

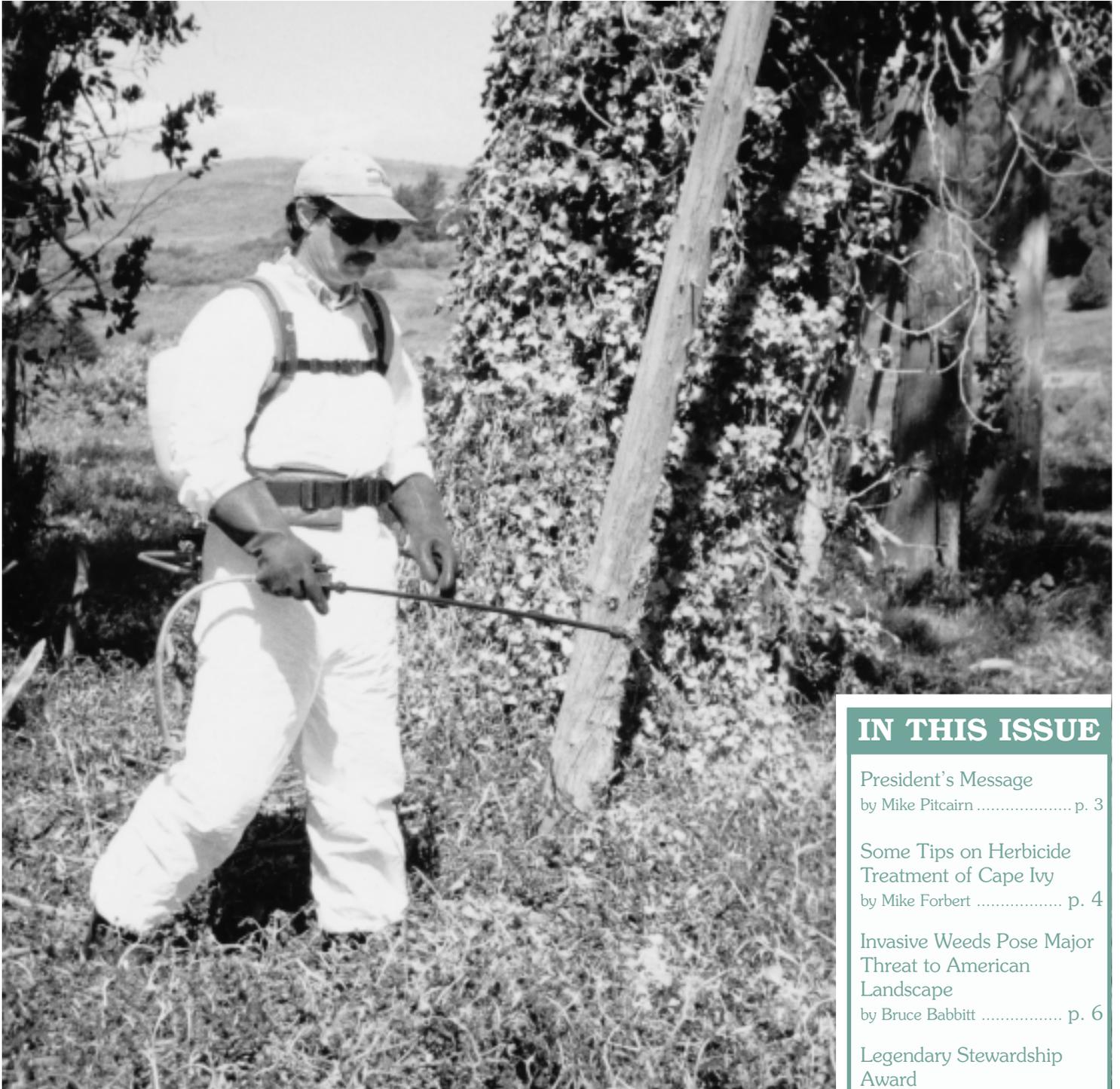


CalEPPC News

A quarterly
publication
of the California
Exotic Pest Plant Council

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Spring 1998



Herbicide spraying of Cape ivy on San Bruno mountain.

Photo by Mike Forbert.

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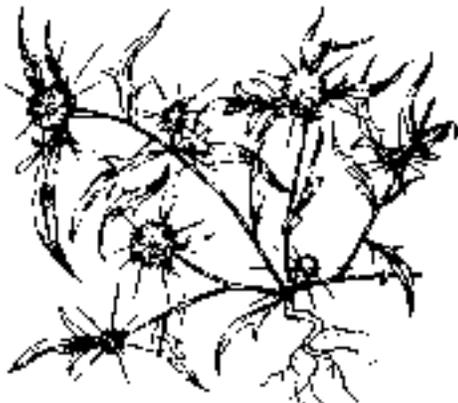
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Who We Are

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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Brooms	Need chairperson	
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CalEPPC's web site: <http://www.caleppc.org>

President's Message

Mike Pitcairn

The world is getting smaller and a good reason for this is the increasing use of e-mail via the Internet and the existence of the World Wide Web. More and more information is becoming available on the Web, especially the newest information that hasn't made it into publication yet. The good side of this is that the Web is an excellent way to get the latest information out to those who need

“The Web site will be authoritative and content rich; the information will be peer reviewed, accurate and current.”

it. The down side is that the information may not have been reviewed for accuracy and may be incorrect. Still, the World Wide Web is here and we are learning its strengths and weaknesses.

For those of us trying to control invasive wildland weeds, almost any information on these weeds is new so the Web can be very useful in getting information out quickly to those who need it. Many CalEPPC members are located at remote sites and their only source of information on invasive weeds and their control is through their computer. For them the Web is critical. In this spirit and to better serve its members and the conservation community at large, CalEPPC has initiated an effort to revamp its web page. The board

has set the general direction: the site will be authoritative and content rich; the information will be peer reviewed, accurate, and kept current. A committee has been formed, consisting of Greg Archbald (Chair), Anne Knox, Steve Harris, John Randall, Steve Schoenig and myself. The committee held its first meeting in mid-March and worked out the general organization of the site. It will meet again to refine the design and identify the specific tasks needed to bring the new site together.

This is a major project that will require the talents and energy of a few key people to ensure its success. We on the web committee would greatly appreciate hearing from you if you have web page construction skills, if you can help convert documents to web-page-ready format, or if you (and this is especially crucial) can help maintain the site. If you can help or if you have any suggestions for the site, please call Greg Archbald at (415) 561-3034 ext. 3425 or e-mail him at <greg_archbald@ggnpa.org>.

Along this same vein, I recently attended a meeting of the California Interagency Noxious Weed Coordinating Committee. The committee was established to promote coordination and cooperation among public and private land managers in their efforts in eradicating and controlling noxious weeds on federal, state, and private lands. The committee meeting was attended by representatives from US Forest Service, US Bureau of Land Management, US Bureau of Reclamation, and California Departments of Food and Agriculture, Transportation, and Fish and Game, among

others. Representatives from CalEPPC, California Native Plant Society, The Nature Conservancy, and the California Association of Nurseryman were also present. This committee is a big step forward in coordinating weed control efforts and avoiding duplication of effort in these projects.

Steve Schoenig, California Department of Food and Agriculture, is developing a weed database that, I must say, looks like it will be a very useful tool for CalEPPC members. At Symposium '97 in Concord, Steve provided a summary of the database and an invitation to CalEPPC members to input data. An update on the database was provided at the Coordinating Committee meeting and I was impressed on how useful it will be. The database is available on the web at <<http://endeavor.des.ucdavis.edu/weeds>> and will also be linked from the CalEPPC web site when our site is upgraded. This database will allow you to obtain information on projects and methods of control of individual weeds.

For example, you can query for French broom and all the French broom projects will be listed. Then one could query for a control method, such as fire, hand removal, or a specific herbicide, and those projects using that method will be listed. Contact personnel responsible for the project will be listed and you will be able to communicate (via e-mail) directly with these individuals to ask specific questions or seek advice on particular methods. This will be a great networking tool, and hopefully, facilitate communication and knowledge of weed control against invasive wildland weeds. ♣

Some Tips on Herbicide Treatment of Cape Ivy (*Delaireria odorata*)

by Mike Forbert, Thomas Reid Associates

During the 1997 CalEPPC Symposium field trip I was standing on the ridge top at GGNRA's Milagra Ridge Park in Pacifica, California with Sue Gardner, surveying the coastal mountains and wonderful ocean view. Just south of Sweeney Ridge I saw a large, light green vegetative area which appeared to be vine-like, growing on the northwest slope. Normally this vegetative color is reminiscent of manroot and of little concern to me. However, as I drove home on Highway One, I realized that it was Cape ivy that had consumed over two acres of dense coastal scrub in a remote wildland area.

I am a state licensed applicator (PCA) working for an environmental consulting firm, Exotic Control Specialists, a subsidiary of Thomas Reid Associates. Recently, Cape ivy has begun to encroach into endangered plant and butterfly habitat on San Bruno Mountain where I do most of my pest plant control work. On our current list of invasive exotics this species has been moved up to high priority. For twelve years I have used herbicides as one of my tools to remove non-native plants. I have direct experience with Cape ivy and would like to share some tips I have learned over the years.

The CalEPPC Symposium '97, held last October, included working group meetings on certain exotics and one working group covered German ivy (*Senecio mikanioides*), now listed as Cape ivy (*Delaireria odorata*). One method of Cape ivy control discussed at the working

group meeting was the use of herbicides. The working group recommended herbicides for Cape ivy are glyphosate (Roundup®) and triclopyr (Garlon 4® or Brush-B-Gon®) mixed together with water, and foliar applied.

An effective mixture is 1% Roundup and 0.5% Garlon 4 (or Brush-B-Gon). This mixture is similar to Carla Bossard's used in her 1995 herbicide control experiments. Our Cape ivy test sites of up to 5,000 square feet were treated with individual and combined herbicides (Garlon 4, Roundup Pro, and Rodeo).

Herbicides are used on Cape ivy infestations of one-eighth acre and larger where the biomass exceeds 80% of the surface. Two people using herbicides can greatly reduce the amount of Cape ivy within 8 months and follow up with hand control such as Ken Moore's *scorched earth* method mentioned in the CalEPPC newsletter, Fall 1997.

Spray Equipment:

The Solo Back Pack sprayer is a very efficient applicator and holds up to four gallons of mixture. The pressure can be regulated to control droplet size and spray tips are interchangeable. Use canister sprayers with caution, because they are carried by the pump handle and can be awkward to use when treating large areas. Ready-to-use Hose-End sprayers are easy to use, but not as accurate in the quality of the applied mixture.

For large infestations we use a 100-gallon tank mounted on our

spray truck which is equipped with 700 feet of high pressure hose, a small gas engine and two types of pumps. We have the capability to attach more than 2,000 feet of hose to access remote sites. The spray truck is also a feeder source to fill our backpack sprayers.

Herbicides:

Brush B-Gon contains 8% of the active ingredient, triclopyr. Triclopyr is a synthetic auxin, a plant growth regulator that causes uncontrolled growth and eventually depletes the starch in the roots. The herbicide's full effect takes 3-6 months for complete mortality.

Roundup Concentrate contains 18% of the active ingredient, glyphosate. Glyphosate inhibits ESPS synthase used in the production of aromatic amino acids necessary for the synthesis of proteins. It also effects photosynthesis, cell growth and plant respiration. The plants exhibits dieback in 2 or 3 days and complete mortality within 2-4 weeks, depending on the target species. The combination of the two herbicides will initiate immediate dieback of the plant and eventually exhaust the starch in the rhizomes.

Both herbicides contain a surfactant (surface active agent) that help translocate the herbicides from the leaves to active growing sites and the plant roots. Fertilizers high in nitrogen, like Lawn Sweep 27-0-1, can be used to help the uptake of herbicide into the leaves. Assess your environment prior to adding fertilizers to your solution. Avoid applying fertilizers near a drainage,

Continued next page

creek, or in sandy soil. High concentrations of fertilizers in standing water can produce rapid growth of aquatic plants and will create more work to remove them.

Brush-B-Gon is selective to broad leaf plants and shrubs, but when mixed with Roundup the solution becomes non-selective and grasses will be affected. Be target specific to reduce damage to plants in the adjacent area. I try to maintain a 12-inch buffer spray zone around any plants or shrubs that I want to preserve.

Home Use:

It is best to mix just what you will use for one application. Spray a gallon of your mixed solution on the Cape ivy and measure the area covered. This will help in calculating how much herbicide is required to treat your infestation.

Mix 4.0 oz of Brush-B-Gon and 3.0 oz of Roundup Concentrate for each gallon of water. The herbicides are best mixed in the applicator that you will use to treat the Cape ivy. Spray the leaves and vines until they are wet, but not dripping. More spray doesn't necessarily result in a better die back or kill rate of the plant, so use only what is needed to treat your target species.

Cape ivy can be sprayed any time of the year. Two foliar applications, four months apart, should reduce 85-95% of the Cape ivy and expose the understory. There are usually other plants beneath the ivy since it is a climbing vine. The application of this mixture can stress or kill the other plants.

Maintenance:

Assess your efforts 3-4 months after the second application and determine the next best method to remove the remaining Cape ivy. At this point painting the leaves with an herbicide mixture is just as labor intensive as hand removing any remaining leaves, stolons and rhizomes. The physiology of Cape ivy allows it to reproduce from multiple sources. If you have a large rhizome and one leaf there will be a diminished

effect. The herbicide is more effective when there is a greater leaf surface to translocate it into the plant.

Cape ivy is a climbing vine and there is no natural vegetative competitor to keep the exotic in check. Walk the site once or twice a year. The ivy can be left in place to decay and any native plants that subsequently volunteer or are planted will not be affected by the previous application of herbicide.

Park Use: (City, County, State and Federal):

Most park agencies have QAC and/or QAL state licensed employees and are able to purchase commercial grade glyphosate and triclopyr. A standard mix of 1.25 oz Roundup Pro and 0.6 oz of Garlon 4 for each gallon of water is equivalent to the home use herbicide solution.

If you are a volunteer working on any park property ask the Ranger what is their policy concerning herbicides. Work with the applicators if this is a tool you think is useful to Cape ivy reduction. If the park has an active stewardship program ask the site steward how they work (i.e. mapping or flagging the site) with the park employees when herbicides are used. Make sure you receive proper training for handling herbicides by a licensed applicator.

Important: City, County and State Parks are required to have herbicide recommendations written by a Pest Control Advisor (PCA) prior to doing herbicide applications. Although federal parks are not under California's Department of Pesticide Regulation administration, nevertheless I still write a recommendation and submit it to the proper County Agriculture office before working on NPS or GGNRA lands. Every month applicators are required to send the County Agriculture office a written summary of the herbicides used, total solution applied and total area treated.

Safety Measures:

Only aquatic approved herbicides like Rodeo® (glyphosate without surfactants added) can be used if you are working in or next to streams, wetlands, or riparian areas on your site. A buffer zone of 10 feet is standard near aquatic areas.

Be aware of your surroundings prior to any application and read all labels on the herbicide packaging. The labels contain important information regarding application, proper safety instructions, and disposal of empty containers. Remember to label your spray equipment and list the contents to identify what is in the container. Web sites are listed below that may be helpful in gathering more information and obtaining the Material Safety Data Sheets (MSDS) about the herbicides.

For questions concerning herbicide applications around waterways, honey bees, surrounding vegetation, or general use always call your County Agriculture office and ask to speak to the biologist on duty. The biologist should be able to immediately answer most questions concerning California's regulations on pesticides (herbicides and insecticide) and any particular regulation governed by your county. Questions about a particular brand should be directed to the manufacturer. If there is a need to contact the manufacturer you will always find the phone number on any herbicide label. †

Contact information:

Mike Forbert, Field Supervisor,
Thomas Reid Associates, (650) 327-0429 voice, (650) 327-4024 fax,
mforbert@igc.org, traenviro@aol.com,
tra@igc.org

Web Sites:

Monsanto Roundup:
www.roundup.com/index.html
Ortho Brush-B-Gon:
www.ortho.com/content/products/index.html
Material Safety Data Sheets (MSDS):
www.ortho.com/content/products/Solaris_msds/SOLMSDS.HTML

Invasive Weeds Pose Major Threat to American Landscape

April 28, 1998 Press Release from the Office of the Secretary of the Interior, Bruce Babbitt

Wrong time, wrong place. Accidentally and on purpose, America is sowing seeds — literal seeds — of destruction. These are the conclusions of a soon-to-be-published book examining weeds in the United States.

“The invasion of noxious weeds has created a level of destruction to America’s environment and economy that is matched only by the damage caused by floods, earthquakes, wildfire, hurricanes and mudslides,” Secretary of the Interior Bruce Babbitt said. “This is truly an explosion in slow motion by opportunistic alien species with few if any natural enemies.”

A multi-agency committee on invasive weeds found that the march of non-native plants across the American landscape is so pervasive that the unique differences of regional plant communities are blurring. Their report, “Invasive Plants: Changing the Landscape of America,” is a systematic attempt, involving 17 partner agencies, to define the seriousness of the problem. The report will be available for public distribution this summer.

Invasive non-native plants, the book says, are now considered by some experts to be the second-most important threat to native species, behind habitat destruction. “This fact book will help readers understand the scope and magnitude of the problem. We hope it will encourage them to act, to help us control the invaders that are already here and prevent future invasions,” Babbitt continued. “People are carrying plants or their seeds from the far reaches of the globe into every corner of our nation to compete with — often to destroy — the

wonderful variety that nature once gave us.”

Over the past decade, the report says, devastating impacts from invasive species have been reported on every continent except Antarctica. In the United States, introduced invasive plants comprise from 8 to 47 percent of the total flora of most states, a figure especially alarming considering a recent report from the International Union for the Conservation of Nature documenting that 1 in 8 plant species is globally threatened with extinction.

Invasive plants are those that have been introduced into an environment in which they did not evolve. Consequently, the invaders usually have no natural enemies to limit their reproduction, and thus easily spread, often unchecked. In addition, aggressive non-native species often deal a harsh blow to rare species — about two-thirds of all endangered species are threatened by non-native species, the report said. As the native plant species decline, the animals that depend on them for food and habitat may also be jeopardized.

The book was developed by many of the federal agencies and others with weed management responsibilities. These agencies are part of the Federal Interagency Committee for the Management of Noxious and Exotic Weeds. In 1994, in response to the economic and biological threats posed by invasive plants, these agencies began working together to develop biologically sound techniques for managing invasive plants on federal and private lands. After noting the lack of adequate surveys and reliable

monitoring data for many of these invaders, the interagency committee worked with more than 100 outside authorities to publish a national strategy on the management of invasive plants.

Secretary Babbitt called for the implementation of a national strategy for invasive plant species. “Invasive non-native weeds,” he said, “are changing the landscape of the United States ... coming in as a result of globalization of transportation and trade, and putting U.S. ecosystems and lands at an increasingly greater risk of damage due to invaders.”

“Invasive non-native weeds are putting U.S. ecosystems and lands at an increasingly greater risk of damage.”

USDA Deputy Secretary Richard Rominger likewise called for a “greater awareness of the impact of non-native invasive plants on all ecosystems, be they agricultural or natural areas.”

The report calls the threat of invasive weeds “biological pollution” and “a silent green invasion.” Thomas Casadevall, acting director of the U.S. Geological Survey, which is responsible for helping develop better methods of dealing with invasive species, explained that on a plant-by-plant scale the effects of these plant invaders are often subtle. “It’s like metastatic cancer,”

Continued next page

Babbitt (cont'd)

he said. "It starts with a single individual or seed and then is carried to other places by people or nature where nodes get established and proliferate, eventually affecting entire ecosystems."

"The human-induced migrations of invasive species now underway around the world is unprecedented," the report states. Unchecked, it adds, the impact "will be a devastating decline in biodiversity and ever-increasing threats to food and fiber production." In wild landscapes, the book concludes, invasive plants alter plant and animal communities, water-flow regimes and are especially threatening to native plants and animals.

According to a recent Department of the Interior survey, noxious weeds are invading western wildlands at a rate conservatively estimated to be nearly 5,000 acres a day. Pat Shea, director of the Bureau of Land Management, says that, "Western wildlands and deserts are an important part of our biological heritage and need to be protected from invasive non-native species."

But the invasive species problem is not just in the West, as the book emphasizes. It effects most states and most public lands throughout the country.

National Park Service Director Robert G. Stanton called invasive species one of the most significant threats facing the natural and cultural resources of the National Park System. At least 1.5 million acres of national park lands are severely infested and need immediate treatment, the book reports. Says Stanton: "Although vast fields of flowering plants may look attractive to the visitor, many of these plants are actually silent, green invaders, slowly destroying the native, living natural heritage the

parks are supposed to preserve."

USDA Forest Service Chief Michael Dombeck said that Forest Service lands are in a similar situation, with non-native invasive plants affecting every habitat type found on National Forest lands. "We need to be paying particular attention to the east where non-native invasive plants such as kudzu, Japanese honeysuckle and mile-a-minute weed are completely draping forested areas and affecting forest ecosystem health," Dombeck said.

The report's authors blame the increase and spread of invasive plants on an increasing human population that has led to greater disturbance of the land, increased demand for food and fiber, (more) overuse of public land for recreation and commercial purposes, increased international travel and globalization of world trade. The problem is compounded, the report adds, because "many introduced plants appear innocuous when first introduced; these plants then adapt, and, in the absence of their co-evolved predators, explode in their new environment."

For more information contact Duncan Morrow 703.648.4221 or Catherine Puckett Haecker 703.648.4283 ♪

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. ♪

Announcements

Slides, Photos or Illustrations Needed

CalEPPC needs photos or illustrations of non-native plant species for the soon to be published book, *Noxious Wildland Weeds of California*, as well as its slide collection. Please submit photos of any or all species listed in CalEPPC's *Exotic Pest Plants of Greatest Ecological Concern in California*. What we hope to get are photos or illustrations of important taxonomic characteristics: seeds; seedlings; closeup of flowers and fruit; color photo of plant showing form; and color picture of infestation or invaded habitat. Please contact John Randall, 916.754.8890, email: <jarandall@ucdavis.edu>. If you need a copy of *Exotic Pest Plants of Greatest Ecological Concern*, please contact the editor.

Web Site

Check out this web site: <<http://ww.aqd.nps.gov/npci>> This is the web page for the "Native Plant Conservation Initiative." Click on the "Exotic Plant Working Group" site to get to the weed fact sheets. ♪

Mark Your Calendars for CalEPPC Symposium '98

Mark your calendars to reserve the weekend of October 2-4, 1998 for CalEPPC Symposium '98 at the Sheraton in Ontario, California. Full day and short-day field trips will tour local restoration sites. The invitations for CalEPPC Symposium '98 will be in the mail in July. The symposium has been awarded 2 hours of educational credits for "laws and regs" and 7 hours of approved credits for in the "other" category by DPR. ♪

Biocontrol Against Cape Ivy Begun

by Joe Balciunas, USDA-ARS

Thanks to generous donations from several CNPS chapters, individual CNPS member, the National Park Service, the David & Lucile Packard Foundation, CalEPPC, and the California Department of Parks & Recreation, the search for a safe and effective biocontrol weapon against Cape ivy is off to an excellent start. Through an international agreement between the US Department of Agriculture here and the Plant Protection Research Institute in South Africa, top scientists in South Africa are making field surveys and doing the careful detective work needed to discover possible biocontrol agents for further testing. A number of insect species have already been found on Cape ivy (A.K.A. German ivy) in its native range, and a list of possible candidate species is being prepared.

It will take a concerted effort over the next three or four years to complete all the studies and tests required before an approved biocontrol agent can be released against Cape ivy in California. CNPS members and chapters are urged to continue their support for this extremely important effort. Funding for the next phase of the studies is being sought now. If you can make a donation or if you can help with the fundraising effort, please contact Jake Sigg at (415) 731-3028. †

Success with Pulling Together: Noxious Weed Swat Team Expands Efforts

By Carolyn Gibbs, BLM

Because of the successes of a combined effort of the Lassen County Yellow Starthistle (YST) Special Weed Action Team (SWAT), the group has expanded to include many more private citizens and agencies. The SWAT team is also including other noxious weeds in the attack effort.

A new Memorandum of Understanding (MOU) is being established to include the other noxious weeds and to change the name to North-eastern California Noxious Weed SWAT Team.

In 1994, the yellow starthistle had become enough of a problem in northeastern California to warrant several federal, state, county and city government agencies to gather together to plan an eradication and

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USDA-ARS Consolidates Weed Research in Western USA

by Joe Balciunas, Project Leader, Biological Control of Western Weeds Quarantine Exotic and Invasive Weed Management Research Unit, USDA-ARS, Western Regional Research Center

The Agricultural Research Service (ARS), a branch of the U.S. Dept. of Agriculture (USDA), has announced the consolidation of weed research in the West. Three small weed research labs in California and Nevada will be consolidated administratively although they will continue to operate from their current locations.

The three research lab sites are: the Biological Control of Weeds Quarantine Facility at the Western Regional Research Center in Albany, CA; the Aquatic Weed Management Lab in Davis, CA; and the Range Ecology Lab in Reno, NV. There are, respectively, one, two and three permanent scientists (SYs) at these three locations. The six scientists operating at these three sites will form the new Exotic and Invasive Weed Management Research Unit, and will be joined by a newly appointed Research Leader of the Research Unit, Ray Carruthers.

Dr. Ray Carruthers is currently serving as the ARS National Program Leader for Biological Control in Beltsville, MD. He will be based in the Albany, CA location, and, in addition to supervising the new Research Unit, will conduct research on biological control of salt cedar. Dr. Carruthers is expected to arrive in Albany in early July.

The consolidation of these three research labs will enhance current projects at all three locations. Furthermore, the addition of new scientists to some of the labs is also possible. The 1999 Agricultural Appropriations Bill, currently being considered by Congress, includes a request for two additional scientists for this new Research Unit: one for the Albany location and the other for Reno. If approved by Congress, this would bring the total permanent scientific staff for the Weed Research Unit to nine scientists. †

War on Weeds Mini-Grant

A Request for Proposals by the Bureau of Land Management, California

The War on Weeds mini-grant initiative will provide funding opportunities on a competitive basis for weed projects within California. A total of \$15,000 is available for 1998. This year ALL projects must provide at least a 1:1 match. In order of priority, the categories are:

1. Educational projects that will have statewide benefits.
2. Research projects that will develop new technology or approaches that will be useful for on-the-ground projects.
3. Cooperative weed projects that involve Federal agencies, State & County agencies, non-profit groups, and private landowners (i.e. Weed Management Areas)

* Only proposals that are submitted or endorsed by one or more of the signatory agencies of the California Noxious Weed MOU (<http://www.ca.blm.gov/weeds>) will be considered. Proposals cannot be submitted by BLM, although the involvement or support of BLM will result in a higher priority.

Grant Application Deadline: July 7, 1998

Grant Award Date: July 15, 1998

For more information please call Anne Knox (916) 978-4645. Send proposals to Anne Knox, Bureau of Land Management, 2135 Butano Drive, Sacramento, CA 95825. If you do not have a proposal, but wish to potentially contribute matching funds to worthy projects, please provide contact information and the type of project you wish to support. †

Exotic Pest Plants of Greatest Ecological Concern in California

The California Exotic Pest Plant Council will be revising our list, *Exotic Pest Plants of Greatest Ecological Concern in California*, later this year. Please send new information on plants currently listed or plants being proposed as additions to the list to: Ann Howald, 210 Chestnut Avenue, Sonoma, CA 95476. Please send your information on the "Request for Information" form provided in the August 1996 edition of the list. If you have sent in changes in the past, there is no need to resubmit. The deadline for submitting new information is June 1, 1998. If you do not have a copy of the August 1996 edition of the list, please contact Sally Davis at 714.888.8347, email: <sallydavis@aol.com> and provide your name and address for a copy. †

Book Review: Alien Invaders

From back yards to nation parks, alien species - plants and animals found outside their natural range - are running amok. They're driving native species to extinction, degrading natural ecosystems, and costing taxpayers and businesses billions of dollars a year.

Alien Invasion: America's Battle with Nonnative Animals and Plants (National Geographic Books, June 1998) is the first book to expose the full extent of the environmental and commercial impact of the calamitous onslaught of invasive species.

"We can't afford to keep ignoring or underestimating the invasion," writes author Robert Devine in *Alien Invasion*. Left unchecked, non-indigenous species could transform much of the American landscape. Already invasive weeds have forced

people off their ranches, fire ants have made parks and back yards unsafe for children, water hyacinth has covered favorite fishing lakes with impenetrable tangles of vegetation, and avian malaria has joined other exotics in driving several species of Hawaiian birds to extinction."

In addition to sounding the alarm *Alien Invasion* delivers a message of hope and a blueprint for action. "The invasion is still in its early stages," Devine said. "If we act now we can handle this problem before it becomes overwhelming."

Devine's book discusses what government, science, business and the conservation community need to do. He also shows what ordinary citizens can do.

Alien Invasion will be on sale in bookstores nationwide on June 15. †

Legendary Stewardship Award

by Suzanne Goode

The Los Angeles/Santa Monica Mountains Chapter of the California Native Plant Society was honored for its 15 years of work in the Angeles District of the State Department of Parks and Recreation for restoring habitat within the state parks.

At a recent awards ceremony, the Angeles District recognized outstanding performances in several areas of park management. The Weed Warriors of the Los Angeles/Santa Monica Mountains chapter of the California Native Plant Society received the Legendary Stewardship Award for its outstanding services to the State of California, the only award given that day to a volunteer organization.

The awards presentation stated that, "These Weed Warriors have been working quietly in the state parks of the Santa Monica Mountains for over 15 years, eradicating invasive exotic plants. They spend at least one full day per month cutting, hacking, pulling, mowing and poisoning such weeds as tree-of-heaven, milk thistle, castor bean, sweet fennel, pepper grass, ice plant, artichoke thistle and Myoporum. They start early in the morning and work until dark, rain or shine, in the heat and in the cold. They work on the number-one threat to natural resources in the parks - invasion by exotic plants. They work without pay and without much thanks or recognition. They have provided the energy and continuity of effort that state parks has been unable to provide in the stewardship of our native plant communities and wildlife habitats."

In accepting the award, the Weed Warriors spoke of their work saying that when the work is done, it cannot

be detected. Limited by number, time, and mechanisms for control, the Weed Warriors select areas for habitat restoration that have a strong base of native plants struggling against the invaders. Once the invaders are removed, the native vegetation rebounds, leaving no vulnerable area for reinfestation.

The work is never done, though, because following any disturbance, whether it is fire, flood, grading, or certain types of maintenance disturbance, the door is once again opened and the non-native plants will outperform the natives; so the cycle begins again. Eventually, it is hoped the seed bank of non-native species will be deleted and there will be no need to monitor post-disturbance areas.

Plants that are particularly known to respond to disturbance are castor bean, milk thistle, tree tobacco, sweet fennel and when floods are involved, the bamboo-like grass, *Arundo donax* (giant cane).

The importance in removing these non-native species is that they do not perform as habitat. Faunal species that have evolved with the native flora do not fully utilize the plant, being unable to recognize it as a viable element of their habitat.

Some of the areas that have been, or are continuously being, cleared of non-native species are portions of Sycamore Canyon in Point Mugu State Park; County Line State Beach; Leo Carrillo State Park; Malibu Lagoon State Beach; and Malibu Creek State Park.

The work continues and according to the weed warriors, the work brings a tremendous amount of satisfaction. It's fixing what is broken. ♣

Success (cont'd)

control program. Bureau of Land Management botanist Gary Schoolcraft and Glenn Nader of the University of California Cooperative Extension believed the weed, although evident in large populations, could be controlled in the county. They formed a group among those who were interested in attacking the problem.

The objectives of the group were:

- To identify all locations of infestations.
- Teach the public to identify YST, and provide information on control methods.
- To work together and coordinate information, activities and control methods.

Long range plans to eradicate YST using an integrated pest management program were then put into action with good results. Several YST locations are showing fewer and fewer plants each year. Some of the smaller populations no longer exist.

The SWAT team received grant funds and thus provided new avenues for inventory, control and education. An example is the Northeastern California Noxious Weed Booklet. This field handbook is available in a limited supply at this time and is a useful tool for identifying the noxious weeds found in the area. The SWAT team was also able to provide a seasonal individual to inventory, map and mechanically remove noxious weeds and helped fund a portion of a local county/state spray crew.

The Northeastern California Noxious Weed SWAT Team is "pulling together" to control weeds and weed spread. ♣

CalEPPC New Members

CalEPPC would like to welcome the following people who have joined CalEPPC in the months from March 1998 through May 1998:

Karen Cotter
Drew DeShazo
Carolyn Gibbs

Steve Hartman
Mak Langner
Rich McClure

Lynn Overtree
James Popenoe
Gale Rankin

Institutional Members who have joined CalEPPC from March 1998 through May 1998:

City San Diego Parks & Recreation

UC Genetic Resources Conservation
Program

Quail Botanical Gardens

Jepson Herbarium Classes

For information contact: Susan D'Alcamo, Jepson Herbarium, 510.643.7008, email:<carkhuff@uclink.berkeley.edu>

- July 10 - 12 **Scrophulariaceae**, Margriet Wetherwax, Sierra Nevada Field Campus. Learn to identify this family. It may be a member or it may be moving out! The weekend workshop will study many different groups within this family and discover some new affiliations with as much time in the field as possible.
- July 17 - 19 **Juncus**, Barbara Ertter, Sierra Nevada Field Campus, Yuba Pass. Time to "rush" out and learn the third group of graminoids, Juncaceae. Focus will be on the two genera that occur in California, *Juncus* and *Luzula*. The workshop will end in the field tracking down a diversity of species with their "feet in the ground."
- July 24 - 26 **Salix**, George Argus, Sierra Nevada Field Campus, Yuba Pass. The genus *Salix* has a well deserved reputation for being taxonomically difficult. The purpose of this workshop is to help the participants to learn to identify these important wetland species with confidence through field observation, lab study and practical identification.
- August 1-2 **Apiaceae**, Lincoln Constance and Jim Affolter. Apiaceae (Umbelliferae) is one of the first, if not the first, plant families to have been recognized by Europeans as a "natural" group and the first to have been monographed, in the 17th century. The family is the source of many familiar vegetables, spices, and medicinal plants including carrot, celery, parsley, dill, parsnip, fennel, coriander, cumin and anisette. Because of the relative uniformity of the small flowers and the alleged uniformity of their arrangement, the family is reputed to be one of the most difficult in which to make identification.
- August 7-9 **Fabaceae**, Michael Sanderson and Martin Wojciechowski, White Mountain Research Station, Crooked Creek. This workshop will consist of both lecture and hands-on laboratory sessions presenting an introduction to many of the common legume genera (woody and herbaceous) found in California, including a discussion of currently accepted taxonomic classifications as well as new insights into phylogenetic relationships of the major groups, their ecological distribution in California and beyond, and a review of general morphological features used for identification.
- August 14-16 **Alpine Flora**, Steve Botti, Sonora Pass. This workshop will focus on the striking morphological and ecological adaptations displayed by alpine plants in response to the harsh environment. The class will learn to recognize the major families, genera and species that comprise alpine plant communities in the central Sierra Nevada.

1998 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



Calendar of Events

- July 5 - 9** *Balancing Resource Issues: Land, Water, People*, San Diego, CA. Sponsored by the Soil & Water Conservation Society. Contact: Sue Ballantine, 515.289.2331, ext. 16, email: <sueb@swcs.org>
- July 30 - Aug. 2** *Green and Gold: California's Environments; Memories and Visions*, Santa Cruz, CA. Sponsored by the California Council for the Humanities, American Society for Environmental History. Contact; Carolyn Merchant, email: <greengold@nature.berkeley.edu> or <http://www.cnr.berkeley.edu/departments/espm.env-hist/>
- September 1-2** *GIS for Resource Managers and Professionals*, Sacramento, CA. Sponsored by UC Davis Extension. Contact: 800.52.0881
- Sept. 27 - 30** *7th Workshop on Oak Physiology & Growth Problems in Oak Plantings*, South Lake Tahoe, CA. Sponsored by the Integrated Hardwood Range Management Program. Contact: Joni Rippee, 510.643.5429, fax 510.643.5438, email: <ripee@nature.berkeley.edu> or Doug McCreary, 530.639.8807, email <ddmccreary@ucdavis.edu>
- October 2 - 4** *Working Smart, Working Together. CalEPPC Symposium '98*, Ontario, CA. Sponsored by the California Exotic Pest Plant Council. Contact: Sally Davis, 714.888.8541, email: <sallydavis@aol.com>



**CALIFORNIA
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