

Yosemite National Park

National Park Service
U.S. Department of the Interior



Invasive Plant Management Plan Update Environmental Assessment



In 2008, Yosemite National Park created the *Invasive Plant Management Plan* (2008 IPMP) to provide a comprehensive, prioritized program of invasive plant prevention, early detection, control, systematic monitoring, and research. The 2009 Big Meadow Fire, and issues related to managing Himalayan blackberry (*Rubus armeniacus*) and other plants, highlighted the need for a more adaptive, programmatic plan that offers additional tools necessary to address the threat that invasive plants pose to park resources. Yosemite National Park is updating the 2008 IPMP to provide additional methods that can increase the effectiveness of the park's invasive plant management efforts.

Invasive Species..... What are they and why are they a problem?

The spread of invasive species is recognized as one of the major factors contributing to ecosystem change and instability throughout the world. An invasive species is “a non-native species whose introduction does, or is likely to cause, economic or environmental harm or harm to human, animal, or plant health” (Executive Order 13112, 1999). These species have the ability to displace or eradicate native species, alter fire regimes, damage infrastructure, and threaten human livelihoods.

Invasive species are changing the iconic landscapes of our national parks. In areas dominated by non-native plant species, native plant populations can be reduced to small, isolated populations, or even driven to local extinction. As native plants decline in numbers, so may the wildlife that depend on them for food.

Invasive plants can harm the visitor's experience by replacing the park's spectacular and diverse displays of showy wildflowers with large, unattractive monocultures. Yosemite is home to some 1,400 native plant species, some of which are endemic to the Sierra Nevada Mountains. Native Americans use many of Yosemite's native plant species, plants which often thrive in areas now threatened by the spread of invasive plants. Currently, invasive annual grasses and forbs dominate many low and middle elevation meadows and stream corridors within the park, as well as much of the foothill woodlands, chaparral, and grasslands along the park's western edge. Further west, in California's Central Valley, non-native species now make up 99% of plant biomass. In the Great Basin, just east of the Park, cheatgrass (*Bromus tectorum*) has drastically altered fire regimes, changed plant community structure and displaced native species across millions of acres.

Top Left:
Bull thistle is presently
our most widespread high
priority invasive plant.

Top Right:
Blackberry thickets attract
black bears into areas
where human-bear conflict
are much more likely.

What is Yosemite doing to manage invasive plants?

Yosemite has actively controlled invasive plant populations since the 1930s. The 2008 IPMP was created to provide for a comprehensive, prioritized program of invasive plant prevention, early detection, control, systematic monitoring, and research.

The 2008 plan uses an integrated pest management (IPM) approach to detect, control, and prevent priority invasive plants from spreading into uninfested areas. The best available scientific and practical information is considered in planning control efforts. Then, a full range of cultural, manual, mechanical and chemical control techniques are considered for use, including preventing the introduction of invasive species, to hand-pulling and mowing, and the judicious use of herbicides to treat established populations.

Why update the 2008 plan?

While the 2008 IPMP provides a foundation for well-developed decision-making and prioritization strategies, the update will outline a protocol for adaptive management techniques that would provide greater flexibility to respond to present and future threats. Following the 2009 Big Meadow Fire in Yosemite, the Interagency Fire Management Team recommended applying a pre-emergent herbicide that has proven to be highly effective in other parts of the West, one which could prevent cheatgrass seeds from sprouting and overtaking the meadow after the late-season fire. Since this specific chemical was not considered and evaluated in the 2008 IPMP, the park was unable to use this new tool.

As new herbicides are developed, tested, and approved for use in the western states, adaptive management would allow the park to select more effective herbicides that have fewer undesirable effects. Working cooperatively with university researchers, the park can continue to test and monitor the various approved IPM treatments, to find the most efficient, effective, and safest tools to protect Yosemite's biodiversity

Your Part in the Plan

Public participation is essential for the success of this and all other park improvement projects. You are encouraged to submit comments online at the National Park Service Planning, Environment and Public Comment (PEPC) site. This site provides access to current plans, environmental impact analyses, and related documents on public review. Access the site at < <http://parkplanning.nps.gov/yose/> > . Scoping comments regarding the Invasive Plant Management Plan Update EA should be submitted electronically or postmarked no later than May 15, 2010. Mail or fax comments to:

Superintendent, Yosemite National Park
Attn: IPMP Update EA
PO Box 577
Yosemite, CA 95389
Fax: 209/379-1294

Park staff will be available to discuss the goals of this plan update, answer questions, and receive comments at two upcoming open houses at the Yosemite Valley Auditorium on March 31 and April 28, 2010, from 1 to 4 pm.

For more information about the 2008 IPMP, annual invasive plant management work plans, and the plan update, visit online: < <http://www.nps.gov/yose/parkmgmt/invasive.htm> > .
