

The Pinelands of New Jersey

*Our Nation's First National Reserve
and a U.S. Biosphere Reserve*

Photo Gene Nieminen / USFWS, NJFO

The Pinelands Geographic Area

Truly unique to the Coastal Plain extending from New Jersey to Texas, the Pinelands of southern and central New Jersey comprise approximately 1.1 million acres, occupy 22 percent of the State's land area, and encompass 56 municipalities within Atlantic, Burlington, Camden, Cape May, Cumberland, Gloucester, and Ocean Counties.

The Pinelands National Reserve

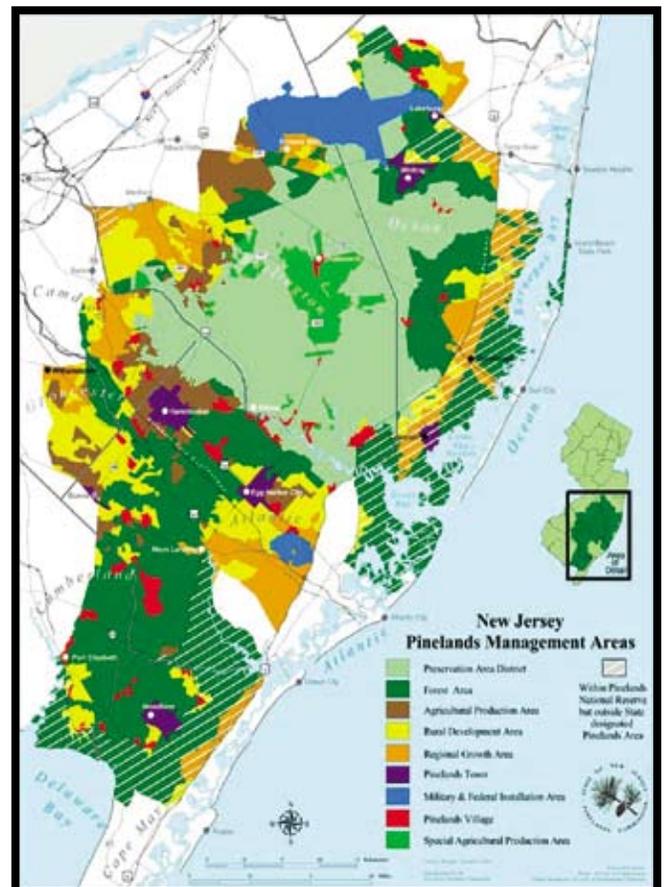
In 1978, the U.S. Congress recognized the ecological significance of the Pinelands and designated the Pinelands National Reserve pursuant to Section 502 of the National Parks and Recreation Act. The following year, the State of New Jersey promulgated the Pinelands Protection Act, establishing the Pinelands Commission to oversee the management of the Protection Area (565,000 acres) and the core Preservation Area (368,000 acres), and authorizing the Commission to prepare a Comprehensive Management Plan (CMP). The Commission includes a representative of the Department of the Interior. The U.S. Fish and Wildlife Service's (Service) participation in the preparation of the federal Environmental Impact Statement (EIS) led to approval of the CMP by Governor Brendan Byrne of New Jersey and of the federal EIS by Secretary of Interior Cecil Andrus in 1981. The regulations and standards contained in the CMP promote land use in a manner consistent with preserving and protecting unique ecological, agricultural, historical, and recreational resources. The United Nations Educational, Scientific,

and Cultural Organization (UNESCO) designated the Pinelands National Reserve as a Biosphere Reserve in 1983. The Service later designated several Pinelands wetlands as "priority wetland" sites under the federal Emergency Wetlands Resources Act of 1986. Currently, more than 232,000 acres within the Pinelands are protected in perpetuity by the State of New Jersey. The New Jersey Pinelands is our country's first National Reserve.

The Flora and Fauna of the Pinelands

The Pinelands is rich with a great number of natural treasures within a seemingly unvaried assemblage of pitch pines (*Pinus rigida*) and oaks (*Quercus* spp.), which grow in gently-rolling, acidic, and nutrient-poor soils and are occasionally interspersed with mixed pitch pine lowlands, Atlantic white-cedar (*Chamaecyparis thyoides*) and red maple (*Acer rubrum*) swamps, savannas, iron bogs, streams, and brackish marshes. The Pinelands sustain a noteworthy number of species: 850 plants, 39 mammals, 299 birds, 59 reptiles and amphibians, and 91 fish. Over 90 species of plants and 44 animal species that inhabit the

Pinelands are listed as threatened or endangered or designated as species of special concern by the New Jersey Division of Fish and Wildlife. Included are species that are federally listed and protected under the Endangered Species Act and plant species that are candidates for federal listing.



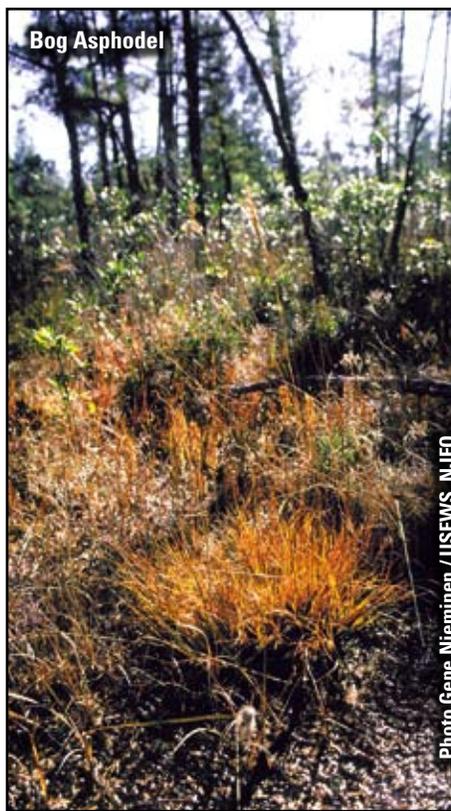
American Chaffseed

The Pinelands harbor the only remaining population of the federally listed (endangered) plant American chaffseed (*Schwalbea americana*) in New Jersey. The adaptive hemi-parasitism of this species (obtaining a portion of its nutrients by attaching root-like suckers onto a host plant) testifies to the low nutrient value of Pinelands' soils. The plant's decline is largely attributed to fire suppression and habitat loss.



Swamp Pink

Most of the world's remaining populations of the federally listed (threatened) swamp pink (*Heloniopsis bullata*) are found in swamps and along riparian streambanks in New Jersey. The species is best known by its showy pink flowers; however, swamp pink's ability to reproduce vegetatively (by which new plants arise from elongated root stock or rhizomes) allows the species to propagate without large expenditures of energy in shaded, nutrient-deficient substrates. Although relatively secure within the Pinelands' boundaries, swamp pink populations are declining in unprotected areas due to hydrologic changes and habitat degradation caused by sprawling developments.



Bog Asphodel

Pinelands savannas and iron bogs provide habitat for the bog asphodel (*Narthecium americanum*), a candidate for federal listing. Like swamp pink, bog asphodel uses both vegetative (root system) and sexual reproduction (flowers) to propagate, one strategy prevailing over the other according to the amount of sunlight available. In 2001, the Service signed a Candidate Conservation Agreement with the New Jersey Division of Parks and Forestry to update the state of our knowledge, describe conservation efforts undertaken to date, summarize recent site observations, and identify research opportunities. Approximately 35 percent of bog asphodel's global occurrences are found in the Pinelands' Wharton State Forest and are provided with the most protective designation available for State-owned conservation lands. Bog asphodel is renowned for its beautiful flowers.

The Kirkwood-Cohansey Aquifer

Underlying much of the Pinelands is the Kirkwood-Cohansey Aquifer, the largest aquifer east of the Mississippi estimated to contain over 17 trillion gallons of pure water, the sustaining life of this diverse ecosystem. In 2001, the New Jersey Legislature directed the Pinelands Commission to prepare a hydrologic and ecological assessment to determine how the current and future water-supply needs within the Pinelands area may be met without adversely impacting the aquifer system and the ecology of the Pinelands. The Service was invited to join the New Jersey Department of Environmental Protection, Rutgers University, and the U.S. Geological Survey as a cooperator and provide ecological data on populations of swamp pink as a component of the overall work plan approved in 2003.

Enjoy the Pinelands

The Service is a proud conservation partner in the protection of the Pinelands National Reserve / U.S. Biosphere Reserve and invites you to take advantage of the varied opportunities to visit, study, and enjoy these unique resources that are sustained and safeguarded for your benefit and future generations.

* A summary of the Comprehensive Management Plan is available online at <http://www.state.nj.us/pinelands/cmp/summary>.



**U.S. Fish & Wildlife Service
Ecological Services
New Jersey Field Office
927 North Main Street, Building D
Pleasantville, New Jersey 08232**

**P: 609/646 9310
F: 609/646 0352
E: njfieldoffice@fws.gov
W: <http://www.fws.gov/northeast/njfieldoffice/>**

**Federal Relay Service for the deaf and hard-of-hearing
800/877 8339**

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Long Savanna, Batsto Natural Area, Wharton State Forest