

Perceptions or presence: Investigating individuals' reporting of mosquitoes as problems

Science and Mathematics

Colloquium Series

Wed., Jan. 20, 3:30 p.m.

Zoom link: <http://links.asu.edu/science-math>

Mosquitoes act as vectors for several dangerous diseases across the globe. In many urban environments, mosquitoes are responsible for introducing and spreading pathogens and so must be controlled. Effective mosquito control often relies upon residents' input to report potential mosquito hot spots, allowing for more targeted measures by vector control agencies. However, factors that lead to individuals reporting mosquitoes as a problem may not always match mosquitoes' distribution in the landscape.

Jeffrey Brown will discuss a CAP LTER study that links individuals' responses to the Phoenix Areas Social Survey (PASS), assessing whether mosquitoes are a problem, mosquito abundance records from Maricopa Vector Control, and landscape, social, and environmental variables to investigate what factors are linked to perceptions of mosquitoes as a problem. The work highlights that while the abundance of mosquitoes in an area influences mosquitoes' perception as a problem, social factors and perceptions of the landscape are more strongly linked to reports of mosquitoes as a problem. Specifically, perception of the landscape as messy and proximity to land use that is associated with mosquitoes (wetlands) more strongly correlate with reports of mosquitoes as a problem than the abundance of mosquitoes as measured by vector control. Understanding how perceptions of mosquitoes as a problem may differ from the underlying distribution of mosquitoes is critical, not only for effective vector control but also for city planning to reduce potential complaints.

Questions? Contact Steven.Saul@asu.edu



Jeffrey Brown, PhD

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CAP LTER Study

Jeffrey Brown is an urban ecologist and conservation biologist. The goal of his research is to promote biodiversity within urban landscapes through greater understanding of how species are distributed in developed areas and how urbanization shapes wildlife communities. His work has investigated how the surrounding landscape and size of protected forests impacts bird communities within forests as well as how the communities in a protected area change as the landscape around them changes. He is also interested in how factors like supplemental food sources and light pollution shape avian and arthropod communities. Brown earned a PhD in ecology and evolutionary biology at Rutgers University.

Faculty and practitioners discuss their current research and field projects in the Science and Mathematics Colloquium Series, held throughout the academic year at ASU's Polytechnic campus. All seminars are free and open to the public.