



Biology Seminar

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<http://ecologyofbirdloss.org/>

Putting an empty forest back together again: The impact of vertebrate loss and strategies for rewilding to restore ecological function



Wednesday, January 29, 2020 | 12:00pm
HCK 132 Refreshments at 11:45am

Vertebrates often serve as ecosystem sentinels, as declines in vertebrate populations can be an early warning sign for broader changes to come. In many cases, the loss of vertebrates causes cascading effects due to their ecological roles as mutualists, predators, and prey. Today, the need to identify and mitigate the impacts of

global vertebrate population declines provides a serious challenge for scientists and natural resource managers. This is because effective conservation requires interdisciplinary and collaborative research programs that rely on application and advancement of fundamental biology, strong natural history, and long-term connections to ecological and human communities – components that are challenging to combine. In this talk, I will demonstrate this 21st century approach to research and conservation using a case study on the island of Guam, where invasive brown treesnakes caused the extirpation of nearly all native forest birds, the island’s ecosystem sentinels. Through this process, we have characterized the fundamental role of vertebrate seed dispersers in plant populations and communities. We have also used our natural history knowledge and close ties to the conservation community to inform efforts to rewild the island with the missing iconic and functionally important species. Guam provides an unprecedented demonstration of the importance of vertebrates, a cautionary tale for systems experiencing defaunation around the world, and a model for how to simultaneously address wicked socio-ecological challenges and advance our understanding of how the world works.

Seminar Speaker Host: Jennifer Ruesink

