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

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:
flatheaded hackberry borer

2. Previously approved common name (if any):
N/A

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

Order: Coleoptera

Family: Buprestidae

Agrilus macer (LeConte)

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:

Agrilus macer is a secondary pest of *Celtis* species in North America, and trees of this genus are known as hackberries. Although *A. macer* has been understudied, interest and discussions involving this buprestid species continue to increase as an alarming number of sugarberry trees (also known as southern hackberry) (*Celtis laevigata*) are dying in the southeastern United States. Sugarberry is used as a food source by many birds and small game.

Current mortality of the species was first reported in 2008 in South Carolina, and a previous episode of mortality and decline was investigated in Louisiana in the late 1980s and early 1990s. The range and cause of the mortality is undetermined, but dead and dying trees are affecting urban and forested areas, such as North Augusta, SC where the canopy is estimated to be 75-85% sugarberry along the Greeneway, which is predominantly on the Savannah River floodplain (Roy Kibler-North Augusta Superintendent of Property Maintenance, personal communication). *A. macer* has been reported in extremely high numbers where stressed and dying trees are occurring, and this beetle and its distinctive tan egg masses, which are laid on the smooth areas of the trunk and lower branches, can be used as an indicator of stressed trees in areas where future tree mortality is likely. Although mortality is currently reported from sugarberry, *A. macer* is

not limited to this species and has been collected on hackberry species throughout the southern half of the United States and in Mexico.

Comfort level and knowledge of entomological and scientific jargon varies between land managers, research partners, landowners, foresters, arborists, reporters, and the general public, but all have contributed to our studies of the sugarberry mortality. Flatheaded hackberry borer is proposed to help us spread awareness, generate interest, and communicate more effectively for determining the range of dying trees and the primary cause of mortality. “Hackberry” is used in the common name instead of sugarberry to continue the trend of naming pests of *Celtis* with hackberry, such as with the hackberry engraver and hackberry nipplegall maker, to encourage the use of the common name as most landowners, foresters, and arborists refer to sugarberry as hackberry, and to easily apply to other regions where both hackberry and *A. macer* are present. We have also noted that many foresters, landowners, and horticulture students in the southeast refer to sugarberry as hackberry, southern hackberry, or sugar hackberry, so the use of “hackberry” in the name seems most appropriate.

Poole EM, Ulyshen MD, Horn S, Cram M, Olatinwo R, Fraedrich S (2019) Biology and Distribution of *Agrilus macer* LeConte (Coleoptera: Buprestidae), a species associated with sugarberry (*Celtis laevigata* Willd.) mortality in the southeastern USA. Ann For Sci 76:7

Solomon JD, Wilson AD, Leininger TD, Lester DG, McCasland CS, Clarke S, Affeltranger C (1997) Sugarberry dieback and mortality in southern Louisiana: Cause, impact, and prognosis. Res. Pap. SRS-9. Asheville, NC: U.S. Department of Agriculture, Forest Service, Southern Research Station.

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.)
The common name flatheaded hackberry borer can be applied to all life stages of *A. macer*. The terms “flatheaded” and “borer” were chosen since many buprestid species use the same terminology in their common names, and we hope this consistency will make the common name well received and easily used. For those unfamiliar with the lifecycle and appearance of life stages of buprestids like *A. macer*, the term borer and flatheaded best describes the larval stage. (Photos below)

(Photos by Michael D. Ulyshen)

6. Distribution (include references):
Reported but not limited to the southern half of the United States and Mexico.

Harpootlian PJ, Bellamy CL (2014) Jewel beetles (Coleoptera: Buprestidae) of South Carolina. Clemson University Clemson. In: SC

Hespenheide H, Westcott R, L. Bellamy C (2011) *Agrilus* Curtis (Coleoptera: Buprestidae) of the Baja California peninsula, Mexico. Zootaxa 2805:36–56

Poole EM, Ulyshen MD, Horn S, Cram M, Olatinwo R, Fraedrich S (2019) Biology and Distribution of *Agrilus macer* LeConte (Coleoptera: Buprestidae), a species associated with sugarberry (*Celtis laevigata* Willd.) mortality in the southeastern USA. Ann For Sci 76:7

Vogt GB (1949) A biologically annotated list of the Buprestidae of the lower Rio Grande Valley, Texas. Ann Entomol Soc Am 42:191–202

7. Principal hosts (include references):
Celtis spp.

Chittenden FH (1900) Food plants and injury of North American species of *Agrilus*. United States Department of Agriculture, Division of Entomology 64–68. Washington DC

Harpootlian PJ, Bellamy CL (2014) Jewel beetles (Coleoptera: Buprestidae) of South Carolina. Clemson University Clemson. In: SC

Poole EM, Ulyshen MD, Horn S, Cram M, Olatinwo R, Fraedrich S (2019) Biology and Distribution of *Agrilus macer* LeConte (Coleoptera: Buprestidae), a species associated with sugarberry (*Celtis laevigata* Willd.) mortality in the southeastern USA. Ann For Sci 76:7

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:
The name flatheaded hackberry borer has not been used or established in publications or presentations. The name has been newly coined after interest generated the need for a common name, and the name will be used in our in-progress publications (accepted with minor revisions) and upcoming presentations.

9. Please identify any common names in use (include references) that have been applied to this taxon other than the one herein proposed. Please justify why each alternate name is inadequate:
No common names have been found in literature for *A. macer*.

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:
Prior to our studies and the reported sugarberry mortality, little was known about the species, and *A. macer* has proven opportunistic on the large number of dying trees. There are number of related species with overlapping distributions are found on *Celtis* in the southeast, such as *Agrilus celti, A. defectus, A. egeniformis, A. fallax, A. fisherellus, A. leconte celticola, A. lecontei lecontei, A. oblongus, A. olentangyi,* and *A. paracelti.* During our efforts, all of these species, except *A. fallax* (one specimen collected) have not been collected and are not known to significantly contribute to mortality of sugarberry and hackberry.

Originally, we favored "hackberry borer," but this name (Vogt's hackberry borer) has been used for the Cerambycidae *Neoclytus mucronatus* in the book Invertebrates of Central Texas Wetlands. Since *A. macer* has been the buprestid species most often seen and most numerous on dying sugarberry, we feel flatheaded hackberry borer is appropriate for the species.

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.

The following colleagues are in support of the common name "flatheaded hackberry borer," and support was given through personal communication. Discussion between colleagues has focused on a need for common name that makes "*Agrilus macer*" more understandable to general audiences during public communication and outreach. Additionally, two anonymous reviewers of our *A. macer* fact sheet suggested the need for a common name to aid in the education of foresters, land managers, and homeowners. Homeowners, with no entomological background have also favored flatheaded hackberry borer. The following colleagues giving support for the common name flatheaded hackberry borer are as follows:

Dr. Richard (Rick) Hoebeke- Associate Curator & Collection Manager
UGA Collection of Arthropods
Museum of Natural History
University of Georgia

Dr. Michael D. Ulyshen- Research Entomologist
USDA Forest Service
Southern Research Station, Athens, GA

Dr. James (JT) Vogt- Project Leader/Supervisory Biological Scientist
USDA Forest Service
Southern Research Station, Athens, GA

Dr. David R. Coyle-Assistant Professor
Forest Health and Invasive Species
Forestry and Wildlife Resources Program Team, Forestry, and Environmental Conservation Department
Clemson University

Dr. Dan Miller- Research Entomologist
USDA Forest Service
Southern Research Station, Athens, GA

Dr. Elizabeth McCarty-Forest Health Outreach Specialist
Center for Invasive Species and Ecosystem Health
University of Georgia

Scott Horn- Entomologist
USDA Forest Service
Southern Research Station, Athens, GA

Roy Kilbler- Superintendent of Property Maintenance for the City of North Augusta

(The North Augusta Greeneway is the location for a majority of the *A. macer* biology research, and we have been monitoring sugarberry in established site in North Augusta since 2015.)

Proposed by (your name)**: Emilee M. Poole**

Address:
USDA Forest Service
Southern Research Station
320 E Green St, Athens, GA 30602

E-mail: emp66194@uga.edu

Phone: 678-967-9282

Date submitted: March 4, 2020