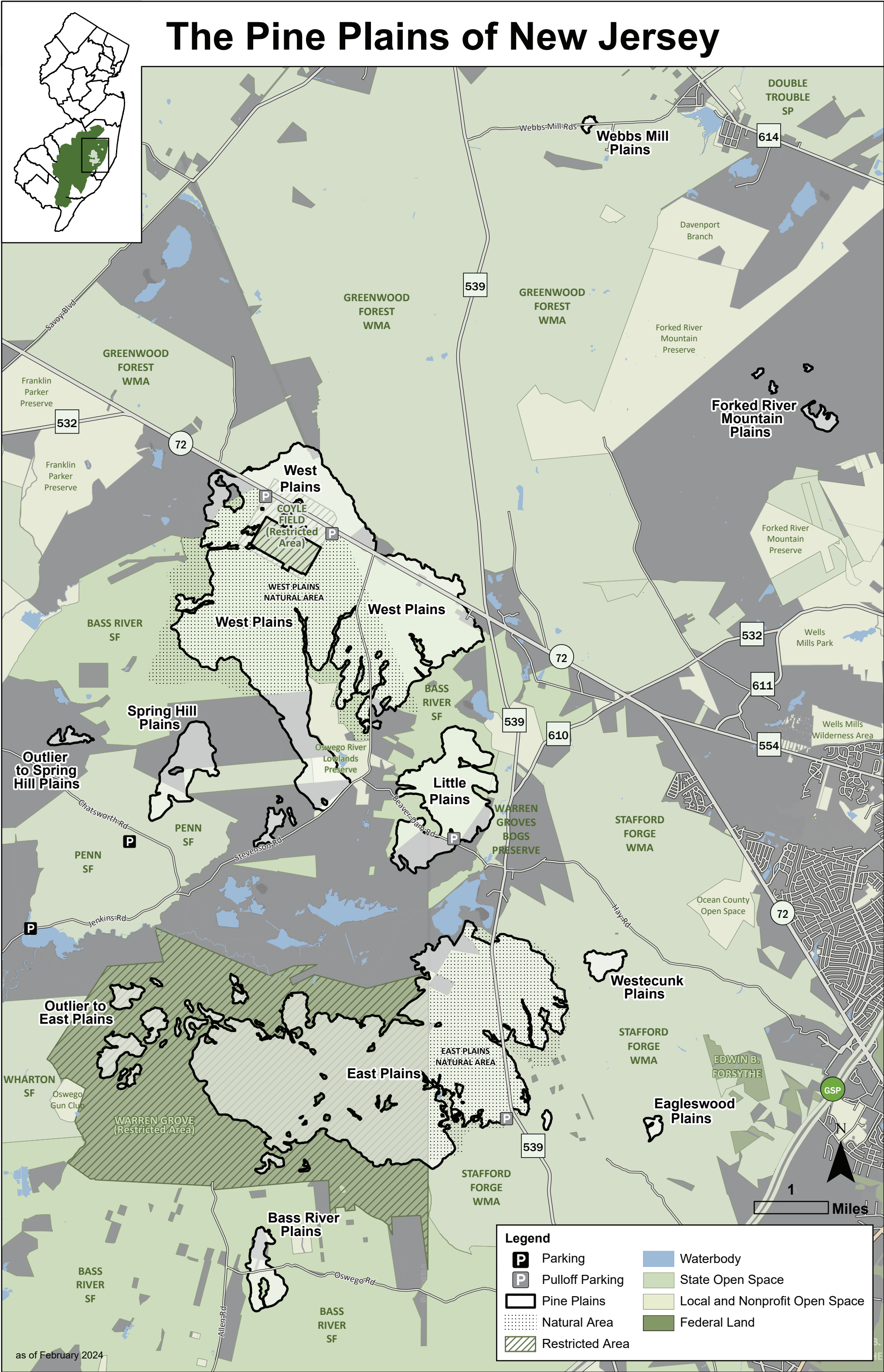


# The Pine Plains of New Jersey







Warren Grove Recreation Area



### The Pine Plains of New Jersey

Within the heart of New Jersey’s 1-million-acre Pine Barrens is the Northeast’s largest area of Pine Plains. Totaling nearly 15,000 acres, Pine Plains is a type of globally rare dwarf forest community. The landscape is mostly rolling coastal plain covered with gravelly sand on ridge tops and sandy layers below. The most striking feature of the Pine Plains is that the pine trees are no more than 10-15 feet tall in long unburned stands, and under five feet tall in frequently burned stands. These are known as dwarf pines.

Much of the Pine Plains is on public lands within Bass River and Penn State Forests, and Stafford Forge and Greenwood Forest Wildlife Management Areas (WMAs). This includes 3,881 acres of Bass River State Forest designated as the West Plains Natural Area, and 2,557 acres of Stafford Forge WMA designated as the East Plains Natural Area. Additionally, 9,000 acres of the East Plains and vicinity are managed by the New Jersey Air National Guard at Warren Grove Range, 366 acres of the Little Plains at the FAA Communications Tower Facility in Warren Grove, and about 1,500 acres at nearby privately and state-owned lands.

### Fire in the Pines

The Pine Plains, like the rest of the New Jersey Pine Barrens, are fire adapted ecosystems. Plains vegetation is extremely flammable in stands over 10-15 years old and produces fast-spreading crown fires since both the canopy and subcanopy layers are so dense and close to the ground. Because of its topography and central location, the Plains have more fires and a shorter time between fires than the rest of the Pine Barrens.

Fires are more frequent in the Plains and the surrounding central Pine Barrens because they co-occur within broad, dry “firesheds” that have few wetlands to slow natural fire spread. Thus, fires can burn across the Plains region from virtually all sides until reaching a wetlands or being extinguished by rain. Historically, fires were not suppressed by humans but simply burned themselves out. As a result of these fires, some plants have developed ways of surviving in this harsh environment.

Like other pitch pines, the dwarf pitch pines of the Pine Plains produce serotinous cones even when the tree is young. The cones remain closed until the heat of a fire causes them to open and release their seeds. These adaptations allow quick recovery after a fire, even in stands only five years old. Dwarf pitch pines are also adapted to frequent fire by their stunted, shrubby growth forms and ability to sprout from their trunks or at ground level after a fire. Other fire-adapted shrub species in the Plains, such as scrub and blackjack oaks, laurels and heaths, also sprout at ground level after fires while many ground cover species quickly recover from seeds in the soil.

The primary factors causing the stunted growth of many plants in the Pine Plains include:

- a natural pattern of increasingly frequent and intense fires in the central Pine Barrens and Plains;
- fire selection that has favored the most stunted, fire-adapted species (e.g., dwarf serotinous pitch pine and shrub-oaks); and,
- fire selection against taller, less fire-tolerant tree species (e.g., other pines, tree-oaks and hardwoods).

Other factors may include poor soils with little organic matter, subsurface gravel and hardpan layers, competition for moisture, and strong winds that dry out vegetation and leaf litter.

### Plants of the Pine Plains

The Pine Plains are dominated by dwarf pitch pine, and shrub-form blackjack and scrub oaks. Notably rare or missing in this region are other species of trees that occur elsewhere in the Pine Barrens and coastal plain like non-serotinous pitch pine, shortleaf pine, Virginia pine, tree-oaks such as black, chestnut, scarlet and white oaks, and upland hardwoods such as hickory, beech and holly. These species require greater than 25-year intervals between crown fires to reproduce and survive. The understory is dominated by blueberry and huckleberry, sheep and mountain laurels, and patches of sand-myrtle and sweet fern. Groundcover is mostly bearberry, pine barren golden heather, various lichens, pyxie moss, trailing arbutus and teaberry.



From top to bottom:  
**Pine barren golden heather**  
(*Hudsonia ericoides*)  
**Sand-myrtle**  
(*Leiophyllum buxifolium*)  
**Pyxie moss**  
(*Pyxidanthra barbulate*)

continued...

## THE PINE PLAINS OF NEW JERSEY



Plants of the Pine Plains continued...

**Broom crowberry**  
(*Corema conradii*)

The state endangered broom crowberry can be found in a few large colonies within the Plains and in small colonies in the surrounding Pine Barrens, usually colonizing sandy openings from soil seed banks after fire and disturbance. Since most broom crowberry plants (and sometimes seeds) are killed by intense fire, many colonies have declined or been destroyed by powerful wildfires after prolonged fire exclusion. This northern species ranges from the maritime provinces of Canada to the New Jersey Pine Barrens where it is at the extreme southern limits of its range.

### Animals of the Pine Plains

The Pine Plains contain many of the same animals, birds and herptiles, that are found elsewhere in dry parts of the Pine Barrens. These include, white-tailed deer, coyote, fox, songbirds, raptors, Fowler’s toad, northern pine snake and fence lizard. In addition, there are about a dozen rare moths including Buchholz’s dart moth and Carter’s noctuid moth.



**Top: Fowler’s Toad**  
(*Anaxyrus fowleri*)  
**Bottom: Northern Pine Snake**  
(*Pituophis melanoleucus*)

### Visiting the Plains

Visitors are permitted on Pine Plains that are on public land (see map). There are no marked trails, but sand roads can be used for hiking. Vehicles are not permitted.

There are two main areas of the Pine Plains that are easily reachable and visible from paved roads.

- New Jersey Route 72 crosses the West Plains. An excellent vantage point along NJ 72 is the sand road on the south side of NJ 72 between mile markers 10 and 10.5. Park along NJ 72 and walk along the sand road for about 10 minutes to a

high-point overlooking the surrounding area. On a clear day you can see Apple Pie Hill from this location.

- Ocean County Road 539 bisects the East Plains roughly between mile markers 7 and 9 south of Warren Grove. An excellent vantage point along Ocean County Road 539 near mile marker 7 is Range Road which is a well-maintained gravel road. Follow this road to the gate as it traverses a ridge which rises above the Plains affording fabulous views.

### TRAIL SENSE AND SAFETY

**Be Prepared:** Bring food, water, map, cell phone, sunscreen, tick and insect repellant and a hat. Dress for the weather. Tell someone where you plan to go and when you expect to return.

**Hunting:** Sections are open to hunting. Bright orange clothing is recommended during hunting season. For regulations regarding WMAs, visit: [dep.nj.gov/njfw/](http://dep.nj.gov/njfw/) and for state parks, visit: [njparksandforests.org](http://njparksandforests.org).

**Weather:** The Pine Plains are brutally hot in warmer months with no towering trees to provide relief from the sun. If thunderstorms are in the area, avoid visiting as you might be the tallest object around.

**Trails & Facilities:** There are no formal trails. Sand roads can be used for hiking. There are no developed facilities available for water, restrooms or visitor information.

**Carry-in/Carry-out:** Help keep the Pine Plains clean and beautiful by carrying out your trash.

**Emergency Numbers:** 1-877-WARN-DEP (1-877-927-6337) or 911

Please stay on the trail, take only pictures, be aware of changing trail conditions and report any trail issues to the park.



**BASS RIVER STATE FOREST**  
762 Stage Road  
Bass River Twp, NJ 08224  
609-296-1114



State of New Jersey  
Department of Environmental Protection



State Park Service



New Jersey DEP Fish & Wildlife



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## INTERPRETIVE GUIDE