

## Defaunation in the Anthropocene

Abstract: Dr. Mauro Galetti is a tropical ecologist at the University of Miami and Director of the Gifford Arboretum. His current research centers broadly on the effects of animal extinction on key ecological, evolutionary and ecosystem processes. Current understanding of the effects of animal extinction and the cascading effects in terrestrial ecosystems has been historically based in relatively simple food webs. In contrast, the effects of human-induced trophic cascades in hyper-diverse complex ecosystems, such as tropical rainforests, are largely unknown.

Dr. Galetti has been studying seed dispersal by fish, lizards, birds, and mammals, including extinct megafauna. He sees the extinction of large vertebrates during the last 50,000 years as a continuous human-driven impact on the biodiversity on Earth. Dr. Galetti is fascinated by rainforests and has been working in the Atlantic forests of South America for many years.

About 90% of all tree species rely on animal-dispersal and as a result, Dr. Galetti is trying to understand how the loss of seed dispersers will affect plant recruitment and how this ultimately will affect climate and other ecosystem functions.

Defaunation, known as the local, global or functional extinction of animals, has become a major biodiversity threat. In this talk, Dr. Galetti will take the audience to the myriad of consequences of animal extinction in these 3 scales: local, global and functional. His main focus here is to introduce cascading consequences of losing animals for plant reproduction (seed dispersal) up to the ecosystem scale (carbon storage). Finally, Dr. Galetti will be presenting his new work on the effects of defaunation in the Caribbean Island ecosystems.



Peaturing

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Remote Session via Zoom:
<a href="https://fiu.zoom.us/j/95135104846">https://fiu.zoom.us/j/95135104846</a>
This event is free and open to the public

## **Department of Earth & Environment**

