**From:** David Inouye
**Subject:** Job: Researcher, Phenological adaptation in variable environments

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Researcher Phenological adaptation in variable environments 12 month pos

A 12 month position as a researcher in Evolutionary Ecology is open at Lund University.
Topic: Evolution in variable environments, Phenology in interactive communities

Project description

This is a project on how organisms use environmental or internal cues to time key life history events such as reproduction or migration in seasonal environments. The selection of such phenological traits is in many ways affected by intra- and inter-specific interactions and thus frequency dependent. The available cues are stochastic in nature. On top of this, many species are facing ongoing climate change. There is to date very little understanding of the complete picture, how interacting species will respond to a shifting climate, and what the effects on are biodiversity and ecosystem services.

The purpose of this project is to develop general theory regarding:

1. How organisms optimally should allocate energy between growth and reproduction in unpredictable and seasonal environments.
2. Under which circumstances we can expect organisms to employ day length, temperatures or developmental stage as cues to time critical events in their annual life cycle.
3. How selection among mechanisms to handle environmental variability are influenced by intra- and interspecific competition.

The theoretical work will be related to data from bumble bee (*Bombus* spp) colony experiments and to data on plant and insect phenology from the Swedish Phenology Network (http://www.naturenskalender.se/).

Depending on the qualifications and interests of the chosen candidate, this project can be geared towards developing general theory, analyzing specific model systems or empirical studies.

The environment in Lund offers a range of opportunities for collaborations with research groups working on pollination ecology, plant phenology, bird phenology or the evolutionary ecology of insects, especially within the BECC environment (http://www.becc.lu.se).

The project will be based in Lund, but the candidate will be offered opportunities to visit Imperial College London (Silwood park), where one of the PIs is currently based and where we have ongoing collaborations within the research initiative Grand Challenges in Ecosystems and the Environment (http://www.imperial.ac.uk/ecosystems-and-environment/).

Project leaders:
Jörgen Ripa & Jacob Johansson
http://www.biology.lu.se/jorgen-ripa
http://www.biology.lu.se/jacob-johansson

Please find more details here:
https://lu.mynetworkglobal.com/en/what:job/jobID:124855/