PhD in Ecological Niche Modeling
Wildlife Ecology, University of Wisconsin-Madison

A 4-year PhD research assistantship is available to study the environmental factors that form critical subnivium (below-snow) conditions at macroscopic scales and experimentally manipulate those conditions via the deployment of micro- greenhouses to simulate future warming conditions. The PhD assistantship will begin in the fall of 2015.

This NSF-funded project aims to better understand how climate change will affect the conditions and distribution of the subnivinum - a sensitive seasonal refugium - and the physiology, survivorship and distribution of freeze-tolerant amphibians. The PhD student will be responsible for measuring the biophysical conditions responsible for the formation of the subnivium, overseeing physiological experiments on amphibians, and develop a mechanistic niche model predicting the future of the subnivium. The approach centers on the deployment of automated micro-greenhouses, in which conditions are controlled to mimic those predicted by 2050, across major environmental gradients within the Great Lakes Region. The placement of micro- greenhouses will be guided by a robust macroecological design meant to capture the full range of expected climate change and patterns of snow fall and cover across the Great Lakes Region. The project will include experiments and mechanistic distribution modeling to determine how future conditions of the subnivium will affect the physiology, survivorship and distribution of freeze-tolerant amphibians.

Qualifications:
A MS degree in geography, forestry, wildlife, ecology, evolution or other related disciplines is highly desired. Applicants with a BS degree will only be considered if substantial relevant experience can be shown. A solid working knowledge of GIS and statistics is required. Although not a requirement, the preferred candidate will have experience in amphibian biology, especially relating to ecology and/or physiology. Excellent English writing and verbal communication skills, as well as the ability to work and lead a research team, are essential.

University, Department, Labs:
The University of Wisconsin-Madison is one of the major research universities in the United States (www.wisc.edu). It ranks 2nd in research expenditures among all U.S. universities and first among public universities. Total student enrollment is 41,500, out of which 8,800 are graduate students. Employees include 2,000 faculty. UW-Madison has a long history of excellence in ecology, conservation biology, and wildlife biology. This project will be housed in the Pauli (http://labs.russell.wisc.edu/pauli/) and Zuckerberg (http://labs.russell.wisc.edu/zuckerberg/) laboratories in the Department of Forest and Wildlife Ecology.

Town:
Madison, Wisconsin consistently ranks as one of the best places in the United States to live, work, and study. It is Wisconsin's capital city, with a vibrant population of approximately 200,000 that combines small town charm with a nice variety of leisure and cultural opportunities. For more information on campus and town see: http://www.wisc.edu/about/location.php.

Stipend/Salary:
Current annual stipend levels are $21,224 per year before taxes, plus tuition remission and health care benefits. A start date of September 2015 is envisioned.

Application Process:
Applications will be reviewed upon receipt and review will continue until a suitable candidate is chosen. The University of Wisconsin-Madison is an equal opportunity/affirmative action employer. We promote excellence through diversity and encourage all qualified individuals to apply. The position is open to both US citizen and

international candidates.

Interested applicants are asked to e-mail the documents listed below to our Student Services Coordinator Sara Rodock (rodock@wisc.edu) (in ONE PDF file please).

- Our departmental graduate application cover sheet (http://tinyurl.com/k72937q)

- Letter outlining research interests, academic and professional backgrounds

- Resume or CV

- Copies of transcripts (unofficial copies acceptable at this point)

- GRE scores

- Names and contact addresses of three references

Questions should be directed to Drs. Pauli (jnpauli@iwsc.edu) and Zuckerberg (bzuckerberg@wisc.edu).