



Genetic and Ecological Interactions Across Woodrat Hybrid Zones

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Abstract:

When closely related lineages that are not completely reproductively isolated from one another come into secondary contact, a number of ecological and genetic interactions may occur that can substantially change the evolutionary trajectory of these lineages. My group has been focused on identifying the behavioral and ecological factors that determine the amount of gene flow or introgression that occurs when closely related species of woodrats (genus *Neotoma*) come into secondary contact. Here, I report on a number of our past and ongoing projects that, together, begin to capture the range of pre- and post-zygotic isolating mechanisms that contribute to the potential for introgression between species of woodrats. Our current investigations focus on the role of dietary adaptations and the role they may play in determining rates of interspecific gene flow.



Bio:

Marjorie Matocq's research program is focused on the population and evolutionary genetics of mammals. She is a Professor in the Department of Natural Resources and Environmental Science and the Program in Ecology, Evolution, and Conservation Biology at the University of Nevada, Reno. Marjorie and her students conduct both basic and applied research on factors that contribute to the generation and maintenance of genetic variation in wild populations. Current projects include NSF-funded research examining reproductive isolating mechanisms between closely related species of woodrats. Her group is also engaged in regionally-focused projects examining the ecology and landscape genetics of several Great Basin mammals including pygmy rabbit and bighorn sheep. Marjorie grew up at Lake Tahoe, went to college at Cal Poly, San Luis Obispo, took her MS at San Francisco State University and PhD at UC Berkeley in the Museum of Vertebrate Zoology. She did a brief postdoc at the Smithsonian Institution's Conservation Genetics lab before taking her first faculty position at Idaho State University. When her "dream job" opened in Wildlife Ecology at the University of Nevada, Reno, she was able to bring her family back closer to home. Marjorie enjoys camping, kayaking, and skiing in the Sierra Nevada with her husband and two children.

Date:

Friday,

11/18/16

Time:

1:30pm

Location:

COB 267

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