



Invasive Exotic Plant Monitoring

2015

Importance

Invasive exotic plants are one of the most significant threats to natural resources in the national parks today. Exotic plants are able to reproduce prolifically, rapidly colonize new areas, displace native species, and alter ecosystem processes across multiple scales. If invasive exotic plants are discovered while their populations are still small, control efforts are likely to cost less and achieve more success than after a species has become more widespread. Early detection of exotic plants is critical.

Process and Use

To provide early warning of new exotic threats, the Northern Colorado Plateau Network (NCPN) focuses its invasive-plant monitoring efforts on areas where invasive exotics are likely to first establish.

The network has implemented a multi-pronged approach to the early detection of exotic plants. First, NCPN or park staff experienced with a wide range of exotics survey established monitoring routes on a rotational basis to maximize both efficiency and ground coverage. Along those routes, staff establish plots that can be quickly surveyed for data that will enable us to estimate trends over time. In addition, NCPN staff may dedicate approximately 25% of their time to inventories of areas that are of high management concern. Finally, the network has designed “monitoring lite,” a method by which park staff or volunteers with less knowledge of invasive species may collect data for use in NCPN databases and reporting.

The objectives of NCPN invasive plant monitoring are to:

1. Detect incipient populations and new introductions of invasive plant species; and
2. Determine status and trends of selected populations of invasive plants of concern to park managers.

Management Applications

Information gathered from this monitoring will support a long-term, ecosystem-wide strategy for controlling invasive plant species. It will also allow park managers to (1) be well-informed about the status of ecosystems and (2) prioritize invasive-plant control efforts. Staff from both the parks and the National Park Service Exotic Plant Management Teams use NCPN monitoring reports to guide control efforts.



Recording tamarisk (*Tamarix* spp.) at Capitol Reef NP.

Monitoring Effort

In 2013, the NCPN monitored all routes at Colorado National Monument (NM), the Highway 25/Fremont River Corridor at Capitol Reef National Park (NP), and several trails at Zion NP. Analysis of data collected at Colorado NM and Capitol Reef NP revealed that for several species, the number of infestations detected has decreased in the years since monitoring began (see next page). Scheduled work along the river corridor at Dinosaur NM was suspended due to the federal budget sequestration. Reports on work completed at network parks are available at the [network website](#).

In 2014, NCPN monitored invasive plants at Curecanti National Recreation Area, Capitol Reef NP, Fossil Butte NM, Golden Spike National Historic Site, and Dinosaur NM. Reports will be completed in the spring of 2015. The NCPN invasive plant monitoring protocol was approved in 2013.

Contact

Dustin Perkins, dustin_w_perkins@nps.gov

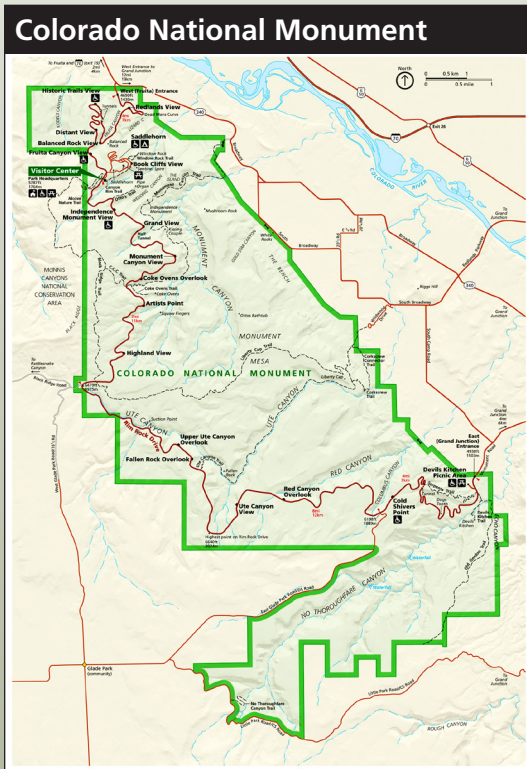
Network park units where invasive exotic plants are monitored

Black Canyon of the Gunnison NP	Dinosaur NM
Capitol Reef NP	Fossil Butte NM
Colorado NM	Golden Spike NHS
Curecanti NRA	Zion NP

NP = National Park; NM = National Monument;
NRA = National Recreation Area; NHS = National Historic Site

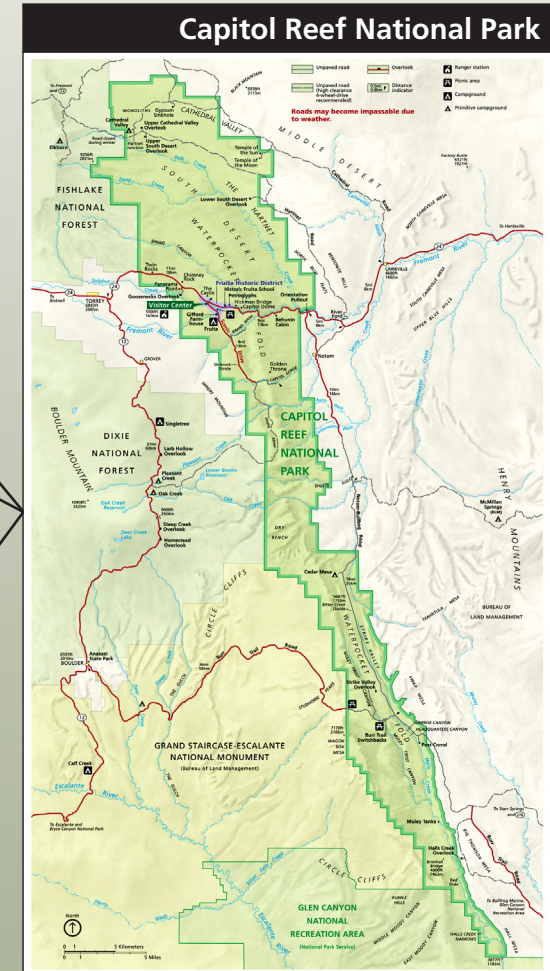
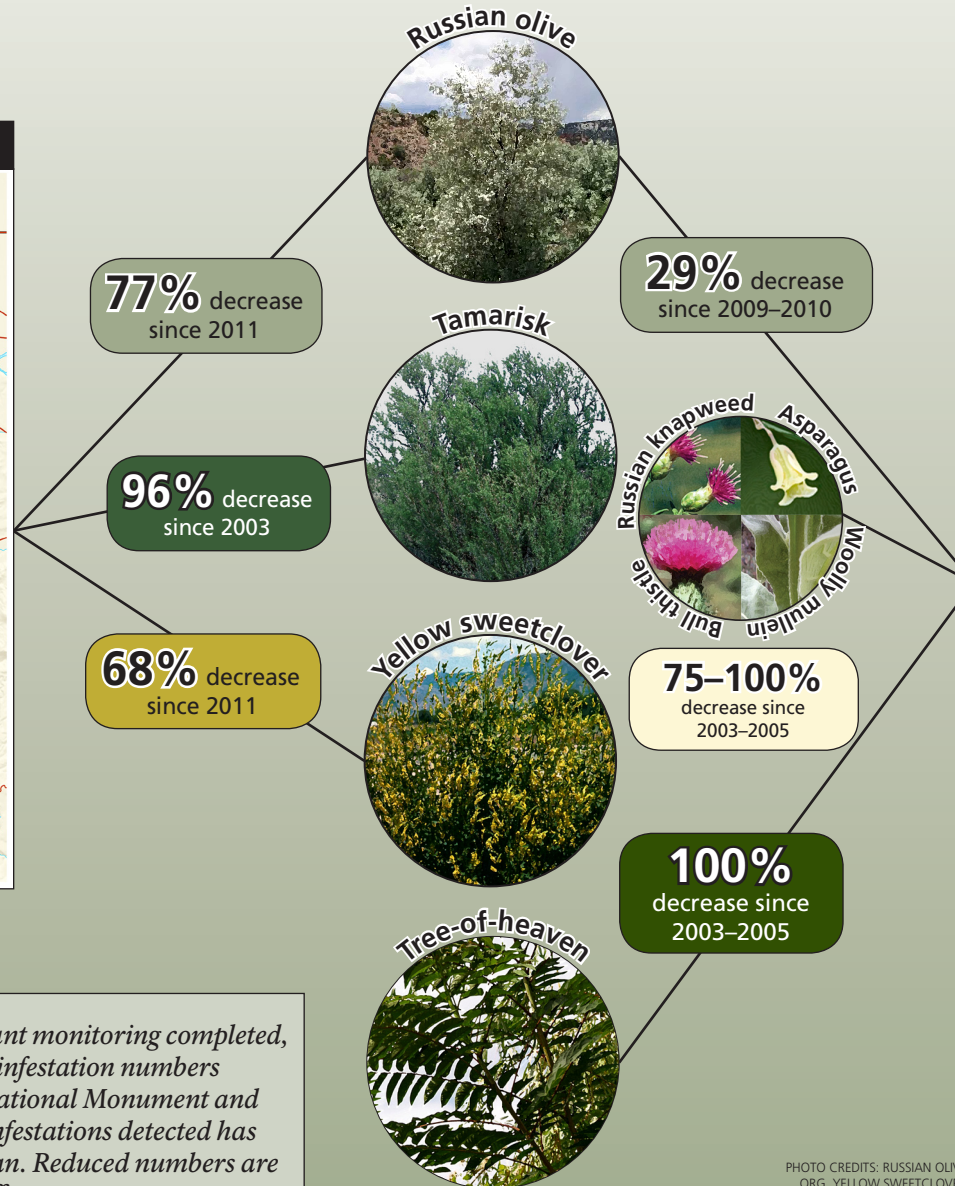


Changes in Selected Infestation Numbers at Colorado National Monument and Capitol Reef National Park



Read the full report:
<http://go.nps.gov/IEPCOLM13>

With the first full round of invasive exotic plant monitoring completed, it's now possible to show changes in selected infestation numbers over time. For several species at Colorado National Monument and Capitol Reef National Park, the number of infestations detected has decreased in the years since monitoring began. Reduced numbers are likely due to park eradication and control efforts.



Read the full report:
<http://go.nps.gov/IEPCARE13>

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