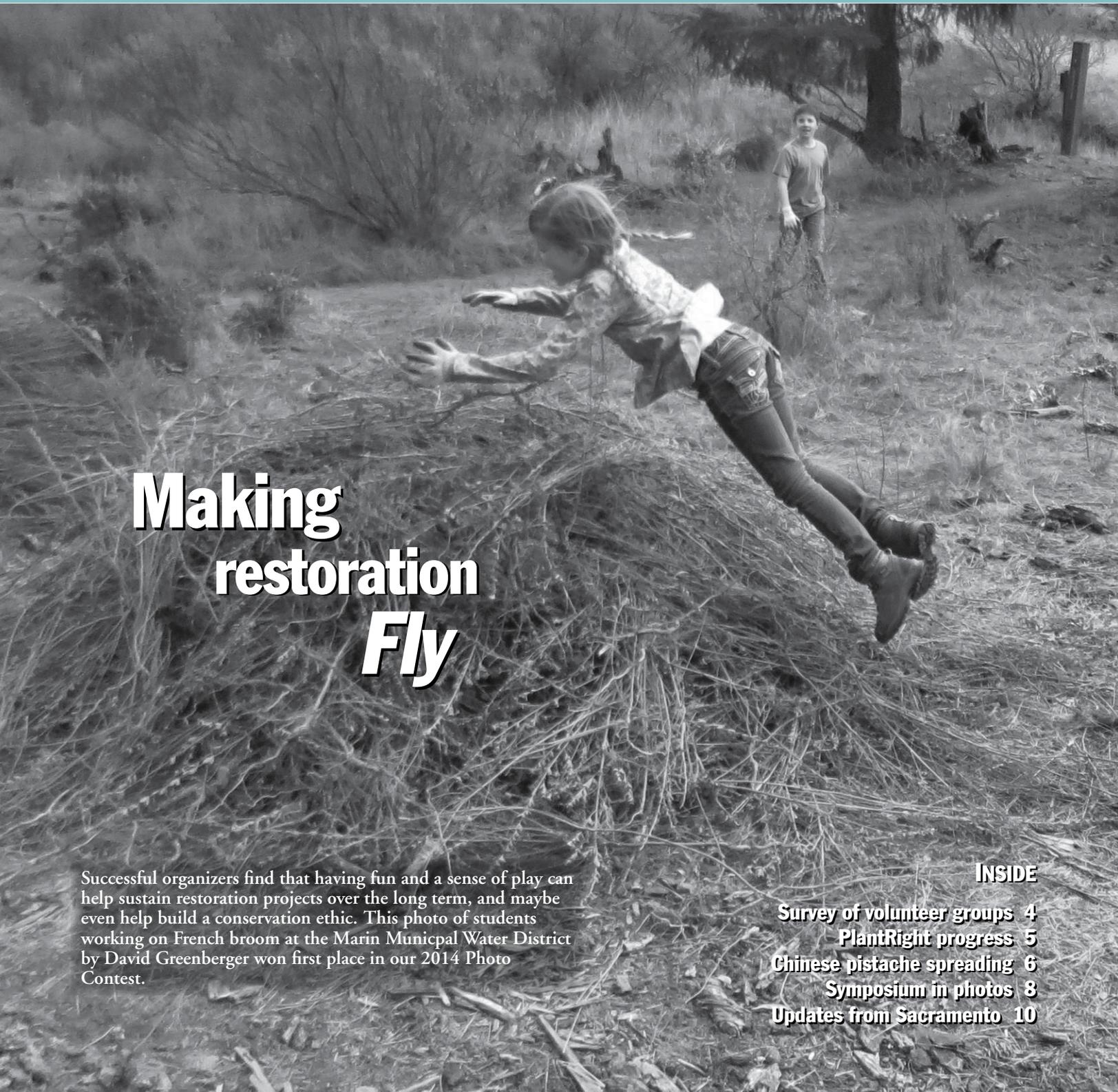




Cal-IPC News

Protecting California's Natural Areas from Wildland Weeds

Newsletter of the California Invasive Plant Council



Making restoration *Fly*

Successful organizers find that having fun and a sense of play can help sustain restoration projects over the long term, and maybe even help build a conservation ethic. This photo of students working on French broom at the Marin Municipal Water District by David Greenberger won first place in our 2014 Photo Contest.

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A California 501(c)3 nonprofit organization
Protecting California's lands and waters
from ecologically-damaging invasive plants
through science, education, and policy.

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Cal-IPC News

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Editors: Doug Johnson & Elizabeth Brusati

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From the Executive Director

The Symposium

I won't lie. Putting on the Symposium is hard work. We have program staff fitting Symposium planning in between all their project work, and volunteer board members fitting it into their busy lives on top of their day jobs.

It's not always easy to attend the Symposium, either. I heard some grueling "planes, trains and automobiles" stories from some of the almost 300 attendees we had in Chico earlier this fall.

But it's all worth it. The photos in this issue are evidence. We collect information we wouldn't get any other way. We meet people and learn about projects we'd otherwise miss. And we celebrate each others' commitment to stewarding California's wildlands. The Symposium broadens our perspectives, strengthens our work, and recharges our batteries.

Here are some of the things people had to say:

"Having attended all but three Symposiums since their beginning 20+ years ago, I still learn new and useful information at every one..."

"A critical venue for working professionals to share information about what's working and what isn't. The issue is too complex to go it alone!"

"An excellent way for professionals and scientists to get together."

"A way to catch up with colleagues, make new friends, and get a chance to think deeply about a topic that's very interesting and important to me."

"It's like the Clametts, Leonardo da Vinci, and the Avengers all rolled up together! Inspiring (and a little strange)..."

"By far the best conference I've ever attended!"

Putting on the original Symposium was the first real accomplishment of Cal-IPC. Bringing people together was an obvious need, the best way to get the ball rolling forward. It continues to be an important aspect of our work, even though the field has changed significantly.

As a recent essay put it, there are philosophical divisions in conservation between those who think in terms of restoration, those who think in terms of adaptation, and those who think in terms of letting nature take its course. I agree with the authors' conclusion, that we need all of the above in a coordinated fashion. Coming together at the Symposium to share our approaches strikes me as the best way to do just that.



Symposium attendees networked with presenters, sponsors and each other. *Photo by Bob Case*

Big thanks to Christina Ripken, our Conference Coordinator for this year's Symposium, who did an amazing job. Good luck with your family in Okinawa!

Cal-IPC Updates

Cal-IPC Symposium a success. Our 23rd annual event brought nearly 300 attendees to Chico! See photos on p.8. Presentations are online at www.cal-ipc.org.

“Predicting invasive plants in California” article published. Cal-IPC and Joe DiTomaso of UC Davis developed a preliminary determination of plants that pose the greatest risk of becoming invasive in California, primarily through the horticultural pathway, based on lists of invasive plants from other Mediterranean-climate regions. In the July-September 2014 issue of *California Agriculture*. californiaagriculture.ucanr.edu.

Cal-IPC Mapping page updated. The page features new guides for submitting data, closing data gaps, submitting vouchers, and engaging citizen scientists.

Weed-free Forage list updated. An updated list of suppliers of weed-free forage and mulch has been posted in the prevention section of our website.

Cal-IPC’s Sierra work highlighted.

Cal-IPC’s project to protect Sierra meadows by removing invasive plants is featured as a case study in the “Taking Action” report for the National Fish, Wildlife and Plants Climate Adaptation Strategy. A grant from the Wildlife Conservation Society allows us to fund local partners to remove invasive plants. www.wildlifeadaptationstrategy.gov/pdf/Taking-Action-progress-report-2014.pdf

Cal-IPC staff presented at Ecological Society of America conference. We shared our work on “Setting and Implementing Regional Strategies for Landscape-Scale Invasive Plant Management.” We also hosted a “mixer” that brought together people working on invasive species from across the U.S. and as far away as Portugal and Australia.

Wildland Weed News

Weed ID on a stick. A memory stick that is. Joe DiTomaso’s identification guides to 700 invasive broadleaf species and 200 invasive grasses are now available on a handy USB drive (PC format only). Order at www.cal-ipc.org/shop.

Other News

First-ever California Invasive Species Action Week. Sponsored by the state Dept. of Fish and Wildlife August 2-10, the action week included events organized by local groups across California plus a youth poster contest.

www.dfg.ca.gov/invasives/actionweek

Got medusa-head? UC Davis has published a new *Medusahead Management Guide for the Western States*. Download it at wric.ucdavis.edu/publications/MedusaheadManagementGuide_pub_2014.pdf.

Eat Me! That’s the message of eattheinvaders.org, complete with recipes and gastronomic history for all sorts of invasive organisms.

Invasives— they’re what’s for dinner.

Accidental biocontrol. A thrips from Tasmania found its way to Southern California where it is killing invasive *Myoporum laetum* trees native to New Zealand. Unfortunately the insect also made it to Hawaii where it is attacking native *Myoporum insulare*. Sullivan, J.J. *Biological Invasions* (2014) 16:445-453.

New book. *How to Eradicate Invasive Plants* by Teri Dunn Chace covers identification and control methods for 200 invasive plants. It’s written in language designed for a layperson. While not specific to California, it contains many of our weeds.

How-to templates posted. The Pacific Invasives Initiative (PII) launched a new on-line Resource Kit for Invasive Plant Management, including template plans. ipm.pacificinvasivesinitiative.org.

Forest Conditions report posted. This annual report from the California Forest Pest Council details forest health and pest issues impacting California’s forests, woodlands, and urban trees.

www.fs.usda.gov/detail/r5/forest-grasslandhealth/?cid=fsbdev3_046704.

Check
the mailing label to see
when your membership expires.
Renew at www.cal-ipc.org.
Thank you!

Webinar on risk assessment. Risk assessment tools for invasive plants and animals continue to evolve, and this webinar shows how federal and state agencies are using them to improve the effectiveness of their policies and programs. Environmental Law Institute. www.eli.org/events/species-risk-assessment-tools-science-and-policy-applications

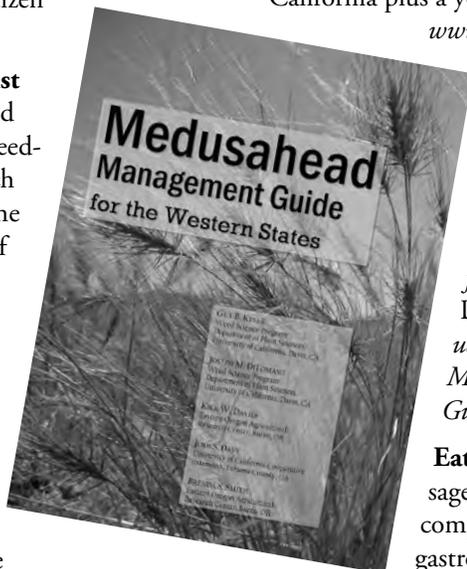
New snakes found in California. Two non-native water snakes, common in the eastern U.S., have been found in the Sacramento area and in Long Beach, and could threaten aquatic habitats. Capital Public Radio, Sacramento, 6/26/14. www.capradio.org/articles/2014/06/26/invasive,-non-native-snakes-showing-up-across-california/

Preventing salamander loss.

Environmental groups are asking for strict import regulations for newts and salamanders in light of the recent spread of an Asian skin fungus that is decimating European populations. <http://news.nationalgeographic.com/news/2014/10/141030-salamanders-fungus-disease-amphibians-science-lethal-frogs/>

Thank you, TNC!

Thanks to Shona Ganguly and Amy Burns of The Nature Conservancy for hosting the Cal-IPC Board’s August meeting at their Los Angeles office. Board meetings rotate around the state to facilitate statewide representation.



Survey of volunteer event leaders yields tips, common challenges

By Susan Schwartz, *Friends of Five Creeks in Berkeley*

For people who lead volunteers against invasives, what is the biggest challenge? Long term maintenance, according to the 75 who responded to a recent survey of folks who lead such groups.

The survey aimed to spark discussion at Cal-IPC's October meeting in Chico. But I put the survey together just as much because years of organizing meetings has convinced me that many leaders and organizers hunger for communication and knowing what others are doing.

The 15-question survey isn't scientific or representative. It was distributed to the Cal-IPC list and about 150 others, urging them to pass it on. There could be several responses from one organization. Many questions allowed multiple answers or were open-ended. All encouraged comments – often the most interesting part!

The most popular size for volunteer groups seemed to be 10 to 20. One comment: “10 hard workers, therefore about 15. Send those out for light duty into trashy areas.” But folks gave lively reasons for liking sizes from 5 to 100. A small group, for example, is good for “balancing disturbance with work done” and “you can accomplish a lot, all work in the same general area, and carry on a conversation that includes everyone.”

Suggestions flowed generously: For larger groups: have a single simple task (e.g. removing a dense patch) or, conversely, varied activities for different ability levels. Others: “Large groups need a work plan that is easily communicable,” “Make sure you have enough work to do.” “Make one volunteer the team leader. I hop from group to group to check in for 5 minutes at a time.”

Those who answered work with volunteers a lot. Only 15% reported having events less than monthly; a whopping 32% said they had events “daily or several times a week.” The most common



Volunteers working on ivy in Tilden Park, Berkeley. Photo by Susan Schwartz.

length was two to three hours, with half days close behind. Not surprisingly, wildland events were less frequent but longer. Nonprofits were the most likely to require advance signup, while volunteer-led events and citizens groups were least likely to require RSVP. (Categories are not mutually exclusive).

Volunteers do many things besides pull weeds. Planting and seeding were by far the most common “other” tasks reported. But more than a third said that volunteers also helped with outreach and communications, monitoring or citizen science, mapping including GPS, trail work, trash removal, and tarping or sheet-mulching.

At events, overwhelming majorities provide tools, gloves, and drinking water. About two-thirds supply snacks, about

40% give educational handouts, and a quarter offer “swag” such as pins, shirts, or hats. Gifts were most common at agency and wildland events, often rewarding repeat volunteering. Only a fifth offer lunch—mostly at nonprofit and (no surprise) longer events. Comments mentioned offering educational talks and training, sometimes quite high level—as well as sunblock and Tecnu!

While 85% of events include social time, often with refreshments, far fewer incorporate structured exercises such as icebreakers, team-building exercises, or reflections. This probably reflects the preponderance of adult volunteers.

Asked about a favorite tool for volunteers, the most frequent answer

...continued page 14

PlantRight makes strides promoting non-invasive gardening and landscaping

By Greg Richardson and Jan Merryweather, PlantRight and Sustainable Conservation

PlantRight is a project run by the non-profit Sustainable Conservation that promotes the use of noninvasive plants for gardening and landscaping in California. PlantRight is pleased to share its 2014 developments with the friends and members of the California Invasive Plant Council.

Crowdfunding success

This summer, PlantRight partnered with 11 trade and conservation groups, including Cal-IPC, to complete a successful crowdfunding campaign. Generous individuals across the state helped to buy (at a significantly discounted rate) a leading grower's inventory of Mexican feathergrass (*Stipa tenuissima*, formerly known as *Nassella tenuissima*) and properly dispose of it. While Mexican feathergrass is not yet listed on the Cal-IPC Inventory (it's on the Watchlist), land managers are starting to see it spread out of plantings and into wildlands, raising concerns about its invasiveness.

While buying out growers' inventories is not a long-term strategy for PlantRight, this was a rare opportunity to accelerate the grower's invasive phase out, while lessening environmental impact. The grower has stopped California sales of all invasive plants on PlantRight's list. And the campaign created significant buzz about "emerging" invasive plants.

Partnering with retail nurseries

PlantRight is partnering with retail nurseries to promote noninvasive gardening. Stores pledge not to sell any invasives from PlantRight's list and receive free staff training, communications materials, and new promotional opportunities. To date we have enlisted over a dozen nurseries in the pilot program, and are now looking to take it statewide. Want to see your local nurseries participate? Contact us and become a PlantRight "Ambassador!"

New partners join the effort

Recently joining PlantRight's efforts to promote exclusively non-invasive plants for California are: the American Society of Landscape Architects (Northern California Chapter), Armstrong Garden Centers, The Home Depot (California stores), and SummerWinds Nursery!

Educating CCN Pros

This year, study materials and exams for nursery staff qualifying to become California Certified Nursery Professionals (CCN Pros) were modified to include invasive plant information. In addition, PlantRight's online trainings are now eligible for Continuing Education Units (CEUs) for the nearly 4,000 existing CCN Pros. Support your local retail nurseries' CCN Pros!

Spring nursery survey

With the wonderful assistance of California's Master Gardeners, PlantRight conducted its fifth consecutive survey of retail nurseries this spring. Volunteers surveyed 226 stores across 35 counties statewide for plants on PlantRight's list.

This year saw further decline in the retail availability of invasive plants from PlantRight's original list. This was largely due to big leaf periwinkle (*Vinca major*), which was found in 9% of stores in 2014, compared to 16-19% in past years of the survey.

The number of stores selling the most recently added invasive plants on PlantRight's list (updated in early 2014) increased, however. Notably, 27% of retail

...continued page 14



These Mexican feathergrass (*Nassella tenuissima*) plants are among the thousands that were composted at a commercial facility this summer as a result of a crowdfunding effort to keep invasives off store shelves in California. Photo by Jan Merryweather, Sustainable Conservation.

Chinese pistache: Why isn't it more invasive in California?

By Marcel Rejmánek, Department of Evolution and Ecology, University of California, Davis

Based on the most recent taxonomic revision (Al-Saghir and Porter 2012), the dioecious genus pistachio (*Pistacia*, Anacardiaceae, cashew or sumac family) consists of nine species and three subspecies. In California, everybody knows *Pistacia vera*, cultivated pistachio, native to the Middle East. Two more species are commonly cultivated in California: *Pistacia atlantica* (Mt. Atlas mastic tree; odd-pinnate leaves and 7-9 leaflets, leaf rachis winged) and *P. chinensis* (Chinese pistache; even-pinnate leaves and 10-16 leaflets, terminal leaflet commonly present in seedlings, leaf rachis not winged). *P. atlantica*, native to North Africa and Middle East, has been reported as naturalized in several counties in California and is characterized as “escaping” in *The Jepson Manual*.

Chinese pistache is a very popular ornamental tree because of its reddish leaves and fruits in the fall. It is among the five or ten most commonly planted trees in Californian cities. It was introduced to California about 90 years ago, but it has been planted more often recently. Native to China, Taiwan and the Philippines, the species was mentioned in the first edition of *The Jepson Manual* (1993), but, surprisingly, not in the second (2012). However, it is freely regenerating along Hangtown Creek in Placerville (M. J. Bower, personal communication), along Big Chico creek in Bidwell Park in Chico (Warren Roberts, personal communication), and I am finding more and more seedlings/saplings in western Davis.

Because spontaneous fruiting individuals are sometimes more than 100 m from nearest planted trees, the species fits the international definition of an invasive woody seed plant (Richardson et al. 2000). This species has been recognized as invasive in Australia (New South Wales), central Texas, Oklahoma (riparian corridors around Oklahoma City), and North Carolina (Krings 2011, Smith et al. 2008) and was included into the global database of invasive trees and shrubs (Rejmánek



Extensive panicles of drupes hang from Chinese pistache, but only a relative few contain viable seeds. *Photos by author.*



Spontaneous seedlings of Chinese pistache growing together with spontaneous Japanese privet (*Ligustrum lucidum*) and viburnum (*Viburnum tinus*) in Davis.

and Richardson 2013).

Each mature female tree produces tens of thousands, perhaps hundreds of thousands, of drupes. Seeds are apparently dispersed by American robin, European

starlings, yellow-rumped warblers, and cedar waxwings, and several other bird species. Why this species was not already more invasive in California has been a mystery to me. To my surprise, I found

that most of the seeds of this species were empty. This is consistently the case in red drupes. Later I learned that deceptive fruits (fruits containing empty seeds) may reduce predispersal seed predation by insects and/or birds, as has been demonstrated for *Pistacia terebinthus* and *P. lentiscus* (Traveset 1993, Verdú and García-Fayos 2001). Another, mutually not exclusive, option was that fruits with insect predated seeds turn red (Liu et al. 2011).

After dissecting 100 red fruits from eight trees growing in different parts of Davis, I concluded that about 60% of fruits had either parthenocarpic (without fertilized ovules) or aborted seeds. About 40% of seeds in red fruits were infested with larvae of the chalcid seed wasp, *Megastigmus pistaciae*. This wasp species, native to the Mediterranean and western Asia, was first found in California in 1967 (Rice and Michailides 1988). Obviously, it now provides a spontaneous biological control of Chinese pistache in California. Such cases of inadvertent biological control may be underreported. The most recent example of an accidental biological control of invasive plant species is Australian thrips, *Klamobothrips myopori*, killing *Myoporum laetum* trees in southern California (Sullivan 2014).

Based on my observations, only 1 - 20% of seeds on *P. chinensis* trees in Davis are viable; those are consistently in pale green/metal blue drupes. Moreover, if bird fruit-removal rates are higher for red fruits (which is often the case), there would be an even lower chance that this species would spread. Nevertheless, with more trees being planted and the maturation of earlier planted trees, propagule pressure will likely increase. Is it a ticking time bomb? I wouldn't wait. I would, at least, limit future planting of this beautiful, but suspicious tree. Of course, planting only conclusively male individuals would also be safer.

Contact Marcel at mrejmanek@ucdavis.edu.

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Spontaneous sapling of Chinese pistache growing together with spontaneous *Ulmus parvifolia* in Davis.



Introduced eastern fox squirrel (*Sciurus niger*) eating drupes of introduced Chinese pistache in the front of Walker Hall on the UC Davis campus.

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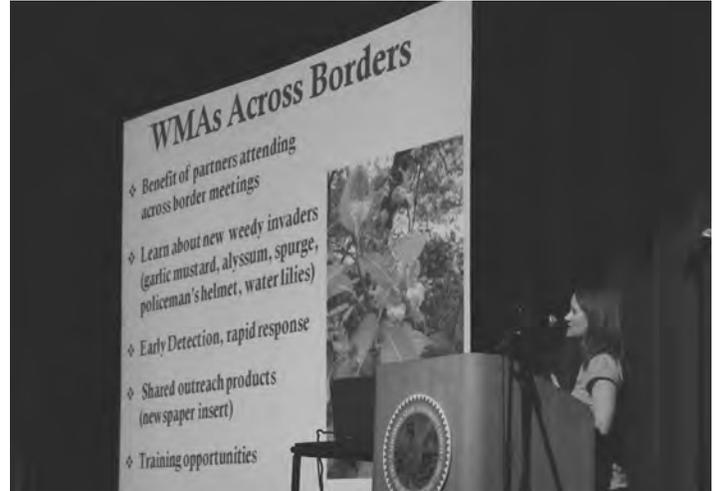
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Cal-IPC's 23rd Annual Symposium in Chico

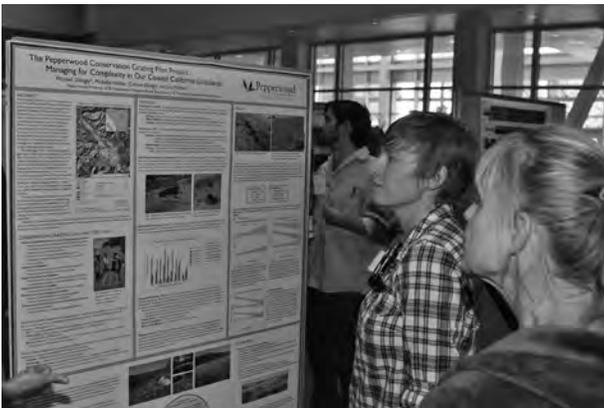
"Wildland Weeds and Water"



Nearly 300 attendees journeyed to Chico State from as far away as Utah. *Photo by Frank Row.*



Carri Piroso, a former biologist with the CDFA noxious weed program now working for the Oregon Department of Agriculture, returned south to describe the importance of collaboration across orders. *Photo by Bob Case.*



The poster session featured 20 posters on plants ranging from brooms to taro root. *Photo by Bob Case.*



The raffle and silent auction are one of Cal-IPC's biggest fundraisers of the year. This year's eclectic assortment of items included a European river cruise, Patagonia jackets, earrings made from fossilized walrus teeth, and a bushel of organic pears! *Photo by Bob Case.*



Jim Dempsey of State Parks won this year's Golden Weed Wrench for Land Manager of the Year. With Cal-IPC President Jason Casanova and State Parks colleagues. *Photo by Bob Case.*

Gina Darin and former staffperson Heather DeQuincy were two of the many volunteers who helped make the Symposium run smoothly. *Photo by Bob Case.*



Congrats to this year's award recipients!

Jake Sigg Award for Vision and Dedicated Service:

John Anderson, Hedgerow Farms

Golden Weed Wrench Award:

Jim Dempsey, California State Parks

Ryan Jones Catalyst Award:

Joanne Drummond, Fire Safe Council of Nevada County

Organization of the Year:

River Partners

Corpsmember of the Year:

David Huerta, San Joaquin Regional Conservation Corps and Eric Popp, Cal. Conservation Corps, Chico

Young Steward of the Year:

Michael Bruhn, CSU Chico

Partnership Award:

Mary Pfeiffer, Shasta County Dept. of Agriculture and Mike Boitano, Amador County Dept. of Agriculture

Student Paper Contest:

1st - Justin Valliere, UC Riverside

2nd - Joan Dudney, UC Berkeley

3rd - Erin Degenstein, CSU Humboldt

Student Poster Contest:

Scot Parker, UC Irvine



Wednesday's field course featured instruction and demonstration on a variety of weed control methods. *Photo by Bob Case.*



On the Stoney Creek field trip, Patrick Moran of USDA gave participants wasps to release to kill that arundo! We also saw River Partners' very first restoration project. *Photo by Elizabeth Brusati.*



Trish Ladd of California State Parks (left) led the field trip to Sutter Buttes, where management includes feral pig control and cultural preservation. *Photo Dana Morawitz.*



Hotdoggin! Richard Thiel of Sequoia/Kings Canyon National Park explains the history of his award winning T shirt. *Photo by Bob Case.*

Join us October 28-31, 2015, in San Diego!

A Symposium sampler

This year's Symposium featured the usual range of great talks and posters. Our plenary sessions with invited speakers covered "Riparian Restoration", "Creative Solutions", and "Weeds as Water Wasters." Presentations and abstracts are posted at www.cal-ipc.org/symposia/archive/2014_presentations.php. (Don't forget that presentations from 20 years of Cal-IPC Symposium are available in our online archive at www.cal-ipc.org/symposia/archive/.) Here are excerpts from a few of this year's presentations:

A collaborative approach to invasive species management in the Mattole watershed. *Cassie Pinnell, Mattole Restoration Council*

The Mattole River drains 300 square miles of northern California's Lost Coast region in Humboldt County. The majority of the Mattole watershed is privately owned, and in response to a rapid decline in watershed health from extensive logging, the Mattole community acted in the early 1980's to form one of the first community-based, watershed restoration efforts in the Pacific Northwest. Today, invasive species management is a large component of the Mattole Restoration Council's restoration priorities, and is included in the majority of our restoration projects.

For our rural community, we prioritize education and outreach on invasives, including newsletter articles, pamphlets, fliers, workshops, volunteer days, community meetings, weed-pulling field trips and internships for local students. Our Lend-A-Wrench program extends our invasive plant removal efforts throughout the watershed by providing landowners with free and unlimited access to weed wrenches and other tools. We work to deter the establishment of invasives by re-vegetating our restoration sites and private and public lands with native plants cultivated in our native plant nursery and native grass seed and straw from our native grass farm. By integrating multiple funding sources, agency collaboration, and landowner outreach, we are working

to comprehensively target priority invasives on a watershed level.

High stakes for California rangelands – the battle to stem the tide of invasive plants must be a collaborative effort. *Tim Koopmann, Koopmann Ranch and California Cattlemen's Association*

The 38 million acres of California classified as rangeland represent a major land use component of the state. Rangelands are home to the majority of terrestrial special status species, provide much coveted viewshed and open space for our urban population, play an integral role in the collection, movement, storage, and overall quality of surface water resources and account for significant economic value to the agricultural economy.

Although there are some examples of conservation grazing reducing targeted invasive plants, the development and implementation of an effective rangeland invasive weed management strategy is hampered by a multitude of factors including regulations, apathy, economic constraints, biological ignorance and public resistance. Recent severe drought across the state is greatly affecting rangeland productivity and recent observations indicate a highly variable effect on medusahead and stinkwort populations. Climate models predict shorter, more intense rainfall seasons that will likely lead to less certainty for rangelands and weed control efforts.

Nitrogen deposition and invasion: the effects of N availability and plant-soil feedback on the success of three invasive plant species. *Justin Valliere, UC Riverside (student paper contest)*

Nitrogen deposition is the input of biologically available forms of nitrogen from the atmosphere to the Earth's surface. Industrial, vehicular and agricultural emissions have dramatically increased rates of N deposition worldwide, and this has been identified as a driver of biodiversity loss and invasion in multiple systems. In southern California, high levels of N deposition have been found to increase

nonnative biomass, decrease native forb diversity and alter mycorrhizal fungal communities. We studied the effects of experimental N addition on native and nonnative vegetation in the Santa Monica Mountains National Recreation Area, as well as in two controlled greenhouse experiments.

We found that N addition led to higher nonnative cover in the field, at the expense of native species. We also found that both N availability and changes to the soil microbial community influence plant performance. Finally, our results also indicate that increased N availability results in increased reproductive output in all three species. These results highlight the important role N deposition may play in invasion.

Precipitation and nitrogen manipulations alter post-fire recovery of coastal sage scrub. *Scot Parker, UC Irvine (student poster contest)*

Climate models project increased aridity and precipitation variability in southern California over the next century, which may accelerate invasion by exotic Eurasian grasses into coastal sage scrub ecosystems. To test the effects of increased nitrogen, aridity, and precipitation variability on postfire recovery of coastal sage in a region invaded by European grasses, we established a precipitation and nitrogen experiment in adjacent grassland and coastal sage scrub communities in Orange County, CA. We analyzed the response of three shrub species (*Acmispon glaber*, *Artemisia californica*, and *Salvia mellifera*) to five years of these treatment effects.

For all three species we found a dramatic reduction in biomass in the restricted precipitation treatments. Our results indicate that urbanization threatens to alter fire succession patterns by displacing nitrogen fixers such as *A. glaber*, and that prolonged drought threatens coastal sage scrub. Both factors individually favor invasive grasses, and in combination their future effect could be dramatic.

Encinitas restricts weeds in landscaping

Encinitas, on the coast in northern San Diego County, passed an ordinance this summer that helps limit invasive plants in landscaping and on city property. The policy is based on an extensive list of invasive plants developed by the county for its Water Efficient Landscape Design Manual.

According to the new policy, the city will not use any listed plants on public property and rights-of-way, including parks, trails, medians, and easements. In addition, new landscaping projects (on any property) that require CEQA and/or design review permits cannot use the listed plants.

Long-time Cal-IPC member and Encinitas resident Jesse Giessow has been part of a task force working to develop the ordinance over the last 5 years. Her hope, she says, is that the ordinance “puts the city in the role of setting a good example, and really limits the potential for these plants to spread into our vulnerable natural areas.”

Also this summer, AB 2470 was signed into law. Though the bill chiefly

aims to clarify seed laws, it also contains a clause that municipalities cannot regulate plants without consent of the state’s Secretary of Agriculture. This clause aims to prevent a legal patchwork of different regulations across the state (for instance, for what plants can be sold). Encinitas is not restricting sale, so it’s unclear whether the new law pertains to them, but the law also grandfathers in actions implemented before Jan. 1, 2015, so the Encinitas ordinance is unaffected regardless. It is unclear at this point how this law may affect future efforts at the local level in other communities.

AB2402 for WMAs signed into law

Cal-IPC’s bill for Weed Management Areas, supported by over 150 conservation organizations across the state, has been signed into law by the governor, but without any funding attached.

Without the funding, which was the main purpose of the legislation, the bill made several useful changes to the code that defines how the WMA program is set up. The bill provides a higher percentage

of the funding to CDFA so that some weed biocontrol work can continue, and it also allocates a higher percentage to research and prioritization so that organizations like Cal-IPC can help local partners design and track projects.

The language now points to the impact of invasive plants on water resources, and requires that the program take these impacts into account when determining project priorities.

Cal-IPC continues to actively pursue avenues for getting funding for Weed Management Areas into the state budget. A current idea under discussion would engage multiple agencies, such as Dept. of Water Resources and Calfire, in contributing support.

AB2193 passes, will streamline small restoration projects

Under this new law, the California Department of Fish and Wildlife can approve voluntary, small-scale (less than 5 acre) habitat restoration projects in 60 days, reducing the potential bureaucratic load on landowners who want to undertake such restoration. For more information see www.suscon.org/watersheds/AB2193.php.

Cal-IPC goes to ESA

Cal-IPC sponsored an evening mixer at the Ecological Society of America (ESA) meeting in Sacramento in August. ESA is the world’s largest organization for professional ecologists. The conference featured a week of talks, poster sessions, field trips, and special events. The mixer aimed to bring together attendees working on all types of invasive species. We had a great turnout, with attendees from as far away as Great Britain and Portugal. Former board member Carla D’Antonio of UC Santa Barbara gave a brief welcome, recalling that invasive species were barely mentioned at ESA when she first started attending and compared that to the 2014 meeting with multiple sessions on all aspects of invasive species ecology

and management. A few attendees volunteered to pursue creation of a Biological Invasions Section within ESA. Next year’s conference will be ESA’s 100th Anniversary in Baltimore.

Board alumni Tom Dudley (seated, facing camera), Carla D’Antonio and Carla Bossard (seated at right) attended the mixer. The mixer was suggested by members of Cal-IPC’s student chapter.





Hot Shot: Wildland firefighters conduct a prescribed burn of European beachgrass (*Ammophila arenaria*) along the coast at Vandenberg Air Force Base. *Photo by Morgan Ball.*

2014 Photo Contest professional and



Spraying cheatgrass (*Bromus tectorum*) near volcanic thermal vents, Lassen National Park. *Photo by Thomas Reyes.*



Chainsawing *Arundo*: CDF-Calf Fire conservation crew members remove *Arundo donax* in a joint project with BLM, San Benito Co. Public Works, San Benito Ag Commissioner's Office, and USDA on Las Voboras Creek near Hollister. *Photo by Ron Ross.*

Thank you to Brianna Richardson, Morgan Ball and David McNeill for organizing this year's Photo Contest!

Fourth graders from Culver City remove iceplant (*Carpobrotus edulis*) at Ballona Wetlands. Photo by Shawn Kelly.

shows the best of volunteer stewardship



A Boy Scout volunteer removes French broom (*Genista monspessulana*) from the Mt. Tamalpais watershed. Photo by Suzanne Whelan.



Castor bean (*Ricinus communis*) along a dry creek on the Angeles National Forest. Photo by David Bakke.



Arundo puller extraordinaire: After initial work by Shelterbelt Builders, volunteers have removed *Arundo donax* resprouts from an important serpentine seep in San Mateo County. Ken Himes displays his prize excavation. After the *Arundo* was removed, a rare Asteraceae moved back into the area. Photo by Lech Naumovich.

Volunteers from page 4...

was the weed wrench—with pleas for help in getting supply going again (a business opportunity for Cal-IPC?) [Note: *Extractigators are similar, available, and have gotten good reviews from Ken Moore.*] But answers ranged widely, centering around simplicity and effectiveness. One recommended “repurposed household gear—chopsticks and forks for planting, for example, make people feel at home and comfortable with their abilities.” At the other end were fans of “the good old shovel. It doesn’t intimidate volunteers, and it’s effective” and Pulaskis: “all purpose and it’s bomb proof.”

Who volunteers? The most common answer by far was retired adults, about the same as all youth through college age. A third listed “high- and middle-school age,” about a quarter listed “college age,” and about a tenth mentioned younger kids as among their top three sources. Service required by school or court didn’t seem major.

To reach these volunteers, email was most commonly reported as effective, followed by online listings. Social media ranked much lower, about the same as flyers or handbills, contacting or partnering with other groups, or word of mouth.

How do you get volunteers to return? Most often cited: A prompt thank-you and invitation to come back! But there were dozens of tips, ranging from “I show them as many natural items as I can find” to “serve beer with the food.”

Asked what volunteers got from the experience, the most frequent answers were “learning about and enjoying nature,” “learning about and being motivated on environmental issues,” and “nice social experience, work in good company.”

Want to know more, including questions respondents wished we had asked? The full report is online at www.fivecreeks.org/info/VolunteerSurvey.pdf.

Susan Schwartz is president of 18-year-old, all-volunteer Friends of Five Creeks. Find out about F5C at www.fivecreeks.org, and reach Susan at f5creeks@gmail.com.

PlantRight from page 5...

nurseries were selling Mexican Feather Grass (*Nassella* [or *Stipa*] *tenuissima*) in 2013, compared to 38% in 2014. Because nurseries often order their plants months in advance, there was little time to engage the industry about *Nassella tenuissima* prior to the data collection for this survey. View the full results at www.plantright.org/spring-nursery-survey.

Become an Ambassador

You can help our efforts by becoming a PlantRight “Ambassador” and informing local nurseries, garden groups, and others about invasive ornamental plant issues and opportunities. Participation begins with a free, online Continuing Education module that takes about 30 minutes to complete, and includes free materials for spreading the word. PlantRight is especially excited to connect with Weed Management Areas (WMAs) around the state to discuss how retail nursery engagement might support their efforts for invasives prevention. If you are a WMA member, let’s chat! To begin, visit www.plantright.org/continuing-education.

Follow PlantRight online

To learn more about PlantRight’s efforts and resources, visit www.plantright.org. You can follow PlantRight at www.facebook.com/PlantRight, or contact us at plantright@suscon.org.

Chinese pistache from page 7...

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- Kate Symonds, Cotati

Your memberships keep Cal-IPC strong. Thank you!

In the next year, Cal-IPC will...

Fund high-priority on-the-ground projects in the Sierra and elsewhere,

Organize our 24th annual Symposium, to be held in San Diego,

Maintain CalWeedMapper and WHIPPET online tools, and

Advocate for WMA funding.

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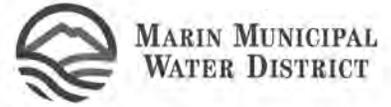
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National Invasive Species Awareness Week

February 22-28,
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“The vast majority of conservationists... don’t even self-identify as conservationists. But if you would rather that bulldozers not raze the woods, desert or beach you love, then you are a conservationist. If you would rather that the tiger or bog turtle not go extinct, then you are a conservationist. And, if you like the idea that some places should be truly wild and free, then you are a conservationist.”

- Emma Marris and Greg Aplet, “How to Mend the Conservation Divide,” *New York Times*, Nov. 1, 2014