, vols. 16-19, P. 238~242.
24. Takahashi, R. and T. Tachikawa, 1956. Scale insects of Shikoku (Homoptera: Coccoidea) Transaction of the Shikoku Entomologist Society vol. 5. (1~2), P. 1~17.
25. Takara, T., 1958. 琉球産甘蔗害虫目録。琉球糖業振興会報 (Ryukyu Tôgyoshinkô-kaihô) No.3, P. 26~43.
26. Tau, K., 1962. 琉球農作物害虫防治考察報告。植物保護学会報 (Journal of Taiwan Plant Protection Association) vol. 4, No. 2, P. 87~89.
27. Shiraiwa, H., 1950. 日本昆虫図鑑 (Iconographia Insectorum Japonicorum). Hokuryukan, Tokyo, Japan.
28. Shiraki, T., 1952. Catalogue of Injurious Insects in Japan. General Headquarters, Commander for the allied Powers, Tokyo Japan.
29. \_\_\_\_\_, 1954. Catalogue of Injurious Insects in Ryukyu Islands, P. 34~43. Pacific Service Board National Research Council Washington 25. D. C.
30. Yashiro, H., 1927. 沖縄産昆虫目録。(A List of Insects in Roo-choo. Islands.) No. 1.
31. \_\_\_\_\_, 1939. 沖縄地方に於ける二三害虫及益虫の伝播経過に就きて。Biogeographica vol. 3, No. 2, P. 207~209.
32. \_\_\_\_\_, 1940. 沖縄地方に於ける重要害虫概説。農業及園芸 (Agriculture and Horticulture) vol. 15, No. 12 P. 56~62.
33. Yokoyama, K., 1925. 日本蚕桑害虫総目録。昆虫世界 (Insect World) vol. 29, P. 178~198.

### 琉球産カイガラムシ類目録 (摘要)

高良鉄夫・東平地清二

本報文は琉球(旧沖縄県)産カイガラムシ上科の種類並びに分布の記録をまとめ、且つ寄主及び分布上新たに得た知見を附記したものである。本文には5科35属63種をあげたが、標本の入手できないものもあるのでProvisional listとして公表する。

1) *Ceroplastes pseudoceriferus* ツノロウカイガラムシは琉球新記録である。

2) *Drosicha* sp. ワラジカイガラムシの一種、

**Aulacaspis yabunikkei** ヤブニツケイマルカイガラムシ、**Phenacaspis cockerell** ミヤコシロマルカイガラムシ、**Diaspidiotus makii** マキマルカイガラムシ、**Microparlatoria itabicola** イタビヒメマルカイガラムシ、**Parlatoria camelliae** ツバキヒメマルカイガラムシ、**Pinnaspis aspidistrae** ハランナガカイガラムシ、

**Aonidiella sotetsu** ソテツマルカイガラムシの8種は沖縄島新産種であり、**Aulacaspis distylii** イスノキマルカイガラムシ、**Chionaspis** sp. リュキウウシロカイガラムシの2種は宮古島新産種である。

3) **Icerya pulchasi** 等8種には新寄主を追加した。