




*“Immerse” yourself,
 learn and explore
 this summer!*

**STREAM
 ECOLOGY INSTITUTE**

at Susquehanna University

JULY 9–15

*Sponsored in part by Susquehanna’s Department
 of Biology and Freshwater Research Institute*

Stream ecology is the study of all the living and non-living components of stream systems and how those elements interact with each other. Think of anything you might find in a stream: a trout, a rock, an insect, maybe even an old tire. All of these things influence each other and are affected by one another in a continuum—from small streams to large rivers.

This weeklong, residential summer camp will have you searching under rocks for crayfish and salamanders and testing stream waters for phosphate, nitrogen and dissolved oxygen.

The SEI promotes learning experiences about long-term ecological studies to high school students. You will have the opportunity to learn more about the environment as well as explore career possibilities in science and ecology.

APPLY AT WWW.SUSQU.EDU/SEI

“IMMERSE”

*yourself in the Susquehanna River Basin
 ecosystem to learn about numerous
 components of the streams.*

LEARN

*how water movement, fish, invertebrates,
 vegetation, bacteria, water chemistry and
 pollution affect the creek.*

EXPLORE

*regional creeks from the bottom up,
 and develop your own study to investigate
 an aspect of the creek that interests you.*



STREAM ECOLOGY INSTITUTE

Susquehanna University
 Office of Event Management
 514 University Ave., Selinsgrove, PA 17870



Susquehanna University —

**STREAM
 ECOLOGY
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JULY 9–15, 2017


*A unique summer
 experience for high
 school students*

Susquehanna
 UNIVERSITY

STREAM ECOLOGY INSTITUTE

SEI is run by Susquehanna University faculty and staff with impressive talents, who study and monitor environmental issues within the watershed. The program is born from dedicated faculty who are committed to the research to define and improve the quality of life for all who live, work and play within the Susquehanna River Basin boundaries.

Meet the Co-directors



Jack Holt
Professor of Biology
Susquehanna University

Holt and his lab study algae and macroinvertebrates in small headwater streams and the large main stem of the Susquehanna River. He follows the two types of living communities to

see how they change through seasons and how they vary through years. Within that variability he looks for patterns that inform him about the health of the aquatic systems. Visit “Holtlab” on Facebook for updates.



Michael Bilger
Aquatic Ecology
Research Scientist
Susquehanna University

Bilger and his team are involved in six stream restoration projects with the PA Fish and Boat Commission. He partners with Penn State University to study

smallmouth bass from four sites on the Susquehanna River and surrounding creeks. Bilger is also involved in a joint study to dissect the stomach contents from thousands of crayfish to identify what they have been eating.



COMPREHENSIVE FEES

Comprehensive fees for SEI include room, meals and all program materials for the week.

\$875 *If your online application is submitted on or before April 1.*

\$925 *If your online application is submitted after April 1.*

Students entering grades 10 through 12 in the fall of 2017 are invited to apply. Selection is competitive and based on a letter of recommendation, academic skills, current interests in the environment and future career aspirations. All applications must be submitted no later than June 12.

Eager to begin your studies and to investigate ...

- » If plants affect the presence of aquatic invertebrates?
- » How the material in a stream bed influences aquatic communities?
- » The correlation between stream flow, water temperature, dissolved oxygen and fish populations?

For a full week, you will be taught the fundamentals of water quality, macroinvertebrate and fish sampling, and identification. You'll get plenty of hands-on experience using the latest equipment and methods employed by professionals in the field of aquatic ecology.

On the final day of the camp, you will present your findings, using the latest in computer technology, to a panel of science educators and natural resource professionals.

Join us for this exciting college life experience while learning the basics of stream ecology!

Highlights of the Week

- » Boating
- » Canoeing/kayaking
- » Hiking
- » Picnicking in state parks
- » Sample collections in rivers, creeks and small streams
- » Daily field trips
- » Visit to Penns Cave
- » Electrofishing in local streams
- » Study of headwater streams
- » Final research presentations for families