



**ENTOMOLOGICAL
SOCIETY OF AMERICA**
SHARING INSECT SCIENCE GLOBALLY

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 <https://www.entsoc.org/pubs/use-and-submission-common-names>.

1. **Proposed new common name:** ramie moth
2. **Previously approved common name (if any):** none
3. **Scientific name (genus, species, author):**

Order: Lepidoptera

Family: Noctuidae

Arcte coerulea (Guenée, 1852)

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:**

This new invasive species in Hawaii feeds voraciously on endemic Urticaceae, impacting species of agricultural, cultural, and conservation significance. Common names are typically used in communications with farmers, land managers, conservation organizations, and cultural practitioners. Providing a recognized common name is important to ensure appropriate communication regarding this species.



5. Stage or

which the proposed common name refers.

characteristic to

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

The common name refers to the moth but is used for the larvae as well, as often typical for moths. The larvae feed on *Boehmeria* species in Southeast Asia, commonly referred to as “ramie” plants, hence the common name, ramie moth.

6. Distribution (include references): Invasive in Hawaii; originally from southeast Asia. Occurs in Australia, Fiji, Papua new Guinea.

Reference: Au, M.G. and Wright, M.G. 2022. *Arcte coerulea* (Lepidoptera: Noctuidae): A new invasive pest in Hawai'i on endemic plants. *Proceedings of the Hawaiian Entomological Society* 54: 63-75.

7. Principal hosts (include references): Plants in the family Urticaceae in Hawaii (Au & Wright 2022)

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:

Ide, J.Y. 2005. Inter- and intra-shoot distributions of the ramie moth caterpillar, *Arcte coerulea* (Lepidoptera: Noctuidae), in ramie shrubs. *Appl. Entomol. Zool.* 41: 49–55.

Ikemoto, H. 1984. Density-related color variation in larvae of the ramie moth, *Arcte coerulea* Guenée (Lepidoptera: Noctuidae): effect of a compound with juvenile hormone activity. *Appl. Entomol. Zool.* 19: 520–521.

Ikemoto, H. 1989. The effect of ligation on the density-related larval color change of the ramie moth, *Arcte coerulea* Guenée (Lepidoptera: Noctuidae). *Appl. Entomol. Zool.* 21: 150–151.

Jackson, G., and M. Mua. 2016. Ramie moth (358). *Pacific Pests & Pathogens*. https://apps.lucidcentral.org/ppp/text/web_full/entities/ramie_moth_358.htm.

Zeng, L., A. Shen, J. Chen, Z. Yan, T. Liu, Z. Xue, and Y. Yu. 2016. Transcriptome Analysis of ramie (*Boehmeria nivea* L. Gaud.) in response to ramie moth (*Cocytodes coerulea* Guenée) Infestation. *BioMed Research International*. 1–10. <https://doi.org/10.1155/2016/3702789>.

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



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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:

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.

Consulted Dr. Daniel Rubinoff, lepidopterist, University of Hawaii; Dr. Paul Goldstein, USDA Systematic Entomology laboratory). Neither work directly with this species, but based on DNA sequence data and morphological characteristics, it agreed that the common name, ramie moth, is appropriate for *Arcte coerulea*.

Proposed by (your name): Mark G Wright

Address: University of Hawaii

E-mail: markwrig@hawaii.edu

Phone: 1-808-271-2037

Date submitted: 13 April 2023

3 Park Place, Suite 307 Annapolis, MD 21401-3722 USA
Phone: 1-301-731-4535 Fax: 1-301-731-4538
esa@entsoc.org www.entsoc.org