



PINELANDS PRESERVATION ALLIANCE &  
THE BONAZZI FOUNDATION  
FOR THE PROMOTION OF SCIENCE EDUCATION  
Life Science Field Training Institute June 27-30, 2016

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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 Thursday. The syllabus that follows may change depending on weather or other circumstances.*

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### **Monday, June 27** *Meet at Pinelands Preservation Alliance*

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| 8:30 – 9:30am     | <b>Welcome and Introductions</b>  |
| 9:30 – 10:30am    | Introduction to <b>Field Studies and Basic Principles of Ecology:<br/>The Pine Barrens of New Jersey</b>  |
| 10:30 – 10:45am   | Break   |
| 10:45am – 12:15pm | <b>Connecting Abiotic and Biotic Factors in Ecosystems:<br/>Plant Richness Quadrant Study</b><br><br><b>Soil Temperature and Vegetation Cover Study</b> |
| 12:15 – 1:00pm    | Lunch   |
| 1:00 – 2:00pm     | <b>Basic Principles of Statistics and Data Analysis and Display:<br/>Use of Excel and Graphing Calculators</b>  |
| 2:00 – 2:15pm     | Break   |
| 2:15 – 3:15pm     | <b>Introduction to Ecotones and Setting Pitfall Traps<br/>Examining Ecotones – Invertebrate Community Diversity</b>                                     |
| 3:15 – 4:00pm     | <b>Introduction to Bird Studies – Bird Basics 101</b>   |

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**Tuesday, June 28** *Meet at Pinelands Preservation Alliance*

- 8:00 – 9:00am **Bird Walk and Species Inventory**
- 9:00– 10:45am **Collection of Pitfall Traps and Identification of Invertebrates:  
Analysis, Discussion and Display of Data**
- 10:45am – 12:00pm **Introduction to Population Ecology**
- 12:00 – 1:00pm Lunch
- 1:00 – 2:00pm **Collection of Population Data** (Wildflowers and/or Invertebrates)
- 2:00 – 3:15pm **Analysis and Discussion of Population Data**
- 3:15 – 4:15pm **Climate Change Bird Atlas – using biodiversity as a measure of potential  
impact**
- 4:15 – 4:45pm **Preparations for the Canoe Trip  
Discussion: Field Trips in your curriculum**

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**Wed., June 29** *Meet at Pinelands Adventures (directions to be provided)*

- 8:00am Depart Pinelands Adventures for a Paddle on the Batsto River
- 8:30am – 4:00pm **Canoe Trip – Flora and Fauna of the Pine Barrens  
Data Collection, Taxonomy Studies and Field Journals  
Water Quality Studies – Linking Ecological Health and Species**

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**Thurs., June 30** *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 Economic Value of Forests**
- 11:30am – 12:30pm Lunch (at Rutgers)

12:30 – 2:30pm	<b>Disturbance and Community Ecology – Species Area Curves The Effects of Disturbance on Community Diversity</b>
2:30pm	Return to PPA
3:00 – 4:30pm	<b>Analysis of Forestry and Species Area Curve Data</b>
4:30pm	<b>Closing Remarks and Graduation</b>

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*\*All times are approximate*

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



The 2016 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)

