POSITION: Graduate Research Assistant, Cornell Entomology (bees and microbes)

STARTING DATE: July, 2020

LOCATION: Comstock Hall, Cornell University, Ithaca, NY 14850

PROJECT DESCRIPTION:

We seek a PhD student interested in bee-microbe interactions to work on a collaborative project on the “brood cell microbiome” of solitary bees. The “brood cell microbiome” forms an important component of bee larval nutrition and recent studies indicate that disruptions to the brood cell microbiome can have significant negative impacts on larval growth and development. Our project focuses on documenting the taxonomic and functional diversity of microbes associated with 16 focal bee species spanning six of the seven families and diverse life histories. We will use amplicon sequencing, metabarcoding and culture-based methods to characterize microbial communities in bee pollen provisions to determine what biotic and abiotic factors drive bee-flower-microbe associations. We seek a candidate with an interest in bee diversity and evolution, bee-microbe interactions, and some prior experience in molecular biology. The project involves substantial fieldwork on bee nesting biology and ecology.

The successful candidate will join an interactive group that includes collaborators from the University of Wisconsin, Madison (Shawn Steffan), the University of California, Davis (Rachel Vannette), and the University of California, Riverside (Quinn McFrederick).

Background and additional details on the project can be found at: http://www.danforthlab.entomology.cornell.edu/research/microbial-ecology/

Applications to the graduate programs at Cornell are through the Cornell Graduate School website: https://gradschool.cornell.edu/

Contact information:

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How to apply:
Please send the following materials as a single pdf to Bryan Danforth (bnd1@cornell.edu):

- Cover letter, including names and contact information for 2-3 references
- CV