

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

- 1. Proposed new common name: Hibiscus bud weevil (HBW)
- 2. Previously approved common name: none
- 3. Scientific name (genus, species, author):

Order: Coleoptera

Family: Curculionidae

Anthonomus testaceosquamosus Linell, 1897

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:

Anthonomus testaceosquamosus is a native species to northeastern Mexico and southern Texas. In 2017 it was found in Hibiscus plants in South Florida. This pest feeds and reproduces in the hibiscus flower buds causing bud drop, decreasing this way the marketability of the crop (Revynthi et al. 2021, 2022). Due to this weevil impact on the ornamental industry and the long scientific name, it is important to have a common name, to communicate more easily with the stakeholders such as farmers, nurseries, and the public in general. The common name was chosen because adult weevils prefer to feed mainly on buds of China rose hibiscus (*Hibiscus rosa-sinensis*) (Revynthi et al. 2021). Thus far no evidence has been brought to light regarding the existence of an alternative host. Therefore, following the similar approach to the cotton boll weevil (*A. grandis grandis*) and the pepper weevil (*A. eugenii*), we chose to include the main host in the common name.

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

The common name refers to almost all the weevil stages, including larva, pupa, and adult. The main host, which hibiscus and the preferred plant tissue for feeding and reproduction, which is the flower bud.





Credit: Yisell Velazquez, UF/IFAS TREC

Adult



6. Distribution (include references):

This weevil originates from northeastern Mexico and southern Texas and was discovered in Florida in May 2017 (Skelley and Osborne 2018).

Specimens found in

Mexico: Distriro Federal, Estado de Mexico, Tamaulipas, Veracruz.

USA: Texas

Clark,W.E.; Burke, H.R.; Jones, R.W.; Anderson, R.S. The North American Species of the Anthonomus squamosus Species-Group (Coleoptera: Curculionidae: Curculioninae: Anthonomini). Coleopt. Bull. 2019, 73, 773.

Skelley, P.E.; Osborne, L.S. Pest Alert Anthonomus testaceosquamosus Linell, the Hibiscus Bud Weevil, New in Florida; Florida Department of Agriculture and Consumer Services: Gainesville, FL, USA, 2018.

7. Principal hosts (include references):

This weevil has been associated with numerous plant species, all from the family Malvaceae, including *Abutilon abutiloides* (Shrubby Indian Mallow), *Hibiscus martianus* (Tulipan Del Monte), *Malvastrum Americanum* (Indian valley false mallow), *Malvastrum corchorifolium* (False mallow), *Malvastrum spicatum* (False mallow), *Pseudabutilon lozanii* (Lozano's false Indian mallow), Wissadula holosericea (Chisos Mountain false Indian mallow), *Sida sp* (Fanpetals), *Hibiscus rosa-sinesis* (China rose hibiscus), *Malvaviscus drummondii* (Turk's Cap Mallow), *Pseudabutilon hypoleucum* (White-leaf Indian mallow), *Hibiscus acicularis* (Rose mallow), *Hibiscus cardiophyllus* (Heartleaf Hibiscus), *Tillandsia ionantha* (Blushing Bride), *Abutilon simulans* (Corona de reina).

Skelley, P.E.; Osborne, L.S. Pest Alert Anthonomus testaceosquamosus Linell, the Hibiscus Bud Weevil, New in Florida; Florida Department of Agriculture and Consumer Services: Gainesville, FL, USA, 2018.



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:

Greene, A. D., Yang, X., Velazquez-Hernandez, Y., Vargas, G., Kendra, P. E., Mannion, C., & Revynthi, A. M. 2023. Lethal and Sublethal Effects of Contact Insecticides and Horticultural Oils on the Hibiscus Bud Weevil, Anthonomus testaceosquamosus Linell (Coleoptera: Curculionidae). *Insects*, *14*(6): 544.

Skelley PE, Osborne LS. 2018. Pest Alert *Anthonomus testaceosquamosus* Linell, the hibiscus bud weevil, new in Florida. Gainesville.

Revynthi, A.M., Hernandez, Y.V., Rodriguez, J., Kendra, P.E., Carrillo, D., Mannion, C.M. 2021. "The Hibiscus Bud Weevil (*Anthonomus testaceosquamosus* Linell, Coleoptera: Curculionidae)". EDIS 2021, 9/2021, Funiversity of Florida: Gainesville, FL, USA, 2021: pp. 1–7

Revynthi, A. M., Velazquez Hernandez, Y., Canon, M. A., Greene, A. D., Vargas, G., Kendra, P. E., & Mannion, C. M. 2022. "Biology of *Anthonomus testaceosquamosus* Linell, 1897(Coleoptera: Curculionidae): A New Pest of Tropical Hibiscus". *Insects*, *13*(1):13.

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 justify why each alternate name is inadequate:

None

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:

None

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.

Dr. Alexandra Revynthi: "Hibiscus is the preferred host for this weevil, based on the research conducted, the weevil develops properly and reaches adulthood inside the Hibiscus buds and feeds on them. Given the economic importance of this pest, we need to reach to as many stakeholders as possible and inform



them about the latest research results. It is very important to agree on a proper common name to ease the communication between the community interested in this weevil".

Yisell Velazquez Hernandez: "Having a common name is very important to facilitate the communication with farmers and colleagues who also work with this species in particular".

Dr. Daniel Greene: "It is important to have a common name because this is a pest that affects a large number of growers in Ornamental production in this area, which is one of the largest in the country. It is important to have a name easy to understand to facilitate communication between the people who work with Hibiscus and have infestations and issues with this insect. In addition, the common name describes very well the habits of this weevil".

Dr. German Vargas: "It is very important because: 1. The name is associated with one of the principal hosts, or where the weevil has been reported frequently. 2. The name also indicates the part of the plant that provides the major resource for the adult, and it is also the part where the larvae develop and feed until they reach adulthood".

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References

Greene, A. D., Yang, X., Velazquez-Hernandez, Y., Vargas, G., Kendra, P. E., Mannion, C., & Revynthi, A. M. 2023. Lethal and Sublethal Effects of Contact Insecticides and Horticultural Oils on the Hibiscus Bud Weevil, Anthonomus testaceosquamosus Linell (Coleoptera: Curculionidae). *Insects*, *14*(6): 544.

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Revynthi, A.M., Hernandez, Y.V., Rodriguez, J., Kendra, P.E., Carrillo, D., Mannion, C.M. 2021. "The Hibiscus Bud Weevil (*Anthonomus testaceosquamosus* Linell, Coleoptera: Curculionidae)". EDIS 2021, 9/2021, Funiversity of Florida: Gainesville, FL, USA, 2021: pp. 1–7 Skelley PE, Osborne LS. 2018.Pest Alert *Anthonomus testaceosquamosus* Linell, the hibiscus bud weevil, new in Florida. Gainesville.