

GRADUATE EXIT SEMINAR

KRISTEN DIESBURG

Consequences of terrestrial invaders on aquatic-riparian linkages



Streams and their adjacent riparian zones are connected by a complex network of direct and indirect linkages. Invasive species that alter the vegetative composition of the riparian zone have considerable potential to alter both in-stream biological communities and the ecological linkages that connect streams with their adjacent riparian zones. Two particular riparian invasive species – hemlock woolly adelgid (HWA) in Appalachia and honeysuckle in urban streams – were the foci of my studies. My objectives were to (1) describe and explain shifts in benthic macroinvertebrate communities along HWA/honeysuckle invasion gradients, (2) assess invertebrate food-chain length and trophic structure of stream-riparian arthropods (i.e., emergent macroinvertebrates and riparian tetragnathid spiders) along HWA/honeysuckle invasion gradients, and (3) examine causal shifts in the benthic invertebrate community and riparian spiders through a honeysuckle removal experiment. I show that riparian invaders can affect multiple trophic levels and the connectivity between aquatic and terrestrial systems, and that the directionality and strength of effects are context dependent. Knowledge of the impacts of invasive species will be vital for effective conservation and management of stream-riparian ecosystems.

Advisor: Dr. Mazeika Sullivan

**THURSDAY, APRIL 15, 2021
9:00 A.M.****Join the seminar via Zoom:**<https://osu.zoom.us/j/95830387518?pwd=QTlOU0ZxVGxXdzFRd1FpOW5mSnkwdz09>**senr.osu.edu****THE OHIO STATE UNIVERSITY**COLLEGE OF FOOD, AGRICULTURAL,
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