

Weeds In Bidwell Park

John Dittes, July 2003

What Is A Weed? A tomato farmer may tell you it's anything that's not a tomato; a forester may tell you a weed is anything but a tree! Biologists will give you a different definition yet. From an ecological perspective, weeds are organisms (plants or animals) that share a set of traits that allow invasion, persistence, and domination over pre-existing biological communities, particularly where human activities occur.

Weeds are usually non-native, although a few native species behave like weeds. California Poppy, our State Flower, is a noxious weed in Chile! Other weedy natives include Fiddleneck, Doveweed, Cocklebur, Coyote Bush and even White Fir.

Weeds Usually Share The Following Traits:

- λ Weeds are prolific, reproducing with abundant seeds (Tamarisk), by vegetative cloning with rhizomes (underground stems as with Periwinkle), or with stolons (aboveground stems as with English Ivy),
- λ Weeds are easily dispersed by wind (Dandelions, Tree of Heaven), by mammals (Foxtail Grass and Cocklebur), by birds (Privet, Edible Fig, Olive and Himalayan Blackberry), by water (Giant Reed and Purple Loosestrife), and by people (Puncture Vine in bicycle tires),
- λ Weed seeds usually are long lived in the "soil seed bank",
- λ Weeds can germinate and grow under a wide variety of environmental conditions,
- λ Weeds out-compete other species with "strategies" that include rapid lateral, or "overtopping" growth, and the physiological ability to thrive under conditions that are poor for other species.



Yellow Star-thistle

Why We Should Care About Weeds in Bidwell Park: Bidwell Park harbors a wealth of biological diversity unparalleled by any other Municipal Park in California. Over 750 species of vascular plants, 60 species of mosses, 131 species of birds, 55 mammals, 15 reptiles, 9 amphibians and 11 different species of fish have been observed. Thousands of insect species have yet to be recorded.



Bladder-senna

- λ Weeds out-compete other native plant species, resulting in reduced biodiversity and "simplified and vulnerable ecosystems",
- λ Weeds usually fail to provide requirements for diverse native wildlife species,
- λ Weed-dominated plant communities are generally not as aesthetically pleasing as more intact native ones,
- λ Weed-dominated plant communities often present increased fire danger.

Bidwell Park's Invasive Weeds:

In Lower Park: The herb and shrub layer under the majestic native oaks and sycamores along the riparian corridor is dominated almost entirely by aggressive non-native species including Periwinkle, Privet, English-Ivy and Himalayan Blackberry. Giant Reed Grass and Tree of Heaven are scattered along the creek edges as well. Other species that are more recently spreading in Lower Park include Bladder Senna, Pyracantha (Firethorn) and Perennial Pepperweed. Although Pampas Grass is located in nearby gardens, it has yet to dominate sites in the park.

In Upper Park: Yellow Star Thistle and Medusa-Head Grass dominate many grassland areas. Olives are spreading and already dominate areas on the south side of the creek. Edible Fig, Spanish and French Broom, and Giant Reed Grass are spreading at scattered sites along the floodplain of Big Chico Creek.

Although many of these plants are attractive and can even provide food and shelter for select wildlife species, they are quickly replacing large numbers of native plant species and the astonishing diversity of animal species depending on them. Upper Park stands to lose a unique component of California's natural heritage, one that was appreciatively described over 100 years ago by the Bidwells.



Spanish broom near Diversion Dam

Ironically, the Bidwells were enthusiastic about farming and gardening and actually introduced some of the "weeds" that are now threatening the Park.

What Can You Do?

- λ **Participate in Bidwell Park "Weed Bashing Projects"** - These efforts are led by organizations including the California Native Plant Society, Streaminders, Kids and Creeks, Friends of Bidwell Park, and the amazingly energetic Laura Nissim. You can contribute muscle and sweat, or financial donations.
- λ **Stay On Existing Trails-** We spread weeds when we pass through weedy areas along trails and then into native undisturbed areas. We collect and spread weed seeds with socks, shoelaces, pants, dogs, horses and bicycles. By traveling off of existing trails, we create new disturbed surfaces that foster weed recruitment.
- λ **Landscape Responsibly-** Avoid landscaping with any of the above- mentioned species. When visiting local nurseries, express your concerns to the Nursery Managers when you see any of these invasive species offered for sale. Tell your friends, as they may unknowingly be planting or caring for invasive species. Also, landscape with native species; they tend to be drought tolerant and more attractive to native birds and insects.
- λ **Promote Responsible Park Stewardship-** By participating with the City of Chico in the development of a comprehensive Bidwell Park Master Management Plan.