

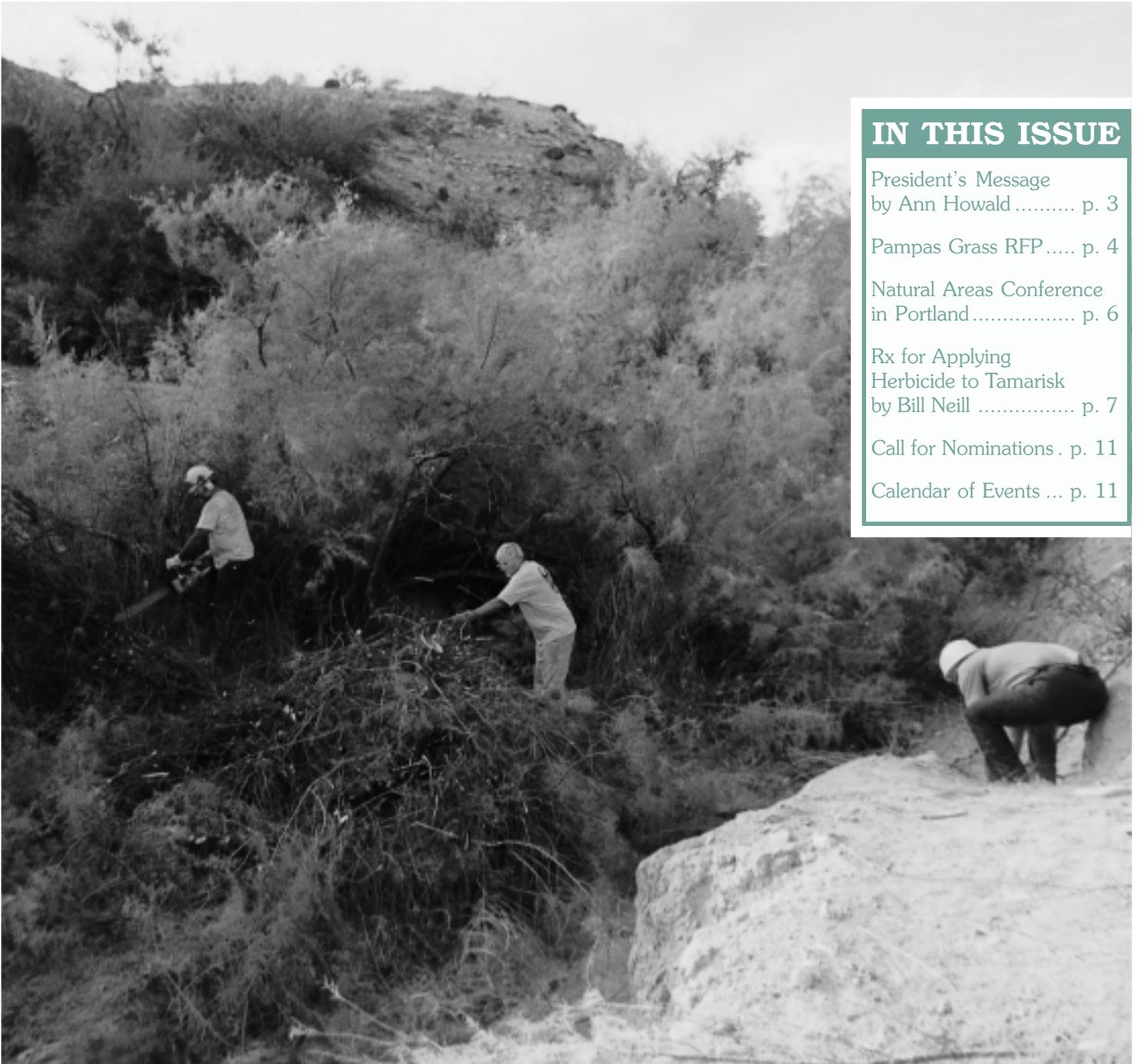


CalEPPC News

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of the California
Exotic Pest Plant Council

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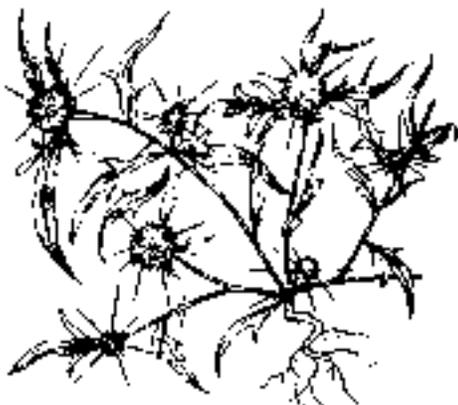
Volunteers and National Park Service staff remove tamarisk from Burro Spring at the east end of Lake Mead National Recreation Area.

Photo by Bill Neill.

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:

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

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CalEPPC's web site: <http://www.igc.apc.org/ceppc/index.html>

Presidents Message

Ann Howald, President

Spring is the season for broom to bloom. Its abundant yellow flowers make us aware of just how far the shrub we love to hate has spread. Recently I saw it bordering the oak and pine woodlands of rural Lake County -- places it wasn't found a mere ten years ago. Driving beyond what I thought was the last outpost of broom on a winding road that passes through serpentine outcrops, I spotted an outlier several miles beyond the nearest infestation. Since it was public land, I did my duty, restoring the landscape to its pre-broom condition and, hopefully, retarding the spread of one of California's "Most Unwanted Weeds." Oh, that it could be that simple elsewhere.

From the number of new initiatives to fight exotic pest plants in California, it appears there's been a sea of change in our fight to rid our wildlands of exotic pest plants. So far, the tide hasn't turned against most of these invaders, but at least we are on the crest of a wave, for the moment. One of these new initiatives focuses on Pampas grass, that silvery-plumed invader from South America. As you will note, this issue of CalEPPC news includes a Request for Proposals for Pampas grass projects which target eradication, research and education. A benefactor who wishes to remain anonymous will provide project funding for the next three years.

The Bureau of Land Management is providing another important new funding opportunity. Their "War on

Weeds" grant initiative will provide funding for cooperative, innovative projects with high visibility. Especially favored will be projects that provide opportunity for public education and involvement. (Deadline for the BLM War on Weeds proposals was May 1st.)

"..there's been a sea of change in our fight to rid our wildlands of exotic pest plants."

Speaking of cooperation, a new group has formed to fight Arundo in northern California. Calling themselves "Team Arundo del Norte," a group of federal, state and local agencies has teamed with researchers and non-profit groups like the Sonoma Ecology Center and CalEPPC to investigate the Arundo problem up north. We'll hear about their work at CalEPPC Symposium '97 in Concord, October 10-12. On the public education front, Bob Devine, author of the 1994 Sierra magazine article *Botanical Barbarians* which featured some of California's worst weeds and best weed warriors, is writing a book on exotic pest invasions that will showcase several of California's most infamous invaders.

As of April, CalEPPC's Board of Directors has a new member. I am very pleased to report that Brenda Ouwerkerk, Deputy Agricultural Commissioner for San Luis Obispo County, has agreed to join our Board of Directors. A vacancy was created when Stella Humphries resigned from the board due to her relocation to the East Coast. We thank Stella for all her help and wish her the best in her new endeavors. And we extend a warm welcome to Brenda!

Lastly, I am very saddened to relay news of the death of our friend and colleague, Dr. Charles Turner. Charlie was a scientist at the USDA Albany biological control facility and a member of CalEPPC's Board from 1995 to 1996. He was diagnosed with cancer in late December, 1996, and died in Indianapolis, Indiana, on April 15, 1997. He will be greatly missed by all who knew him.



Pampas Grass/Jubata Grass Biology and Control

Request for Proposals from the California Exotic Pest Plant Council Proposals Due September 5, 1997

The California Exotic Pest Plant Council (CalEPPC) is requesting proposals from qualified public and private individuals or groups to provide educational information, investigate the biology and ecology, and develop innovative management practices or pilot studies for the control of weedy Pampas grass (*Cortaderia selloana*) and jubata grass (*C. jubata*), herein collectively referred to as Pampas grass. Funds supporting this request have been provided by an anonymous outside donor with focused interest in weedy *Cortaderia* species.

The priority areas of this program are to: 1) provide broad education to the nursery industry and the public on the invasive qualities and detrimental effects of Pampas grass in natural ecosystems, 2) provide a better understanding of the invasive characteristics, both biological and ecological, of Pampas grass in coastal environments, 3) develop innovative sustainable control and prevention strategies for Pampas grass, and 4) demonstrate, through a pilot project, a successful, economical, and environmentally safe strategy for managing Pampas grass along the California coastline. Collaborative efforts are encouraged, but are not essential for obtaining funding.

Who May Apply

Principal investigators may come from public or private institutions and may include state, federal, and university researchers and educators, as well as resource conservation

district staff, land managers, UC Farm Advisors or IPM specialists, and pest control advisors.

Funds

Funds may be used for personnel, equipment, travel, supplies, and expenses. Awards will range from approximately \$5,000 to \$30,000 per year. Funding is for up to three years. For multi-year proposals (up to three years will be considered), continued funding will be subject to review from preceding year's progress report. Funding of grants is contingent upon qualified proposals.

Process for Proposal Selection

Proposals will be reviewed by a selected panel of CalEPPC members. Members of the panel will not be eligible to receive funding. The panel will use the following criteria to evaluate proposals:

1. Does the project address one of the priority areas for funding? For continuing projects, how well did the project meet the stated objectives for the first or second year?
2. For educational grants, will the proposed project reach the appropriate target audience? What will be the potential impact of the educational program?
3. Does the project take a systems approach to weed management practice(s)? Does it also include restoration processes?
4. Does the project address issues of reduced-risk pest management?
5. Are the proposed objectives realistic, economical, and effective

and is the work plan appropriate and technically sound? Are the investigators capable of carrying out the project?

6. What is the likelihood that the information developed will be implemented or be useful in the development of Pampas grass management strategies?

Proposal Contents

1. Title page (no page number), including:
 - a. Title of project
 - b. Name, address, organizational, institutional or corporate affiliations of the applicant(s). Include telephone and facsimile numbers and, if applicable, E-mail addresses.
 - c. Budget total for each year of the proposed work
 - d. Expected duration
2. A summary of the proposed project not to exceed 250 words. Include as a separate page with no page number.
3. This section (begin with page 1) is not to exceed six double-spaced pages and includes:
 - a. Objectives of the proposal in outline form.
 - b. Justification and Rationale. Describe the importance of the proposed work to Pampas grass management or education. Discuss previous work or experience in this area. If applicable, provide any data already collected on this proposed project.
 - c. Work plans and methods. Refer to each objective and explain how the desired goals will be achieved. For educational projects,

Pampas Grass RFP (cont'd)

indicate details for each step of the process. For research projects, specify experimental design, sampling techniques, data to be collected, and data analysis. For pilot control projects, describe in detail the procedures to be employed.

d. Communication/Outreach or Technology Transfer. Explain how the results of this project will be disseminated and how other groups might adopt some of the practices developed.

e. Describe the role of each investigator and major collaborator involved in the project. Include names, affiliations, and expected contributions of each individual.

f. Timetable. Present a timetable for each stated objective.

4. Budget (page 7). List expenditures per year for up to three years of potential funding for the project. Include the following categories: Personnel (include title, job description, percent time, salary, and benefits), supplies and expenses, equipment, travel, information/outreach costs, overhead or indirect costs, and other relevant expenses. Indirect costs cannot exceed 10% of total funds requested.

5. Bibliography and cited tables, figures, illustrations, or photos.

Proposal Submission

Seven copies (double-sided) of the proposal must be delivered no later than 5 p.m. on September 5, 1997. Awardees will be notified by mid-October. Funds will be made available by November 1, 1997. Proposals should be sent to:

Dr. John Randall
TNC Weed Program
Department of Vegetable Crops
210 Robbins Hall
Davis, CA 95616

Ten Ways of Looking at Star Thistle Anonymous

I. The noon heat is oppressive. Across the road the cool river. Between us, like a vast impenetrable desert, lies a stand of Star Thistle.

II. Yellow Star Thistle originally came from Europe, hardened on the Old World abuses; in the heat of increasing aridity, it now survives on our own misuses. It first emerged on the dry foothills of the Adriatic; now it thrives on the dry slopes of the Pacific.

III. This thorny barnyard bully, this street-wise opportunist; this arrogant, offensive pest—nothing but a rose with an attitude.

IV. The Greek gods, it is rumored, used the honey in their ambrosia—so sweet and clear is its nectar, and more nutritious than clover, the nymphs believed.

V. Botanically, Yellow Star Thistle is named *Centaurea solstitialis*, after the centaurs, those Greek monsters, part man and part horse, famous in their use of herbs. About 500 Old World species belong to this same genus, including knapweed and other thistles.

VI. In the distance, the once “golden” hills of California are now covered with Star Thistle—a sea of the strangest hue, a pale grayish, greenish, yellowish...what is that color?

VII. My master has left me to this barren field. No feed but this prickly weed. The vultures circle, sensing my desperation.

VIII. The grasses have all departed; Star Thistle is on the move.

IX. In the final analysis, Star Thistle is nature's ultimate weapon. A protector of the land, carpenter for earthen ghettos, barnacle of the soil, it clings tenaciously to its poverty, growing thick and impenetrable with age, offending all pedestrians, till ultimately a carpet of gray humus covers the land preparing a bed for the great return of the grasses.

X. I was going to bale that hay today. But it is loaded with Star Thistle. I guess I'll watch the game instead.

Ridgewalker





Original Artwork by Margaret Herring

24th Annual Natural Areas Conference and Exotic Pest Plant Council Conference

(Pacific NW, California, Florida, Tennessee Councils)

**Doubletree Hotel and Conference Center (formerly Red Lion)
Portland, Oregon • August 27-30, 1997**

“Bridging Natural and Social Landscapes”

Come to the first Natural Areas/EPPC conference ever held in the Pacific Northwest!

This conference is designed around the theme of “Bridging Natural and Social Landscapes”. Linkages between natural and cultural/economic values of landscapes will be explored through scientific presentations and informative discussions. We plan to reassess the role of all kinds of natural areas in today’s society and examine the role they may play in the future. The conference will include symposia, contributed papers, poster sessions, field trips, social events, and business meetings.

Audience

Anyone interested in natural area management including land managers, research scientists, resource and stewardship specialists, cultural specialists, and students is welcome.

Topics and Speakers

You will have an outstanding opportunity to hear international, national and regional leaders in natural area management, avail yourself of the latest research and technical information in the field, and exchange ideas with your colleagues.

A half-day symposium entitled “**Exotics in the Landscape**” will be offered in addition to the general session on exotic plant species in natural areas. Conference organizers expect that additional papers addressing exotic species will be presented in other symposia and general sessions. A good turnout is expected from EPPC members on the west coast, in addition to attendance by members of the Florida EPPC and Tennessee EPPC. This conference will be a great opportunity for NAA and EPPC members to formally and informally discuss shared issues and challenges while broadening their professional network. Join us!

Symposia

- New and Increasing Uses for Native Species
- Urban and Rural Use and Perceptions of Natural Areas
- Native American Perspectives on Natural Area Management
- Role of Natural Areas in Ecosystem Management
- Natural Hydrologic Regimes
- Exotics in the Landscape
- What is Natural: An Interdisciplinary Roundtable
- Ecosystem Conservation
- International Natural Area Conservation

Field Trips

- Sandy River Gorge
- Willamette Valley Natural Areas
- Mt. St. Helens
- Canopy Crane at Wind River
- Puget Prairies and Puget Lowlands
- Cascade Head Scenic Research Areas
- Columbia River Gorge
- Old Growth Pacific Northwest Forest
- West Eugene Wetlands Project Area
- Mt Hood National Forest
- Berry Botanic Garden (half day)
- Metropolitan Greenspaces (half day)

General Sessions

- Exotic Species
- Fire: Ecology, Public Perspectives and Use
- Interpreting Our Natural World - Telling Stories through Environmental Interpretation
- Education and Other Uses of Natural Areas
- Social and Ecological Implications of Grazing - Domestic and Wild
- Invertebrates and Natural Area Management
- Non-Vascular Plants and Natural Area Management
- Forest Ecosystems
- Fresh Water Ecosystems
- Rare Species Management

Registration

Registration packets with complete conference information and pricing are available in May. Full registration is \$130, student registration is \$100, and daily registration is \$55. NAA and EPPC members automatically receive all conference mailings. For questions, contact:

Natural Areas Association
PO Box 23712
Tigard, OR 97281-3712

Kathleen Bergquist
Conference Coordinator

Phone: (503) 579-2920
Fax:(503) 579-0468
Email: kbconnor@ix.netcom.com

Prescriptions for Applying Herbicide to Tamarisk

Bill Neill, Desert Protective Council

Deciduous tamarisk or saltcedar is difficult or impossible to kill by fire, drought, freezing, hyper-salinity, prolonged submersion, and repeated cropping at ground level. In sensitive natural areas, effective control of tamarisk requires the careful application of systemic herbicide, lightly sprayed either on freshly cut stumps or girdled trunks, or the basal portion of uncut saplings.

The following prescriptions are derived from my 14 years of experience as the Desert Protective Council's volunteer coordinator for tamarisk control, with long-term projects at 40+ work sites in southern California and several more in Nevada and Utah. Along the way, control methods adopted by the volunteer program have been advanced by discussions with professional staff at DowElanco, the Barstow BLM office, the Nature Conservancy's Coachella Valley Preserve, Anza-Borrego Desert State Park, Ash Meadows National Wildlife Refuge, and Lake Mead National Recreation Area.

Herbicide Selection

Procedures for removing tamarisk by non-aerial herbicide applications are now a mature technology, and in my opinion there is no need for further experimentation.

Since 1983, the "herbicide of choice" for cut-surface treatments has progressed from Tordon RTU ("ready-to-use") to Tordon 101 mixed in water, straight Garlon 3A, Garlon 4 mixed in water, Garlon 4 diluted in diesel oil, Pathfinder

(Garlon 4 in solvent), and now either Garlon 4 in vegetable oil or Pathfinder II.

At each stage, assessments have been made of appropriate mixing ratios, seasonal efficacy, cost and user friendliness. All products are or were manufactured by DowElanco or its predecessor, Dow Chemical Company.

“Large trees with isolated trunks can be more efficiently treated by girdling...”

For volunteer projects, the currently preferred formulation is 25% Garlon 4 (which is 62% triclopyr), diluted in generic food-grade vegetable oil at a 1:3 ratio. Addition of oil-soluble dye is optional but usually not needed for distinguishing treated stumps because the oil mixture darkens stumps for hours after application.

Pathfinder II is the ready-to-use version of Garlon 4 premixed at a 25% concentration in vegetable oil or something similar. The solvent is designed to enhance bark penetration and its derivation is a trade secret. The retail cost of Pathfinder II at about \$30 per gallon is similar to the cost of Garlon 4 and vegetable oil mixed at the same concentration.

When applied to tamarisk stumps using spray bottles or pressurized containers, the Garlon 4/vegetable oil and Pathfinder II mixtures have the advantages of being relatively more efficacious, less toxic and less aromatic to the applicator, and less corrosive to spray-container valves and seals, compared to previous herbicide/diluent mixtures.

Cut-surface Method

In most cases a target tree or sapling should be cut within 6 inches of the ground surface using a chainsaw, brush cutter or sturdy anvil-blade lopping shears. Stump heights should be as close to the ground as feasible, without allowing saw teeth or lopper blades to be dulled or damaged by rocks or sandy soil.

The stump surface should be lightly sprayed with herbicide within several minutes of cutting. Care should be taken to wet the entire circumference of the bark's cambium layer. On large-diameter stumps, the interior woody portion can be left untreated to conserve herbicide.

In rocky stream courses, stumps may require cutting higher than 6 inches to avoid chainsaw blade damage. In such cases, to increase herbicide efficacy, not only the cut surface but also the bark on the stump should be sprayed down to ground level, but not to the point of runoff. This additional treatment is effectively the basal-bark method described below.

continued next page

Tamarisk (Cont'd)

Large trees with isolated trunks can be more efficiently treated by girdling, i.e. by making shallow, overlapping cuts into the bark around the trunk base using a hatchet or chainsaw, and then lightly spraying the entire cut surface with herbicide. Substantial amounts of labor can be saved by not felling and removing large trees. However, many large tamarisk trees have multiple trunks radiating from the root crown, and most limbs must be removed to obtain access for the herbicide treatment.

For applying herbicide to stumps, a small finger-trigger spray bottle is usually adequate. High-quality bottles can be purchased at janitor supply stores. Larger 1 to 2 gallon hand-pump pressurized garden sprayers with a hose and wand-type nozzle may be useful for faster work, as when a single applicator is following several chainsaw operators in a tamarisk thicket. It is important to use hand-held rather than larger backpack-type sprayers: leakage from backpack sprayers is more likely to contact the applicators, and connecting hoses on the back side are likely to be snagged on tree branches and pulled off, causing rapid uncontrolled drainage of the herbicide tank.

The efficacy of Garlon 4 in cut-bark applications shows no clear seasonal dependency. Beyond the label's caution that treatments may be less effective during times of drought, tamarisk removal may be scheduled when outdoor working conditions are most comfortable — usually in the autumn and spring seasons, but also during winter when the tree is dormant. However, where tamarisk is intermixed with native trees, its identification is more difficult during

winter months when the tree is leafless; conversely, during autumn and spring months, tamarisk recognition is aided by the plant's yellow foliage or pink flowers.

Basal Bark Method

Over the past several years, the low-volume basal bark treatment method described on the Garlon 4 label has been successfully applied to tamarisk. It is an alternative to the labor-intensive cut-stump method on trees with trunk diameters less than 6 inches. Normally the lowest 12 inches of trunks are sprayed — without cutting — with 20% to 30% Garlon 4 in oil or with Pathfinder II.

The basal bark technique has been employed extensively in remote mountain canyons of Lake Mead National Recreation Area, using a mixture of 25% Garlon 4 in Penevator basal oil; and at Coyote Canyon in Anza-Borrego Desert State Park, with the same herbicide concentration carried in kerosene.

In the volunteer program, the basal bark method has proved valuable at Camp Cady Wildlife Area on the Mojave River east of Barstow, in

treating tamarisk resprouts growing from large debris piles left by a major flood. Basal bark applications of 20% Garlon 4 in diesel oil canceled the need for laboriously dismantling the debris piles.

Advantages of the basal bark method are that less labor is required, compared to cutting and stump-spraying; and there is no generation of cuttings that must be piled on dry bare ground or dead vegetation where they cannot root.

The disadvantage of basal bark spraying is that more herbicide mixture must be applied to each stem — perhaps 5 times more than the cut-surface method — because more surface area is treated and there is unavoidably more wastage. Also, treatment success is less definitive, and if a first treatment is unsuccessful, a second treatment of a surviving sapling will require more time and herbicide than treatment of a short resprouting stump.

The appropriate choice between cut-surface and basal bark applications will depend on the balance of labor resources and financial resources. In the volunteer program,



Tamarisk

(Cont'd)

the use of power saws followed by workers to pile cuttings will remain a fast and efficient method to remove tamarisk trees on level ground. But a smaller work force on rocky terrain should find the basal bark method to be clearly advantageous.

Although the Garlon 4 label directions do not refer to foliar applications, the treatment of resprouting stumps may be considered a variation of the basal bark method. Probably resprouts are most effectively treated when they have grown to lengths of 4 to 8 inches — when the surface area of stems and leaves is sufficient to absorb enough herbicide to kill the root crown, but not so large that the consumption of herbicide and applicator time is excessive. Mixtures of 10% Garlon 4 in water or diesel oil are adequate on previously treated stumps; but for the more vigorous stems that resprout after fires, a 20% concentration in oil is preferable for effective control.

Aquatic Applications

Although triclopyr decomposes in a day or less in sun-lit water, Garlon 4 is not registered for aquatic use. For cut-surface applications near surface water, the recommended herbicide is Monsanto's Rodeo (glyphosate) at full-strength concentration. Disadvantages of applying Rodeo, compared to diluted Garlon 4, are that it is more expensive and less effective at controlling tamarisk. Repeated applications may be needed to obtain control. The definition of "aquatic" use refers to the potential for trace amounts of herbicide to enter surface water; stumps located near but not rooted in water can be legally treated with Garlon 4 provided that none enters water — although land owners and agencies



may require greater separation distances to ensure compliance.

Tamarisk Control Strategies

In planning a tamarisk control program, the first rule is to attack outlying plants first rather than the dense thickets. Reasons for this strategy are outlined in my abstract for the October 1992 CalEPPC Symposium. The strategy of attacking outliers first may seem obvious to some, but it counters the normal human tendency to react more to obvious problems than to potential problems. The two best reasons for this strategy in long-term projects are (1) efficiency and (2) psychological reward.

Efficiency means gaining control of the problem with a minimum of effort. The first objective of exotic species control is to stop population growth and prevent dispersal into new areas. The outlying plants are the main agents of seed dispersal. Even if some seeds travel widely, most land close to the parent plant rather than far from it.

By removing outliers first, we avoid a larger problem several years later. Conversely, in established concentrations, waiting another few years has not much effect: the exotic plants will be larger, but they will compete

against each other, rather than native plants, and the rate of population increase will be slower than in outlying areas.

Psychological rewards comes from doing the easy work first, and making rapid progress initially. At an early stage, we establish large areas that are now mostly free of weeds, that we can monitor for regrowth while we work on the heavily infested areas. That early sense of accomplishment is important when the work becomes tedious and the total obligation looks overwhelming. Currently this control strategy is being systematically implemented by the Inyo County Water Department in removing tamarisk from northern Owens Valley.

Desert areas most amenable to tamarisk control are (1) canyons and river channels subject to intense flooding and (2) isolated springs that are never flooded.

The susceptibility of a stream channel to erosive flooding should be evident from the age and size structure of the trees on its banks. A typical history of variable episodic

continued next page

Tamarisk (Cont'd)

flooding will result in seedlings or relatively young saplings growing on the channel floor, and progressively older and larger trees encountered higher on the banks.

Along flood-prone streams, tamarisk removal should start with larger trees located high on stream terraces that are likely to survive future floods and reseed the stream floor; younger trees and saplings growing lower in the channel can be ignored as they eventually will be washed away. To be most effective, removal work plans should be opportunistic with respect to flood events: for example, after trees located above the five-year flood level are eliminated, subsequent work can be delayed until a erosive flood does occur, after which a concentrated effort is made to remove the surviving trees.

Around isolated desert springs that are never flooded, tamarisk removal must be total to be effective. But because seeds are generally not viable for longer than one year, once accomplished, the rehabilitation should be permanent, with only occasional surveillance needed to remove seedlings derived from distant seed sources.

One potential problem of spring rehabilitation is that increased water flow resulting from partial tamarisk clearance may flood new areas and cause new seedling growth outside the area of original infestation, thus increasing the ultimate amount of work needed for control. This sequence of events occurred both at Eagle Borax Spring in Death Valley and at Red Rock Canyon State Park in California. The lesson to be learned is that tamarisk clearance near springs should be completed in a single winter season, if possible.



Otherwise, cutting should proceed inward from the perimeter, with trees closest to the spring saved for last; and if water flow returns or increases during summer months before clearance is completed, flowering branches should be cut off without ground-level herbicide treatment to curtail seed production.

Tamarisk control will be most difficult, and perhaps impossible, around reservoirs with fluctuating water levels and on river courses which flood enough to cause widespread seed propagation, but not erosively enough to uproot established trees.

Post-application Monitoring

Under favorable conditions the mortality rate of tamarisk after cut-surface herbicide treatment should exceed 95%. Less successful applications are usually attributable to not cutting the bark circumference completely or low enough to ground level, or not spraying soon enough after cutting.

Some amount of regrowth is inevitable. A follow-up visit to treat resprouting stumps is always necessary several months to a year after an initial treatment. In some cases during the spring months, a treated stump will produce short stems before dying. Therefore

follow-up inspections should be scheduled after 3-4 months have passed, so that there is no uncertainty over which stumps are dead and which are alive.

Tamarisk trees on floodplains can be more difficult to kill, requiring several treatments. The root systems are more extensively developed near the ground surface, due to repeated scouring and removal of limbs by floods, and can send up shoots where none existed at the time of initial treatment.

Although proper application technique is important, it is necessary to find a balance between working with thoroughness and working with speed. When confronting shallow lateral roots or partly exposed root systems, for example, it is more efficient to work quickly on the first pass; then, after seeing what survives, spend more time on follow-up visits treating the more inaccessible roots.

Following fires or clearance by bulldozer, tamarisk resprouts should be sprayed as early and as frequently as feasible. There is no advantage to letting resprouts from untreated root systems grow to some desired height before initial spraying.

For more information, please leave a message at:

714.779.2099 in California
or 281.287.5246 in Texas.



Call for Nominations

About this time of year CalEPPC begins its annual election process with a call for nominations to our Board of Directors. The CalEPPC Board consists of a President, Vice-president, Secretary, Treasurer, 10 at-large members, and the past year's president. All board members are volunteers; none are paid. The four officers are elected for one-year terms. The at-large board members serve for two years, half elected in even years, half in odd years. All terms commence January 1, 1998. Hence this year, the four officer positions are open and five at-large positions are open.

We encourage members to consider serving as an officer or an at-large member of the Board of Directors. If you would like to place your own name, or the name of another member in nomination, just drop a note to John Randall at TNC Wildland Weeds Mgmt., UC Section of Plant Biology, Davis, CA 95616.

If you are nominating yourself, please include a short 100-word biography. If you are nominating someone else, please include their telephone number so we can call and ask if the nomination is accepted.

Your currently elected Board of Directors is listed in this newsletter on Page 2.

Submission Deadlines for CalEPPC News

If you would like to submit a news item, an article, a meeting announcement or job opening for publication in CalEPPC News, they must be received by the deadlines listed below. Editor reserves the right to edit all submissions. Send your text/disk/email to:

CalEPPC News
Sally Davis, Editor
31872 Joshua Dr., No. 25D,
Trabuco Canyon, CA 92679

phone: 714.888.8541
email: sallydavis@aol.com

Issue	Deadline
Summer, 1997	July 15, 1997
Fall, 1997	October 15, 1997
Winter, 1998	January 15, 1998
Spring, 1998	April 15, 1998



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Sally Davis

Calendar of Events

- May 17** The Natural History of Pinnacles National Monument, Pinnacles National Monument, CA. Sponsored by UC Santa Cruz Extension. Cost \$79.00. Contact: 800.660.8639.
- May 22-23** Working Together for Common Ground: Breaking Down the Barriers for Cooperative Resource Management, Santa Cruz, CA. Sponsored by California Coordinated Resource Management and Planning. Cost \$45/one day, \$6/two days. Contact: 916.447.7237; email: <cacrm@ns.net>
- May 30** GIS Tools and Solutions: Can They Work for My Organization? San Francisco, CA. Sponsored by UC Berkeley Extension. Cost \$235. Contact: 510.643.7143.
- June 11** Endangered Species: Protection and Regulations, Davis, CA. Sponsored by UC Davis Extension. Cost \$235. Contact: 800.752.0881.
- June 20** SER Riparian Guild Meeting, San Jose, CA. Sponsored by the Riparian Guild. Cost \$5. Contact: Bernie Goldner, 408.438.1874; email: <bgoldner@cruzio.com>
- July 23-26** Interactions: managing Ecosystems on a Watershed Basis, Toronto, Ontario, Canada, sponsored by the Soil and Water Conservation Society. Contact: 515.289.2331 or 800-843.7645; fax 515.289.1227; email: <swcs@swcs.org>
- 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.
- October 10-12** Reaching Out and Keeping Out, CalEPPC Symposium '97, Concord, CA. Contact: Sally Davis, 714.888.8541; email: <sallydavis@aol.com>

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!

<input type="checkbox"/> Status	Individual	Institutional
<input type="checkbox"/> Retired/Student*	\$15.00	N/A
<input type="checkbox"/> Regular	\$25.00	\$100.00
<input type="checkbox"/> Contributing	\$50.00	\$250.00
<input type="checkbox"/> Sustaining	\$250.00	\$1000.00
<input type="checkbox"/> Lifetime	\$1000.00	N/A

Name _____

Affiliation _____

Address _____

City/State/Zip _____

Office Phone _____

Home Phone _____

Fax _____

email _____

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

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

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



CalEPPC Sponsors & New Members

1997 Corporate Sponsors: Individuals or Organizations who have contributed \$100 or more to CalEPPC

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 Jones & Stokes Associates
 Monsanto Company
 Pestmaster Services
 Redwood National Park

SePro
 Strybing Arboretum
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CalEPPC would like to welcome the following people who have joined in the months from February through April 1997:

Janice Alexander
 Jennifer Drewitz
 Kim Henney
 Jodie Holt

Deborah MacAller
 Mara Noelle
 Charles Nohejl
 Elyssa Robertson



**CALIFORNIA
 EXOTIC
 PEST PLANT
 COUNCIL**

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 Trabuco Canyon, CA 92679-3112

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