



Corridors of Invasiveness: Early Detection of New Invasive Exotic Plants in Everglades National Park-East Region 2017

Importance

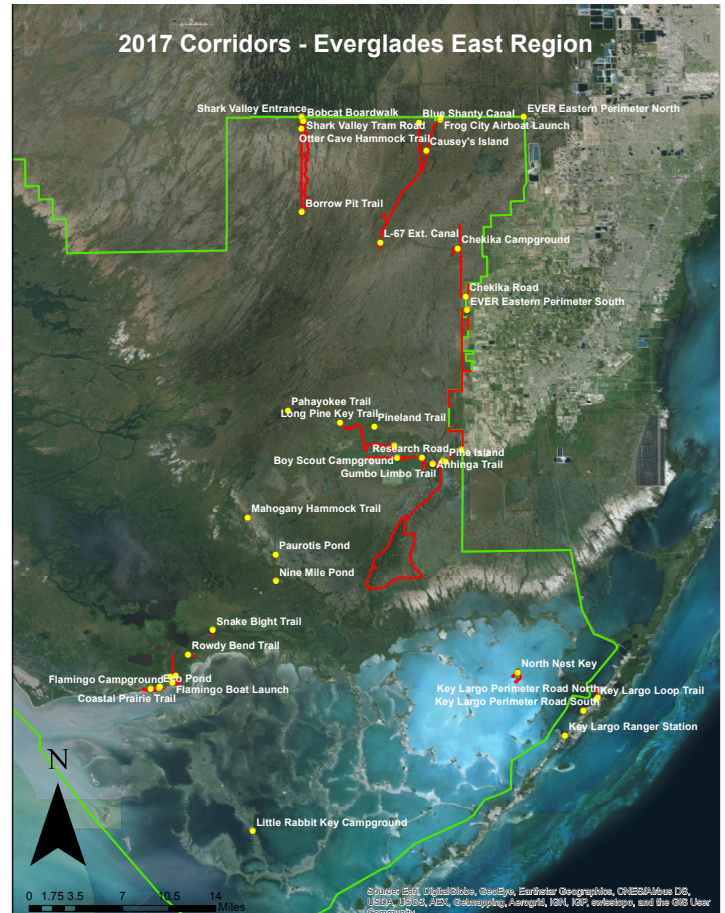
Invasive plants are one of the most serious threats to maintaining ecosystem integrity in South Florida parks. Once established, invasive exotic plant species can affect park natural resources by altering the natural landscape, reducing habitat for native plants and animals, and changing how the natural ecosystem functions, e.g., altering hydrology, and fire patterns. The most successful and cost-effective strategy for preventing the establishment of exotic plant species is detecting new exotic plant species with the potential to become invasive while they are still in small controllable populations.

Objectives and Approach

The objective is to detect newly emerging invasive plant species in the national parks of South Florida along the most likely routes, or “corridors of invasiveness,” i.e., trails, roadways, campgrounds, and boat launches. Surveys are conducted by an experienced South Florida/Caribbean Network botanist along with an Exotic Plant Management Team member. Exotics are treated immediately when populations are small (10 x 10 meters [32.8 x 32.8 ft]) or are reported to park staff and to the public through EDDMapS, a multi-agency web-based mapping system for invasive species.

Results

The 2017 survey was completed in Everglades National Park-East Region during the months of February and May. A total of 180 kilometers or 111.8 miles were surveyed, with a total of 73 exotic species encountered during the survey. One new exotic plant species was found within Everglades National Park. The new exotic species encountered was the mottled spurge (*Euphorbia lactea*), found at the Key Largo Ranger Station. The South Florida/Caribbean Network referenced the certified species list from NPSpecies as the official list to compare with during the surveys. There were a total of 440 infestations observed during the survey. The exotic species with the highest number of infestations were Brazilian Pepper (*Schinus terebinthifolius*), followed by shoebutton ardisia (*Ardisia elliptica*), Browne’s blechum (*Ruellia blechum*), Australian pine (*Casuarina*



Above: Map of sites (yellow dots) and tracklines (red lines) of area surveyed during the 2017 Corridors of Invasiveness project in Everglades National Park-East Region.

equisetifolia and *Casuarina glauca*), and Burmареed (*Neyraudia reynaudiana*). The species with the highest total infested area was Brazilian Pepper, followed by punktree (*Melaleuca quinquenervia*), Napiergrass (*Cenchrus purpureum*), Burmареed, St. Augustine grass (*Stenotaphrum secundatum*), and Shoebutton ardisia. The total area surveyed within the field of view estimate was 3,166,417 square meters (782 acres). The total area infested within the field of view was 775,665 square meters (191 acres); about 25% of the total area surveyed.



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<http://science.nature.nps.gov/im/units/sfcn/monitor/invasive/index.cfm>