



Station 1:

Unfragmented Forests. Many species that live in the watershed need large areas of continuous forests to survive. Where many large tracts of unbroken forest remain, unique species of wildflowers, moths, salamanders, and hawks can exist. Large mammals such as gray and red fox, river otter, and bobcat also rely on these areas. The Dorothy Reserve was acquired by the New Jersey Conservation Foundation to help protect the Atlantic County Pine Barrens and to insure that this area will not become fragmented from the northern areas. This sensitive Pine Barrens area between Routes 50 and 54 is designated as the Elwood Corridor by the New Jersey Pinelands Commission.

Cooper's Hawk

Station 2:

Pine Barrens Savanna Side Trail. Snakes, butterflies, moths, and other species depend on small savanna habitats or opens areas that were once plentiful and created by fires. This area has been cleared and planted with savanna plant species in order to recreate this natural environment that many species need to survive and reproduce. Native wildflower species planted here include blazing star, stiff-leaf aster, gray and sweet goldenrod, and grasses such as little blue stem grass, Indian grass, switch grass, and broom-sedge. When there was a house at this site many non-native species were introduced, including venus's looking-glass, common mullein, daisy fleabane, yarrow, and Deptford pink.



Daisy Fleabane

Station 3:



Pitch Pine Cone

Pine-Oak Forest/Fire Ecology Pitch Pine, White, and Black Oak are the predominant tree species in this uplands area. Other trees found here include the Post Oak, Scarlet Oak, Chestnut Oak, and Sassafras. The Black Huckleberry is the most common shrub in this area and makes up much of the forest under story. Fire is the most important factor which has shaped the vegetation of the New Jersey Pine Barrens. Lightning strikes caused wild fires thousands of years before the Pines were settled by man. Fires are a necessity for many Pine Barrens plant species such as the Pitch Pine, which only releases its seeds after being heated during a fire. Fire also clears the forest floor allowing seeds

to take root and grow.

Station 4:

Birds There are many species of birds common at the reserve including, carolina chickadee, junco, titmouse, and goldfinch. To best observe birds, bring a lawn chair and sit quietly for a while. You might see a mother turkey leading her young across the road, a red bellied woodpecker looking for insects in a tree, or a broad winged hawk soaring by, searching for a meal. This pitch pine forest also provides habitat for many migratory song birds who breed in these areas and winter in South and Central America. Some make journeys of over 3,000 miles. Species found here include the whip-poor-will, the oven bird and the ruby-throated hummingbird, which can be observed feeding on the flowers of the sweet pepperbush in the late Summer.



Oven Bird Singing

Station 5:



Pointed Blue-eye Grass

Excavated Area This area was dug for fill years ago but many species of plants now thrive here. In the Spring look for the small, dark blue flowers of the pointed blue-eyed grass and the yellow loosestrife which has small yellow flowers arranged around its stem. Along the edges of the area look for mountain laurel with its large clusters of white flowers and sheep laurel with its small, deep pink flowers that bloom in June. In the late Summer look for the tiny, tubular, blue flowers of the nuttall's lobelia and the clusters of tiny white flowers of the rough boneset. Many types of grasses are also found here including bushy beard grass, little blue stem grass, Canada rush, soft rush, and bristle spiked cyperus. Many insects and animals feed on the seeds these plants produce.

Station 6:

Ferns Ferns are the earliest and simplest type of vascular plants. Vascular plants are plants that have the ability to bring water and food from their roots, up through their stems to their leaves. These types of plants do not produce flowers or seeds and rely on spores to reproduce. 300 million years ago, during the Paleozoic Era, ferns were the dominate plant species on earth.

Many attained the size of trees. The bracken fern with its triangular cluster of leaves is the most common fern in the reserve. It grows along the trail and in the uplands. In the wetlands area look for the Virginia chain fern with its dark stems, the netted chain fern with its thick uncut leaves, the royal fern, with leaves that resemble a locust tree, and the large cinnamon fern which is common in wetlands.



Cinnamon Fern

Station 7:



Spatulate Leaf Sundew
leaves persist through the summer.

Cedar Swamp You are looking upstream into an Atlantic White Cedar Swamp. This habitat was once very abundant. Cedars were harvested and cut into shingles, siding, and other products by area mills. Many of these wet areas have been cleared and turned into cranberry bogs. Because of the Pine Barren's nutrient poor soil, many kinds of insectivorous plants rely on insects for food. In this area they are found on the hummocks and along the banks. The northern pitcher plant has cup shaped leaves that fill with water. They trap and digest the insects that fall into them. The spatulate leaved sundew has small leaves that produce tiny droplets of sticky dew which trap and digest insects. The golden club is common here and has a club-shaped spike of tiny yellow flowers that bloom in May. Its dark green, water resistant

Station 8:

Maple swamp looking down stream from the road is a harvested Atlantic white cedar swamp which has been taken over by red maples and other species. Few cedar swamps ever regenerate after harvesting. In this area look for the white trumpet shaped flowers of the swamp azalea and the large creamy white flowers of the bay magnolia that bloom in June. In August look for the white, cylindrical, fragrant flowers of the sweet pepperbush which is common in the area. In the summer many species of dragon flies hunt along the creek for small insects. The long-legged waterstrider is also common. It skates on the surface of the stream using the waterproof hairs on its feet.



Bay Magnolia

Station 9:



ecology of the Pine Barrens.

Sand/Cohansey Aquifer. In this area you can notice the distinct white sand of the Pine Barrens. This soil contains up to 90% silica and was used by glassworks such as Estell Manor. For fuel they relied on pine and oak trees, which were cut down and turned into charcoal. The Pinelands Commission protects the Cohansey Aquifer, one of the largest sources of fresh water in the east coast, containing an estimated 17 trillion gallons of fresh water. The water of this aquifer often is found near the surface, creating many bogs, swamps and streams like the ones found here. There is a delicate balance between water quality, potential overuse, and the