

Dedicated to the Preservation of California Native Flora

The California Native Plant Society

Bristlecone Chapter Newsletter

Volume 36, No. 3

May-June 2015

President's Message May 2015

I recently attended a workshop on safe pesticide use. The woman from the State Agricultural office that investigates honeybee violations (spraying honey bee hives with pesticides) gave a talk on honeybee hive collapse. While experts have not found a single cause of hive collapse, there are many factors and probably a combination of causes. One beekeeper had this analogy, "We are asking these bees to spend a large part of their lives on the road eating only fast food. Once at their destination they spend weeks only eating oranges and breathing air of similar quality to that of Beijing China." On top of that, we put bees from different places together to share mites and viruses. It is a miracle that they haven't already all died.

Honeybees are a non-native species. The honeybee problems also affect native bees. There are 1,600 species of native bees in California. Most are solitary, so we don't notice them. The Bristlecone Chapter has been working to help native bees and pollinators.

Last year we advised Eastern Sierra Land Trust (ESLT) in creating their "Pollinator Garden" project. This year, in conjunction with the ESLT and the U.S. Fish and Wildlife Service, we gave a workshop on creating gardens for Native Pollinators. Workshop participants will create gardens in their yards and then receive vouchers for 25 native plants that the Bristlecone Chapter will grow.

On May 28 (at the Crowley Lake Community Center) the general meeting speaker is Jamie Pawelek from the U.C. Berkeley Urban Bee Lab. Jamie traveled here last year, visited local gardens, and gave a Master Gardeners workshop talk. She is an excellent ambassador for native bees, and her enthusiasm and knowledge about bees is contagious. I now see my trees and flowers differently. Not only are the honeybees pollinating, but I also see many native

bees. Those half circle cuts in my lilac and redbud leaves (that I thought were beetle) are from leafcutter bees. Now I know bees use leaf pieces to make nests and aren't doing any harm to my plants.

--Katie Quinlan

Thursday, May 28 General Meeting, Crowley Lake Community Center, 58 Pearson Road, Crowley Lake, 7 PM "Bee-friendly Habitat Gardening "

Jaime Pawelek will present on the benefits of native bee habitat gardening. Learn about the biology and ecology of native bees and their important role in most ecosystems. Jaime will then describe the most common bees found in urban areas and how homeowners can attract these valuable pollinators to their own gardens.

Jaime is the project manager for the California Statewide Urban Bee Survey in the Urban Bee Lab at UC Berkeley. Her work includes identifying the lab's collections of Californian and Costa Rican bees, managing the experimental bee garden on campus, updating the website and Facebook page, and giving talks and garden tours throughout the state. She also designs bee-friendly habitat gardens with her business, Wild Bee Garden Design. Look for the lab's new book, *California Bees & Blooms: A Guide for Gardeners and Naturalists*, available now through Heyday Books.

--Michèle Slaton

March Program: Range Extensions in Death Valley National Park

Straight from the Eureka Dunes, Drew Kaiser came to talk about new plant occurrences in Death Valley. After a brief introduction to the history of botanical exploration in Death Valley, he discussed the discovery of three species: Teddy Bear Cholla (*Cylindropuntia bigelovii*), polished blazingstar (*Mentzelia polita*), and skunktop (*Pediomelum mephiticum*). This cholla and blazing star occurrences are new to Inyo County, with a close known population in the Mojave Preserve. The *Pediomelum* population has been known and recognized since 1935, but due to a lack of good descriptions for the Genus it was misidentified. Drew contacted the Flora of North America author for *Pediomelum*, Ashley Egan, and they came to a determination of *P. mephiticum*. This is the first record of the species in California.



"Pediomelum mephiticum" a new-to-California species.
Photo by Drew Kaiser

Drew also gave the Bristlecone Chapter an update on the Botany program of Death Valley NP. Drew mentioned that he will be leaving to go to the Mojave National Preserve and to contact Kirsten Lund or Josh Hoines, new Chief of Resources, for volunteer questions or opportunities.

Greenhouse news

This year I feel like a kid who went to the candy store and her eyes were too big for her stomach. Although in the last two years I have built another greenhouse and expanded the shade house at the propagation center, I am still chewing my nails wondering if I will

have enough room for the plants I have committed to grow: 3,000 for the Forest Service, 2,000 for the Bureau of Land Management, 700 for the Eastern Sierra Land Trust and another 3,000 for the plant sale. I am also hoping to be able to grow extra plants for the Swall Meadow fire victims. The greenhouses are at their limit, and my cadre of volunteer planters, have been seeding and repotting the plants. If nature is cooperative I will need to bring in more tables and expand the shade house again. In the end it depends on which seeds sprout and grow.

--Katie Quinlan

Chapter Council Report

The Bristlecone Chapter was well represented at the CNPS Chapter Council meeting held in Yucca Valley on March 13-15, 2015, with Conservation/Partnerships Chair Julie Anne Hopkins and Council Chapter Representative Stephen Ingram in attendance. It was a great place to meet, because it introduced many statewide attendees to the Mojave Desert. Representatives from 24 chapters were present. The Chapter Council was treated to educational presentations and active discussions about current and past desert renewable energy practices and relevant CNPS policies, among other topics. CNPS Conservation Director Greg Suba, who sits on the Stakeholder Committee of the Desert Renewable Energy Conservation Plan (DRECP), gave an update on efforts to protect rare plants and plant communities, and to rein in industrial-scale solar development in California's deserts. See the CNPS website for more information.



Chapter Council
--Photo by Steven Ingram

Several of us met at Cottonwood Springs Campground in Joshua Tree National Park a few days beforehand for a field trip organized by Steve Hartman. Steve

planned a few short outings each day. The wildflower bloom was expectedly poor, but we still experienced a variety of fascinating desert plant communities. We botanized among Joshua trees, in desert wash habitats, in pinyon pine-scrub oak communities, and among creosote and ocotillo. Near Barker Dam, we stood in awe at huge specimens of big-berry manzanita (*Arctostaphylos glauca*) that must have been over a hundred years old, growing with Joshua tree (*Yucca brevifolia*) and blackbrush (*Coleogyne ramossissima*). The highlight for me was walking out to a quartz outcrop with stands of the recently described Chuckwalla cholla (*Cylindropuntia chuckwallensis*) at the northwestern edge of its range.

-Stephen Ingram

Short Canyon Field Trip Report

On March 7, 2015, the Bristlecone Chapter joined Friends of the Inyo for a day at Short Canyon. We had Naomi Fraga lead the botanical portion of the day. She is an expert in Short Canyon flora.



--Photo by Julie Anne Hopkins

We were amazed at the diversity and abundance of wild flowers. We saw Linanthus, Lupine, California Poppies, Phacelias, Nolina in bud, and others in a spectacular display. We also enjoyed watching two California thrashers interacting while we listened to their calls. We also saw a California towhee. Both species were a surprise even to the expert birders!

-Julie Anne Hopkins

Exploring Local Canyons or “We should have a field trip here”

This last April has been a good one for me. My work was minimal, so I got to practice at being retired. I could go hiking for all or part of a day, photograph

plants, and then spend the remainder of the day figuring out what I saw.

Marble Canyon in the Inyos came first. We hiked east from the Saline Valley road in early April. We saw interesting plants such as: Desert Almond (*Prunus fasciculata* var. *fasciculata*), two milk-vetches (*Astragalus lentiginosus* & *layneae*), abundant rosy-colored Parish Mallow (*Sphaeralcea ambigua* var. *rosacea*), and Hairy Pod Pepper weed (*Lepidium lasiocarpum*). Of course I had the thought “We should have a field trip here!”

Next up was on the west slope of the Inyos, a side canyon off Mazourka Canyon. I want to name this canyon “Three Potato Canyon” as there are at least three plants from Solonaceae (Nightshade Family) growing in the canyon. Numerous collections have been made here by Mary DeDecker and Steve McLaughlin and Jan Bowers. There is plenty of Atriplex at the canyon mouth but also in abundance is Cooper's Box Thorn or Wolfberry (*Lycium cooperi*). This a large shrub that cannot be missed. By now the petals are being shed and the fruit is developing. Nearby and smaller in stature, and found further up the canyon is Desert Tobacco (*Nicotiana obtusifolia*). More exciting was the presence of Ground Cherry (*Physalis crassifolia*). This may be reaching its northwestern-most range as prior collections are on the east slope of the Inyos or in other desert ranges. This plant has a calyx that expands and envelops the maturing fruit in a papery sack. All members of this genus have some form of this feature, like the Tomatillo (*Physalis philadelphica*), hence the genus name derived from the Greek “physallis” which means “bladder” or “bubble.” The following is an image of this fruit which is only about a ½ or ¾ inch across. As I was walking away I said to myself “We should have a field trip here!”

The canyon I visited most recently was Vaughn Gulch, also accessed via the Mazourka Canyon Road, but a bit south of “Potato Canyon.” On the south facing canyon walls was what I thought looked like a robust Cooper's Goldenbush (*Ericameria cooperi*). But no, a little sleuthing and a recollection of something called Pygmy Cedar from much further south in the Eastern Mojave brought resolution. *Peucephyllum schottii* is not known to grow in the Owens Valley or the Inyo Mountains except for a collection by Enid Larson from 1971 from Coyote Wash (about 2 miles south of Vaughn), and a collection by Marcus Jones from 1927 from “near Bishop.” I am surprised Mary Dedecker did NOT collect it here.



Fruit of Physalis crassifolia
Photo by Steve Matson

http://calphotos.berkeley.edu/cgi/img_query?enlarge=0000+0000+0415+1011

The most surprising was *Penstemon fructiformis*. I saw this plant and recognized this as something I had seen before, but it had been 10 years prior in Dedekera Canyon in Eureka Valley. Not quite a range extension but a great occurrence not seen in the Owens Valley for a while.



Penstemon fructiformis
Photo by Steve Matson

http://calphotos.berkeley.edu/cgi/img_query?query_src=ucjeps&where-genre=Plant&where-taxon=Penstemon+fruticiformis+var.+fruticiformis&title_tag=Penstemon+fruticiformis+var.+fruticiformis

Once again I thought "We should have a field trip here!" Next year I am planning a field trip to Vaughn Gulch in late April. Get ready, or, go right now!

--Steve Matson

Conservation Updates

Inyo National Forest Plan Revision, 2014

Although official word of an extended 2015 planning schedule isn't expected until early next week, it appears the U.S. Forest Service won't release the Draft Environmental Impact Statement (DEIS) and Draft

Inyo, Sierra, and Sequoia Forest Plans until September. Once released, the DEIS and Draft Forest Plans will be subject to a 90-day public comment period. In the meantime, the Forest Service will hold public workshops for each of these National Forests in June 2015 to update the public on three key topics: 1) Wilderness, 2) Wild and Scenic Rivers, and 3) forest monitoring.

Renewable Energy

The DEIR on the Inyo County Renewable Energy General Plan Amendment (REGPA) was approved by the Inyo County Board of Supervisors in March. The plan minimizes or eliminates areas originally designated for industrialized solar development and completely removes wind development. To read a detailed report on the meeting go to:

<http://www.basinandrangewatch.org/REGPA-Supervisors.html>

We will post updates on our website, including information about the Owens Valley Study Area.

--Julie Anne Hopkins

With Purpus for Plant Collections

Our chapter welcomes this account of Purpus's expeditions, based upon Barbara Ertter's publications on C. A. Purpus, as found on the Jepson Herbarium website.

Visitors to UC Berkeley's Jepson Herbarium will find the original reports of Carl Albert Purpus, a pioneer plant collector in southeastern California. Purpus, a German-born botanist, was intrigued with the American West, and collected nearly 2,000 species. He wandered in the southern Sierra Nevada and Owens Valley, and later made a sojourn to Mexico. He put together over 30 different "taxa" (scientific qualifiers) from his travel, and was a great one for correspondence, including detailed field notes.

Purpus's notes and collections on southwestern flora and fauna (from 1895-1898), while significant in Germany, didn't receive the attention of Berkeley's plant biology department until his work was translated by Barbara Ertter. Once his work became public with travel letters to his neighbors Katherine and Townsend Brandegee of Tulare, Purpus's field notes became one of the first looks at "Dead Valley" and the Owens Valley. Purpus traveled to the Owens Valley from 1895-1898 and said of the valley where a river flowed, fed by "a number of smaller streams that descended from the steep slopes, mostly through canyons or deep valleys. The Owens Valley was partly

desert, partly full of meadows. In the sand grew the typical desert shrubs,” and “various willows.” Purpus had a purpose for collecting. He brought back hardy winter plants and cold-tolerant cacti to the Darmstadt Botanical Garden in Germany (where his brother Joseph Anton was the head gardener). Purpus's writings are both interesting and entertaining, as he traveled over Westgard Pass to Death Valley and beyond. He discovered new species while trekking across the wild, and he is responsible for additions in the genus *Purpusia* in the Rose Family (Rosaceae).



*Carl Purpus with Giant Sequoia
UC Berkeley Jepson*

Purpus, like so many foreign visitors to the West, was taken with all he saw. He noted watering holes, stage fare prices, and even roadside sales. A true chronicler of the late 1890s in the Eastern Sierra, he is a notable read and worthy of our time and interest. And he collected seeds in his socks...so many seeds in fact, he wrote to Mrs. Brandegee and told her he needed “more socks” by the time he reached the community of Oasis (close to the Nevada state line).

“One feels overwhelmed, as if placed in another world, when viewing these gray-white giants....All these tooth-like peaks drop precipitously to the east in every sense of the word, the easternmost more than 3,400 meters straight down into the Owens River valley. The view from this precipice is truly terrifying,” Carl noted on a trip to the Owens Valley. “The sight of the giant trees of *Sequoia gigantea* is truly awesome. One feels completely overwhelmed, in another world, when seeing these monuments to ages long past for the first time.” (From Bericht des Herrn C.A.Purpus Report by Carl Purpus.)

To read more about Purpus and his expeditions to the desert areas of southern and western Nevada, Eastern California, Northern Arizona, and western Utah, visit <http://ucjeps.berkeley.edu/Purpus>.

--Christina Reed, *The Hired Pen*

New Botanical Publications

Revised Edition of Wildflowers of California's North Coast Range

This guide has been revised to identify wildflowers of California's North Coast Range from Golden Gate to Oregon State. The new edition includes Humboldt and Del Norte Counties, common naturalized plants, 35 new species, leaf images for all plants, and 230 new photos.

To view the cover, contents, sample pages, and to purchase see RenysWildflowers.com/guide

Yosemite Wildflower Application

First released last April, this application has been updated. It now contains 584 plants, and a new feature lets you keep a list of favorites that you can share with Mail, Facebook, Pinterest, Google+, etc. Once downloaded, the app does not require an internet connection.

The Yosemite Wildflower App, which works both on iPhones and iPads, as well as Androids, is available for \$7.99 at Amazon, Apple, and Google app stores. For more information go to www.wildflowersofyosemite.com

Jepson Herbarium Workshops

The Jepson Herbarium has space available in the following workshops:

Fire Ecology in the Central Sierra Nevada
September 24-27 at the UC Wawona Field Station
Restoration Ecology

October 17-18 at UC Berkeley and a Bay Area field site.

Evolution and Diversity of Mushrooms
December 11-13 at UC Berkeley and a Bay Area field site

Full workshop details are online at <http://ucjeps.berkeley.edu/workshops/2015/index.html>

Up-Coming Events
May Board Meeting
Wednesday, May 13, 7 PM Conference Room, 351 Pacu Lane, Bishop. All members are welcome.
May Bristlecone Chapter Meeting and Program
Thursday, May 28, 7 PM Crowley Lake Community Center, 58 Pearson Road, Crowley Lake. "Bee-friendly Habitat Gardening " with Jaime Pawelek.
CNPS Field Trips and Events
Spring 2015, CNPS Education Workshops, Various dates and locations. Topics include rare plant protocols, measuring and monitoring plant populations and plant identification. For information see http://www.cnps.org/cnps/education/workshops/
May 16, Saturday. East Mono Basin. Leader: Sue Weis. A Rare Plant Treasure Hunt for <i>Astragalus pseudodanthus</i> , <i>Astragalus kentrophyta</i> var. <i>ungulatus</i> , We'll visit the dunes on the east side of Mono Lake. Meet at the Von's parking lot in Bishop at 9:00. Contact me if you need to meet the group somewhere else along the way. Roads are sandy, so 4WD is best. Check Bristlecone website at or call Sue Weis at 760-873-3485 or at sueweis@aol.com .
May 30, Saturday. Bodie Hills. Leaders: Julie Anne Hopkins and Jeff Hunter. Join us to explore the nearby National Forest lands, since BLM lands are closed until July due to Sage Grouse breeding. Meet at 9:00 at the Bridgeport Ranger District office on 395 south of Bridgeport. Bring layers, sunscreen, a hat, water and a sack lunch. Binoculars for raptors and pronghorn antelope are an option. We should return by around 3:00.

Up-Coming Events
June 6, Saturday. Mule Springs, Inyos. Leader: Steve Matson. At the base of the Inyo Mountain southeast of Big Pine is a perennial spring surrounded by remarkable plant diversity. We seek <i>Hecastocleis shockleyi</i> , <i>Petalonyx nitidis</i> and <i>Eucnide urens</i> . Some interesting fish reside there as well. We will walk short distances but on uneven ground. Dusty dirt road access. Bring lunch, water and sunscreen. Meet at 8:30 at the Campground entrance at the junction of 395 and 168 in Big Pine. ssmat@sbcgobal.net or 760-938-2862.
June 13, Saturday. Glass Mountains. Sponsored by Friends of the Inyo. Visit our webpage at www.friendsoftheinyo.org
June 27, Saturday. Devil's Postpile weed work day. Leader: Sue Weis. This is a trip to help keep cheatgrass out of Devil's Postpile National Monument with the park ecologist. We'll check the trail to Rainbow Falls and also Bear Crag climbing area on the Inyo NF. Meet at the Round Valley Road turnoff at 8:30 and carpool or 9:30 at the Postpile parking lot. Bring a lunch, gloves, and regular field gear. Possibility of a visit to the Agnew Meadow wildflower trail on the way out. Call Sue Weis at 760-873-3485 or at sueweis@aol.com .
June 27, Saturday, First Mammoth Native Plant Sale. 9:00-Noon. Contact Mammoth Plant Sale Coordinator, Sherry Taylor, plant.sales@bristleconecnps.org and ask to be put on her mailing list for future updates.
July 4, Saturday, 8:30: Golden Trout Lake, Leader: Sue Weis, Bristlecone Chapter Field Trip Strenuous 3 mile hike (6 miles round trip), but we may find some RPTH plants that haven't been visited for a long time. New trail for me, but sounds interesting. Bring a lunch, sun gear, good shoes, for a full day hike. Meet at Forest Service west parking lot, off West Line on Pacu Lane, at 8:30. For more information call Sue Weis at 760-873-3485 or at sueweis@aol.com .
July 18, Saturday. Upper Convict Creek and Mildred Lake Basin. Leader: Jerry Zatorski. More information to come in next newsletter or contact Jerry at 760-387-2920, jerryzat@gmail.com , or visit Bristlecone webpage at bristleconecnps.org .
July 18, Saturday. Coyote Plateau. Leaders: Julie Anne Hopkins and Jora Fogg with Friends of the Inyo. Visit our webpage at www.friendsoftheinyo.org

Up-Coming Events

July 24-25, Saturday (optional Friday). Glass Mountains and Sawmill Meadow. Leader: Michael Honer.

August 1, Saturday, Second Mammoth Native Plant Sale. 9:00-Noon. Contact Mammoth Plant Sale Coordinator, Sherry Taylor, plant.sales@bristleconecnps.org and ask to be put on her mailing list for future updates.

August 8, Saturday. Mono Pass (north). Leader: Michèle Slaton. More information to come in next newsletter or visit bristleconecnps.org. There are options to day hike a short route, or to backpack in for 1 or 2 nights. Please contact Michèle Slaton (760-920-8693 or mmlaton02@gmail.com), so we can discuss logistics and secure permits.

August 29, Saturday, Bishop Native Plant Sale. 9:00-Noon. White Mountain Research Center, 3000 E Line St, Bishop. Check bristleconecnps.org for list of plants available.

August 29, Saturday, Third (tentatively-planned) Mammoth Native Plant Sale. 9:00-Noon. Contact Mammoth Plant Sale Coordinator, Sherry Taylor, plant.sales@bristleconecnps.org and ask to be put on her mailing list for future updates.

October 17, Saturday. Bristlecone Chapter and BLM Team Up for Restoration Planting Field Day. Leaders: Julie Anne Hopkins and Martin Oliver
This work trip will plant seedlings for post-fire, greater sage grouse habitat restoration on public lands. Dates and location will be posted on our website and in our upcoming newsletters.

Next Newsletter Deadline

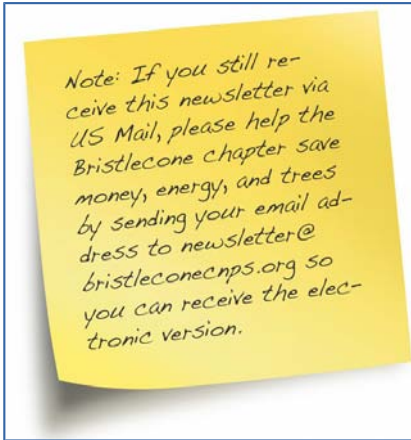
Please have your articles or information to us by June 15, 2015.

Bristlecone Chapter Directory

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Book Sales: Sue Weis 760-873-3485
T-shirt Sales: Scott Hetzler 760-873-8392
DeDecker Garden: Richard Potashin 760-263-5022

The California Native Plant Society

Bristlecone Chapter
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Membership

The California Native Plant Society is an organization of laypersons and professionals united by an interest in the plants of California. It is open to all. The society, working through its local chapters, seeks to increase the understanding of California's native flora and to preserve this rich resource for future generations.

To Join or Renew Online: Go to cnps.org and click on the JOIN/renew button at the top of the page, or mail in the form below:

Name: _____
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I wish to be affiliated with the Bristlecone Chapter: _____
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Patron \$300
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