



The invasive leafhopper *Amrasca biguttula* (Ishida, 1913) in our garden: first report in Martinique (Hemiptera, Cicadellidae)

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Abstract. – The Indian cotton leafhopper *Amrasca biguttula* (Ishida, 1913) has been recently recorded in Puerto-Rico and Barbados (West Indies). The presence of this invasive alien leafhopper in Martinique suggests that it has been established for several years in the Caribbean insular. It is likely that it will be a new major pest for food crops in Martinique.

Résumé. – **Présence de la cicadelle invasive *Amrasca biguttula* dans notre jardin : premier signalement en Martinique (Hemiptera, Cicadellidae).** La cicadelle du coton *Amrasca biguttula* (Ishida, 1913) a été récemment signalée à Puerto-Rico et à Barbade (les Antilles). La présence de cette espèce invasive en Martinique laisse penser qu'elle est établie dans les îles de la Caraïbe depuis plusieurs années. Il est probable que cet insecte constitue un risque sanitaire important pour les cultures maraîchères de Martinique.

Keywords. – Caribbean, cotton, pest, invasive species

The first official reports of the Indian cotton leafhopper *Amrasca biguttula* (Ishida, 1913) in the Western Hemisphere [Puerto-Rico and Barbados (CABRERA-ASENCIO *et al.*, 2023 ; IPPC WEBSITE, s. d.)] encouraged us to examine our cotton plants (*Gossypium hirsutum* L., 1763, Malvaceae) growing in the garden of the head office of Martinique Entomologie association located in Fort-de-France (long. 14.626522, lat. -61.052467, alt. 118 m).

The specific phytotoxic symptoms caused by the Indian cotton leafhopper on foliage (discoloration, chlorosis, red spots, burn area) resulting in defoliation were diagnosed on 14 January 2024 (fig. 1-2). Four male and two female leafhoppers feeding on leaves were collected with an insect aspirator and killed in 70 % ethanol (fig. 3). Their external features (bright green body, white spots on head and pronotum, a black spot on each forewing) and the male genitalia structure conform to diagnosis of *Amrasca biguttula* proposed by DMITRIEV *et al.* (2022) and CABRERA-ASENCIO *et al.* (2023). The identified specimens were deposited in the second author's collection.

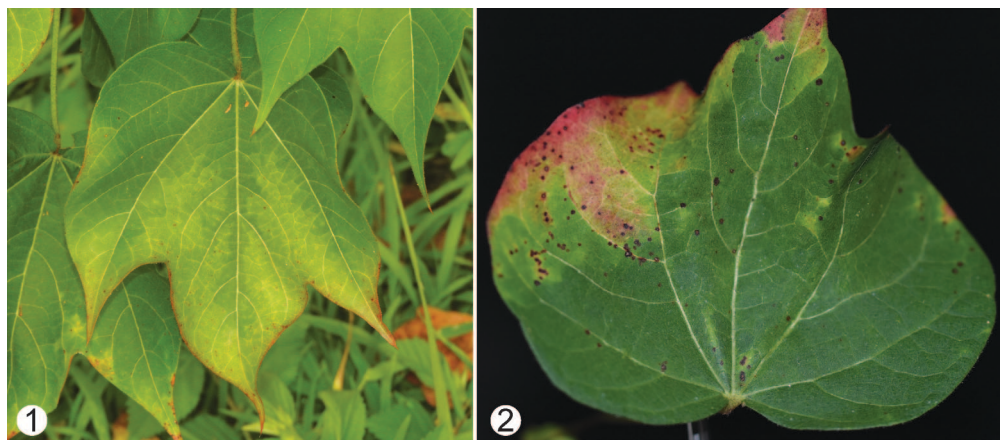


Fig. 1-2. – Some damage symptoms caused by *Amrasca biguttula* (Ishida) on cotton leaves. – 1, Limb discoloration. – 2, Red spots and leaf turning red.

Additional observations in the garden on potential cultivated host plants as pigeon pea (*Cajanus cajan* (L.) Huth, 1893, Fabaceae) and broom corns (*Sorghum bicolor* (L.) Moench, 1794, Poaceae) revealed only the presence of the common and polyphagous *Empoasca kraemeri* Ross & Moore, 1957, and *Hortensia similis* (Walker, 1851). All data were recorded using Carnat mobile application and will be transferred to the CardObs database (<https://cardobs.mnhn.fr>).

We report for the first time *Amrasca biguttula* (Ishida, 1913) in Martinique. The presence of the invasive Indian cotton leafhopper in both Lesser Antilles and Greater Antilles suggests that this species has been introduced for some years ago. This leafhopper is well-known to be a major pest of crops in its native Asian continent. Since its introduction in Africa, it has caused severe damage on okra and eggplant with important yield losses (AKONDE *et al.*, 2024 ; YAROU *et al.*, 2024). As a result, Indian cotton leafhopper may pose an economic threat to vegetable production in Martinique. The identification of host plants and natural enemies related to *Amrasca biguttula* will be necessary for determining local and efficient strategies for integrated pest management, as CABRERA-ASENCIO *et al.* (2023) suggested.



Fig. 3. – *Amrasca biguttula* (Ishida), male observed on cotton leaves and collected for identification.

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