

THE DEPT OF FORESTRY & NATURAL RESOURCES PRESENTS

FALL 2025 SEMINAR SERIES

MONDAY, NOVEMBER 3RD
WSLR 116 3:30 PM - 4:30 PM

JOIN US FOR A LECTURE AND CONVERSATION WITH

DR. ERIN HOTCHKISS

**Integrating Water and Energy
Dynamics to Assess the Health and
Resilience of Freshwater Ecosystems**



Dr. Hotchkiss is an Associate Professor in the department of Biological Sciences at Virginia Tech University.

This series aims to stimulate discussion and create opportunities for collaborations. Everyone is welcome to attend.

How materials move and cycle within and across ecosystems sets the stage for biogeochemical cycles and ecological interactions. For example, export of carbon from soils to streams subsidizes food webs in recipient freshwaters and alters the degree to which terrestrial ecosystems are net carbon sinks, while sediment pollution can also generate stressful low-oxygen conditions for freshwater biota. Co-located terrestrial and aquatic measurements, while rare, offer opportunities to characterize the timing and magnitude of land-water fluxes, and link those fluxes with in-stream energetics that reflect ecosystem health. I will share how my research uses high-frequency estimates of stream metabolism (photosynthesis and respiration), linked with hydrology and water quality data, to characterize how stream energetics change with flow in different biomes. I will highlight how whole-stream metabolism responds to and recovers from environmental stressors, and discuss future opportunities to connect hydrology, biogeochemistry, and ecology to track ecosystem health and resilience in changing environments.

LOCATED AT 170 S UNIVERSITY STREET, WEST LAFAYETTE, IN 47907

IF YOU ARE INTERESTED IN MEETING WITH DR. HOTCHKISS PLEASE
CONTACT DR. JACOB HOSEN AT [JHOSEN@PURDUE.EDU](mailto:jhosen@purdue.edu).



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