



School of

Biological Sciences

Fall 2017 Weekly Seminar Series



Copulation, Cannibalism, and Cognition: Stories of spider love making

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Understanding how cognitive traits, such as information gathering and decision-making, evolve is challenging in animals with long lifespans and multiple breeding seasons because the *consequences* of cognitive behaviors are not directly tied to lifetime reproductive success or fitness. Wolf spiders provide an opportunity to investigate these elusive evolutionary questions because females mate only once and both males and females live only one year – making it possible to quantify the evolutionary consequences of the male behaviors. Furthermore, female wolf spiders often cannibalize males when they are not receptive to mating, another potent evolutionary response. Male wolf spiders attract females for mating using often complex and multi-modal courtship displays. As in nearly all communication systems, the vibrational and visual signals of the displays are degraded and distorted as they travel through the environment. I investigate whether males can use feedback from females to optimize the transmission of these signals. Next, I explore the potential benefits of males that take advantage of this information. Finally, I consider courting males are under a unique selective regime in spiders, where female aggression and cannibalism is common.

Contact Scott Sakaluk (sksakal@ilstu.edu) for appointments with this speaker

**Thursday, December 7, 2017 at 4:00 p.m.
Moulton Hall 214**

*Pre-seminar refreshments will be served from 3:30 - 3:50
Felmley Science Annex outside Room 133*