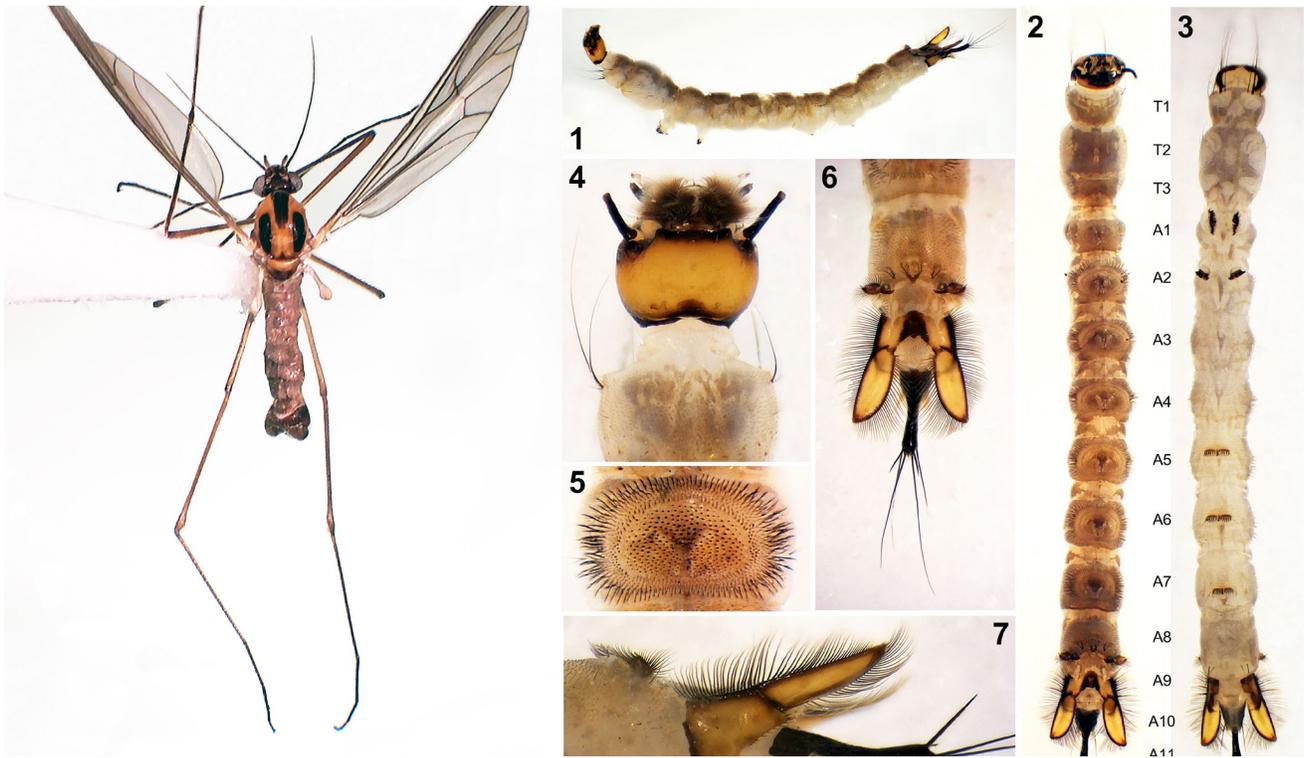


Graduate Research Assistantships (MS & PhD) in Insect Taxonomy and Phylogenomics

Two NSF-funded (DEB-1949813) research assistantships, one MS and one PhD, are available starting in Summer 2021 to conduct independent revisionary and phylogenomic studies within the family Dixidae (Diptera), commonly known as meniscus midges. The successful applicants will be located at the University of Tennessee, Knoxville, and primarily advised by faculty in the Department of Entomology and Plant Pathology, with opportunities to include faculty from other UT departments, such as Ecology and Evolutionary Biology, as primary committee members or PhD-holding researchers housed in other institutions (as *ad hoc* members).



Responsibilities

The **PhD** student will conduct a thorough (i.e., all life stages after egg) revision of the Nearctic *Dixella* Dyar & Stone and a phylogenomic study of one of its poorly characterized Nearctic subclades, such as the *Dixella indiana* species group. The **MS** student will conduct a morphological study of the immature stages of all Nearctic species in the genera *Dixa* Meigen and *Meringodixa* Nowell and a phylogenomic investigation upon the *Nearctic fusca* or *rudis* species groups. Both projects will involve extensive fieldwork, curation, microscopy (stereo-, light, SEM), scientific illustration, imaging (incl. photostacking), DNA fingerprinting, bioinformatics, and phylogenetic analysis. Resulting products, include well-illustrated dichotomous keys and DNA fingerprints providing reliable means of identification as well as associated ecological and biological data for each species. Phylogenomic data will be extracted and assembled from Illumina libraries using a novel acquisition strategy and bioinformatics pipelines. Additionally, both successful applicants will complete a curriculum selected from a diverse assemblage of organismal, molecular, and bioinformatics themed courses. Opportunities for teaching, outreach, mentoring of undergraduate researchers, and participation in domestic and international professional societal meetings are available.

Qualifications

Highly motivated and enthusiastic candidates with strong interests in insect systematics and molecular phylogenetics are invited to apply. Candidates for the PhD position should hold an MS degree (or equivalent) in Entomology, Ecology and Evolutionary Biology, or closely related field; applicants for the MS position must hold a BS degree in any of the aforementioned fields. 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, particularly about the natural world and its biodiversity, and demonstrate their motivation and desire to learn on-the-job. Additional desirable qualifications that applicants can address in the letter of interest include any experiences demonstrating strong problem-solving skills, self-motivation to work independently while accomplishing high quality tasks in a timely fashion, writing proficiency, etc.

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). GRE scores are not required. For additional information about this opportunity, inquiries may be directed via email to Kevin Moulton, PhD, at (jmoulton@utk.edu).

Closing Date

The position is available starting spring 2021. Screening of applications will begin immediately and continue until the positions are filled. Applications received before December 15, 2020 will receive full consideration.

The University of Tennessee is a land grant university with an enrollment of over 27,800. The Department of Entomology and Plant Pathology is predominantly housed in the Plant Biotechnology Building on the Agricultural Campus in downtown Knoxville. **Knoxville** 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

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

UT Graduate School Application: gradschool.utk.edu/admissions/applying-to-graduate-school/

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



The University of Tennessee-Knoxville

ENTOMOLOGY
& PLANT
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Discover. Educate. Support.



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