

# Checklist of Ledridae (Homoptera: Cicadelloidea) from Taiwan<sup>1</sup>

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**ABSTRACT:** The family Ledridae consists of over 375 species in the world. Twenty-four species have been recorded from Taiwan, with 19 species (79.2%) be endemic. The checklist revises the distributional data, and provides information on type deposition, type locality and host plant.

**Keywords:** Taiwan, Ledridae, Checklist.

## INTRODUCTION

Before 1940, Shonen Matsumura<sup>(23, 24, 25, 26, 27)</sup> did most of the taxonomic studies on the Taiwanese leafhoppers. The rest works were mainly done by Masayo Kato<sup>(20, 21, 22)</sup> and F. Schumacher (32, 33). After 1941, the taxonomy of Cicadelloidea of Taiwan had not been studied for 30 years. Then, beginning from 1970, taxonomy of Cicadelloidea is studied again by Chiang<sup>(4, 5)</sup>, Chiang and Knight<sup>(6, 7)</sup>, Chiang *et al.*<sup>(8, 9)</sup>, Dworakowska<sup>(31)</sup>, Huang<sup>(14, 15, 16, 17)</sup>, Huang and Maldonado<sup>(18)</sup>, and Huang and Viraktamath<sup>(19)</sup>.

The above situation prompted the authors to glean the new information and made this annotated checklist. All literatures available to the authors before the end of 2000 have been included in this checklist. The authors hope to offer a useful data for the studies of biogeography and biodiversity of Ledridae. This work is the first one of serial researches on checklists of Taiwanese leafhoppers.

The family Ledridae was erected by Fairmaire in 1855 based on the type genus *Ledra* Fabricius 1803<sup>(29, 31)</sup>, and consists of over 375 species in the world. There are 3 subfamilies, 5 tribes and 60 genera in Ledridae according to the taxonomic system of Metcalf<sup>(29)</sup>. Ledridae of Taiwan consists of 1 subfamily, 2 tribes, 9 genera, and 24 species. The species *Ledra auditura* Walker, *Tituria angulata* (Matsumura) and *Funkikonina tuberculata* (Kato) are recorded in Oriental and Palearctic Regions. *Epiclinata planata* (Fabricius) and *Petaloccephala cultellifera* (Walker) have been reported from Taiwan and most countries of Oriental Region. The other 19 species, about 79.2 percent, are endemic to Taiwan.

The taxonomic system of this study bases mainly on the system of Metcalf<sup>(29)</sup>. New information about type deposition, distributional data, and host plant were provided. Three species of Ledridae with their host plant

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were recorded as new by the collecting experience of the first author.

Information on type depositions is abbreviated as below.

BMNH — British Museum (Natural History), London, UK.

DEIE — Deutschen Entomologischen Institutes, Eberswalde, Germany.

IZCAS — Institute of Zoology, Chinese Academy of Science, Beijing, China.

LSEHU — Laboratory of Systematic Entomology, Faculty of Agriculture, Hokkaido University, Sapporo, Japan.

NMNS — National Museum of Natural Science, Taichung, Taiwan, R.O.C.

The distributional records are extracted mainly from the original publications of Cai and He<sup>(2)</sup>, Cai and Huang<sup>(3)</sup>, Kato<sup>(20, 21, 22)</sup>, Matsumura<sup>(23)</sup>, Nast<sup>(30)</sup>, and Schumacher<sup>(32, 33)</sup>, and the revision of Metcalf<sup>(29)</sup>. Metcalf<sup>(29)</sup>, probably based on the articles of Kato<sup>(22)</sup> and Matsumura<sup>(26)</sup>, listed Japan and Taiwan as the distributional area of *Ledra bilobata* Schumacher, *Ledra kosempoensis* Schumacher, *Epiclinata planata* (Fabricius), *Ledropsis takasagona* Kato, *Midoria capitata* Kato, *Parapetalocephala montana* Kato, *Petalocephala castanea* Kato, *Petalocephala formosana* (Matsumura), *Petalocephala horishana* (Matsumura), *Petalocephala quadrimaculata* (Matsumura), *Petalocephala rubromarginata* Kato, *Petalocephala taihorensis* Schumacher, *Petalocephala taikosana* Kato, *Petalocephala vittata* Matsumura, *Petalocephaloides laticapitata* Kato, *Tituria fuscipennis* Kato and *Tituria obtusa* Kato. However, Kato<sup>(22)</sup> only listed Taiwan as the distributional area of Taiwanese Ledridae, and Matsumura<sup>(26)</sup> did not give distributional data at all. We, therefore, emended these 17 species as endemic to Taiwan in this checklist, and mark each species name with a symbol of “\*” in the text.

## Family Ledridae Fairmaire, 1855

### Subfamily Ledrinae Distant, 1907

*Ledrinaria* Distant, 1907. Soc. Ent. de Belg. Ann. 51: 185.

Ledrinae Evans, 1936. Roy. Soc. Tasmania Papers and Proc. 1936: 37- 38<sup>(29)</sup>.

### Tribe Ledrini Evans, 1947

Ledrini Evans, 1947. Ent. Soc. London Trans. 98: 106.

### Genus *Ledra* Fabricius, 1803

*Ledra* Fabricius, 1803, Rhynchota. Systema Rhyngotorum: 24<sup>(29, 31)</sup>.

*Ledraria* Rafinesque, 1815: 121<sup>(29, 30, 31)</sup>. (Type species: *Cicada aurita* Linné, 1758<sup>(30)</sup>).

Type species: *Cicada aurita* Linné, 1758. II. Hemiptera. Systema Naturae: 435<sup>(30)</sup>.

#### 1. *Ledra auditura* Walker, 1858

*Ledra auditura* Walker, 1858. Suppl. List Homopterous insects in BMNH: 249.

Type deposition: BMNH<sup>(35)</sup>.

Type locality: Hong Kong Island<sup>(35)</sup>.

Distribution: Russia, China, Korean Peninsula<sup>(30)</sup>, Japan (Honshu, Kyushu, Shikoku), Taiwan<sup>(22)</sup>, Java.

Host plants: *Pyrus* sp. (Rosaceae), *Mangifera indica* L. (Anacardiaceae), Fagaceae<sup>(22)</sup>.

**2. *Ledra bilobata* Schumacher, 1915b \***

*Ledra bilobata* Schumacher, 1915b. Suppl. Ent. 4: 119.

Type deposition: DEIE<sup>(13)</sup>.

Type locality: Kosempo [Chiasien], Kaoshoen County, Taiwan<sup>(33)</sup>.

Distribution: Taiwan<sup>(22, 33)</sup>.

Host plant: Unknown.

**3. *Ledra kosempoensis* Schumacher, 1915b \***

*Ledra kosempoensis* Schumacher, 1915b. Suppl. Ent. 4: 118.

Type deposition: DEIE<sup>(13)</sup>.

Type locality: Kosempo [Chiasien], Kaoshoen County, Taiwan<sup>(33)</sup>.

Distribution: Taiwan<sup>(22, 33)</sup>.

Host plant: Unknown.

**Tribe Petalocephalini Metcalf, 1962**

Petalocephalini Metcalf, 1962. General Catalogue of the Homoptera. Fascicle VI. Cicadelloidea. Part 4.

Ledridae: 58.

**Genus *Epiclinata* Metcalf, 1952**

*Epiclines* Amyot and Serville, 1843. Hemipteres 1843: 577. (Type species: *Epiclines planata* (Fabricius, 1794)<sup>(29)</sup>).

*Epiclinata* Metcalf, 1952. Wash. Acad. Sci. Jour. 42: 228.

Type species: *Membracis planata* Fabricius, 1794. Rhyngota. Entomolgia Systematica Emendata et Aucta 4: 11<sup>(29)</sup>.

**4. *Epiclinata planata* (Fabricius, 1794) \***

*Membracis planata* Fabricius, 1794. Rhyngota. Entomolgia Systematica Emendata et Aucta 4: 11 (29).

*Ledra planata* Fabricius, 1803. Rhyngota. Systema Rhyngotorum: 25<sup>(29)</sup>.

*Epiclines planata* Amyot and Serville, 1843. Hemipteres. 1843: 578.

*Tituria planata* Stål, 1869. Svenska Vetensk. Akad. Handl. 8(1): 59<sup>(29)</sup>.

Type deposition: Unknown.

Type locality: India<sup>(29)</sup>.

Distribution: India (Assam, Calcutta<sup>(21)</sup>, Darjiling<sup>(21)</sup>, East Indies, Madras), Nepal, Pakistan, Bengal, Indochina, Burma [Tenasserim], Cambodia, Siam [Thailand], Malaysia (Malacca), Taiwan<sup>(22)</sup>.

Host plant: Unknown.

**Genus *Funkikonia* Kato, 1931**

*Funkikonia* Kato, 1931. Zool. Soc. Japan, Tokyo, Dobustsugaku Zasshi 43: 438.

Type species: *Ledra tuberculata* Kato, 1929. Formosa Nat. Hist. Soc. Trans. 19: 545.

**5. *Funkikonia taiwana* Cai and Huang, 1998**

*Funkikonia taiwana* Cai and Huang, 1998. Jour. Anhui Agric. Univ. 25(3): 211, 215.

Type deposition: IZCAS and NMNS<sup>(3)</sup>.

Type locality: Tsuifeng, Nantou County, Taiwan<sup>(3)</sup>.

Distribution: Taiwan<sup>(3)</sup>.

Host plant: *Cyclobalanopsis glauca* (Thunb.) Oerst. (Fagaceae) (Collected from Nantou, Taiwan by the writers). (**New Record**).

Remark: Specimens in TARI were collected by the first author, who is also one of the collectors of all type specimens, from Tsuifeng, Nantou County in Oct. 20, 2000.

### 6. *Funkikonia tuberculata* (Kato, 1929)

*Ledra tuberculata* Kato, 1929. Formosa Nat. Hist. Soc. Trans. 19: 545.

*Funkikonia tuberculata* Kato, 1931. Zool. Soc. Japan, Tokyo, Dobustsugaku Zasshi 43: 438.

Type deposition: Unknown.

Type locality: Fenchifu, Chiaí County, Taiwan<sup>(20)</sup>.

Distribution: Taiwan<sup>(20, 22)</sup>, Japan (Ryukyu Is.)<sup>(20)</sup>.

Host plant: Unknown.

### Genus *Kuohledra* Cai and He, 1997

*Kuohledra* Cai and He, 1997. Wuyi Sci. Jour. 13: 8, 14.

Type species: *Kuohledra kuohi* Cai and He, 1997: 8, 15.

### 7. *Kuohledra zhaoi* Cai and He, 1997

*Kuohledra zhaoi* Cai and He, 1997. Wuyi Sci. Jour. 13: 10, 15.

Type deposition: IZCAS and NMNS<sup>(2)</sup>.

Type locality: Tsuifeng, Nantou County, Taiwan<sup>(2)</sup>.

Distribution: Taiwan<sup>(2)</sup>.

Host plant: *Cyclobalanopsis glauca* (Thunb.) Oerst. (Fagaceae). (**New Record**).

Remark: Specimens in TARI were collected by the first author, who is also one of the collectors of all type specimens, from Tsuifeng, Nantou County in Oct. 20, 2000.

### Genus *Ledropsis* White, 1844

*Ledropsis* White, 1844. Ann. Mag. Nat. Hist. 14: 425.

*Scaphocephalus* Matsumura, 1905. 1000 Insects of Japan 2: 52<sup>(29, 31)</sup>. (Type species: *Scaphocephalus discolor* (Uhler, 1896)<sup>(29)</sup>)

Type species: *Ledropsis cancruma* White, 1844a. Ann. Mag. Nat. Hist. 14: 426.

### 8. *Ledropsis takasagona* Kato, 1931 \*

*Ledropsis takasagona* Kato, 1931. Zool. Soc. Japan, Tokyo, Dobustsugaku Zasshi 43: 437.

Type deposition: Unknown.

Type locality: Horisha [Puli], Nantou County, Taiwan<sup>(21)</sup>.

Distribution: Taiwan<sup>(21, 22)</sup>.

Host plant: Unknown.

### Genus *Midoria* Kato, 1931

*Midoria* Kato, 1931. Zool. Soc. Japan, Tokyo, Dobustsugaku Zasshi 43: 439.

Type species: *Midoria capitata* Kato, 1931. Zool. Soc. Japan, Tokyo, Dobustsugaku Zasshi 43: 439.

#### 9. *Midoria capitata* Kato, 1931 \*

*Midoria capitata* Kato, 1931. Zool. Soc. Japan, Tokyo, Dobustsugaku Zasshi 43: 439.

Type deposition: Unknown.

Type locality: Koshun [Henchun], Pingtung County, Taiwan<sup>(21)</sup>.

Distribution: Taiwan<sup>(21, 22)</sup>.

Host plant: Unknown.

### Genus *Parapetalocephala* Kato, 1931

*Parapetalocephala* Kato, 1931. Zool. Soc. Japan, Tokyo, Dobustsugaku Zasshi 43: 435.

Type species: *Parapetalocephala montana* Kato, 1931. Zool. Soc. Japan, Tokyo, Dobustsugaku Zasshi 43: 435.

#### 10. *Parapetalocephala montana* Kato, 1931 \*

*Parapetalocephala montana* Kato, 1931. Zool. Soc. Japan, Tokyo, Dobustsugaku Zasshi 43: 435.

Type deposition: Unknown.

Type locality: Mt. Niitaka, Nantou County, Taiwan<sup>(21)</sup>.

Distribution: Taiwan<sup>(21, 22)</sup>.

Host plant: Unknown.

### Genus *Petalocephala* Stål, 1854

*Petalocephala* Stål, 1854. Svenska Vetensk. Akad. Öfversigt af Förhandl. 11: 251<sup>(31)</sup>.

*Petalocera* Hansen, 1890. Ent. Tidskr. 11: 68<sup>(29)</sup>. (Type species: *Petalocera bohemani* (Stål, 1854)<sup>(29)</sup>).

*Pachyledra* Schumacher, 1912. Wien. Ent. Ztg. 31: 248<sup>(31)</sup>. (Type species: *Pachyledra kamerunensis* Schumacher, 1912<sup>(31)</sup>).

*Peltocephala* Handlirsch, 1925. Schröder's Handbuch der Entomologie 3: 1120<sup>(29)</sup>.

Type species: *Petalocephala bohemani* Stål, 1854: 251<sup>(29)</sup>.

#### 11. *Petalocephala castanea* Kato, 1931 \*

*Petalocephala castanea* Kato, 1931. Zool. Soc. Japan, Tokyo, Dobustsugaku Zasshi 43: 434.

Type deposition: Unknown.

Type localities: Arisan, Chia County; Tattaka [Sungkan], Nantou County, Taiwan<sup>(21)</sup>.

Distribution: Taiwan<sup>(21)</sup>.

Host plant: Unknown.

#### 12. *Petalocephala cultellifera* (Walker, 1857)

*Ledra cultellifera* Walker, 1857. Jour. Proc. Linn. Soc., London 1: 98.

*Petaloccephala cultellifera* Distant, 1908. The fauna of British India, including Ceylon and Burma. Rhynchota, vol. 4 (Homoptera and Appendix): 164.

Type deposition: BMNH<sup>(34)</sup>.

Type locality: Singapore<sup>(34)</sup>.

Distribution: Dajiling, Taiwan<sup>(21)</sup>, Singapore Island, Bengal, Sikkim, Perak Island, Malay Peninsula.

Host plant: Unknown.

### 13. *Petaloccephala formosana* (Matsumura, 1912) \*

*Lepropsis formosana* Matsumura, 1912. Annot. Zool. Jap. 8: 29.

*Petaloccephala formosana* Kato, 1931. Zool. Soc. Japan, Tokyo, Dobustsugaku Zasshi 43: 434.

Type deposition: LSEHU<sup>(23)</sup>.

Type locality: Kagi [Chiai], Chiai County, Taiwan<sup>(23)</sup>.

Distribution: Taiwan<sup>(23)</sup>.

Host plant: Unknown.

### 14. *Petaloccephala horishana* (Matsumura, 1912) \*

*Ledropsis horishana* Matsumura, 1912. Annot. Zool. Jap. 8: 30.

*Petaloccephala horishana* Kato, 1931. Zool. Soc. Japan, Tokyo, Dobustsugaku Zasshi 43: 435.

Type deposition: LSEHU<sup>(23)</sup>.

Type locality: Horisha [Puli], Nantou County, Taiwan<sup>(23)</sup>.

Distribution: Taiwan<sup>(23)</sup>.

Host plant: Unknown.

### 15. *Petaloccephala koshunensis* Schumacher, 1915a

*Petaloccephala koshunensis* Schumacher, 1915a. Berlin Zool. Mus. Mitt. 8: 92.

Type deposition: DEIE<sup>(13)</sup>.

Type locality: Koshun [Henchun], Pingtung County, Taiwan<sup>(32)</sup>.

Distribution: Taiwan<sup>(32)</sup>.

Host plant: Unknown.

### 16. *Petaloccephala quadrimaculata* (Matsumura, 1912) \*

*Ledropsis 4-maculata* Matsumura, 1912. Annot. Zool. Jap. 8: 32.

*Petaloccephala quadrimaculata* Schumacher, 1915a. Berlin Zool. Mus. Mitt. 8: 93.

Type deposition: LSEHU<sup>(23)</sup>.

Type locality: Koshun [Henchun], Pingtung County, Taiwan<sup>(23)</sup>.

Distribution: Taiwan<sup>(23)</sup>.

Host plant: Unknown.

### 17. *Petaloccephala rubromarginata* Kato, 1931 \*

*Petaloccephala rubromarginata* Kato, 1931. Zool. Soc. Japan, Tokyo, Dobustsugaku Zasshi 43: 433.

Type deposition: Unknown.

Type locality: Tattaka Sungkang, Nantou County, Taiwan<sup>(21)</sup>.

Distribution: Taiwan<sup>(21, 22)</sup>.

Host plant: Unknown.

### 18. *Petaloccephala taihorensis* Schumacher, 1915a \*

*Petaloccephala taihorensis* Schumacher, 1915a. Berlin Zool. Mus. Mitt. 8: 92.

Type deposition: Unknown.

Type locality: Taihorin [Talin], Chiai County, Taiwan<sup>(32)</sup>.

Distribution: Taiwan<sup>(32)</sup>.

Host plant: Unknown.

### 19. *Petaloccephala taikosana* Kato, 1931 \*

*Petaloccephala taikosana* Kato, 1931: 434.

Type deposition: Unknown.

Type locality: Mt. Taiko near Kagi [Chiai], Chiai County, Taiwan<sup>(21)</sup>.

Distribution: Taiwan<sup>(21)</sup>.

Host plant: Unknown.

### 20. *Petaloccephala vittata* Matsumura, 1912 \*

*Ledropsis vitatta* Matsumura, 1912. Annot. Zool. Jap. 8: 31.

Type deposition: LSEHU<sup>(23)</sup>.

Type locality: Horisha [Puli], Nantou County, Taiwan<sup>(23)</sup>.

Distribution: Taiwan<sup>(22, 23)</sup>.

Host plant: Unknown.

### Genus *Petaloccephaloides* Kato, 1931

*Petaloccephaloides* Kato, 1931. Zool. Soc. Japan, Tokyo, Dobustsugaku Zasshi 43: 436.

Type species: *Petaloccephaloides laticapitata* Kato, 1931. Zool. Soc. Japan, Tokyo, Dobustsugaku Zasshi 43: 436.

### 21. *Petaloccephaloides laticapitata* Kato, 1931 \*

*Petaloccephaloides laticapitata* Kato, 1931. Zool. Soc. Japan, Tokyo, Dobustsugaku Zasshi 43: 436.

Type deposition: Unknown.

Type locality: Mt. Taiko, Chiai County, Taiwan<sup>(21)</sup>.

Distribution: Taiwan<sup>(21)</sup>.

Host plant: Unknown.

### Genus *Tituria* Stål, 1865

*Tituria* Stål, 1865. Svenska Vetensk. Akad. Öfversigt af Förhandl. 22: 158<sup>(29)</sup>.

Type species: *Tituria nigromarginata* Stål, 1865 Svenska Vetensk. Akad. Öfversigt af Förhandl. 22: 158<sup>(29)</sup>.

**22. *Tituria angulata* (Matsumura, 1912)**

*Petaloccephala angulata* Matsumura, 1912. Annot. Zool. Jap. 8: 32.

*Tituria angulata* Schumacher, 1915a. Berlin Zool. Mus. Mitt. 8: 92.

Type deposition: LSEHU<sup>(23)</sup>.

Type localities: Koshun [Henchun], Pingtung County; Heirimbi [Pinglin], Taipei County, Taiwan<sup>(23)</sup>.

Distribution: Taiwan<sup>(23, 32)</sup>, Japan (Yakushima)<sup>(22)</sup>.

Host plant: *Maesa tenera* Mez. (Myrsinaceae) (Collected from Pingtung, Taiwan by the writers). (**New Record**).

Remark: Specimens in TARI were collected by the first author from Shuangliu, Pingtung County in May 2, 2000.

**23. *Tituria fuscipennis* Kato, 1929 \***

*Tituria fuscipennis* Kato, 1929. Formosa Nat. Hist. Soc. Trans. 19: 546.

Type deposition: Unknown.

Type locality: Mt. Alishan, Chiai County, Taiwan<sup>(20)</sup>.

Distribution: Taiwan<sup>(20, 22)</sup>.

Host plant: Unknown.

**24. *Tituria obtusa* Kato, 1931 \***

*Tituria obtusa* Kato, 1931. Zool. Soc. Japan, Tokyo, Dobustsugaku Zasshi 43: 432.

Type deposition: Unknown.

Type locality: Kankau, Pingtung County, Taiwan<sup>(21)</sup>.

Distribution: Taiwan<sup>(21, 22)</sup>.

Host plant: Unknown.

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## REFERENCES

1. Amyot, C. J. B., and J. G. A. Serville. 1843. Deuxieme partie. Homopteres. Homoptera Latr. Histoire Naturelle des Insectes. Hemipteres 1843: 1 — 676.
2. Cai, P., and J. H. He. 1997. A new and a newly recorded genera of Ledridae from China, with descriptions of four new species. Wuyi Sci. Jour. 13: 8- 15. (In Chinese, with English summary.)
3. Cai, P., and K. W. Huang. 1998. Two new species of the Genus *Funkikania* Kato and a new allied genus (Homoptera:



- Cicadellidae: Ledrinae). Jour. Anhui Agric. Univ. 25(3): 211- 216. (In Chinese, with English summary.)
4. Chiang, C. C. 1991. A new species of *Aequoreus* from Taiwan (Homoptera: Cicadellidae: Nirvaninae). Jour. Taiwan Mus. 44(1): 79- 81.
  5. Chiang, C. C. 1996. Studies on the Genus *Balclutha* (Homoptera: Cicadellidae) of Taiwan. Jour. Taiwan Mus. 49 (1): 61- 71.
  6. Chiang, C. C., and W. J. Knight. 1990. Studies on Taiwanese Typhlocybinae (Homoptera: Cicadellidae) (IV) Tribe Erythroneurini. Bull. Nat. Mus. Natural Science 2: 191- 255.
  7. Chiang, C. C., and W. J. Knight. 1991. Mileewanini of Taiwan. Jour. Taiwan Mus. 44 (1): 117- 124.
  8. Chiang, C. C., P. P. Lee, and W. J. Knight. 1988. Studies on Taiwanese Typhlocybinae (Homoptera: Cicadellidae) (I) Tribe Zyginellini. Jour. Taiwan Mus. 41 (1): 103- 112.
  9. Chiang, C. C., T. C. Hsu, and W. J. Knight. 1990. Studies on Taiwanese Typhlocybinae (Homoptera: Cicadellidae) (III) Tribe Dikraneurini. Jour. Taiwan Mus. 43(1): 23- 24.
  10. Distant, W. L. 1907. Contributions to a knowledge of the Ledrinae. Soc. Ent. de Belg. Ann. 51: 185- 197.
  11. Distant, W. L. 1908. The fauna of British India, including Ceylon and Burma. Rhynchota, vol. 4 (Homoptera and Appendix): 158- 182.
  12. Evans, J. W. 1947. A natural classification of leaf-hoppers (Jassoidea, Homoptera). Ent. Soc. London Trans. 98: 105- 271.
  13. Gaedike, H. 1971. Katalog der in den Sammlungen des ehemaligen Deutschen Entomologischen Institutes aufbewahrten Typen- VI. Beitr. Ent. 21(3/6): 315- 340.
  14. Huang, K. W. 1989a. Nirvanini of Taiwan (Homoptera: Cicadellidae: Nirvaninae). Bull. Soc. Entomol. (NCHU) 21: 61- 76.
  15. Huang, K. W. 1989b. Redescription of three species of *Hecalus* of Taiwan and with male genital characters of *Ophiuchus basilanus* (Homoptera: Cicadellidae). Bull. Soc. Entomol. (NCHU) 22: 14- 20.
  16. Huang, K. W. 1992. Taxonomy of Evacanthini of Taiwan (Homoptera: Cicadellidae: Cicadellinae). Bull. Nat. Mus. Natural Science 3: 159- 185.
  17. Huang, K. W. 1994. Supplement of Nirvanini of Taiwan (Homoptera: Cicadellidae: Nirvaninae). Chinese Jour. Entomol. 14: 83- 88.
  18. Huang, K. W., and C. J. Maldonado. 1992. Idiocerinae of Taiwan (Homoptera: Cicadellidae). J. Taiwan Mus. 45 (1): 1- 14.
  19. Huang, K. W., and C. A. Viraktamath. 1993. The Macropsine leafhoppers (Homoptera: Cicadellidae) of Taiwan. Chinese Jour. Entomol. 13: 361- 373.
  20. Kato, M. 1929. Descriptions of some new Formosan Homoptera. Formosa Nat. Hist. Soc. Trans. 19: 540- 551.
  21. Kato, M. 1931. Japanese Ledridae. Zool. Soc. Japan, Tokyo, Dobustsugaku Zasshi 43: 432- 440.
  22. Kato, M. 1933. Homoptera. Three color illustrated insects of Japan, 4: 1-9; pls. 1- 50.
  23. Matsumura, S. 1912. Die Cicadinen Japans II. Annot. Zool. Jap. 8: 15- 51.
  24. Matsumura, S. 1914. Die Japssinen und einige neue Acocephalinen Japans Sapporo Col. Agr. Jour. 5: 165- 240.
  25. Matsumura, S. 1931. A revision of Palaearctic and Oriental Typhlocybid genera, with descriptions of new species and new genera. Insecta Matsumurana 6: 55- 91.
  26. Matsumura, S. 1932. New species and genera of insects from Japan described during the year 1931. Insecta Matsumurana 6: 192- 198.
  27. Matsumura, S. 1940. Homopterous insects collected at Kotosho (Botel Tabago) Formosa by Mr. Tadao Kano. Insecta Matsumurana 15: 34- 51.
  28. Metcalf, Z. P. 1952. New names in the Homoptera. Wash. Acad. Sci. Jour. 42: 226- 231.
  29. Metcalf, Z. P. 1962. General catalogue of the Homoptera. Fasc. VI. Cicadelloidea. Part 4. Ledridae. Baltimore, MD: Waverly Press. 147 pp.
  30. Nast, J. 1972. Palaearctic Auchenorrhyncha (Homoptera) an annotated check list. Warszawa. 550pp.
  31. Oman, P. W., W. J. Knight, and M. W. Nielson. 1990. Leafhoppers (Cicadellidae): A Bibliography, Generic Check-List and Index to the World Literature 1956- 1985. C. A. B. International Institute of Entomology. Wallingford, England. 368pp.
  32. Schumacher, F. 1915a. Der gegenwartige stand unserer Kenntnis von der Homopteren — Fauna der Insel Formosa unter besonderer Berücksichtigung von Sauter's schem Material. Berlin Zool. Mus. Mitt. 8: 73 — 134.
  33. Schumacher, F. 1915b. Homoptera in H. Sauter's Formosa — Ausbeut. Suppl. Ent. 4: 108 — 142.

34. Walker, F. 1857. Catalogue of the Homopterous insects collected at Singapore and Malacca by Mr. A. R. Wallace, with descriptions of new species. *Jour. Proc. Linn. Soc., London* 1: 82- 100.
35. Walker, F. 1858. Supplement. List of the specimens of Homopterous insects in the collection of the British Museum 1858: 1-307.
36. White, A. 1844. Descriptions of some new species of Coleoptera and Homoptera from China. *Ann. Mag. Nat. Hist.* 14: 422-426.

# 臺灣產耳葉蟬科名錄（同翅目：葉蟬總科）<sup>1</sup>

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**摘要：**全世界已知的耳葉蟬科種類已超過375種。已記錄的臺灣產耳葉蟬科有24種，其中19種(79.2%)僅分佈於臺灣。本名錄修訂臺灣產耳葉蟬的分布資料，並提供模式標本存放處、模式標本產地及寄主植物之資訊。

**關鍵詞：**臺灣、耳葉蟬科、名錄。

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