

**PhD Graduate Research Assistant Opportunity in Insect Taxonomy/Molecular Biology**  
**Departments of Plant Sciences and Entomology and Plant Pathology,**  
**The University of Tennessee**

**Description:** A funded PhD assistantship to study *Chrysobothris* metallic wood-boring beetles (COLEOPTERA: Buprestidae), including members of the *C. femorata* species complex, is available. The successful applicant will be co-advised by faculty in the Departments of Plant Sciences and Entomology and Plant Pathology, University of Tennessee in Knoxville.

**Responsibilities:** The PhD student will investigate morphological variation, genetic differentiation, and phylogenomics of *Chrysobothris* (Coleoptera: Buprestidae) metallic woodboring beetle species, including members of the challenging *C. femorata* species complex. Fieldwork associated with this project will include capture of adult beetles and extraction rearing of larvae from trees and shrubs in nursery and specialty crop production fields. DNA will be isolated from these specimens, as well as from ones provided by collaborators, to assess relationships among individuals taken in different locations and from different hosts, and to help develop species-specific diagnostic tools. Research goals complement other avenues of research within a multidisciplinary project designed to help understand the economic and ecological impacts of *Chrysobothris* species on specialty crops and trees, susceptible host plants in landscape and urban forest settings, environmental and host plant shifts, trapping procedures and optimization, and strategies for managing these insect pests.

This project presents unique opportunities to learn from diverse curricular offerings from the Plant Sciences, Entomology and Plant Pathology (including bioinformatics), and Ecology and Evolutionary Biology Departments. Other opportunities exist for engagement in teaching, outreach, and travel to professional meetings.



**Photo Plate:** Many species and possible species of the *Chrysobothris* genus are morphologically similar in appearance, with several members of *C. femorata* species complex (\*) extremely difficult to tell apart physically. Shown are: A) *C. femorata*\*, B) *C. adelpha*, C) *C. rugosiceps*\*, D) *C. viridiceps*, E) *C. quadriimpressa*\*, F) *C. shawnee*\*, G) *C. cribraria*, H) *C. sexsignata*, and I) *C. wintur*\* [a species found in the Western U.S.] (Photos by past PhD student, J. Hansen).

**Qualifications:** Highly motivated and enthusiastic candidates with strong interests in molecular biology, insect taxonomy, genomics, and bioinformatics are invited to apply. Candidates should hold an MS degree (or equivalent) in Entomology, Biology, Plant Sciences, or a closely related field. Evidence of excellent written and oral communications, as well as strong organizational skills is required. Research experience in insect or plant molecular biology, ecology, systematics, genomics, or bioinformatics is preferred. Students at the University of Tennessee are expected to understand and be ethical in the conduct of their research. The successful candidate will be willing to work with a diverse group of faculty, staff, and students to conduct field and laboratory research. Interested applicants should be prepared to share their Intellectual curiosity and demonstrate their motivation and desire to learn on-the-job. Additional desirable qualifications that applicants can address in the letter of interest include experience in landscape horticulture and/or nursery crops, strong problem solving skills, ability and self-motivation to work independently while accomplishing high quality tasks in a timely fashion.

**Contact:** Interested candidates are invited to apply online, to the UT Graduate School, where they will be prompted to provide a detailed C.V., names and contact information for three academic references, and details about their personal statement of interest, and professional acumen). Applicants will need to take the GRE. For additional information about this opportunity, inquiries may be directed via email to Dr. William Klingeman at ([wklingem@utk.edu](mailto:wklingem@utk.edu)).

**Closing Date:** The position is available starting Spring Semester 2021. Screening of applications will begin immediately and continue until the position is filled. Applications received before November 15, 2020 will receive full consideration.

**The University of Tennessee** is a land grant university with an enrollment of over 27,800. The Plant Sciences and Entomology and Plant Pathology Departments are both located on the Agricultural Campus in Knoxville, with lab facilities, greenhouse space, and nearby forest resource spaces to support active research. **Knoxville, Tennessee** is a vibrant community, with a population of approximately 183,270. This community boasts a thriving music and arts scene, along with plenty of opportunities for outdoor adventures in the nearby Great Smoky Mountains National Park.

### Useful Web Sites

The University of Tennessee: [www.utk.edu](http://www.utk.edu)

The University of Tennessee Graduate School: <https://gradschool.utk.edu/>

Department of Plant Sciences: <https://plantsciences.tennessee.edu/>

Department of Entomology and Plant Pathology: <https://epp.tennessee.edu/>



Klingeman lab:

<https://ag.tennessee.edu/plantsciences/Pages/FacultyPages/KlingemanW.aspx>;  
<https://utia.tennessee.edu/person/?id=3337>



Moulton lab: <https://epp.tennessee.edu/people/directory/dr-john-moulton/>