

## **SEXUALLY TRANSMITTED NEMATODES IN THE DECORATED CRICKET**

Lien T. Luong and Harry K. Kaya

Departments of Entomology and Nematology, University of California, Davis, CA 95616,  
USA

Sexually transmitted diseases (STDs) are widespread in nature and have potentially different ecological and evolutionary outcomes than other infectious diseases. Sexually transmitted parasites may affect the evolution of host mating behavior, reproductive physiology, secondary sexual characters, and mate choice. Here, we describe the transmission dynamics of the dauer stage of an unusual nematode, *Mehdinema alii*. This nematode is strictly sexually transmitted between adult crickets, *Gryllobates sigillatus*, during copulation. The propagative stages of the nematode occur only in adult male crickets, while the adult female crickets serve only as a vector for nematode transmission. We investigated the role of the female cricket in nematode transfer and found that she serves as a means of mechanical transmission. Also, the female cricket is refractive to infection for reasons other than differential exposure. Dauers can persist and maintain infectivity in the female cricket for up to 12 days post inoculation. We will also investigate the affect of the nematode infection on host reproduction, *i.e.* spermatophore production and female re-mating frequency.