Title: Graduate Student Position in Plant Computational Genomics

The Plant Computational Genomics lab in the Department of Ecology and Evolutionary Biology <http://eeb.uconn.edu/> at the University of Connecticut seeks motivated PhD and MS students to join the lab in the Summer/Fall 2017. Our research focuses on the computational analysis of genomic and transcriptomic data generated by next-generation sequencing platforms from non-model forest tree species. We implement this through analysis related to gene finding, gene expression, transcriptome assembly, and conserved element identification, through machine learning and computational statistics. We use these methods to address questions related to genome biology and population genomics. In addition, we develop web-based applications that integrate BIG data across domains to facilitate the forest geneticist or ecologist’s ability to analyze, share, and visualize their data (http://treegenesdb.org). Such integration requires the implementation of semantic technologies and ontologies to connect genotype, phenotype, and environmental resources.

RESEARCH TOPICS:

Potential research topics in our group include 1) development of visualization tools to support genome-wide association studies in forest trees; 2) application of genomic and transcriptomic techniques to evaluate the impact of climate change on tree populations; 3) development of software solutions to improve assembly and characterization of non-model plant transcriptomes; 4) interrogation of natural genetic variation across populations in large, complex conifer genomes; 5) and your ideas here!

TO APPLY:

Financial support for M.S. and Ph.D. students is available through research assistantships, teaching assistantships, and university fellowships. To learn more about our research, please visit: http://compgenomics.lab.uconn.edu/. Excellent written and oral communication, as well as strong quantitative skills, are required. Backgrounds in genetics/genomics, evolutionary biology, bioinformatics, and computer science are desired. Interested candidates should send an email with a research interest statement (1-2 pages), a CV, unofficial undergraduate/graduate transcripts, and GRE scores to Jill Wegrzyn (jill.wegrzyn@uconn.edu). Qualified candidates will be contacted directly for Skype interviews following review. Applications will be reviewed on December 15th.

ABOUT UCONN:

The University of Connecticut (UConn) has been one of the nation’s leading public institutions since its founding in 1881. Located in Storrs, UConn’s main campus is situated in the picturesque rolling forests and fields quintessential of New England, yet is only 30 minutes from Hartford, and has close connections to Providence, Boston and New York. The Department of Ecology and Evolutionary Biology consists of over 30 faculty and 60 graduate students with research spanning nearly all major groups of organisms. The Department maintains close ties with the Departments of Physiology and Neurobiology, Molecular and Cell Biology, Marine Sciences, and Natural Resources Management and Engineering, as well as the Center for Environmental Sciences and Engineering and the Institute for Systems
Genomics, which together comprise one of the largest groups of biologists in the Northeast.

Jill L. Wegrzyn
Assistant Professor

Department of Ecology and Evolutionary Biology
Computational Biology Core
Institute for Systems Genomics
University of Connecticut
75 North Eagleville Road
Storrs, CT 06269-3043 USA

jill.wegrzyn@uconn.edu
+1 860-486-8742

Research: http://compgenomics.lab.uconn.edu
Facility: http://bioinformatics.uconn.edu
Office and Lab: TLS 375