Postdoctoral Research Associate Position: Spatial Modeling of Ecosystem Services

A postdoctoral research associate position is available in the lab of Dr. Douglas Landis [http://www.landislab.ent.msu.edu/](http://www.landislab.ent.msu.edu/) at Michigan State University to work with the Great Lakes Bioenergy Research Center (GLBRC; [https://www.glbrc.org/](https://www.glbrc.org/)). The GLBRC is one of four national bioenergy research centers funded by the U.S. Department of Energy. The position provides multiple opportunities for interdisciplinary collaborations with GLBRC scientists at MSU and the University of Wisconsin.

The research focuses on understanding the impacts of bioenergy cropping systems on landscape-scale biodiversity services. Future bioenergy crops are likely to be grown on marginally productive soils, potentially altering landscape structure and biodiversity. Specifically, we are investigating the impact of future bioenergy cropping systems on arthropod-mediated pest suppression and pollination services at landscape scales. The research includes sampling arthropods in marginal lands research sites, conducting experiments to evaluate ecosystem services, and spatial modeling of service provision under differing land use scenarios.

The position will include some combination of the following activities: Assisting with field work in research sites across Michigan and Wisconsin; conducting and/or coordinating arthropod sampling and identification, data analysis, modeling and manuscript preparation; presentation of results at national and international scientific meetings. In addition, the research associate will assist with lab organization and mentoring graduate and undergraduate students. Required expertise includes ability to integrate spatial and statistical models to predict impacts of landscape structural change on multiple ecosystem services using ARC GIS, R and other modeling platforms. The successful candidate will have a PhD in entomology, ecology, integrative biology, or related field, and will work effectively in a team research setting. Experience in monitoring and modeling arthropod-mediated ecosystem services is desirable. Strong candidates will also possess the following attributes: a robust publication record, creativity, independence, and excellent communication skills, both written and oral.

The position is renewable annually, contingent upon funding and/or job performance. A start date of March 1, 2018 is preferred, but alternative timelines will be considered and should be noted in the cover letter. All questions about the position and application materials should be submitted to: Doug Landis [landisd@msu.edu](mailto:landisd@msu.edu)

Applications should consist of a single pdf file that includes:

- a brief cover letter (no more than 2 pages) that highlights past research accomplishments, how your previous experience will benefit this project and your future research goals;
- a curriculum vitae;
- names and contact information for three references.
- review of application materials will begin December 1, 2017.

MSU is an affirmative action/equal opportunity employer.
PhD Student Opening: Multi-trophic effects of arthropods on soil carbon

The Landis lab at Michigan State University [http://www.landislab.ent.msu.edu/] has an opening for a PhD student interested in the interactions of arthropod communities and soil carbon accrual in bioenergy cropping systems. This work is part of the Great Lakes Bioenergy Research Center (GLBRC; [https://www.glbrc.org/]) and will be conducted collaboratively with the Tiemann lab [https://tiemann.psm.msu.edu/] The GLBRC is one of four national bioenergy research centers funded by the U.S. Department of Energy. The position provides multiple opportunities for interdisciplinary collaborations with GLBRC scientists at MSU and the University of Wisconsin.

Research will involve sampling and identifying arthropod herbivore/predator/detritivore communities in bioenergy cropping systems and conducting experiments to investigate invertebrate-root-microbe interactions for building and stabilizing soil Carbon. Prior field and laboratory research experience with arthropods and/or soil biology is required. Strong candidates will also possess: a publication record, creativity, independence, and excellent communication skills, both written and oral.

A start date in May 2018 is preferred to allow summer data collection prior to enrollment but alternative timelines will be considered. All questions about the position should be submitted to: Doug Landis [landisd@msu.edu] Please include your CV and a brief description of your previous experience and your future goals.