



# Formosan Entomologist

Journal Homepage: [entsocjournal.yabee.com.tw](http://entsocjournal.yabee.com.tw)

## New *Sophianus* Distant (Hemiptera: Miridae) from Taiwan 【Scientific note】

### 臺灣奇樹椿象屬 (半翅目：盲椿象科) 之一新種【科學短訊】

Cheng-Shing Lin  
林政行

\*通訊作者E-mail: [cslin@mail.nmns.edu.tw](mailto:cslin@mail.nmns.edu.tw)

Received: 2009/04/22 Accepted: 2009/10/06 Available online: 2009/12/01

#### Abstract

One new species, *Sophianus kerzhneri* sp. nov., from Taiwan is reported. A key to the species of the genus *Sophianus* Distant and pictures and genitalia are included.

#### 摘要

本篇描述臺灣盲椿象科奇樹椿象屬 (*Sophianus* Distant) 之一新種：肯氏奇樹椿象 (*Sophianus kerzhneri* sp. nov.)，並附奇樹椿象屬檢索表及附圖以供比對。

**Key words:** Hemiptera, Miridae, Isometopinae, new species

**關鍵詞:** 半翅目、盲椿象科、奇樹椿象屬、新種。

Full Text: [PDF\(0.3 MB\)](#)

下載其它卷期全文 Browse all articles in archive: <http://entsocjournal.yabee.com.tw>

# New *Sophianus* Distant (Hemiptera: Miridae) from Taiwan

Cheng-Shing Lin

Department of Zoology, National Museum of Natural Science 1 Kuan Chien Road, Taichung City 40453, Taiwan

## ABSTRACT

One new species, *Sophianus kerzhneri* sp. nov., from Taiwan is reported. A key to the species of the genus *Sophianus* Distant and pictures and genitalia are included.

**Key words:** Hemiptera, Miridae, Isometopinae, new species

## Introduction

The genus *Sophianus* was established as a unique genus in 1904 by Distant. This genus is characterized by the antennae with the first segment short and globosely incrassate, second segment very widely and laminately incrassate, and the two apical segments very short, the third slender, the fourth moderately thickened (Distant, 1904).

This genus currently comprise only 3 species, one species (*S. alces* Distant, 904) is known from Ceylon and type series were preserved in Department of Entomology, the Natural History Museum, London; *S. lamellatus* Ren & Yang was from China, and *S. formosanus* Lin & Yang was found in Taiwan and type series were preserved in NMNS, Taichung, Taiwan (Lin & Chan, 2008). In this paper, one new species from Taiwan is described.

According to Schuh (1995), this group was chiefly tropical and bark-inhabiting

and have been recognized as a predacious insect preying on mealybugs, scale insects and spider mites.

## Materials and Methods

Methods of dissection and terminology followed Miyamoto (1965).

## Key to species of the Genus *Sophianus* Distant

1. Body length less than 3 mm -----  
-----*Sophianus alces* Distant  
Body length equal or larger than 3 mm  
----- 2
2. Hemelytra semi-transparent -----  
-----*Sophianus kerzhneri* sp. nov.  
Hemelytra not semi-transparent ----- 3
3. Femur with brown spots on each side  
----- *Sophianus lamellatus* Ren & Yang  
Femur without brown spots on each  
side--- *Sophiaus formosanus* Lin & Yang

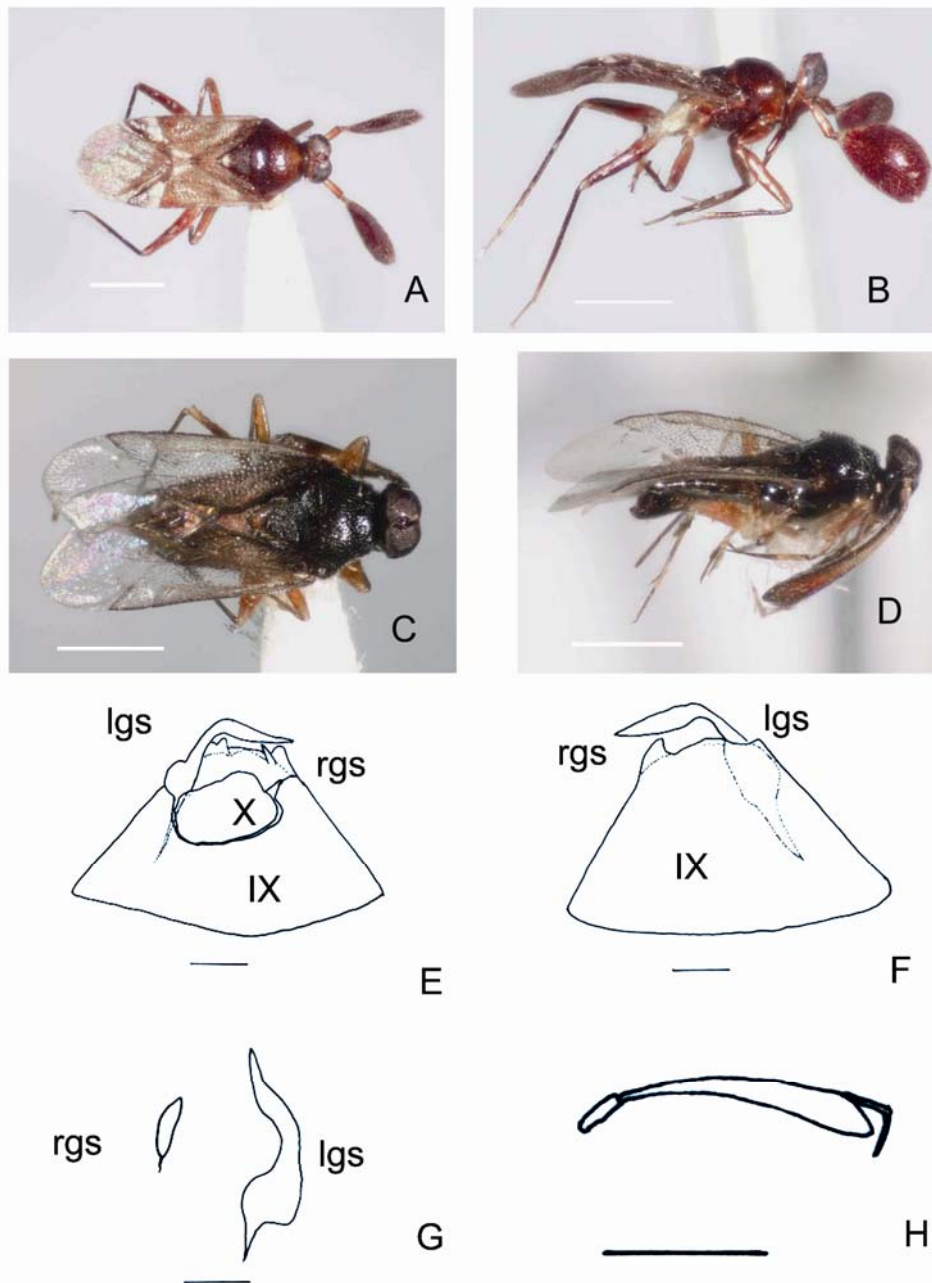


Fig. 1. A. Dorsal view of paratype of *Sophianus formosanus* Lin & Yang (Scale bar = 1 mm); B. Lateral view of paratype of *Sophianus formosanus* Lin & Yang (Scale bar = 1 mm); C. Dorsal view of holotype of *Sophianus kerzhneri* sp. nov. (Scale bar = 1 mm); D. Lateral view of holotype of *Sophianus kerzhneri* sp. nov. (Scale bar = 1 mm); E. *Sophianus kerzhneri* sp. nov. Abdominal segment IX-X and genital styles, dorsal view; IX, X = abdominal segment IX, X; lgs = left genital style; rgs = right genital plates. (Scale bar = 0.1 mm); F. *Sophianus kerzhneri* sp. nov. Abdominal segment IX-X and genital styles, ventral view. Abbreviation as in Fig. E. (Scale bar = 0.1 mm); G. *Sophianus kerzhneri* sp. nov. genital styles. Abbreviation as in Fig. E. (Scale bar = 0.1 mm); H. *Sophianus kerzhneri* sp. nov. antenna. (Scale bar = 1 mm)

***Sophianus kerzhneri* sp. nov.**

**Male.** Body elongate oval, fuscous, furnish with dark distinct hairs. Head semi-globular, fuscous with the rear margin of head brown, lower margin of eyes narrowly pale brown; eyes large, fuscous, occupying most part of head and confluent with each other along median line in front of vertex; ocelli distinct; face somewhat triangular in outline, black and with clypeus longer than wide, black; antennae with the first antennal segment rod-shaped incrassate, second segment basal narrow, gradually widened from base and become broad and incrassate, reddish-brown with black margin, pubescent with pale hairs; rostrum long, fuscous, tip reaching to the posterior cox; gena lateral with 5 setae .

Pronotum broadly black, convexly tumid, deflected anterior, its posterior margin truncate and about 3/2 as broad as anterior, hind margin straight, its surface sparingly and coarsely punctuate, pubescent with long hairs; mesonotum exposed, black; scutellum small, triangular, granulated, basal black except for posterior margin pale, pubescent with long, pale hairs. Hemelytra semi-transparent, pubescence with long setae about 0.3 mm; cuneus triangular shaped, pubescence with long hairs, semi-transparent; membrane with elongate closed-cell, covered with microsetae. Legs with distinctly incrassate hind femora and 2-segmented tarsi, yellowish-brown. Body underside fuscous or black.

Abdominal segment IX dorsoventrally depressed; lateral margin converged to apex in dorsal view; apex almost symmetrical in ventral view. Genital styles asymmetrical in size and shape; left genital style large, its apex directed right, reached to base of right genital style. Inner portion of left genital style long, reached over middle of left lateral margin of abdominal segment IX.

**Measurements (in mm):** Body: length 3.2, width 1.1; head: length 0.3, width 0.6,

height 0.8, vertex width 0.1, ocellus width 0.1, rostrum length 1.6, antennal segment 0.3:1.3:0.2:0.2; pronotum: length 0.5, basal width 1.0; scutellum length 0.4, width 0.4; cuneus length 0.4; claval commissure length 0.35; Hemelytra length 2.1.

**Holotype:** ♂, PINTUNG: Hengchun Kentine Park, No. 2 Sampling plots, VII/13 ~ VIII/8/2007, C. S. Lin & W. T. Yang (Malaise trap). Type is deposited at the National Museum of Natural Science (NMNS ENT 6186-1).

**Paratype:** PINTUNG: Hengchun Kentine Park, No. 1 Sampling plots, 1♂, XI/10 ~ XII/3/2005, C. S. Lin & W. T. Yang (Malaise trap) (NMNS ENT 5796-1781). TAITUNG: Painan Panchiu Station, 1♂, VII/7 ~ VIII/3/2005, C. S. Lin & W. T. Yang (Malaise trap) (NMNS ENT 5874-959).

**Distribution:** Taiwan (Pintung, Taitung).

**Etymology:** Name in honor of the late Dr. I. M. Kerzhner, Laboratory of Insect Systematic, Zoological Institute RAS, ST. Petersburg, Russia.

**Remarks:** This species is very similar to *Sophianus formosanus* Lin & Yang, 2004, but can be identified by the shape of the second antennal segment and the semi-transparent hemelytra, without white band.

## Acknowledgments

Thanks are given to Dr. Maxwell Barclay, Department of Entomology, the Natural History Museum, London, allow me borrow type materials of *S. alces*. Thanks are also given to W. L. Lan took picture of those types. Thanks are due to two anonymous reviewers who provided valuable comments on this manuscript. This research was supported by a grant (NSC 97-2631-H-178-001) from the National Science Council, Taiwan.

## References

Distant, W. L. 1904. The fauna of British India, including Ceylon and Burma.

- Rhynchota. vol. 2: 243-503. Taylor & Francis, London.
- Lin, C. S., and M. L. Chan.** 2008. Validity and a note on type depositories of Heteropteran species described by C. S. Lin and his colleagues in 1995 to 2007. *Coll. and Res.* 21:79-86.
- Lin, C. S., and C. T. Yang,** 2004. Isometopinae (Hemiptera: Miridae) from Taiwan. *Formosan Entomol.* 24: 27-42.
- Miyamoto, S.** 1965. Isometopinae, Deraeocorinae and Bryocorinae of the south-west islands, lying between Kyushu and Formosa (Hemiptera: Miridae). *Kontyu* 33: 147-169.
- Ren, S. Z., and C. K. Yang.** 1988. New genus and new species of Isometopidae from China (Hemiptera: Heteroptera). *Entomotaxonomia.* 10: 75-82.

**Received: April 22, 2009**

**Accepted: October 6, 2009**

# 臺灣奇樹椿象屬 (半翅目：盲椿象科) 之一新種

林政行

國立自然科學博物館動物組 40453 臺中市館前路一號

## 摘 要

本篇描述臺灣盲椿象科奇樹椿象屬 (*Sophianus* Distant) 之一新種：肯氏奇樹椿象 (*Sophianus kerzhneri* sp. nov.)，並附奇樹椿象屬檢索表及附圖以供比對。

**關鍵詞：**半翅目、盲椿象科、奇樹椿象屬、新種。

\*論文聯繫人

Corresponding email: cslin@mail.nmns.edu.tw