DBEM Seminar Talk

Wednesday 3 July
15:00-16:00
Sala Riunioni PRC 2 (6202) (2nd floor)

Speaker

Meredith VanAcker is PhD candidate in the Department of Ecology, Evolution, and Environmental Biology of the Columbia University, New York, USA.

For more information see: https://www.researchgate.net/profile/Meredith_Vanacker

Title

Islands and Corridors: Examining host movement in an urban tick-borne disease landscape

Abstract

Urban greening can provide high quality habitat and supplemental resources wildlife populations in cities. However, when wildlife are hosts of vectors or pathogens, natural landscapes in urban areas may increase the likelihood of zoonotic disease spillover to dense human populations. This study examines how hosts carrying pathogens and ticks navigate between the urban park 'islands' through vegetated corridors. Through integrating animal movement, genomics, and landscape ecology this seminar will introduce how tick-borne diseases, like Lyme disease, can emerge in a highly fragmented and human dominated landscape like New York City.

Relevant publications

VanAcker MC, Little EAH, Molaei G, Bajwa WI, Diuk-Wasser MA. Enhancement of Risk for Lyme Disease by Landscape Connectivity, New York, New York, USA. Emerg Infect Dis. 2019 Jun;25(6):1136-1143.

Fitak RR, Antonides JD, Baitchman EJ, Bonaccorso E, Braun J, Kubiski S, Chiu E, Fagre AC, Gagne RB, Lee JS, Malmberg JL, Stenglein MD, Dusek RJ, Forgacs D, Fountain-Jones NM, Gilbertson MLJ, Worsley-Tonks KEL, Funk WC, Trumbo DR, Ghersi BM, Grimaldi W, Heisel SE, Jardine CM, Kamath PL, Karmacharya D, Kozakiewicz CP, Kraberger S, Loisel DA, McDonald C, Miller S, O'Rourke D, Ott-Conn CN, Páez-Vacas M, Peel AJ, Turner WC, **VanAcker** MC, VandeWoude S, Pecon-Slattery J. The Expectations and Challenges of Wildlife Disease Research in the Era of Genomics: Forecasting with a Horizon Scan-like Exercise. J Hered. 2019 May 7;110(3):261-274.

Tufts DM, **VanAcker** MC, Fernandez MP, DeNicola A, Egizi A, Diuk-Wasser MA. Distribution, Host-Seeking Phenology, and Host and Habitat Associations of Haemaphysalis longicornis Ticks, Staten Island, New York, USA. Emerg Infect Dis. 2019 Apr;25(4):792-796.