CFAES

SCHOOL OF ENVIRONMENT AND NATURAL RESOURCES

GRADUATE EXIT SEMINAR

SUSANNA HARRISON

Effects of light pollution on fish feeding behavior and assemblage structure in rivers and reservoirs

Artificial light at night (ALAN) is one of the most pervasive and rapidly expanding sources of anthropogenic pollution. A growing body of research suggests that ALAN poses a significant threat to ecological communities and global biodiversity. As important sources of biodiversity, aquatic ecosystems may be especially vulnerable to the effects of ALAN, particularly in urban and suburban areas. However, research on the environmental impacts of ALAN tends to focus on individual taxa without exploring how mechanisms of response at the individual level might influence community and ecosystem dynamics. My research combines an experimental investigation into the effects of ALAN on the nocturnal feeding behavior of Bluegill (*Lepomis macrochirus*) and a field study to examine differences in fish community composition and Bluegill diet along nighttime light intensity gradients created by ALAN. I synthesized the results of these two studies to determine if light pollution has the potential to alter fish behavior at the individual level and contribute to shifts in freshwater fish diversity at the community level. My research will be used to inform roadway lighting management decisions that protect both human safety and the integrity of Ohio's sensitive aquatic ecosystems.

Advisor: Dr. Suzanne M. Gray

MONDAY, NOVEMBER 22, 2021
9:30 A.M.

Join the seminar via Zoom:
https://osu.zoom.us/j/94640022723?pwd=cDFycVVOR1FnWTBGTDhhN0NDYlNKZz09