

Darlingtonia

FALL 2015
OCT-DEC

Newsletter of the North Coast Chapter of the California Native Plant Society
Dedicated to the Preservation of California Native Flora

Native Sidewalk Garden at Spear & Alliance

by Anna Bernard
June 2015

When I work on the Native Sidewalk Garden in my neighborhood, folks stop and ask me questions about the project. Here are some of their questions and my answers.

Q. Why did you plant the Native Garden on the corner of Alliance Road and Spear Avenue (in Arcata)?

A. There was a dead shrub on the corner that looked really bad. I asked the Arcata Public Work folks to remove it and things mushroomed from there. I live in the Vassaides Neighborhood and I wanted the entrance to our neighborhood to look better. The patch is a narrow strip about three feet wide and 20 feet long (between the sidewalk and a block wall) so it seemed like a small and manageable project.



Q. Did you get permission to plant the garden?

A. Yes, the City of Arcata has an "Adopt a Park" program, which includes places like the flower beds on the Arcata Plaza. For example, Pete Haggard has adopted a patch next to Health Sport in Arcata and planted native plants there. But this property falls under the Arcata Public Works Department, so I arranged it through them.

Q. Did they give you permission to plant whatever you wanted?

The narrow strip between the sidewalk and a block wall is now a home of native plants. Looking east along Spear Ave., yellow-eyed grass, seaside daisy, coyote brush, and sticky cinquefoil. (Continued on page 10)

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Please watch for later additions on our Web site (www.northcoastcnps.org) or sign up for e-mail announcements (Northcoast_CNPS-subscribe@yahoogroups.com).

Outings are open to everyone, not just members. All levels of expertise, from beginners to experienced botanizers, are welcome. Direct questions about physical ability requirements to the leader. It is wise to contact the leader if you are coming, in case plans change.

October 4, Sunday. Tolowa Dunes Day, a field trip. We'll walk a trail in Tolowa Dunes State Park, Crescent City, comparing this dune forest, dune hollows, and dune mat with what we know from Humboldt Bay area. Probably we will visit some wetland plants along the lake. We might decide to help pull European Beach Grass with the Tolowa Dunes Stewards' restoration volunteers. We might also visit the sweeping coastal prairie on Point St. George and check the bluffs for succulents, mist maidens, and crowberry. And it's fun to stop at Whaler's Island in the harbor to see the hemlock parsley. Dress for the weather; bring lunch and water. Meet at Pacific Union School (3001 Janes Rd, Arcata) at 8:30 a.m. to carpool, or arrange another place. Return late afternoon. Carol 822-2015 .

November 7, Saturday. Shrubs from Coast to Mountain. With no flowers to look for and with two new shrub books in hand, it's a good day to see how many species of shrubs we can find in one day while still having a good time. The route could include dune forest, Azalea State Reserve, Blue Lake Hatchery or Industrial Loop, Chezem Rd., Lord Ellis Summit, Vista Point, Berry Summit, Horse Mountain, and East Fork Willow Creek. We can decide as we go. Dress for the weather; bring lunch and water. Meet at Pacific Union School (3001 Janes Rd, Arcata) at 8:30 a.m. to carpool, or arrange another place. Return late afternoon. Carol 822-2015.

Other organizations offer outdoor activities that appreciate plants. Check the web sites of Friends of the Dunes (friendsofthedunes.org), Sierra Club North Group (sierraclub.org/redwood/outings), Tolowa Dunes Stewards (tolowacoasttrails.org), Friends of Arcata Marsh (arcatamarshfriends.org), and Siskiyou Field Institute (thesfi.org).



Digital California Plant Portal Hits 2 Million Specimens

(excerpted by Sydney Carothers from an article by Kathleen Wong in the Feb. 12, 2015 newsletter of the University of California Natural Reserve System)

In February, the massive virtual library of plant specimens known as the Consortium of California Herbaria (CCH) passed the 2 million record mark. The CCH is an online database of the preserved plant specimens collected from California and located in over 30 Californian herbaria (including 80,000 records from our own Humboldt State University Herbarium) and beyond. This milestone establishes the CCH as the second largest regional herbarium network in the United States.

"Now people are better able to understand the flora of California as a whole," said Staci Markos, botanist and administrative co-chair of the CCH. "The combined power of the herbaria in CCH is far greater than that of any individual institution, large or small. If you only look at a single herbarium to understand a species' range, you will get a very under-represented picture because many herbaria have a very local emphasis. But when you combine all the records of the herbaria together, you get a much more complete picture of where a species occurs throughout the state."

A treasure trove of plant information

Having access to such a large set of information from plant specimens is a boon for botanists, Markos says. "The specimens in herbaria represent an irreplaceable record of biodiversity as it existed in a particular time and place. Collections from California date back to the mid-1800s. Together with modern-day collections, these specimens help us understand biodiversity and how it is distributed across the state."

CCH can be searched for any of the data included on a plant specimen's label, such as where and when the plant was collected, the species, and the name of the collector. This allows CCH users to find plants gathered at a particular season or year, or from particular places. This information in turn can help inform studies of plant ecology, prevailing climate conditions, and models of how plant ranges might shift with a changing environment.

Bringing botany to a computer near you

Since the inception of the portal at UC Berkeley in 2003, the online nature of the CCH has made California's botanical riches available to people located in far-flung corners of the state and world. "Before CCH existed, the only way for researchers to access most specimen data was to personally visit a herbarium," Markos says. Now anyone with Internet service can browse through the CCH's vast records, and with a few keystrokes create maps of where each specimen was found. In this way, CCH helps enable local experts and individuals to participate in the ongoing conversation of science.

After identifying a plant specimen in CCH, visiting it in person can yield even more useful information. For example, DNA can be extracted and sequenced from many herbarium specimens for studies of plant evolution or biomedical assessments. "Herbaria have long been important repositories of information. In the face of climate change, development, and ever-increasing pressures on our natural resources, there couldn't be a better time to make this information available to the world," Markos says.

Curious about the California distribution of a particular plant? Give the Consortium a try!

The CCH can be accessed at ucjeps.berkeley.edu/consortium.

CHAPTER PROGRAMS AND MEETINGS

EVENING PROGRAMS

Evening programs are free, public programs on the second Wednesday of each month, September through May, at the Six Rivers Masonic Lodge, 251 Bayside Rd., Arcata. Refreshments at 7:00 p.m.; Botanical FAQ's at 7:15 p.m., and program at 7:30 p.m. For information or to suggest a speaker or topic contact Michael Kauffmann at 707-407-7686 / michaelkauffmann@gmail.com.

Oct 14 A Tolowa Coast Evening-Two Part Presentation:

Long-time Tolowa Dunes resident, nature writer, organizer, and advocate **Susan Calla** will present "**The Tolowa Coast, a Liquid Landscape,**" an overview of the diverse dune, wetland, lagoon, and shoreline habitats and species found within Tolowa Dunes State Park and the Lake Earl Wildlife Area in Del Norte County.

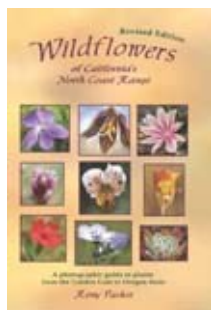
Laura Julian, captured by the natural beauty of Tolowa Dunes, she chose to do her masters study research at Tolowa. In 2007 she took a "snap-shot look" at the bee fauna of Tolowa Dunes. Using methods similar to Nyoka's, in her study of the bees of Humboldt Bay's north spit, Laura was able to draw some conclusions about the links between food, nest availability and invasive plants. Currently, she is a biotechnician at Redwood National and State Parks and leader of countless public walks and work parties in the Tolowa Dunes, studied the bees there. In her talk "**Food Deserts and Invasive Plants, or, Where Can a Bee Find a Snug Bed and a Good Meal?**" she will share some conclusions about the links between food, nest availability, and invasive plants.

Nov 11 "Linnaeus, God's Registrar." Carolus Linnaeus was the most famous scientist of his time. With the possible exception of Albert Einstein, no other modern figure comes close to the level of recognition that he enjoyed with the general public. His monumental works on plants and animals are the starting point of the nomenclature of these groups. Look through any technical flora or treatment of animals and you will soon encounter Linnaeus, L., or (L.) as part of a scientific name. He named literally thousands of plants and animals, which led to his being called "God's Registrar." But there is so much more to this fascinating, if not entirely admirable, individual. **Dr. James P. Smith, Jr.**, Professor of Botany, Emeritus, at Humboldt State University will review Linnaeus' life, the intellectual environment in which he worked, and his varied contributions to science. Why did he stop practicing medicine? Why were some of his botanical works banned? Was he a creationist? And, did he actually develop the system of naming plants and animals that we still use today?

Dec 10 Native Plant Show and Tell. Join us for an informal evening sharing photos, artifacts, readings, or food relating to native plants and their habitats. If you would like to share something, contact Michael at michaelkauffmann@gmail.com This e-mail address is being protected from spambots. You need JavaScript enabled to view it or 707-407-7686.

Jan 13 To Be Announced

REVISED EDITION OF WILDFLOWERS OF CALIFORNIA'S NORTH COAST RANGE



This popular photographic guide has been revised to identify wildflowers of California's beautiful North Coast Range, from the Golden Gate to Oregon State. The new edition has been expanded to include Humboldt and Del Norte Counties, common naturalized plants, 35 new species, leaf images for all plants, and 230 new photos. Desired by hikers, students, naturalists, botanists, gardeners, casual observers, and visitors seeking to more fully enjoy our beautiful environment.

- ☞ Discover 393 species of wildflowers, previously 358.
- ☞ Easy to use: grouped by color, beautiful close up photos for easy identification, a total of 772 color photos, previously 542.
- ☞ Learn bloom times, habitats, garden tips, native uses, natural history, 42 wildflower hot spots, previously 34.

The first edition of **Wildflowers** received a Silver Medal from the *Independent Publishers* and from *Writer's Digest* a First Place in the non-fiction category. To view the cover, contents, sample pages, and to purchase see RenysWildflowers.com/guide

Another Amazing Fall Plant Sale

September 12, 2015

by Carol Ralph

Our nursery crew, led by Chris Beresford, produced a huge, diverse array of native plants, very roughly 3,000 of them. Three partner nurseries brought more for the sale. We sold very roughly half of all these. One visitor from Orange County, the founder of Back to Natives Restoration, exclaimed, "So many locally native plants!" He said many native plant sales feature mass-grown, horticulturally selected varieties or hybrids, which are not always functional in the ecosystem as are the wild types. We can be proud!

We also can be amazed at what our volunteers did for the sale. Here are some of the tasks: tidy the plants; sweep the weedmat; paint 900 plastic knives orange; make a banner; make signs about directions, pricing, parking, watch-your-step, raffle, speakers; count the plants; print plant labels; insert plastic knives in pots; insert printed plant labels in correct pots; tidy plants again; sweep again; water; arrange for speakers; shift around hundreds of plants to make a beautiful layout for shoppers; put up species signs; make arm bands for volunteers to wear; bring hundreds of boxes to carry plants home; arrange for perfect weather; tidy plants again; sweep again; coach our cashiers in using the credit card reader; provide delicious refreshments for volunteers; loan us Easy-Up canopies; direct traffic and parking; talk to CHP when people started parking on the street; take photos of everything; greet customers; help them find plants; help them pay for their plants; help them carry their plants to the car; give a short talk about some of our plants; count the money; contact raffle winners; load up and shift around plants again; water a few; close the gate. Whew. Thank you, one and all for a job well done:

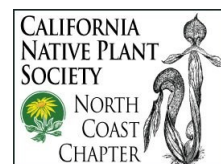
Fred Alward	Ashley Dickinson	Karen Isa	Courtney Otto	Zeal Stephanoff
Mary Alward	Kelley Eldridge	Josh Koepke	Cynthia Packard	Swedenberg
Anna Bernard	Colin Fiske	Gura Lashlee	Tom Pratum	Chris Tominello
Chris Brant	Connie Gregerson	Jill Mefford	Carol Ralph	Joan Watanabe
Sydney Carothers	Andrea Goss	Frank Milelzcik	C.J. Ralph	Virginia Waters
Monty Caid	Greg X.	Emily Mossman	Barbara Reisman	Donna Wildearth
Jane Cipra	Pete Haggard	Wanda Naylor	Gisela Rohde	Carol Woods
Colin X	Debbie Harrison	Greg O'Connell	Marian Ruggles	Rita Zito
Andrea Culbertson	Bojan Ingle	Sam O'Connell	Sabra Steinberg	

Wildflowers at the Clarke

by Dina Fernandez, Clarke Museum board of directors

The Clarke Historical Museum begins an excursion into Humboldt County natural history with a Local Wildflower Exhibit featuring artwork and photos of native plants by artists who draw their inspiration from the region. On display will be a rotating exhibition of works by Dorothy Klein, Annie Reid, Patricia Anne Sennott, Rick Tolley, and photographs from Ron Johnson and Gordon Schatz. Also represented are some of the local organizations dedicated to native flora including the North Coast Chapter of the California Native Plant Society and the Humboldt Botanical Gardens. The Local Wildflower Exhibit opens **October 3rd** and will run through **January 2, 2016**. There will also be a Meet the Artists reception TBA from 4 to 6 pm with appetizers provided by Gabriel's Italian Restaurant. Everyone is welcome to attend. Don't miss it!

The Clarke Historical Museum is at 240 E St., Eureka, open 11:00 a.m. to 4:00 p.m., Wednesday through Saturday. Suggested donation at the door is \$5 per person or \$10 per family.

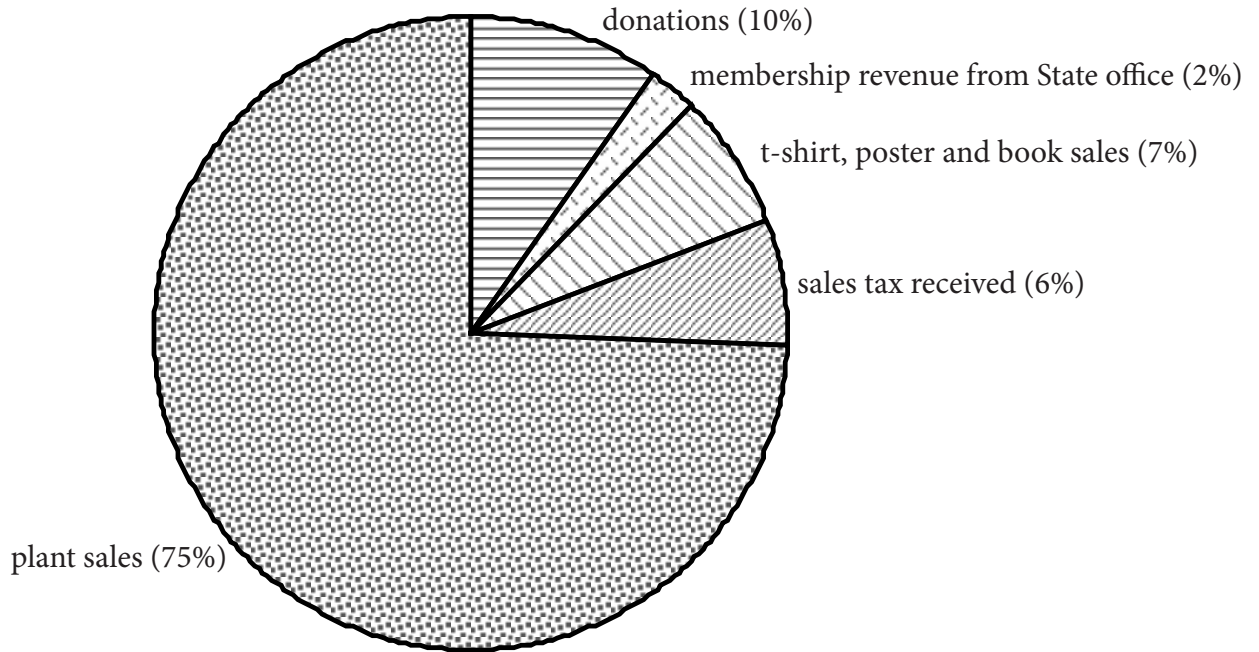


Chapter Financial Report for Latest Fiscal Year Ending March 31, 2015

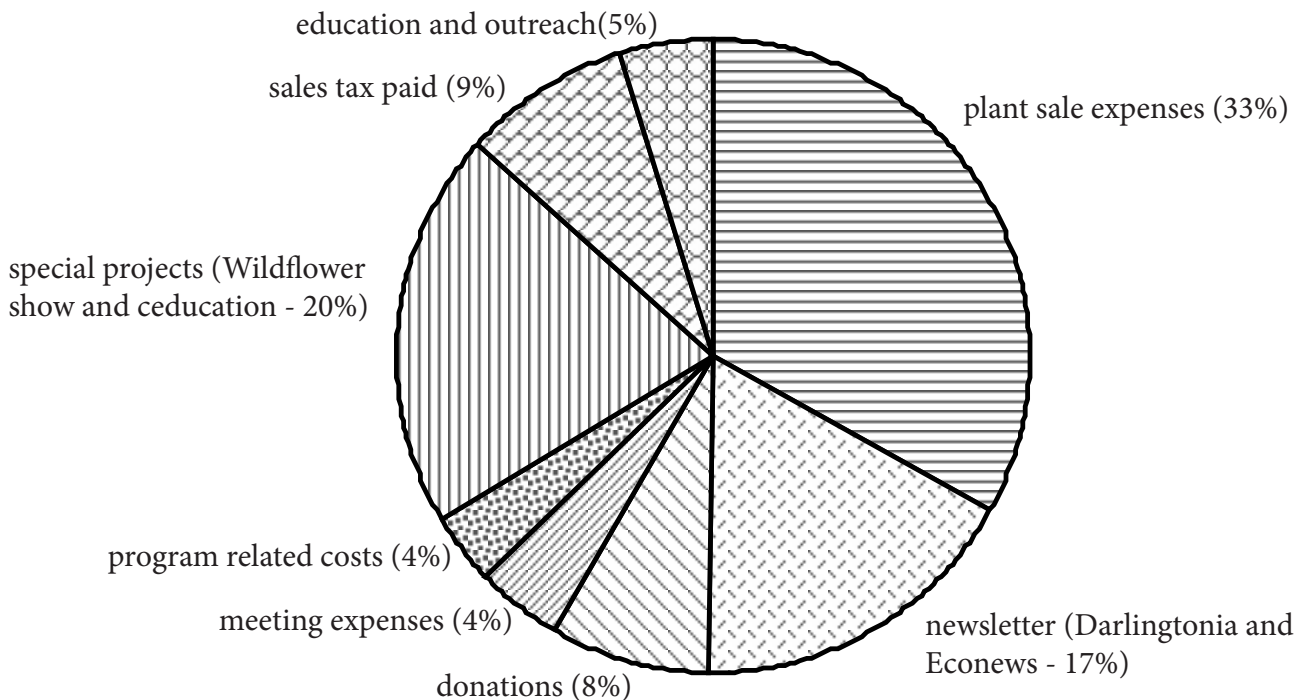
Tom Pratum, North Coast Chapter Treasurer

For the recent fiscal year ending March 31, the chapter received \$26,726 in income and had \$19,728 in expenses. This leads to a net of \$6,998. While we prepare our budget to break even every year, this past year we again took in more plant sale revenue than predicted, while our expenses were relatively unchanged. A breakdown of our income and expenses for the latest fiscal year is shown in the charts below.

Chapter Income (total \$26,726)



Chapter Expenses (total \$19,728)



If you would like further information or have any questions about the information presented here, please contact Tom Pratum at tkp@whatcomssl.org or 707-382-8640.

FIELD TRIP REPORTS

Coastal Trail, Hidden Beach Section from Requa to Lagoon Creek

February 28, 2015

By Carol Ralph

This trail from the Requa overlook at the mouth of the Klamath River, north to Lagoon Creek, where Highway 101 touches the beach, called out 21 people into the very earliest days of spring, with blue skies soaring, the ocean gently rumbling, the green tide of weedy grasses threatening the trail, leaf buds bursting forth richly green on bare-twigged shrubbery, herbaceous shoots shooting out of the ground and unfolding their leaves, first flowers timidly opening on many species. The only species in full flower were Miner's Lettuce (*Claytonia perfoliata*) and Candyflower (*Claytonia sibirica*), and some individual Smith's Fairybells (*Prosartes smithii*) were magnificent. Despite many reports that the season was early this year, by weeks or a month, the Red-flowering Currant (*Ribes sanguineum*), Western Trillium (*Trillium ovatum*), and Giant Purple Trillium (*Trillium kurabayashii*) were not blooming as much as they were on February 27, 2010, our previous field trip to this trail.



Two interesting finds were a weedy plant and a rare plant. On a rock outcrop by the trail were rosettes of pinnate leaves that looked somewhat like horkelia or cinquefoil. I have seen these plants on that rock over a number of years without being able to identify it. This year we found a flower stem and a few open flowers and could identify it as Garden Burnet (*Poterium sanguisorba*). Garden Burnet is not on the lists of invasive plants here, but when I saw it spread throughout acres of coastal prairie and scrub at Pt. Reyes National Seashore a month later, I thought maybe it wasn't just a cute little plant. I told a botanist at Redwood National Park about it, and he intended to send a crew to look for it. On the damp trailside in the northern half of this trail is a long patch of Pacific Golden Saxifrage (Ground-ivy-leaved Spleenwort; *Chrysosplenium glechomifolium*). This creeping, spreading member of the saxifrage family is currently being considered for listing as a rare species in California.

To make this a 4-mile walk, not eight, at the start of the day we shuttled the cars to the Lagoon Creek end of the trail, where they were a welcome sight. It was a satisfying day reviewing coastal shrubs, ferns, trees, and flowers as we wound through coastal scrub, Red Alder (*Alnus rubra*) forest, and Sitka Spruce (*Picea sitchensis*) forest. Some of us detoured to see the logs, boulders, sandy beach, and a shady cliff at Hidden Beach.



Pink-margined Monkeyflower Rare Plant Treasure Hunt

Horse Mountain Botanical Area June 20, 2015

by John McRae, Botanist, Six Rivers National Forest

For the third time in as many years Six Rivers National Forest has partnered with the North Coast Chapter of the California Native Plant Society to host a Rare Plant Treasure Hunt. The Rare Plant Treasure Hunt (RPTH) is a citizen-science program started by CNPS in 2010 with the goal of getting up-to-date information on many of our state's rare plants, while engaging chapter members and other volunteers in rare plant conservation.

On June 20, 2015, nine chapter members, who included 3 Forest Service botanists, headed up to Horse Mountain Botanical Area on Six Rivers N.F. to visit known sites of the pink-margined monkeyflower (*Erythranthe trinitensis*). This species was recently described in 2013 and won't be found in the most recent edition of the Jepson Manual, which was published a year before. It is an annual known only from Humboldt, Siskiyou, and Trinity Counties. It is listed in the Rare Plant Inventory as a 1B.3 (rare in California and elsewhere, at low risk), and its global ranking is 2. It is believed to be endemic to serpentine substrate. Additional information regarding this newly described rare plant can be found at the CNPS website (www.cnps.org).

Perhaps you are wondering why a monkeyflower is not in the genus *Mimulus*, and you won't be surprised to hear that it is

(Continued on page 7)

(Continued from page 6)

due to a recent revised taxonomic classification of the Phrymaceae, based on molecular analysis and morphological taxonomic studies. You will be happy to hear that the pink-margined monkeyflower can be identified by field observation. How to keep up with the many changes in plant nomenclature that are on the horizon is a bigger question for those of us who are memory challenged and will always think of a monkeyflower as a *Mimulus*.

The pink-margined monkeyflower is quite showy, having a



red-spotted, yellow floral tube, becoming white towards the pink tips of the flower. However, the flowers are quite small, easily under a centimeter in

diameter, and are best appreciated using a 10x hand lens. The plants we observed were mostly under 2 cm. tall, and hence they were very easy to overlook. At first we walked right by a known site before finally finding some and honing our search image. The pink-margined monkeyflower is truly a “belly plant,” and the flowers are best observed by lying face down in the road with hand lens in hand, remaining ever alert for an oncoming motorist.

Except for a handful of plants found on the cut slope of the road to the old ski area, the majority of the approximately 250 plants found were growing on the uphill, moist surface of gravel roads at the base of the cut slope. The compacted road substrate was still moist, a condition favored by the pink-margined monkeyflower, and it seems likely that snow melt plays an important role in the persistence of this short-lived annual. Although the sparsely vegetated, gravelly road edge appears to provide a degree of freedom from competition and favorable conditions for seed germination, it is important to find populations off of roads in order to observe it under natural conditions. The importance of snow melt heightens the concern regarding climate change and the impact reduced snowfall could have on the persistence of the pink-margined monkeyflower on Horse Mountain.

In retrospect, there’s no substitute for finding what you’re looking for on a treasure hunt, especially in the company of folks who share a common interest. In all respects this was a very successful treasure hunt. Not only did we find all

known occurrences mapped on Horse Mountain, but we also found two new sites to add to the treasure chest. Several more populations have been found since the treasure hunt in the vicinity of Horse Mountain, and there remain many acres of suitable habitat that have not been surveyed, so mark your calendars for June 11, 2016, grab your macro lens and join our efforts to expand our knowledge of the distribution and abundance of this rare, annual monkeyflower.

Other species of interest observed at Horse Mountain include: Peregrine Thistle (*Cirsium cymosum* var. *cymosum*), Minute Willowherb (*Epilobium minutum*), sedges (*Carex* sp.), Western False Asphodel (*Triantha occidentalis*), Leopard Lily (*Lilium pardalinum*), California Lady's Slipper (*Cypripedium californicum*), Cotton Grass (*Calliscirpus* (formerly *Eriophorum*) *criniger*), Evergreen Everlasting (*Antennaria suffrutescens*), Greene's Hawkweed (*Hieracium greenei*), Naked-stem Buckwheat (*Eriogonum nudum*), Rosy Spiraea (*Spiraea splendens*), Small-flowered Starlily (*Toxicoscordion micranthum*), Tracy's Lomatium (*Lomatium tracyi*), bog orchid (*Plantanthera* sp.), White Rushlily (*Hastingsia alba*), Narrow-leaved Lotus (*Hosackia oblongifolia* var. *oblongifolia*).

Addendum by Carol Ralph. We started the day on the west slope of Horse Mountain, on 6N28 (being called Indian Butte Rd. by the Horse Mountain Trails Group) and later drove down 6N38 (Horse Mountain Mine Rd.), stopping various places. The Western Azaleas (*Rhododendron occidentale*) were glorious and fragrant; the last of a great bloom of Beargrass (*Xerophyllum tenax*) were magnificent. Most of the flowering treats that John lists were in wet ditches along the roads.



Pink-margined Monkeyflower. Pine needles on the ground around it indicate its diminutive size. Note the yellow throat, white petal bases, pink petal tips, and somewhat narrow, opposite leaves. Photo by John McRae

(Continued on page 11)

MEMBERS' CORNER

WELCOME NEW MEMBERS

GISÈLE ALBERTINE
JOAQUIN HALE
ERIC OLSON

THANK YOU RENEWING MEMBERS

PAUL ANDERSON
HEATHER BRENT
ARLENE BROYLES
ANN BURROUGHS
COLIN FISKE
BRENDA FORD / ROBERT SNYDER
MANETTE GERSTLE
LEIA GIAMBASTIANI
NANCY GREGORY
SUSAN HALPIN
JACQUELINE HAMILTON / JOHN D. HAMILTON
RONALD W HILDEBRANT
BOJAN INGLE
MARIE KELLEHER-ROY
DR. BRUCE KESSLER / PAM KESSLER
RHIANNON KORHUMMEL
MELISSA KRAEMER / TODD KRAEMER
TOM LISLE / LORINDA DENGLER
JOHN LONGSHORE / JUDY LONGSHORE
MISSOURI BOTANICAL GARDEN
BARBARA REISMAN
JUDIE SNYDER
MICHAEL STUART / BETHEL LABORDE
THEODORE UTECHT
WENDY WAHLUND / BEN SHEPHERD
ELAINE WEINREB
ART WILSON

JOHN YOAKLEY
REBECCA ZETTLER

MEMBERSHIP BENEFITS

Support these local businesses and with proof of your North Coast membership, receive discounts on your purchases.

- **Greenlot Nursery**, 10% discount on plants, 443-9484
- **Lost Foods Native Plant Nursery**: 10% discount on plants, 268-8447, LostFoods.org
- **Mad River Gardens**: 10% discount on plant purchases, 822-7049
- **Miller Farms**: 5% discount on plant materials, 839-1571
- **Pierson's Garden Shop**, 10% discount on all garden shop items (except sale or non-discountable items—please ask staff before going to register), 441-2713
- **Samara Restoration LLC**, 10% discount on plants, 834.4379 / samararestoration.com

JOIN THE CNPS NORTH COAST CHAPTER!

To join or renew, you can either:

- ◆ Send your name and address, check (payable to CNPS) CNPS, 2707 K St., Suite 1, Sacramento, CA 95816-5113.
- ◆ Pay on-line <http://www.cnps.org/cnps/join/>

STEERING COMMITTEE MEMBERS/CONTACTS

President	Carol Ralph	707-822-2015	theralphs@humboldt1.com
Vice President	Greg O'Connell	707-599-4887	gregoconnell7@gmail.com
Secretary	Frances Ferguson	707-822-5079	fferguson@reninet.com
Treasurer	Tom Pratum	707-382-8640	tkp@whatcomssl.org
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Native Plant Gardening	Pete Haggard	707-839-0307	phaggard@suddenlink.net
Native Plant Consultation	Bev Zeman	707-677-9391	donjzeman@yahoo.com
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Education	Position Open		Contact President Carol Ralph
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Website & Publicity	Larry Levine	707-822-7190	levinel@northcoast.com
Poster Sales	Rita Zito	707-443-2868	ritazito53@yahoo.com
T-Shirt Sales	Position Open		Contact President Carol Ralph
Workshops	Gordon Leppig	707-839-0458	gleppig@dfg.ca.gov
Wildflower Show	Position Open		Contact President Carol Ralph
Chapter Council Delegate	Larry Levine	707-822-7190	levinel@northcoast.com
NEC NCCNPS Representative	Gary Falxa	707-476-9238	gfalxa@suddenlink.net

COMMUNICATIONS

North Coast CNPS members have four ways to share information with each other:

- The **Darlingtonia Newsletter** (quarterly),

	Submission	Issue	Print Date	Deadline	Announce Events In
Winter	January 1	December 1	Jan, Feb, Mar, Apr		
Spring	April 1	March 1	Apr, May, Jun, Jul		
Summer	July 1	June 1	Jul, Aug, Sep, Oct		
Fall	October 1	September 1	Oct, Nov, Dec, Jan		

Email newsletter articles, factoids, tidbits, etc. to the Newsletter Editor by the submission deadline. Articles should generally be no more than 1,000 words and photos can be any size and in these formats: JPG, JPEG, BMP, GIF, or PNG. Photos should be sent as separate attachments (not embedded in the article).

- Our **chapter's website**: www.northcoastcnps.org
- E-mail lists/forums** To subscribe, send an email to:
 - For Announcements: NorthCoast_CNPS-subscribe@yahoogroups.com
 - For Gardening: NorthCoast_CNPS_Gardening-subscribe@yahoogroups.com
- Facebook** www.facebook.com/NorthCoastCNPS

EcoNEWS AND YOU

We, the North Coast Chapter of CNPS, are a member organization of the Northcoast Environmental Center (NEC), a valuable voice for conservation in our area. We have a seat on their board of directors. The NEC is the only organization with which we share our mailing list. We think it is important that our members receive *EcoNews*, an informative publication about conservation issues in our area. Our chapter pays NEC to mail *EcoNews* to our members who are not also NEC members. You can reduce this cost to our chapter by joining NEC at www.yournec.org or requesting your *EcoNews* be electronic (contact Gary Falxa at gfalxa@suddenlink.net).

NATIVE PLANT CONSULTATION SERVICE



Are you wondering which plants in your yard are native? Are you unsure if that vine in the corner is an invasive exotic? Would you like to know some native species that would grow well in your yard?

The North Coast Chapter of the California Native Plant Society offers the Native Plant Consultation Service to answer these questions and to give advice on gardening with natives. If you are a member of CNPS, this service is free, if not, you can join or make a donation to our chapter.

A phone call to our coordinator, Bev Zeman at 677-9391 or donjzeman@yahoo.com, will put you in touch with a team of volunteer consultants who will arrange a visit to your property to look at what you have and help choose suitable plants for your garden.

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Before conversion, the dead shrub, Cape Weed, and flowering cherry.

A. I suggested native plants because they would do well with little maintenance, and they agreed. I also said I would not plant any large trees because that stretch of Spear Avenue has some lovely flowering cherry trees.

Q. The flowering cherries are not native, did you consider removing them?

A. No, they are beautiful, mature trees that provide some shade to the native garden that faces south and sits against a warm block wall. I think these trees have provided great compost since they have been dropping blossoms and leaves for many years and they deserved to stay. Also, the trees do not spread or even drop viable seeds, so they will not “take over” like some other plants, such as the Cape Weed that was removed.

Q. How did you decide which native plants to plant?

A. I decided to plant a wide variety of native plants for folks to enjoy. I planted some evergreen shrubs right up against the block wall, including coyote brush and Oregon grape. And I planted some “showy” shrubs like red-flowering currant, which has large, pink blossoms, and red twigged dogwood, which has bright red branches. Then I planted some lower-growing perennials in front of the shrubs, including seaside daisy, Douglas iris, yellow-eyed grass, yarrow, checker mallow, native columbine and western wallflower. I tried to select plants that would remain a manageable size, since the patch is a narrow strip by the bus stop. I expect to have to do some pruning of the shrubs to keep them flat against the wall and cleaning up of the perennials to keep them off the sidewalk, once they are done for the season. And if a plant is just too big or not happy I will remove it or replace it. There are many native plants that would be happy against this warm block wall,



Looking west, penstemon, yarrow, small Oregon grape, checker mallow, sage, and seaside daisy.

sheltered from the worst of the north wind that blows down Alliance Avenue.

Q. Where did you get your native plants?

A. I have a native plant garden, and so do a couple of my neighbors. I collect cuttings and seeds and I dig up volunteers too. So, I have a very local, garden source for plants.

Q. It sounds like you enjoy growing plants.

A. Yes, I grow plants for the California Native Plant Society--North Coast Chapter (NC CNPS) plant sales. CNPS just had a very successful spring sale in Manila. The NC CNPS fall plant sale will be on September 12, 2015, in Bayside.

Q. Can native plants be purchased locally?

A. Yes, aside from the two annual sales, NC CNPS can be contacted any time via their website (NorthCoastCNPS.org). The Lost Foods Native Nursery at Redwood Acres and Samara Restoration Nursery up on Dows Prairie in McKinleyville both have great selections of native plants.

Q. What steps were needed to establish the garden?

A. I started by removing the Cape Weed and weeds. Then I turned the soil and planted. I removed weeds for about a month before covering the soil with cardboard. Then I mulched with redwood mini- bark. The soil was excellent, so I did not add any amendments at all. The redwood mulch will provide some acid that most native plants enjoy.

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Counting Pink-margined Monkeyflower requires good vision and attention to detail. A bare, gravel bed that holds snow or moisture into spring is the right habitat. Photo by Carol Ralph

Snow Camp Mountain

9 May 2015

by Carol Ralph

Between the Mad River and Redwood Creek is a ridge accessed from Highway 299 that is part of the vast, private lands we drive through to get to the public lands we often explore on Six Rivers National Forest. By special invitation of Green Diamond Resource Company's botanist Bianca Hayashi we were privileged to be shown the Snow Camp Mountain area on this ridge.

First we visited Snow Camp Lake, at 4,000 ft elevation among White Fir (*Abies concolor*), Douglas-fir (*Pseudotsuga menziesii*), and Incense Cedar (*Calocedrus decurrens*). Despite having no flow in or out, this natural lake was fresh and clear. By the end of our wander around we had seen blooming many of our early spring favorites: Western Trillium (*Trillium ovatum*), Hooker's Fairy Bells (*Prosartes hookeri*), Pussy Ears (*Calochortus tolmiei*), Purdy's Iris (*Iris purdyi*), California Fawn Lily (*Erythronium californicum*). We saw four violet species: purple-flowered Western Dog Violet (*Viola adunca*) in the sunny grass, yellow-flowered Stream Violet (*V. glabella*) and Redwood Violet (*V. sempervirens*) under the trees, and white-flowered McCloskey's Violet (*V. macloskeyi*) by a log near the shore of the lake. We puzzled over an anemone of the Gray's or Lyall's sort (*Anemone grayi* or *lyallii*), a "study needed" situation in *The Jepson Manual*. A widespread but inconspicuous species was on the damp lakeshore, the diminutive Bractless Hedge Hyssop (*Gratiola ebracteata*), which is not as tall as its name is long. It must be a good disperser, to find its way to its muddy habitat around this isolated lake. We were excited to see "the other" *Gaultheria*, Slender Wintergreen (*Gaultheria ovatifolia*), low and spreading and leaves half the size of its cousin Salal (*G. shallon*). Then we were especially excited

to see Running Pine (*Lycopodium clavatum*), not a pine, but a spore-bearing plant whose creeping stems are prickly and evergreen like a conifer's twigs. It is an official rare plant, listed as 4.1, of limited distribution in California. It is widespread to the north, as is another rare plant we saw, Great Burnet (*Sanguisorba officinalis*), whose leaves were just opening. It is ranked 2B.2, rare in California but common elsewhere.

We drove a short ways to the roadside head of a gully, ordinary except that among the lush carpet of Candyflower (*Claytonia sibirica*), Stream Violet, Small-flowered Nemophila (*Nemophila parviflora*), Miners Lettuce (*Claytonia perfoliata*), and California Blackberry (*Rubus ursinus*) were a good number of Bensoniella (*Bensoniella oregona*), one of the rarest plants in California, ranked 1B.1. It occurs only here on Snow Camp Mt. and in southern Oregon. In its non-blooming state it resembled the familiar Fringecups (*Tellima grandiflora*), with the addition of long, shaggy hairs on the stems and petioles. What brought it to this corner of the mountains? Why just this corner??? That is a common question of rare plants. Contrast that with the tiny Bractless Hedge Hyssop, which manages to get everywhere.

Our final destination was a Riparian Management Zone, a timber management term for leaving streamside vegetation, in this case along a small tributary whose waters eventually enter Redwood Creek. What a great example of the benefits of this practice! Under a canopy of mixed Douglas-fir, White Fir, Madrone (*Arbutus menziesii*), Golden Chinquapin (*Chrysolepis chrysophylla*), Tanoak (*Notholithocarpus densiflora*), Pacific Yew (*Taxus brevifolia*), and alder (*Alnus* sp.) was a similarly diverse shrub layer and a lush, herbaceous cover that left no space to put our feet while we marveled at the Modesty (*Whipplea modesta*), Twinflower (*Linnaea borealis*), Western Trillium, Vanilla Leaf (*Achlys triphylla*), Star Flower (*Trientalis latifolia*), Rattlesnake Orchid (*Goodyera oblongifolia*), Calypso Orchid (*Calypso bulbosa*), One-sided Wintergreen (*Orthilia secunda*), Queen-cup (*Clintonia uniflora*), Sugar Scoop (*Tiarella trifoliata*), Stream Violet, Northern Inside-out Flower (*Vancouveria hexandra*), Gray's/Lyall's Anemone, White-veined Wintergreen (*Pyrola picta*), etc. It was all there in this strip between the "business" parts of the forest, visible as open sky beyond the edges of this oasis. PLUS beautiful flowers of Bunchberry (*Cornus canadensis*), a dogwood that creeps on the forest floor, with white flowers as stunning as our Mountain Dogwood (*Cornus nuttallii*), AND nodding, dancing, white or pink blooms of a large fawn lily with mottled leaves and wide bases of the stamens. Was it Coast Fawn Lily (*Erythronium revolutum*), which is pink? or Giant Oregon Fawn Lily (*E. oregonum*), which is white? Bianca is working on that

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question. The Bunchberry and both these fawn lilies are ranked 2B.2, rare in California, common elsewhere. One more fantastic treat at that spot was a small pile of cut pieces of Sword Fern (*Polystichum munitum*) leaves outside a largish burrow, sure sign of a Mountain Beaver (*Aplodontia rufa*), a very secretive rodent (not at all a beaver). What a magical place! Rich rewards for leaving the riparian zone to flourish.

All 16 of us thoroughly enjoyed the day and appreciated Green Diamond and Bianca sharing one of their botanically rich sites with us. Something about Snow Camp Mt. has preserved these southern populations of more northerly species, rare in California, like Running Pine, Bunchberry, Great Burnet, and Giant Oregon Fawn Lily, as well as the only known California population of *Bensoniella*. May Green Diamond gracefully bear the burden of stewardship of this place.



Great clumps of Bear-grass with last year's tall flower stalks greeted us at Snow Camp Lake.



Running Pine, Oregon Wintergreen, and Redwood Violet run together on the forest floor.



Bractless Hedge Hyssop



McCloskey's Violet



Western Dog Violet



Purdy's Iris



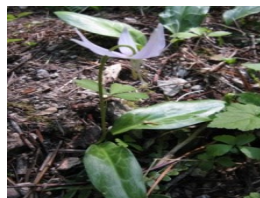
Evidence the riparian zone was not always protected



Rattlesnake Orchid



Bunchberry



Coast or Giant Oregon



Gray's or Lyall's Anemon

The Cusp of Spring on Horse Mountain

12 April 2015

By Carol Ralph

In April snow is usually covering the ground on Horse Mountain. This past winter featured bizarrely warm weather in January and no snow until late in March. Ten of us explored some favorite spots along the Horse Mt.-Titlow Hill corridor in Six Rivers National Forest to see what plants would be doing in this confused year, at a time of year we'd never been there.

First we walked about a half-mile of Indian Butte Rd (6N18), at elevation 4,720 ft on the west side of Horse Mt. The view to Humboldt Bay, the beaches, and the Eel River Bottoms was clear and stunning. Where sun shone on the ground, as on the unshaded portions of this road, its warmth had melted the snow, creating puddles and wet rivulets. A Wedge-leaf

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White sage, columbine, monkey flower and red-flowering currant.

Q. Do you need to water the garden?

A. I watered once or twice when I planted in the fall. Then nature took over. We had a nice wet winter and the roots got established. In the spring, the plants just took off. There was very little maintenance. Once the

blossoms are done, I may collect some seeds and do some thinning. So the cycle will continue and the seeds and volunteers can be used for the next native garden. I did plant the yellow-eyed grass in the spring and have watered that a few times. The mulch really helps retain the moisture and the cardboard helps cut down on the weeds. And of course, many native plants are “drought tolerant,” so they need less water.

Q. Is there much maintenance work involved?

A. There is a minimum amount of weeding to do because the cardboard and mulch have helped reduce the weeds. I expect to have to do a winter cleanup of leaves and plants that die back for the season and some pruning of the shrubs to keep them a reasonable size in the small area. I will also remove some plants to make divisions to use in other gardens. Plants like yarrow and California aster travel via roots underground and do need some managing. You have to find a balance between letting plants do their own thing and managing them in any garden. Public places get public traffic so a few plants have been stepped on and broken. I have added some rocks around the base of some plants to keep them from being trampled by college students rushing to get on the bus. Overall, I would consider this native garden to be lower maintenance than average.

Q. Have you had any help with this project?

A. I have done this project myself. But, several neighbors have shown interest in helping with my next “patch.”

Q. What is next?

A. I have adopted a patch on Alliance Road north of the stop sign. I will think of a “plan” while I am weeding until the fall planting time. Melissa Kraemer and her son Miles who live on Antoine helped to remove the grasses before they dropped seeds and Ed, who lives on Zelia Court helped weed and remove plastic weed mat. I am glad that there is some community interest. There are plenty of patches along sidewalks that are in need of some TLC. Perhaps these plantings will inspire others to use native plants in their gardens or even to adopt a neglected patch near their homes.



The next project at Alliance Road and Spear Avenue.

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Ceanothus (*Ceanothus cuneatus*) and a small Western Serviceberry (*Amelanchier alnifolia*) were blooming! Their warm and sunny exposure felt like spring. On the packed, gravel road a wet rut ran in the exact location of the Pink-margined Monkeyflower (*Erythranthe trinitiensis*) population, seen there the previous June (and again June, 2015. See article this issue.), when the ground was totally dry. There was no sign of this tiny annual in April. After the road curved onto the northwest- and north-facing slope, with more trees shading it, snow and icy puddles were larger. We walked as far as the little waterfall and azalea thicket and practiced distinguishing Port Orford Cedar (*Chamaecyparis lawsoniana*) and Incense Cedar (*Calocedrus decurrens*).

At the main parking area along Titlow Hill Rd. ("The Intersection"), between patches of snow under the Jeffrey Pine (*Pinus jeffreyi*), we found the first precious, pink flower of Calypso Orchid (*Calypso bulbosa*) and leaves of California Fawn Lilies (*Erythronium californicum*). Crushing right through this flower garden were wide, heavy tire tracks. I



Indian Butte Rd., showing the wet rut where the Pink-margined Monkeyflower will bloom in June, when the road is dry. Photos by the

reporter this transgression to the District Ranger in Willow Creek, who appreciated being told, and to the Adopt-A-Botanical-Area program of KS Wild. If people report this and other

vandalism, the Forest Service will be more likely to take preventive action, such as installing barriers around the parking area.

Next we drove 2.7 miles south to Cold Spring (road 5N27), at 4,800 ft elevation, and walked down to the prairies and oak woodland below. About two inches of snow was under the fir forest, while the extensive southwest- and west-facing prairies were snow-free. Here we found the first open flowers of a number of species, including three violets: the royal-purple-eared Hall's Violet (*Viola hallii*); the lush-foliaged, yellow-flowered Stream Violet (*Viola glabella*); and the meadow-dwelling, yellow-with-maroon-backs Prairie Violet (*Viola praemorsa*). The low Purdy's Fritillary (*Fritillaria purdyi*) had buds, and the taller Checker Lily (*Fritillaria affinis*) had yet to add buds above its whorled leaves. Less bashful

were the Giant White Trillium (*Trillium albidum*), some of which were blooming. We thought the plants and flowers of the trillium were smaller than previous years. We found ourselves looking at tongue-shaped, fleshy leaves and wondering how to distinguish the juvenile plants of fritillaries, fawn lilies, trilliums, and lilies.

We ate lunch sitting on large, warm rocks, soaking up the sunshine, overlooking the steep prairie and leafless oak groves, across Redwood Creek to the forested, patchwork-logged slope the other side. Western Bluebirds and Western Meadowlarks announced it was spring here. Seeing snow-melt trickling down the creeks and seeps, and squishing on the damp ground, we felt spring was arriving properly, even though much too early and too briefly.

South of Cold Spring Titlow Hill Road rose gently to higher elevation. Just past Clear Lake it became totally covered with snow. At roughly 4,900 ft elevation spring had not arrived, even in the sun. In short, we were on the edge of spring, a fickle time of year. Yes, it was early, but the plants that sally forth with spring can cope with the sudden temperature changes and "unseasonable" snows. They have faced those challenges for eons. Hopefully the challenge of the impending long, dry summer was another test they have passed in the past.



Overlooking Redwood Creek Valley from the rocks below Cold Spring

King Range

May 16-17, 2015
By Carol Ralph

Being south of Cape Mendocino, Shelter Cove has a different feel from Humboldt Bay. Being at the end of a long, winding road makes it more remote than even us "behind the Redwood Curtain." Two of us took a May weekend to peek into this wild world and get to know some of its inhabitants.

On Saturday we participated on behalf of CNPS in the Native Plant Workshop organized by Lost Coast Interpretive Association and the Bureau of Land Management, two major

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players in conservation in the area. We learned about BLM's Invasive Plant Awareness campaign and their Phenology Project, for which they have installed signs by particular plants in popular places to instruct visitors how to record the phenology of that plant using their cell phones. We heard a lecture about grasses by a CNPSer. We enjoyed a nature walk on the new Shelter Cove Upper Nature Trail in a rich, steep, riparian gully in town, led by a CNPSer. We helped edit the list of plant names for the plant signs that will label plants along this trail. It is a project of the Shelter Cove Arts & Recreation Foundation working with the Lost Coast Interpretive Association.

Saturday mid-afternoon we headed down Chemise Mountain Rd. into the Lost Coast Management Area of the King Range National Conservation Area. We enjoyed a couple hours hiking on Hidden Valley Trail, which starts in riparian, skirts along a meadow, and joins the Lost Coast Trail to climb up a ridge. Our botanical confidence was buoyed by successfully keying a manzanita using the new manzanita book (*Field Guide to Manzanitas* by Kauffmann, Parker, and Vasey). It was Hairy Manzanita (*Arctostaphylos columbiana*), common in our coastal zone. The meadow was thick with grasses and sedges, recovering from farming but suffering lack of management to allow space for herbaceous native plants. Accustomed to the rich, green understory in forests closer to Arcata and north, we were struck by the total lack of understory in the Douglas-fir-Tanoak-Madrone forest we came to (*Pseudotsuga menziesii*; *Notolithocarpus densiflorus* var. *densiflorus*; *Arbutus menziesii*). I don't think the forest floor was so desert-like only for lack of rainfall, which is less here than farther north. The presence of stumps, a claustrophobically thick growth of Tanoak all the same size, and skeletons of manzanitas indicated a past clear-cut followed by lack of fire. The fire-deprived forest provided only a light-deprived forest floor. Up on the ridge we found larger trees, among them impressive Madrone, Canyon Live Oak (*Quercus chrysolepis*), and Golden Chinquapin (*Chrysolepis chrysophylla* var. *chrysophylla*) matching the 10-12-inch DBH Tanoak.

For the night we found an attractive site in Wailaki Campground under old growth Douglas-fir and Madrone, with younger Tanoak and a healthy understory of Evergreen Huckleberry (*Vaccinium ovatum*). I was excited to find an iris I could see was a hybrid between the long-tubed Purdy's Iris (*Iris purdyi*) and short-tubed Douglas Iris (*Iris douglasiana*) we had been seeing all day. Maybe I finally am learning these irises! It was fun to see Redwood Inside-out Flower (*Vancouveria planipetala*), with smaller flowers and tougher, evergreen leaves than the Northern Inside-out Flower (*Vancouveria hexandra*) more common around Arcata area.

The next morning Cheryl Lissin, local naturalist, writer, and environmental educator who had advised us on where to go on this trip, joined us for a morning hike from the campground, along the Bear Creek Nature Trail to Nadelos Campground and then up the Chemise Mountain Trail. The interpretive signs told how Native Americans maintained the landscape with fire, digging, and harvesting, activities notably lacking today. The forest on the steep hillside lacked stumps and included some good, large Douglas-fir and Golden Chinquapin, as well as large snags with fire scars. I interpreted these as signs of an old growth forest. It also was quite dark, with dense, mid-sized trees, solid canopy, and very sparse understory of Evergreen Huckleberry. Any island of light where the canopy was broken was filled with Douglas-fir saplings. I interpreted these as signs that without regular fires saplings grew to the canopy, shading out the understory that was there when the forest had more space between the large, fire-resistant trees. Lack of light does not bother mycoheterotrophs (saprophytes), as long as their fungal host and its mycorrhizally connected tree are healthy. Of these we saw Candy Stick (*Allotropa virgata*), Fringed Pine Sap (*Pleurocospora fimbriolata*), and Gnome Plant (*Hemitomes congestum*). A view point just off the trail along the top of Chemise Mt. looked east over the Coast Range. Just beyond that was a curious island about 200 m-long of chaparral (Hairy Manzanita, and shrubby Golden Chinquapin) and emergent Knobcone Pine (*Pinus attenuata*).

As a final treat, after our morning hike we visited Cheryl's home in Whitethorn to see her landscape. Her "editing nature" at the intersection of oak woodland, riparian forest, and Douglas-fir-Tanoak forest had created a very pleasant and diverse landscape. Our brief weekend introduction to the King Range had found interesting habitats, good trails, and talented, energetic, passionate people.



Hairy Manzanita and Knobcone Pine on the summit of Chemise Mountain. If the photo were larger, you could see the leafy inflorescence, smooth fruit, and hairy twigs of the manzanita.

Wiyots and County to Aid Coastal Checkerbloom

by Adam Canter, Botanist, Wiyot Tribe Natural Resource Dept.

The coast checkerbloom (*Sidalcea oregana* ssp. *eximia*) is a CNPS rank 1.B1 plant (endangered in Calif. and elsewhere) which is only known from about ten populations in northern California and around Coos Bay, Oregon. A genetic assessment of eleven known checkerbloom populations (many documented by Joseph P. Tracy in the early 1900s) along the coast from Cape Mendocino to the Oregon border was conducted by the U.S. Fish and Wildlife Service (USFWS) in the 1990s, which resulted in most populations being lumped into the Siskiyou checkerbloom (*Sidalcea malviflora* ssp. *patula*). However the populations sampled at Table Bluff and above Rio Dell fell into a distinct genetic group, along with a third distinct group from McKinleyville. This data suggest that the Table Bluff coast checkerbloom is indeed a unique and possibly exceptionally rare plant.



Dense inflorescence and shiny, round basal leaves of coast checkerbloom.
Photo by Adam Canter

The North Coast Chapter of CNPS along with now-retired USFWS rare plant botanist Dave (Kim) Imper initiated and conducted monitoring of the Table Bluff population in the past, which has been observed to have significantly declined since 2003 (D. Imper. *Darlingtonia* Spring 2007: 6-7). A brief inventory of the population in June of 2015 found only 14 flowering plants. Paying close attention to the population as it was flowering this year, I noticed that the right-of-way and some of the habitat had been mowed by Humboldt County Dept. of Public Works during the peak of the flowering period. Dave Imper's 1999 Sensitive Plant Report for coast checkerbloom lists some very practical management recommendations, including periods to limit mowing (Mar-Aug).

Having concern over potential impacts from the mowing, I contacted Humboldt Co. Director of Environmental Services, Hank Seemann, who very promptly sent Environmental Analyst Todd Becker out to meet with me to look at the population and right-of-way. A solution was quickly found, where permanent markers will be placed outside a buffer along either edge of the population, marking it as a sensitive plant site, and coordinating with the roads department to limit mowing within the buffer to Sept-Feb. Seasonally appropriate mowing appears to help this genus, and it is surmised that one reason the Arcata Airport population of Siskiyou checkerbloom is so healthy is "that the routine mowing, necessary to control vegetation around the runways, also serves to maintain the open conditions needed for the checkerbloom, an early successional or "pioneer" species, to grow." (D. Imper et al. *Darlingtonia* Spring 2011: 1, 11). We also discussed how the Wiyot Tribe Natural Resource Department could help with restoring the population by thinning out encroaching coastal scrub of California blackberry (*Rubus ursinus*) and sword fern (*Polystichum munitum*) during the dormant season. Restoration efforts could be assessed by re-instating annual monitoring!

Checkerblooms have a reputation for being hard to key to species, and possibly it is due to the seasonal nature of many of the diagnostic features. The coast checkerbloom differs from the Siskiyou in having a dense, uninterrupted inflorescence in a panicle. The Siskiyou checkerbloom inflorescence is more head or spike like, is interrupted, less dense, and more open. Fruits of the coast checkerbloom are smooth, while the Siskiyou's are rough and pitted. The calyx of the coast checkerbloom has un-branched bristles, while the Siskiyou generally has forked or stellate hairs. Easy enough?

Young checkerbloom basal leaves were known to be eaten as a raw or steamed green by native peoples in northwest California (Kat Anderson pers. comm.) The Wiyot Tribe is appreciative of the County's enthusiasm and willingness to listen to our concerns and excited about helping with the stewardship of this rare native plant.

VOLUNTEER CORNER

See what our chapter does! All with volunteer expertise and time! How can YOU help us? Let me count the ways....see partial list below. Phone Carol 822-2015 or write theralphs@humboldt1.com to volunteer, ask questions, or make suggestions.

Thank you!

Chris Beresford for another absolutely astounding plant sale in May. The nursery team and the plant sale team were just amazing.

Nursery volunteers for nurturing and watering plants through the summer to have them looking good for the fall sale.

The **Plant Sale Team**, enumerated in an article elsewhere, for a terrific, fun, profitable, successful fall plant sale at our nursery. Noteworthy for taking responsibility were **Anna Bernard, Cynthia Packard, Mary Alward, Karen Isa, Barbara Reisman, and Carol Ralph**. The planning and direction of our Nursery Manager **Chris Beresford**, who missed the sale for being in Alaska, made it possible.

Wildflower Show team, about 60 of you, for jobs well done and a wonderful show.

Bev Zeman, Virginia Waters, Wanda Naylor, Ron Johnson, and Carol Ralph for doing Native Plant Consultations.

Donna Wildearth for telling her students about our events,

Gary Falxa and Frank Milelczik for organizing a new printing of our t-shirts.

Barbara Kelly, Chris and Richard Beresford, Donna Wildearth, Karen Isa, Jon Hill, and Carol Ralph for tending our table at the Humboldt Permaculture Guild Seed & Plant Exchange.

Audrey Miller, Carol Woods, Pete Haggard, Frances Ferguson, Barbara Kelly, Frank Milelczik, Tom Pratum, and Carol Ralph for tending our table at Godwit Days.

Frances Ferguson for scheduling the table workers at those events.

Frances Ferguson, Ferg Ferguson, Frank Milelczik, Karen Isa, Rita Zito, Barbara Kelly, Barbara Reisman, Tom Pratum, Melinda Groom, Elaine Alison, and Carol Ralph for staffing our booth at the North Country Fair.

Melinda Groom for another year of making our evening programs festive with wonderful refreshments.

Gary Falxa, Dave Imper, Jen Kalt, Tony LaBanca, Mike Kauffmann for meeting with the Northwest California Mountains and Rivers representatives to talk about additions to wilderness and to wild and scenic rivers.

Tom Pratum for amazing tracking of our finances and members.

John DeMartini for leading very interesting field trips looking for galls.

During Native Plant Week in April

Monty Caid (Lost Foods Native Plant Nursery and Sanctuary), **Donna Wildearth**, and **Pete Haggard** for hosting open gardens.

Wanda Naylor (Hikshari Trail Stewards), **Michael Cipra** (Northcoast Regional Land Trust), **Rich Ridenhour** and **Leslie Anderson** (Friends of Arcata Marsh), **Ned Forsythe** (Sierra Club), **Tanya Chapple** (Mid-Klamath Watershed Council) and **Carol Ralph**, for leading walks.

Lia Webb (Surfrider Foundation), **Erik Johnson** (Samara Restoration Nursery), and **Monty Caid** for giving special lectures.

Volunteers needed. Big jobs and small, every one important. Most require no botanical knowledge. All are appreciated! Every job-holder is eligible to be on our Steering Committee. Contact Carol at 822-2015 or theralphs@humboldt1.com

Plant Sale Coordinator for the fall and/or the spring sale. Has the "big picture" of this fun event and the team creating it.

Plant Sale Volunteer Coordinator. Schedules workers for the sales using lists we already have.

Nursery Liaison. Communicates with the three nurseries before each plant sale; checks their plants in and out; calculates their share of the revenue.

Plant Sale Publicity Coordinator. Orchestrates print (newsletter, *Econews*, newspapers), online (web site, Facebook), fliers, and radio publicity. Thinks ahead to deadlines. Works with writers and photographers.

Poster Sale Person. Stores our inventory of posters (5 large, flat boxes plus 2 for rolled posters) and makes them available at our events. Could also arrange sales to bookstores, university classes, visitor centers.

Conservation Issue Specialists. Inform themselves about conservation issues of their choice and keep our Steering Committee and our membership informed. If you have expertise or can take time to research a project that threatens native plants, we need to hear from you.

Wildflower Show Coordinator. Gets lots of credit and thanks from the many people who enjoy the show, while coordinating a group who knows what needs to be done. Needs a good sense of "calendar."

First State Lichen in the US

By Tom Carlberg, Vice-president, California Lichen Society

On July 15, 2015, Governor Jerry Brown signed a bill designating the lace lichen, *Ramalina menziesii*, the California State Lichen. The law takes effect January 1, 2016, making California the first state to recognize a lichen as a state symbol. Lace lichen joins the ranks of other state symbols in California: the California poppy as the state flower and the grizzly bear as the state animal.

The California Lichen Society is responsible for the new designation, primarily through the efforts of Clint Kellner and members of the lichenological community who wrote letters of support. CALS sees this as an important step in increasing public awareness of the significant roles that lichens play in our natural environment. Calling attention to lichens by recognizing one of them as the California State Lichen creates an opportunity for us to learn about and celebrate the things that make California special.

The lace lichen has three qualities that make it an ideal candidate for the state lichen of California:

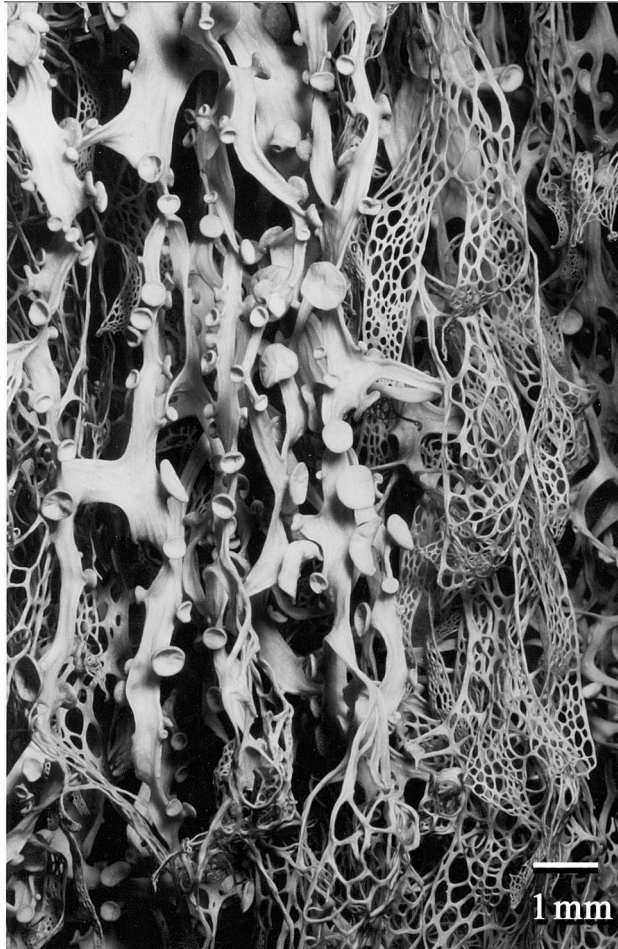
- It is easy to recognize even by those not very well acquainted with lichens
- It is common throughout much of California—growing along the coast from the northern to the southern borders and up to 130 miles inland
- It is a strikingly beautiful lichen.

While small in stature, lichens play a big role in the ecosystem. With nearly 1,900 species of lichens in California (Tucker 2014), they contribute to our region's rich biological diversity. Lichens are known for their sensitivity to poor air quality (Riddell et al. 2008, Jovan & Carlberg 2006), and are being used across California and other parts of the world to monitor air quality (Fenn et al. 2007, Geiser & Neitlich 2007, Jovan 2002, Ni Lamhna et al. 1983, Showman 1975).

Lichens are an integral part of the biotic crusts that stabilize desert soils. Additionally, animals use lichens for food, nesting material, and camouflage (Carlberg 2009). Humans have found a number of uses for lichens as well. Lichen

extracts are being studied for their antibacterial and antifungal properties (Shaffer 2011).

Ramalina menziesii is a fruticose green algal lichen with coastal and boreal affinities. It has a unique morphology in the world, but in two widely varying forms. The typical inland



morphology has broad flattened pendulous branches that soon develop a network of lace-like reticulations, unlike any other organism. This adaptation gives the lichen a high surface-to-volume ratio, and excels at sweeping moisture from the air, and when the moisture event has passed, the reticulations enable the lichen to easily dry out again. This is important, since many green algal lichens achieve their highest levels of photosynthesis as they dry out.

In our far northern California coastal dune forests, *Ramalina menziesii* looks and behaves a bit differently. Here, moisture is abundant. Even when fog is not blowing across the peninsula, the humidity is frequently greater than 40%, the threshold above which many green algal lichens become metabolically active (lichens with cyanobacterial partners require liquid water to achieve the same status). In this climate, growth

takes place more or less year-round, and specialized moisture-sweeping structures are less advantageous. The lichen becomes more filamentous, and the reticulations of *Ramalina menziesii* are smaller and fewer, sometimes so small and localized at the extreme branch tips as to require a hand lens before becoming evident.

Interestingly, transplanting the inland morph to a coastal location causes new growth to vary in the direction of the coastal morph, but when coastal thalli are transplanted inland, no variation occurs (Boucher & Nash 1990), and the transplanted thalli continue to grow long filamentous branches. There are a number of other papers that explore the unique morphology of this lichen. How does an organism grow such that the result is a filigree of lace? There is a series of papers about the development of the nets of *Ramalina menziesii* (Sanders 1989, 1992, 1997; Sanders & Ascaso 1995), concluding that perforations of the thallus take place in the rolled-up apical branch tips, but increase in the

(Continued on page 19)

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size of the nets results from a combination of apical growth and also growth of the individual fibers that make up the nets (intercalary growth). The articles are beautifully photographed, and worth looking into.

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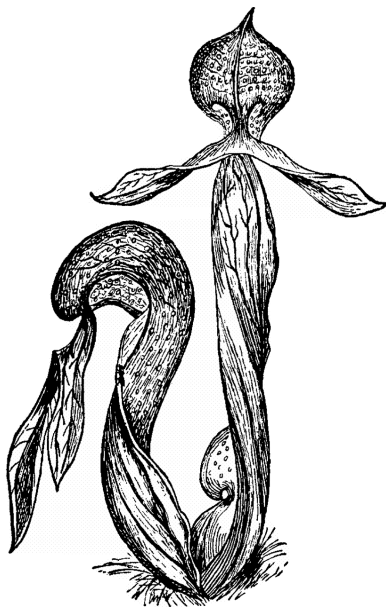
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CALENDAR of EVENTS

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- ◆ Wed 14: Program

November

- ◆ Sat 7: Field Trip
- ◆ Wed 11: Program

December

- ◆ Wed 10: Program

January

- ◆ Wed 13: Program