

Tools in the Toolbox:

Community Based Stewardship in the Management of Invasive Weeds



Kari Marie Norgaard
IGERT Program on Biological Invasions
Department of Evolution and Ecology
University of California at Davis
Davis, CA 95616
kmnorgaard@ucdavis.edu

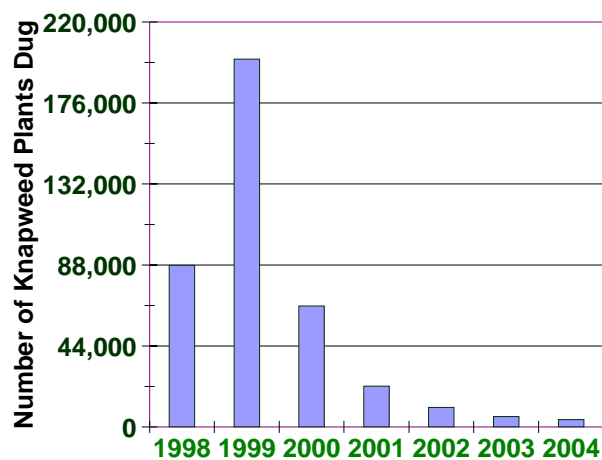
I wish to thank the all those who contributed to this research including the National Science Foundation IGERT Program on Biological Invasions for funding and members of the Salmon River Restoration Council, Forest Serviced and local community for their time and experiences.

Across California volunteer and local communities are mobilizing to combat invasive weed populations. While they do require certain conditions to function successfully, given appropriate measures, such groups can be an integral tool in weed management – especially in times of funding scarcity. Yet such community based groups form an often overlooked and under appreciated tool in the management of invasive weeds. In the Salmon River area of N. California a local watershed group is not only arguably the most effective weed removal effort in the region, this organization is well on its way toward the eradication of Spotted Knapweed. Plant populations that numbered in the tens of thousands five years ago are now in the range of single digits. The number of seeded plants found in the watershed has been cut in half each of the last three years. This presentation will summarize lessons learned from the Salmon River case study to describe the benefits of community based stewardship in the effort to maintain native ecosystems. Although they require energy to establish, once constituted, community based efforts have the potential for wide reaching results. Indeed a watershed full of engaged local residents provides more eyes on the ground than a few individual County Agriculture or Forest Service employees. Furthermore, community members can carry on projects in times when funding is reduced. Finally, community engagement is rewarding in itself. Residents of the Salmon River watershed report social, political and ecological benefits of their involvement including community education and empowerment and support of cultural traditions. This research is part of an ongoing study funded by a NSF IGERT program on Biological Invasions at University of California at Davis. The findings presented here are based on one year of participant observation, over fifty in-depth interviews and archival analysis.

The Salmon River is located in Northern California in the Klamath Mountains -- between the Marble Mountain, Trinity Alps and Russian Wilderness Areas. The Salmon River region is remote, pristine and biologically significant. Spotted Knapweed, a non-native plant of high priority in California, was found along the Salmon River in 1997. Ninety percent of community members oppose the Forest Service's plan to apply herbicides. The Karuk Tribe passed a resolution against the use of herbicides in their ancestral territory. Community members threatened direct action. The Forest Service has received more comment letters on the current Noxious Weeds Environmental Impact Statement than any other recent action – including timber sales.

Although it initially appeared to be a thorny issue for land managers, community opposition to spraying has led to a highly effective volunteer based program of hand eradication that is now in its ninth year. In fact, the Salmon River Restoration Council now has the most extensive weed eradication program in the region. The success of the community based weed eradication program

on the Salmon River is measurable on a number of fronts. Community members have removed 396,204 knapweed plants since 1997. Volunteer days are over 1,500 in a community of ~ 250 people. Furthermore, the weeds program has provided employment to a region with extreme poverty. From a weed management standpoint success is measurable as well. 109 of 246 sites had no plants this year. The number of seeded plants has dropped from in the hundreds to 15 in 2002 and 8 in 2003. In 2004 no seeded plants were found. In 2004 alone they have garnered, 207 volunteer person days, 85 people, 216 paid person days, employment for up to 14 people, dug 5,667 knapweed plants and visited the 246 sites a minimum of three times.



Weed Management Benefits of a Community Based Weed Eradication Program

Weed management benefits of a community based weed eradication program include community buy in, the presence of more “eyes on the ground,” prevention and consistency in times of budget change:

Community “buy-in”

The initial proposal to use herbicides as a treatment method sparked intense social controversy. However, as a result of community involvement in the decision to pursue hand removal, the community has become galvanized, mobilizing a long term resource for weed eradication.

More “Eyes on the Ground”

The presence of large numbers of people who can identify knapweed and do not want it to spread means that they are able to keep there eyes out for knapweed and other invaisives as they drive and hike throughout the watershed. In the words of one active community member:

“I can see spotted knapweed from 50 yards away now, when I’m driving in my truck. Even when I’m not even thinking about knapweed, if there is one on the side of the road, my spidie sense goes off. It’s like whew, errk, stop the truck, jump out, everyone carries a tool, a knapweed tool in their car or truck around here. When the season is getting on, everyone has a ziplock bag and snippers.”

Community Involvement helps for prevention

The presence of multiple people who are thinking about how weeds move helps to keep more material from coming into the watershed. The experimentation and innovation of many people may be included here. Community members also have ideas about prevention techniques:

“We have this poster that we came up with, with noxious weeds that are here and on the other half of the poster is noxious weeds that are coming here. We’re always looking for what’s coming up.”

Consistence in times of budget change

Committed volunteers have the vision, can provide buffer in times of budget cuts. Weed budgets in California and the West are not stable from year to year. While the SRRC program does require some funding to continue the large volunteer base makes this tool more consistent than programs dependent only on funded positions. Grass roots community involvement and buy in assures that many people participate in keeping knapweed out of the watershed whether or not they are paid.

Social Benefits for Participants

In addition to benefits in terms of weed management directly, community based programs may have a number of social benefits. These social benefits can be a big part of what motivates community participation. Three social benefits were highlighted by participants in the study: sense of attachment to place, development of community ties and a sense of empowerment.

Getting to know the place you live:

For all those involved looking and digging for knapweed taught them more about the place they lived.

“Its so beautiful, I’ve never experienced anything like it. And there’s no way I would be spending this much time down on the river if I wasn’ t focused on doing something. That’s what knapweed is all about. It’s a tremendous opportunity.”

“This gave me a chance to walk these rivers, as if I was a kid just walking down the river with a fishing pole. I wasn’t just hitting the good spots, I walked the whole thing and so I got to become fairly intimate with a lot of these areas on the river that I probably never would get to otherwise. Fish counting is like that too for me. I got

to experience up and down the tributaries, especially with the steelhead, but with the spotted knapweed, I got to be on the river and walk places I never would go.”

Getting to know other community members, stronger community ties . . .

Building social ties and networks has been another key positive outcome of the program.

“I never spent so much time with some of these people. I had a great time getting to know them in a work atmosphere. Sure it was hot and we were wearing our big sun hats, but we made a party out of it.”

Potential Employment

Although the program is largely volunteer based a number of community members have received part time employment. This modest income has been significant in a rural area with widespread poverty. The restoration council has made a point of employing youth when possible so as to retain younger community members.

“I think it brings in jobs, instead of a few people working for the federal government coming in with sprayers, you could really hire a lot more people than that, and you don’t have to pay them as much because it’s not a dangerous; it’s not dangerous. You’re not handling dangerous chemicals, and it provides local support. Here a local economic support is really the biggest challenge of living out here. So, we had quite a number of people to come do this.”

Sense of empowerment and responsibility

Community members report that seeing that they have made a difference feels good in daily life and transfers over to other projects and areas of work.

What Makes The Salmon River Restoration Council Program a Success?

Finally, community member shared a number of reflections about what made their program so successful. These included gaining cooperation and involvement of many partners, having fun, sharing responsibility e.g. “adopt a site” programs, creating a consistent time and routine, building on the experimentation and innovation of many people, being aware of the social benefits of volunteer work and communicating them, being appreciative of volunteered work and being ready to learn something new. A few examples in participant’s own words:

Make work enjoyable.

Making the work fun was key to attracting and maintaining volunteers:

“We would sit around and sing songs about knapweed. We always talk about knapweed, all the time. It was just a constant thing. Sometimes you’d get sick of it, like ‘oh my god, we’re talking about knapweed still’ but otherwise, it was kind of

funny. We'd always joke about it, like how the forest service, when they would check out, that was it, knapweed was off the day, but we would never check out. We were always talking about it. We always had maps out. We were making jokes about it, whatever. it was always a thing."

Creating a wide community base:

The Restoration Council has developed the cooperation and involvement of many partners both federal, state and county agencies and other watershed groups and Tribes. They suggest that it is key to listen to local concerns, find areas of common concern and build on these. Don't assume you know your "allies" or "enemies." Community volunteer emphasized the need to be curious about new people, reach out to find common ground between groups that may not seem like natural allies on other issues. Listen to local concerns, find areas of common concern and build on these.

"It also has brought a lot of people that might not be so inclined to take part in the environmentalist movement out here, I think it's brought a few people in. We've always joked that I work in noxious weed eradication with loggers. Just factions of the community that normally probably wouldn't get together wouldn't get together on a sensitive environmental issue like this."

Contact the Salmon River Restoration Council for more information on their program:
www.srrc.orgweeds@srrc.org (530) 462-4665