



Biodiversity Seminar Series

The Biodiversity Seminar Series is pleased to announce

Dr. Varun Swamy

from **Duke University**, presenting the talk

Short- and long-term consequences of defaunation on western Amazonian floodplain forests

Abstract:

I examine the short- and long-term impact of defaunation on forest composition and regeneration dynamics across the ca. 80,000 km² Madre de Dios river basin in the southeastern Peruvian Amazon. The dataset includes 6+ years of year-round seed fall records, multiple annual recensuses of seedling communities, and a 5th year recensus of sapling communities. We compared seed distribution, seedling composition and sapling recruitment patterns among sites that differed drastically in vertebrate community composition, particularly in the density of large arboreal frugivores and large terrestrial seed predators.

In defaunated sites, seed dispersal of most primate-dispersed tree species appeared non-existent both numerically and spatially, although a few large-seeded species showed some evidence of compensatory dispersal. Overall, the drastic reduction in apparent seed dispersal of large-seeded fleshy-fruited species at defaunated sites was reflected in the spatial structure and composition of seedling and sapling communities via increased dominance and aggregation of a few species at the expense of others.

I conclude that community-level effects of defaunation on high-diversity Amazonian plant communities are somewhat idiosyncratic and may take decades or longer to become obvious and/or permanent. While extinctions of individual species and reduced diversity of the plant community may not be an immediate or automatic consequence, defaunation may exert a greater influence on the future carbon stocks of tropical forests by altering abundances of individual tree species and community composition over large spatial scales.

When: *Tuesday* May 10th 2016 at 12:00 pm

Where: Visualization Theatre, Room 1009
Biodiversity Institute of Ontario

For scheduling and more information on the seminars, please visit:
<http://biodiversitygenomics.net/resources/seminar-series/>

