

# Landscape Transformers

by Kathi Joy

Invasive plant species are called landscape transformers because of their ability to alter entire ecosystems. The California Invasive Plant Council (Cal-IPC) states that the invasive plant problem is the most critical environmental issue facing California today, due to its economic and ecological impact.

Invasive plants are those that are non-native and cause harm to the organisms living within an ecosystem. Invasive plants, unlike weeds, can survive and spread on their own without human disturbance to natural soils. Weeds typically are herbaceous land annuals, whereas invasive plants can be found in land & water, can be herbaceous or woody, annual or perennial. A plant species can be invasive to one part of California, but not others.



The introduction of an invasive plant to an area can be accidental or deliberate. Seeds, soil or hay can be contaminated resulting in an accidental introduction of an invasive plant. Some invasive plant seeds, like yellow star thistle, hitchhike on vehicles or pieces of equipment and are spread along transportation corridors. Yet, 63 percent of the species on the invasive plant list have been introduced intentionally for ornamental value, or for a specific purpose, such as soil stabilization, animal forage or wind breaks. Scotch Broom was introduced in the 1800s for control of soil erosion and landscaping but has now invaded over 1 million acres.

Plants that become invasive typically have the ability to grow well in a variety of conditions and readily adapt to changes in the environment. They are easily established, grow aggressively, reproduce rapidly and spread prodigiously to other areas. They compete with natives for natural resources. Since most invasive plants are not consumed by the native herbivores or insects, they spread unabated.

Aquatic invasive plants make it difficult for vessels to travel through waterways and can also clog irrigation systems, degrade flood control structures and prevent livestock from reaching water sources. The economic cost is astronomical. Invading land plants can damage agricultural crops, decrease the quality and quantity of livestock feed, affect animal and human health, interfere with recreational activities and lower land value. They can also fuel wildfires due to their dense stands and high flammability.



According to Cal-IPC, California has 5000 native species, making it the most botanically diverse state. Yet, there are 200 invasive plant species that threaten this biodiversity. As native plant diversity decreases, other organisms in the food chain are also adversely impacted. Populations of insects that feed only on native plants will decrease as the natives are outcompeted by invasive plants resulting in less food (and shelter) for native birds and reptiles.

Prevention is the most important tactic in dealing with invasive plants. As gardeners, we can help in the following ways: learn which plants are invasive and plant alternatives instead; educate others about invasive species; reduce accidental exposures by using weed-free aggregates and forage; remove hitchhiking seeds; encourage local nurseries

to carry native plants rather than invasive species and maintain cleared land areas to prevent the spread of invasive species.

Early detection and removal is also important in handling this problem. If you have invasive species growing in your garden, consider removing and replacing them with natives. Use the Cal-IPC website to report new areas of invasive plant growth or contact the local county agriculture commissioner. Eradication of large swaths of invasive species requires an integrated plant management approach that is costlier and more complicated than prevention or early detection and removal.

To learn more, or to find out about which plant species are invasive to the Sierra Foothills, visit the following websites: 1) [www.cal-ipc.org/ip/management/plant\\_profiles/index.php](http://www.cal-ipc.org/ip/management/plant_profiles/index.php) 2) [www.cal-ipc.org/landscaping/dpp/planttypes.php?region=foothills](http://www.cal-ipc.org/landscaping/dpp/planttypes.php?region=foothills) or 3) [www.cal-ipc.org/paf](http://www.cal-ipc.org/paf).

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