

**Tkach, Colleen**

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**From:** Inform  
**Subject:** EM: Dept. of Natural Sciences Seminar Friday 10/18

**From:** Lauran Soto

## DEPARTMENT OF NATURAL SCIENCES SEMINAR ANNOUNCEMENT:

### *"Causes and Consequences of (co)infection"*

Sarah Budischak  
Assistant Professor of Biology  
Dept. of Natural Sciences

Friday, October 18th, 2024  
Burns Lecture Hall (NS E007)  
12:15-1:15 PM

Abstract: The interactions among hosts, parasites, and the environment are important for ecological and human health. I study environmental and physiological factors that cause variation in infection, and the resulting fitness, disease transmission, zoonotic disease risk, and evolutionary consequences. My research is centered at the individual scale because individuals are where physiology interacts with the external environment. Individuals are also the 'habitat' where multiple infections interact with each other and the host's immune system. The availability, quality, and distribution of food resources can affect key components of disease transmission such as contact rates, infectiousness, and susceptibility. To investigate co-infection and resource-immune-infection interactions, my research utilizes field studies, parasite removal experiments, detailed immunological and physiological assays, and collaborations with mathematical modelers and geneticists. These experimental approaches and collaborations allow me to investigate the effects of resources on parasite community interactions, as well as their repercussions for host health, the evolution of host defense strategies, and disease transmission.

Find additional seminar information here: <https://www.kecksci.claremont.edu/seminars/>

Best,  
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( Luran Soto