EVALUATION OF CONTROL TECHNIQUES FOR VELVETGRASS (HOLCUS LANATUS) IN THE KERN CANYON OF SEQUOIA NATIONAL PARK (5D)

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The Kern Canyon is among the least developed and most naturally-functioning watershed in Sequoia and Kings Canyon National Parks, and visitors to the Kern experience among the most intact wilderness character in this region. Velvetgrass (Holcus lanatus) is one of only nine non-native plant species known in the Kern Canyon and is present in relatively few patches. Velvetgrass was detected very recently, in 2004 and 2006, and is extremely invasive in montane meadows, forming pure stands that displace native meadow vegetation. It has recently become very widespread in wilderness meadows in Yosemite, where they've begun large-scale control efforts. In 2009, we initated a control project to investigate the efficacy of the control methods for eradication of velvetgrass: hand-pulling with large work crews (> 10 people), glyphosate herbicide application, and tarping. Velvetgrass percent cover and stem counts have been recorded annually for the hand-pulled and herbicide treatments. The tarping treatments remain in place for three growing seasons and vegetation measurements will be recorded following removal to allow comparison to the other treatments. After the initial two years of the study, hand-pulling and herbicide application have resulted in greater than 50% reduction in velvetgrass cover. Preliminary observation of tarped areas shows near elimination of vegetation after two growing seasons. The results from our comparisons will provide managers with useful information for managing velvetgrass infestations.

Key words: invasive, velvetgrass, Holcus lanatus