



On the identity of the Caribbean planthopper *Jamaha elevans* (Walker, 1858) (Hemiptera: Fulgoroidea: Nogodinidae)

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Submitted April 23, 2024; revised July 3, 2024; accepted August 14, 2024.

ABSTRACT

The specimens on which the record of the nogodinid planthopper *Jamaha elevans* (Walker, 1858) (Nogodinidae, Colpopterinae, Colpopterini) from Haiti published by Melichar (1902) was based were examined. These specimens were misidentified and belong to the flatid planthopper, *Euhyloptera haitiana* Fennah, 1965 (Flatidae, Flatinae, Selizini). Illustrations are provided for *E. haitiana* and the holotype of *J. elevans*. As far as is known, *J. elevans* is endemic to Jamaica.

Key words: Antilles, Auchenorrhyncha, *Euhyloptera*, Flatidae, Fulgoromorpha, incorrect record, Jamaica, Neotropical realm, systematics

К определению карибской цикадки *Jamaha elevans* (Walker, 1858) (Hemiptera: Fulgoroidea: Nogodinidae)

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Представлена 23 апреля 2024; после доработки 3 июля 2024; принята 14 августа 2024.

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РЕЗЮМЕ

Изучены экземпляры, на которых было основано ошибочное указание *Jamaha elevans* (Walker, 1858) (Nogodinidae, Colpopterinae, Colpopterini) с о. Гаити, опубликованное Мелихаром (Melichar 1902). Эти ошибочно определенные экземпляры на самом деле принадлежат флатиде *Euhyloptera haitiana* Fennah, 1965 (Flatidae, Flatinae, Selizini). Даны иллюстрации *E. haitiana* и голотипа *J. elevans*. По имеющимся данным *J. elevans* – эндемик о. Ямайка.

Ключевые слова: Антильские острова, Auchenorrhyncha, *Euhyloptera*, Flatidae, Fulgoromorpha, ошибочное указание, Ямайка, Неотропическое царство, систематика

INTRODUCTION

The planthoppers (Hemiptera, Auchenorrhyncha, Fulgoromorpha) is a diverse group of phytophagous insects that currently comprises 21 extant families and approximately 14,000 species (Bartlett et al. 2018; Bourgoin 2024). Planthoppers are distributed worldwide, with the greatest species diversity in the tropics. The planthopper fauna of the Caribbean has been studied in a series of papers mainly by Ronald Gordon Fennah (1910–1987) (e.g., Fennah 1945, 1947, 1955, 1965), but recent fieldwork in the area has shown that the regional planthopper diversity is still incompletely known (Bahder et al. 2023, 2024).

The planthopper genus *Jamaha* Gnezdilov et O'Brien, 2008 was placed in the subfamily Colpopterinae Gnezdilov, 2003 of the family Nogodinidae Melichar, 1898 *sensu* Gnezdilov (2012, 2017) to accommodate *Poeciloptera elevans* Walker, 1858 (as type species) and *Colpoptera chrysops* Fennah, 1955 (Gnezdilov and O'Brien 2008). Recently, Bahder with coauthors (2023) described a third species, *Jamaha playa* Bahder et Bartlett, 2023, and Bahder with coauthors (2024) transferred *Colpoptera rugosa* Van Duzee, 1907 to the genus *Jamaha* and confirmed that it is not a synonym of *J. elevans* (Walker, 1858) as previously assumed by Distant (1910) and Fennah (1955). The type localities of all four species are in Jamaica (Walker 1858; Fennah 1955; Bahder et al. 2023, 2024). The only species of the genus *Jamaha* reported in the literature from other island is *J. elevans* by Melichar (1902) who recorded "*Ormenis elevans* Walk." from Haiti and this information was then repeated by Melichar (1923) and Metcalf (1958), and an undescribed species from the Dominican Republic (Bahder et al. 2023, 2024). Bahder et al. (2023) suggested that the report of *J. elevans* from Haiti should be reviewed, as it could be a misidentification or a lapse. Here, we follow

their suggestion and re-examine Melichar's (1902) specimens of "*Ormenis elevans*" and uncover their taxonomic identity.

MATERIAL AND METHODS

The examined specimens are part of the personal Auchenorrhyncha collection of Leopold Melichar (1856–1924) deposited in the Moravian Museum, Department of Entomology, Brno, Czech Republic (MMBC; see Wilson and Malenovský 2007 for further details). The photographs of a male specimen of *Euhyloptera haitiana* were taken with a Keyence VHX-5000 digital microscope with VH-Z20T objective. The abdomen was detached, macerated in warm 10% KOH and the genitalia were temporarily mounted on a slide in glycerol and photographed using a Leica DM5500B compound microscope and Leica Application Suite software v. 4.8.0.

The photos of *Jamaha elevans* holotype are released under a creative commons license CC-BY-4.0 (<https://creativecommons.org/licenses/by/4.0/>), © The Trustees of the Natural History Museum, London.

TAXONOMY

Family Nogodinidae Melichar, 1898

Subfamily Colpopterinae Gnezdilov, 2003

Tribe Colpopterini Gnezdilov, 2003

Genus *Jamaha* Gnezdilov et O'Brien, 2008

Type species: *Poeciloptera elevans* Walker, 1858, by original designation.

***Jamaha elevans* (Walker, 1858)**

Poeciloptera elevans Walker 1858: 335 (original description).

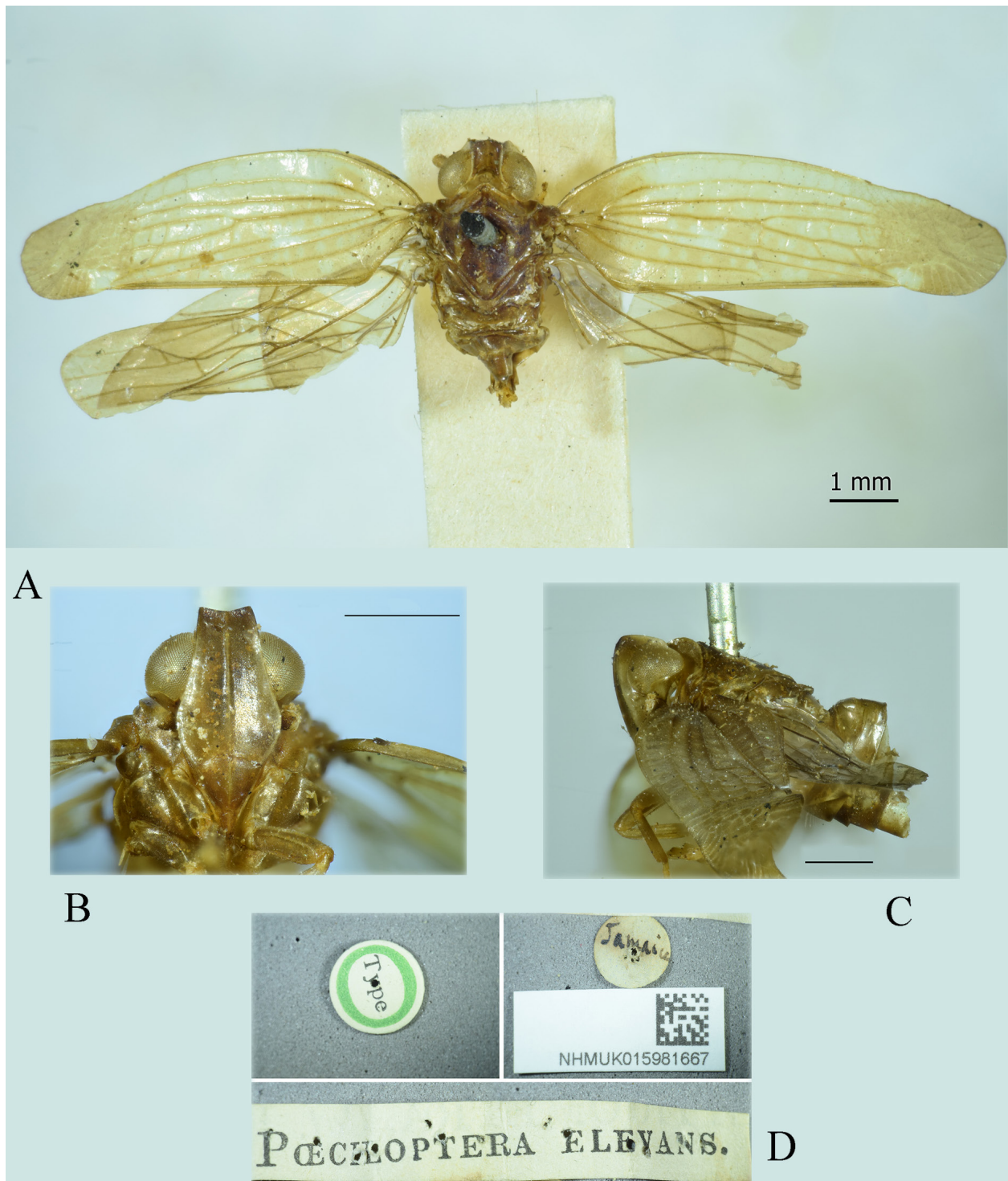


Fig. 1. *Jamaha elevans* (Walker, 1858), holotype (the Natural History Museum, London, UK): A – dorsal view; B – frontal view; C – lateral view; D – labels. Scale bar (A–C) – 1 mm.

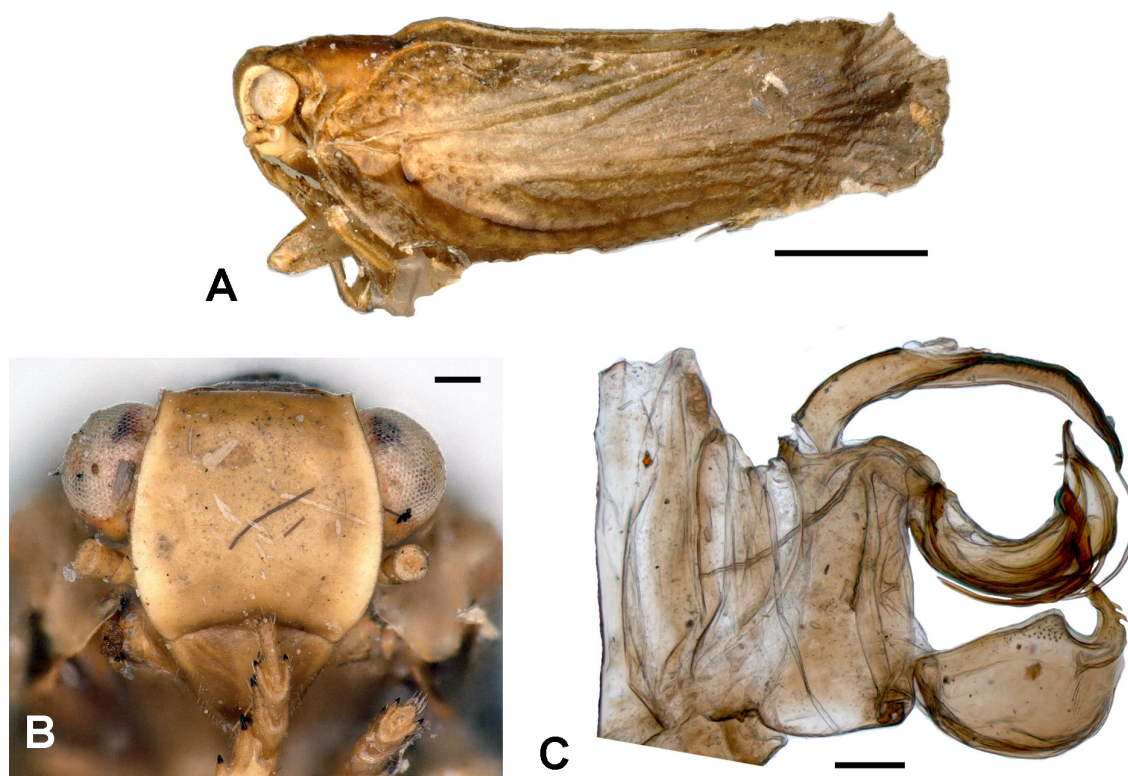


Fig. 2. *Euhyloptera haitiana* Fennah, 1965, male (L. Melichar collection, MMBC): A – lateral view; B – frontal view; C – male genitalia, lateral view. Scale bars: A – 1 mm, B – 0.1 mm, C – 0.2 mm.

Colpoptera elevans: Distant 1910: 315 (comb. n.); Fennah 1955: 33, Fig. 2o–s (diagnosis); Metcalf 1958: 205 (catalogue).

Jamaha elevans: Gnezdilov and O'Brien 2008: 25 (comb. n.); Bahder with coauthors 2024: 530, fig. 8 (amended diagnosis). (Fig. 1)

Family Flatidae Spinola, 1839

Subfamily Flatinae Spinola, 1839

Tribe Selizini Distant, 1906

Genus *Euhyloptera* Fennah, 1945

Type species: *Euhyloptera corticalis* Fennah, 1945, by original designation and monotypy.

Euhyloptera haitiana Fennah, 1965

Euhyloptera haitiana Fennah 1965: 110, figs 47–51 (original description).

Ormenis elevans: Melichar 1902: 71 (misidentification). (Fig. 2)

Material examined: 2 males, 2 females, “Haiti”, “*elevans* W [handwritten] det. Melichar. [printed]”, “*Colpoptera elevans* [handwritten]” (MMBC, dry-mounted, glued on card labels, abdomen of one male detached and stored in glycerine in a microvial pinned together with the specimen).

Remarks. We have established that the specimens originally identified and described by Melichar (1902) as “*Ormenis elevans*”, which were later reported by Melichar (1923) as “*Colpoptera elevans*” from Haiti, were misidentified and belong to *Euhyloptera haitiana*.

DISCUSSION AND CONCLUSION

Melichar (1902) noted that the specimens of “*Ormenis elevans*” from Haiti in his collection were compared with Walker’s type of this species and identified by Mr. W.F. Kirby (London, UK). However, our re-examination of the specimens revealed that they are clearly distinct from *Jamaha elevans* (Walker, 1858) holotype (Fig. 1) as well as from the specimens described

by Fennah (1955), Gnezdilov and O'Brien (2008), and Bahder with coauthors (2024). In fact, they belong to the genus *Euhyoletta* Fennah, 1945 of the tribe Selizini of the family Flatidae. The Selizini are generally characterized by having elongate forewings with apex truncated or narrowed (Melichar 1923; Metcalf 1938), in contrast to most flatids with much broader forewings, and thus some taxa superficially resemble the members of the tribe Colpopterini. However, the presence of wax-producing pustules on forewing clavus makes them easily recognizable as members of the Flatidae (Fig. 2A). *Euhyoletta* currently comprises six species (one with two subspecies) from Trinidad, Haiti, St. Vincent, and Grenada (Fennah 1945, 1947, 1965; Bourgoin 2024). *Euhyoletta haitiana* Fennah, 1965 was described from a single male from Haiti (Fennah 1965) and the specimens from Melichar's collection are the only other known representatives of this species in collections. Our comparison of the morphological characters including the male terminalia of the specimens from Melichar's collection with the drawings published by Fennah (1965, Figs 47–51) revealed no significant differences. This species is recognized by the shape of the style, penis, and the anal tube (Fig. 2C). Thus *J. elevans* is endemic to Jamaica, as far as is known, and there is no evidence of its occurrence in Haiti.

ACKNOWLEDGEMENTS

We thank Mrs Diana Isabel Rendón-Mera (London, UK) for providing us with the photos of *Jamaha elevans* holotype and anonymous reviewer for his (her) valuable comments on the manuscript.

VMG's research was carried out as a part of the Russian state research project No 122031100272-3. IM's work on the manuscript was partly funded by a grant of the Moravian Museum in Brno from the Ministry of Culture of the Czech Republic as part of its long-term programme for the conceptual development of research institutions (Ref. MK000094862).

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