

What's Being Done

Finding solutions

Many agencies and groups, from local to international, are working to solve the problems invasive plants pose for the state's lands. Their work includes:

- Implementing on-the-ground control projects aimed at removing invasive plants.
- Developing policies and practices to limit the spread of invasive plants.
- Advancing awareness of invasive plant problems and solutions.
- Mapping infestations to set priorities and guide planning.
- Working in collaboration with public and private partners to develop programs.
- Researching ecological impacts and effective long-term solutions.

What You Can Do

You can help

Invasive plants are a serious and growing problem, and California's threatened landscapes need all the help they can get. You can prevent the spread of plant invaders and help reduce the problems they cause. Here are a few suggestions:

- Don't use known invasive plants in gardens or landscaping.
- Know how to identify invasive plants, and who in your area to notify when you see them. (For a list of county weed management groups, see our website.)
- Volunteer with habitat restoration efforts at local parks, creeks, or other natural areas.
- Do not move plants in the wild, especially over long distances. Clean boots, boats and cars so weed seeds cannot "hitchhike."
- Consider becoming a member of Cal-IPC, the California Invasive Plant Council.

Join Cal-IPC

Help protect California's landscapes

The California Invasive Plant Council (Cal-IPC) works to protect California wildlands from invasive plants through research, restoration, and education.

Cal-IPC is a member-driven organization, including public and private land managers, research ecologists, volunteer restorationists and concerned citizens. We need your help to protect California's unique landscapes from the threat of invasive plants. To join, or for more information on invasive plants in California, please visit our website.



Cal-IPC
California Invasive Plant Council

www.cal-ipc.org

Cover photo: Bull thistle (*Cirsium vulgare*) and other grassland weeds are spreading throughout California, even into Yosemite Valley.

(1) California Natural Diversity Database, California Department of Fish and Game, Wildlife and Habitat Data Analysis Branch.

(2) Pimentel, D. L. Lach, R. Zuniga, and D. Morrison. 2000. Environmental and economic costs of nonindigenous species in the United States. *BioScience* 50: 53-65.

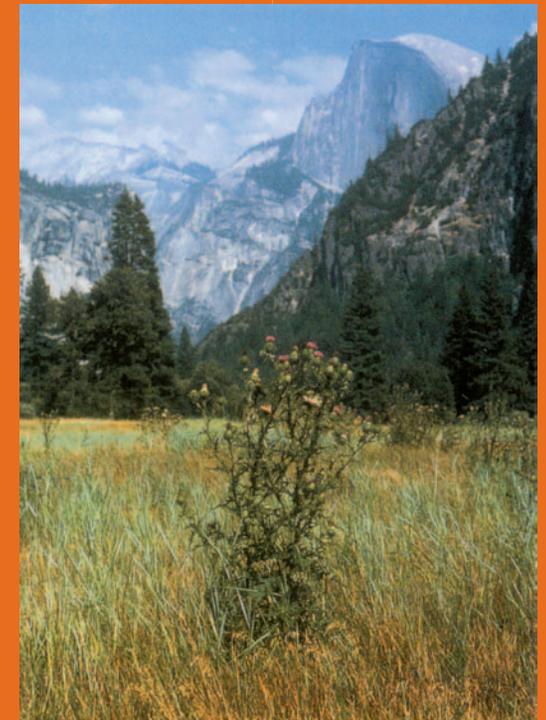
(3) Zavaleta, Erika. 2000. Valuing ecosystem services lost to *Tamarix* invasion. In *Invasive Species in a Changing World*. Mooney, Harold A. and Richard J. Hobbs, editors. Island Press, Washington, D.C.

Brochure design by Elizabeth Stampe

Photo credits: *Cynara cardunculus* courtesy John Randall; *Cortaderia jubata* courtesy Greg Gaar; *Cynara cardunculus* courtesy Contra Costa County Agricultural Commissioner.

biological
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pollution:
pollution:

what you should
know about
invasive plants
in California



California's Landscapes

A unique natural heritage

California is home to some of the world's most beautiful and biologically rich landscapes. From redwood forests to oak woodlands, coastal dunes to desert springs, alpine meadows to delta sloughs, these landscapes are home to an astonishing variety of plants and animals. Many of these exist nowhere else on Earth.

Unfortunately, these landscapes are being destroyed by invasive plants. Human development has disturbed nature's processes, and every day invasive plants degrade more of our treasured natural heritage.

Invasive Plants

What are invasive plants?

When plant species that evolved in one region of the globe are moved to another region, a few of them flourish outside cultivation in their new home, crowding out native vegetation. These invasive plants have a competitive advantage because they are no longer held in check by their natural predators, and they can quickly spread out of control.

How do they get here?

Shipping, international travel, and the aquarium and horticultural trades are major routes of introduction.

How do they spread?

- Fragments break off and regrow
- Birds or mammals carry seeds
- Seeds are blown by the wind
- Clothing and vehicles spread seeds

In addition, some invasives are still used in landscaping.

The Danger

Threatened wildlife

Invasive plants rob sunlight, nutrients, and water from native plants, which wildlife depends on. Invasives damage habitat for at least half the species federally listed as threatened or endangered. In California, 415 special status species are threatened by invasive plants.¹

Diminished outdoor recreation

Hunting and fishing are less rewarding, even impossible, when wildlife is under stress. Invasive plants can blanket waterways, trails, and scenic landscapes, making boating, hiking and other activities difficult, while lowering the land's value for photography and wildlife viewing.

Degraded range and timber lands

Invasive plants impact working landscapes that support agriculture as well as wildlife. Rangeland invaders such as yellow starthistle can be low in nutrition and even toxic to livestock, and removal costs decrease land values. On timber lands, Scotch broom invades forest openings, preventing tree seedling growth. U.S. agricultural losses to invasive weeds are estimated at \$33 billion each year.²

Increased wildfire potential

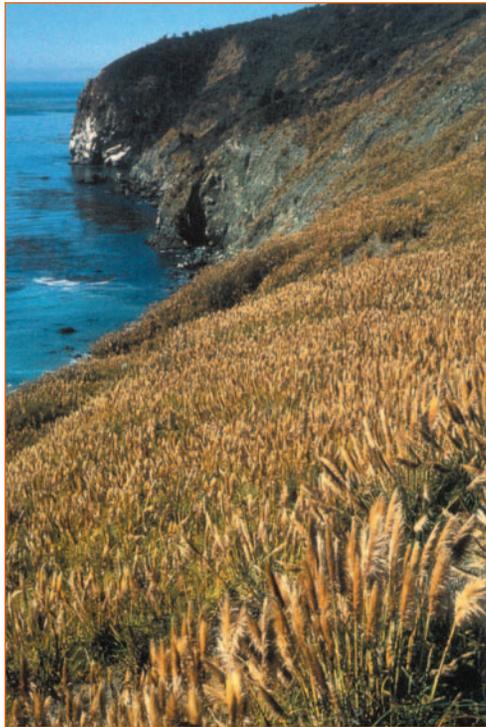
Some invasive plants generate more fire fuels than the natives they replace. Their rapid and dense growth, along with high flammability, can change fire patterns in an area and be a recipe for catastrophic wildfire. Such fires can take a heavy toll on both wildlife and human communities.

Reduced water resources

Some invasive plants consume enormous quantities of precious water at the expense of wildlife, farms, boaters, and households. Tamarisk trees alone will cost \$7-16 billion in lost water over the next half-century.³

Accelerated erosion and flooding

When invasive plants displace natives on streamsides and wetlands, the likelihood of flooding and erosion can be increased. In a vicious cycle, this erosion can enable even more establishment of invasive plants.



Above: Pampas and jubata grass (*Cortaderia* species) from South America crowd out California's native coastal vegetation. At right: Artichoke thistle (*Cynara cardunculus*) spreads over San Francisco Bay Area hillsides.