

2013 Cal-IPC Symposium
October 2-5, Lake Arrowhead

Taking the Long View



A grizzly bear surveys the San Fernando Valley.
Artwork by keynote speaker Laura Cunningham, from her
book *A State of Change : Forgotten Landscapes of California*.

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Welcome to the 22nd Annual Cal-IPC Symposium!

Session Locations: Paper sessions will take place in the Lake Arrowhead Ballroom, sometimes separated into Orchard, Emerald, and Meadow Bay Ballrooms. Posters are located in the Pinecone/Acorn Room. See map next page.

Keynote Speaker: Please join us in welcoming Laura Cunningham, author of *A State of Change: Forgotten Landscapes of California*.

Sponsors: Our sponsors help offset the cost of the Symposium while providing information and services to Cal-IPC members. Sponsor exhibits are located in the foyer. Please take time to visit with sponsor representatives at breaks, Friday lunch, and during the poster/sponsor session.

Thursday Evening: Join us for the Social Hour, Raffle, and Silent Auction in the Lakeview Terrace. The raffle features books, wine, local contributions, and weed tools, while the silent auction will highlight several special contributions. See the flyer in the folder pocket for a partial list of items. Tickets are \$1 each or 25 for \$20, and will be available next to the Sales table or at the Social Hour and Raffle. Raffle prizes will be distributed at the end of the Social Hour and on Friday.

Thursday Dinner & Friday Lunch: Try out the restaurants in Lake Arrowhead Village. See the brochure at the registration table for ideas or just take a walk towards the lake!

Student Chapter: The Cal-IPC Student Chapter invites all students to join them at Papagayo's Mexican Restaurant in lower Lake Arrowhead Village during lunch on Friday to discuss ideas for student involvement in Cal-IPC. Meet in the Foyer to walk to the restaurant.

Tool Tailgate: Also at lunch on Friday. Come outside to see the rigs and tool selections of several long-time resource managers!

Field Trips: All field trip participants should meet at the podium after the sessions on Friday for additional information. Meet in the Stars Room at 8:00 am Saturday. The Santa Ana Watershed trip will travel in carpools; the San Bernardino Forest trip will use vans. Lunches will be provided. Bring water and sun protection.

Calflora Demonstration: Join Cynthia Powell of Calflora for a demonstration of their smartphone app and a short hike to try it out Friday at 4:45. Meet in the Foyer.

Photo Exhibit: Vote for your favorite photo from Cal-IPC members! The winner will be announced on Friday.

Sales: Need the new book *Weed Control in Natural Areas in the Western United States*? A pint glass or coffee mug? Carry them or your groceries in our handy sling bag. Visit our sales table in the ballroom. We accept cash, checks, and credit cards.

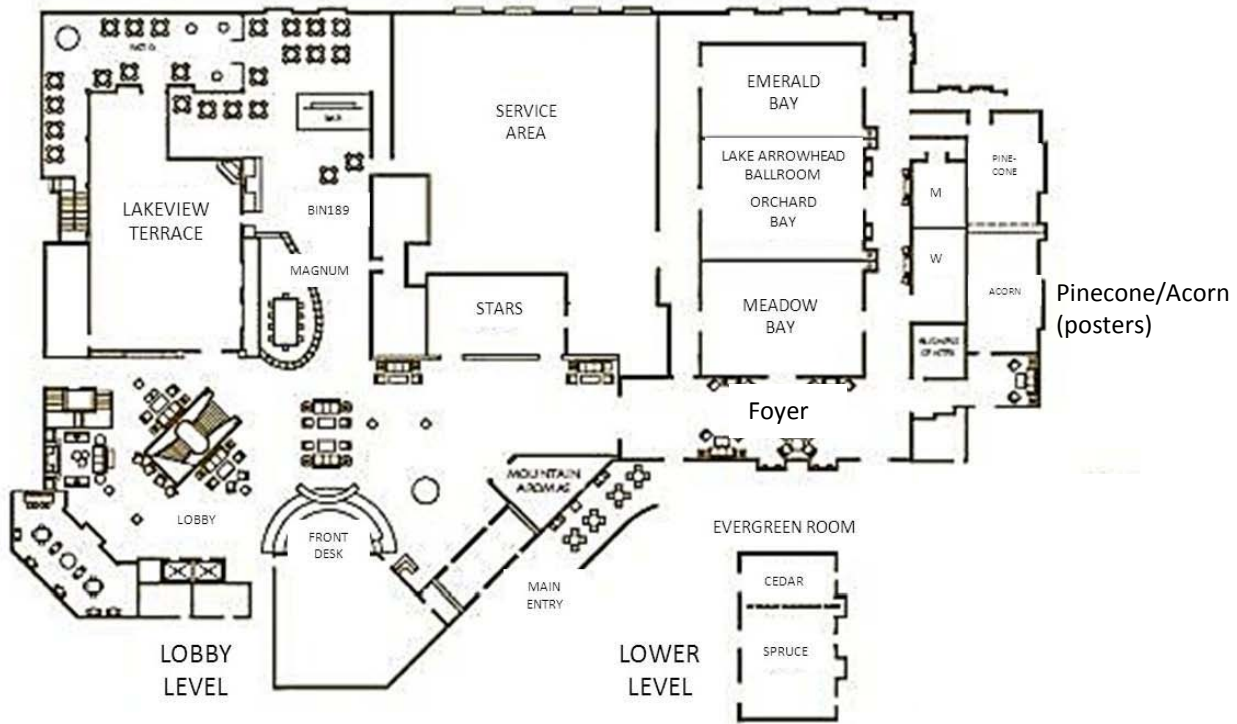
Presentations Online: Presentations will be posted on our website. www.cal-ipc.org/symposia/archive/

Continuing Education Credits: Continuing Education hours are available from the California Department of Pesticide Regulation. See the Continuing Education table in the Foyer for attendance sheets and scantron forms. We need to check your ID and DPR card to confirm your identity and license number. Please take a verification of attendance form for your records each day.

Codes:

Climate-Smart workshop (Oct. 2)	M-0927-13	4.0 hrs. Other
Laws and Regulations (Oct. 2)	M-0928-13	2.0 hrs. Laws (approval pending at press time)
Thursday (Oct. 3)	M-0929-13	5.5 hrs. Other
Friday (Oct. 4)	M-0930-13	5.5 hrs. Other
Field Trips (Oct. 5)	M-0931-13	6.0 hrs. Other

Lake Arrowhead Resort Conference Rooms



Thank you to the organizations that support the Symposium through their sponsorship and to all the volunteers who contribute their time!

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CALIFORNIA INVASIVE PLANT COUNCIL SYMPOSIUM 2013

WEDNESDAY, OCTOBER 2

1:00 - 5:00pm Climate-Smart Land Management (Meadow Bay Ballroom)

5:00 Registration open for Laws and Regulations attendees (Foyer)

6:00pm. DPR Laws & Regulations Session (Meadow Bay)

6:00 Assessing human risk from pesticide exposure. *Robert Krieger, University of California- Riverside*

6:30 Registering a pesticide in California. *Richard Spas, California Department of Pesticide Regulation*

7:00 Interpreting pesticide regulations and labels. *David Chang, County of Santa Barbara Agricultural Commissioner's Office*

7:30 Assessing herbicide risks to Threatened or Endangered wildlife species. *Joel Trumbo, California Department of Fish and Wildlife*

7:00 - 9:00 pm Welcome Reception (Lobby Fireplace)

THURSDAY, OCTOBER 3

7:30 am Check-in and On-site Registration (Foyer)

Continental breakfast (Lakeview Terrace)

Sponsor and Poster set-up (Foyer and Pinecone/Acorn)

9:00am. Session 1. Learning from Southern California Deserts and Mountains (Lake Arrowhead Ballroom)

Moderator: Christopher McDonald, UC Cooperative Extension

9:00 Plant ecology of desert annuals. *Travis Huxman, University of California-Irvine*

9:30 The Station Fire: invasive plant management lessons learned. *Katie VinZant, Angeles National Forest*

10:00 A regional perspective: invasive plants in the Mojave Desert. *Josh Hoines, Joshua Tree National Park*

10:30 - 11:00 Break (coffee)

11:00am. Session 2. Annual Member Meeting (Lake Arrowhead Ballroom)

11:00 Cal-IPC 2013 Progress Report. *John Knapp, Cal-IPC Board President*

11:15 New Weed Alerts! *Joe DiTomaso, UC Davis*

11:30 Keynote: Laura Cunningham, *A State of Change: Forgotten Landscapes of California*

12:00 - 1:30 Awards Luncheon (Lake Arrowhead Ballroom)

1:40pm. Session 3. Communication and New Threats (Emerald/Orchard) Moderator: Virginia Matzek, Santa Clara University

- 1:40 Crossing the Line: Working with private land owners and slender false brome (*Brachypodium sylvaticum*). *Ellen Gartside, Midpeninsula Regional Open Space District*
- 2:00 Red-sepaled evening-primrose (*Oenothera glazioviana*): an increasing threat to native genotypes and natural and restored habitats. *Wayne Ferren, ARCADIS-US, Inc.*
- 2:20 Reaching novel audiences with information about invasive species. *Sabrina Drill, UC Cooperative Extension*
- 2:40 Bridging the information gap between land managers and research scientists. *Virginia Matzek, Santa Clara University*

1:40pm. Session 4. Program Strategies (Meadow Bay) Moderator: Ramona Robison, CA Dept. of Parks and Recreation

- 1:40 The Nature Conservancy's program to eradicate 24 non-native invasive plant species from Santa Cruz Island. *John Knapp, The Nature Conservancy*
- 2:00 *Vinca major* and stone pine control in an endangered island endemic plant population – an update. *Ken Owen, Channel Islands Restoration*
- 2:20 Early planning tool for habitat restoration, *Noreen Murano and Casey Lanier, Wildscape Restoration, Inc.*
- 2:40 An early detection pilot project in California State Parks. *Ramona Robison and Lana Meade, CA Dept. of Parks and Recreation*

3:00 - 4:00pm Poster Session (Pinecone/Acorn) & Sponsor Exhibits (Foyer)

Please see posters on page 10-11 and sponsors in folder pocket.

4:00pm. Session 5. Current Student Research (Emerald/Orchard Bay) Moderator: Jennifer Funk, Chapman University

- 4:00 Response of soil nitrogen cycling to the interaction of invasive plants, simulated cattle grazing, and nitrogen additions. *Chelsea Carey, UC Merced*
- 4:20 The use of phenology and plant morphological traits to reassemble invaded plant communities. *Bridget Hilbig, UC Riverside*
- 4:40 Effects of nitrogen deposition on coastal sage scrub invasion and reestablishment. *Justin Valliere, UC Riverside*

4:00pm. Session 6. Tools of the Trade (Meadow Bay) Moderator: Sandy DeSimone, Audubon California

- 4:00 Woody plant control. *Ken Moore, Wildlands Restoration Team*
- 4:20 Status of biological control projects on terrestrial invasive alien weeds in California. *Lincoln Smith, USDA-ARS*
- 4:40 Smartphone app to collect weed data. *Cynthia Powell, Calflora*

5:00 - 6:30pm Social Hour, Raffle & Silent Auction (Lakeview Terrace)

Appetizers and no-host bar.

Raffle prizes drawn at 6:30, distributed immediately afterward or on Friday.

Dinner on your own (see map in Lake Arrowhead brochure)

FRIDAY, OCTOBER 4

7:00am Continental Breakfast (Lakeview Terrace)

Registration (Foyer)

7:45 Weeding at sunset is like a prayer. *Cindy Roessler, Midpeninsula Open Space District.* (Lake Arrowhead Ballroom)

8:00am. Session 7. The Novel Ecosystem Debate Reframed for Land Managers (Lake Arrowhead Ballroom)
Moderator: Jennifer Funk, Chapman University

8:00 An ecologist's perspective. *Timothy Seastedt, University of Colorado, Boulder*

8:30 A geneticist's perspective. *Deborah Rogers, Center for Natural Lands Management*

9:00 Panel discussion with land managers

9:30 - 10:00 Break (coffee)

10:00 - 11:30am. Session 8. Discussion Groups

See descriptions on page 11-12.

1. IPM Q&A (Orchard Bay)
2. Invasive species beyond weeds (Meadow Bay)
3. Prioritization tools and landscape-level planning (Emerald Bay)
4. Novel ecosystems and climate-smart land management (Stars)
5. Saharan mustard (Spruce, lower level)
6. Biocontrol (Cedar, lower level)

11:30 - 1:30 Lunch on your own

11:45 - 1:15 Student chapter lunch – free for students

Papagayo's Mexican Restaurant. Meet in Foyer.

12:00 - 1:15 Tool Tailgate (parking lot)

Ken Moore, Calflora, and others to be announced!

1:30pm. Session 9. Nitrogen Deposition (Emerald/Orchard Bay) Moderator: Stuart Weiss, Creekside Center for Earth Observation

1:30 Distribution of reactive nitrogen species in California based on passive sampler monitoring campaigns. *Andrzej Bytnerowicz, USDA Forest Service*

1:50 Critical loads for atmospheric nitrogen deposition in California. *Mark Fenn, USDA Forest Service*

2:10 The California nitrogen deposition initiative: funding weed management through mitigation. *Stuart Weiss, Creekside Center for Earth*

1:30pm. Session 10. Grassland Management (Meadow Bay) Moderator: Jutta Burger, Irvine Ranch Conservancy

1:30 Three-year effects of aminopyralid on a grassland plant community. *Joseph DiTomaso, UC Davis*

1:50 Long-term recovery of native perennial grasslands utilizing scraping, seeding and Hydromechanical Obliteration treatments: a five-year report. *Lech Naumovich, Creekside Center for Earth Observation*

2:10 Effects of four herbicides on the survival and

Observation

growth of native perennial grasses. *Jutta Burger, Irvine Ranch Conservancy*

2:30 – 2:45 Break

2:45pm. Session 11. Impacts of Invasive Species on Ecosystem Services (Lake Arrowhead Ballroom)

Moderator: Virginia Matzek, Santa Clara University

2:45 Building an *Arundo* control jobs program. *Julie Rentner, River Partners*

3:15 Do invasive plant species negatively affect diet and preference of a native California bumble bee?
Alexandra Threatt-Harmon, University of Illinois

3:45 Aquatic weed ecology and influence on ecosystem services in lakes: case study from Emerald Bay, Lake Tahoe. *Dan Shaw, California State Parks*

4:15pm Adjourn

Field trip participants meet at front of ballroom to organize carpools.

4:45pm Calflora smartphone app demonstration. Meet in Foyer.

SATURDAY, OCTOBER 5

8:00am Field trip participants meet in Stars

Santa Ana River Watershed

Full day. Carpool to sites. 1-2 miles hiking. Lunch provided.

Rim of the World Tour to Big Bear Lake

Full day. Vans to sites. Some hiking. Lunch provided.

Look for an email next week with an online Symposium evaluation!

POSTER SESSION

Student Posters

The effects of invasive pollen on the seed set of a native plant.

Daniela Bruckman, UC Irvine

The feasibility of chaparral restoration on type-converted slopes.

Megan Engel, CSU San Bernardino

Effects of *Ehrharta erecta* on the redwood understory and implications for restoration.

Anna Godinho, UC Santa Cruz

Summer irrigation as a tool for restoring invaded serpentine grassland?

Madison Hoffacker, Chapman University

Evolutionary responses of California grassland species to variation in precipitation and nitrogen levels following prescribed fire.

Amy Ortega, Chapman University

A Frankenstein experiment gone awry: ecology and evolution of an invasive veldt grass.

Courtenay Ray, UC Santa Cruz

General Posters

Invasive aquatic weeds: implications for mosquito and vector management activities.

Charles E Blair, Mosquito and Vector Management District of Santa Barbara County

WHIPPET : Online tool for prioritizing control of invasive plant populations.

Elizabeth Brusati and Dana Morawitz, Cal-IPC

Utilizing volunteers for resource management.

Reginald Durant, Back to Natives Restoration

Artichoke thistle control and endangered species habitat in preserved land.

Tiffany Edwards, WRA Inc.

Database of management trials to provide site-specific decision support tool for invasive species control. *Valerie Eviner, UC Davis*

Impacts of native vs. exotic grassland vegetation on multiple ecosystem services.

Valerie Eviner, UC Davis

The budget crisis and invasive species management: results from a survey of Weed Management Area chairs.

Jennifer Funk, Chapman University

Sunrise Powerlink: adaptive weed control strategy.

Robert W. Hobbs, RECON Environmental, Inc.

The effects of soil on coastal sage scrub and invasive Harding grass (*Phalaris aquatica*) to improve restoration success. *Irina Irvine, Santa Monica Mountains NRA*

Cost assessment of different methods of reducing the abundance of Sahara mustard in Borrego Springs, California. *Christopher McDonald, UC Cooperative Extension*

Searching for a silver bullet: reducing the invasive Sahara mustard while preserving wildflowers. *Christopher McDonald, UC Cooperative Extension*

Prospects for biological control of Cape-ivy with the Cape-ivy fly and the cape-ivy moth. *Patrick J. Moran, USDA-Agricultural Research Service*

Effects of native establishment in late summer. *Joseph Paternoster, DriWater*

Nitrogen deposition, invasion by *Bromus* spp., and competition for water in a California grassland. *Erin Questad, CSU-Pomona*

A study of drought resistance of stinkwort (*Dittrichia graveolens*). *Don Thomas, San Francisco Public Utilities Commission*

DISCUSSION GROUPS

IPM Q&A

Joe DiTomaso, UC Davis; Mike Kelly, Kelly and Associates; Ken Moore, Wildlands Restoration Team; Cindy Roessler, Midpeninsula Open Space District

Bring your questions on management of invasive plants to discuss with our panel of experts and fellow attendees. This will be an open forum to discuss management strategies for particular plants or situations. Learn from other Symposium attendees' expertise.

Invasive species beyond weeds

John Randall, The Nature Conservancy

Weeds aren't the only invasive species! What else are you working on in your land management and what species are you worried might come in? Learn about Gold-Spotted Oak Borer and a few others you should know about, and then discuss your concerns and strategies with other attendees.

Prioritization: CalWeedMapper, WHIPPET, and landscape-level strategies

Dana Morawitz and Elizabeth Brusati, Cal-IPC

All natural resource managers struggle with the question: Which weed species and populations are the most important to focus on for management. Learn about the latest in prioritization tools that can be used from a local to a regional scale, including CalWeedMapper and the brand new online version of WHIPPET, and hear about Cal-IPC's regional planning efforts using these tools.

Novel ecosystems and "climate-smart" management

Sandy DeSimone, Audubon Starr Ranch Sanctuary

How might the concept of novel ecosystems inform land management decisions? How do new “climate-smart” management guidelines apply to invasive plant work? When managing for habitat function, how important is it that a species is non-native? Might we even benefit from integrating non-native plants into our restoration approach? Share your ideas and opinions about planning for the “new normal”!

Sahara mustard: needs, impacts, and options for management

Chris McDonald, UC Cooperative Extension, and David Garmon, Tubb Canyon Desert Conservancy

Sahara mustard (*Brassica tournefortii*) is becoming the dominant herbaceous winter annual in parts of the California desert. It is also increasing its range to include much of southern portion of the state, from the coast to the central valley. Because this plant is a winter annual, appears to disperse easily in natural areas as well as with human activity and this species creates a seed bank, sound management techniques and thorough survey programs appear to be crucial to control. In this session we will discuss what land managers need to know to reduce and potentially eradicate this weed, the status of recent research on the plant as well as knowledge gaps.

Because this plant has such a wide distribution we will also discuss the effectiveness of strengthening regional collaborations, as well as policy options aimed at reducing the spread and impact of this species. At the end of the discussion session land managers should be better informed of successful management techniques and the trade-offs of those techniques. We also anticipate conducting a needs assessment during the session to help guide future research programs and land management activities.

Biocontrol

Patrick Moran, USDA-ARS; Mike Pitcairn, CDFA; Lincoln Smith, USDA-ARS

The discussion leaders will briefly review the status of ongoing biological control projects in California, including a summary of target weeds and agents released. Most of the time will be dedicated to open discussion and questions from the audience regarding current and potential weed targets. Termination of the CDFA biological control of weeds program has reduced research and implementation capacity, so it will be important to discuss the relative priority of the various projects.

Projects include: Cape-ivy, common crupina, Dalmatian toadflax, field bindweed, French broom, giant reed, musk thistle, perennial pepperweed, puncturevine, Mediterranean sage, leafy spurge, saltcedar, purple loosestrife, rush skeletonweed, Russian knapweed, Russian thistle, Scotch broom, Scotch thistle, spotted knapweed, squarrose knapweed, teasel, tree of heaven, water hyacinth, and yellow starthistle.