Crawl Key (Monroe County) Photo by Keith Bradley

Keys Cactus Barren

Description: Keys cactus barren is an open, primarily herbaceous community with scattered shrubs on rocky areas of Key Largo limestone with little soil or leaf litter. It occupies larger areas several acres in extent, or may occur as small, scattered patches within the thorn scrub variant of rockland hammock. The vegetation consists of a wide variety of herbaceous and succulent species which characteristically includes cacti, agaves, and several rare herbs. Among the latter are dwarf bindweed (*Evolvulus convolvuloides*), Yucatan flymallow (*Cienfuegosia yucatanensis*), skyblue clustervine (*Jacquemontia pentanthos*), and Florida Keys indigo (*Indigofera mucronata* var. *keyensis*). These frequently occur with grasses and sedges, such as green sprangletop (*Leptochloa dubia*), coral panicum (*Paspalidium chapmanii*), and royal flatsedge (*Cyperus elegans*; Avery 1982; Bradley, pers. comm. 2004). Spiny species, particularly the rare three-spined pricklypear (*Opuntia triacantha*), are characteristic but their abundance is variable. Other spiny species include false sisal (*Agave decipiens*), barbed-wire cactus (*Acanthocereus tetragonus*), and erect pricklypear (*Opuntia stricta*). Scattered clumps of stunted trees may be present, including gumbo limbo (*Bursera simaruba*), buttonwood (*Conocarpus erectus),* Spanish stopper (*Eugenia foetida*), and catclaw blackbead (*Pithecellobium unguis-cati*; Avery 1982).

Characteristic Set of Species: three-spined pricklypear, erect pricklypear, barbed wire cactus, Yucatan fly mallow, Florida Keys indigo, skyblue clustervine, dwarf bindweed

Rare Species: Rare plant species include Yucatan flymallow, dwarf bindweed, Florida Keys indigo, skyblue clustervine, and three-spined prickly pear.

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Range: Keys cactus barren is confined to the Florida Keys on limestone bedrock (Key Largo limestone) and is known from only six sites, four on the Upper Keys and two from the southern arm of Big Pine Key which is composed of Key Largo limestone (unlike the rest of Big Pine Key and the other Lower Keys, which are composed of Miami oolite).

Natural Processes: The natural process giving rise to cactus barrens is not known, but since they occur on sites where the thin layer of organic soil over limestone bedrock is missing, they may have formed by soil erosion following destruction of the plant cover by fire, storm, or artificial clearing.

Community Variations: Keys cactus barren is known from only six sites which vary primarily in the degree of shrub cover.

Associated Communities: Keys cactus barren is often surrounded by the thorn scrub variant of rockland hammock, consisting of low woody species such as buttonwood, blolly (*Guapira discolor*), catclaw blackbead, bayleaf capertree, poisonwood (*Metopium toxiferum*), and brittle thatch palm (*Thrinax morrisii*; Snyder et al. 1990), forming a transition to the taller rockland hammock upland community.

Management Considerations: Prickly pear cacti in the genus *Opuntia* in this community are vulnerable to attack by the larvae of the cactus moth (*Cactoblastus cactorum*) which was inadvertently introduced from South America in the mid 1990's. Cactus barrens are vulnerable to development, even on public conservation lands, since their vegetation resembles weedy clearings and disturbed areas. Sites that have shown increasing encroachment of woody species over time may require efforts to maintain the open nature of the habitat, which favors the rare herbaceous species.

Reference Sites: Conrad's Crazy Cactus Patch at Long Key State Park (Monroe County), Straehly Tract on Big Pine Key in National Key Deer Refuge (Monroe County), Windley Key Fossil Reef Geological State Park (Monroe County)

Global and State Rank: G1/S1

Crosswalk and Synonyms: In this update the community formerly known as "coastal rock barren" has been split into an upland community called "Keys cactus barren" and a tidally-influenced community called "Keys tidal rock barren."

Other synonyms: coastal rock barren (FNAI and FDNR 1990)

References:

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Long Key State Park (Conrad's Crazy Cactus Patch; Monroe County) Photo by FNAI

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