



# HOKKAIDO UNIVERSITY

Title	TYPE SPECIMENS OF MATSUMURA'S SPECIES OF FULGOROIDEA (EXCLUDING DELPHACIDAE) IN THE HOKKAIDO UNIVERSITY INSECT COLLECTION, JAPAN (HEMIPTERA : FULGOROMORPHA)
Author(s)	Liang, Ai-Ping; Suwa, Masaaki
Citation	Insecta matsumurana. New series : journal of the Faculty of Agriculture Hokkaido University, series entomology., 54, 133-166
Issue Date	1998-03
Doc URL	<a href="https://hdl.handle.net/2115/9887">https://hdl.handle.net/2115/9887</a>
Type	departmental bulletin paper
File Information	54_p133-166.pdf



**TYPE SPECIMENS OF MATSUMURA'S SPECIES OF FULGOROIDEA  
(EXCLUDING DELPHACIDAE) IN THE HOKKAIDO UNIVERSITY INSECT  
COLLECTION, JAPAN (HEMIPTERA: FULGOROMORPHA)**

By AI-PING LIANG and MASAOKI SUWA

*Abstract*

LIANG, A.-P. and SUWA, M. 1998. Type specimens of Matsumura's species of Fulgoroidea (excluding Delphacidae) in the Hokkaido University Insect Collection, Japan (Hemiptera: Fulgoromorpha). *Ins. matsum. n. s.* 54: 133 – 166.

Original label data associated with all extant known types of Asian species of Fulgoroidea (excluding Delphacidae) named by Shonen Matsumura in the Hokkaido University Insect Collection are recorded. Eighty-seven lectotypes are newly designated. The previous lectotype designations of *Betacixius rinkihonis* Matsumura, *Brixia formosana* Matsumura, *Cixius arisanus* Matsumura, *C. hopponis* Matsumura, *C. kommonis* Matsumura, *C. nitobei* Matsumura, *C. pilosellus* Matsumura, *C. suturalis* Matsumura, *C. velox* Matsumura, *Kuvera longipennis* Matsumura, and *Oliarus oryzae* Matsumura are considered as invalid and are rejected.

*Authors' addresses.* LIANG, A.-P.: Institute of Zoology, Chinese Academy of Sciences, 19 Zhongguancun Lu, Beijing 100080, P. R. China. SUWA, M.: Systematic Entomology, Faculty of Agriculture, Hokkaido University, Sapporo, 060-8589 Japan.

Supported by the Special Grant-in-Aid for Promotion of Education and Science in Hokkaido University provided by the Ministry of Education, Science, Sports and Culture, Japan.

*Contents*

Introduction .....	135
Format used for presentation of data .....	136
Superfamily Fulgoroidea .....	136
Family Cixiidae .....	136
Family Meenoplidae .....	145
Family Derbidae .....	148
Family Achilidae .....	153
Family Dictyopharidae.....	155
Family Fulgoridae .....	157
Family Issidae.....	157
Family Nogodinidae.....	162
Family Flatidae .....	162
Family Tropiduchidae .....	163
Acknowledgements .....	165
References .....	165

## INTRODUCTION

Shonen Matsumura (1872–1960) was born at Akashi, Hyogo Prefecture, Japan, and studied entomology at the Sapporo Agricultural College (now the Faculty of Agriculture of the Hokkaido University). After graduating he entered a distinguished career as a professor of entomology at the Hokkaido University (see biographies by Watanabe & Fukushima, 1949; Uchida & Watanabe, 1961).

Matsumura has been justly styled the father of entomology of Japan. Between 1895 and 1945 he published more than 240 papers and 35 books, in which he described a large number of new taxa in almost all orders of insects, mainly from Japan, Taiwan and Sakhalin. Many of the original descriptions of Matsumura's new taxa were written in Japanese in his earlier iconographic publications without indication of new taxa and designation of types. The Matsumura collection has been housed in the Hokkaido University, Sapporo, Japan. Unfortunately species descriptions by Matsumura, like most of those by others published at that time, are no longer adequate for present-day species recognition and an examination of type material is usually an essential part of all revisionary work. Since such examinations are often impeded by a lack of information on the whereabouts of the type material in question, the present study was undertaken to document the types of Matsumura's fulgoroïd species (except delphacids) in Sapporo. The work was undertaken during a three-week visit by Liang to the Hokkaido University, in October 1997.

Matsumura's collection of Fulgoroïdea has apparently been maintained as he left it and is housed in its original cabinet with the specimens arranged under species headings. Additional specimens obtained after the publication of descriptions have been arranged together with the type series. A major problem in studying the Matsumura types was the identification of bona fide syntypes. This problem was addressed by Tomokuni (1994) who published on Matsumura's types in Tingidae (Heteroptera). As Matsumura did not use type labels, in the modern sense, it was necessary to compare the data of all specimens of his species with the information given in the original publication. Matsumura's descriptions also often lack information of the number of specimens examined; in such cases, all specimens that match the published data are treated as syntypes.

We have found most of the original specimens used by Matsumura. The type series of the following Matsumura's species were not found at this time: Achilidae: *Rhotala niisimae* Matsumura, 1905: 62, pl. 21, fig. 15. Cixiidae: *Cixius flaviceps* Matsumura, 1913: 60, pl. 8, fig. 9; *C. yohenai* Matsumura, 1936: 83; *Myndus kotoshonis* Matsumura, 1940: 45. Derbidae: *Vekunta atripennis* Matsumura, 1940b: 46; *V. botelensis* Matsumura, 1940b: 46; *Zoraida kotoshoensis* Matsumura, 1938: 151. Dictyopharidae: *Dictyophora* [sic] *colombonis* Matsumura, 1940a: 18; *Dictyophora* [sic] *futana* Matsumura, 1940a: 15; *Dictyophora* [sic] *kotoshonis* Matsumura, 1941: 162; *Dictyophora* [sic] *manchuricola* Matsumura, 1940a: 16; *Dictyophora* [sic] *nekkana* Matsumura, 1940a: 16; *Dictyophora* [sic] *nigrovittata* Matsumura, 1913: 57; *Dictyophora* [sic] *tomon* Matsumura, 1940a: 18; *Saigona taiwanella* Matsumura, 1941: 163; *Sinodictya tukana* Matsumura, 1940a: 19; *Togaphora hokuryonis* Matsumura, 1940a: 18. Flatidae: *Mimophantia kotoshonis* Matsumura, 1940b: 48. Ricaniidae: *Ricania trifasciata* Matsumura, 1900: 211. Issidae: *Gergithus okinawanus* Matsumura, 1936: 82; *Hemisphaerius kotoshonis* Matsumura, 1938: 151; *Sarima pallizona* Matsumura, 1938: 151; *S. pallizona* f. *midoriana* Matsumura, 1938: 151. Meenoplidae: *Kotonisia kanoi* Matsumura, 1938: 152. Tropiduchidae: *Bidis vittata* Matsumura, 1906: 31, pl. 1, fig. 5.

#### FORMAT USED FOR PRESENTATION OF DATA

The list of types is arranged in alphabetical sequence by specific epithet. Each name is followed by the author, date, and page reference. The original genus-name combination is shown in parentheses ( ) following the publication data. Subsequent changed name combination is presented where applicable in brackets [ ].

Lectotype and paralectotype designations are made where appropriate. Most species of Fulgoroidea can be identified accurately only by using diagnostic characters in the males, particularly the structures of the male genitalia. Therefore, in most cases a male was designated as the lectotype when syntypes of both sexes existed. A female was designated as the lectotype when no male was present among the known syntypes.

To better preserve the historical status of the types, information from each syntype was recorded exactly as given on labels, with (1), (2), (3), etc., indicating the sequence of labels on the pin from top to bottom. Comments are given when necessary. Our printed red lectotype or yellow paralectotype label is attached to each specimen so designated though not shown in the following lines. No taxonomic changes (e.g. synonymies and new combinations) are given in the present checklist.

### Superfamily Fulgoroidea Family Cixiidae

#### *arisanus* Matsumura, 1914a: 396 (*Cixius*)

Holotype ♀ – (1) Formosa Matsumura [underside] Tappan 29/IV '07; (2) [Matsumura's handwriting] *C. arisanus* n. sp. det. Matsumura; (3) Lectotype.

This species was described from a single female specimen. The lectotype designation by Tsaour et al. (1991b: 186) is here considered as invalid.

#### *artemisiae* Matsumura, 1914a: 428 (*Oliarus*) [*Oecleopsis*]

Lectotype ♂, by present designation – (1) [red label] Lectotypus; (2) 5, 22 Sapporo Matsum. Paralectotypes 3 ♂, 1 ex. [abdomen missing] [in the same lot with lectotype], by present designation – same data as lectotype.

Paralectotypes 10 ♂, 6 ♀, 1 ex. [abdomen missing], by present designation – (1) 5, 22 Sapporo Matsum.

Paralectotypes 3 ♂, 2 ♀, by present designation – (1) 5, 22 Sapporo Matsum.; (2) [Matsumura's handwriting] *O. artemisiae* Mats.; (3) *Oecleopsis artemisiae* (Ms.) Anufriev det., 1975.

Paralectotypes 3 ♂, 1 ♀, by present designation – (1) 5, 22 Sapporo Matsum.; (2) *Oecleopsis artemisiae* (Ms.) Anufriev det., 1975.

Paralectotype 1 ♀, by present designation – (1) middle [in Chinese]/7 90 Jozankei [in Chinese].

Paralectotype 1 ♂, by present designation – (1) Toyohira [in Japanese] Nakajima [in Chinese] Artemisia [in Japanese] Japan Matsumura.

#### *bicolor* Matsumura, 1914a: 395 (*Cixius*)

Lectotype ♂, designated by Tsaour et al. (1991b: 176) – (1) Formosa Matsumura [underside] Horisha [in Japanese] 30 IV '07; (2) [Matsumura's handwriting] *Cixius bicolor* M. det. Matsumura; (3) Lectotype.

Paralectotype 1 ♂, designated by Tsaour et al. (1991b: 176) – (1) TAIWAN: Nantou Puli 30-IV-1907 COL: S. Matsumura; (2) *Cixius bicolor* Matsumura det. S. Matsumura; (3) Paralectotype.

Paralectotype 1 ♂, by present recognition – (1) Formosa Matsumura [underside] Horisha [in

Japanese] 30/IV 07.

Paralectotype 1 ♂, by present recognition – (1) Formosa Matsumura [underside] Rinkihō [in Japanese] 26/IV 07.

*boninensis* Matsumura, 1914a: 423 (*Oliarus*)

Lectotype ♂, designated by Van Stalle (1991: 46) – (1) 20.VIII.1905 Ogasawara Matsumura; (2) [pink label] LECTOTYPE *Oliarus boninensis* Mats. designe. par Van Stalle 1987.

Paralectotypes 3 ♂, designated by Van Stalle (1991: 46) – (1) 20.VIII.1905 Ogasawara Matsumura; (2) [Matsumura's handwriting] *O. boninensis* n. sp. det. Matsumura; (3) [pink label] PARALECTOTYPE *Oliarus boninensis* Mats. designe. par Van Stalle 1987.

Paralectotype 1 ♂, designated by Van Stalle (1991: 46) – (1) 20.VIII.1905 Ogasawara Matsumura; (2) [pink label] PARALECTOTYPE *Oliarus boninensis* Mats. designe. par Van Stalle 1987.

Paralectotypes 2 ♂, 1 ♀, by present recognition – (1) 20.VIII.1905 Ogasawara Matsumura.

*brunneus* Matsumura, 1914a: 417 (*Betacixius*)

Lectotype ♂, by present designation – (1) Formosa Matsumura [underside] Toroen 19/4, 07; (2) [Matsumura's handwriting] *Betacixius brunneus* n. sp.; (3) [red label] Type Matsumura.

Paralectotypes 2 ♂, by present designation – (1) Formosa Matsumura [underside] Tappan 24/IV '07.

*centralis* Matsumura, 1914a: 405 (*Cixius*)

Holotype ♀ – (1) Aomori Nitobe; (2) [Matsumura's handwriting] *Cixius centralis* n. sp.

*cingulatus* Matsumura, 1914a: 403 (*Cixius*)

Holotype ♀ – (1) VIII 1905 Hachijo; (2) [Matsumura's handwriting] *C. cingulatus* Mats.

*clypealis* Matsumura, 1914a: 415 (*Betacixius*)

Lectotype ♀, by present designation – (1) Formosa Matsumura [underside] Tappan 24/4, 07.

Paralectotype 1 ♀ [in the same lot with lectotype], by present designation – same data as lectotype.

Paralectotypes 1♂, 1♀, by present designation – (1) Formosa Matsumura [underside] Tappan 24/IV '07; (2) [Matsumura's handwriting] *Betacixius clypealis* n.; (3) [red label] Type Matsumura.

*clypealis* var. *vittifrons* Matsumura, 1914a: 416 (*Betacixius*)

Lectotype ♂, by present designation – (1) Formosa Matsumura [underside] Tappan 24/IV '07; (2) [Matsumura's handwriting] *Betacixius clypealis* var. *vittifrons*; (3) [red label] Type Matsumura.

Paralectotype 1 ♂, by present designation – (1) Formosa Matsumura.

*flavescens* Matsumura, 1914a: 405 (*Cixius*)

Holotype ♂ – (1) Formosa Matsumura [underside] 2/VII 1906 Koshun; (2) [Matsumura's handwriting] *C. flavescens* n. sp.

*flaviceps* Matsumura, 1900: 208 (*Oliarus*) [*Kuvera*]

Lectotype ♀, by present designation – (1) Gifu; (2) Japan DR. MATSUMURA; (3) *flaviceps* n. sp.; (4) [red label] Lectotypus *Kuvera flaviceps* Mats. design. Anufriev, 1981.

*flaviceps* var. *costalis* Matsumura, 1914a: 409 (*Kuvera*)

Lectotype ♀, by present designation – (1) 15/VI 1904 Moiwa; (2) [Matsumura's handwriting]

*C. costalis* n. sp. det. Matsumura; (3) [red label] Lectotypus *Kuvera flaviceps* var. *costalis* Mats. design. Anufriev, 1975.

Paralectotype 1 ♀, by present designation – (1) Sapporo Matsumura [underside] Jozankei [in Chinese] 3/VII 1912.

Paralectotype 1 ♀, by present designation – (1) Sapporo Matsumura [underside] Jozankei [in Chinese] 8/VII '07.

Paralectotype 1 ♀, by present designation – (1) Moiwa [in Japanese] 5/31 [underside] Nijijima [in Chinese].

*flaviceps* var. *curvata* Matsumura, 1914a: 408 (*Kuvera*)

Holotype ♀ – (1) 15/VI Kogota; (2) [Matsumura's handwriting] *Metacixius flaviceps* var. *curvata* det. Matsumura; (3) [red label] Lectotypus *Kuvera flaviceps* var. *curvata* design. Anufriev, 1975.

*flaviceps* var. *fumata* Matsumura, 1914a: 409 (*Kuvera*)

Holotype ♀ – (1) late [in Chinese]/VII 1905 Towada; (2) [Matsumura's handwriting] *M. flaviceps* var. *fumata* n. det. Matsumura; (3) [red label] Lectotypus *Kuvera flaviceps* var. *fumata* Mats. design. Anufriev, 1975.

*flaviceps* var. *pallidula* Matsumura, 1914a: 409 (*Kuvera*)

Lectotype ♂, by present designation – (1) Jozankei [in Chinese] 8/28; (2) [Matsumura's handwriting] *Metacixius flaviceps* var. *pallidiola* [sic]; (3) [red label] Lectotypus *Kuvera flaviceps* var. *pallidula* Mats. design. Anufriev, 1975. [underside] It is marked with red dot on the cork; (4) *Kuvera pallidula* Mats. stat. nov. Anufriev det., 1975.

Paralectotype 1 ex. [abdomen missing, in the same lot with lectotype], by present designation – same data as lectotype.

Paralectotype 1 ♀, by present designation – (1) Sapporo Matsumura [underside] Jozankei [in Chinese] 1913 28/VIII.

Paralectotypes 2 ♂, 5 ♀, 1 ex. [abdomen missing], by present designation – (1) Sapporo Matsum.

Paralectotypes 1 ♂, 1 ♀, 1 ex. [abdomen missing], by present designation – (1) Jozankei [in Chinese] 8/28.

Paralectotypes 2 ♂, 3 ♀, by present designation – (1) 9/IX Ziozan.

Paralectotypes 2 ♀, by present designation – (1) 28/VIII Ziozan.

Paralectotypes 3 ♀, 1 ex. [abdomen missing], by present designation – (1) 18/VIII 1905 Jozankei. Anufriev (1991: 10) raised *Kuvera flaviceps* var. *pallidula* Matsumura to *Kuvera pallidula* Matsumura.

*flaviceps* var. *vittata* Matsumura, 1914a: 408 (*Kuvera*)

Lectotype ♀, by present designation – (1) 15/VI 00 Moiwa; (2) [Matsumura's handwriting] *M. flaviceps* var. *vittata* det. Matsumura; (3) [red label] Lectotypus *Kuvera flaviceps* var. *vittata* design. Anufriev, 1975.

Paralectotype 1 ♀, by present designation – (1) 11/VI '04 Moiwa.

Paralectotype 1 ♀, by present designation – (1) Sapporo Matsumura [underside] Jozankei 3/VII 1912.

*formosana* Matsumura, 1914a: 432 (*Brixia*) [*Andes*]

Holotype ♀ – (1) Formosa Matsumura [underside] Knannari [not “Kanshirei” as in the original description] 4/VII '07; (2) [Matsumura's handwriting] *Brixia formosana* Mats.

This species was described from a single female specimen. The lectotype designation by Tsaur et al. (1991a: 68) is here considered as invalid.

*formosanus* Matsumura, 1914a: 427 (*Oliarus*)

Lectotype ♂, designated by Tsaar et al. (1988: 45) – (1) transcription: Hokudo 31/VII 1906; (2) [pink label] LECTOTYPE *Oliarus formosanus* Mats. designe. par Van Stalle 1987.

Paralectotypes 1 ♂, 7 ♀, designated by Tsaar et al. (1988: 45) – (1) Formosa Matsumura [underside] 30/VII 1906 Hokuto; (2) [pink label] PARALECTOTYPE *Oliarus formosanus* Mats. designe. par Van Stalle 1987.

Paralectotype 1 ♂, designated by Tsaar et al. (1988: 45) – (1) transcription: Hokudo 31/VII 1906; (2) [brick-red label] Paralectotype.

Paralectotypes 6 ♂, 5 ♀, designated by Tsaar et al. (1988: 45) – (1) 31/VII 1906 Hokuto; (2) [brick-red label] Paralectotype.

Paralectotypes 4 ♀, designated by Tsaar et al. (1988: 45) – (1) Formosa Matsumura [underside] Koshun 7/7–06; (2) [Matsumura's handwriting] *Oliarus formosanus* Mats.

Paralectotypes 1♂, 3♀, by present recognition – (1) Formosa Matsumura [underside] Koshun 7/7–06.

Paralectotypes 1 ♂, 3 ♀, by present recognition – (1) Formosa Matsumura [underside] early [in Chinese]/VII 1906 Koshun.

Paralectotypes 4 ♂, 6 ♀, by present recognition – (1) 31/VII 1906 Hokuto.

Paralectotypes 2♂, 2♀, by present recognition – (1) Formosa Matsumura [underside] 30/VII 1906 Hokuto.

*giganteus* Matsumura, 1914a: 394, fig. 1 (*Macrocius*)

Lectotype ♂, designated by Tsaar et al. (1991a: 5) – (1) Kushi [in Japanese] 7/2.

Paralectotype 1 ♀, designated by Tsaar et al. (1991a: 5) – (1) Kumamoto H. Kawamura [underside] June, 15th 1907; (2) [Matsumura's handwriting] *Macrocius giganteus* n. sp. det. Matsumura; (3) [red label] Type Matsumura.

Paralectotype 1 ♀, designated by Tsaar et al. (1991a: 5) – (1) 17 Japan Matsumura [underside] Kagoshima.

*hachijonis* Matsumura, 1914a: 399 (*Cixius*)

Holotype ♀ – (1) 8/13 Japan Matsumura [underside] Hachijo [in Chinese]; (2) [Matsumura's handwriting] *C. hachijonis* Mats. det. Matsumura.

*hachijonis* Matsumura, 1914a: 422 (*Oliarus*)

Holotype ♀ – (1) Hachijo Takahashi; (2) [red label] Holotypus; (3) [Matsumura's handwriting] *O. hachijonis* Mats.

*hakonensis* Matsumura, 1914a: 404 (*Cixius*)

Holotype ♂ – (1) Hakone [in Japanese] 7/27; (2) [Matsumura's handwriting] *C. hakonensis* Mats. det. Matsumura.

*harimaensis* Matsumura, 1914a: 431 (*Brixia*)

Lectotype ♂, by present designation – (1) Jono [in Chinese] Japan Matsum [underside] 8. 3.

Paralectotype 1 ♀, by present designation – (1) Taisanshi [in Japanese] 6/29; (2) [Matsumura's handwriting] *Brixia harimaensis* n. sp. det. Matsumura.

*harimaensis* Matsumura, 1914a: 421 (*Oliarus*)

Lectotype ♂, by present designation – (1) [red label] Lectotypus; (2) Takasago [in Japanese] 7/-; (3) [Matsumura's handwriting] *O. harimennis* [sic] n. sp. det. Matsumura.

Paralectotypes 1 ♀, 1 ex. [abdomen missing] [in the same lot with lectotype], by present designation – same data as lectotype.

Paralectotypes 2 ♀, by present designation – (1) Takasago 7/- *O. harimensis* n. sp.

Paralectotypes 2 ♀, by present designation – (1) Takasago.

Paralectotypes 1 ♂, 5 ♀, by present designation – (1) Takasago [in Japanese] 7/–.

Paralectotype 1 ♀, by present designation – (1) XI 1903 Takasago.

*hopponis* Matsumura, 1914a: 406 (*Cixius*)

Holotype ♂ – (1) Formosa Matsumura [underside] 7/VIII 1906 Hoppo; (2) [Matsumura's handwriting] *C. hopponis* Mats.; (3) Lectotype.

This species was described from a single female specimen. The lectotype designation by Tsaar et al. (1991b: 195) is here considered as invalid.

*hopponis* Matsumura, 1914a: 427 (*Oliarus*)

Holotype ♀ – (1) Formosa Matsumura [underside] 7/VIII 1906 Hoppo; (2) [Matsumura's handwriting] *Oliarus hopponis* n. sp.

*horishanus* Matsumura, 1914a: 418 (*Oliarus*)

Lectotype ♂, designated by Tsaar et al. (1988: 59) – (1) Formosa Matsumura [underside] 11/III 1909 Gyochi; (2) [pink label] LECTOTYPE *Oliarus horishanus* Mats. designe par Van Stalle 1987.

Paralectotype 1 ♀, designated by Tsaar et al. (1988: 59) – (1) Formosa Matsumura [underside] Horisha [in Japanese] 30/4 '07; (2) PARALECTOTYPE *Oliarus horishanus* Mats. designe par Van Stalle 1987.

Paralectotype 1 ♂, designated by Tsaar et al. (1988: 59) – (1) Formosa Matsumura [underside] Rinkiho [in Japanese] 28/IV 07; (2) [Matsumura's handwriting] *O. horishanus* Mats.; (3) PARALECTOTYPE *Oliarus horishanus* Mats. designe par Van Stalle 1987.

Paralectotype 1 ♀, designated by Tsaar et al. (1988: 59) – (1) Formosa Matsumura ♀ ♂ [underside] Arisan [in Japanese] 25/VI '09.

Paralectotype 1 ♂ [genital segment missing], designated by Tsaar et al. (1988: 59) – (1) Formosa Matsumura [underside] 25/VI 09 Arisan [in Chinese].

*ibukisanus* Matsumura, 1914a: 397 (*Cixius*)

Holotype ♀ – (1) Ibuki [in Japanese] Nawa [in Chinese] 6/11 Japan Matsumura; (2) 219 a; (3) [Matsumura's handwriting] *C. ibukisanus* n. p. [sic] det. Matsumura.

*iguchii* Matsumura, 1914a: 419 (*Oliarus*)

Holotype ♀ – (1) Japan Matsumura [underside] Harima [in Chinese]; (2) [Matsumura's handwriting] *O. iguchii* n. sp.; (3) [red label] Type Matsumura.

*iguchii* Matsumura, 1914a: 407 (*Trirhacus*)

Holotype ♀ – (1) Japan Matsumura [underside] Nagano [in Japanese] 42.10.12; (2) [Matsumura's handwriting] *Trirhacus iguchii* n. sp.; (3) [red label] Type Matsumura.

*kagoshimensis* Matsumura, 1914a: 429 (*Oliarus*)

Lectotype ♂, paralectotypes 4 ♂ [in same lot with lectotype], by present designation – (1) [red label] Lectotypus; (2) [red label] paratypus; (3) 10/VII Kagoshima; (4) [Matsumura's handwriting] *O. kagoshimensis* n. sp.

Paralectotypes 15 ♂, 3 ♀, 5 exs. [abdomen missing], by present designation – (1) 10/VII 1903 Kagoshima

Paralectotype 1 ♂, by present designation – (1) Futsukaichi [in Chinese] Japan Matsum.

*kommonis* Matsumura, 1914a: 400 (*Cixius*)

Holotype ♂ – (1) Kanmon [in Japanese] 18 IV– 10 Nitobe [in Japanese]; (2) [Matsumura's

handwriting] *Cixius kammonis* [sic] n. sp. det. Matsumura.

This species was described from a single male specimen. The lectotype designation by Tsaour et al. (1991b: 301) is here considered as invalid.

*kotoshonis* Matsumura, 1914a: 430 (*Mundopa*)

Lectotype ♂, by present designation – (1) Formosa Matsumura [underside] Kotosho 7/30 Shiraki [in Chinese]; (2) [Matsumura's handwriting] *Mundopa kotoshonis* n. sp. det. Matsumura.

Paralectotype 1 ♂, by present designation – (1) Kotosho [illegible characters] T. Shiraki; (2) No. 1034.

*kumejima* Matsumura, 1914a: 415 (*Betacixius*)

Lectotype ♀, by present designation – (1) Kumejima [in Japanese] 467 Japan Matsumura [underside] III/06 Okinawa; (2) [Matsumura's handwriting] *Betacixius kumejima* n. sp.

Paralectotype 1 ♀, by present designation – (1) Okinawa Kuroiwa [underside] Kumejima.

*kuyanianus* Matsumura, 1914a: 398 (*Cixius*)

Lectotype ♀ [abdomen missing], designated by Tsaour et al. (1991b: 184) – (1) Formosa Matsumura [underside] Tappan 24/IV 07; (2) [Matsumura's handwriting] *C. kuyanianus* Mats. det. Matsumura; (3) Lectotype.

Paralectotype 1 ♂, by present recognition – (1) Formosa Matsumura [underside] Tappan 24/IV 07.

*ligustri* Matsumura, 1914a: 409 (*Kuvera*)

Lectotype ♂ [head missing], paralectotype 1 ♀, by present designation – (1) Hakone [in Japanese]; (2) [Matsumura's handwriting] *C. ligustri* n. sp.; (3) [red label] Type Matsumura; (4) [red label] Lectotypus *Kuvera ligustri* Mats. ♂ design. Anufriev, 1981; (5) [red label] Paralectotypus ♀ *Kuvera ligustri* Mats. Anufriev design., 1981.

Paralectotypes 1 ♂, 3 ♀, by present designation – (1) Hakone [in Japanese] 7/27; (2) [red label] Paralectotypus *Kuvera ligustri* Mats. Anufriev design., 1981.

Paralectotypes 2 ♂, 4 ♀, by present designation – (1) Hakone [in Japanese] 7/27.

*longipennis* Matsumura, 1914a: 411 (*Kuvera*)

Holotype ♀ – (1) Formosa Matsumura [underside] Tappan 24/IV '07; (2) [Matsumura's handwriting] *Metacixius longipennis* det. Matsumura; (3) [red label] Holotypus *Kuvera longipennis* Mats.

This species was described from a single specimen. The lectotype designation by Tsaour et al. (1991a: 65) is here considered as invalid.

*maculata* Matsumura, 1914a: 430 (*Barma*) [*Borysthenes*]

Lectotype ♂, by present designation – (1) Formosa Matsumura [underside] Toroen 19/IV '07; (2) [Matsumura's handwriting] *Barma maculata* n. det. Matsumura; (3) [red label] Type Matsumura.

Paralectotypes 3 ♂, 1 ♀, by present designation – (1) 7/VIII 1906 Hoppo.

Paralectotype 1 ♀, by present designation – (1) Formosa Matsumura [underside] Horisha [in Japanese] 30/IV '07.

Paralectotype 1 ♂, by present designation – (1) Formosa Matsumura [underside] Taping [in Chinese] 7/V '07.

*mori* Matsumura, 1914a: 426 (*Oliarus*) [*Oecleopsis*]

Lectotype ♂, designated by Tsaour et al. (1988: 50) – (1) Formosa Matsumura Takao 4.IV.1907; (2) [pink label] LECTOTYPE *Oliarus mori* Matsumura designe. par Van Stalle 1987.

Paralectotype 1 ♂, designated by Tsaur et al. (1988: 50) – (1) Formosa Matsumura Takao 4.IV.1907; (2) J. Van Stalle det.: 1987 *Oliarus mori* Mats. Paralectotype.

Paralectotypes 1 ♂, 2 ♀, designated by Tsaur et al. (1988: 50) – (1) Formosa Matsumura [underside] 4/IV-07 Takao; (2) J. Van Stalle det.: 1987 *Oliarus mori* Mats. Paralectotype.

Paralectotype 1 ♀, by present designation – (1) Formosa Matsumura [underside] Puli [in Chinese] 26 IV '07; (2) mulberry [in Chinese]; (3) [Matsumura's handwriting] *O. mori* n. sp.

Paralectotypes 2 ♂, 2 ♀, 1 ex. [abdomen missing], by present designation – (1) Formosa Matsumura [underside] Tappan 24/V '07.

Paralectotypes 3 ♂, by present recognition – (1) Formosa Matsumura [underside] Taping [in Chinese] 8/V '07.

Paralectotypes 1♂, 1♀, by present recognition – (1) Formosa Matsumura [underside] Toroen 19/4 '07.

Paralectotypes 1♂, 1♀, by present recognition – (1) Formosa Matsumura [underside] Shushu 29/4 '07.

Paralectotypes 3 ♂, 1 ♀, by present recognition – (1) Formosa Matsumura [underside] 16/ VIII 1906 Taikoka.

Paralectotypes 3♂, 2♀, by present recognition – (1) Formosa Matsumura [underside] Kanshirei [in Japanese] 15/IV '07.

Paralectotype 1 ♂, by present recognition – (1) Formosa Matsumura [underside] 2/III 1909 Kon.

*nawae* Matsumura, 1914a: 402 (*Cixius*)

Holotype ♂ – (1) Ibuki [in Japanese] 6/1 [illegible] Nawa [in Chinese]; (2) 220; (3) [Matsumura's handwriting] *Cixius nawae* n. sp.

*nitobei* Matsumura, 1914a: 401 (*Cixius*)

Holotype ♂ – (1) Arisan 1912.10.20 Nitobe; (2) [Matsumura's handwriting] *C. nitobei* Mats. det. Matsumura; (3) Lectotype.

This species was described from a single male specimen. The lectotype and paralectotype designations by Tsaur et al. (1991b: 197) are here considered as invalid. The male specimen (National Taiwan University Insect Museum, Taipei, Taiwan) designated as paralectotype by Tsaur et al (1991b: 197) could not be a syntype since Matsumura (1914) never mentioned it in the original description.

*obliquus* Matsumura, 1914a: 414 (*Betacixius*)

Lectotype ♀, by present designation – (1) Ibuki [in Japanese] 8/22 Japan Matsumura; (2) 2/5; (3) [Matsumura's handwriting] *Betacixius obliquus* n.

*obliquus* var. *pallens* Matsumura, 1914a: 415 (*Betacixius*)

Lectotype ♂, by present designation – (1) Kumamoto H. Kawamura [underside] May 20th 1907.

Paralectotype 1 ♂ [in the same lot with lectotype], by present designation – same data as lectotype.

Paralectotypes 1 ♂, 1 ♀, by present designation – (1) Takao [in Japanese] 7/19; (2) [Matsumura's handwriting] *Betacixius obliquus* var. *pallens* n.

*ocellata* Matsumura, 1914a: 433 (*Brixia*) [*Andes*]

Holotype ♀ – (1) Formosa Matsumura [underside] 2/VII 1906 Koshun; (2) [Matsumura's handwriting] *Brixia ocellata* n. det. Matsumura.

This species was described from a single female specimen. The lectotype designation by Tsaur et al. (1991a: 72) is here considered as invalid.

*ocellatus* Matsumura, 1914a: 412, fig. 3 (*Betacixius*)

Lectotype ♀, designated by Tsaur et al. (1991a: 35) – (1) Formosa Matsumura [underside] 7/VIII 1906 Hoppo; (2) [Matsumura's handwriting] *Betacixius ocellatus* n. det. Matsumura.

Paralectotypes 2 ♀, by present recognition – (1) Formosa Matsumura [underside] 7/VIII 1906 Hoppo.

*ogasawarensis* Matsumura, 1914a: 422 (*Oliarus*) [*Pentastiridius*]

Lectotype ♂, designated by Van Stalle (1991: 15) – (1) 20 VIII 1905 Ogasawara Matsumura; (2) [Matsumura's handwriting] *O. ogasawarensis* n. sp.; (3) [pink label] LECTOTYPE *Oliarus ogasawarensis* Mats. designe. par Van Stalle 1987.

Paralectotype 1 ♀, designated by Van Stalle (1991: 15) – (1) (transcription) Ogasawara 20.VIII.1905 Matsumura; (2) [pink label] PARALECTOTYPE *Oliarus ogasawarensis* Mats. designe. par Van Stalle 1987.

Paralectotypes 6 ♂, 5 ♀, by present recognition – (1) 20 VIII 1905 Ogasawara Matsumura.

*okinawanus* Matsumura, 1936: 83 (*Cixius*)

Lectotype ♂, by present designation – (1) SHURI Okinawa-Ken 1935,3,17 Chiro, Yohena; (2) [Matsumura's handwriting] *Cixius okinawanus*; (3) [pink label] [no data].

*oryzae* Matsumura, 1911a: 134 (*Oliarus*)

Lectotype ♀, by present designation – (1) Formosa Matsumura [underside] Taichung [in Chinese] 26/IV '07; (2) rice [in Chinese]; (3) [Matsumura's handwriting] *O. oryzae* Mats. det. Matsumura.

This species was described from an unspecified number of male and female specimens from Taichu and Chuho in Taiwan. Tsaur et al. (1988: 64) designated the male lectotype and paralectotypes (an unspecified number and sexes of specimens) without any label data. It is obvious that Tsaur et al.'s lectotype and paralectotype designations can not be regarded as valid. We have not been able to find the syntypes studied by Tsaur et al. (1988). We found only one female syntype and two non-type male specimens. The female specimen is from the type locality and bears Matsumura's determination label and is here designated as lectotype. The other two male specimens were collected from Koshun, Taiwan and are not syntypes.

*pachycephs* Matsumura, 1914a: 420 (*Oliarus*) [*Pentastiridius*]

Lectotype ♂, designated by Tsaur et al. (1988: 67) – (1) Formosa Matsumura (transcription) [underside] Koshun 6/VII 1906; (2) [pink label] LECTOTYPE *Oliarus pachycephs* Matsum. designe. par Van Stalle 1987.

Paralectotype 1 ♂, designated by Tsaur et al. (1988: 67) – (1) Formosa Matsumura [underside] 6/VII 1906 Koshun; (2) [pink label] PARALECTOTYPE *Oliarus pachycephs* Matsum. designe. par Van Stalle 1987.

Paralectotype 1 ♀, designated by Tsaur et al. (1988: 67) – (1) 6/VII 1906 Koshun; (2) [Matsumura's handwriting] *Oliarus pachycephs* det. Matsumura.

*pilosellus* Matsumura, 1914a: 405 (*Cixius*)

Holotype ♀ – (1) Formosa Matsumura [underside] 7/2 Koshun [in Chinese]; (2) [Matsumura's handwriting] *C. pilosellus* n. sp.

This species was described from a single female specimen. The lectotype designation by Tsaur et al. (1991b: 305) is here considered as invalid.

*quadricinctus* Matsumura, 1914a: 419 (*Oliarus*) [*Reptalus*]

Lectotype ♂, by present designation – (1) 28/VI Maiko; (2) [Matsumura's handwriting] *O. 4-cinctus* n. sp.; (3) [red label] Type Matsumura.

Paralectotypes 2♂, 1♀ [in the same lot with lectotype], by present designation – same data as lectotype.

Paralectotypes 3♂, 1♀, by present designation – (1) Japan Kuwana [in Japanese] [underside] Amagi VIII '04.

*rinkihonis* Matsumura, 1914a: 417 (*Betacixius*)

Holotype ♂ – (1) Formosa Matsumura [underside] Rinkihō [in Japanese] 20/IV '07; (2) [Matsumura's handwriting] *Betacixius rinkihonis* n. sp. det. Matsumura.

This species was described from a single male specimen. The lectotype designation by Tsaour et al. (1991a: 44) is here considered as invalid.

*speciosus* Matsumura, 1914a: 424 (*Oliarus*)

Lectotype ♂, designated by Tsaour et al. (1988: 62) – (1) Formosa Matsumura Koshun 1.VII.1906; (2) [pink label] LECTOTYPE *Oliarus speciosus* Mats. design. par Van Stalle 1987.

Paralectotype 1♀, designated by Tsaour et al. (1988: 62) – (1) Formosa Matsumura [underside] 1/VII 1906 Koshun; (2) [pink label] PARALECTOTYPE *Oliarus speciosus* Mats. design. par Van Stalle 1987.

Paralectotype 1♀, by present recognition – (1) Formosa Matsumura [underside] 1/VII 1906 Koshun; (2) [Matsumura's handwriting] *O. speciosus* n. sp.

Paralectotype 1♀, by present recognition – (1) Formosa Matsumura [underside] 1/VII 1906 Koshun.

*suturalis* Matsumura, 1914a: 401 (*Cixius*)

Holotype ♀ – (1) Kanmon [in Japanese] 18.IV–10 Nitobe [in Japanese]; (2) [Matsumura's handwriting] *Cixius suturalis* n. sp.

This species was described from a single female specimen. The lectotype designation by Tsaour et al. (1991b: 302) is considered here as to be invalid and is rejected.

*tappanella* Matsumura, 1914a: 410 (*Kuvera*)

Lectotype ♂, designated by Tsaour et al. (1991a: 54); Paralectotype 1♂ [in the same lot with lectotype], by present recognition – (1) Formosa Matsumura [underside] Torren 19/IV; (2) [Matsumura's handwriting] *Metacixius tappanella* n. sp. det. Matsumura; (3) [red label] Lectotypus *Kuvera tappanella* Mats. design. Anufriev, 1981; (4) [red label] Paralectotypus *Kuvera tappanella* Mats. design. Anufriev, 1981.

Paralectotypes 2♂, 2♀, by present recognition – (1) Formosa Matsumura [underside] Toroen 19/IV '07; (2) [red label] Paralectotypus *Kuvera tappanella* Mats. design. anufriev, 1981.

Paralectotypes 4♂, 2♀, by present recognition – (1) Formosa Matsumura [underside] Toroen 19/IV '07.

Paralectotypes 3♂, 1♀, by present recognition – (1) Formosa Matsumura [underside] Tappan 24/IV '07.

*tappanus* Matsumura, 1914a: 398 (*Cixius*)

Lectotype ♂, designated by Tsaour et al. (1991b: 197) – (1) Formosa Matsumura [underside] Tappan 24/IV '07; (2) [Matsumura's handwriting] *Cixius tappanus*; (3) Lectotype.

Paralectotype 1♂ [head and abdomen missing], designated by Tsaour et al. (1991b: 197) – (1) TAIWAN: Chiayi Tappan 24–IV–1907 COL. S. Matsumura; (2) *Cixius tappanus* Matsumura det. S. C. Tsaour.

Paralectotype 1♂, designated by Tsaour et al. (1991b: 197) – (1) Formosa Matsumura [underside] Tappan 24/IV '07; (2) *Cixius tappanus* Matsumura det. S. C. Tsaour.

Paralectotype 1♂, by present recognition – (1) Formosa Matsumura [underside] Tappan 24/IV '07.

*tappanus* Matsumura, 1914a: 424 (*Oliarus*)

Lectotype ♂, designated by Tsaar et al. (1988: 48) – (1) Formosa Matsumura Tappan 24.IV.1907; (2) [pink label] LECTOTYPE *Oliarus tappanus* Mats. designe. par Van Stalle 1987.

Paralectotype 1 ♀, designated by Tsaar et al. (1988: 48) – (1) Formosa Matsumura [underside] Tappan 24.IV '07; (2) [Matsumura's handwriting] *O. tappanus* n. sp. det. Matsumura; (3) [pink label] PARALECTOTYPE *Oliarus tappanus* Mats. designe. par Van Stalle 1987.

Paralectotypes 2♂, 1♀, by present recognition – (1) Formosa Matsumura [underside] Tappan 24/IV '07.

Paralectotype 1 ♀, by present recognition – (1) Formosa Matsumura [underside] Kuyaniya [in Japanese] 25/IV '07.

*tonkinensis* Matsumura, 1914a: 413 (*Betacixius*)

Lectotype ♂, by present designation – (1) Tonkin Montes Mauson April, Mai 2–3000' H. Fruhstorfer; (2) [Matsumura's handwriting] *Betacixius tonkinensis* n. sp. det. Matsumura.

Paralectotypes 1♂, 1♀ [in the same lot with lectotype], by present designation – same data as lectotype.

Paralectotypes 1 ♂, 1 ex. [abdomen missing], by present designation – (1) Tonkin Montes Mauson April, Mai 2–3000'; (2) H. Fruhstorfer.

*toroensis* Matsumura, 1914a: 410 (*Kuvera*)

Lectotype ♂ [not "♀" as stated by Tsaar et al. (1991a: 64)], designated by Tsaar et al. (1991a: 64) – (1) Formosa Matsumura [underside] Toroen 19/IV '07; (2) [Matsumura's handwriting] *Ep. toroensis* n. sp. det. Matsumura; (3) [red label] Lectotypus *Kuvera toroensis* Mats. design. Anufriev, 1981.

Paralectotype 1 ♀, by present recognition – (1) Formosa Matsumura [underside] Toroen 19/IV '07; (2) [red label] Paralectotypus *Kuvera toroensis* Mats. design. Anufriev, 1981.

*towadensis* Matsumura, 1914a: 402 (*Cixius*)

Lectotype ♂, by present designation – (1) Hakone 7/27.

Paralectotype 1 ♀, by present designation – (1) late [in Chinese]/VII 1905 Towada; (2) [Matsumura's handwriting] *Cixius towadensis*; (3) [red label] Type Matsumura.

*velox* Matsumura, 1914a: 403 (*Cixius*)

Holotype ♀ – (1) Formosa Matsumura [underside] Tappan 24/IV '07; (2) [Matsumura's handwriting] *Cixius velox* n. det. Matsumura.

This species was described from a single female specimen. The lectotype designation by Tsaar et al. (1991b: 304) is here considered as invalid.

*velox* Matsumura, 1914a: 425 (*Oliarus*)

Lectotype ♂, designated by Tsaar et al. (1988: 57) – (1) Formosa Matsumura Koshun 5.VII.1906; (2) [pink label] LECTOTYPE *Oliarus velox* Matsumura designe. par Van Stalle 1987.

Paralectotype 1 ♀, designated by Tsaar et al. (1988: 57) – (1) Formosa Matsumura [underside] 5/VII 1906 Koshun; (2) [Matsumura's handwriting] *C. velox* n. sp.; (3) [pink label] PARALECTOTYPE *Oliarus velox* Matsumura designe. par Van Stalle 1987.

### Family Meenoplidae

*formosana* Matsumura, 1914b: 284, figs. 9a–d (*Paranisia*) [*Anigrus*]

Lectotype ♂, designated by Tsaar et al. (1986: 113) – (1) Formosa Matsumura [underside] 30/ VII 1906 Hokuto; (2) [purple-ringed round label] LECTOTYPE; (3) LECTOTYPE ♂ *Paranisia*

*formosana* des. Tsaur, Yang & M. R. Wilson, 1986.

Paralectotype 1 ♂, designated by Tsaur et al. (1986: 113) – (1) Formosa Matsumura; (2) [underside] Hokuto 30.VIII.1906; (3) [blue-ringed round label] PARALECTOTYPE; (4) Paralectotype ♂ *Paranisia formosana* desig. Tsaur, Yang & M. R. Wilson, 1986.

Paralectotypes 2 ♂, 2 ♀ [in same lot], designated by Tsaur et al. (1986: 113) – (1) Formosa Matsumura [underside] 31/VII 1906 Hokuto; (2) [blue-ringed round label] PARALECTOTYPE; (3) Paralectotypes 2 ♂ 2 ♀ *Paranisia formosana* desig. Tsaur, Yang & M. R. Wilson, 1986.

Paralectotype 1 ♀, designated by Tsaur et al. (1986: 113) – (1) Formosa Matsumura [underside] 31/VII 1906 Hokuto; (2) [blue-ringed round label] PARALECTOTYPE; (3) Paralectotype ♀ *Paranisia formosana* desig. Tsaur, Yang & M. R. Wilson, 1986.

Paralectotypes 1 ♂, 1 ♀ [in same lot], designated by Tsaur et al. (1986: 113) – (1) Formosa Matsumura [underside] Hoppo [in Chinese] 6/V '07; (2–3) [blue-ringed round label] PARALECTOTYPE; (4) Paralectotypes ♂ ♀, *Paranisia formosana* desig. Tsaur, Yang & M. R. Wilson, 1986.

Paralectotype 1 ♀, designated by Tsaur et al. (1986: 113) – (1) Formosa Matsumura [underside] Hoppo 6/V 1907; (2) [blue-ringed round label] PARALECTOTYPE; (3) [Matsumura's handwriting] *Paranisia formosana* n. sp.; (4) Paralectotype ♀ *Paranisia formosana* desig. Tsaur, Yang & M. R. Wilson, 1986.

Paralectotype 1 ♂, designated by Tsaur et al. (1986: 113) – (1) Formosa Matsumura [underside] 31/VII 1906 Shirui; (2) [blue-ringed round label] PARALECTOTYPE; (3) Paralectotypes 1 ♂ 1 ♀ *Paranisia formosana* desig. Tsaur, Yang & M. R. Wilson, 1986.

Paralectotypes 1 ♂, 1 ♀ [in same lot], designated by Tsaur et al. (1986: 113) – (1) 29/VII 1906 Tansui; (2–3) [blue-ringed round label] PARALECTOTYPE; (4) Paralectotypes ♂ ♀, *Paranisia formosana* desig. Tsaur, Yang & M. R. Wilson, 1986.

Paralectotype 1 ♀, designated by Tsaur et al. (1986: 113) – (1) Formosa Matsumura [underside] 12/VII 1906 Aho; (2) [blue-ringed round label] PARALECTOTYPE; (3) Paralectotype ♀ *Paranisia formosana* desig. Tsaur, Yang & M. R. Wilson, 1986.

*frequens* Matsumura, 1914b: 285 (*Paranisia*) [*Anigrus*]

Lectotype ♂, Paralectotypes 1 ♂, 1 ♀ [all in same lot], designated by Tsaur et al. (1986: 115) – (1) Formosa Matsumura [underside] 21/VII 1906 Shoka; (2) [Matsumura's handwriting] *Paranisia frequens* n. sp.; (3) Lectotype ♂ Paralectotype ♂ ♀ *Paranisia frequens* Tsaur, Yang & M. R. Wilson, 1986.

Paralectotypes 1 ♂, 1 ♀ [in same lot], designated by Tsaur et al. (1986: 115) – (1) Formosa Matsumura [underside] 20/VII 1906 Shoka; (2–3) [blue-ringed round label] PARALECTOTYPE; (4) Paralectotypes 1 ♂ 1 ♀ *Paranisia frequens* desig. Tsaur, Yang & M. R. Wilson, 1986.

Paralectotypes 1 ♂, 1 ♀, designated by Tsaur et al. (1986: 115) – (1) Formosa Matsumura [underside] 21/VII 1906 Shoka; (2) [blue-ringed round label] PARALECTOTYPE; (3) Paralectotype *Paranisia frequens* desig. Tsaur, Yang & M. R. Wilson, 1986.

Paralectotypes 2 ♂, designated by Tsaur et al. (1986: 115) – (1) Formosa Matsumura [underside] 31/VII 1906 Hokuto; (2) [blue-ringed round label] PARALECTOTYPE; (3) Paralectotype ♂ *Paranisia frequens* desig. Tsaur, Yang & M. R. Wilson, 1986.

Paralectotypes 3 ♀ [in same lot], designated by Tsaur et al. (1986: 115) – (1) 7/30 Hokuto [in Japanese] Formosa Matsumura; (2–4) [blue-ringed round label] PARALECTOTYPE; (5) Paralectotype ♀ *Paranisia frequens* desig. Tsaur, Yang & M. R. Wilson, 1986.

Paralectotype 1 ♀, designated by Tsaur et al. (1986: 115) – (1) Formosa Matsumura [underside] Koshun; (2) [blue-ringed round label] PARALECTOTYPE; (3) Paralectotype 1 ♀ *Paranisia frequens* desig. Tsaur, Yang & M. R. Wilson, 1986.

Paralectotypes 1 ♂, 1 ♀ [in same lot], designated by Tsaur et al. (1986: 115) – (1) Formosa Matsumura [underside] 5/VII 1906 Koshun; (2–3) [blue-ringed round label]

PARALECTOTYPE; (4) Paralectotype *Paranisia frequens* desig. Tsauro, Yang & M. R. Wilson, 1986.

Paralectotype 1 ♀, designated by Tsauro et al. (1986: 115) – (1) Formosa Matsumura [underside] Koshun 7/5–06; (2) [blue-ringed round label] PARALECTOTYPE; (3) Paralectotype ♀ *Paranisia frequens* desig. Tsauro, Yang & M. R. Wilson, 1986.

Paralectotype 1 ♀, designated by Tsauro et al. (1986: 115) – (1) Formosa Matsumura [underside] 5/VII 1906 Koshun; (2) [blue-ringed round label] PARALECTOTYPE; (3) Paralectotype ♀ *Paranisia frequens* desig. Tsauro, Yang & M. R. Wilson, 1986.

Paralectotypes 2 ♂ [in same lot], designated by Tsauro et al. (1986: 115) – (1) Formosa Matsumura [underside] early [in Chinese]/VII 1906 Koshun; (2–3) [blue-ringed round label] PARALECTOTYPE; (4) Paralectotype *Paranisia frequens* desig. Tsauro, Yang & M. R. Wilson, 1986.

Paralectotype 1 ♀, designated by Tsauro et al. (1986: 115) – (1) Formosa Matsumura [underside] 7/VII 1906 Koshun; (2) [blue-ringed round label] PARALECTOTYPE; (3) Paralectotype ♀ *Paranisia frequens* desig. Tsauro, Yang & M. R. Wilson, 1986.

Paralectotype 1 ♀, designated by Tsauro et al. (1986: 115) – (1) Formosa Matsumura [underside] 16/VIII 1906 Taihokan; (2) [blue-ringed round label] PARALECTOTYPE; (3) Paralectotype 1 ♀ *Paranisia frequens* desig. Tsauro, Yang & M. R. Wilson, 1986.

Paralectotypes 2 ♂, 3 ♀, designated by Tsauro et al. (1986: 115) – (1) 29/VII 1906 Tansui; (2) [blue-ringed round label] PARALECTOTYPE; (3) Paralectotype *Paranisia frequens* desig. Tsauro, Yang & M. R. Wilson, 1986.

*guttula* Matsumura, 1914b: 286, figs. 10a–d (*Eponisia*)

Lectotype ♂, designated by Tsauro et al. (1986: 105) – (1) Formosa Matsumura [underside] Horisha [in Japanese] 30 IV '07; (2) [purple-ringed round label] LECTOTYPE; (3) [Matsumura's handwriting] *Eponisia guttula* n. sp. det. Matsumura; (4) Lectotype designated by Tsauro, Yang & M. R. Wilson, 1986.

Paralectotypes 3 ♀, designated by Tsauro et al. (1986: 105) – (1) Formosa Matsumura [underside] 16/VIII 1906 Taikokan; (2) [blue-ringed round label] PARALECTOTYPE; (3) Paralectotypes 3 ♀, *Eponisia guttula* designated Tsauro, Yang & M. R. Wilson, 1986.

Paralectotype 1 ♂, designated by Tsauro et al. (1986: 105) – (1) Formosa Matsumura; (2) 16.VIII.1906 Taikokan; (3) [blue-ringed round label] PARALECTOTYPE; (4) Paralectotype *Eponisia guttula* designated Tsauro, Yang & M. R. Wilson, 1986.

Paralectotype 1 ♂, designated by Tsauro et al. (1986: 106) – (1) Formosa Matsumura [underside] 12/VII 1906 Ako; (2) [blue-ringed round label] PARALECTOTYPE; (3) Paralectotype *Eponisia guttula* designated Tsauro, Yang & M. R. Wilson, 1986.

Paralectotype 1 ♂, designated by Tsauro et al. (1986: 106) – (1) Formosa Matsumura [underside] 7/VIII 1906 Hoppo; (2) [blue-ringed round label] PARALECTOTYPE; (3) Paralectotype *Eponisia guttula* designated Tsauro, Yang & M. R. Wilson, 1986.

*guttulinervis* Matsumura, 1914b: 287 (*Eponisia*) [*Eponisiella*]

Lectotype ♂ [dissected, left of two specimens mounted on balsa wood block], paralectotype 1 ♂ [undissected], designated by Tsauro et al. (1986: 99) – (1) late [in Chinese]/VII 1905 Towada; (2) LECTOTYPE; (3) PARALECTOTYPE; (4) Lectotype (dissected) (spec. on left) Paralectotype *Eponisia guttulinervis* [designated] Tsauro, Yang & M. R. Wilson, 1986.

Paralectotype 1 ♂, designated by Tsauro et al. (1986: 99) – (1) 15; (2) PARALECTOTYPE; (3) Onuki [in Japanese] Japan Matsumura; (4) [Matsumura's handwriting] *guttulinervis* n. sp. det. Dr. Matsumura; (5) Paralectotype ♂ *Eponisia guttulinervis* designated Tsauro, Yang & M. R. Wilson, 1986.

*nigricans* Matsumura, 1914b: 285 (*Paranisia*)

Lectotype ♂, designated by Tsaour et al. (1986: 115) – (1) Formosa Matsumura; (2) [underside] Hoppo 8.VIII.1906; (3) [purple-ringed round label] LECTOTYPE; (4) Lectotype ♂ *Paranisia nigricans* desig. Tsaour, Yang & M. R. Wilson, 1986.

Paralectotypes 2 ♂, 4 ♀ [in same lot], designated by Tsaour et al. (1986: 115) – (1) Formosa Matsumura [underside] 8/VIII 1906 Hoppo; (2–7) [blue-ringed round label] PARALECTOTYPE; (8) [Matsumura's handwriting] *Paranisia nigricans* det. Matsumura; (9) Paralectotypes 2 ♂ 4 ♀ *Paranisia nigricans* desig. Tsaour, Yang & M. R. Wilson, 1986.

Paralectotype 1 ♀, by present recognition – (1) Formosa Matsumura [underside] Tainan 2/4 '07.

Paralectotypes 1 ♂, 1 ♀, by present recognition – (1) Formosa Matsumura [underside] 20/VII 1906 Shoka.

Paralectotype 1 ♂, by present recognition – (1) Formosa Matsumura [underside] Rinkiho [in Japanese] 26/IV '07.

Paralectotypes 2 ♂, 1 ♀, by present recognition – (1) Formosa Matsumura [underside] 23/7 '06 Shinsha.

Tsaour et al. (1986: 113) synonymised this species with *Anigrus frequens* (Matsumura).

### Family Derbidae

*albinervis* Matsumura, 1914b: 292 (*Lamenia*)

Lectotype ♂, by present designation – (1) Formosa Matsumura [underside] 5/VII 1906 Koshun; (2) [Matsumura's handwriting] *Lamenia albinervis* n. sp. det. Matsumura.

Paralectotype 1 ♀, by present designation – (1) Formosa Matsumura [underside] 3/VII 1906 Koshun.

Paralectotype 1 ♀, by present designation – (1) 7/5 Koshun [in Chinese] Formosa Matsumura.

Paralectotype 1 ♂, by present designation – (1) Formosa Matsumura [underside] 6/VII 1906 Koshun.

Paralectotype 1 ♂, by present designation – (1) Formosa Matsumura [underside] 7/VII 1906 Koshun.

Paralectotypes 2 ♂, 1 ♀, by present designation – (1) Formosa Matsumura [underside] 7/5 1905 Koshun [in Chinese].

Paralectotype 1 ♂, by present designation – (1) Formosa Matsumura [underside] Taibyō 8/V '07.

*albipennis* Matsumura, 1914b: 289 (*Vekunta*)

Lectotype ♂, by present designation – (1) 7/5 Koshun [in Chinese] Formosa Matsumura.

Paralectotype 1 ♀, by present designation – (1) Arisan 1912.10.20 Nitobe; (2) No. 1028; (3) [Matsumura's handwriting] *Meenoplus albipennis* n. sp. [underside] Shirokofukiunka [in Japanese].

Paralectotype 1 ♀, by present designation – (1) Formosa Matsumura [underside] Kuyaniya [in Japanese] 25/4 '07.

Paralectotype 1 ♀, by present designation – (1) Formosa Matsumura [underside] Toroen 19/4 '07.

Paralectotype 1 ♀, by present designation – (1) Koshun 7/3 1906.

*boninensis* Matsumura, 1914b: 290, figs. 11a–d (*Tempora*) [*Nesokaha* (*Tempora*)]

Lectotype ♂, by present designation – (1) 20 VIII 1905 Ogasawara Matsumura; (2) [Matsumura's handwriting] *Tempora boninensis* det. Matsumura.

Paralectotype 1 ♀ [in the same lot with lectotype], by present designation – same data as lectotype.

Paralectotype 1 ♀, by present designation – (1) 20 VIII 1905 Ogasawara Matsumura.

- coccinea* Matsumura, 1940b: 47 (*Rhotana*) [*Saccharodite*]  
 Holotype ♀ – (1) Formosa Matsumura [underside] Kotosho [in Japanese] Kano [in Japanese];  
 (2) [Matsumura's handwriting] *Rhotana coccinea* n. det. Matsumura.  
 Zelazny (1981: 237) transferred *coccinea* from *Rhotana* to *Saccharodite*.
- formosana* Matsumura, 1914b: 295 (*Rhotana*)  
 Lectotype ♀, by present designation – (1) Formosa Matsumura [underside] Kanshirei 7 X '09;  
 (2) *Rhotana formosana* Matsumura lectotype.  
 Paralectotype 1 ♀, by present designation – (1) Formosa Matsumura [underside] Kaannai [not  
 "Kanshirei" as in the original description] 29 VII '06.
- formosana* Matsumura, 1914b: 297, figs. 12a–d (*Shizuka*)  
 Holotype ♂ – (1) Formosa Matsumura [underside] 20/VII 1906 Shoka; (2) [Matsumura's  
 handwriting] *Shizuka formosana* n. p. [sic] det. Matsumura.
- formosanus* Matsumura, 1914b: 301, figs. 15a–d (*Mesotiocerus*) [*Megatropis*]  
 Holotype ♀ – (1) 23/VII 1906 Shinsha; (2) [Matsumura's handwriting] *Mesotiocerus formosanus*  
 n. sp. det. Matsumura.
- hibarensis* Matsumura, 1935: 79 (*Nomuraida*) [*Losbanosia*]  
 Holotype ♀ – (1) Lake HIBARA Fukusima, ken 1935.8.22 S. Nomura; (2) [Matsumura's  
 handwriting] *Nomuraida hibarana* M. det. Matsumura.  
 Chou et al. (1985) transferred *hibarensis* from *Nomuraida* to *Losbanosia*. Yang & Wu (1994)  
 accepted this generic placement.
- hopponis* Matsumura, 1914b: 292 (*Lamenia*)  
 Lectotype ♂, by present designation – (1) Formosa Matsumura [underside] Heirin [in Chinese]  
 20/XI 06; (2) [Matsumura's handwriting] *L. hopponis* Mats. det. Matsumura.  
 Paralectotypes 1 ♂, 1 ♀, by present designation – (1) Formosa Matsumura [underside] Heirin  
 [in Chinese] 21/XI '06.  
 Paralectotype 1 ♂, by present designation – (1) Formosa Matsumura [underside] Kanshirei [in  
 Japanese] 21/VII '07.  
 Paralectotype 1 ♂, by present designation – (1) Formosa Matsumura [underside] Hokuto [in  
 Jpananese].
- hopponis* Matsumura, 1914b: 294 (*Rhotana*) [*Sumangala*]  
 Holotype ♂ – (1) Formosa Matsumura [underside] 7/VIII 1906 Hoppo; (2) [Matsumura's  
 handwriting] *Rhotana hopponis* det. Matsumura; (3) considered to be the holotype (by B. Zelazny,  
 1979).  
 Zelazny (1981: 230) synonymised this species with *Sumangala sufflava* (Muir). But Yang &  
 Wu (1994: 203) considered *Sumangala hopponis* (Matsumura) as a good species.
- horishana* Matsumura, 1914b: 302 (*Zoraida*)  
 Lectotype ♀ [right forewing and hindwing missing], by present designation – (1) 143; (2)  
 [Matsumura's handwriting] *Zoraida horishana* var. *nakaunrao* det. Matsumura [underside]  
 Horishahanenagaunka [in Japanese]; (3) [red label] Type Matsumura.  
 Paralectotype 1 ♀, by present designation – (1) Formosa Matsumura [underside] Horisha 26/  
 X '07; (2) [Matsumura's handwriting] *Zoraida horishana* det. Matsumura; (3)  
 Horishahanenagaunka [in Japanese].  
 Paralectotype 1 ♀, by present designation – (1) Formosa Matsumura [underside] Horisha 26/  
 X '07.

Paralectotype 1 ♀, by present designation – (1) Formosa Matsumura [underside] Kanshirei 21/VII '07.

Paralectotype 1 ♀, by present designation – (1) Formosa Matsumura [underside] Kanshirei 1/IX '07.

Paralectotype 1 ♀, by present designation – (1) Formosa Matsumura [underside] Toroen [in Japanese] 19/IV '07.

*infumata* Matsumura, 1914b: 303, figs. 16a–d (*Shirakia*) [*Shirakiana*]

Lectotype ♂, by present designation – (1) Formosa Matsumura [underside] 7/VIII 1906 Hoppo; (2) [Matsumura's handwriting] *Shirakia infumata* det. Matsumura.

Paralectotype 1 ♂, by present designation – (1) Formosa Matsumura [underside] Konannani 4/VII 07.

Paralectotype 1 ♂, by present designation – (1) Shoka 7/20.

*kagoshimana* Matsumura, 1914b: 294 (*Rhotana*) [*Saccharodite*]

Lectotype ♂, by present designation – (1) Kagoshima [in Japanese] 7/10; (2) [Matsumura's handwriting] *Rhotana kagoshimana* det. Matsumura; (3) Lectotype.

Paralectotype 1 ♀, by present designation – (1) Japan Matsumura [underside] Kagoshima [in Japanese] 7/10; (2) Paralectotype.

Zelazny (1981: 236) transferred *kagoshimana* from *Rhotana* to *Saccharodite*.

*koannania* Matsumura, 1914b: 302 (*Zoraida*)

Lectotype ♀, by present designation – (1) Formosa Matsumura [underside] Koshun 7/5 1906; (2) [Matsumura's handwriting] *Zoraida koannania* Mats. det. Matsumura; (3) [red label] Type Matsumura.

Paralectotype 1 ♀, by present designation – (1) Formosa Matsumura [underside] 21/III 1909 Koannania.

Paralectotype 1 ♀, by present designation – (1) 5/VII 1906 Koshun; (2) Kanshihanenagaunka [in Japanese].

Paralectotype 1 ♀, by present designation – (1) Formosa Matsumura [underside] Kanshirei [in Japanese] 18/V '08.

*koreana* Matsumura, 1915: 177 (*Kamendaka*)

Holotype ♀ – (1) Korea Seoul Kongo Ikuma [all in Chinese], [underside] late [in Chinese]/X 41 1914; (2) [Matsumura's handwriting] *Kamendaka koreanus* n. det. Matsumura.

*kotoshonis* Matsumura, 1940b: 47 (*Vekunta*)

Lectotype ♂, by present designation – (1) Kotosho Matsumura [underside] Kano 1938; (2) [Matsumura's handwriting] *Vekunta kotoshonis* n. det. Matsumura; (3) [pink label] [no data].

*kuwayamae* Matsumura, 1913: 63, pl. 8, fig. 13 (*Thracia*) [*Zoraida*]

Lectotype ♀, by present designation – (1) Sapporo Matsumura [underside] Jozankei [in Chinese] Em VIII '07; (2) [Matsumura's handwriting] *Thracia kuwayamae* n. sp.

Paralectotype 1 ♀, by present designation – (1) Sapporo Matsumura [underside] Jozankei 10/IX 1916.

Paralectotype 1 ♀, by present designation – (1) 6 7; (2) VII. 25/05 Moiwa [in Japanese] Sapporo [in Chinese].

*maculata* Matsumura, 1914b: 295 (*Rhotana*)

Holotype ♂ – (1) Arisan 1912.10.20 Nitobe; (2) No. 1024; (3) Rirohoshi [in Japanese] [Matsumura's handwriting] *Rh. maculata* n. sp.; (4) considered to be the holotype (by B. Zelazny).

*maculata* Matsumura, 1914b: 288 (*Vekunta*)

Lectotype ♂, by present designation – (1) Formosa Matsumura [underside] Koshun 7/7–06; (2) [Matsumura's handwriting] *Vekunta maculata* n. p. [sic]; (3) [red label] Type Matsumura.

Paralectotype 1 ♀, by present designation – (1) Formosa Matsumura [underside] 7/VII 1906 Koshun.

Paralectotype 1 ♂, by present designation – (1) Formosa Matsumura [underside] 5/VII 1906 Koshun.

Paralectotype 1 ♀, by present designation – (1) 29/VI 1906 Koshun.

Paralectotype 1 ♂, by present designation – (1) Formosa Matsumura [underside] 7/VII 1906 Koshun.

Paralectotypes 2♂, by present designation – (1) 7/5 Koshun [in Chinese] Formosa Matsumura.

Paralectotypes 2♂, 1♀, by present designation – (1) 7/4 Koshun [in Chinese] Formosa Matsumura.

Paralectotype 1 ♀, by present designation – (1) Koshun 5/7 '06.

Paralectotype 1 ♂, by present designation – (1) Formosa Matsumura [underside] 7/VIII 1906 Hoppo.

Paralectotype 1 ♂, by present designation – (1) 23/VII 1906 Shinsha.

Paralectotypes 1♂, 2♀, by present designation – (1) Japan Matsumura [underside] Tanba [in Chinese] IX 1914 Adachi [in Chinese].

*malloti* Matsumura, 1914b: 288 (*Vekunta*)

Lectotype ♂, by present designation – (1) Kumamoto H. Kawamura [underside] X.11 1907; (2) 5.

Paralectotypes 1♂, 1♀, by present designation – (1) Kumamoto H. Kawamura [underside] X.11 1907.

Paralectotypes 3♀, by present designation – (1) 19/IX 1906 Nagasaki.

Paralectotypes 1♂, 1♀, by present designation – (1) Kamakura; (2) [Matsumura's handwriting] *Vekunta okadai* Muir.

Paralectotypes 2♂, 3♀, by present designation – (1) Japan Matsumura [underside] Matsuyama [in Chinese] 1913.

Paralectotype 1 ex. [abdomen missing], by present designation – (1) Satsuma [in Japanese] Japan Dr. Matsumura.

Paralectotype 1 ♀, by present designation – (1) Formosa Matsumura [underside] 21/III 1909 Gyochi.

Paralectotype 1 ♀, by present designation – (1) Formosa Matsumura [underside] Taipin [in Chinese] 8/V '07.

*nigricans* Matsumura, 1914b: 293 (*Lamenia*)

Lectotype ♂, by present designation – (1) Formosa Matsumura [underside] 7/VII 1906 Koshun.

Paralectotypes 2♀, by present designation – (1) Formosa 7/6 Koshun [in Chinese] Matsumura; (2) [Matsumura's handwriting] *L. nigricans* Mats. det. Matsumura.

Paralectotype 1 ♀, by present designation – (1) Formosa Matsumura [underside] 6/VII 1906 Koshun.

*nitobei* Matsumura, 1914b: 293 (*Lamenia*)

Holotype ♂ – (1) No. C. Shimaunka [in Japanese]; (2) [Matsumura's handwriting] *Lamenia nitobei* det. Matsumura.

*saccharivora* Matsumura, 1910b: 13, pl. 15, fig. 6 (*Nicertoides*) [*Kamendaka* (*Nicertoides*)]

Lectotype ♂, by present designation – (1) Formosa Matsumura [underside] 11/VII 1906 Ako; (2) [Matsumura's handwriting] *Chro*[illegible]*na saccharivora* det. Matsumura; (3) 6.

Paralectotypes 8♂, 1♀, 1 ex., [in the same lot with lectotype], by present designation – same data as lectotype.

Paralectotype 1♂, by present designation – (1) Sugarcane [in Chinese]; (2) Formosa Matsumura [underside] 11/VII 1906 Ako.

Paralectotypes 1♂, 2♀, by present designation – (1) Sugarcane [in Chinese]; (2) 7/11 Ako.

Paralectotype 1♂ [all wings missing], by present designation – (1) Formosa Matsumura [underside] 21/VII 1906 Ako.

Paralectotypes 1♂, 1♀, by present designation – (1) Formosa Matsumura [underside] 20/VII 1906 Shoka.

Paralectotype 1♂, by present designation – (1) Formosa Matsumura [underside] 24/XI 1906 Giran.

Paralectotypes 8♂, 4♀, by present designation – (1) Formosa Matsumura [underside] 16/VII 1906 Wanri.

Paralectotypes 4♀, by present designation – (1) Formosa Matsumura [underside] 18/VII 1906 Wanri.

*sapporoensis* Matsumura, 1900: 209 (*Otiocerus*) [*Mysidioides*]

Holotype ♀ – (1) Sapporo Matsumura [underside] Jozankei 8/15; (2) [Matsumura's handwriting] *Mysidioides sapporoensis* Mats. det. Matsumura.

*satsumana* Matsumura, 1914b: 294 (*Rhotana*)

Holotype ♂ – (1) Kagoshima [in Japanese] 7/10; (2) [Matsumura's handwriting] *Rhotana satsumana* det. Matsumura; (3) considered to be the holotype (by B. Zelazny).

*shirakii* Matsumura, 1914b: 289 (*Vekunta*)

Lectotype ♂, by present designation – (1) No. 1026; (2) [Matsumura's handwriting] *Vekunta shirakii* det. Matsumura; (3) [red label] Type Matsumura.

Paralectotype 1♂, by present designation – (1) Formosa Matsumura [underside] Kuyaniya [in Japanese] 25/4 '07.

*stigmata* Matsumura, 1914b: 290 (*Vekunta*)

Lectotype ♂, by present designation – (1) 6 VII 1906 Koshun; (2) [Matsumura's handwriting] *Vekunta stigmata* det. Matsumura.

Paralectotype 1♂, by present designation – (1) Formosa Matsumura.

*tamagawana* Matsumura, 1914b: 291 (*Lamenia*)

Holotype ♂ – (1) Tamagawa [in Japanese] 7/25; (2) [Matsumura's handwriting] *Lamenia tamagawana* det. Matsumura; (3) [red label] Type Matsumura.

*toroensis* Matsumura, 1914b: 296 (*Rhotana*) [*Saccharodite*]

Holotype ♂ – (1) Formosa Matsumura [underside] Toroen 19/4 '07; (2) [Matsumura's handwriting] *Rhotana toroensis* n. det. Matsumura; (3) considered to be the holotype (by B. Zelazny).

Zelazny (1981: 236) transferred *toroensis* from *Rhotana* to *Saccharodite*.

*wanriana* Matsumura, 1914b: 292 (*Lamenia*)

Holotype ♂ – (1) Formosa Matsumura [underside] 18/VII 1906 Wanri.

## Family Achilidae

### *flaveola* Matsumura, 1914b: 271 (*Akotropis*)

Holotype ♂ – (1) S. 8/16; (2) Saigon; (3) [Matsumura's handwriting] *Akotropis flaveola* M. det. Matsumura.

### *formosana* Matsumura, 1914b: 275, figs. 6a–e (*Betatropis*)

Lectotype ♀, designated by Chen et al. (1989: 63) – (1) Formosa Matsumura; (2) [purple-ringed round label] LECTOTYPE; (3) [Matsumura's handwriting] *Betatropis formosana* n. sp.; (4) [red label] Type Matsumura.

Paralectotypes 1♂, 1♀, by present recognition – (1) Arisan 1912.10.20 Nitobe; (2) No. 1017; (3) [blue-ringed round label] PARALECTOTYPE.

Paralectotype 1♀, by present recognition – (1) 23/VII 1906 Shinsha.

Paralectotypes 1♂, 1♀, by present recognition – (1) Formosa Matsumura [underside] Horisha [in Japanese] 30/IV '07.

Paralectotype 1♂, by present recognition – (1) Formosa Koshun [in Chinese] Matsumura.

### *formosana* Matsumura, 1914b: 277 (*Magadha*)

Lectotype ♀, designated by Chen et al. (1989: 38) – (1) Formosa Matsumura; (2) [purple-ringed round label] LECTOTYPE; (3) [Matsumura's handwriting] *Magadha formosana* M. det. Matsumura.

Paralectotype 1♀, by present recognition – (1) Formosa Matsumura [underside] 9/VIII 1906 Hoppo; (2) [blue-ringed round label] PARALECTOTYPE.

Paralectotype 1♀, by present recognition – (1) 7/4 Koshun [in Chinese] Formosa Matsumura.

### *formosana* Matsumura, 1914b: 279 (*Rhotala*)

Holotype ♀ – (1) [red-ringed round label] Holotype; (2) Formosa Matsumura [underside] Horisha [in Japanese] 1/V '07; (3) [Matsumura's handwriting] *Rhotala formosana* n. sp.

### *formosanus* Matsumura, 1914b: 283 (*Plectoderoides*)

Holotype ♂ – (1) [red-ringed round label] Holotype; (2) Formosa Matsumura [underside] Toroen 19/4 '07; (3) [Matsumura's handwriting] *Plectoderes* [sic] *formosana* M.

### *fumata* Matsumura, 1914b: 270, figs. 4a–e (*Akotropis*)

Lectotype ♂, designated by Chen et al. (1989: 13) – (1) [purple-ringed red label] LECTOTYPE; (2) FORMOSA MATSUMURA ♂; (3) *Akotropis fumata* Mats. ♂ det. M.R. Wilson, 1987; (4) [red label] Type Matsumura.

Paralectotypes 1♂, 3♀, by present recognition – (1) Formosa Matsumura [underside] Koshun [in Chinese] 7/5; (2) [blue-ringed round label] PARALECTOTYPE.

Paralectotypes 1♂, 2♀, by present recognition – (1) 7/4 Koshun [in Chinese] Formosa Matsumura; (2) [Matsumura's handwriting] *Hemitropis fumata* M. det. Matsumura; (3) [blue-ringed round label] PARALECTOTYPE.

Paralectotypes 2♂, by present recognition – (1) 7/5 Koshun [in Chinese] Formosa Matsumura.

Paralectotype 1♀, by present recognition – (1) Formosa Matsumura [underside] Ako 7/11–06.

Paralectotypes 2♀, by present recognition – (1) Formosa Matsumura [underside] 3/VII 1906 Koshun.

Paralectotype 1♂, by present recognition – (1) Formosa Matsumura [underside] 20/VII 1906 Shoka.

Paralectotypes 1♂, 1♀, by present recognition – (1) Formosa Matsumura [underside] early [in Chinese]/VII 1906 Koshun.

Paralectotypes 3 ♀, by present recognition – (1) 29/VII 1906 Tansui.

*horishana* Matsumura, 1914b: 276 (*Betatropis*) [*Semibetatropis*]

Lectotype ♂, paralectotype 1 ♀ [both in same lot], designated by Chen et al. (1989: 55) – (1) Formosa Matsumura [underside] Horisha [in Japanese] 30/IV '04; (2) [purple-ringed round label] ♂ LECTOTYPE; (3) [blue-ringed round label] ♀ PARALECTOTYPE; (4) [Matsumura's handwriting] *Betatropis horishana* n. sp.; (5) [red label] Type Matsumura.

Paralectotype 1 ♀, by present recognition – (1) Formosa Matsumura [underside] Horisha [in Japanese] 30/IV '07.

Paralectotype 1 ♀, by present recognition – (1) Formosa Matsumura.

*ibukisana* Matsumura, 1914b: 280 (*Rhotala*)

Holotype ♀ – (1) Gifu, Mt. Ibuki [in Japanese], Y. Nawa Japan Dr Matsumura; (2) [Matsumura's handwriting] *Rhotala ibukisana* M.; (3) [red label] Type Matsumura; (4) Ibukihirataunka [in Japanese].

*jozankeana* Matsumura, 1914b: 278 (*Rhotala*)

Lectotype ♂, by present designation – (1) Jozankei [in Chinese] 9/9.

Paralectotype 1 ♂, by present designation – (1) 9/V 1905 Moiwa.

Paralectotype 1 ♀, by present designation – (1) Moiwa [in Japanese] 6/1; (2) [Matsumura's handwriting] *Rhotala jozankeana* n. sp.; (3) [red label] Type Matsumura.

*lineola* Matsumura, 1914b: 274 (*Okatropis*)

Holotype ♂ [abdomen missing] – (1) [underside] Caucase [not “Caucasus” as in the original description] Aresch.; (2) [Matsumura's handwriting] *Okatropis lineola* M. det. Matsumura.

*maculatus* Matsumura, 1914b: 282, figs. 8a–d (*Plectoderoides*)

Holotype ♀ – (1) Formosa Matsumura [underside] 14/III 1909 Koannania [not “Kanshirei” as in the original description]; (2) [Matsumura's handwriting] *Plectoderoides maculatus* M.

*malayana* Matsumura, 1914b: 271 (*Akotropis*)

Lectotype ♂, by present designation – (1) Singapore [in Japanese] 10/15; (2) [Matsumura's handwriting] *Akotropis malayanus* n. sp. det. Matsumura.

Paralectotypes 3 ♂, 11 ♀, 1 ex. [abdomen missing], by present designation – same data as lectotype.

Paralectotypes 1 ♂, 1 ♀, 1 ex. [abdomen missing], by present designation – (1) Colombo [in Japanese] 10/9.

*nawae* Matsumura, 1914b: 279 (*Rhotala*)

Holotype ♀ – (1) 35, 4, 21; (2) Kamagatani [in Japanese]; (2) [Matsumura's handwriting] *Rhotala Nawayae* [sic] det. Dr. Matsumura.

*nitobei* Matsumura, 1914b: 272 (*Akotropis*) [*Semibetatropis*]

Holotype ♀ [not “♂” as in the original description] – (1) Baguras [in Japanese] 43.4.14 Nitobe [in Japanese]; (2) [Matsumura's handwriting] *Hemitropis nitobei* Mats.; (3) [red-ringed round label] Holotype.

*okunii* Matsumura, 1914b: 281 (*Helicoptera*) [*Epiptera*]

Holotype ♀ – (1) Sapporo T. Okuni [underside] Jozankei [in Chinese] 5/IX 1913; (2) [Matsumura's handwriting] *Helicoptera okunii* Mats.

*rubrostigma* Matsumura, 1914b: 273, figs. 5a–e (*Okatropis*) [*Deferunda*]

Lectotype ♀, designated by Chen et al. (1989: 59) – (1) H/3; (2) Japan Onuki [in Japanese] Matsumura; (3) [purple-ringed round label] LECTOTYPE; (4) [Matsumura's handwriting] *Akatropis rubrostigma* M. det. Matsumura; (5) [red label] Type Matsumura; (5) Lectotype: *Okatropis rubrostigma* Mats. det. M.R. Wilson, 1988.

Paralectotypes 2 ♂, 2 ♀, designated by Chen et al. (1989: 59) – (1) Gazamaru [in Japanese]; (2) Formosa Matsumura [underside] 11/VII 1906 Ako; (3) [blue-ringed round label] PARALECTOTYPES.

Paralectotype 1 ♂, by present recognition – (1) Japan Matsumura [underside] Beppu [in Chinese] 10.VII.1916.

Paralectotype 1 ♀, by present recognition – (1) Formosa Matsumura [underside] 7/VIII 1906 Hoppo.

*striatella* Matsumura, 1914b: 272 (*Akatropis*) [*Phenelia*]

Holotype ♂ – (1) Formosa Matsumura [underside] 5/VII 1906 Koshun; (2) [Matsumura's handwriting] *Hemitropis striatella* Mats. det. Matsumura; (3) [red-ringed round label] Holotype.

*vittata* Matsumura, 1914b: 280 (*Rhotala*)

Holotype ♀ – (1) Gifu [in Japanese] Iwanoda [in Chinese] Jan. Japan Dr. Matsumura; (2) 179/227; (3) [Matsumura's handwriting] *Rhotala vittata* M. det. Matsumura; (4) [red label] Type Matsumura; (5) Sujihirataunka [in Japanese].

*yanonis* Matsumura, 1914b: 276, figs. 7a–d (*Usana*)

Lectotype ♀, designated by Chen et al. (1989: 25) – (1) [purple-ringed round label] LECTOTYPE; (2) Formosa Matsumura [underside] Kanshirei 30/VII '07; (3) [Matsumura's handwriting] *Usana yanonis* M. det. Matsumura; (4) [red label] Type Matsumura; (5) Lectotype: *Usana yanonis* Mats. det. M.R. Wilson, 1988.

Paralectotype 1 ♀, designated by Chen et al. (1989: 25) – same data as lectotype.

Paralectotype 1 ♀, by present recognition – (1) Formosa Matsumura [underside] 7/VII 1906 Koshun.

Paralectotype 1 ♀, by present recognition – (1) Harima [in Japanese] Iguchi Sohei [in Chinese] 14 [underside] 14.

## Family Dictyopharidae

*formosicola* Matsumura, 1940a: 15 (*Dictyophora* [sic])

Holotype ♀ – (1) Formosa, Taikokan, 14 iv 1925, Matsumura.

*fuscovittata* Matsumura, 1910a: 110 (*Dictyophora* [sic])

Lectotype ♂, by present designation – (1) Formosa Matsumura [underside] 20/VII 1906 Dakusui [in Chinese].

Paralectotype 1 ♀, by present designation – (1) Formosa Matsumura [underside] 20/VII 1906 Dakusui [in Chinese]; (2) [Matsumura's handwriting] *D. vittata*.

Paralectotypes 3 ♀, by present designation – same data as lectotype.

*gibbosa* Matsumura, 1910a: 112 (*Saigona*)

Lectotype ♂, by present designation – (1) Formosa Matsumura [underside] Kuyaniya [in Japanese] 25/IV '07; (2) [Matsumura's handwriting] *Saigona gibbosa* n. sp.

Paralectotypes 3 ♂, 1 ♀, by present designation – (1) Formosa Matsumura [underside] Kuyaniya [in Japanese] 25/IV '07.

Paralectotype 1 ♀, by present designation – (1) Formosa Matsumura [underside] Tappan 24/IV

- '07; (2) [Matsumura's handwriting] *Saigona gibbosa* n. sp.  
 Paralectotypes 6♂, 1♀, by present designation – (1) Formosa Matsumura [underside] Tappan 24/IV '07.  
 Paralectotypes 1♂, 1♀, by present designation – (1) Formosa Matsumura [underside] Arisan [in Japanese] 21/IV '07.
- ishidae* Matsumura, 1905: 55, pl. 21, fig. 5 (*Dictyophora* [sic]) [*Saigona*]  
 Lectotype ♂, by present designation – (1) [underside] 4/7 [18]90 Jozankei [in Chinese]; (2) Sapporo DR. MATSUMURA; (3) [Matsumura's handwriting] *ishidae* n. sp. det. Dr. Matsumura.  
 Paralectotype 1♂, by present designation – (1) Jozankei [in Chinese] Ishida [in Chinese].  
 Paralectotype 1♀, by present designation – (1) Sapporo DR. MATSUMURA; (2) [underside] 4/7 [18]90 Jozankei [in Chinese].  
 Paralectotype 1♀, by present designation – (1) Urakawa.
- koreana* Matsumura, 1915: 176 (*Dictyophora* [sic])  
 Holotype ♀ – (1) Korea Seoul Ikuma [all in Chinese], [underside] 1914 (20); (2) [Matsumura's handwriting] *Dictyophora koreana* n. sp. det. Matsumura.
- maculata* Matsumura, 1910a: 108 (*Dictyophora* [sic])  
 Lectotype ♂, by present designation – (1) Nakano [in Japanese] 8/28.  
 Paralectotype 1♀, by present designation – same data as lectotype.  
 Paralectotypes 2♀, by present designation – (1) 21/X 1903 Maiko.  
 Paralectotype 1♀, by present designation – (1) Japan Matsumura [underside] Tokyo [in Chinese] VIII 1927.  
 Melichar (1912) synonymised this species with *Dictyophara cummingi* Distant.
- mitsuhashii* Matsumura, 1910a: 104 (*Tenguella*)  
 Lectotype ♂, by present designation – (1) Kumamoto H. Kawamura [underside] X.10 1907; (2) 200.  
 Paralectotype 1♂, by present designation – (1) 28/VIII 1904; (2) Kawasaki Mitsuhashi.  
 Paralectotypes 1♀, 1 ex. [abdomen missing], by present designation – (1) Kumamoto H. Kawam [underside] X.8 1907.  
 Paralectotype 1♀, by present designation – (1) Kumamoto H. Kawam [underside] X.8 1907; (2) [red label] Type Matsumura; (3) Mitsuhashitengusukeba [in Japanese].
- nakanonis* Matsumura, 1910a: 109 (*Dictyophora* [sic])  
 Lectotype ♂, by present designation – (1) Nakano [in Japanese] 8/28; (2) [Matsumura's handwriting] *D. nakanonis* n. sp. det. Matsumura.  
 Paralectotypes 5♂, 4♀, 1 ex. [abdomen missing], by present designation – (1) Nakano [in Japanese] 8/28.
- okinawensis* Matsumura, 1906: 31, pl. 1, fig. 7 (*Dictyophora* [sic])  
 Lectotype ♂, by present designation – (1) 556 Japan Yaeyama Matsumura.  
 Paralectotype 1♀, by present designation – (1) VIII 1905 Okinawa [underside] Kuroiwa [in Chinese]; (2) [Matsumura's handwriting] *Dictyophora okinawensis* n. sp.  
 Paralectotype 1♀, by present designation – (1) Japan Matsumura [underside] Yaeyama [in Chinese] 556 V/[illegible].  
 Paralectotype 1♀, by present designation – (1) Japan Matsumura 556 Yaeyama.
- tengi* Matsumura, 1905: 56, pl. 21, fig. 6 (*Dictyophora* [sic])  
 Lectotype ♀, by present designation – (1) Takasago [in Japanese] 11/6 Japan Matsumura; (2)

[Matsumura's handwriting] *D. iengi* n. sp. det. Matsumura; (3) Himetengusukeba [in Japanese] [Matsumura's handwriting] *Dictyophora patruelis* Stal.

Paralectotype 1 ♀, by present designation – (1) Sone [in Japanese] Harima.

This species was not included by Metcalf (1946) in his catalogue of world Dictyopharidae.

*watanabei* Matsumura, 1910a: 105 (*Tenguna*)

Lectotype ♀, by present designation – (1) 8/7 Hoppo; (2) [Matsumura's handwriting] *D. watanabei* n. sp.; (3) [red label] Type Matsumura.

Paralectotype 1 ♀, by present designation – (1) Formosa Matsumura [underside] 8/VIII 1906 Hoppo.

Paralectotype 1 ♀, by present designation – (1) Formosa Matsumura [underside] 23/VII 1906 Shinsha.

Paralectotype 1 ♀, by present designation – (1) Formosa Matsumura [underside] Koannai 29/VII '06.

### Family Fulgoridae

*watanabei* Matsumura, 1913: 54, pl. 8, fig. 1 (*Fulgora (Hotinus)*) [*Pyrops*]

Lectotype ♀, by present designation – (1) Formosa Matsumura [underside] Hoppo 1st VII '07; (2) [Matsumura's handwriting] *Hotinus watanabei* det. Matsumura; (3) [red label] Type Matsumura; (4) [Matsumura's handwriting] *Hotinus watanabei* Mats.

Paralectotype 1 ♀, by present designation – (1) Hoppo.

Paralectotype 1 ♀, by present designation – (1) Formosa Matsumura [underside] Hoppo 27/VII '07.

### Family Issidae

*bizonatus* Matsumura, 1916: 96 (*Hemisphaerius*) [*Gergithus*]

Lectotype ♂, by present designation – (1) Formosa Matsumura [underside] Horisha [in Japanese] 1/V '07; (2) Type Matsumura [underside, Matsumura's handwriting] *Hemisp. bizonatus* n.; (3) [red label] type *Hemisphaerius bizonatus* MATSUMURA.

Paralectotype 1 ♂, by present designation – (1) Formosa Matsumura [underside] Horisha [in Japanese] 30/4 '07.

Paralectotype 1 ♂, by present designation – (1) Formosa Matsumura [underside] 20/VII 1906 Shoka.

Paralectotypes 3 ♂, by present designation – (1) 23/VII 1906 Shinsha.

Paralectotype 1 ♂, by present designation – (1) Formosa Matsumura [underside] Kuyania [in Japanese] 25/IV '07.

Paralectotype 1 ♂, by present designation – (1) Formosa Matsumura [underside] Kanshirei [in Japanese] 10/V '08.

Paralectotype 1 ♀, by present designation – (1) 7/21 Shin [in Japanese, illegible] Formosa Matsumura.

Hori (1969: 57) synonymised this species with *Gergithus bistratus* (Schumacher).

*coccineus* Matsumura, 1916: 95 (*Hemisphaerius*)

Lectotype ♀, by present designation – (1) Formosa Matsumura [underside] 20/VII 1906 Shoka; (2) Type Matsumura [underside, Matsumura's handwriting] *Hemisphaerius coccineus* n.; (3) [red label] type *Hemisphaerius coccineus* MATSUMURA.

Paralectotype 1 ♀, by present designation – same data as lectotype.

Paralectotype 1 ♀, by present designation – (1) Formosa Matsumura [underside] 7/VII 1906 Koshun; (2) Type Matsumura [underside, Matsumura's handwriting] *Hemisp. coccineus*; (3) [red label] type *Hemisphaerius coccineus* MATSUMURA.

Paralectotype 1 ♀, by present designation – (1) Formosa Matsumura [underside] 9/VII 1906 Koshun; (2) Type Matsumura [underside, Matsumura's handwriting] *Hem. coccineus* Mats.; (3) [red label] type *Hemisphaerius coccineus* MATSUMURA.

Paralectotype 1 ♀, by present designation – (1) Formosa Matsumura [underside] Rinkiho [in Japanese] 28/IV '07; (2) Type Matsumura [underside, Matsumura's handwriting] *Hem. coccineus* n.; (3) [red label] type *Hemisphaerius coccineus* MATSUMURA.

Hori (1969: 61) synonymised this species with *Hemisphaerius formosus* Melichar.

*formosana* Matsumura, 1913: 56, pl. 8, fig. 4 (*Tonga*)

Lectotype ♂, by present designation – (1) Koshun, 7/3 1906.

Paralectotypes 2 ♂, 1 ♀, by present designation – same data as lectotype.

Paralectotype 1 ♀, by present designation – (1) Koshun 7/4 1906.

Paralectotype 1 ♀, by present designation – (1) Formosa Matsumura [underside] Horisha [in Japanese]; (2) [Matsumura's handwriting] *M*[illegible] *formosana* n. sp. det. Matsumura.

Paralectotype 1 ♀, by present designation – (1) 7/5 Koshun [in Chinese].

*formosanum* Matsumura, 1916: 112 (*Sarima*)

Lectotype ♂, by present designation – (1) Formosa Matsumura [underside] Heirinbi [in Chinese] 21/XI '06.

Paralectotype 1 ♀, by present designation – (1) Formosa Matsumura [underside] Rinkiho [in Japanese] 28/IV '07; (2) [Matsumura's handwriting] *H. formosanum* n. det. Matsumura.

Esaki (1931: 268) proposed the replacement name *Sarima matsumurai* for *Sarima formosanum* Matsumura 1916 (nec *Sarima formosana* Schumacher 1915). Chan & Yang (1994: 136) transferred *matsumurai* from *Sarima* to *Eusarima*.

*harimensis* Matsumura, 1913: 61, pl. 8, fig. 11 (*Issus*)

Lectotype ♀, by present designation – (1) Taisanji [in Chinese] 6/29; (2) Japan Taisanji [in Japanese] 6/29 DR. MATSUMURA; (3) [Matsumura's handwriting] *Issus harimensis* ♀ det. Matsumura; (4) [red label] Type Matsumura.

Paralectotype 1 ♀, by present designation – (1) 013.

*hokutonis* Matsumura, 1916: 90 (*Conocaliscelis*)

Lectotype ♂, by present designation – (1) Formosa Matsumura [underside] 31/VII 1906 Hokuto; (2) Type Matsumura [underside, Matsumura's handwriting] *Conocaliscelis hokutonis*; (3) [red label] type *Conocaliscelis hokutonis* MATSUMURA.

Paralectotype 1 ♀, by present designation – (1) 31/VII 1906 Hokuto; (2) Type Matsumura [underside, Matsumura's handwriting] *Conocaliscelis hokutonis* n.; (3) [red label] type *Conocaliscelis hokutonis* MATSUMURA.

*horishanus* Matsumura, 1916: 102 (*Gergithus*)

Lectotype ♂, by present designation – (1) Formosa Matsumura [underside] Horisha [in Japanese] 30/IV '07; (2) Type Matsumura [underside, Matsumura's handwriting] *Gergithus horishanus* M.; (3) [red label] Type Matsumura.

Paralectotypes 2 ♀, by present designation – (1) Formosa Matsumura [underside] Horisha [in Japanese] 30/4 '07.

Paralectotype 1 ♂, by present designation – (1) Formosa Matsumura [underside] Kuyaniya [in Japanese] 25/IV '07.

Paralectotype 1 ♂, by present designation – (1) Formosa Matsumura [underside] Horisha [in Japanese] 30/4 '07.

Paralectotype 1 ♀, by present designation – (1) Formosa Matsumura [underside] Kanishirei [in Japanese] 15/IV '07; (2) Horishamaruunka [in Japanese].

- igushii* [sic, lap. cal.] (= *iguchii*) Matsumura, 1916: 98 (*Gergithus*) [*Ishiharanus*]  
 Holotype ♀ – (1) Japan Matsumura [underside] Shuhei Iguchi [in Chinese] 4/8 30; (2) Type Matsumura [underside, Matsumura's handwriting, illegible]; (3) [Matsumura's handwriting] *H. iguchii* M.; (4) [red label] Type Matsumura; (5) Iguchimaruunka [in Japanese].
- karafutonis* Matsumura, 1911b: 31 (*Ommatidiotus*)  
 Lectotype ♀, by present designation – (1) Sakhalin [in Chinese], 30.IX.1905 [in Chinese], [underside] Yoichiro Ikuma [in Chinese]; (2) [Matsumura's handwriting] *Ommatidiotus karafutonis* n. sp.; (3) [red label] Type Matsumura.  
 Paralectotype 1 ♀, by present designation – same data as lectotype.
- koreanus* Matsumura, 1915: 176, pl. 1, fig. 2 [not “fig. 1” as in the original description] (*Ommatidiotus*)  
 Holotype ♂ – (1) Korea, Seoul, Ikuma [all in Chinese], [underside] late [in Chinese]/X 1914 37 Kongo [in Chinese]; (2) [Matsumura's handwriting] *Ommatidiotus koreanus* n.
- koshunensis* Matsumura, 1916: 91 (*Conocaliscelis*)  
 Lectotype ♀, by present designation – (1) Formosa Matsumura [underside] 7/VII 1906 Koshun; (2) Type Matsumura [underside, Matsumura's handwriting] *Conocaliscelis koshunensis*; (3) [red label] type *Conocaliscelis koshunensis* MATSUMURA.  
 Paralectotype 1 ♀, by present designation – (1) Formosa Matsumura [underside] 7/VII 1906 Koshun; (2) Type Matsumura; (3) [red label] type *Conocaliscelis koshunensis* MATSUMURA.  
 Paralectotype 1 ♀, by present designation – (1) 31/VII 1906 Shirin; (2) Type Matsumura; (3) [red label] type *Conocaliscelis koshunensis* MATSUMURA.
- koshunensis* Matsumura, 1916: 102 (*Gergithus*)  
 Lectotype ♂, by present designation – (1) 7/5 Koshun [in Chinese] Formosa Matsumura; (2) Type Matsumura; (3) [red label] Type Matsumura; [underside, illegible].  
 Paralectotype 1 ♂, by present designation – (1) Formosa Matsumura [underside] 2/VII 1906 Koshun.  
 Paralectotypes 1 ♂, 2 ♀, by present designation – (1) Formosa Matsumura [underside] 7/VII 1906 Koshun.  
 Paralectotypes 3 ♂, 4 ♀, by present designation – (1) Formosa Matsumura [underside] 9/VII 1906 Koshun.  
 Paralectotype 1 ♂, by present designation – (1) Formosa Matsumura [underside] 9/VII Kawakami [in Chinese] Koshun.  
 Paralectotypes 1 ♂, 5 ♀, by present designation – (1) Formosa Matsumura [underside] Koshun [in Chinese].  
 Hori (1969: 55) synonymised this species with *Gergithus affinis* Schumacher.
- koshunense* Matsumura, 1916: 113 (*Sarima*)  
 Lectotype ♂, by present designation – (1) Formosa Matsumura [underside] 6/VII 1906 Koshun.  
 Paralectotype 1 ♂, by present designation – same data as lectotype.  
 Paralectotype 1 ♀, by present designation – (1) Formosa Matsumura [underside] 6/VII 1906 Koshun; (2) Type Matsumura [underside, Matsumura's handwriting] *koshunensis*; (3) [red label] Type Matsumura.  
 Paralectotype 1 ♀, by present designation – (1) Formosa Matsumura.  
 Paralectotype 1 ♂, by present designation – (1) Formosa Matsumura [underside] 7/VII 1906 Koshun.  
 Paralectotype 1 ♂, by present designation – (1) Formosa Matsumura [underside] early [in Chinese]/VII 1906 Koshun.  
 Paralectotype 1 ♀, by present designation – (1) Formosa Matsumura [underside] 3/VII 1906

Koshun.

*kuroiwa* Matsumura, 1916: 106 (*Okissus*)

Lectotype ♀, by present designation – (1) Okinawa [in Chinese] Japan Matsumura 9/– 376 [underside] Kuroiwa [in Japanese]; (2) Type Matsumura [underside, Matsumura's handwriting] *Okissus kuroiwa*; (3) [red label] Type Matsumura.

Paralectotype 1 ♀, by present designation – (1) 376 Okinawa [in Chinese] 9/– [underside] Kuroiwa [in Japanese]; (2) Type Matsumura [underside, Matsumura's handwriting] *Okissus* [sic] *kuroiwa*; (3) [red label] Paratype *Okissus kuroiwa* MATSUMURA.

*kuyanianum* Matsumura, 1916: 112 (*Sarima*)

Lectotype ♂, by present designation – (1) Formosa Matsumura [underside] Kuyaniya [in Japanese] 25/4 '07; (2) Type Matsumura [underside, Matsumura's handwriting] *Sarima kuyaniana*; (3) [red label] type *Sarima kuyanianum* MATSUMURA.

Paralectotype 1 ♂, by present designation – (1) Taitung [in Chinese] 8 VI 1914 Col. I. Nitobe; (2) 6; (3) Type Matsumura [underside] [Matsumura's handwriting] *Sarima kuyaniana* n.; (4) [red label] type *Sarima kuyanianum* MATSUMURA.

*kuyanianus* Matsumura, 1916: 103 (*Gergithus*)

Lectotype ♂, by present designation – (1) Formosa Matsumura [underside] Toroen 19/4 '07.

Paralectotype 1 ♀, by present designation – (1) Formosa Matsumura [underside] Kuyania [in Japanese] 25/IV '07; (2) Type Matsumura [underside, Matsumura's handwriting] *Gergithus kuyanianus* n.; (3) [red label] Holotype *Gergithus kuyanianus* MATSUMURA.

Hori (1969: 56) synonymised this species with *Gergithus longulus* Schumacher.

*nigritus* Matsumura, 1911b: 32 (*Ommatidiotus*)

Lectotype ♀, by present designation – (1) Sakhalin, 30.IX.1905 Yoichiro Ikuma [all in Chinese]; (2) [Matsumura's handwriting] *Ommatidiotus nigritus* n. sp.

This species was described from four female specimens. We have found only one female syntype.

*nitobei* Matsumura, 1916: 104 (*Daruma*) [*Darumara*]

Lectotype ♂, by present designation – (1) Arisan 1912.10.20 Nitobe [underside] ♂; (2) Type Matsumura [underside, Matsumura's handwriting] *Daruma Nitobei*; (3) [red label] type *Daruma nitobei* MATSUMURA.

Paralectotype 1 ♀, by present designation – (1) Formosa Matsumura [underside] 23/VII 1906 Shinsha ♀; (2) Type Matsumura [underside, Matsumura's handwriting] *Issanop* [illegible] *Nitobei*; (3) [red label] type *Daruma nitobei* MATSUMURA.

Paralectotypes 2 ♀, by present designation – (1) Formosa Matsumura [underside] Horisha [in Japanese] 30/IV '07 ♀; (2) Type Matsumura [underside, Matsumura's handwriting] *Daruma Nitobei*; (3) [red label] type *Daruma nitobei* MATSUMURA.

*reticulatus* Matsumura, 1916: 101 (*Gergithus*)

Lectotype ♂, by present designation – (1) Formosa Matsumura [underside] 7/VII 1906 Koshun; (2) Type Matsumura [underside] *Gergithus reticulatus*; (3) [red label] Type Matsumura.

Paralectotype 1 ♀, by present designation – (1) Formosa Matsumura [underside] 9/VII Kawakami [in Chinese] Koshun.

Paralectotype 1 ♂, by present designation – (1) Formosa Matsumura [underside] 20/VII 1906 Shoka.

Paralectotypes 2 ♂, by present designation – (1) Formosa Matsumura [underside] Koshun 7/7–06.

Paralectotype 1 ♂, by present designation – (1) Formosa Matsumura.

*rinkihonis* Matsumura, 1916: 114 (*Sarima*)

Lectotype ♂, by present designation – (1) Formosa Matsumura [underside] Shinsha 29/4 '07; (2) Type Matsumura [underside, Matsumura's handwriting] *Sarima rinkihonis* n.; (3) [red label] type *Sarima rinkihonis* MATSUMURA.

Paralectotype 1 ♂, by present designation – (1) Formosa Matsumura [underside] Rinkiho [in Japanese] 26/IV '07; (2) Type Matsumura [underside, Matsumura's handwriting] *Sarima rinkihonis* n.; (3) [red label] type *Sarima rinkihonis* MATSUMURA.

*rubricans* Matsumura, 1916: 112 (*Sarima*) [*Eusarima*]

Holotype ♀ – (1) 7/4 Koshun [in Chinese] Formosa Matsumura; (2) Type Matsumura [underside, Matsumura's handwriting] *rubricans*; (3) [red label] Holotype *Sarima rubricans* MATSUMURA. Chan & Yang (1994: 146) transferred *rubricans* from *Sarima* to *Eusarima*.

*satsumana* Matsumura, 1916: 111 (*Sarima*)

Lectotype ♀ [abdomen missing], by present designation – (1) Kagoshima [in Japanese] 7/10; (2) Type Matsumura [underside, Matsumura's handwriting] *satsumae*; (3) [red label] Type Matsumura.

Paralectotypes 2 ♀, by present designation – (1) Japan Matsumura [underside] Kagoshima 7/10 1904.

*satsumensis* Matsumura, 1916: 101 (*Gergithus*)

Lectotype ♂, by present designation – (1) Kagoshima [in Japanese] 7/10; (2) Type Matsumura [underside, Matsumura's handwriting] *Gergithus satsumensis* n.; (3) [red label] type *Gergithus satsumensis* MATSUMURA.

Paralectotype 1 ♂, by present designation – (1) 10/VII 1903 Kagoshima.

Paralectotype 1 ♂, by present designation – (1) Okinawa Kuroiwa; (2) 224.

Paralectotype 1 ♀, by present designation – (1) Okinawa Kuroiwa; (2) 225; (3) Satumamaruunka [in Japanese].

*taimokko* Matsumura, 1916: 115 (*Sarimodes*)

Holotype ♀ – (1) Formosa Matsumura [underside] 4–9–07 Taimokko [in Chinese]; (2) Type Matsumura [underside, Matsumura's handwriting] *Sarimodes taimoko* [sic]; (3) [red label] Holotype *Sarimodes taimokko* MATSUMURA.

*tappanum* Matsumura, 1916: 114 (*Sarima*)

Holotype ♂ – (1) Formosa Matsumura [underside] Tappan 24/IV '07; (2) Type Matsumura [underside] *Sarima tappana* n.; (3) [red label] Holotype *Sarima tappana* MATSUMURA.

*tappanus* Matsumura, 1916: 96 (*Hemisphaerius*) [*Epyhemisphaerius*]

Lectotype ♀, by present designation – (1) Formosa Matsumura [underside] Tappan [in Japanese] 24/IV 1909; (2) Type Matsumura [underside, Matsumura's handwriting] *Hemisp. tappanus*; (3) [red label] type *Hemisphaerius tappanus* MATSUMURA.

Paralectotype 1 ♀, by present designation – (1) Formosa Matsumura [underside] Horisha [in Japanese] 21/V '07; (2) Type Matsumura [underside, Matsumura's handwriting] *Hemisp. tappanus* n.; (3) [red label] type *Hemisphaerius tappanus* MATSUMURA.

Chan & Yang (1994) transferred *tappanus* from *Hemisphaerius* to *Epyhemisphaerius*.

*terauchii* Matsumura, 1915: 176, pl. 1, fig. 3 [not fig. 2 as in the original description] (*Caloscelis*)

Holotype ♀ – (1) Korea, Seoul, Kongo Ikuma [all in Chinese], [underside] late [in Chinese]/X 20 1914; (2) Type Matsumura; (3) [Matsumura's handwriting] *Caloscelis terauchii* n.; (4) [red label] Type Matsumura.

*tessellatus* Matsumura, 1916: 100 (*Gergithus*)

Lectotype ♂, by present designation – (1) Formosa Matsumura [underside] 7/VII 1906 Koshun.  
Paralectotypes 3 ♀, by present designation – same data as lectotype.  
Paralectotypes 2 ♂, 1 ♀, by present designation – same data as lectotype except 8/VII 1906.  
Paralectotype 1 ♀, by present designation – (1) Formosa Matsumura [underside] 7/VII 1906 Koshun; (2) Type Matsumura [underside, Matsumura's handwriting] *Gergithus tessellatus*; (3) [red label] Type Matsumura.

*yayeyamana* Matsumura, 1916: 108 (*Tonga*)

Lectotype ♀, by present designation – (1) Japan Matsum 5 5 7 [underside] Yayeyama [in Chinese] V/ '09; (2) Type Matsumura [underside, Matsumura's handwriting] *Tonga yayeyamana*; (3) [red label] Type Matsumura.  
Paralectotype 1 ♀, by present designation – (1) Japan Matsum 5 5 7 [underside] Yayeyama [in Chinese] V/ '09; (2) Yaeyamaeboshihagoromo [in Japanese]

*yohenai* Matsumura, 1936: 82 (*Sarima*)

Holotype ♂ [in very poor condition, only wings and a fragment of thrax remain] – (1) SHURI Okinawa Ken 1935,3,17 Chiro, Yohena; (2) [Matsumura's handwriting] *Sarima yohenai* n.; (3) [pink label] [no data].  
Hori (1970: 81) synonymised this species with *S. satsumana* Matsumura.

#### Family Nogodinidae

*subfasciata* var. *kotoshonis* Matsumura, 1938: 150 (*Mindura*)

Lectotype ♂, by present designation – (1) 30.VI; (2) Formosa Matsumura [underside] Kotosho [in Japanese]; (3) [Matsumura's handwriting] *subfasciata* ♀ *kotoshonis* n.; (4) [pink label] [no data].  
Paralectotypes 2 ♂, by present designation – (1) Formosa Matsumura Kano [in Japanese] [underside] Kotosho [in Japanese].  
Paralectotype 1 ♀, by present designation – (1) 22.VI; (2) Formosa Kano [in Japanese] Matsumura [underside] Kotosho [in Japanese]; (3) [Matsumura's handwriting] *Mindura subfasciata* Stal; (4) *Mindura subfasciata* STAL.

*kotoshonis* Matsumura, 1938: 150 (*Nagodina* [sic])

Holotype ♀ – (1) 26; (2) Formosa Matsumura Kano [in Japanese] Kotosho [in Japanese]; (3) [Matsumura's handwriting] *Nagodina kotoshonis* M.; (4) [red label] [no data].

#### Family Flatidae

*kotoshonis* Matsumura, 1940b: 48 (*Atracis*)

Holotype ♂ – (1) Formosa Matsumura Kano [in Japanese] [underside] Kotosho [in Japanese]; (2) [Matsumura's handwriting] *Atracis kotoshonis* n. det. Matsumura; (3) [pink label] [no data].

*maritima* Matsumura, 1900: 212 (*Mimophantia*)

Lectotype ♂, by present designation – (1) Akashi [in Japanese] 11/7.  
Paralectotypes 2 ♂, 4 ♀, by present designation – same data as lectotype.  
Paralectotypes 1 ♂, 3 ♀, by present designation – (1) Akashi [in Chinese] 11/7.  
Paralectotypes 2 ♀, by present designation – (1) [underside] 7/19; (2) Japan DR. MATSUMURA; (3) *Mimophantia*.  
Paralectotype 1 ♂, by present designation – (1) Japan DR. MATSUMURA; (2)

*maritima*.

Family Tropiduchidae

*bizonata* Matsumura, 1914b: 265 (*Tambinia*)

Lectotype ♂, by present designation – (1) Kotoshio [illegible Japanese characters] 30 T. Shiraki; (2) No. 1031; (3) [Matsumura's handwriting] *Tambinia bizonata* M.; (4) [red label] Type Matsumura.

*boninensis* Matsumura, 1914b: 263 (*Mesepora*) [*Paricana*]

Lectotype ♂, by present designation – (1) 10 VIII 1905 Ogasawara Matsumura; (2) [Matsumura's handwriting] *Betaepora boninensis* det. Matsumura; (3) [red label] Type Matsumura.

Paralectotype 1 ♀, by present designation – same data as lectotype.

Paralectotypes 2 ♂, by present designation – (1) 20 VIII 1905 Ogasawara Matsumura.

Paralectotypes 2 ♀, by present designation – (1) Japan Matsumura [underside] Ogasawara [in Chinese].

*boninensis* Matsumura, 1914b: 264 (*Tambinia*) [*Kallitaxila*]

Lectotype ♂, by present designation – (1) 10 VIII 1905 Ogasawara Matsumura; (2) [Matsumura's handwriting] *Tambinia boninensis*.

Paralectotypes 3 ♀, by present designation – same data as lectotype.

Paralectotypes 32 ♂, 41 ♀, by present designation – (1) 20 VIII 1905 Ogasawara Matsumura.

Paralectotypes 4 ♀, by present designation – (1) Hahajima 9. 7 Tamana no Unka (Midori) [in Japanese]; (2) 20 VIII 1905 Ogasawara Matsumura [underside] Kanai [in Chinese].

Paralectotypes 2 ♂, 2 ♀, by present designation – (1) 10 VIII 1905 Ogasawara Matsumura.

Paralectotypes 3 ♂, 3 ♀, by present designation – (1) middle [in Chinese] VIII 1905 Ogasawara.

*crini* Matsumura, 1914b: 264 (*Tambinia*) [*Kallitaxila*]

Lectotype ♂, by present designation – (1) 10 VIII 1905 Ogasawara Matsumura [underside] Kanai Hahajima [in Chinese].

Paralectotypes 2 ♀, by present designation – (1) 20 VIII 1905 Ogasawara Matsumura; (2) [Matsumura's handwriting] *Tambinia crinuni* [sic] Mats.; (3) [red label] Type Matsumura.

Paralectotype 1 ♀, by present designation – (1) Japan Matsumura [underside] Ogasawara [in Chinese] 1912.

*hopponis* Matsumura, 1914b: 268, figs. 3a–e (*Sogana*)

Lectotype ♂, by present designation – (1) Formosa Matsumura [underside] Shoka 7/20–06.

Paralectotype 1 ♀, by present designation – (1) 8/VIII Hoppo; (2) [Matsumura's handwriting] *Sogana hopponis* n. sp.; (3) [red label] Type Matsumura.

Paralectotypes 2 ♀, by present designation – (1) Formosa Matsumura [underside] 20/VII 1906 Shoka.

*issiformis* Matsumura, 1914b: 263 (*Mesepora*) [*Eodryas*]

Lectotype ♂, by present designation – (1) 20 VIII 1905 Ogasawara Matsumura; (2) [Matsumura's handwriting] *Mesoepora* [sic] *issiformis* n. sp.

Paralectotype 1 ♀, by present designation – same data as lectotype.

Paralectotypes 4 ♂, 8 ♀, by present designation – (1) 20 VIII 1905 Ogasawara Matsumura.

*ogasawarana* Matsumura, 1914b: 263 (*Mesepora*) [*Eodryas*]

Lectotype ♂, paralectotype 1 ♀, by present designation – (1) 20 VIII 1905 Ogasawara

Matsumura; (2) [Matsumura's handwriting] *Mesoepora* [sic] *ogasawarana* n. sp.  
Paralectotypes 5 ♂, 6 ♀, 1 ex. [abdomen missing], by present designation – (1) 20VIII1905  
Ogasawara Matsumura.

*onukii* Matsumura, 1914b: 262, fig. 1 (*Mesoepora*)

Lectotype ♂, by present designation – (1) Japan Onuki [in Japanese] DR. MATSUMURA; (2)  
[Matsumura's handwriting] *Mesoepora* [sic] *onukii* det. Matsumura.

Paralectotype 1 ♂, by present designation – same data as lectotype.

Paralectotype 1 ♂, by present designation – (1) Formosa Matsumura [underside] 10/VII 1906  
Koshun.

Paralectotype 1 ♀, by present designation – (1) Formosa Matsumura [underside] 6/VII 1906  
Koshun.

Paralectotype 1 ♀, by present designation – (1) Formosa Matsumura [underside] Koshun 7/7–  
06.

Paralectotype 1 ♀, by present designation – (1) Formosa Matsumura [underside] 6/VII 1906  
Koshun [in Chinese].

Paralectotypes 1 ♂, 1 ♀, by present designation – (1) Formosa Matsumura [underside] Koshun  
7–7–06.

Paralectotypes 2 ♀, by present designation – (1) Koshun 7/3 1906.

*quadrivittata* Matsumura, 1913: 59, pl. 8, fig. 8 (*Platyepora*)

Lectotype ♀, by present designation – (1) Formosa Matsumura [underside] Heirin [in Chinese]  
2/XI '06; (2) [Matsumura's handwriting] *Platyepora 4-vittata* n.

Paralectotypes 1 ♂, 1 ♀, by present designation – (1) Formosa Matsumura [underside] 30/VII  
1906 Hokuto.

Paralectotype 1 ♀, by present designation – (1) Kotosho 16/V'07; (2) Formosa Matsumura.

Paralectotype 1 ♀, by present designation – (1) Kumamoto H. Kawamura [underside] IX.23  
1907.

Paralectotypes 1 ♂, 1 ♀, by present designation – (1) 20/IX 1906 Moji.

Paralectotype 1 ♀, by present designation – (1) Kumamoto H. Kawamura [underside] IX.2  
1907.

Paralectotype 1 ♀, by present designation – (1) Japan Matsumura [underside] Sukumo [in  
Chinese] 28/VII 1916.

Paralectotype 1 ♀, by present designation – (1) Japan Matsumura [underside] Tokyo [in Chinese]  
Hirayama Shujiro [in Chinese]; (2) 1265.

Paralectotype 1 ♀, by present designation – (1) Japan Minato [in Japanese] Ikeda [in Chinese]  
DR. MATSUMURA.

Matsumura (1914b: 264) synonymised this species with *Ossoides lineatus* Bierman.

*suturalis* Matsumura, 1914b: 265 (*Taxila*) [*Kallitaxila*]

Lectotype ♂, by present designation – (1) 10 VIII 1905 Ogasawara Matsumura; (2)  
[Matsumura's handwriting] *Tambinia suturalis* n. sp.; (3) [red label] Type Matsumura.

Paralectotypes 2 ♂, by present designation – same data as lectotype.

Paralectotypes 1 ♂, 1 ♀, by present designation – (1) 10 VIII 1905 Ogasawara Matsumura.

*vittata* Matsumura, 1914b: 266, figs. 2a–d (*Catullia*)

Lectotype ♀, by present designation – (1) Kumamoto H. Kawamura [underside] IX.23 1907;  
(2) 2; (3) [Matsumura's handwriting] *Chodon vittata* n.; (4) [red label] Type Matsumura.

Paralectotype 1 ♀, by present designation – (1) Gifu [in Japanese] 10.28 Japan Nawa [in  
Chinese] Matsumura.

Paralectotype 1 ♀, by present designation – (1) Nawa Japan Gifu [in Japanese] Matsumura.

#### ACKNOWLEDGEMENTS

Dr. Liang's travel to the Hokkaido University was funded by the International Exchange Fund, the National Natural Science Foundation of China grant No. 19710141076. Dr. Suwa and his family kindly provided the living expenses for Liang in Sapporo. We thank the colleagues at the Laboratory of the Systematic Entomology, Faculty of Agriculture, Hokkaido University, for access to the Matsumura collection, generous support, answers to numerous questions, and bibliographical help. This work was partially supported by the National Natural Science Foundation of China grant No. 39470111 awarded to the senior author.

#### REFERENCES

- Anufriev, G.A. 1987. Review of the cixiid genus *Kuvera* Distant (Homoptera, Auchenorrhyncha, Cixiidae). pp. 4–21, 129. In: Kapustina, O.G. Taksonomiia nasekomykh Sibiri i Dal'nego Vostoka SSR. Taxonomy of the insects of Siberia and Soviet Far East. 'AN SSSR', Vladivostok. 1987: 1–132. [in Russian] [Summary separately paginated p. 129.]
- Chan, M.-L. & Yang, C.-T. 1994. Issidae of Taiwan (Homoptera: Fulgoroidea). National Chung Hsing University, Department of Entomology, Taichung, Taiwan. v + 168 pp.
- Chen, C.-L., Yang, C.-T. & Wilson, M.R. 1989. Achilidae of Taiwan (Homoptera: Fulgoroidea). Taiwan Mus. Spec. Publ. Ser. No. 8: 1–64. [in English, Chinese abstract p. 3.]
- Chou, I., Lu, J.S., Huang, J. & Wang, S.Z. 1985. Economic insects fauna of China. Fasc. 36. Homoptera Fulgoroidea. Science Press, Beijing. viii + 152 pp., pls. 1–2. [in Chinese, English summary p. 137.]
- Esaki, T. 1931. Undescribed Hemiptera from Japan and Formosa. Annot. zool. japon. 13: 259–269.
- Hori, Y. 1969. Hemisphaeriinae of the Japan archipelago (Hemiptera: Issidae). Trans. Shikoku ent. Soc. 10: 49–64.
- Hori, Y. 1970. Genus *Sarima* Melichar of Japan, with the description of a new Ryukyu species (Hemiptera: Issidae). Trans. Shikoku ent. Soc. 10: 79–83.
- Matsumura, S. 1900. Uebersicht der Fulgoriden Japans. Ent. Nachr. 26: 205–213.
- Matsumura, S. 1905. Thousand Insects of Japan, vol. 2. 1 + 163 + 8 pp., pls. 18–35, Keiseisha, Tokyo. [in Japanese.]
- Matsumura, S. 1906. Die Hemipteren Fauna von Riukiu (Okinawa). Trans. Sapporo Nat. Hist. Soc. 1: 15–38, pl. 1.
- Matsumura, S. 1910a. Monographie der Dictyophorinen Japans. Trans. Sapporo Nat. Hist. Soc. 3: 99–113.
- Matsumura, S. 1910b. Die Schädlichen und nützlichen Insekten vom Zuckerrohr Formosas 1910: 1–22, pls. 5–16.
- Matsumura, S. 1911a. Beschreibungen von am Zuckerrohr Formosas schädlichen oder nützlichen Insekten. Mem. Soc. Ent. Belg. 18: 129–150.
- Matsumura, S. 1911b. Erster Beitrag zur Insekten-Fauna von Sachalin. J. Sapporo agric. Coll. 4: 1–145, pls. 1–2.
- Matsumura, S. 1913. Thousand Insects of Japan, Additamenta, vol. 1. 1 + 184 + 4 pp., 15 pls., Keiseisha, Tokyo. [in Japanese with English description for new taxa.]
- Matsumura, S. 1914a. Die Cixiinen Japans. Annot. zool. japon. 8: 393–434.
- Matsumura, S. 1914b. Beitrag zur Kenntnis der Fulgoriden Japans. Ann. Mus. Nat. Hungarici 12: 261–305.
- Matsumura, S. 1915. Neue Cicadinen Koreas. Trans. Sapporo Nat. Hist. Soc. 5: 154–184,

pl. 1.

- Matsumura, S. 1916. Synopsis der Issiden (Fulgoriden) Japans. Trans. Sapporo Nat. Hist. Soc. 6: 85–118.
- Matsumura, S. 1935. A new genus and a new species of Derbidae from Fukushima. *Ins. matsum.* 10: 79–80.
- Matsumura, S. 1936. Six new species of Homoptera collected at Okinawa by Mr. Chiro Yohena. *Ins. matsum.* 10: 81–84.
- Matsumura, S. 1938. Homopterous insects collected by Mr. Tadao Kano at Kotosho, Formosa. *Ins. matsum.* 12: 147–153.
- Matsumura, S. 1940a. New species of Dictyophoridae [sic] (Homoptera) from Manchoukuo and the neighbouring countries. *Ins. matsum.* 15: 14–20.
- Matsumura, S. 1940b. Homopterous insects collected at Kotosho (Botel Tabago), Formosa, by Mr. Tadao Kano. *Ins. matsum.* 15: 34–51.
- Matsumura, S. 1941. New species of Dictyophoridae [sic] (Hom.) from Formosa. *Ins. matsum.* 15: 162–163.
- Melichar, L. 1912. Monographie der Dictyophorinen (Homoptera). *Abh. Zool. Bot. Ges. Wien.* 7(1): 1–221, pls. 1–5.
- Metcalf, Z.P. 1946. Fulgoroidea, Dictyopharidae. General catalogue of the Hemiptera. Fasc. 4, Part 8. Smith College, Northampton, Massachusetts.
- Tomokuni, M. 1994. Type materials of several Japanese and Korean Tingidae (Heteroptera), with designation of lectotypes and notes on Matsumura's collection. *Jpn. J. Ent.* 62: 839–844.
- Tsaur, S.-C., Hsu, T.-C. & Van Stalle, J. 1988. Cixiidae of Taiwan, Part (I). Pentastirini. *J. Taiwan Mus.* 41: 35–74. [in English, Chinese abstract p. 35.]
- Tsaur, S.-C., Hsu, T.-C. & Van Stalle, J. 1991a. Cixiidae of Taiwan, Part V. Cixiini except Cixius. *J. Taiwan Mus.* 44: 1–78. [in English, Chinese abstract p. 1.]
- Tsaur, S.-C., Hsu, T.-C. & Van Stalle, J. 1991b. Cixiidae of Taiwan, Part VI. Cixius. *J. Taiwan Mus.* 44: 169–306. [in English, Chinese abstract p. 169.]
- Tsaur, S.-C., Yang, C.-T. & Wilson, M.R. 1986. Meenoplidae of Taiwan (Homoptera: Fulgoroidea). In: *Collected Papers on Homoptera of Taiwan, Taiwan Mus. Spec. Publ., Ser. 6: 81–117* [in English, Chinese abstract p. 82.]
- Uchida, T. & Watanabe, C. 1961. Obituary Shonen Matsumura 1872–1960. *Ins. matsum.* 24(1): 1–3.
- Van Stalle, J. 1991. Taxonomy of Indo-Malayan Pentastirini (Homoptera, Cixiidae). *Bull. Inst. R. Sci. Nat. Belg. Entomol.* 61: 5–101.
- Watanabe, C. & Fukushima, S. 1949. List of publications of Dr. S. Matsumura in Entomology. *Matsumushi* 3(3): 94–96; 3(4): 125–128.
- Yang, C.T. & Wu, R.H. 1994. Derbidae of Taiwan (Homoptera: Fulgoroidea). National Chung Hsing University, Department of Entomology, Taichung, Taiwan. vi + 230 pp. [in English, Chinese abstract p. 224.]
- Zelazny, B. 1981. The Philippine species of Rhotanini (Homoptera: Derbidae) and their distribution outside the Philippines. *Pacific Ins.* 23: 213–285.