From: Tom Powell
Subject: PhD positions in ecological speciation and phenological adaptation to climate change

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Graduate positions in ecological speciation and the evolution of life history timing in the Powell lab at Binghamton University

I am currently seeking one or two PhD students to join my lab (www.powellevolab.com) in the fall semester of 2017. Our work is broadly focused on understanding how ecological processes, physiological systems, genetic variation, and genome structure interact during the origin of species and adaptation to novel niches and changes environments. We are particularly interested in understanding the origin and maintenance of diversity in specialist insect communities. Graduate students in my lab will have opportunities to address these questions from a range of approaches, from field work and physiological assays to transcriptomics and population genomics, and I am specifically looking for students that are interested in engaging in integrative work for their dissertations.

Current work in the lab is centered on two classic study systems in evolutionary ecology: Rhagoletis fruit flies and goldenrod gall flies. Students will have opportunities to develop independent dissertation projects that contribute to the long term research goals of the lab, including contributions to a recently funded NSF Dimensions of Biodiversity project on the coevolution of life history timing among Rhagoletis flies and their parasitoid wasps and the use of this system as a model for evolutionary responses of communities to altered phenology under climate change.

Students will be supported on teaching assistantship lines through the Department of Biological Sciences (https://urldefense.proofpoint.com/v2/url?u=https-3A__www.binghamton.edu_biology_&d=CwIF-g&c=Ngd-ta5yRYsqeUsEDgxhcqsYYY1Xs5ogLxWPA_2Wlc4&r=e2OJ1azRFn8ihJzb2HxZT0AqoiqLvxfeeaTyN59ZLoI&m=CR6DAHTNzeh2ZsBQ79hnGTCgO5Oq5YzIQPNEvosYDzs&s=nl8ti8eUNF5AGfZemLyIaAx63FZIjaC3Cr5dVxasw7A&e=), and be enrolled (tuition waived) in the EEB (Ecology, Evolution, and Behavior) track of our doctoral program. The EEB group at Binghamton is comprised of several active research groups with considerable overlap in fundamental research interests with our lab. This includes labs focused on coevolution, quantitative genetics and complex traits, ecological speciation in plants, genomic variation in natural populations, insect-plant interactions, and evolutionary responses to anthropogenic change. The department is also home to a unique interdisciplinary Evolutionary Studies Program, headed by David Sloan Wilson. All of this makes our department a particularly rich intellectual environment for students working at the intersection of ecology, evolution, and genetics.

Binghamton University is the top-ranked institution in the SUNY system and is consistently rated as one of the premier public universities in the Northeast. Our campus is located in the Southern Tier of New York, between the Catskills and Finger Lakes, about a 3 hour drive from NYC. The region features abundant opportunities for outdoor recreation and an extremely reasonable cost of living. Our setting on the Allegheny Plateau isn't just aesthetically pleasant, it also happens to be an excellent geographic location for our study systems. Many of our insects' host plants are locally abundant in the upland deciduous forests and old fields in the region, and populations of the most of the members of the Rhagoletis pomonella species complex as well as both host races of gall flies can be found right on campus in BU's Nature Preserve (https://urldefense.proofpoint.com/v2/url?u=https-3A__www.binghamton.edu_nature-2Dpreserve_&d=CwIF-g&c=Ngd-ta5yRYsqeUsEDgxhcqsYYY1Xs5ogLxWPA_2Wlc4&r=e2OJ1azRFn8ihJzb2HxZT0AqoiqLvxfeeaTyN59ZLoI&m=CR6DAHTNzeh2ZsBQ79hnGTCgO5Oq5YzIQPNEvosYDzs&s=eUoBF66SwFEZCiLSY2rzJCXQYINu3YLlQ-Ltzp66-8c&e=).

Formal applications will have to be made to the Graduate School: (https://urldefense.proofpoint.com/v2/url?u=http-3A__www.binghamton.edu_grad-2Dschool_admissions_apply_index.html&d=CwIF-g&c=Ngd-ta5yRYsqeUsEDgxhcqsYYY1Xs5ogLxWPA_2Wlc4&r=e2OJ1azRFn8ihJzb2HxZT0AqoiqLvxfeeaTyN59ZLoI&m=CR6DAHTNzeh2ZsBQ79hnGTCgO5Oq5YzIQPNEvosYDzs&s=gEPhEmherbrRsvVHwBVkcB5EWmbZR9O_ZwKVGaP6i3U&e=), but I strongly encourage interested students to contact me first. Please send me an email at powellt@binghamton.edu, including a letter outlining your qualifications, your specific interest in this position, your broader biological interests, and your reasons for wanting to pursue a PhD as well as a CV including your educational background, GPA, GRE scores, publications (if any), and any relevant experience. The official deadline for application to the Graduate School (including letters of recommendation) is January 15. However, interested students will have to begin the conversation with me well in advance of the application deadline. Please email me before Friday December 2 for consideration.

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