

Special Workshop: Synthesizing Ecology and Evolution for the Study of Invasive Species

Organizers: Carol Lee, Kristina Schierenbeck, Robert Holt

We have organized a workshop to promote the integration of ecological and evolutionary perspectives and approaches into the study of invasive species. Our aim is to create a venue in which discussion among the participants would lead to novel synthetic research and papers that reflect the novel syntheses. For example, the integration of population genetics and population dynamics could yield insights into the lag period of invasions, evolutionary responses to novel environments, and range expansions, oscillations, and extinctions. Also, integrating empirical data on ecological factors, such as predation or competition, with genetic factors, such as quantitative genetic variance or the genomic architecture of critical traits, could enhance our understanding of factors that limit invasions, improve the efficacy of predictive models, including those that might aid in biological control. Invasive species provide an ideal testing ground for many basic evolutionary theories, and we hope that this workshop will help expand this potential.

This event will be held March 19-22, 2009 at North Lake Tahoe, California, USA. The workshop will consist of talks by invited speakers (listed below), group discussions, and posters sessions. Conference attendance will be limited to 100, so we recommend registering early!

The workshop will take place during prime ski season at the scenic Granlibakken Conference Center & Lodge, which is nestled between trees, mountains, and Squaw and Alpine Ski Resorts. The Reno-Tahoe International Airport provides ready access to Lake Tahoe, and from a number of major airports.

The all-inclusive meeting package of \$799.00 (single-occupancy) or \$608.00 (double occupancy) includes conference registration fees; three nights lodging (Thursday, Friday, and Saturday), dinner on Thursday, three meals on Friday and Saturday, and breakfast and lunch on Sunday. Day passes to the conference (conference attendance + lunch) are available at \$120 per day or \$252 for the entire conference.

We recommend that you plan on arriving a few days early or a stay a few days later if you plan to take advantage of the local skiing, showshoeing, ice-skating, and hiking opportunities. On site amenities include ski lessons and on-site cross country ski trails.

The registration deadline is February 15.

To register: Go to www.granlibakken.com; click on make a reservation; click on conference participant; enter usda09 for both username and password.

If you would like to present a poster, please submit a title to Kristina Schierenbeck (ka.schierenbeck@ars.usda.gov) by March 10.

List of Invited Speakers and Tentative Titles:

Richard Gomulkiewicz, Robert Holt & Scott Nuismer
Genetic complexity, adaptation, and invasion in harsh environments

Alex Perkins
Effects of evolutionarily labile interspecific interactions on spatial spread dynamics

Judith Miller
The fate of neutral mutations arising during invasions

Andrew Kanarek & Colleen Webb
Allee effects and invasion success through coupled evolutionary and ecological dynamics

Carol Eunmi Lee, Yuseob Kim & Davorika Gulisija
Testing for genetic signatures of selection during independent invasions into novel environments

Marc Kramer
Application of climate models to understand and model environmental processes

Andy Suarez, Neil Tsutsui & David Holway
Insights into invasion success from comparing the biology of ant invaders in their native and introduced ranges

Kevin Rice
The role of trans-generational plasticity (i.e. maternal effects) in biological invasions

George Gilchrist & Raymond Huey
Developmental plasticity evolves during biological invasions

Heinz Müller-Schärer
Adaptive evolutionary change in an invasive plant: Tracking its evidence

Elizabeth Leger & Erin Espeland
Evolution of native plants in response to invaders

George Roderick & Maria Navajas
Evidence for evolutionary change in classical biological control and what this says about
invasions

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