Pitch Pine - Scrub Oak Barren

State Rank S2

Community Description

This woodland type ranges from very open to nearly closed canopy (25-75% closure) in which pitch pine is dominant (up to 50% cover). Red maple is frequent but rarely abundant in the canopy. In openings among the trees, a dense shrub/sapling layer of scrub oak is typical. Gray birch may be a prominent feature of the shrub layer, and shrubs are locally dense. A low layer of heath shrubs dominated by lowbush or velvet-leaf blueberry is usually present. Bracken fern and woodland sedge are characteristic herbs. Bryoids are virtually absent. Vegetation is typically very patchy, with some areas clearly pitch pine dominated and others areas extensive thickets of scrub oak. Nonforested openings with blueberry and lichens may occur within the barrens.

Soil and Site Characteristics

Sites occur on nutrient poor soils of glacial outwash plains or moraines south of 44 degrees latitude. Topography is flat to undulating. The xeric to dry-mesic, sandy soils are acidic (pH usually <5.0) and have little organic matter. Fire is an important factor in maintaining this community.

Diagnostics

These are pitch pine dominated partially forested areas which develop on sands or glacial outwash deposits, not on stabilized coastal dunes. Scrub oak

Northern Blazing Star

is common and locally dominant in the shrub layer.

Similar Types

Pitch Pine Woodlands can be floristically similar but occur on bedrock, not on deep sandy soils. Pitch Pine Dune Woodlands occur on stabilized sand dunes along the coast. They also lack a well developed heath shrub layer. Pitch Pine - Heath Barrens share many species but lack the scrub oak layer (scrub oak may be present but only at low cover). Pitch Pine Bogs are wetlands, with at least a shallow peat substrate.

Conservation, Wildlife, and Management Considerations

This community type is dependent upon periodic fires to eliminate competing tree species and prevent succession to an Oak

Location Map
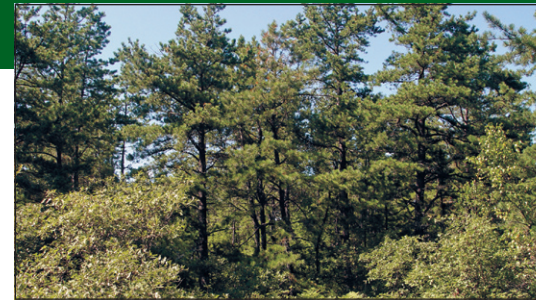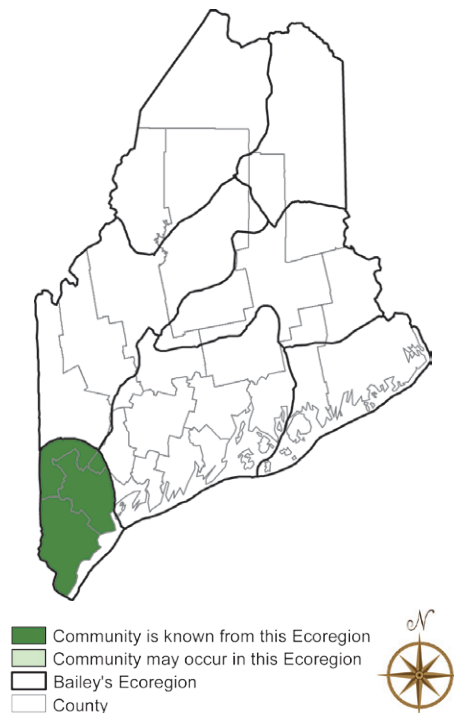
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- Pine Forest. Because of fire suppression in the last century, this community type has become very rare. Relatively large areas are required to maintain this dynamic community and its associated rare animal species. Most of the large sites in the state have been fragmented by permanent conversion to residential areas or to sand and gravel pits.

Birds such as the whip-poor-will, eastern towhee, pine warbler, and prairie warbler may prefer this open habitat. This community type includes a rich array of rare butterflies and moths that use pitch pine or scrub oak as their larval host plant, including the southern pine sphinx, pine pinion, oblique zale, the buckmoth, Edward's hairstreak, pine barrens zale, pine barrens itame, and sleepy dusky wing.

Distribution

Primarily southern Maine (Eastern Broadleaf Forest Province). Extends southward and southwestward from the state along the Atlantic coastal plain.

Landscape Pattern: Large Patch

Examples on Conservation Lands You Can Visit

- Brownfield Bog Wildlife Management Area – Oxford Co.
- Kennebunk Plains Preserve – York Co.
- Killick Pond Wildlife Management Area – York Co.
- Waterboro Barrens Preserve – York Co.

Community is known from this Ecoregion
Community may occur in this Ecoregion
Bailey's Ecoregion
County

Characteristic Plants

These plants are frequently found in this community type. Those with an asterisk are often diagnostic of this community.

Canopy
Gray birch
Pitch pine*
Red maple

Sapling/shrub
Gray birch
Pitch pine
Scrub oak*
Shadbush
Sweetfern
Wild-raisin

Dwarf Shrub
Lowbush blueberry*
Sheep laurel
Velvet-leaf blueberry

Herb
Bracken fern*
Canada mayflower
Mayflower
Sharp-pointed ricegrass
Wintergreen*
Woodland sedge

Bryoid
Large hair-cap moss

Associated Rare Plants
Butterfly weed
Fern-leaved false foxglove
Northern blazing star
Wild chess
Wild indigo
Wild lupine

Associated Rare Animals
Edward's hairstreak
Oblique zale
Pine barrens itame
Pine barrens zale
Pine barrens zanclognatha
Pine pinion
Pine-devil moth
Pink sallow
Similar underwing
Sleepy duskywing
Southern pine sphinx
The buckmoth
Twilight moth
Whip-poor-will