



The Department of Ecology and Evolutionary Biology Spring 2018 Seminar Series

The ecological players in the evolutionary theater: contemporary evolution in communities

Typically one thinks of evolution occurring over thousands of years, but for short-lived microbes, evolution can occur very quickly. Moreover, every other organism on the planet interacts with microbes. I use two unique communities to study how microbial evolution affects ecological interactions. First, in the microbial community that lives within the leaves of carnivorous pitcher plants, protozoa that evolved in response to predation by mosquito larvae reduced the ecological effects of predators to nearly zero. This evolution also altered the community structure of the bacterial community that protozoa consume. Second, endosymbiotic algae that live inside of hosts are critical to coral reef health, but the symbiosis breaks down when ocean temperatures reach a critical threshold. We found significant genetic variation in algal traits likely to affect the strength of the mutualism with hosts, suggesting that algal evolution may confer adaptation of hosts to a changing climate. Rapid evolution can alter ecological interactions and may allow species to adapt to changes in climate or interactions with other species.



Join us in welcoming
Dr. Casey terHorst
California State University

Friday, February 9, 2018
SERF 307 - 3:30 PM
Pre-talk Reception 3:00
PM in Dabney 575