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## **U.S. Fish and Wildlife Service Designates Critical Habitat for Two South Florida Cacti -- Also Releases Economic Analysis --**

VERO BEACH, Fla. -- The U.S. Fish and Wildlife Service is designating critical habitat for two endangered cacti—the Florida semaphore cactus and aboriginal prickly-apple—under the Endangered Species Act (ESA), totaling 7,855 acres in several Florida counties.

The Service is designating critical habitat in four areas where the Florida semaphore cactus is found, comprising approximately 4,411 acres in Miami-Dade and Monroe Counties. Approximately 3,444 acres will be designated as critical habitat in 11 areas for the aboriginal prickly-apple in Manatee, Charlotte, Sarasota and Lee Counties.

“The areas being designated as critical habitat are essential to conserving these two cacti,” said Cindy Dohner, the Service’s Southeast Regional Director. “We used the best scientific information concerning their present and historical ranges, habitat, and biology to select these areas.”

Today’s decision finalizes a proposal released in January 2015 and includes the final economic analysis associated with the critical habitat designations. The public was invited to comment on the proposed designations and a draft economic analysis during a 60-day period that ended on March 23, 2015.

These imperiled plants are large tree- or shrub-like cacti. The Florida semaphore cactus occurs in coastal berms, coastal rock barrens, rockland hammocks, and buttonwood forests on sandy or limestone rockland soils with little organic matter. The aboriginal prickly apple occurs on coastal berms, coastal strand, coastal grasslands, and maritime hammocks. It also occurs on shell mounds. Both cacti were listed as endangered on November 25, 2013.

Only a few small populations of both of these cacti still exist. Wild populations of Florida semaphore cactus no longer occur on half of the islands in the Florida Keys where they historically occurred. Threats of collection and vandalism, predation by the nonnative cactus moth, disease, competition from nonnative, invasive plant species, wildfires, and habitat loss affect the Florida semaphore cactus’ remaining populations. Low genetic diversity and lack of reproduction also are threats.

Aboriginal prickly-apple no longer occurs in the northern extent of its range in Manatee County, and threats of collection, competition from nonnative, invasive plant species, wildfires, disease, predation, vandalism, and habitat loss affect the prickly-apple's remaining populations.

The current range of Florida semaphore cactus includes two naturally occurring populations and five reintroduced populations. These populations account for fewer than 1,500 plants and all are located on conservation lands. Wild populations remain on Swan Key in Biscayne National Park and Little Torch Key on a Nature Conservancy property. Wild populations on Key Largo and Big Pine Key in the Florida Keys were lost more than a decade ago by development and collecting by cactus enthusiasts. Reintroduced populations are located on Key Largo, Lower Saddlebunch Key, Big Pine Key and Upper Sugarloaf Key on state and federal lands.

The current range of aboriginal prickly-apple includes 12 populations in seven public and private conservation areas, as well as four county parcels not managed for conservation and at least three privately-owned parcels. In total, the species was represented by an estimated 300 to 500 individuals in 2007, when population sizes were last estimated. Populations previously known from Terra Ceia in Manatee County and Cayo Costa Island in Lee County are no longer found in these areas.

Land ownership within the critical habitat designations for these two cacti includes federal, state, county and private lands. The Florida semaphore cactus is found in all four of its critical habitat units. Of its 4,411-acre critical habitat designation, only about 576 acres are on privately-owned land. Most of the privately-owned land is owned by The Nature Conservancy, and the rest are small parcels owned by private landowners. The remaining areas in the designation are state (58 percent), federally-owned (28 percent), or county-owned (1 percent).

The aboriginal prickly-apple is found in nine of its 11 critical habitat units. Of its almost 3,444-acre critical habitat designation, about half of the lands are state-owned, 26 percent are privately-owned, 15 percent are county-owned, and 11 percent are federally-owned. Both of the unoccupied critical habitat units are within the prickly-apple's historic range, and both contain suitable habitat for its reintroduction.

Under the ESA, critical habitat identifies geographic areas important to the plants' survival. Although some of the areas within the critical habitat designation are located on private land, there are no federal regulations affecting critical habitat on private lands unless the activity is authorized, funded, or carried out by a federal agency. Designation of critical habitat does not affect land ownership or establish a refuge, reserve, preserve, or other conservation area. If federal funds are involved in a project in the area, the government agency will need to consult with the Service to help landowners avoid, reduce or mitigate potential impacts to the plant or to ensure actions do not negatively affect these plants or modify their critical habitat.

An economic analysis of these critical habitat designations estimated that the total economic costs of the designations for these cacti are largely administrative. For the Florida semaphore cactus, costs are not expected to exceed \$7,100 in 2014 dollars in a single year. For the aboriginal prickly-apple, the Service anticipates only administrative costs in the critical habitat area occupied by the plant. These administrative costs are not likely to exceed \$7,000 in 2014 dollars in a given year. Adding the costs of consultations and minor conservation efforts in both the critical habitat area occupied by the prickly-apple and the area of suitable, but presently unoccupied, critical habitat, the estimate would not exceed \$67,000 in 2014 dollars in a given year.

Federal agencies must make a special effort at conservation when they work in an area designated as critical habitat for a listed species. The economic analysis estimates the cost of consultations with the Service when a federal agency works in an area designated as critical habitat, or funds or permits work done by others. Federal, state and local government agencies and some projects may incur costs for work involving federal funding or a federal permit. The estimate does not include any costs incurred as a result of the listing of these plants because the ESA states that listing a species is to be based solely on the best available scientific information.

The mission of the U.S. Fish and Wildlife Service is working with others to conserve, protect, and enhance fish, wildlife, plants, and their habitats for the continuing benefit of the American people. For more information on our work and the people who can make it happen, visit [www.fws.gov](http://www.fws.gov). Connect with our Facebook page at [www.facebook.com/usfwssoutheast](https://www.facebook.com/usfwssoutheast), follow our tweets at [www.twitter.com/usfwssoutheast](https://www.twitter.com/usfwssoutheast), watch our YouTube Channel at <http://www.youtube.com/usfws> and download photos from our Flickr page at <http://www.flickr.com/photos/usfwssoutheast>.