

Providing educational programs in ecology and cultural history on the New Jersey Pine Barrens and Whitesbog Historic Village

# **NEW EDUCATION PROGRAM & FIELD TRIP:**

## Pollinators in the PINES

Birds, butterflies, bats, mammals, bees and moths all play a part in pollinating our foods and native Pines Barrens Plants. Students will learn what plants are pollinated by which creatures, known food webs, host plants, and nectar plants. We will show students the Whitesbog Pollinator Gardens and can visit your school to help you start your own pollinator garden! Available year round

Best for PreK - 8th grade

# Science Field Trips:

# Spring Adventures

What do native plants and animals do after waking up after a long winter's sleep? Discover frog and tadpole adaptations, catch dragonfly nymphs and other aquatic creatures living in a pond, go on a hike looking through leaf litter, observe birds and their adaptations, and identify signs of spring growth in plants. These adventures will capture a young student's sense of wonder through first-hand exploration.

Available April - June Best for PreK - 4th grade

### Autumn Adventures

Through exploration of natural sites, students will begin to understand the seasonal changes some Pine Barrens plants and animals go through once the weather turns chilly. Students will take a journey to explore migration, explore which local species hibernate, identify adaptations for winter survival, and investigate seasonal plant changes.

> Available September - November Best for PreK - 4th grade



# Science Field Trips Cont'd:

### Winter Adventures

The adventures in this lesson focus on who is awake in the Pine Barrens during the winter, and what discoveries we can make in a seemingly sleeping landscape Students will have the opportunity to observe rare Tundra swans, find hibernating insects in galls, practice animal tracking skills, build a hibernaculum, and listen to the sounds of winter during a nature hike. Activities alternate between being indoors and outdoors.

> Available December - March Best for PreK - 4th grade

### **Trees of the New Jersey Pine Barrens**

The Pine Barrens are not just pine trees! Students will use their senses to identify common tree species in their natural habitat and records data observations on their findings. Though hands-on exploration and discussion, students will understand tree anatomy and physiology, as well as the effects of climate change and human impact on forest ecology. Available year round

Best for 3rd - 12th grade

#### Pond Ecology

Discover the multitude of living things found in the cedar water of the Pine Barrens. Students will perform a pond aquatic species survey and describe adaptations, observe and identify other wetland species, and discover microorganisms that are small enough to live in a drop of water. Students will discuss the interdependence and adaptations of plants and animals that live in these wet areas.

> Available April - October Best for Kindergarten - 12th grade

#### **Exploring Freshwater Wetlands**

Students will venture into the depths of 5 different wetland areas in order to learn about wetlands in general and about the vital role wetlands play to the New Jersey Pinelands. By exploring the various forms of wetland habitats, taking measurements, recording observations, and investigating the plant and animal life in each area, students will become aware of the relationship between living organisms and their habitat.

Available year round Best for 5th - 12th grade



# Science Field Trips Cont'd:

#### **Fire Ecology**

Fire is a necessary element in the Pine Barrens. For many ecosystems, fire is essential for succession, regeneration, and maintenance of healthy forests. Students will explore the community conditions that make this area fire prone, collect soil and plant life data as it relates to fire occurrence, and identify both physical and behavioral adaptations to help plants and animals deal with the natural occurrence of fire.

Available year round Best for 6th - 12th grade

#### **Pine Barrens Ecology**

Explore three ecological communities to discover how different factors create different communities within the Pine Barrens. In teams, students will practice their field work skills by collecting data on water and soil pH, soil composition, percolation, and fire contributing factors, and working on plant and animal sign identification skills. Using the results of these investigations, students will understand the characteristics of each specific ecological community and their importance to the Pine Barrens as a whole.

Available year round Best for 6th-12th grade



# Social Studies Field Trips

# Lenape: Living in the Pines

The Lenape, one of New Jersey's first peoples, learned to survive by utilizing the natural resources of the Pine Barrens. Students will grind corn flour, prepare a winter snack and topical medicines, assist in re-telling Lenape stories, play traditional games, and discover Lenape technology. This course emphasizes our past and present connection to the Earth, and the need to think about our impact for the future.

Available year round Best for Kindergarten - 8th grade

## Life in a Company Town

After its founding by James Fenwick in the late 1800's, Whitesbog became an important company town for the cranberry industry. Students will visit a selection of buildings in our historic village, participate in old-time house chores, get a chance to experience a game of 'picking cranberries' and explore our museum. We will also go on a nature hike to observe the surrounding lands. Through these activities, students will experience what life was like over a century ago, and become acquainted with our connection to the land through farming.

Available year round Best for Kindergarten - 8th grade

### The New Jersey Cranberry Industry

Where does our food really come from? Explore the soil and water in the wetland habitat of the native cranberry plant. Activities include a short video presentation on how cranberries grow; a journey into the bog to investigate the soil, plant life, & other living things in a bog habitat; observation of modern harvesting operation (if in progress).

ONLY available in October Best for Kindergarten - 12th grade

### Birth of the Blueberry

Through the work of Elizabeth White, a forgotten woman of science, wild blueberries were cultivated at Whitesbog. Students will discover how the blueberry bush was collected, studied, and farmed by examining the characteristics of the native vegetation and tending plants in a field. Elizabeth's love of native Pine Barrens flora will be recognized as we tour her garden of blueberries bushes she cultivated 100 years ago.

Student may also have the opportunity to pick blueberries to bring home with them. Available June-August Best for Kindergarten - 12th grade



# Field Trip Booking Details

Programs are designed for a 10 am - 1:30 pm time period, but can be tailored to your group's individual needs. Please inform us if you need to come earlier or can stay later.

A majority of our programming is held outdoors, sprinkle or shine. In winter and summer only 30-45 minutes at a time will be spent outdoors (program dependent). In cases of extreme weather, programming will be moved indoors (program dependent) or rescheduled for another day. If rescheduling is impossible, the cost of your field trip will be considered a donation; **there are no refunds.** 

The cost of a PINES On-Site Field Trip is \$14 per student, with a minimum charge of \$240.00 per group (if less than 20 students). Five adults per single-day field trips, including the teacher, are free; additional adults are \$14 each. Additional discounts for multi-day field trips available upon request.

A **\$50 deposit is required to secure your trip date**. If more than one date is needed to accommodate your group, we require \$50 deposit per date reserved. Full payment is due at least 2 weeks before your scheduled trip.

We can accommodate up to 130 students per day. Large groups will need to be split across multiple days. Group size limits are necessary to match the space limitations of our facilities and also benefit the quality of the field trip experience for the kids.

For more information or to book a field trip please call 609-893-4646 or email PinelandsInstitute@gmail.com