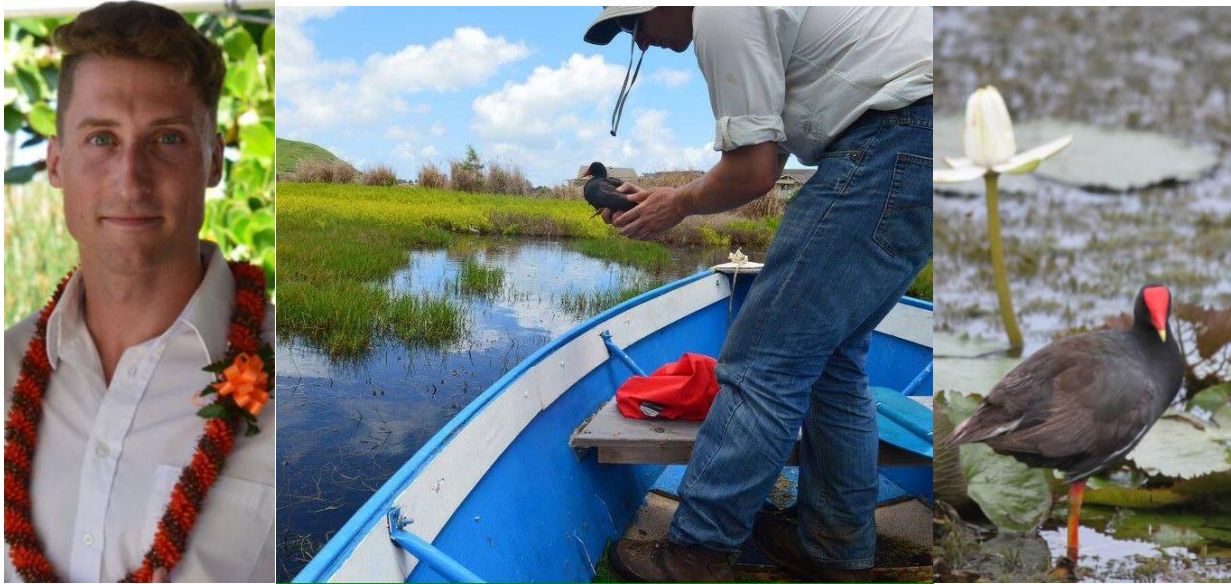


Ecology Brownbag Presentation

Tuesday August 7th at Noon

Lewis Hall 304

Saving Hawaii's Swamp Chickens: The Impacts of Landscape and Climate Change on the Hawaiian gallinule



The Hawaiian Islands are a hotspot for the avian extinctions. Although the plight of Hawaiian forest birds is well known, conservation issues surrounding Hawaiian waterbirds and the wetland ecosystems that support them are less well understood. This research combines population genetics, simulation modeling, mark-recapture studies, and population viability analysis to assess the impacts of habitat fragmentation, historical population declines, and climate change on the Hawaiian gallinule (*Gallinula galeata sandvicensis*), an endangered Hawaiian waterbird. Results suggest that land use change in Hawaii has fragmented gallinule populations at small (1-10km) scales, and that surface water features may act as corridors to enhance connectivity for these waterbirds. Sea level rise poses a considerable threat to the gallinule's persistence on Oahu, but could be mitigated by habitat connectivity.

Presenter Bio:

Charles van Rees recently completed his doctorate in Biology at Tufts University, where he studied the ecology and conservation of Hawaiian wetland birds in collaboration with USGS and USFWS. Charles' ongoing work focuses on understanding the interactions of water resources management and endangered species conservation, with particular emphasis on navigating conflicts over water resources. He was formally an aquatic ecosystems specialist and mediator for the Center for Large Landscape Conservation and is currently the advisory ecologist for the Livable Hawaii Kai Hui, a grassroots conservation nonprofit in Eastern Honolulu. He will continue his work on water resources and biodiversity conservation next year as a Fulbright scholar at the Doñana biological station in Seville, Spain, studying the impacts of climate change, groundwater abstraction and rice field management on endangered migratory waterbirds.