

# 2013 Life Science Field Training Institute

## Program Syllabus

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

8:30 – 9:30am **Welcome and Introductions**

9:30 – 10:30am **Introduction to Field Studies and Basic Principles of Ecology  
The Pine Barrens of New Jersey**

10:30 – 10:45am Break

10:45am – 12:15pm **Connecting Abiotic and Biotic Factors in Ecosystems  
Plant Richness Quadrant Study**

12:15 – 1:00pm Lunch

1:00 – 2:30pm **Basic Principles of Statistics and Data Analysis and Display  
Use of Excel and Graphing Calculators**

2:30 – 2:45pm Break

2:45 – 4:00pm **Introduction to Ecotones and Setting Pitfall Traps**

**Tuesday, June 25** *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**

**Wed., June 26** *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
- Thurs., June 27** *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**
- Friday, June 28** *Meet at Pinelands Preservation Alliance – carpool to Brendan Byrne SF, 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 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*



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