

# PINELANDS

## New Jersey's Wildlife Action Plan



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### Creating a Network for Conservation

To protect our wildlife of greatest conservation need, the New Jersey Department of Environmental Protection's Division of Fish and Wildlife led many partners to develop and implement the state's Wildlife Action Plan. The plan offers a blueprint to protect key habitats, limit growth to avoid urban sprawl and address climate change. To learn more, please visit: [www.njfishandwildlife.com/ensp/waphome.htm](http://www.njfishandwildlife.com/ensp/waphome.htm)



Cover photo: Pine Barrens tree frog, John F. Bunnell  
Funded by State Wildlife Grants.  
For more information on New Jersey's Wildlife Action Plan contact ENSP at: 609-292-9400



## Conserving and Restoring Habitat Connecting Lands And Waters Cooperating Across Ownerships

[www.njfishandwildlife.com](http://www.njfishandwildlife.com)

# PINELANDS



## Stronghold for Globally Rare Wildlife

Enter a region of vast pitch pine forests and Atlantic white cedar swamps that shelter globally rare plants and animals such as the Pine Barrens tree frog. The reliance of rare wildlife on specialized habitats means they live close to a tipping point; every animal in the population matters. Their survival depends on the connected forests of the Pinelands that are important for nesting songbirds and serve as migratory bird stopovers. Today's top challenges are to mimic the historic role of fire in shaping this ecosystem, to maintain intact forests and unique habitat types, and to protect wildlife from the hazards of roads.



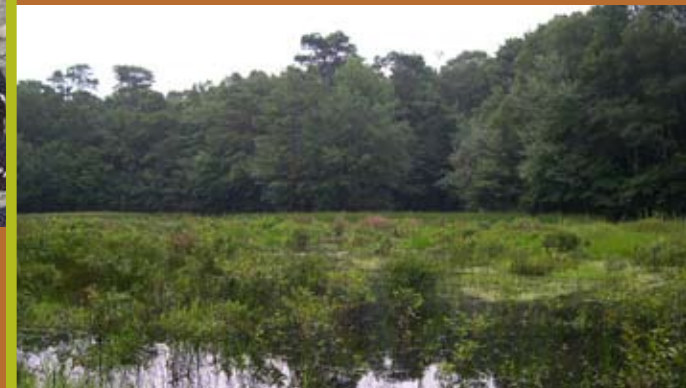
### Frosted elfin State threatened

The southern part of the Pinelands shelters one of the world's largest colonies of frosted elfin butterflies. Look for this small butterfly on utility line rights-of-way and at airports where the caterpillars depend on wild indigo host plants for their survival.



### Eastern kingsnake State special concern

These secretive snakes hide under logs in forests and near stream banks where they can find their favorite prey, other snakes.



### Four-toed salamander Conservation concern

The smallest of New Jersey's 16 salamander species, the four-toed salamander inhabits wooded swamps and bogs throughout the Pinelands. Females usually lay their eggs in nests of sphagnum moss that are overhanging streams. The adults are just 2 inches to 3 1/2 inches long.



### Seepage dancer Conservation concern

This well-named aerial dancer graces wetlands where the clear, cold groundwater seeps up on gently sloping lands, sometimes called seepage bogs.

Allen Barlow



# Goals and Actions for the Pinelands

## Pinelands: Protected Yet Fragile

### Did you know?

The 1.1 million-acre Pinelands National Reserve covers one fifth of New Jersey. From its undeveloped core, the nation's first such reserve, designated in 1979, expands outward to farms and towns. Special land-use laws conserve its internationally significant plants and wildlife.

### Goal: Restore a fire-shaped landscape

Natural fires historically shaped the Pinelands into a mosaic of old and young trees, shrubs and savannahs. By snuffing out fires for more than a century, people have inadvertently allowed forest fuels to build up and reduced the fire-shaped habitats that are important to rare wildlife, such as pine snakes that nest and den in open, sandy areas.



#### Arogos skipper - State endangered

In the Pinelands, the caterpillar of the Arogos skipper feeds only on Pine Barrens reed grass, a globally rare plant that needs fire to be successful. Only a few remnant Pinelands savannahs hosting this plant and butterfly remain.

### Action: Manage some forests for fire-dominated habitats

Restoring fire-shaped habitats will require working with fire specialists to conduct ecological burns. Land managers may also need to selectively remove excess trees that could fuel too hot a fire.

### Goal: Reduce the numbers of rare wildlife killed on roads

As traffic increases on county roads, the hazards for wildlife worsen. Timber rattlesnakes, pine snakes and black rat snakes react to oncoming cars by staying still, rather than slithering away. Hawks, songbirds, butterflies, turtles, frogs and snails also are struck on roads.

### Action: Make roads safer for wildlife

Make roads more permeable for wildlife by identifying crossing "hotspots" and then working with transportation agencies to retrofit problem road segments with wildlife underpasses and other wildlife-friendly enhancements.



#### Timber rattlesnake State endangered

Timber rattlesnakes are especially vulnerable to the hazards of crossing roads. These secretive and slow-moving snakes move as far as four miles from their dens, returning each year to the same site.

### Goal: Restore Atlantic White Cedar

Water-loving Atlantic white cedars are home to red-shouldered hawks and cavity-nesting birds such as barred owls. The forests have dwindled from historic logging practices, development, dams, wildfires, competition from other trees and white-tailed deer browsing of saplings.

### Did you know?

Cedar swamps form dense stands that stay cooler than the forests around them during summer and warmer in the winter. They also filter and purify water, store floodwaters and are home to several threatened and endangered species.

### Action: Use forestry techniques to bring back cedar forests

Returning Atlantic white cedars to their former grandeur and historic locations will take a two-prong effort – improving existing stands and adding new forests. Techniques for success include fencing cedar swamps to keep out deer, cutting out the competing trees such as red maple and planting seedling cedars as needed.



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#### Barred owl State threatened

The hoot of a barred owl, "Who cooks for you? Who cooks for you all?" echoes through the night air of the Pinelands' forested swamps. Here large, old trees for nesting and room for the owl to fly and hunt provide ideal habitat.

### Goal: Prevent off-road vehicle disturbance to wildlife

Off-road vehicles can greatly impact wildlife. The vehicles frighten wildlife from their shelters and nests and can also destroy sensitive soils and plants. While it's illegal for off-road vehicles to enter state lands, it's also a challenge to enforce such laws.

### Action: Keep off-road vehicles out of sensitive habitats

By pinpointing fragile habitats, biologists can help law enforcement officers concentrate their efforts to prevent off-road vehicles from illegal entry. Vulnerable places include bald eagle nests and buffers, pine snake nesting areas, wetlands with fragile soils, and savannahs that shelter ground-nesting birds.



#### Northern pine snake State threatened

In New Jersey, the pine snake lives only in the sandy habitat of the Pinelands, where it spends much of its time in burrows. Its dependence on sandy places makes the snake vulnerable to off-road vehicles as well as illegal collectors.

### Goal: Safeguard rare reptiles and amphibians from illegal collecting

Collecting wildlife is strictly prohibited, but each year people come from far and wide to walk through the pinelands searching for rarities to keep or sell; especially rattlesnakes, pine snakes, corn snakes, Pine Barrens tree frogs and spotted turtles.

### Action: Educate and find solutions to illegal collecting

Volunteers can be enlisted to keep an eye on vulnerable areas and can assist with educating people about the harm to wildlife populations caused by illegal collecting. Meeting this challenge will require creative partnerships with hobbyists, reptile and amphibian enthusiasts and law enforcement.