

WELCOME TO THE 18TH ANNUAL CAL-IPC SYMPOSIUM!

For some of you, this will be your first introduction to Cal-IPC. For others, you may have attended more Symposia than you can count. All Symposium attendees receive a 2010 membership, joining 1000 fellow members in California and beyond! Membership includes our quarterly newsletter; updates and discounts on field courses, contact about advocacy events, and next year's Symposium; and the right to vote for the Board of Directors.

Session Locations: Most paper sessions will take place in the Charter Oak AB and CD of the Visalia Convention Center. Posters are located in the San Joaquin Rooms. Discussion groups will be held in Charter Oak CD, Sequoia A and B, and Mineral King; see the Discussion Group descriptions and the agenda for specifics. Please see the convention center map on page 5.

Keynote Speaker: Please join us in welcoming Rich Minnich of UC Riverside in presenting his new book, *California's Fading Wildflower: Lost Legacy and Biological Invasions*. His book casts new light on the historic prominence of forbs in the state's ecosystems, and the devastating impact of invasive plants throughout California.

Discussion Groups: Once again, we are separating discussion groups into two sessions to allow attendees the option of attending two topics. These groups will run concurrent with paper sessions. Please see the Discussion Group listings on the last page of the program (behind the abstracts) for each group's description and room location.

Sponsors: Our sponsors help offset the cost of the Symposium while providing information and services to Cal-IPC members. Sponsor exhibits are located in San Joaquin Room. Please take time to visit with sponsor representatives at breaks or lunch.

Thursday Evening: After Thursday's session, join your fellow weed workers for the annual Social Hour and Raffle at the Marriott Hotel, Sierra Nevada Ballroom, followed by the Awards Banquet and Auction in the Charter Oak Ballroom within the Visalia Convention Center. The raffle features books, wine, local contributions, and weed tools, while the 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 either at the Sales table or at the Social Hour and Raffle. Remember to bring your complimentary drink ticket.

Friday Student Lunch: The Cal-IPC Student Chapter invites all students to join them at Brewbaker's, 219 E. Main St., between N. Garden St. and N. Court St., to discuss ideas for student involvement in Cal-IPC. (Lunch is free for students.)

Saturday Field Trips: All field trip participants should meet in the Plaza Courtyard between the Convention Center and the Marriott at 7:45 am Saturday morning. Transportation will be provided for the Grand Weed Tour of Sequoia-Kings Canyon Park. Participants of the Kaweah Oaks Preserve & Atwell Island and the Winning Public Support: Sequoia National Park trips will carpool (maps will be provided). Lunch is provided for all trips. **Please bring water and sun protection.**

Photo Exhibit: Vote for your favorite photo; Cal-IPC members contributed their best shots to the Photo Exhibit which is located in the Lobby. Be sure to vote on Thursday before the Social Hour and Raffle; the winner will be announced at the banquet.

Sales: Need reference books on invasive plants? A t-shirt, hat, or bandana to look stylish in the field? A tote bag to carry your gear (or groceries)? Or preview a selection of raffle items and purchase raffle tickets in advance. Visit our sales table in the Charter Oak AB. We accept cash, checks, and credit cards.

Continuing Education Credits: Continuing Education hours are available from the California Department of Pesticide Regulation, including two hours of Laws and Regulations credit on Thursday. See the Continuing Education table near Registration for attendance sheets and scantron forms. Keep the codes and hours listed below for your records.

Codes and hours:

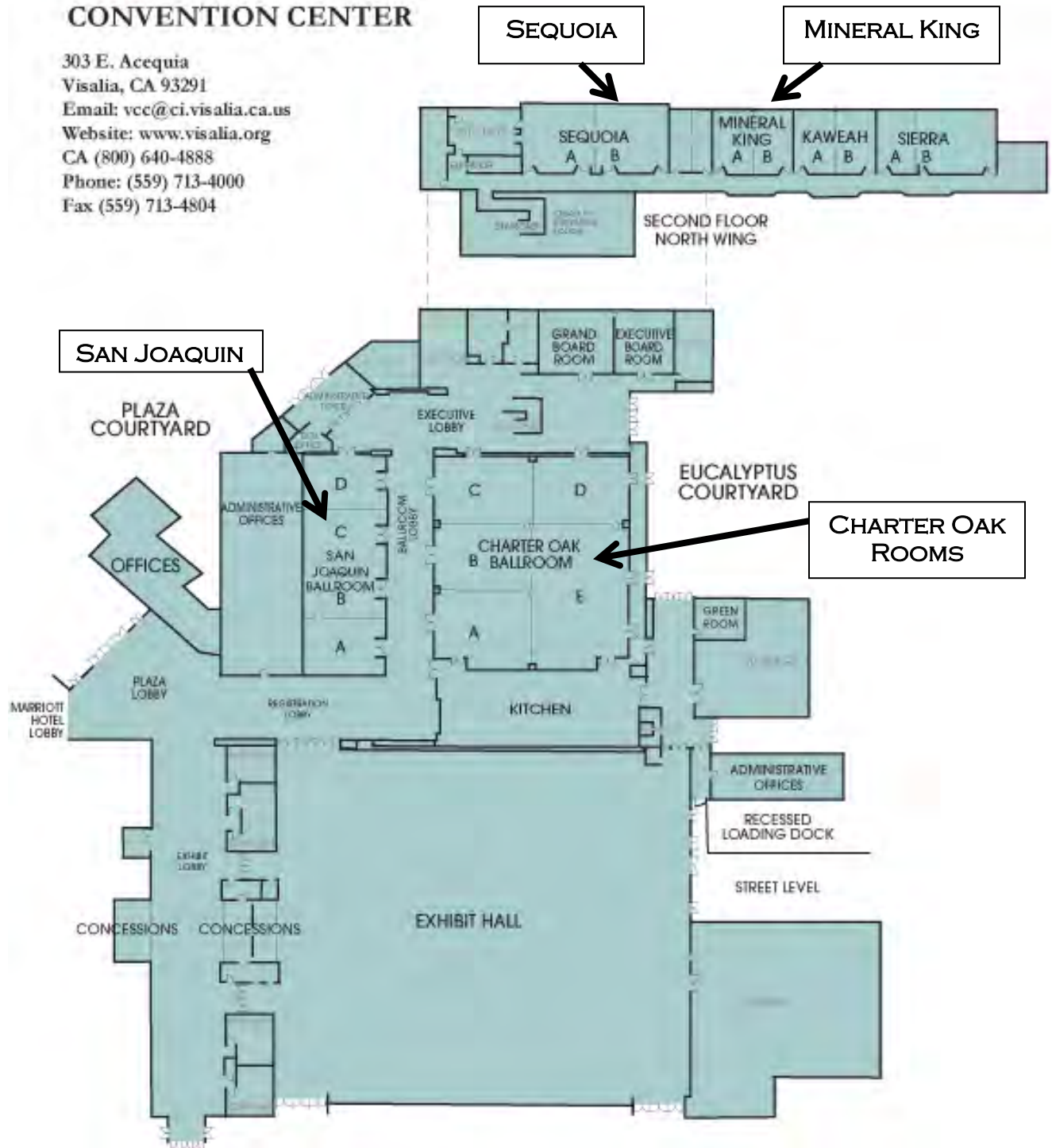
Field Course	5.0 hrs. Other	Code A-1130-09
Thursday	Credits vary depending on whether you attend Laws and Regulations. To receive credit for Laws and Regs, you must sign the separate attendance sheet and turn in a separate scantron for that session. If not attending the Laws and Regulations, you may receive Other credit.	
	4.5 hrs. Other + 2.0 hrs. Laws & Regs. or 6.5 hrs. Other	Code A-1127-09
Friday	6.0 hrs. Other	Code A-1128-09
Saturday Field Trips	4.0 hrs. Other	Code A-1129-09

THANK YOU TO THE ORGANIZATIONS THAT SUPPORT THE SYMPOSIUM THROUGH THEIR SPONSORSHIP AND TO ALL THE VOLUNTEERS WHO CONTRIBUTE THEIR TIME!

VISALIA CONVENTION CENTER MAP



303 E. Acequia
 Visalia, CA 93291
 Email: vcc@ci.visalia.ca.us
 Website: www.visalia.org
 CA (800) 640-4888
 Phone: (559) 713-4000
 Fax: (559) 713-4804



CALIFORNIA INVASIVE PLANT COUNCIL
2009 SYMPOSIUM
“WILDLAND WEED MANAGEMENT ON THE LEADING EDGE”

✧ = sessions of special interest to students, * = presenter

All sessions are at the Visalia Convention Center unless otherwise noted.

WEDNESDAY, OCTOBER 7	
9:00-5:00 Herbicide Control Methods Field Course. Exeter Women's Club and Kaweah Oaks Preserve	
THURSDAY, OCTOBER 8	
7:30 Registration & Breakfast.	
Session I –Weed Management on the Leading Edge. Charter Oak AB. Moderator: Cheryl McCormick.	
9:00	From foothills grasslands to alpine peaks: Managing weeds at the leading edge in Sequoia and Kings Canyon National Parks, <i>Athena Demetry, Sequoia and Kings Canyon National Parks</i>
9:30	Managing the leading edge: Landscape-level control of invasive plant spread in the Sierra and beyond. <i>Wendy West, UC Cooperative Extension, El Dorado Co.</i>
10:00	The roles of animals and disturbance in plant invasion: Lessons from the Carrizo Plain, <i>Paula Schiffman, CSU Northridge</i>
10:30 Break	
11:00	Annual Membership Meeting. Charter Oak AB Executive Director's report, <i>Doug Johnson</i> Board of Directors report, <i>Jason Giessow, Cal-IPC Board President</i> Weed Alerts! <i>Joe DiTomaso, UC Davis</i> Keynote Address California's fading wildflowers: Lost legacy and biological invasions, <i>Richard Minnich, UC Riverside</i>
12:00 Lunch (provided). Charter Oak AB	
1:00	Session 2 - Posters & Exhibits. San Joaquin Posters listed on page 12. Talk to poster presenters about their projects and visit sponsor booths. The Student Poster entries are also in this room.
✧ Session 3 – Student Paper Contest. Charter Oak AB.	Session 4 – DPR Laws & Regulations. Charter Oak CD. Moderator: David Chang. <i>Provides 2.0 hrs. Laws & Regs. credit for licensed applicators.</i>
2:00	Evaluating the potential for spread of an invasive forb, <i>Limonium ramosissimum</i> , in San Francisco Bay salt marshes. <i>Gavin Archbald*</i> , <i>Katharyn Boyer. San Francisco State University</i>
2:20	Experimental test of different treatments for control of terracina spurge (<i>Euphorbia terracina</i>): Comparison of hand pulling, glyphosate, and chlorsulfuron. <i>Erin Avina^{1,2*}</i> , <i>Ann Dorsey²</i> , and <i>Christy Brigham²</i> . ¹ CSU
2:00	Laws and regulations pertaining to the sale and movement of noxious weeds in California. <i>Kate Filippini, CA Dept. of Food & Agriculture</i>
2:30	The importance of vouchering for plant identification. <i>Speaker TBD</i>

<p><i>Northridge, ²National Park Service</i></p> <p>2:40 Exotic grass and forb control in a California grassland. <i>Sara Jo Dickens* and Edith Allen. UC Riverside</i></p> <p>3:00 Urban invasions: Analyzing recovery of habitat fragments in San Francisco following the removal of <i>Genista monspessulana</i> and <i>Delairea odorata</i>. <i>Rachel Kesel, University College London</i></p> <p>3:20 Soil moisture stress tolerance of the leading biofuel <i>Miscanthus giganteus</i> is similar to the invasive weed <i>Arundo donax</i>. <i>Jeremiah Mann*, Jacob Barney, Guy Kyser, and Joe DiTomaso. UC Davis</i></p> <p>3:40 Evening the odds: Evaluating the combined effects of nitrogen fertilization and exotic annual removal on native annual forbs in the Colorado Desert. <i>Heather Schneider* and Edith Allen. UC Riverside</i></p>	<p>3:00 Yeah, but what would Aldo think? A look at herbicide ecotoxicology. <i>Joel Trumbo, CA Dept. of Fish & Game</i></p> <p>3:30 Pesticide "Jeopardy!" with your host David "Alex Trebek" Chang, <i>Santa Barbara Co. Ag. Commissioner's Office</i></p>		
<p>4:00 Break</p>			
<p>Session 5 – New Tools. Charter Oak AB. Moderator: Ramona Robison</p> <p>4:30 Developments in Herbicide Ballistic Technology. <i>James Leary, University of Hawaii at Manoa</i></p> <p>4:50 WeedSearch: A new tool for estimating time and cost of eradication. <i>Ramona Robison* and Gina Darin*, ICF Jones & Stokes</i></p> <p>5:10 Solar tents: A new twist on an established method for inactivating plant propagative material. <i>James J. Stapleton*, UC Statewide IPM Program</i></p>	<p>Discussion Groups</p> <p>4:30 See descriptions page 35.</p> <ol style="list-style-type: none"> 1. Control methods roundtable (repeated Friday). Charter Oak CD 2. Points, lines, or polygons: What data representation works best for my project? Sequoia A 3. ☘ Research needs for invasive plant management and ecology. Sequoia B. 4. The unique challenges of long-term follow-up monitoring, Mineral King 		
<p>5:30 Social Hour & Raffle. Marriott Hotel, Sierra Nevada Ballroom</p> <p>7:00 Banquet. Charter Oak Ballroom (included with registration)</p> <p>8:00 Awards Presentation & Live Auction.</p> <table style="width: 100%; border: none;"> <tr> <td style="width: 50%; border: none;"> <p>Jake Sigg Award for Service and Vision</p> <p>Golden Weed Wrench (Land Manager of the Year)</p> <p>Wildland Weed Organization of the Year</p> <p>Ryan Jones Catalyst Award</p> </td> <td style="width: 50%; border: none;"> <p>Policy Award</p> <p>National Park Service "Weedzilla"</p> <p>Student Paper and Poster Contests</p> <p>Photo Contest</p> </td> </tr> </table>		<p>Jake Sigg Award for Service and Vision</p> <p>Golden Weed Wrench (Land Manager of the Year)</p> <p>Wildland Weed Organization of the Year</p> <p>Ryan Jones Catalyst Award</p>	<p>Policy Award</p> <p>National Park Service "Weedzilla"</p> <p>Student Paper and Poster Contests</p> <p>Photo Contest</p>
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FRIDAY, OCTOBER 9

7:00 **Breakfast**

Session 6 – Climate Change: Impacts and Responses. Charter Oak AB, Moderator: Julie Horenstein,

8:00 Interactions between fire and plant invasions under a warming climate in the Sierra Nevada Bioregion, *Matt Brooks, US Geological Survey*

8:30 The promise and pitfalls of species distribution modeling to predict future invasions, *Nicole Heller, Climate Central*

9:00 Climate change and protecting biological diversity: Implementation of California's report on adaptation strategy, *Rick Rayburn, California State Parks*

9:30 **Break**

Session 7 – Weed Management on a Large Scale.

Charter Oak AB, Moderator: Mark Newhouser

10:00 Density, compensation and the persistence of yellow starthistle populations across California. *Sarah Swope^{1,2}* and Ingrid Parker¹, ¹UC Santa Cruz, ²USDA Exotic and Invasive Weeds Research Unit*

10:20 Team Arundo del Norte: Lessons learned from a coordinated approach to weed management. *Mark Newhouser¹*, Deanne DiPietro¹, David Spencer², Ron Unger³, Bryan Sesser¹, Zhahai Stewart¹, ¹Sonoma Ecology Center, ²USDA, ³EDAW*

10:40 Lots of land, lots of weeds, and little time: Large scale baseline weed mapping. *Erin McDermott* and Heath Bartosh. Nomad Ecology*

11:00 PG&E's approach to management of noxious weeds in Sierra Nevada watersheds and expanding our invasive species efforts through WMA partnerships. *Michael E. Fry, Sr., Pacific Gas & Electric Co.*

Discussion Groups

10:00 See descriptions page 36.

1. Control methods roundtable (repeated). Charter Oak CD
2. *Brassica tournefortii* (Saharan mustard). Sequoia A
3. ☘ Careers in invasive species management. Sequoia B
4. Preventing introduction and spread of invasive weeds via construction equipment and supply materials. Mineral King

11:30 **Lunch in downtown Visalia.** On your own – See restaurant brochure
Student Lunch. Brewbaker's, 219 E. Main St.

Session 8 – Partnerships & Incentives.

Charter Oak CD. Moderator: Christy Brigham

1:30 Can a spiny shrub prick the collective ecological conscience? *Tara Athan¹* and Peter Warner², ¹Mendocino Coast Cooperative WMA, ²Independent botanical consultant and educator*

1:50 Show me the money! Developing a reimbursement program with the private sector. *Ellen Gartside* and Cindy Roessler.*

Session 9 – Invasive Plant Management.

Charter Oak AB, Moderator: Andrea Woolfolk

1:30 Aquatic weed management: A survey of techniques and environmental impacts 2001-present. *Michael Blankinship, Blankinship & Associates*

1:50 Refining mechanical removal methods for the eradication of *Spartina densiflora* at Humboldt Bay National Wildlife Refuge. *Trevor Goodman* and Andrea Pickart, U.S. Fish and*

<i>Midpeninsula Regional Open Space District</i>		<i>Wildlife Service</i>	
2:10	Working together against weeds: Workshops, materials, and Best Management Practices to prevent invasive species spread due to land management operations. <i>Christy Brigham*</i> , <i>Jay Goldsmith</i> , and <i>Sylvia Haultain</i> . <i>National Park Service</i>	2:10	Making room for native grasses: Physical control of coastal weeds. <i>Andrea Woolfolk*</i> , <i>Kerstin Wasson</i> and <i>Nina D'Amore</i> . <i>Elkhorn Slough National Estuarine Research Reserve</i>
2:30	TBD	2:30	Controlling the invasion of noxious rangeland weeds into an exotic-dominated grassland: Is there a role for native grass reseeding? <i>Valerie Eviner¹*</i> , <i>Kevin J. Rice¹</i> , <i>Carolyn M. Malmstrom²</i> , ¹ <i>UC Davis</i> , ² <i>Michigan State Univ</i>
3:00 Break			
Session 10 – The Leading Edge of Weed Management: New Tools & Techniques. Charter Oak AB, Moderator: Edith Allen			
3:30	Can we keep invasive plants at bay by restoring with competitive native plants? <i>Beth Leger</i> , <i>University of Nevada, Reno</i>		
4:00	From backpacks to jetpacks, handpicks to skidsteers: Leveraging old tools and new techniques for long-term restoration success. <i>Mark Heath</i> , <i>Shelterbelt Builders</i>		
4:30	Beyond weed wrenches: New tools and techniques from around the state, <i>Joseph DiTomaso</i> , <i>UC Davis</i>		
5:00 Adjourn			

SATURDAY, OCTOBER 10

Field trips: Participants meet at 7:45 am in the Plaza Courtyard between the Convention Center and Marriott.

I. Grand Weed Tour of Sequoia-Kings Canyon National Parks

Leaders: Sylvia Haultain (Plant Ecologist) and Athena Demetry (Natural Resource Manager), National Park Service

Details: 8:00 am – 5:30 pm. Transportation and lunch provided.

Sequoia and Kings Canyon National Parks are best known as the home of the world's largest trees, the giant sequoias. The parks begin at 1,300 feet in the foothills and range to 14,491 feet at the summit of Mt. Whitney, the highest peak in the lower 48 states. The incredible range of habitats found in the parks includes over 200 marble caverns, many with endemic cave fauna. In 2001, the parks prepared a restoration and management plan that addressed invasive plants, including bull thistle, cheatgrass, foxglove, French and Spanish broom, and Himalayan blackberry. On our way to the high country, we will tour a community-led project in Three Rivers to control *Arundo* and yellow starthistle, and hear about a USGS study on post-fire control of Italian thistle. We'll lunch near Round Meadow and the Giant Forest, home of the world's largest tree, the General Sherman Sequoia, and talk about control of bull thistle and non-native grasses. Then on to Grant Grove to see a project controlling reed canarygrass that is aggressively invading mid-elevation meadows. Treatment methods have been adapted to the sensitivity of the habitat and the ability of the plant to sprout new roots from stems. We will have lots of mountain scenery on the way, and time for our guides to describe the particular challenges and opportunities of working in the mountain environment.

2. Kaweah Oaks Preserve and Atwell Island

Leaders: Nathan Higgins and Rob Hansen, Sequoia Riverlands Trust; Carol Combs, Tulare Basin Wildlife Partners; Elizabeth Palmer, NRCS; Steve Laymon, BLM; Dennis Haines, Tulare County Dept. of Agriculture
Details: 8:00 am – 4:30 pm. Carpool to the sites, 20 minutes from Visalia. Lunch provided.

Until a century ago, snowmelt from the southern Sierra filled the southern portion of the San Joaquin Valley to form Tulare Lake, the largest freshwater body west of the Mississippi. Surrounded by tule marshes, the lake was a major stop on the Pacific flyway. Upland riparian areas, flush with snowmelt draining from the Sierra, were crowded with majestic valley oaks, providing fingers of gallery forest habitat in the open savannah. Today, organizations have formed to protect and restore some of this heritage. Our tour features two premier sites on the front lines of this effort. The 324-acre Kaweah Oaks Preserve protects one of the last remaining valley oak forests in the San Joaquin Valley, as well as grassland and alkali meadow habitats. More than 300 plant and animal species live, feed or reproduce at the preserve, including gray fox, great horned owl, and Nuttall's woodpecker. The Sequoia Riverlands Trust uses timed grazing, prescribed burns, and other management methods to deal with invasive plants including milk thistle, yellow starthistle, bull thistle, tree of heaven, poison hemlock, Himalayan blackberry, tobacco tree, and five-hook bassia. Farther into the valley, the BLM oversees 7,000-acre Atwell Island, home to federally listed and sensitive animal species including mountain plover, Tipton's kangaroo rat, San Joaquin kit fox, tricolored blackbird, burrowing owls, horned lizards, and the blunt-nosed leopard lizard. Restoration of marshes, sloughs and ponds provides important wetland habitat, and offers an educational opportunity for the public. Preserve managers and local naturalists will share the natural history of this bountiful region, and describe how they are making restoration work within the region's agricultural economy.

3. Winning Public Support: Sequoia National Park

Leader: William Tweed, retired Chief Naturalist, Sequoia-Kings Canyon National Parks
Details: 8:00 am – 1:00 pm ending in park. Carpool to the park. Lunch and park entrance fee provided.

Sequoia and Kings Canyon National Parks are home to incredible ecological—and cultural—wonders. The General Grant Tree is the nation's official Christmas tree, and our only official living shrine, dedicated to those who have given their lives in service to our country. As two of the first national parks set aside in the United States, Sequoia and Kings Canyon are steeped in the historical movement to preserve parks for conservation and recreation. As management strategies continue to evolve for public lands, including programs for invasive plant control, resource managers work to gain public understanding and support for these programs. We will be joined in the Giant Forest area of Sequoia National Park by retired park naturalist Bill Tweed, co-author of *Challenge of the Big Trees: A Resource History of Sequoia and Kings Canyon National Parks*. Bill will share insights from recent and historical episodes in the parks' resource management, and lead a discussion on the roles that cultural perceptions play in our work. We will finish with lunch in the park—you are then free to head back to town or stay in the park to explore on your own. Nearby hikes include a 3-mile round-trip walk along the Marble Fork of the Kaweah River to 1,200-foot high Tokopah Falls, and a 3-mile round-trip to the granite dome summit of Little Baldy at 8,000 feet elevation, an excellent location from which to study the terrain of the Giant Forest Region.