



# PINELANDS PRESERVATION ALLIANCE & THE BONAZZI FOUNDATION FOR THE PROMOTION OF SCIENCE EDUCATION

Life Science Field Training Institute | June 23-27, 2014

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## Program Syllabus

***Preparations:** This week you will be in the field often. Please wear field appropriate clothing – a change of clothes is a good idea for every day. Ticks are present and clothing choice, preventative measures and thorough end-of-the-day inspections are necessary. Bring plenty of water and wear sunblock as needed. Close toed shoes are a must for all field experiences. Shoes that can get wet are needed for Wednesday and Friday. The syllabus that follows may change depending on weather or other circumstances.*

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**Monday, June 23** *Meet at Pinelands Preservation Alliance*

8:30 – 9:30am	<b>Welcome and Introductions</b>
9:30 – 10:30am	Introduction to <b>Field Studies and Basic Principles of Ecology: The Pine Barrens of New Jersey</b>
10:30 – 10:45am	Break
10:45am – 12:15pm	<b>Connecting Abiotic and Biotic Factors in Ecosystems: Plant Richness Quadrant Study</b>  <b>Soil Temperature and Vegetation Cover Study</b>
12:15 – 1:00pm	Lunch
1:00 – 2:30pm	<b>Basic Principles of Statistics and Data Analysis and Display: Use of Excel and Graphing Calculators</b>
2:30 – 2:45pm	Break
2:45 – 4:00pm	<b>Introduction to Ecotones and Setting Pitfall Traps Examining Ecotones – Invertebrate Community Diversity</b>

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**Tuesday, June 24** *Meet at Pinelands Preservation Alliance*

- 8:30 – 10:30am **Collection of Pitfall Traps and Identification of Invertebrates:  
Analysis, Discussion and Display of Data**
- 10:30 – 10:45am Break
- 10:45am – 12:15pm **Introduction to Population Ecology**
- 12:15 – 1:00pm Lunch
- 1:00 – 2:30pm **Collection of Population Data** (Wildflowers and/or Invertebrates)
- 2:30 – 2:45pm Break
- 2:45 – 4:00pm **Analysis and Discussion of Population Data  
Preparations for the Canoe Trip  
Discussion: Field Trips in your curriculum**

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**Wed., June 25** *Meet at Adam's Canoe Rental (directions to be provided)*

- 8:00am Depart Adam's Canoe Rental for Paddle on the Batsto River
- 8:30am – 3:30pm **Canoe Trip – Flora and Fauna of the Pine Barrens  
Data Collection, Taxonomy Studies and Field Journals**
- 4:00pm Arrive back at Adam's Canoe Rental

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**Thurs., June 26** *Meet at Pinelands Preservation Alliance  
Carpool to Rutgers Pinelands Field Station*

- 8:00am Meet at PPA
- 8:30 – 9:30am **Tour of the Rutgers Field Station**
- 9:30 – 11:30am **Forestry Study; Tools of the Forest Ecologist  
Comparing Oak and Pine Tree Data; Height, Diameter, Wood Volume,  
Age and # Logs  
Ecological and Economical Value of Forests**
- 11:30am – 12:30pm Lunch (at Rutgers)

- 12:30 – 2:30pm      **Disturbance and Community Ecology – Species Area Curves  
The Effects of Disturbance on Community Diversity**
- 2:30pm                Return to PPA
- 3:00 – 4:00pm      **Analysis of Forestry and Species Area Curve Data**
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**Friday, June 27**      *Meet at Pinelands Preservation Alliance  
Carpool to Brendan Byrne State Forest, Pakim Pond*

8:00am                Meet at PPA

8:30 – 11:30am      **Birds of the NJ Pine Barrens** – Data collection for the Climate Change Bird Atlas  
**Fish Community and Population Study** – Removal Sampling at Pakim Pond  
**Water Quality Studies** – Linking Ecological Health and Species Composition

11:30am – 12:30pm   Lunch (on the road)

1:00pm                Return to PPA

1:30PM – 3:30pm    **Discussion and Analysis of Bird Diversity Data, Fish Population Study and  
Water Quality Data**

3:30pm – 4:00pm    **Wrap Up and Graduation**

*\*All times are approximate*

*\*Sequence of Investigations may change due to weather or other factors*



The 2014 Life Science Field Training Institute is presented by the Pinelands Preservation Alliance and has been generously underwritten by The Bonazzi Foundation for the Promotion of Science Education.  
[www.pinelandsalliance.org](http://www.pinelandsalliance.org) [www.bonazzifoundation.org](http://www.bonazzifoundation.org)

