



# Nevada-Placer Weed Management Area

## 2015 Annual Report and Newsletter

*Dedicated to preventing and controlling invasive weed species in Nevada and Placer Counties by sharing resources and information*

### Project Highlight

#### Timed Mowing — Innovative Control of Annual Grasses at California State Parks

By Dan Lubin and Anna Van Zuuk, California State Parks

California State Parks has been using an innovative tool for control of several invasive non-native annual grasses such as Barb Goatgrass (*Aegilops triuncialis*) and Medusahead (*Elymus caput-medusae*): weed-eaters. In 2007, vegetation surveys identified several State Park grasslands as containing small, almost extirpated populations of native perennial grasses. These populations of native grasses were glaring examples of what has happened state-wide in California: the almost complete disappearance of native grasses within the larger landscape of foothill and valley grasslands. Parks scientist Dan Lubin noticed that the remaining “clumps” of native grasses were inundated by annual weedy grasses like Medusahead, Barb Goatgrass, Rip-gut Brome, and Wild Oats, not to mention Yellow Starthistle. These annual weeds had built up a thick “thatch” layer that was preventing native perennial grass germination. Annual weedy grasses were also consuming most of the available soil moisture by early spring.

Beginning in 2008, at Empire Mine State Historic Park, South Yuba River State Park, and Malakoff Diggins State Historic Park, weed eaters were used to remove the annual grasses and broadleaf weeds by timing the “cutting” depending on each weed species life cycle. During late April and early May, most of the foothill annual weedy grasses are trying to develop mature seed-heads. Just before seed-head maturation, the grass species would be cut to the ground. If the timing was right, the weedy grasses would not have enough energy to re-sprout, re-flower, and set viable seed. Several years of weed-eating/mowing in these grasslands targeting the annual weeds have promoted an extraordinary transformation. The native perennial grasses have expanded populations by at least 100% over ~5 years, with various annual and perennial broadleaf plants and wildflowers emerging from a dormant seedbank.

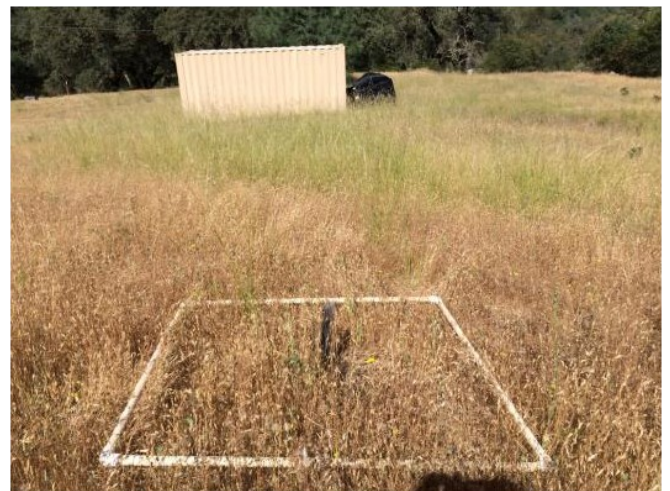
Medusahead and Goatgrass are highly invasive grasses that create monotypic stands that displace native plants, create fine fuel build-up and are not palatable to domestic or wild grazing animals. These are new invaders to the California valley, foothill and inevitably mountain grassland and meadow ecosystems and are quickly moving east and up in elevation. They tend to spread quickly in disturbed soil and are invasive in highway and right of way maintenance projects. Heavy machinery, mowers, weed-eaters (ironically), car tires, animals, (*continued next page*)



Weed-eating in action on Medusahead.



Dense Medusahead in 2011 before timed mowing.



Zero % Medusahead in 2015 after 4 years of timed mowing.



**Timed Mowing** *continued*

and shoes can also be vectors of these species. Both grasses have high silica content in the stems, which results in the formation of a thick thatch layer that prevents the germination of native plant seeds.

California State Parks is currently entering its seventh successive year of timed mowing treatments at the South Yuba River State Park - Bridgeport unit. The native grass populations of Purple Needlegrass (*Nassella pulchra*), Blue Wild-Rye (*Elymus glaucus*), and California Melicgrass (*Melica californica*) are all thriving now and are used as seed-populations for new introductions of native grasses throughout the park. Despite the success of this project there is far more ground to cover (estimated 8 of 20 acres have been restored so far). Timed mowing is also being used to control Yellow Starthistle to great success (late June "mowing").

**Project Highlight****Collaboration in the Truckee River Watershed**

By Susi Urie, Tahoe National Forest

In 2015, the Tahoe National Forest (TNF) treated over 129 musk thistle occurrences covering a total of 415 acres, dispersed across about 118,000 acres of National Forest system lands. Musk thistle invades the open ground around reservoirs, banks along the Truckee River and moves into campgrounds. The TNF has been working towards the control of musk thistle and other noxious weeds in the Truckee River Watershed since 2002. Non-federal funders include the Martis Fund, Sierra Nevada Conservancy and the Vera and Joseph Long Foundation. Government grant programs such as "Bring Back the Natives" and Nevada and Sierra County Resource Advisory Council grants have also contributed to the noxious weed control effort.

The TNF has been coordinating efforts with Truckee River Watershed Council and the Nevada-Placer WMA to treat noxious weeds on adjacent properties with owner's permission. We are in a critical stage when some large infestations have been reduced in size to manageable levels, but yearly site visits are still needed to completely control these weed infestations. Substantial progress has been made over the past 13 years and too much has been invested to give up now. In 2016, a total of \$18,000 from the Martis fund, \$18,000 TNF appropriated funds, and up to \$10,000 of Green Sticker funds have been allocated to treat musk thistle along roadways, in campgrounds and across the forest.

**2015 Highlights****Control and Eradication**

- 1,572 invasive weed infestations were treated covering over 3,400 acres
- Species Controlled: artichoke thistle, arundo, barb goat grass, bermudagrass, black mustard, bladder senna, bull thistle, Canada thistle, cheatgrass, chickpea milkvetch, Chinese tallow, Dalmatian toadflax, diffuse knapweed, Dyer's woad, everlasting pea, foxglove, French broom, gorse, Himalayan blackberry, hoary cress, Italian thistle, Maltese starthistle, milk thistle, medusahead, Mexican tea, musk thistle, oblong spurge, perennial pepperweed, pokeweed, red sesbania, rush skeletonweed, Russian knapweed, Russian thistle, Scotch broom, Scotch thistle, Spanish broom, spotted knapweed, stinkwort, teasel, tree of heaven, tumble mustard, white sweetclover, woolly distaff thistle, yellow starthistle, and yellow toadflax.
- Adopted a priority invasive plant list to help guide survey, control, and eradication activities.



Weed crew member, Rachel Westaby pulling musk thistle near the Prosser Fish Habitat Improvement Project.

**Nevada-Placer Weed Management Area****Partners:**

Bear Yuba Land Trust California Department of Fish & Wildlife, California Department of Food & Agriculture, California Invasive Plant Council, California State Parks, Caltrans, Pacific Gas & Electric Company, Placer County Agriculture Department, Placer County Resource Conservation District, Placer County Starthistle Awareness & Removal, Placer Land Trust, Nevada County Agriculture Department, Nevada County Fire Safe Council, Nevada County Resource

