

## *Pine Barrens Ecology*

**Program description (abstract):** The Central Pine Barrens represents one of the best remaining examples of a Pine Barrens ecosystem in the world. Join us for a hands-on, interactive presentation on the Pine Barrens to understand what makes this ecosystem so unique. We'll also explore the unique diversity of life that depends on the Pine Barrens for its survival. We will also discuss the human connection to this vulnerable ecosystem.

**Grade Level:** 1<sup>st</sup> - 4<sup>th</sup> (Elementary)

**Length of program:** 50 minutes

**Maximum Group Size:** One classroom is preferred.

**Program goal:** To introduce students to the Central Pine Barrens ecosystem, that overlies the greatest quantities of the purest drinking water on Long Island and contains one of the greatest concentrations and diversities of endangered, threatened and special concern species of plants and animals to be found in the New York State.

**Program objectives:** During this program, students will...

- gain a basic understanding of what the Central Pine Barrens ecosystem is and why it is considered special.
- be introduced to the role of fire in the Pine Barrens ecosystem.
- discover some of the plants and animals that live in the Pine Barrens and how they are adapted to their environment.
- understand how people can help protect this ecosystem by teaching others.

**Criteria for assessing accomplishment of objectives:** As a result of this program, students will...

- be engaged and actively participate in a hands-on, interactive discussion.
- be able to name at least one animals or plants unique to the pine barrens.
- be able to identify two adaptations of Pine Barrens animal and plant species.
- be able to give one example how the Pine Barrens is a fire dependant ecosystem.
- be able to identify where Long Island's Aquifer's are located.

**Grade Level:** 5<sup>th</sup> - 8<sup>th</sup> grade (*Intermediate*)

**Length of program:** 55 minutes

**Maximum Group Size:** One classroom is preferred.

**Program goal:** To introduce students to the Central Pine Barrens ecosystem, that overlies the greatest quantities of the purest drinking water on Long Island and contains one of the greatest concentrations and diversities of endangered, threatened and special concern species of plants and animals to be found in the New York State.

**Program objectives:** During this program, students will:

- gain a basic understanding of what the Pine Barrens ecosystem is and why it is considered special (recognition of certain ecological and geological features as being especially characteristic of the Pine Barrens).
- be introduced to the natural processes that shape the Pine Barrens ecosystem .
- discover what species live in the Pine Barrens, how are they adapted to their environment and how they interact with each other.
- understand the threats facing the survival of the Pine Bush and how people can help to restore and preserve this ecosystem.

**Criteria for assessing accomplishment of objectives:** As a result of this program, students will:

- be engaged and actively participate in a hands-on, interactive discussion.
- be able to name at least five animals or plants unique to the pine barrens.
- be able to identify three adaptations of Pine Barrens animal and plant species.
- be able to identify how the Pine Barrens is a fire dependant ecosystem.
- be able to name all three of Long Island's Aquifer's

**Grade Level:** 9<sup>th</sup> - 12<sup>th</sup> (*Advanced*)

**Length of program:** 55 minutes

**Maximum Group Size:** One classroom is preferred.

**Program objectives:** During this program, students will:

- gain a basic understanding of what the Central Pine Barrens ecosystem is and why it is considered special (recognition of certain ecological and geological features as being especially characteristic of the Pine Barrens).
- be introduced to the natural processes that shape the Pine Barrens ecosystem .
- discover what species live in the Pine Barrens, how are they adapted to their environment and how do they interact with each other.
- understand the threats facing the survival of the Pine Barrens and how people can help to restore and preserve this ecosystem.

**Criteria for assessing accomplishment of objectives:** As a result of this program, students will:

- be engaged and actively participate in a hands-on, interactive discussion.
- be able to name at the animals or plants unique to the pine barrens.
- be able to identify the adaptations of Pine Barrens animal and plant species.
- be able to identify how the Pine Barrens is a fire dependant ecosystem.
- understand the Long island aquifer system and its importance to the region
- understand the role of the Pine Barrens in protecting the drinking water that resides in the aquifer
- understand substances that can contaminates the aquifer, the paths to contamination, the dangers to the ecosystem and the means to protect it