The Cixiidae of Taiwan, Part VII: Tribe Pintaliini (Hemiptera: Fulgoroidea)

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(Accepted March 30, 2003)

Shun-Chern Tsaur and Tung-Ching Hsu (2003) The Cixiidae of Taiwan, Part VII: tribe Pintaliini (Hemiptera: Fulgoroidea). Zoological Studies 42(3): 431-443. This study completes the first taxonomic revision of the plant-hopper family Cixiidae in Taiwan with emphasis on the morphology of the male and female genitalia. In total, 20 genera and 155 species are recognized. A key to the tribes of Bothriocerinae was given in a previous work. In this paper, keys to both the subfamilies and tribes of the Cixiidae are presented. The 5 tribes Pentastirini, Bothriocerini, Bennini, Stenoplepsini, and Cixiini were previously revised by the authors, and the remaining tribe, Pintaliini, is treated here with 6 species. Neocarpia maai represents a new genus and new species. Kirbiana lini, Eucarpia stellata, E. specialis, and E. truncata are described as new species. The male of K. pagana (Melichar) is described and illustrated for the first time.

http://www.sinica.edu.tw/zool/zoolstud/42.3/431.pdf

Key words: Insecta, Hemiptera, Cixiidae, Taxonomy, Taiwan.

This revision mainly deals with 3 collections of insects from Taiwan. The largest one, comprising more than 13 000 specimens, was made by various staff of the Taiwan Agricultural Research Institute (TARI) (1980-1985); the second (ca. 2000 specimens) was made by the first author and colleagues of the Department of Entomology, National Chung Hsing Univ. (NCHU) (1981-1989); while the third (ca. 1000 specimens) was made by the first author and colleagues of the Department of Entomology, National Taiwan Univ. (NTU). The collection in which the material is deposited is given for each species under the heading “Specimens examined”. Some paratypes are deposited at the British Museum (Natural History) (BMNH).

The Cixiidae are the second largest family within the Fulgoroidea. More than 2200 species in about 135 genera have been reported so far (Tsaur unpubl. data). Although they are a vector of mycoplasma-like organisms which cause lethal yellowing of palms in the Caribbean and Florida and of flax in New Zealand, and are perhaps implicated in a yellowing disease of palms in the Philippines, they have not caused serious damage on economic vegetation here; and because of the cryptic life history of nymphs, they have attracted little of our attention. We have opened this nearly unexplored field under the support of the National Science Council of the R.O.C. In addition to the 39 already known species, we have also described 116 new species and 5 new genera bringing the total number of cixiid species in Taiwan to 20 genera and 155 species. All measurements were averaged from 5 individuals.

Key to the subfamilies of the Cixiinae in Taiwan

1. Gena with a subantennal process...............Bothriocerinae
   - Gena without a subantennal process...............Cixiinae

Key to the tribes of the Cixiidae in Taiwan

1. Mesonotum with 5 longitudinal carinae........Pentastirini
   - Mesonotum with 3 longitudinal carinae...............2
2. Fourth abdominal segment bearing a pair of long, lateral processes........................................Bennini

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