

# CalEPPC News Sector Picture A quarterly publication of the California Exotic Pest Plant Council publication Volume 5 • Number 3

Summer 1997



California Conservation Corps crew cutting Arundo in Prado Basin, Orange County

Photo by Valerie Vartanian.

#### CalEPPC News

# Who We Are

**CalEPPC NEWS** is published quarterly by the California Exotic Pest Plant Council, a non-profit organization. The objects of the organization are to:

- \$ provide a focus for issues and concerns regarding exotic pest plants in California;
- ¥ facilitate communication and the exchange of information regarding all aspects of exotic pest plant control and management;
- ¥ provide a forum where all interested parties may participate in meetings and share in the benefits from the information generated by this council;
- ¥ promote public understanding regarding exotic pest plants and their control;
- ¥ serve as an advisory council regarding funding, research, management and control of exotic pest plants;
- ¥ facilitate action campaigns to monitor and control exotic pest plants in California; and
- ¥ review incipient and potential pest plant management problems and activities and provide relevant information to interested parties.



### **Please Note:**

The California Exotic Pest Plant Council is a California 501(c)3 non-profit, public benefit corporation organized to provide a focus for issues and concerns regarding exotic pest plants in California, and is recognized under federal and state tax laws a qualified donee for tax deducible charitable contributions.

# **1997 CalEPPC Officers and Board Members**

#### Officers

President	Ann Howald	210 Chestnut Ave., Sonoma, CA 95476;	
		707.939.0775; email:	
		102062.170@compuserve.com	
Vice-president	Mike Kelly	11875 River Rim Rd., San Diego, CA 92126;	
		619.566.6489; email: mkellysd@aol.com	
Secretary	John Randall	TNC Wildland Weeds Mgmt., UC Section of Plant	
		Biology, Davis, CA 95616; 916.754.8890; email:	
		jarandall@ucdavis.edu	
Treasurer	Mike Pitcairn	CDFA, 3288 Meadowview Road, Sacramento, CA	
		95832; 916.262.2049; email:	
		mpitcairn@smpt1.dfa.ca.gov	
Past-president	Carla Bossard	St. Mary's College, Dept. of Biology, P.O. Box 4507,	
-		Moraga, CA 94575: 916.758.1602	

#### Board Members whose terms expire December 31, 1997

Editor	Sally Davis	31872 Joshua Dr., No. 25D, Trabuco Canyon, CA 92679; 714.888.8541; email: sallydavis@aol.com
	Nelroy Jackson	400 S. Ramona Ave., No 212H, Corona, CA 91719; 909.279.7787; email: nejack@ccmail.monsanto.com
	Jo Kitz	6223 Lubao Ave., Woodland Hills, CA 91367;
		818.346.9675; email: mtnsrt@aol.com
	Jeff Lovich	USGS Biological Resources Div., 63500 Garnet
		Ave., No. Palm Springs, CA 2258;619.251.4719;
		email: jeffrey_lovich@nbs.gov
	Brenda Ouwerkerk	SLO County Dept. of Agriculture, 2156 Sierra Way, Suite A, San Luis Obispo, CA 93401; 805.781.5910

#### Board Members whose terms expire December 31, 1998

Greg Archbald	GGNPA, Fort Mason, Bldg. 201, San Francisco, CA
	94123; 415.673.4067, Ext. 25;
	email: greg_archbald@ggnpa.org
Joe Balciunas	USDA Biocontrol, 800 Buchanan St., Albany, CA
	94710; 510.559.5975; email: joebalci@pw.usda.gov
Carl Bell	UC Coop Ext., 1050 E. Holton Rd., Holtville, CA
	92250; 760.352.9474; email: cebell@ucdavis.edu
Joe DiTomaso	UC Weed Science Prog., 210 Robbins Hall, Davis,
	CA 95616; 916.754.8715; email:
	ditomaso@vegmail.ucdavis.edu
Steve Harris	P.O. Box 341, Arcata, CA 95518-0341;
	707.443.6943; email: sharris@igc.org

#### Working Group Chairpersons

Volunteers	Mike Kelly and Jo Kitz	619.566.6489 818.346.9675
<b>TT 1</b> .	and Jeff Lovich	909.787.4719
Tamarisk	Bill Neill	281.287.5246
Yellow starthistle	Mike Pitcairn	916.262.2049
Pampas grass	Joe DiTomaso	916.754.8715
Lepidium	Joel Trumbo	916.355.0128
5. 5	and Greg Archbald	415.673.4067, Ext.25
German ivy/hoary cress	Dave Chipping	805.528.0362
Brooms	Need chairperson	
Arundo	Nelroy Jackson	909.279.7787
Biocontrol	Mike Pitcairn	916.262.2049
Species Management & Control:		
Slide Collection	Tony Bomkamp	714.837.0404
architects liaison	Dan Songster	714.895.8161
Nursery growers/landscape		
Database	Steve Harris	707.443.6943

# **Presidents Message**

### Ann Howald, President

h, the joys of summer -barbecues, tomatoes from the garden, beach days and vacations! Time to get away from our everyday routine, enjoy the immense natural beauty of our state, gather our energies and even have time to reflect on things that normally are pushed aside by more immediate concerns. For CalEPPC members, it goes without saying that we want to protect the wildlands we love to camp and hike in from all perturbations, but especially from the ravages of invasive exotic plants. Summer can be a time to appreciate the restorative powers of nature, but it is also a time to ask, is there more I could do to help preserve those wild places that mean so much to me?

Of course, the answer is always yes. Recognizing that all of us seem to have ever-increasing workloads and mounting responsibilities, I'd like to offer a few suggestions for how CalEPPC members might do a little bit more to free California's wildlands from the strangle-hold of invasive exotic plants.

For those of us who are teachers, either by profession or by personality, educating our students, friends and relatives about exotic pest plants -- how to recognize them, what problems they cause, how to get rid of them -- increases the workforce against weeds tremendously. Imagine the impact if each one of California's 32 million people eliminated just one individual weed plant per day! To assist us in our education project, we can look forward to the publication of "Wildland Weeds of California" in 1998. Written for the general public, this book will provide up-to-date information on recognizing and controlling California's worst wildland weeds.

For those who love to be outside and enjoy invigorating exercise in the company of dedicated, lively people, let me recommend weekend weed whacking. Active, organized volunteer groups can be found throughout much of the state. The best way to find one near you is to contact a CalEPPC board member (addresses. phones and email on page 2 of this newsletter), or contact a representative of vour local chapter of the California Native Plant Society. (Call the Sacramento headquarters of CNPS at (916) 447-2677 to find out about your local chapter.) If there isn't a volunteer group in your area, start one!

If you work for a public agency that deals in some way with natural resources, keep the impacts of weeds in mind when you are making decisions about natural resource management. Highway construction. fire prevention, management of water resources -- these and many other activities of public agencies can affect the distribution of exotic pest plants. Promote restoration and revegetation with native species whenever possible and do what you can to direct funds toward exotics control.

For those who have absolutely no time, but other resources, there is the "M" word to consider. Personal action is wonderful, but money is often a necessity as well. If you don't have time to volunteer yourself, consider making a contribution to your local volunteer group for weed removal supplies and other necessities.

If you have recently joined CalEPPC or have recently become aware of California's exotic pest plant problems, and would like to be more involved but haven't decided how to do it, let me encourage you

to come to CalEPPC Symposium '97, "Reaching Out and Keeping Out," to be held October 10-12, at the Sheraton Concord. in Concord. California. Our symposium will be entertaining, informative, and will bring together hundreds of likeminded people from all over the state. You will be sure to find something to intrigue you.

### 66 Personal action is wonderful. but monev is often a necessity as well."

And lastly, let me encourage all of you to consider a more active role in our organization, CalEPPC. In just six years we have grown from four people with an idea to a respected state-wide group of over 560 members. Many of you have contributed your unique talents and ideas to create the organization we have today. But there is much more to do and there is room for anyone who wants to participate. Consider joining an existing working group or starting a new one, initiating a special project that interests you, or running for a position on our board. The diversity, creativity and energy of our members is our most valuable resource. See what you can do! ¥

Have a great summer, everyone! See you Concord in October!

in

## Killing the Beast: A Cooperative Approach for Control of Arundo donax in the Santa Ana River Watershed Eric D. Stein, U.S. Army Corps of Engineers, Regulatory Branch Valerie Vartanian, The Nature Conservancy

ffective management of aquatic invasive weeds re ■quires watershed-scale efforts, with weed control beginning in headwaters areas and proceeding downstream to minimize reinfestation of previously treated areas. Such large-scale efforts are often beyond the resources of individual organizations and require coordinated interagency approaches. In 1992, a collection of federal, state, local, and private organizations formed Team Arundo to focus on the common goal of eradicating giant reed (Arundo donax) from the 2,450 square mile Santa Ana Watershed, which is the largest river system in Southern California and is located in San Bernardino, Riverside, and Orange counties. Over the last five years Team Arundo has realized many of their original goals and has recently reorganized to refocus efforts on continuing and emerging needs.

Since 1992, Team Arundo has been involved with increasing public awareness by publishing documents on problems and control strategies associated with giant reed infestation, fostering partnerships to tackle giant reed eradication by holding regular team meetings and equipment demonstrations, exploring sources of revenue for weed eradication, improving information transfer by hosting a symposium on giant reed control, helping to establish other regional teams such as Team Arundo del Norte (see Winter 1997 CalEPPC News), streamlining regulatory processes associated with giant reed eradication, and providing innovative opportunities for wetland

mitigation. The latter two achievements are particularly noteworthy.

The Regulatory Branch of the Los Angeles District Corps of Engineers has been an active participant on Team Arundo and has been instrumental in the issuance of a Regional General Permit (RGP) for invasive weed control and in the establishment of a wetland mitigation bank based on eradication of giant reed from the Santa Ana River.

Removal of giant reed and other invasive weeds often necessitates working in streams or wetlands subject to the Corps jurisdiction under Section 404 of the Clean Water Act. Many of the worst infestations occur in large watercourses, below headwaters, where Nationwide Permit 26 does not apply. Review of these projects indicates than most are intended to restore or enhance aquatic resources and result in minimal individual and cumulative effects on the environment. Therefore, the Corps issued Regional General Permit #41 (RGP 41) to (1) reduce unnecessary duplication and burden to the regulated public and (2) provide an expedited mechanism to authorize opportunistic invasive weed control following floods and fires, when such efforts are particularly effective. This general permit provides authorization under Section 404 of the Clean Water Act for the mechanized removal of the following invasive weeds from waters of the United States including wetlands: giant reed (Arundo donax), salt cedar (Tamarix spp.), common reed (Phragmites australis), tree tobacco (Nicotiana glauca), castor bean (Ricinus communis), Russian thistle (Salsola tragus), star thistle (Centaurea solstitialis), artichoke thistle (Cynara cardunculus), thistle (Cirsium spp.), and pampas grass (Cortaderia selloana). This RGP is valid in Los Angeles, Orange, Riverside, San Diego, San Bernardino, Imperial, Ventura, Santa



Removal of Arundo by Hydro-Ax at Riverside County Parks.

Barbara, Mono, Inyo, and San Luis Obispo counties in Southern California.

The RGP authorizes mechanized landclearing, mechanical mulching (i.e. Hydro-Ax), mechanized removal, chipping, and excavation of living or dead invasive plants and any associated debris. Native riparian vegetation should be avoided to the maximum extent practicable. Any native riparian trees 3-inches DBH (diameter at breast height) or larger which are removed from fully infested stands, must be replaced on-site at a 2:1 ratio. The RGP also authorizes stockpiling of invasive plants and associated debris which have been excavated, except during the flood season (November 15- April 15), when stockpiling is prohibited. Stockpiles must be placed in previously disturbed or degraded areas, cannot be placed within 50 feet of flowing water, and must be disposed of within 30 days of initial creation of the stockpile by either removal to an appropriate upland disposal area or by burning. Construction of access roads are authorized under the RGP provided that the width and length of the road are the minimum necessary for access to the exotics removal site and that roads are restored with appropriate native riparian or wetland vegetation once they are no longer necessary for site monitoring, restoration, or maintenance. It should be clarified that a Section 404 permit is not always necessary to undertake an invasive weed removal program. Prescribed burns, herbicide application, and using hand-held tools to cut plants do not require authorization from the Corps of Engineers. Corps permits are necessary when mechanized landclearing, excavation, stockpiling, or other activities occur which affect the substrate of an aquatic area (e.g. rivers, lakes, wetlands).

Projects impacting watercourses or wetlands subject to the Corps' jurisdiction are often required to mitigate their impacts through creation, restoration, or enhancement of aquatic resources. The Los Angeles District of the Corps views invasive weed control as an innovative and effective means of restoring degraded aquatic resources, which is appropriate for use as compensatory mitigation. To this end, the Corps has worked with Riverside County Park and Open Space District to establish a mitigation bank on a 174 acre portion of the Santa Ana River. The goal of the Santa Ana River Mitigation Bank (SARMB) is to reestablish native riparian ecological diversity and other riparian functions through the removal of invasive weeds. Restoration of this reach of the Santa Ana River will be part of an overall interagency plan to eradicate Arundo and other invasive, non-native vegetation from the Santa Ana River Watershed. Recipients of Section 404 permits for projects within the Riverside County portion of the Santa Ana River Watershed may be eligible to purchase credits from the SARMB to satisfy mitigation requirements of their Corps permit. Use of the Mitigation Bank is contingent upon Corps approval and subject to the following conditions: (1) all efforts have been made to avoid and minimize impacts and mitigation is only being used to compensate for unavoidable impacts; (2) only impacts to riparian habitat may be mitigated at the SARMB; (3) the SARMB can only be used to compensate for minimal impacts, individually or cumulatively, such as roadway widening, maintenance activities, bank stabilization for erosion or flood prevention, utility-line backfill and bedding, or outfall structures

With the achievement of many of the original goals of Team

Arundo, the team has reevaluated its function and goals for the next five years. Today, led by the Nature Conservancy, Team Arundo has taken on a watershed wide approach, reaching out to land owners and managers in the upper Santa Ana River system to promote a more comprehensive effort towards invasive weed control.

"Team Arundo intends to act as the coordinating body for invasive plant control projects in the Santa Ana and Santa Margarita watersheds."

Team Arundo intends to act as the coordinating body for invasive plant control projects in the Santa Ana and Santa Margarita watersheds. Participants will provide information on current invasive plant removal projects which will be stored in a GIS data base. Each entry will contain a map location and text describing the project, including beginning and ending dates, total acres actually infested with the invasive plant(s), and eradication methods used. This data base will be used to identify the most strategic locations for new projects and ensure that they support existing eradication efforts. This coordination will greatly benefit individual landowners in the watersheds, and help ensure the long-term success of eradication of invasive weed species throughout the watersheds. An example of such coordination is the pooling and strategic disbursement of mitigation monies to achieve

Continued on next page

### Killing the Beast (Cont'd)

eradication of giant reed on ecologically important, contiguous areas. The U.S. Fish and Wildlife Service, Army Corps of Engineers, Orange County Water District, Santa Ana Watershed Association of Resource Conservation Districts, and The Nature Conservancy have pooled resources to restore 122 acres of riparian habitat in the Prado Flood Control Basin on the Santa Ana River. This area now supports one of the largest remaining populations of the endangered least Bell's vireo. Additional mitigation funds from Orange County Water District and the Army Corps of Engineers have allowed this restoration to be revised to encompass a larger portion of the watershed and help ensure longterm viability of the habitat in Prado Basin.

An ongoing goal for Team Arundo is to offer watershed inhabitants workshops related to riparian corridor management. Workshop topics include regulatory permitting and sensitive species issues, and landscaping with native plants or plants that do not contribute to the problem of invasive weed infestation.

Article concluded on page 8.



Arundo sprouting through burned root stock.

# Army Corps of Engineers Permitting Process

### Sally Davis, Glenn Lukos Associates, Regulatory Specialists

or those readers who are unfamiliar with the Army Corps of Engineers permitting process, I would like to provide some background information.

Pursuant to Section 404 of the Clean Water Act. the Corps regulates the disposal of dredged and/or fill material into waters of the United States. The term "waters of the United States" includes: 1. All navigable waters (including all waters subject to the ebb and flow of the tide); 2. All interstate waters and wetlands; 3. All other waters such as intrastate lakes, rivers, streams (including intermittent streams), mudflats, sandflats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds, the use, degradation or destruction of which could affect interstate or foreign commerce; 4. All impoundments of waters mentioned above; 5. All tributaries to waters mentioned above; 6. The territorial seas, and; 7. All wetlands adjacent to waters mentioned above.

In the absence of wetlands, the limits of Corps jurisdiction in nontidal waters, such as intermittent streams, extend to the ordinary high water mark (OHWM). Wetlands are defined as "...those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support...a prevalence of vegetation typically adapted for life in saturated soil conditions."

Work that will require an Army Corps of Engineers permit for the discharge of fill or dredged material into a freshwater stream, lake, or adjacent wetland include: bank protection of rip rap, gabions, etc.; realignment of existing stream channel; road crossings; backfill; bridge protection; temporary stockpiling of material; landfills for future developments; grading within stream channels; and excavation or earth movement within stream channels or wetlands.

Prior to January 1997, Nationwide Permit 26 allowed work within isolated waters or within waters located above the headwaters. NWP 26A was issued for less than oneacre of impacts; NWP 26B was issued for one to ten acres of impacts. Under the reissued NWP 26, any project impacting less than onethird of an acre will be covered under NWP 26A: NWP 26B covers from one-third of an acre to less than 500 linear feet. Any project affecting 500 linear feet or more of a drainage cannot be authorized by NWP 26 and must be authorized through the 9- to 12-month long individual permit process.

The Los Angeles District of the Corps has issued Regional General Permit (RGP) 41 which authorizes the mechanical removal of invasive, exotic plants from waters of the United States, including wetlands, within Los Angeles, Orange, Riverside, San Diego, San Bernardino, Imperial, Ventura, Santa Barbara, Mono, Inyo, and San Luis Obispo counties. The purpose of RGP 41 is to provide a mechanism for expedited approval of invasive weed removal projects for the purpose of habitat recovery.

#### Errata

Vol. 4 No. 3 was erroneously named. It should have been published as Vol. 4 Nos. 3 and 4.

# A New Threat to California Pines

### Richard Hawley, Executive Director of Greenspace, The Cambria Land Trust; Member of the Pine Pitch Canker Task Force

Pine pitch canker (Fusarium subglutinans f. sp. pini), an incurable fungal disease of pines was first discovered in 1986 at New Brighton State Beach, California in Santa Cruz County. More than ten years have past and this devastating disease has spread north and south infesting 17 of California's 54 counties from San Diego to Mendocino, and as far east as San Benito County.

Many of California's native pine trees are susceptible to pitch canker. Monterey pines are the most heavily impacted. The three native Monterey pine stands in the state, Cambria, Monterey Peninsula and Año Nuevo are infested and researchers predict that 85% of the trees in these stands will be lost as a result of this disease. Furthermore, the probability of mortality among ornamental plantings of Monterey pines throughout the infested areas is high.

Also disturbing is that the pathogen has "jumped" the preferred host of pines to an ornamental planting of Douglas-fir near Santa Cruz. What this may mean to the Sierra Nevada and the Cascade timber stands is unclear but the warning signs for a statewide alert are evident. The threats of massive habitat losses, declines in property values and tourism, and tree removal and disposal cost are becoming abundantly clear to many in the currently infested areas. At a Monterey Pine Symposium held in Carmel last year, it was estimated that tree removal costs in the Carmel area will be a minimum of \$15,000,000 over the next 10 years.

A California Department of Forestry and Fire Protection brochure on pine pitch canker best describes recognition of the fungal disease. It states, "Infections of branch tips are typically quite striking. The first symptom usually noticed is a color change in the foliage at the ends of branches--these are called 'flags.' Flagging can be caused by the disease, feeding activity of twig beetles, or a combination of both. Needles on infected branch tips fade from the normal dark green to lime green. to yellow, and finally to brown before needle drop. Needle color change can occur any time of the year. If pitch canker is the cause of the fading, closer inspection of these branch ends will reveal pitch flow at the transition zone between dying and green needles. These characteristics may be hard to see *if fading branches are high in the* tree. The infected wood under the bark is resin-soaked and amber in color."

"The name pitch canker is appropriate because infections are characterized by a copious pitchy flow. Cankers may be found on any woody part of the tree including cones, branches, the tree trunk, and exposed, damaged roots. Pitch from large branch or trunk infections may run down the trunk for many feet or drip onto the ground."

Where did this introduced pathogen come from? How did it first get to New Brighton State Beach? How does this disease move from one tree to another and from one county to the next? What is being done to slow the spread of this fungal disease that may threaten every native pine in California?

First noticed in the pine forests of the southeastern United States in 1946, pine pitch canker now extends from Virginia to southern Florida and west to eastern Texas where over 45% of the nation's pulpwood is grown. Pitch canker is also abundant in areas of Mexico and is now considered to be endemic to both the southeastern United States and Mexico. The introduction

# "The first symptom noticed is a color change in the foliage at the ends of branches..."

of pitch canker to California may have been by hitchhiking insects brought in to the state with Christmas trees or other raw pine products such as logs or firewood.

While the specific method of transcontinental transport is unknown, local transmission of the disease is not a mystery. The disease is vectored or spread from one tree to another by tree boring insects. Bark, cone and twig feeding beetles have been identified as primary vectors of pine pitch canker. As these insects colonize trees and reproduce, propagules or spores of the pitch canker fungus attach themselves to the exiting insects which continue their life cycle by colonizing other twigs, branches and

### Pine Pitch Canker (Cont'd)

stems. People are the prime longdistance vectors of this fungal disease.

In December of 1994 the Pine Pitch Canker Task Force was organized through the California Forest Pest Council. The task force is a coalition of government, private and non-profit groups whose purpose is to establish management, research, and educational priorities to slow the spread of pine pitch canker in California. In December of 1995 the task force published the Pitch Canker Action Plan which outlines the following actions:

### **Management Priorities**

- 1. Prevent transportation of infected plant material from infected areas to uninfected areas;
- 2. Establish permanent monitoring plots and develop a Geographical Information System (GIS) database to assess the present and future distribution and impacts of pitch canker in California;
- 3. Incorporate what is known about pitch canker into landscape, resource management and conservation plans that are or will be developed for native Monterey Pine stands and other coastal forest stands;
- 4. Use local, native seed when regenerating Monterey Pine within native stands.

### **Research Priorities**

- 1. Determine the survival of the pitch canker fungus and its potential insect vectors in chips, dead and live branches, on seed, etc.;
- 2. Determine the extent and monitor the spread of pitch canker in California;
- 3. Establish permanent plots in the

native Monterey pine forest of California to assess the impacts of pitch canker on this unique and limited ecosystem;

- 4. Determine the levels of resistance in native Monterey pine stands to the pitch canker pathogen and its various strains;
- Determine if seed transmission of pine pitch canker occurs for native conifers other than Monterey pine and investigate methods of preventing seed transmission;
- 6. Evaluate the potential for pitch canker to spread beyond its current distribution;
- 7. Evaluate the current and potential economic impacts of pitch canker in California
- 8. Investigate the inheritance of disease resistance in Monterey pine;

### **Education Priorities**

- 1. Create a database;
- 2. Create and distribute educational materials including posters, brochures, articles for the media, videos, and press releases;
- Present educational information at conferences, fairs and workshops to decision makers throughout California;
- 4. Continue media relations through press releases on recommended guidelines for the care of Monterey pines, disposal guidelines for infected material and other developing news concerning this disease;
- 5. Provide information to legislators by preparing briefing papers, field trips and other educational materials and providing analyses for best management practices concerning forestry related legislation;

Pitch canker will continue to have serious environmental and economic impacts affecting property values and tourism and the pine tree resources in our state. By supporting and implementing the Pine Pitch Task Force's Action Plan you will be taking an important step in slowing down this insidious disease.

For further information please contact Dr. Donald Owen, Chair, Pitch Canker Task Force, Department of Forestry and Fire Protection, 6105 Airport Road, Redding, CA 96002. (916) 224-2445. \$

# Killing the Beast (Cont'd)

Team Arundo provides an example of the power of a coordinated, cooperative approach to large-scale invasive plant control. This collection of more than 20 federal, state, local agencies, and private companies and landowners have fostered a five year working relationship to address the issues of habitat restoration and enhancement, flood control, water quality and water conservation, dissemination of technical information. and identification of opportunities to ease regulatory hurdles. There is still much work to be done to achieve the goal of watershed-wide control; however, Team Arundo will provide a non-confrontational, open forum where the common goal is to work together to eradicate the beast from the Santa Ana River Watershed.

For more information on Team Arundo and Arundo eradication efforts in southern California, contact Valerie Vartanian of The Nature Conservancy at (818) 893-9696 or vvartanian@tnc.org. For more information on the Corps' general permit for invasive weed control or the Santa Ana River Mitigation Bank, contact Eric Stein of the Corps of Engineers, Regulatory Branch at (213) 452-3415 or estein@spl.usace.army.mil. ¥

# A Working Paper on Ailanthus

Jo Kitz, Mountains Restoration Trust (A Santa Monica Mountains-based Non-profit Land Trust)

# Rules for Removal of Ailanthus:

- 1. Commitment: 3 years with the ability to return to the site a minimum of three times per year. Ailanthus is nothing if not persistent and programmed to redefine itself with each threat to its existence. It resists removal with a vigor that can wear out an average human. Ailanthus has been cut, girdled, sprayed, burned and in frustration stomped, and it has survived. The only method it cannot survive is diligent persistence. That said, the methodology is quite simple.
- **2.** Timing is critical. Begin work after the tree has bloomed and preferably late into the summer or early fall.
- **3.** Cut the trunk as close to the ground as possible and make the cut as level as possible.
- 4. Immediately paint the entire cut surface with herbicide of choice (Round-up<sup>®</sup> or Garlon<sup>®</sup>) until the herbicide beads on the cut surface, which is an indication that the herbicide has gotten into the roots. (Under-usage of the herbicide acts like a growth hormone, or put another way, "a little herbicide is a dangerous thing.")
- **5.** Methods of removal: 1.) We have left the trees where they fell (definitely not recommended); 2.) chipped branches and leaves (leaves clogged chipper); 3.) piled for habitat (and appreciated by snakes), 4.) carted to dump (an ecological no-no.); and the best method, probably is to let the leaves dry and then chip. (One horror story, which may be an

urban myth, is that the chips of tree of heaven were spread as mulch in a newly acquired park. The chips sprouted forming a carpet of treelets.) Our piles of chipped material never sprouted. Do not expect huge piles of chips. The tree is quite hollow and an entire grove creates only a small pile.

- Revisit the site before the frost. When, not if, the area resprouts, wait until the regrowth is at least 6-12" (doesn't take long) and then foliar spray with 2% glyphosate.
- **7.** Revisit the site in the spring. Ailanthus leafs out late in the spring, so an apparent kill will suddenly send up new shoots which grow alarmingly fast. Foliar spraying in the spring will not kill the roots but it will kill the top growth. The upper leaves will die, but the plant will continue to push upwards, soeither keep foliar spraying or cut and paint the resprouts using the method outlined in Paragraph four (4). Once the tree has stopped sending its juices upwards and starts storing the carbs, (after the season the tree blooms), foliar spraving is effective.
- **8.** Repeat Paragraphs 6 and 7 until there are no more sprouts.

We thought we had completed a grove (there had only been two resprouts and this was a big area). The next year we did a recheck expecting to walk in and out just for the exercise, and much to our dismay we found a dozen new shoots in an area where there had never been trees. This led us to believe the trees send out feeder roots and that our herbicide just didn't get that far. This rather simple program took us 5 years to learn, a lot of wasted time and total confusion. One year we would get foliar kill. The next, top burn. One group of trees would die from girdling performed with a butcher knife; another survived a girdling from a chain saw. Stumps would die but the area around the stump would look like a lettuce patch from the millions of resprouts. Then we discovered timing, and the success rate soared — as did morale.

But the success has been phenomenal. Our first area was selected because of a number of small and scraggly oak seedlings. Those oak trees have grown in eight years to 15-feet tall with interlocking branches. The grand old *Quercus lobata* that was completely circled like a wagon train under siege, has redefined itself as a full-canopied regal valley monarch.

Whenever there is a scraggling of natives, the removal of the Ailanthus seems to energize them — it is like they have been surviving against such great odds that when the competition is removed, they rebound with a growth rate that far exceeds normal expectation.

Since this is a paper-in-process, please keep me updated on your adventures, observations and conclusions. There may be regional differences in the way Ailanthus responds to herbicide. ¥

#### Jo Kitz

818-348-5910 - home 818-346-9675 - work 818-346-9676 - fax

#### **Editor's Note:**

To simplify information in our publication, trade names of products have been used. No endorsement of named products is intended, nor is criticism implied of similar products which are not mentioned.

# **CalEPPC Corporate Sponsors**

The CalEPPC Board of Directors has organized its institutional membership categories to provide more benefits to corporate sponsors. Individuals who contribute \$250.00 or more may be also considered a sponsor. Institutional members will still continue to receive quarterly CalEPPC newsletters, be eligible to join CalEPPC working groups, be invited to the annual symposium, and participate in selecting future board members.

### **Regular \$100 contribution**

Regular Institutional CalEPPC membership for one year. Member will be recognized in the *CalEPPC News* for corporate sponsorship. One designated staff member will receive quarterly issues of the *CalEPPC News*.

### **Contributing \$250 contribution**

Contributing institutional CalEPPC membership for one year. All of the above, plus the Contributing Member will become a symposium sponsor and be recognized in the symposium program and the proceedings. Plus complimentary symposium registration for one designated person.

### Patron \$500 contribution

Patron institutional CalEPPC membership for one year. All of the above, plus two designated staff members will receive quarterly issues of the CalEPPC News. Plus complimentary symposium registration for two designated persons.

#### Sustaining \$1,000 contribution

Sustaining institutional CalEPPC membership for one year. All of the above, plus a beautiful plaque of recognition.

# Letters to the Editor

Dear Editor,

Re: Page 9, Vol 5 No. 2, Spring 1997 issue of *CalEPPC News* 

On behalf of the CalEPPC Board of Directors I would like to remind everyone using herbicides to always closely follow the directions on the container labels for application rates and legal uses, and to pay particular attention to personal protective equipment requirements (i.e., protective clothing and eye protection) to minimize chemical exposure to the applicator. When herbicides are used as part of an Integrated Pest Management weed control strategy, the health and safety of the applicator and protection of the environment should be given high priority. Your local Agricultural Commissioner's office can provide copies of the current laws and regulations for herbicide use as well as offer

information on handling all pesticides safely and legally.

Brenda W. Ouwerkerk CalEPPC Board Member Deputy Agricultural Commissioner, San Luis Obispo County Dept. of Agriculture

# FYI

In response to escalating public opposition to the use of herbicides along North Coast highways, Caltrans District I Director Rick Knapp said Caltrans has voluntarily discontinued herbicide spraying in all District I cities and counties which have taken formal action opposing the use of herbicides.

Knapp explained that in response to the Caltrans decision to make herbicide use voluntary, the Humboldt County Board of Supervisors took formal action on March 25 against the use of herbicides by Caltrans on all county property in Humboldt. Mendocino County took a similar action against the use of herbicides in January of this year, while officials in Lake County unanimously supported the Caltrans herbicide program in their area of the state.

Knapp noted that Caltrans will have much more difficulty dealing with the Pampas grass problem along highways now that herbicide spraying is impermissible in most areas of Humboldt County. Knapp said cut slopes along highways cannot be effective bulldozed or scraped to control Pampas production because of erosion control problems that would result from such eradication efforts.

Knapp pointed out that there are now about 700 miles of Humboldt roadway that have no vegetation control at this time.

Excerpt from Southern Humboldt Life & Times, June 3, 1997 ¥

# **Calendar of Events**

August 27 - 30	Bridging Natural and Social Landscapes, the 24th Natural Areas Association Conference,		
	Portland, OR. Co-sponsored by CalEPPC and PNWEPPC. Contact: Reid Schuller,		
	541.388.8123; fax 541.388.5414; email: <reid_schuller@together.org></reid_schuller@together.org>		
September 3 - 4	1997 California Forest Pest Council Weed Tour, Placerville, CA. Contact: John Pricer,		
	707.488.3351; Scott Johnson, 209.982.4337.		
September 3 - 4	Russian Olive and Tamarisk Workshop, sponsored by Colorado State University and USFWS,		
	Grand Junction, CO. Contact: Carol Spurrier		
October 10 - 12	Reaching Out and Keeping Out, CalEPPC Symposium '97, Concord, CA. Contact: Sally		
	Davis, 714.888.8541; email: <sallydavis@aol.com></sallydavis@aol.com>		
October 18 -26	Medecos VIII, International Conference on Mediterranean-type Ecosystems in a Changing		
	World, San Diego, CA. Contact: Patricia Wu, Dept. of Biology, SDSU, San Diego, CA		
	92182; internet address: <http: medecos97="" www.sci.sdsu.edu=""></http:>		
November 17 - 20	Fire in California Ecosystems; Integrating Ecology, Prevention & Management, San Diego,		

# **CalEPPC New Members**

# CalEPPC would like to welcome the following people and corporate sponsors who have joined CalEPPC in the months from May - July 1997:

Clyde Ade Agri Chemical & Supply Rebecca Anderson-Jones Dave Bengston Gordon Bennett Ann Brice Shirley Carrie-Brewin Filoli Center Guido Ciardi Robert Clement Stephen Cockerell Nancy Cole Michael Cox Liam Davis Kimberly Davis Elkhorn Native Plant Nursery Ed Finlev **Bill Fischer** Deborah Friedman Karen Gaffnev David Graber Mariam Graham Ken Grav Ray Griffiths

Roger Haris Janelle Hillman Bud Hoekstra Lorraine Hollingsworth Melanie Howe Susan Hubbard Nathan Hulse-Stephens Ross Hunter Sarah Javne Lisa Kegarice Brian Knott Harry Krug Lilburn Corporation Lynn Lindsey Mattole Restoration Council Elaine Mahaffey Tamia Marg Arthur Morley Clark Natwick Robert Noll John O'Brien Bruce Orr Ralph Osterling James Peugh

Dick Pitschka Judith Poole **Riverside County Regional Parks** James Robins Don Rose Ted Ruffner Chadd Santerre Teresa Sholars Dan Silver Laurie Smith Eric Stein Shirley Suhrer Allan Thode John Tiszler Stephen Underwood Arthur & Lorraine Unger United States Forest Service Eleanor Vargas David Vollmer Janet Walker Renee Webber Sonja Wilcomer Ken Zimmerman

# **1997 CalEPPC Membership Form**

If you would like to join CalEPPC, please remit your calendar dues using the form provided below. All members will receive the CalEPPC newsletter, be eligible to join CalEPPC working groups, be invited to the annual symposium and participate in selecting future board members. Your personal involvement and financial support are the key to success. Additional contributions by present members are welcomed!

Status	Individual	Institutional
Retired/Student*	\$15.00	N/A
Regular	\$25.00	\$100.00
Contributing	\$50.00	\$250.00
Sustaining	\$250.00	\$1000.00
Lifetime	\$1000.00	N/A

Please make your check payable to **CalEPPC** and mail with this application form to:

CalEPPC Membership <sup>c/o</sup> Sally Davis 31872 Joshua Drive, #25D Trabuco Canyon, CA 92679-3112

Name	
Affiliation	
Address	
City/State/Zip	
Office Phone	
Home Phone	
Fax	
email	

\* Students, please include current registration and/or class schedule



# Mark Your Calendars for CalEPPC Symposium '97

Mark your calendars to reserve Columbus Day weekend, October 10-12, 1997, for *CalEPPC Symposium '97* at the Sheraton Concord Hotel in the Bay Area; Concord, California. Full day and short-day field trips will tour Bay Area restoration sites. The invitations for *CalEPPC Symposium '97* have been mailed. The symposium has been awarded 11.0 hours of approved credits for PCA, PCO in the "other" category. If you did not receive an invitation, or know of someone who requires one, please contact Sally Davis; 31872 Joshua Drive, Apt. 25D, Trabuco Canyon, CA 92679; 714.888.8347; sallydavis@aol.com

### **Call for Posters**

Posters addressing all areas of exotic pest plant control in wildland ecosystems of California will be displayed in the symposium break area. You and your colleagues are invited to display your poster regarding research, control methods, tools, or other related topics. Informal presentations by poster authors are invited but not required. Please call Barbara Leitner at (510) 253-8300.



31872 Joshua Drive, #25D Trabuco Canyon, CA 92679-3112 NON-PROFIT ORG. U.S. POSTAGE **PAID** TRABUCO CANYON, CA PERMIT NO. 7