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 YOSEMITE NATIONAL PARK

I applaud the efforts of exotic plant management at Yosemite National Park, and I support land managers in trying to meet their objectives for eradication of non-natives. However, all the alternatives proposed do not address the importance of ecological restoration and reseeding disturbed areas with native plants. Destroying weeds is usually futile unless they can be replaced by more desired species. To kill a weed and not replace it with a desirable plant means that nature will fill the disturbed niche with the same weed or a worse one. Further investigation of high priority invasives could reveal which niche(s) these species are exploiting. Land managers could then identify potential native plants which perform the same functions. To truly be effective in its quest to restore native plants, land managers need to focus not only on eradication of invasives, but on restoring native plant populations as well. For example, areas disturbed by star thistle could be replanted with native grasses and oaks following manual removal efforts.

I am firmly against the use of herbicides in Yosemite National Park. Although glyphosate has been shown to be less harmful than other chemical herbicides, it has only been in use since the 1980's, and not in widespread use until 1995. Thus, the long term impacts on soils, water, native plant and animal populations, and human health is unknown. Some documented effects of glyphosate include changes in seed germination of non-targeted plant species, loss of microbe and earthworm populations, alterations in species composition of vertebrates, as well as lesions, neuronal damage, and cancer in humans. I am especially concerned about the proposed use of herbicides in more fragile ecosystems such as wetlands. Glyphosate competes with Phosphorous for soil absorption, and can lead to Phosphorous flushes and subsequent eutrophication of areas downstream. In addition, the herbicides may have adverse effects on amphibian populations. Glyphosate is designed to penetrate through cellulose, and works best with moisture. Thus, it can enter the moist skins of amphibians with relative ease.

Rather than employing chemical means to deal with non-native plants in Yosemite, I would continue using manual efforts coupled with much more aggressive restoration activities following the removal of exotics. I would opt for alternative 1- provided that increased efforts are made in ecological restoration, as well as investigation and implementation of biological controls. By no means should we resort to the use of herbicides, which only represents a lack of creativity on our part. Our national parks should not be sullied with toxic chemicals but preserved, protected and maintained for all to enjoy.

Thank you,  
 Athene Eisenhardt

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