

# Entomological Society of America Proposal Form for New Common Name or Change of ESA-Approved Common Name

#### Complete this form and e-mail to pubs@entsoc.org.

Submissions will not be considered unless this form is filled out completely.

The proposer is expected to be familiar with the rules, recommendations, and procedures outlined in the "Use and Submission of Common Names" on the ESA website at <a href="https://www.entsoc.org/pubs/use-and-submission-common-names">https://www.entsoc.org/pubs/use-and-submission-common-names</a>.

1. Proposed new common name:

"two-spot cotton leafhopper"

2. Previously approved common name (if any):

This species does not have an approved common name, although several alternative common names have been used.

3. Scientific name (genus, species, author):

Order: Hemiptera

Family: Cicadellidae: Typhlocybinae: Empoascini

Species: Amrasca biguttula (Ishida)

#### Supporting Information

4. Please provide a clear and convincing explanation for why a common name is needed, possibly including but not limited to the taxon's economic, ecological, or medical importance, striking appearance, abundance, or conservation status:

Amrasca biguttula is a new pest in the Caribbean Basin, and in Florida. It is known to be a troublesome pest wherever it occurs, especially on cotton (Gossypium hirsutum L.), but also on other crops such as okra (Abelmoschus esculentus Moench) and eggplant (Solanum melongena Wall) (CABI 2024; Liburd et al. 2024). The distribution of this species is expanding rapidly, both in the Caribbean islands and in Florida. In Florida at this time, A. biguttula has been reported from 17 counties from Miami-Dade in the

south to Jackson County, which borders Georgia and Alabama, two of the country's major cotton producers. A useful and accessible common name is needed for extension and public outreach.

# 5. Stage or characteristic to which the proposed common name refers.

(If the description involves a physical feature, it is strongly encouraged that an image of the organism be provided with this submission.)

## Adult (male and female) (Fig. 1)



Figure 1. Adult two-spot cotton leafhopper (Please note spots on the wings). Photo by Daphne Zapsas, USDA-APHIS-PPQ, Biological Science Laboratory Technician, Miami, FL.

### 6. Distribution (include references):

Type material is from Indonesia and Japan. The native distribution might include much of Asia. It is adventive in eastern Africa, the Caribbean Basin, and Florida as of late 2024 (Cabrera-Asencio et al. 2023; Dmetriev et al. 2025; Liburd et al. 2024).

#### 7. Principal hosts (include references):

Amrasca biguttula is known mostly as a pest of cotton, but it also is a severe pest of okra and eggplant. Okra is one of the main crops affected in the Caribbean islands. CABI (2024) has the most complete list of susceptible host plants, including but not limited to sunflower (*Helianthus annuus* L.), roselle (*Hibiscus sabdariffa* Rottler), peanut (*Arachis hypogaea* L.), jute (*Corchorus* spp.), soybean (*Glycine max* (L.) Merr.), niger (*Guizotia abyssinica* Cass), eggplant, potato (*Solanum tuberosum* L.), mung bean (*Vigna radiata* (L.) R.Wilczek) and cowpea (*Vigna unguiculata* (L.) Walp.). Plants included in this list represent four plant families: Malvaceae, Fabaceae, Asteraceae and Solanaceae.

8. Please provide multiple references indicating clearly that the proposed name is already established and ideally widespread in use. If the name has been newly coined for purposes of this application, please state so:

This common name was coined by University of Florida and Florida Department of Agriculture and Consumer Services, Division of Plant Industry, and we have been using it in our recent Pest Alert (Liburd et al. 2024) and extension presentations after the discovery of the pest in Florida.

9. Please identify any common names in use, including those used by indigenous peoples in the insect's area of origin, that have been applied to this taxon, other than the one herein proposed, with references. Please briefly describe the methods used to find alternative names and, if necessary, justify why each alternate name is inadequate:

"Cotton jassid" has been used previously by the USDA; however, we think this common name problematic. First, "jassid" is an archaic name for a small leafhopper that is not "generally understandable by a broad public audience," as required by rule 4 in the rules and guidelines for proposing a common name. Microsoft Office does not recognize "jassid" as a valid English word. None of the three faculty members who teach insect taxonomy at the University of Florida knew what a jassid was. Moreover, "cotton jassid" is ambiguous because there are at least two other species that could claim this name. First, *Jacobiasca lybica* (Bergevin), an Afrotropical cotton pest that ranges into Europe, also is known as the "cotton jassid"

(https://www.cabidigitallibrary.org/doi/10.1079/cabicompendium.20866). Second, there is another species of *Amrasca* in Australia that infests cotton (New South Wales Government 2025). Both species lack the two spots on the wings. There could be other small leafhoppers on cotton, but none that we know of have a dark spot on each wing.

On the internet, *A. biguttula* sometimes is called the "Indian cotton jassid" (CABI 2024), but that name is not acceptable because it singles out India, which is only a part of the Asian geographic range and might not even be the location of origin.

In the Caribbean islands, A. biguttula is known as the "okra leafhopper," because of the serious damage it inflicts on that important local crop. However, okra is a relatively minor crop in the parts of the American mainland that are at risk for this pest. The main economic crop affected is cotton.

10. Please identify any other organisms to which your proposed common name could apply, giving careful consideration to closely related taxa. Please justify why the proposed common name is (i) unsuitable for each of those taxa and/or (ii) better suited for the proposed taxon:

As far as we know, there are no other leafhoppers on cotton with a prominent black spot on each wing. In fact, the species epithet, "biguttula" means two-spot. The two black spots on the wings will distinguish this species from other small empoascine leafhoppers, including the Australian cotton leafhopper, Amrasca terraereginae (Paoli) and Jacobiasca lybica (see above).

Having "two-spot" in the common name also will be very helpful to identifiers because the presence of the spots eliminates all the species of *Empoasca* and closely related North American genera that inspectors and members of the public might otherwise turn in. World-wide, Empoascini contains nearly 1,400 species (Dmetriev et al. 2025), all of which require scrutiny of male genitalic preparations for species ID. Some of these species do occur on host plants of *A. biguttula* in Florida (DPI observations). Elimination of *Empoasca* and its North American relatives from the sample stream reduces workload significantly.

11. Please document your efforts to consult with entomologists (including taxonomic specialists), colleagues, or other professionals who work with the taxon as to the suitability and need for the proposed common name. Please note that this is an important element of your proposal; proposals that do not document these steps are less likely to be successful.

Our Pest Alert using "two-spot cotton leafhopper" has three Caribbean co-authors from different islands who all agreed to publish using this common name. The new screening aid by USDA also uses this common name (Clement and Gilligan 2025).

Here is a list of other endorsers:

- 1. Dr. Christopher Dietrich, University of Illinois, one of the foremost leafhopper taxonomists in the USA
- 2. Dr. Trevor R. Smith and Dr. Greg S. Hodges, Director and Assistant Director of Florida Department of Agriculture and Consumer Services, Division of Plant Industry
- Drs. Andrea Lucky, Marc Branham, and Georgette Kluiters, the three faculty members at the University of Florida Department of Entomology and Nematology that currently teach Insect Classification
- 4. Dr. Silvana Paula-Moraes and Dr. Isaac Esquivel, the two cotton entomologists at the University of Florida
- 5. Dr. Scott Croxton, Technical Development Representative, Southeastern USA, Bayer

#### References:

**CABI.** (2024). Amrasca biguttula biguttula (Indian cotton jassid). PlantwisePlus Knowledge Bank. <a href="https://plantwiseplusknowledgebank.org/doi/10.1079/pwkb.species.20857">https://plantwiseplusknowledgebank.org/doi/10.1079/pwkb.species.20857</a> (accessed 2 December 2024).

**Cabrera-Asencio**, I., **Dietrich**, C.H. and **Zahniser**, J.N. (2023). A new invasive pest in the Western Hemisphere: *Amrasca biguttula* (Hemiptera: Cicadellidae). Florida Entomologist 106: 263–266.

Clement, R.A. and Gilligan, T.M. (2025). Screening Aid. Two-spot cotton leafhopper (cotton jassid) *Amrasca biguttula* (Ishida, 1913). Pest Identifiaction Technology Laboratory, USDA-APHIS-PPQ-Science & Technology (S&T), 2301 Research Boulevard, Suite 108, Fort Collins, Colorado 80526 U.S.A. <a href="https://caps.ceris.purdue.edu/taxonomic-services">https://caps.ceris.purdue.edu/taxonomic-services</a>. (accessed 18 April 2025).

Dmitriev, D.A., Angelov, R., Anufriev, G.A., Bartlett, C.R., Blanco-Rodríguez, E., Borodin, O.I., Cao, Y.-h., Deitz, L.L., Dietrich, C.H., Dmitrieva, M.O., El-Sonbati, S.A., Evangelista de Souza, O., Gjonov, I.V., Gonçalves, A.C., Gonçalves, C.C., Hendrix, S., McKamey, S., Kohler, M., Kunz, G., Malenovský, I., Morris, B.O., Novoselova, M., Pinedo-Escatel, J.A., Rakitov, R.A., Rothschild, M.J., Sanborn, A.F., Takiya, D.M., Wallace, M.S. and Zahniser, J.N. (2022 onward). *Amrasca* (*Amrasca*) *biguttula* (Ishida, 1913). World Auchenorrhyncha Database. TaxonPages. <a href="https://hoppers.speciesfile.org/otus/41773/overview">https://hoppers.speciesfile.org/otus/41773/overview</a> (accessed 16 February 2025).

**Liburd, O.E., Halbert, S.E., Samuel, N., Dreves, A.J. 2024.** Pest Alert: Two-spot cotton leafhopper, Hemiptera: Cicadellidae, Typhlocybinae, Empoascini; *Amrasca biguttula* (Ishida) – A serious pest of cotton, okra, and eggplant that has become established in the Caribbean Basin. Florida Department of Agriculture and Consumer Services, Division of Plant Industry Pest Alert FDACS-P-02229. 5 p. <a href="https://ccmedia.fdacs.gov/content/download/117692/file/two-spot-cotton-leaf-hopper-pest-alert.pdf">https://ccmedia.fdacs.gov/content/download/117692/file/two-spot-cotton-leaf-hopper-pest-alert.pdf</a> (accessed 16 February 2025).

**New South Wales Government. 2025.** *Amrasca terraereginae* (Paoli) The Australian Cotton Leafhopper. <a href="https://idtools.dpi.nsw.gov.au/keys/cicadell/species/aterraereginae.htm">https://idtools.dpi.nsw.gov.au/keys/cicadell/species/aterraereginae.htm</a> (accessed 16 February 2025).

Proposed by (your name): Oscar Liburd<sup>1</sup>, Susan Halbert<sup>2</sup>, Lyle Buss<sup>3</sup>, Jessica Awad<sup>4</sup>,

- 1. Oscar Liburd, Professor, University of Florida Department of Entomology and Nematology, Gainesville, FL 32611; Email: <a href="mailto:oeliburd@ufl.edu">oeliburd@ufl.edu</a>;
- 2. Susan Halbert (**Corresponding author**), Taxonomic Entomologist, Florida Department of Agriculture and Consumer Services, Division of Plant Industry, 1911 SW 34 St., Gainesville, FL 32608; Email: Susan.Halbert@FDACS.gov;
- 3. Lyle Buss, Insect Identification Laboratory, University of Florida Department of Entomology and Nematology, Gainesville, FL 32611; Email: <a href="mailto:ljbuss@ufl.edu">ljbuss@ufl.edu</a>;

4. Jessica Awad, Researcher, Naturalis Biodiversity Center, Darwinweg 2, 2333 CR Leiden, Netherlands; Email: <a href="mailto:jessica.awad@naturalis.nl">jessica.awad@naturalis.nl</a>;

Date submitted: 23 April 2025

170 Jennifer Road, Suite 230, Annapolis, MD 21401 USA
Phone: 1-301-731-4535 Fax: 1-301-731-4538
esa@entsoc.org www.entsoc.org