

Cal-IPC 2004 Symposium Ventura Riparian Working Group

Species: *Arundo*, tamarisk, *Lepidium*, Cape ivy, and others
Discussion leaders: Jason Giessow, Mark Newhowser

Total people attending session: 68

The session began with everyone meeting together for a general discussion for 40 minutes and then people broke into four species-based groups (*Arundo*, *Lepidium*, tamarisk, and Cape ivy).

General Session:

A poll was conducted of what issue constitutes the single most important 'road block' to project execution. Each person was allowed one vote. The list of 'road blocks' was drafted by the group. Voting results were as follows:

Maintenance after completion of project	18
Funding:	14
Control methods:	10
Property access/obtaining permission	5
Public perception/support	5
People to do work	2
Permitting	1
No vote	3

Session leaders and many in the group were surprised that maintenance beyond the scope of the project constituted the most significant road block in the group. This seems to be partially tied to the limited timeline that most funding sources operate under (typically 3-5 yrs). This may indicate a greater need of involving and/or creating groups which can work beyond funding timelines, such as WMAs, conservancies, land management groups and other organizations that have a longer time line and institutional memory. The importance of developing funding resources that last beyond the 3-5 year period was discussed, but opportunities are scarce. Funding through mitigation typically has a 5 to 10 year time horizon and was proposed as a mechanism for carrying out long-term maintenance. This led into further discussion of funding.

Some plant species receive more funding support than others. *Arundo* receives significant resource commitment, while species such as cape ivy receive less direct funding. Individuals were encouraged to attend the funding session the following day.

Obtaining permission and property access was addressed through citing specific program examples in the audience that have successful programs – Riverside Corona RCD/SAWA and SMSLR WMA. Difficulty in obtaining permission falls into two groups – individual owners who are difficult to persuade and large institutions which can be difficult to interface with, such as transit authorities. Public perception as a road block appears to be a localized phenomenon, but one that poses significant effort to remedy

through education. Permitting as road block was not considered a serious issue by the work group. Regulators (FWS, CA DFG, ACOE, RWQCBs) appear to be more involved and comfortable with the type of invasive plant control occurring in riparian habitats than in the past.

Additional votes were taken on the general structure of programs/projects. The results are as follows:

Is your program single species oriented (17 votes) or multiple species focused (41)?

Is your program watershed based (26 votes), scattered parcels (9 votes), or an individual parcel (27 votes)?

Does your program have a control method (27 votes) or is your program searching/studying methods (35 votes)?

Does your program re-vegetate after invasive species control (45 votes) or just carry out control (17 votes)?

The majority of programs/projects treat multiple plant species within their project areas. Even the programs that focus on a single species, such as *Arundo*, still carried out control of other species.

Several of the worst invasive species in riparian habitat are spread by flood action. For this reason, many people are proponents of watershed based control. A large number projects and programs appear to be adopting a watershed based approach. Some discussion was given to the constraints that certain organizations have in carrying out treatments beyond their property boundaries. Additionally, some organizations found as watershed or regional based approach daunting. Again, WMAs and watershed based groups appear to be a good base from which to execute more comprehensive programs. A brief discussion of the importance and power of mapping was also carried out. Although many groups appear to have settled on methods of control that they use in the field, a majority of groups are still exploring control options. This discussion was left to individual species based groups to go over. Re-vegetation after control is usually carried out by most programs. It seemed to be that most programs wanted native vegetation to recover at control sites as quickly as possible. Some programs, particularly *Arundo* ones, wanted to establish new root systems on the site to reduce erosion and make the sites as visually appealing to property owners as quickly as possible.

***Arundo* Work Group:**

The group spent the majority of its time discussing details about methods used to control *Arundo*. A quick tabulation of methods used by those in the group was taken to start the discussion. Individuals voted based on the method that they used most often, with the understanding that some situations may dictate using a different method.

Initial: Cut & paint, Regrowth: foliar spray	17
Initial: Foliar spray (no cutting), Regrowth: foliar spray	3
Initial: Mow, Regrowth: foliar spray	3
Initial: Cut & paint, Regrowth: Paint	2
Initial: Tarp	1

All the methods were discussed by work group participants. The most discussed topic was when is the optimal time to spray Arundo. This is fairly universally understood to be in the Fall, but seasonal variation within California and the onset of rain seem to create some variation between northern, central and southern California. Field cues on the condition of the Arundo can be used to help ascertain when the plant is beginning to go dormant or has gone too dormant to spray and achieve maximum herbicide efficacy. Arundo can be effectively sprayed using the foliar application method even when the plant has begun to show yellowing of the leaves, according to Jason Giessow. In southern California this may be mid December and the dormancy is triggered by near freezing temperatures at night. The tarping method has been used with several different types of tarps and on stands up to a quarter acre in size. The method could be particularly useful in situations where individual property owners will not allow the use of herbicide. Its practicality on river systems with large acreage infestations is uncertain.

Lepidium Working Group (sub-group of Riparian)

Success using Telar + 1% Round-up mix

- Site = wetland-tidal estuarine and riparian corridors
- Sprayed on 30 acres w/ boom sprayer
- Results were tracked by gridding site and monitoring
- Achieved root kill
- Contact: Doug Gibson

Anemopsis seems to keep Lepidium out, in San Diego County

- Contact: Bill Winans

Horses may be spreading Lepidium through contaminated feed.

Lepidium effects on soils

- Site = 1000 acre field of Lepidium in Truckee Meadows
- Soil testing at 102 Ranch has revealed
 - o soil has become acidic
 - o soil should be an aridisol, but now contains 20% organic matter
 - o no increase in salinity was found
- Planning to use activated charcoal to deactivate herbicides prior to revegetation
- Mentioned importance of mycorrhizae for revegetation
- Contact: Julie Etra

Use of goats

- Grazing by goats is best accomplished with Lepidium in the vegetative stage
- Method

- o 300 goats on 50 acres for 1 month, followed by a break, followed by 3 weeks more
- o goat herder wandered with goats during the day, kept goats in a pen at night
- Results
- o pen area was completely defoliated and compacted
- o grazing knocked down the lepidium a bit, but plants grew back both times
- Someone commented that it might be interesting to try fencing goats, but Bill responded that the goat herder preferred the method above.
- Contact Bill Wimans (San Diego)

Lepidium grows in sagebrush land

- Lepidium is growing in sagebrush areas (around Bishop, CA?)
- Water table is 25 feet down, but Lepidium roots seem to be getting enough moisture by going down 5 feet
- Contact Ben Hildebrand

Successful pasture recovery

- Site = Paiute ranch land
- Alfalfa fields are now growing in areas where Lepidium was controlled (using Telar?)
- Contact Julie Etra

Herbicide Trials

- Site = Bishop, CA?
- Round-Up led to a 250% return of Lepidium!
- Rodeo also led to a 250% return of Lepidium!
- 2,4-D led to 110% return
- Telar + 2,4-D burned the plants
- **Telar alone worked well**
- Note: when spraying, you just want to see a tinge of change in the plant; any more is too much
- Contact Ben Hildebrand

Lepidium in mature riparian forests

- Lepidium has been observed occupying up to 80% of the understory of mature riparian forests
- Contact Doug Gibson, Bill Wimans

Tarping for Lepidium control

- Contact Doug Gibson – he has a copy of a paper on this topic