

Sequoia and Kings Canyon National Park

National Park Service
U.S. Department of the Interior



Velvet Grass in the Kern River Canyon

What is velvet grass and why is it important?

Velvet grass (*Holcus lanatus*) is a perennial bunchgrass native to Europe with velvety gray-green leaves. It is a highly invasive species because it produces a large amount of seed and rapidly colonizes disturbed ground. Estimates of seed production range from 850 to 240,000 seeds per plant. The grass dominates habitats by forming dense patches with impenetrable root mats, making it impossible for other seeds to get started. Velvet grass prefers seasonally wet locations, but its seeds survive droughts and hot summers. It has been found in Yosemite National Park in conditions ranging from standing water to extremely hot and dry upland habitat. It has already reached almost untreatable proportions in other parks in California, such as Point Reyes National Seashore.



Velvet grass was introduced to North America in pasture seed mixes, and it has been quietly invading mid-elevation meadows in the Kern Canyon for several years. Velvet grass has the potential to completely take over and replace most of the plants in meadows, wetlands, and riparian areas. These ecosystems are critical for habitat protection, native species diversity, biomass, productivity and scenic vistas.

What is the NPS doing about velvet grass in the Kern Canyon?

Velvet grass was discovered in the Kern Canyon in 2005 in the two pastures at Kern Ranger Station and at Lower Funston Meadow. A single patch found at Upper Funston Meadow was removed. A coordinated effort to control velvet grass through hand pulling started in these sites in 2006. Surveys also reveal numerous populations on USFS lands south of the Kern Ranger Station.

In 2009, we will focus efforts on controlling these populations in the park while striving to maintain the remaining wildlands in a weed-free condition. A 12-person crew will treat velvet grass in the Kern pastures and Lower Funston Meadow by hand-pulling and tarping (placing black fabric over the infestation). We will closely monitor the rest of the canyon for new introductions. Some dense patches of velvet grass, up to one acre, will be treated with an aquatically-approved herbicide called Aqua Neat. This herbicide contains glyphosate, the same active ingredient found in Roundup. It is among the safest herbicides for humans and the environment. Through vigilance, we hope to stop the spread of this invasive weed while controlling the established populations. In the long term, we hope to be able to eradicate this plant from park lands.

Special grazing restrictions in the Kern Canyon in 2009

The Sequoia-Kings Canyon Wilderness is one of the most pristine 'weedless' wildlands in California. With your help, we will be able to keep it that way. Because velvet-grass seeds are known to travel through the gut of horses and pack animals, and can also be readily transported by catching a ride on animals and people, special grazing restrictions are in place for 2009.

- **Kern Ranger Station Pastures.** The two Kern Ranger Station pastures are restricted to administrative use only. Park stock may graze here in the early season, prior to velvet grass beginning to flower. Once velvet grass has begun to flower, the two pastures will be closed to all grazing or electric fence used to exclude stock from infested areas.

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Special grazing restrictions in the Kern Canyon in 2009 (continued)

- **Lower Funston Meadow.** Lower Funston Meadow will be closed to grazing by all parties, as it is too wet to allow grazing prior to flowering by velvet grass. Animals may be held and fed, but may not enter the meadow.
- **Upper Funston Meadow.** Upper Funston Meadow will be open to grazing by all parties in the early season, pending opening by the area ranger. Once the velvet grass begins to flower, the meadow will be **closed to grazing by parties entering the park from the south**, where velvet grass is abundant. Stock users who have grazed their animals in meadows south of Sequoia National Park on USFS lands will be required to hold and feed their animals after velvet grass has begun to flower. Stock approaching Upper Funston Meadow from the west, north, or east (without passing through USFS lands south of the Kern Ranger Station) may continue to graze in Upper Funston Meadow.

How can I help?

Visitors to the Kern Canyon (and throughout our public lands) can help prevent the spread of this invasive weed, and introduction of other non-native plants, by observing a few key precautions.

If you are traveling with pack stock:

- Groom your animals thoroughly before riding on public lands to remove any weed seeds that may be ‘riding’ on your animals;
- If you are feeding your animals hay, make sure that it is certified as weed-free;
- If you carry feed for your animals, we recommend using pellets, as the heat treatment used in processing kills most weed seeds that may be present;
- Feed your animals on a tarp or mantle to prevent seed from being spread; be sure and shake it out into the fire pit before you leave, not on the ground or in the meadow.

When traveling by foot:

- All visitors are encouraged to be weed aware. Take care to clean boots, clothing, and equipment of all weed seed before visiting public lands.

Where can I get more information?

If you are visiting the Kern Canyon, please stop by and visit with the Kern Ranger, who will be happy to answer any questions you may have about the area, including the velvet grass control project.

For information about weed control and prevention, contact Athena Demetry, Restoration Ecologist, at Sequoia and Kings Canyon National Parks at 559-565-4479. You may also contact the Wilderness Information Office at 559-565-3766, or visit: www.nps.gov/seki/planyourvisit/wilderness.htm for more information about visiting the Sequoia-Kings Canyon Wilderness.

Thank you for your efforts and support to keep parklands wild and healthy!