

**First record of the sharpshooter leafhopper genus  
*Sphinctogonia* Breddin, 1901 in Vietnam  
(Hemiptera: Membracoidea: Cicadellidae)**

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**Abstract**

The sharpshooter leafhopper *Sphinctogonia lacta* Zhang & Kuoh, 1993 (Hemiptera: Membracoidea: Cicadellidae) is recorded from Vietnam for the first time. It was collected in Cham Chu Nature Reserve and in Ba Be National Park in North Vietnam and represents the first record of the genus *Sphinctogonia* Breddin, 1901 for the country. Photographs of specimen and of the habitat as well as a distribution map of the species are provided.

**Keywords:** China, Hainan, Tonkin, Cicadellinae, Global Taxonomic Initiative.

**Introduction**

Among the leafhopper (Hemiptera: Cicadellidae) material collected in the framework of the Global Taxonomic Initiative project “A step further in the entomodiversity of Vietnam”, we found two specimens belonging to the genus *Sphinctogonia* Breddin, 1901 (tribe Cicadellini), which had not been recorded from the country so far.

The family Cicadellidae represents by far the largest family within the Hemiptera, with about 19,500 described species in more than 40 subfamilies. The subfamily Cicadellinae comprises around 330 genera and 2,400 species, often large-sized and brightly coloured. Some of the most serious pests within Cicadellidae belong to Cicadellinae which vector dangerous, and sometimes, fatal pathogenic bacteria to citrus, coffee, grape, and almond (WILSON *et al.*, 2009).

The tribe Cicadellini, the sharpshooter leafhoppers, currently counts 22 species recorded from Vietnam. Those 22 species belong to 10 genera (WILSON *et al.*, 2017): *Anatkina* Young, 1986 (4 species), *Bharagonalia* Young, 1986 (1), *Bothrogonia* Melichar, 1926 (4), *Cofana* Melichar, 1926 (4), *Gununga* Melichar, 1914 (1), *Ishidaella* Matsumura, 1912 (2), *Kolla* Distant, 1908 (1), *Paratkina* Young, 1986 (1), *Seasogonia* Young, 1986 (3), *Stenatkina* Young, 1986 (1).

The genus *Sphinctogonia* contains 8 species and is currently recorded from a vast area extending from Sulawesi (4 recorded species) to southern China (1) through Borneo (2), Malaysia (1) and Laos (1) (WILSON *et al.*, 2009; MENG *et al.*, 2016).

The present paper aims to provide a new genus record for Vietnam supported by photographs of specimen and habitat, together with a distribution map for the species.

## Material and methods

The species was first identified with the work of WILSON *et al.* (2009). Additional data concerning the distribution of the species were gathered from ZHANG & KUOH (1993) and WILSON *et al.* (2017).

Photographs were taken with a Canon EOS 700D camera equipped with a Tamron DI SP 90 mm macro lens, stacked with CombineZ software and optimized with Adobe Photoshop CS3. Observations were done with a Leica MZ8 stereo microscope.

The specimens are deposited in the collections of the Royal Belgian Institute of Natural Sciences (RBINS).

## Results

Order **Hemiptera** Linnaeus, 1758

Suborder **Auchenorrhyncha** Duméril, 1806

Superfamily **Membracoidea** Rafinesque, 1815

Family **Cicadellidae** Latreille, 1825

Subfamily **Cicadellinae** Latreille, 1825

Tribe **Cicadellini** Latreille, 1825

Genus ***Sphinctogonia*** Breddin, 1801

*Sphinctogonia* BREDDIN, 1901: 128 (Type species: *Tettigonia guttivitta* Walker, 1870 by subsequent designation by DISTANT, 1908: 144).

***Sphinctogonia lacta*** Zhang & Kuoh, 1993

Figs 1–3

*Sphinctogonia lacta* ZHANG & KUOH, 1993: 193.

MATERIAL EXAMINED. 1 ♀ (Fig. 1): Vietnam, Tuyên Quang Province, Cham Chu Nature Reserve, 22°12'N 105°06'E, 8-12.VII.2015, leg. J. Constant & J. Bresseel, I.G.: 33.092 (RBINS); 1 ♂ (dissected): Vietnam, Bac Kan Province, Ba Be National Park, 22°49'19''N 103°36'55''E, 2-7.VII.2015, light trap, Leg. J. Constant & J. Bresseel, I.G.: 33.092 (RBINS).

NOTE. The species was originally described from Hainan Island, China by ZHANG & KUOH (1993) without precise location (S. Chen pers. comm, 14.V.2017). It was also recorded from two locations in China, Guangxi Province: Nanning and Longjin, Jinlongxiang (WILSON *et al.*, 2017). It is here recorded from Vietnam for the first time, greatly extending the known distribution of the species to the West.

In Cham Chu Nature Reserve the specimen was collected in an open area in secondary rainforest, close to a small stream (Fig. 2).

The recorded distribution of the species is still not well documented, limited to a few places (Fig. 3) and it seems that it is not common as we were able to collect only one specimen in five days with a staff of five experimented entomologists in both locations where we found the species in Vietnam.

The characteristic shape and colour pattern of *S. lacta* make it easy to recognize. However, the accuracy of the species identification was confirmed by the study of the male genitalia.

## Discussion

This new record adds a genus and species to the list of Vietnamese Cicadellini which now reaches 11 genera and 23 species. However, a lot of work still needs to be done and the number of species currently recorded from Vietnam is obviously largely underestimated. As a comparison, 177 species of Cicadellini are recorded from China, reflecting an intense work on the fauna of this country rather than a higher diversity as compared to neighbouring countries, e.g. 6 species are recorded from Cambodia, 5 from Laos and 21 from Thailand (WILSON *et al.*, 2017).

Some taxonomists dedicated to the Cicadellidae of Vietnam could add a lot to our knowledge of this important group of insects, in terms of new species, new country records and new host plant records.

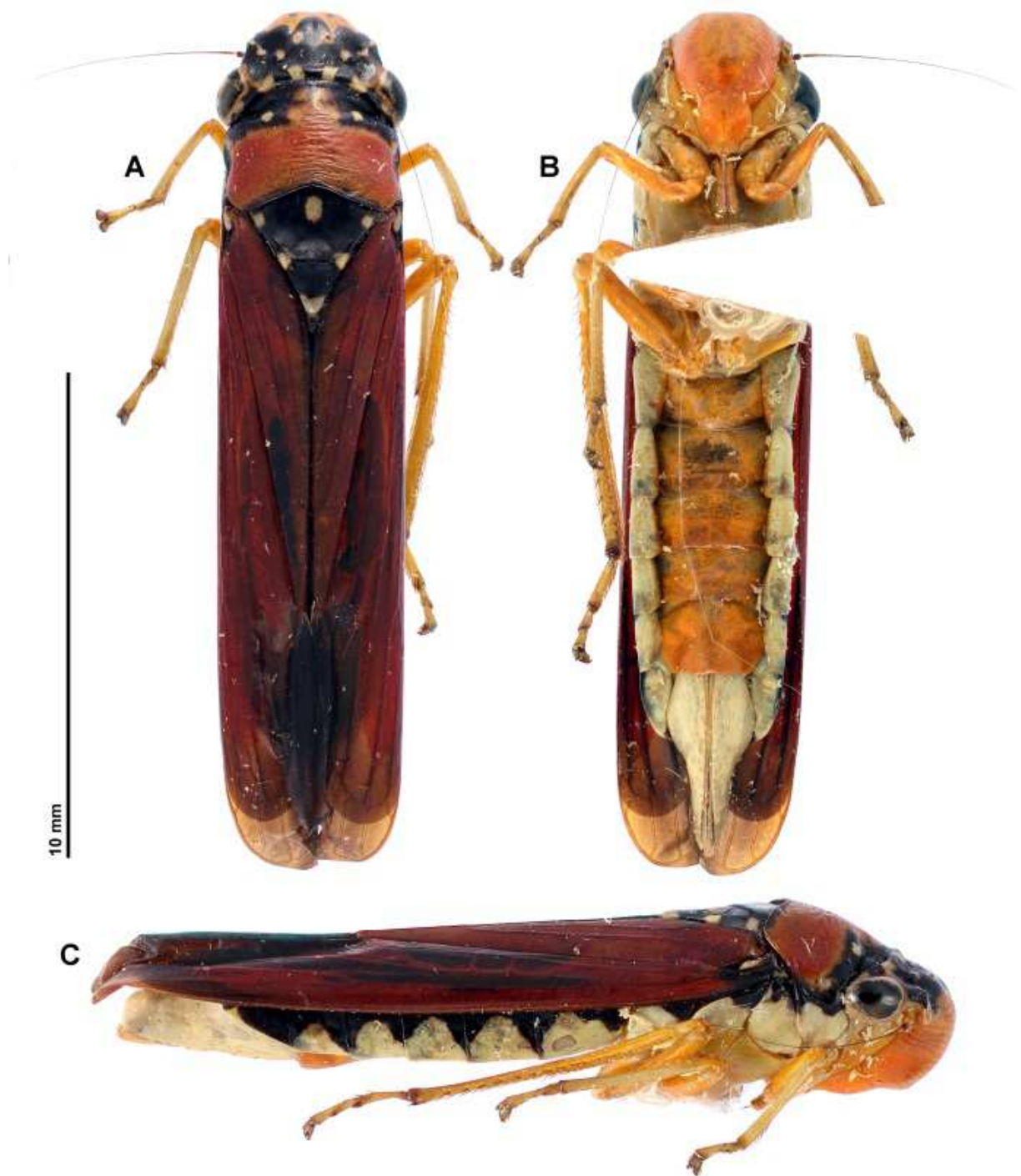


Fig. 1. *Sphinctogonia lacta* Zhang & Kuoh, 1993, female from Cham Chu, Vietnam. A, habitus, dorsal view; B, habitus, lateral view. C, habitus, ventral view.



Fig. 2. Habitat of *Sphinctogonia lacta* Zhang & Kuoh, 1993 in Cham Chu Nature Reserve, Vietnam (photograph © J. Constant, RBINS).

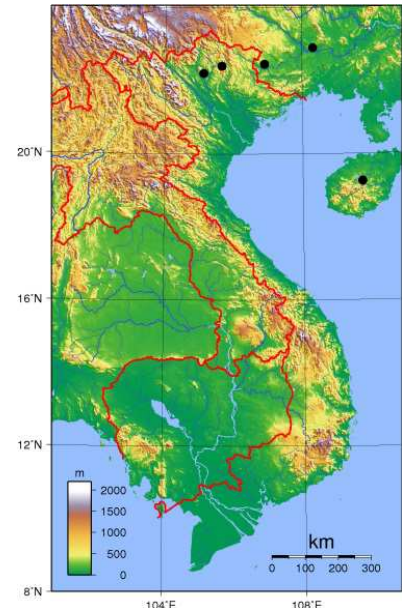


Fig. 3. *Sphinctogonia lacta* Zhang & Kuoh, 1993, distribution map (due to the lack of precise data, the point on Hainan island was arbitrarily centered).

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