



Corridors of Invasiveness: Early Detection of New Invasive Exotic Plants in Everglades National Park—West Region

2019

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 or fire patterns). Detecting new exotic plant species with the potential to become invasive, while they are still in small controllable populations, has proven to be a successful and cost effective strategy for preventing the establishment of exotic plant species.

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 SFCN botanist along with an Invasive Plant Management Team (IPMT) member. Exotics are treated immediately when possible or are reported to park staff and through the Early Detection and Distribution Mapping System (EDDMapS), a multi-agency mapping system for invasive species.

Results

The 2019 survey was completed in Everglades National Park (EVER) West Region during the months of May and August 2019. The South Florida / Caribbean Network teamed with EVER staff during a three-day sampling event and utilized an EVER houseboat as a home base. A total of 23 sites were visited, resulting in 8.8 kilometers (5.5 miles) of linear distance surveyed (Figure 1) and 20 unique exotic species encountered. No new exotic plant species were found this year.

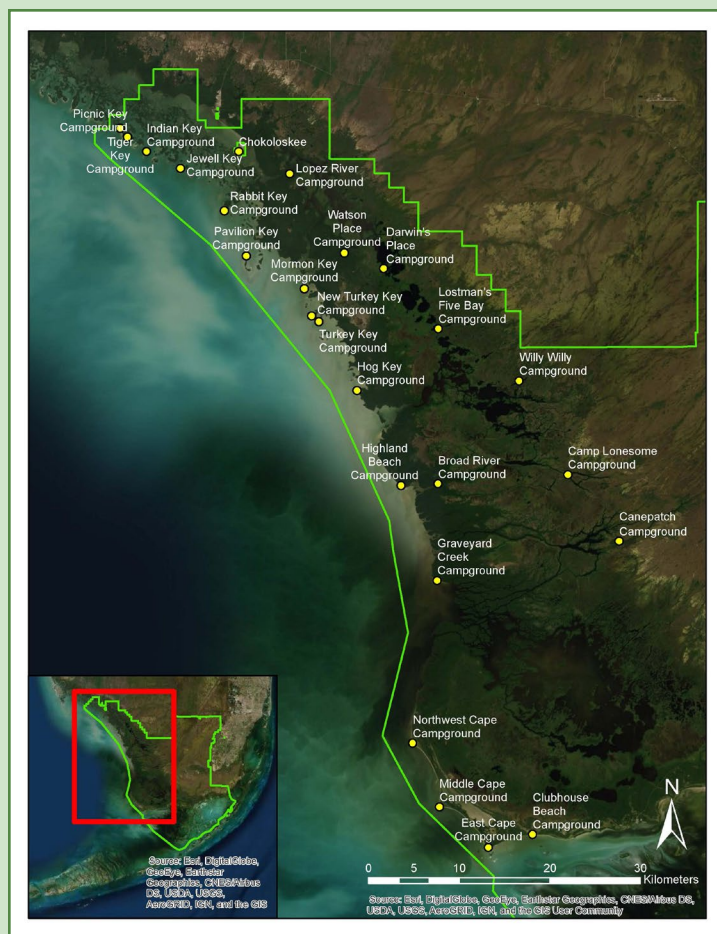


Figure 1. Map of sites surveyed during the 2019 Corridors of Invasiveness project. The 2019 surveys encompassed the western region of Everglades National Park.

In total there were 174 infestations observed during the survey. The exotic species with the most infestations were latherleaf (*Colubrina asiatica*; Figure 2) with 46 infestations, Brazilian pepper (*Schinus terebinthifolius*; Figure 3) with 26 infestations, and seaside mahoe, or portia tree (*Thespesia populnea*; Figures 4 and 5) with 21 infestations.





Figure 2. The latherleaf (*Colubrina asiatica*) was the most abundant exotic species found during the 2019 surveys in western Everglades.



Figure 3. Brazilian pepper (*Schinus terebinthifolius*) commonly invades upland coastal communities in western Everglades. Brazilian pepper also had the highest total infested area during the 2019 survey.



Figure 4. Seaside mahoe, or Portia tree (*Thespesia populnea*) had the third highest exotic species abundance during the 2019 survey.



Figure 5. A Seaside mahoe, or Portia tree (*Thespesia populnea*) flower.