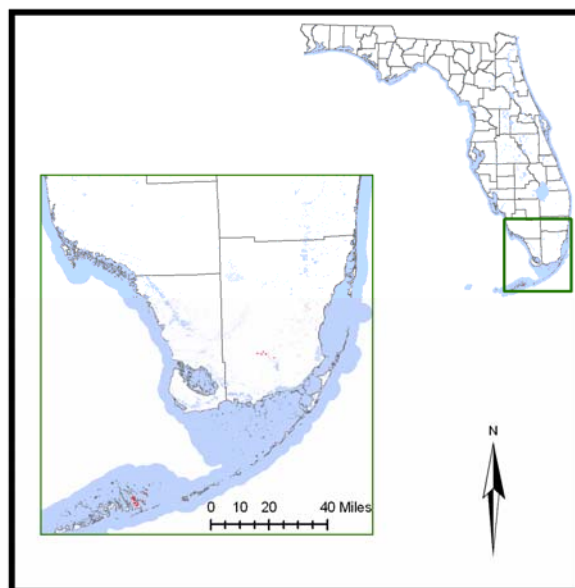


Pine Rockland



Status

Current condition: Poor and declining. According to the best available GIS information at this time (see Appendix D. GIS Data Tables), 2,959 acres (1,197 ha) of Pine Rockland habitat exist, of which 77% (2,275 ac; 921 ha) are in existing conservation or managed areas. Another 13% (382 ac; 155 ha) are Florida Forever projects and 1% (25 ac; 10 ha) are SHCA-identified lands. The remaining 9% (277 ac; 112 ha) are other private lands.



Some habitat distributions or locations may be misrepresented on this map due to size, resolution and insufficient data sources.

Habitat Description

FNAI type: Pine Rocklands

Pine Rockland is a unique type of pine flatwoods that is found exclusively on limestone substrate in the Florida Keys, the Big Cypress Swamp, and the Miami Rock Ridge (the limestone outcropping that rises from the Everglades to heights of 23 feet (7 m) above sea level). The overstory of Pine Rockland habitat contains a single canopy species, South Florida slash pine. The dominant pines tower over a savanna-like understory of saw palmettos, locust berry, willow bastic, beauty berry, broom grasses, silver palms, and a rich herbaceous layer. This community is often associated with rockland hammock and other short-hydroperiod freshwater wetland communities. These sub-tropical pine trees and understory plants have adapted to seasonal wildfires and the lack of soil on the exposed limerock. Pine Rockland communities are globally imperiled and support

federal and state listed plant species, such as deltoid spurge and Small's milkwort which only occur in this habitat.

Associated Species of Greatest Conservation Need

Mammals

- | | |
|---|--------------------------|
| • <i>Sylvilagus palustris hefneri</i> | Lower Keys Marsh Rabbit |
| • <i>Sciurus niger avicennia</i> | Big Cypress Fox Squirrel |
| • <i>Oryzomys argentatus</i> | Silver Rice Rat |
| • <i>Sigmodon hispidus exsputus</i> | Lower Keys Cotton Rat |
| • <i>Ursus americanus floridanus</i> | Florida Black Bear |
| • <i>Procyon lotor auspicatus</i> | Key Vaca Raccoon |
| • <i>Procyon lotor incautus</i> | Key West Raccoon |
| • <i>Puma concolor</i> | Florida Panther |
| • <i>Odocoileus virginianus clavium</i> | Key Deer |

Birds

- | | |
|---------------------------------------|-------------------------------|
| • <i>Colinus virginianus</i> | Northern Bobwhite |
| • <i>Elanoides forficatus</i> | Swallow-tailed Kite |
| • <i>Haliaeetus leucocephalus</i> | Bald Eagle |
| • <i>Falco sparverius paulus</i> | Southeastern American Kestrel |
| • <i>Coccyzus minor</i> | Mangrove Cuckoo |
| • <i>Picoides villosus</i> | Hairy Woodpecker |
| • <i>Picoides borealis</i> | Red-cockaded Woodpecker |
| • <i>Tyrannus dominicensis</i> | Gray Kingbird |
| • <i>Lanius ludovicianus</i> | Loggerhead Shrike |
| • <i>Vireo altiloquus</i> | Black-Whiskered Vireo |
| • <i>Sitta pusilla</i> | Brown-headed Nuthatch |
| • <i>Dendroica petechia gundlachi</i> | Cuban Yellow Warbler |
| • <i>Sturnella magna</i> | Eastern Meadowlark |

Reptiles

- | | |
|--------------------------------------|---------------------------------|
| • <i>Kinosternon baurii</i> | Key Mud Turtle |
| • <i>Terrapene carolina bauri</i> | Florida Box Turtle |
| • <i>Gopherus polyphemus</i> | Gopher Tortoise |
| • <i>Eumeces egregius egregius</i> | Florida Keys Mole Skink |
| • <i>Storeria dekayi</i> | Lower Keys Brown Snake |
| • <i>Thamnophis sauritus</i> | Lower Keys Ribbon Snake |
| • <i>Diadophis punctatus acricus</i> | Key Ringneck Snake |
| • <i>Drymarchon couperi</i> | Eastern Indigo Snake |
| • <i>Tantilla oolitica</i> | Rim Rock Crowned Snake |
| • <i>Crotalus adamanteus</i> | Eastern Diamondback Rattlesnake |

Invertebrates

- | | |
|--|----------------------------------|
| • <i>Liguus fasciatus matecumbensis</i> | Florida (Matecumbe) Tree Snail |
| • <i>Anomala robinsoni</i> | Robinson's Anomala Scarab Beetle |
| • <i>Eumaeus atala</i> | Atala |
| • <i>Hemiargus thomasi bethunebakeri</i> | Miami Blue |
| • <i>Strymon acis bartrami</i> | Bartram's Hairstreak |
| • <i>Anaea troglodyta floridaalis</i> | Florida Leafwing |

Conservation Threats

Threats to Pine Rockland habitat that were also identified for multiple other habitats are addressed in the Chapter Multiple Habitat Threats and Conservation Actions. These threats include:

- Chemicals and toxins
- Conversion to commercial and industrial development
- Conversion to housing and urban development
- Incompatible fire
- Invasive animals
- Invasive plants
- Roads

Threats specific to Pine Rockland were limited to incompatible residential activities that include movement of fertilizer, herbicide, and invasive species from landscape maintenance, activities of people, their pets, and nuisance species, and disposal of yard and household waste.

The following stresses and sources of stress threaten this habitat:

Stresses		Habitat Stress Rank
A	Altered fire regime	High
B	Altered landscape mosaic or context	High
C	Habitat destruction or conversion	High
D	Fragmentation of habitats, communities, ecosystems	Medium
E	Altered community structure	Medium
F	Altered species composition/dominance	Medium
G	Excessive depredation and/or parasitism	Medium
H	Insufficient size/extent of characteristic communities or ecosystems	Medium
I	Habitat degradation/disturbance	Medium
J	Altered hydrologic regime	Low

The sources of stress, or threats, were used to generate conservation actions.

Sources of Stress		Habitat Source Rank	Related Stresses (see above)
1	Roads	High	A, B, C
2	Conversion to housing and urban development	High	A, B, C
3	Conversion to commercial and industrial development	High	A, B, C
4	Incompatible fire	Medium	A, B, C
5	Invasive plants	Low	A, B, C
6	Invasive animals	Low	B
7	Chemicals and toxins	Low	B
8	Incompatible residential activities	Low	A, C

Sources of Stress		Habitat Source Rank	Related Stresses (see above)
9	Incompatible agricultural practices	Low	B
Statewide Threat Rank of Habitat		Very High	

Conservation Actions

Actions to abate the threats to Pine Rockland that were also identified as statewide threats (Roads, Conversion to housing and urban development, Conversion to commercial and industrial development, Incompatible fire, Invasive plants, Invasive animals, Chemicals and toxins) are in the Chapter Multiple Habitat Threats and Conservation Actions.

Actions to abate specific threats that were identified for Pine Rockland habitat are below, although none were ranked of high priority for implementation. These actions were designed to reduce the impacts from activities of residents adjacent to this habitat.

Incompatible Residential Activities

Overall Rank	Economic and Other Incentives	Feasibility	Benefits	Cost
M	Expand the scale of the Florida Yards and Neighborhoods program from certifying individual landowners to whole neighborhoods; certification should be renewed biennially and any time property ownership changes.	M	M	L
L	Support incentives for residential property owners to resolve issues of incompatible use, including pesticide use, pet control, feeding of wildlife, household or yard waste disposal, landscape plants, irrigation use, prescribed fire tolerance, and lighting use in coastal areas.	M	L	L
L	Identify and promote effective reward models for homeowners, maintenance companies, and municipalities for reducing impacts on neighboring conservation areas.	M	L	L
L	Develop a voluntary program directed at developers to provide on-site site-specific educational materials and recommendations to homeowner associations about incompatible residential activities.	M	L	L
Overall Rank	Education and Awareness	Feasibility	Benefits	Cost
M	Implement and fund continuing education courses for the landscape maintenance industry that includes appropriate use of chemicals, irrigation, plants, and disposal of yard waste.	H	M	M