



Invasive Plant Management Plan

What are invasive plants?

Invasive, non-native plants are introduced from other parts of the world. The spread of invasive plants is a primary cause of degradation to ecological systems. Invasive plants, also known as weedy or noxious plants, displace native plant and animal populations and reduce habitat and food sources for native insects, birds and other wildlife.

What species are in Yosemite?

Some of the worst plant invaders that the park is managing most intensively in Yosemite are:

- Yellow star- thistle (*Centaurea solstitialis*)
- Himalayan blackberry (*Rubus discolor*)
- Spotted knapweed (*Centaurea maculosa*)
- Bull thistle (*Cirsium vulgare*)
- Common velvet grass (*Holcus lanatus*)

Why should we be concerned?

Invasive plant species can have severe negative impacts on many of the cultural and natural features that make Yosemite a spectacular and enjoyable place to visit. Many invasive species are able to:



Yellow starthistle covered 1 million acres of California in 1958. By 2006 it had spread to over 14.3 million acres.

Displace Native Plants: Invasive species out-compete native plants for limited resources such as water, sunlight, and nutrients. Native plants are often reduced to small, isolated patches or can completely disappear from an area. Invasive species, together with habitat loss, have caused the extirpation of countless native plant populations in California.

Disrupt Native Wildlife: Many animals are adapted to use very specific plants for food and habitat. When desirable plants are replaced by invasive species, the animal's food source or habitat is lost. As native plants shrink in numbers, so will the number of animals that depend upon the plants. Additionally, many invasive species are poisonous or harmful to animals.

Change Fire Regimes: Invasive species such as cheat grass can increase the frequency, seasonality, and intensity of fires in Yosemite National Park. Many native plants and animals that would otherwise be unaffected by invasive species can be displaced by changes to the fire regime.

Alter the Visitor Experience: Invasive plants can transform spectacular displays of showy wildflowers into large, unattractive monocultures. Thorns and irritants on invasives can transform inviting and accessible areas into impassable and unattractive thickets of thorns and brambles.

Impact Cultural Resources: Yosemite is home to numerous plant species used by Native Americans. These plants often thrive in areas now threatened by the spread of invasive species.

Cause Impacts Beyond Park Borders: Invasive species have no regard for political boundaries. They can rapidly spread from Yosemite onto adjacent lands outside of the park and inflict environmental and economic costs onto other agencies and private landowners.

What action is Yosemite currently taking to control invasive plants?

Prevention and early detection of invasive plants are the most important and economically feasible ways to control the spread of invasive plants. Additionally, Yosemite National Park Service work crews, park partners and volunteers have been using techniques such as hand-pulling, lopping, and mowing to manage the park's most invasive species. Yosemite will now employ two herbicides, glyphosate and aminopyralid, as additional tools to manage the most threatening plants that manual methods have not effectively controlled.

What does the Invasive Plant Management Plan address?

This plan is a comprehensive, prioritized program of prevention and early detection, control, systematic monitoring, and research. Some of the goals are to:

- Prevent new invasions through systematic early detection, equipment inspections, use of certified weed free pack stock feed, and use of weed free soil and rock for construction projects.
- Prioritize existing populations and sites for control.
- Eradicate existing infestations to minimize threats to natural and cultural resources and scenic values.
- Preserve native plants and sites valued by Native Americans.
- Reconcile potential conflicts between preservation of cultural landscapes and removal of invasive plants.
- Promote restoration of native species and habitats in ecosystems degraded by invasive plants.
- Implement the most appropriate control technique for each species and site.
- Ensure that the invasive plant program is regularly monitored and improved, environmentally safe, and is supported by science and research.
- Promote an understanding of invasive species with park visitors, employees, park partners, and gateway communities.
- Provide information to the public on when, where, and how control efforts will take place.
- Control methods may include hand-pulling, use of mechanical weed removal tools, release of predatory insects or fungi, judicious use of herbicides such as glyphosate and aminopyralid.

Public Participation

Public participation is essential for the success of this and all other park projects. Here are some ways to stay involved in the park:

- **Attend a National Park Service public open house** to talk with project specialists and obtain more information on the project. Visit the park's planning website (listed below) for upcoming dates.
- **Add your name to the park's planning mailing list** and receive the *Planning Update* newsletter as well as other planning-related notices. You can also submit your email address to receive the park's periodic electronic newsletter.
- **Additionally, you can submit comments with your thoughts about this topic or any other project in the park by any of the following means:**

Mail: Superintendent
Attn: *Invasive Plant Management Plan*
P.O. Box 577
Yosemite, CA 95389

Phone: 209/379-1365; **Fax:** 209/379-1294

E-mail: Yose_Planning@nps.gov

- **Visit online:** www.nps.gov/yose/parkmgmt/planning.htm to find out about plans and projects or www.nps.gov/yose/parkmgmt/invasive.htm to view the *Invasive Management Plan*.