Native Plant Garden at Humboldt State
(Educational Landscaping ENVS 411 Capstone-Spring 2016)
By Marisa D’Arpino / St John

A stroll through campus on May 5 found a group of Humboldt State University students literally uprooting an area north of Science A (see map below). One of the students, Jennie Rose Saunders, said that they were working on the Humboldt State Educational Landscaping Project (part of their Environmental Science 411 Capstone). “The main goal of the site is to encourage interactive learning that will help to foster student knowledge on regional plants and reinforce student’s sense of place and community on campus.” Their objectives include improving both the “...connection between students and their knowledge of the local landscape, native plant and herb usage”; and their “...insight into the importance of sustainable food sources.”

The project includes: “...soil amendments, drainage repair, and a selection of appropriate vegetation for the site’s specific dimensions and needs” (some native plants already exist). “A block retaining wall will increase the capacity for soil, help to mitigate current runoff issues, reduce maintenance and promote plant establishment and success. The project will also develop informative signage to encourage student engagement and increase knowledge of Humboldt’s local landscape.”

(Continued on page 8)
FIELD TRIPS, LONG AND SHORT

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. Address questions about physical requirements to the leader. Weather and fires can require destination changes. It is wise to contact the leader if you are coming, in case plans change.

July 9, Saturday. **Plant Walk and Weeding in the Marble Mountains at Norcross Trailhead.** Help remove invasive plants from a wilderness trailhead and join us for a walk up Elk Creek. Meet at the Panamnik Building in Orleans at 9 a.m. This destination might change. Contact Tanya Chapple for details, tanya@mkwc.org. Co-sponsored by Mid-Klamath Watershed Council. Note: Camping at a Forest Service campground along the Salmon River after this event would be convenient for the Sunday hike out of Forks of Salmon.

July 10, Sunday. **Champion Incense Cedar Hike.** Salmon River Restoration Council will lead a hike about 4 miles round trip up Devil's Canyon, a tributary of the Little North Fork Salmon River, to re-measure the California and national champion Incense Cedar and enjoy the summer wildflowers. Bring warm clothes, rain gear, lots of water, lunch, sunscreen, and bug repellant. Meet at 9 a.m. at the Forks of Salmon Community Park, or at 9:30 a.m. 10.5 miles upriver at the intersection of Sawyers Bar Rd. and Little North Fork Rd. (FS40N51). For information contact Mel at 530-462-4665 or habitat@srrc.org.

July 23, Saturday. 10 a.m.-1 p.m. **Orchids in the Dunes.** Orchids are a very diverse group, including quite dainty species. Join Carol Ralph to learn about five species of orchid that live in the Lanphere Dunes. Four might be blooming. Walk 1-2 miles, partly on soft sand. Meet at Pacific Union School (3001 Janes Rd., Arcata) to carpool to the protected site. Co-sponsored by CNPS and Friends of the Dunes. Call 444-1897 to RSVP.

July 30, Saturday. **Rare Plant Treasure Hunt for Wolf's Evening Primrose** (*Oenothera wolfii*) in roadside locations around Humboldt Bay and Trinidad. *Oenothera wolfii* struggles to survive due to road maintenance activities and hybridization with a similar non-native species. We’ll attempt to map locations of *Oenothera wolfii* and its hybrids. For details contact Greg O'Connell at gregoconnell7@gmail.com or 599-4887.

August 6-7, Saturday-Sunday. **Del Norte Weekend.** From coastal bluffs and wetlands to serpentine ridges, botanical wonders are in every direction in Del Norte County. On this weekend, from headquarters in Rock Creek Ranch, a group-camping facility run by the Smith River Alliance on the South Fork Smith River, some people will head out rare plant treasure hunting, while other people head for trail hikes. Rare plant hunters will explore the Gasquet region (and possibly Lake Earl area) looking for several late-blooming taxa with historical records from the areas, including Little-leaf Huckleberry (*Vaccinium scoparium*), Great Burnett (*Sanguisorba officinalis*), and several sedge species (*Carex spp.*). For rare plant details contact Greg at gregoconnell7@gmail.com or 599-4887. For camping and hiking contact Carol at 822-2015 or thralphs@humboldt1.com. Come for all or party. Please tell us now if you are thinking of coming.

September 25, Sunday. **Cold Spring Day Hike.** Only one hour away from Arcata, in Six Rivers National Forest along Forest Highway 1 (Titlow Hill Rd off 299) we will be breathing mountain air and gazing at mountain vistas. The Cold Spring area offers diverse habitats—White Fir forest, oak woodland, azalea thicket, open meadow, rocky outcrop, and sunny seep. Both Jeffrey and Ponderosa Pines grow there, and at least five species of mycoheterotrophs (a.k.a. saprophytes). Cattle also graze there. We will assess their impact. We will walk two to three miles on cow paths and cross country. Meet at 9 a.m. at Pacific Union School (3001 Janes Rd., Arcata). Dress for the weather (at 4,800 ft elevation); bring lunch and water. Return late afternoon. It helps to know you are coming: Carol 822-2015.

October 23, Sunday. **Crothers Cove Day Hike.** Why hike this short trail in Prairie Creek State Park? Because we never have! And there’s a small lagoon at the bottom. Even small wetlands can hold botanical treasure, and short trails can pass interesting plants. This trail goes over the ridge from the road to the beach, less than 2 miles round trip. Meet at 9 a.m. at Pacific Union School (3001 Janes Rd., Arcata). Dress for the weather, including the beach; bring lunch and water. Return late afternoon. It helps to know you are coming: Carol 822-2015.

November 5, Saturday. **Groves Prairie Field Trip.** Unusual in our rugged mountains, Groves Prairie is a fairly level meadow, at 4,000 ft elevation, surrounded by Douglas-fir forest, some of it old growth. We last visited it 7 years ago, before it served as a fire camp (which hopefully will not be necessary in 2016). Will the Grape Fern be in the meadow, the Kneeling Angelica in the stream, the two species of yampah in the wet meadow, the Trillium-leaved Sorrel by the little bridge? Will the four species of gooseberries and currants have fruits? We will walk one to two miles in and around the meadow to answer these questions, some of it on a trail. Groves Prairie is two hours away in Six Rivers National Forest, up Forest Service roads north out of Willow Creek. Meet at 9:00 a.m. at Pacific Union School (3001 Janes Rd., Arcata). Dress for the weather (Remember, it is higher elevation) and off-trail walking; bring lunch and water. Return late afternoon. It helps to know you are coming: Carol 822-2015.
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.

**Sep 14**  **“Hazelnut Speaks of the Wiyot Past.”** Adam Canter, a biologist with the Wiyot Tribe, will share a story of re-discovery. The unique hazelnut scrub vegetation type was recently documented on Table Bluff. Hazelnut does not often grow on the immediate coast; The Manual of California Vegetation notes that it occurs in isolated, disjunct populations in San Mateo, Marin, and southern Sonoma Counties. Recently the Wiyot Tribe documented hazelnut scrub in Humboldt County, extending its known range by ~200 miles into the North Coast. Adam will highlight Wiyot history in relation to hazelnut, research into herbarium records which have shed light on the possible past distribution of this vegetation type, and share other important food plants the Wiyot Tribe cultivated. Current ethnobotanical research efforts are helping us better understand how California’s indigenous population managed, tended, and helped contribute to the diversity of species we see today. In the absence of Wiyot land management, some of these habitats are struggling to survive against forest encroachment, invasive species, and development.

**Oct 12**  **“The Natural History, Botanical Splendor, and Conservation of Mendocino Pygmy Cypress Woodland: A Rare Geobotanical Phenomenon.”** Gordon Leppig, with the California Department of Fish and Wildlife, will take us to one of the rarest and most threatened natural communities in California. The Mendocino Pygmy Cypress Woodlands are endemic to a narrow coastal strip in Mendocino County. Shaped by geological uplift of the land, strange soil conditions and hydrology have resulted in stunted trees, habitats for many rare and endemic plants, and a sensitive natural community found nowhere else. Despite its rarity, fascinating natural history, and high conservation value, Pygmy Cypress Woodlands face numerous threats. CNPS, the California Department of Fish and Wildlife, and others, are working to better understand, describe, and map this natural community as a means to further its conservation. Gordon will focus his presentation on the underlying natural history, botanical splendor, and efforts to better understand and conserve this unique natural community.

**Nov 9**  **California's Vast Habitats Seen Through Wildflowers Larry Ulrich** began his career in photography, and while travelling and working with his wife and photographic partner, have been making a living with a camera since 1972. Larry and Donna's most recent books include "Wildflowers of California", "Wildflowers of the Plateau and Canyon Country" "Wildflowers of the Pacific Northwest" and "Beyond the Golden Gate: California's North Coast" from Companion Press, and "Big Sur to Big Basin: California's Dramatic Central Coast" from Chronicle Books. They will present an overview of the many habitats in California followed by images of a variety of native plants through the seasons.

**Dec 14**  **TBD**
### Field Trip Reports

**Dunes and Dunes Forest from Lanphere to Ma-le’l**  
**February 27, 2016**  
by Carol Ralph

On a gentle, overcast day 11 explorers connected on foot two parts of the North Spit dune system that we usually visit separately. We shuttled two cars to the Ma-le’l North parking area on Young Ln, accessed off Highway 155 (Samoa Blvd) by the Sierra Pacific Mill and then started our walk at the Lanphere Dunes Unit of the Humboldt Bay National Wildlife Refuge, at the end of Lanphere Rd. farther up the Mad River Slough. Access to the Lanphere Dunes requires written permission.

In the marsh by the parking area the Skunk Cabbage (*Lysichiton americanus*), Red-flowering Currant (*Ribes sanguineum*), and Wild Cucumber (*Marah oreganusa*) were blooming. We traipsed up the Drifting Sands Trail. In the dunes the first Menzies’ Wallflower’s (*Erysimum menziesii*) bright yellow flowers were open, a very late or very early Beach Goldenrod (*Solidago spathulata*) added more cheer, and the long-blooming Beach Knotweed’s (*Polygonon paronychia*) offered its tiny white flowers. We turned back into the forest on the Beach Pine Trail. Under the Grand Fir (*Apies grandis*) at Calypso Corner we found a few Calypso Orchid (*Calypso bulbosa*) leaves, but no sign of flowers yet. Walking south on the Salt Marsh Trail, we looked at a hybrid manzanita, *Arctostaphylos x media*. One parent species, Kinnikinnik (*Arctostaphylos uva-ursi*), was ubiquitous in the forest, but we saw only one of the other parent, Hairy Manzanita (*A. columbiana*), miles away on the Dap Trail. The dune forest was solidly green, all leathery, evergreen leaves and conifer needles and a tapestry of green mosses on the ground, trunks, and branches. There was no hint of the mosquitoes, a dominant wildlife in late spring and summer. We turned west on Sitka Spruce Trail, which took us to the open dunes.

Emerging from the forest onto the vast sandy plain under an equally vast sky stretching to the distant ocean horizon was a breathtaking, invigorating moment. We continued south across the vast sandy backs of moving dunes. Lunchtime found us looking down from a high dune into a forest that had been toppled by the 2008 wind storm. Soon we descended into the forest on the Hout (Surf Fish) Trail of Ma-le’l North, then turned left onto the Viqhul (Salal) Trail to Iron Creek, site of a modest farm that has been erased. We returned to Dap Loop Trail and followed its eastern side to the main trail along the shore of the slough, the Tsoutsgish Trail, which we followed to the cars waiting at the Ma-le’l North parking area.

We successfully connected the familiar dunes and dune forest of Lanphere with the familiar dunes and dune forest of Ma-le’l North and saw some unfamiliar terrain in between familiar plants on it.

**Bryophytes in Arcata Community Forest**  
**June 4, 2016**  
by Carol Ralph with John Demartini and Virginia Waters

What is a bryophyte?? If you missed the walk to learn the answer, you can find it on the web site of the Bryophyte Chapter of CNPS, bryophyte.cnps.org. What’s more, you can find on that site a printable, four-page, photographic guide to 23 common bryophytes in Arcata Community Forest: bryophyte/cnps.org/images/pdf/ArcataRedwoods.pdf. It features mosses, leafy liverworts, thallose liverworts, and a hornwort. What a great learning tool! The group used it with Dr. Paul Wilson on this field trip through the forest. Paul embellished the identification with information about the life cycles, phylogeny, and ecology of these small, green, native plants. He opened our eyes to the Lilliputian world of bryophytes.

If you are intrigued by bryophytes, join the Bryophyte Chapter of CNPS. Current North Coast members may add Bryophyte Chapter as a second chapter with no extra charge. Contact the state office: sflowerdew@cnps.org. New CNPS members may join on the state website, cnps.org, specifying the chapter they want. Paul was a central figure in establishing the Bryophyte Chapter, the only non-geographic chapter in CNPS.

Bryologists host an annual event, an orgy of botanizing and moss talk and friendship, called Spring Outing Botanical Excursion, Foray, Retreat, and Escape to the Environment (SO BE FREE). The 22nd annual SO BE FREE will be held Monday-Thursday, 27 - 30 March, 2017, in and around Sequoia National Park. Find information on the Bryophyte Chapter website. Next year’s event is coordinated with the National Park Service and the US Geological Survey and especially hopes to draw staff and consultants of land management agencies to learn the common mosses and liverworts of the foothills. As always, beginners are very welcome. The first day features a special lesson and walk for them. If the teacher is Paul, we know it will be good!

So print out your own guide to “Some Bryophytes of Arcata’s Community Forest” and open your eyes as you walk past those mossy logs!

**SO BE FREE 22**  
**March 27-30, 2017**

The Twenty-second Annual Spring Outing Botanical Excursion Foray, Retreat, and Escape to the Environment (an annual descent on bryophytes) will be held Monday 27 through Thursday 30 March 2017 in and around Sequoia National Park. They will have a session for beginners and the rest of the foray is also very beginner friendly. See their flier and registration form: http://bryophyte.cnps.org/images/pdf/SBF22.pdf

(Continued on page 5)
Schatz Demonstration Tree Farm in Maple Creek
15 May, 2016
by Carol Ralph

Maple Creek is both a tributary of the Mad River and one of those tiny, Humboldt County communities over a few ridges inland from the coast along a winding road, at about 800 ft. elevation. Our group of eight approached it from the Blue Lake side and left it via the Butler Valley-Kneeland side. Karen Schatz, wife of the manager, Gordon Schatz, met us at the entrance to the L.W. Schatz Demonstration Tree Farm and was our gracious guide there.

Following his son’s lead, Louis W. Schatz acquired the 370-acre tree farm in the 1970’s as brush-covered land that had been clear-cut of old-growth Douglas-fir in the 1950’s and then grazed. He funded extensive manual brush clearing and tree planting to return the land to forest. His son, Gordon, managed the process and still does. Ponderosa Pine, Monterey Pine, and Giant Sequoia have been planted, rather than the original Douglas-fir, because they are drought and deer resistant. Coast Redwood were successfully planted among thinned stands of California Bay, proving that this valuable timber could be grown outside its natural range. In 1989 Schatz gave the tree farm and an endowment to Humboldt State University, and in 1997 he financed construction of a modest but comfortable research station there. One day the forest will yield considerable revenue in sustainably harvested timber as well as maintaining watershed value. Meanwhile classes from the university visit the site, professors and students carry out research projects there, and summer student crews perform much of the road and forest maintenance.

For our group a walk of about two miles on shaded, dirt roads to Davis Creek and back was a great review of common forest plants and some non-native roadside weeds. Poison Oak (Toxicodendron diversilobum) was definitely a dominant species. Douglas-fir (Pseudotsuga menziesii) and Tanoak (Notholithocarpus densiflorus) were the most common canopy species. In the brushy area under the common canopy plants. We saw several interesting species, like a lily still in bud (Lilium either columbianum or kelloggii), Climbing Bedstraw (Galium porrigens), Canyon Gooseberry (Ribes menziesii), and Hairy Manzanita (Arctostaphylos columbianum). We listed 65 species of herbaceous plants, most of them blooming, 36 species of trees and shrubs, most of the dicot species blooming, and 8 species of ferns. We saw no forest orchids. A mossy bed along the spur road to the Ash Grove showed the potential for the understory, waiting patiently for the forest canopy, soil, and mycoflora to develop. Karen has seen a Calypso (Calypso bulbosa) there.

En route to Maple Creek we spotted a Maple-leaved Checkerbloom (Sidalcea malachroides) conveniently located at a pull-out of this narrow road. This rare (rank 4.2, limited distribution) relation of our favorite, pink, garden checkerbloom, Sidalcea malviflora, was shrub-like, 3 ft tall, with numerous white flowers. Along Butler Valley Rd. we admired the rich, dark blue blooms of some large Deer Brush (Ceanothus integerrimus), and along Kneeland Rd. the fresh, pink blooms of Pacific Rhododendron (Rhododendron macrophyllum). We enjoyed our day exploring in the interior forests.

Arcata City Trail: bioswales and blackberries
March 27, 2016
By Carol Ralph

The Arcata City Trail does not answer your call to the wild, but it does offer a place to practice spotting native plants among the non-natives, a review of invasive species, some taxonomic challenges, examples of innovative landscape features, and a wide, paved route for efficient, human-powered transport from central Arcata to Samoa Blvd., hopefully to connect some day soon to a trail to Eureka.

At the trail’s north end, at the roundabout where the new Foster Avenue intersects Sunset Ave, the City of Arcata has installed “bioswales” to catch street runoff and allow at least some of it to soak into the ground rather than run off through storm sewers. We were seeing in place features doing what Surfriders’ “Ocean Friendly Gardening” program advocates, i.e. “slowing the flow.” The City also enlarged an existing wetland below the trail, creating a sizeable, very shallow pond, around which they planted, by our count, at least 13 species of native plants.

The nearby dirt paths along the high school soccer field and in Shay Park provided us much more botanical amusement than did the paved path.. Here, along the chainlink fence of the soccer field was Howells’ Montia, (Montia howellii), a rare plant, listed 2B.2, rare in California but more common elsewhere. Greg O’Connell discovered it here while walking his dog last year. Lesson: Keep your eyes open, even in familiar, urban territory! This tiny, annual miners’ lettuce is a little bigger than alfalfa sprouts and favors bare dirt with no competing plants. It found this habitat along the base of the fence, where possibly maintenance procedure is to spray to kill the grass. The seed source might have been the gravel on the dirt road.

Along this dirt road and in adjacent Shay Park we paid some attention to willows. They didn’t fit our templates from elsewhere. Were these trees brought in from elsewhere, or natural here? Were they hybrids? More study needed. In this area we saw five species of Rubus: the native California Blackberry (R. ursinus), Thimbleberry (R. parviflora), and Salmonberry (R. spectabilis), and the non-native Himalaya Blackberry (R. armeniacus), and less familiar Elm-leaf Blackberry (R. ulmifolius). This last is similar to Himalaya Blackberry but totally lacks thorns.

The trail south of where it crosses Alliance Rd. was among streets and buildings with little wild botanical space. Our group of four walked as far as 8th St., ate our lunches behind the Greenway Building, and walked back to our starting point.

(Continued on page 14)
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

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

Membership
Tom Pratum
707-382-8640
tkp@whatcomssl.org

Invasive Plants
Stephanie Klein
707-497-6038
stepho1979@yahoo.com

Native Plant Gardening
Pete Haggard
707-839-0307
phaggard@suddenlink.net

Native Plant Consultation
Samantha O’Connell
707-601-0650
maineflower@gmail.com

Plant Sales
Position Open (Co-Chair)
Anna Bernard (Co-Chair)
707-826-7247
Contact President Carol Ralph
eabern@aol.com

Nursery Manager
Chris Beresford
707-826-0259
thegang7@pacbell.net

Education
Barbara Reisman
707-267-707-0397
reisperson@gmail.com

Conservation Advisor
Sydney Carothers
707-822-4316
sydneyc@humboldt1.com

Programs
Michael Kauffmann
707-407-7686
michaelkauffmann@gmail.com

Hospitality
Melinda Groom
Frank Milelzcik (Asst.)
707-668-4275
707-822-5360
mgroomster@gmail.com
frankm6385@yahoo.com

Field Trips and Plant Walks
Carol Ralph
707-822-2015
theralphs@humboldt1.com

Rare Plants
Kim Imper
Greg O’Connell (Co-Chair)
707-444-2756
707-599-4887
dimper@suddenlink.net
gregoconnell7@gmail.com

Plant Communities
Tony LaBanca
707-826-7208
tlabanca@dfg.ca.gov

Newsletter Editor
Marisa D’Arpino
707-601-0898
marisa_nativecalifornian@yahoo.com

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).
- Our chapter’s website: www.northcoastcnps.org
- E-mail lists/forums To subscribe, send an email to:
  - For Announcements: NorthCoast_CNPS-subscribe@yahooogroups.com
  - For Gardening: NorthCoast_CNPS_Gardening-subscribe@yahooogroups.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 share our experiences gardening with natives. This service is free. We hope it will inspire you to join CNPS or make a donation.

Contact our coordinator, Samantha O’Connell at 707-601-0650 or maineflower@gmail.com, who 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.
recognize? Here in the educational edible landscape you can find plants native to California. See if you can spot the huckleberry, red flowering currant, redwood sorrel, or wild ginger.

- **Subtheme 2**: Sustainability Supports Our Thriving Community—Native plants are adapted to survive and thrive in our local environment. They need less watering, less pesticides, and less imported fertilizers and soils. Native plants help to filter stormwater and improve habitats for local wildlife. You can sow seeds just like these at home and reap the benefits of a local landscape.

- **Subtheme 3**: Student Involvement. Teach, Reach, and Grow—Through creative and collaborative approaches HSU students past and present have grown to succeed. Seeds of knowledge planted in the classroom reach out to produce creative and sustainable solutions.

- **Take Home Message**: “Study nature, love nature, stay close to nature. It will never fail you.” —Frank Lloyd Wright

---

**Got An App For That?**

Here are three different mobile phone applications (“apps”) that can help you identify plants.

1. **A Free App for Field ID of Plants**
   By Pam Kessler

   While we were preparing for the CNPS wildflower hike to the Schatz Tree Farm, my husband decided to check if there were any wildflower apps that we could download to lighten our backpacks by reducing the number of guides we had to carry. A quick search at the Apple App Store led him to discover *North California Wildflowers* by Steven Sullivan. It was free, so why not give it a try on a field trip? After all, we had Carol Ralph to help us with flower identification if the app failed.

   We were pleasantly surprised. The app was easy to operate and didn’t need an internet connection. Sullivan has indexed over 3600 plants found in northern California, including trees, shrubs, wildflowers, and even ferns and mosses. To identify a flower, we provided information such as flower color, location, time of year, leaf arrangement, number of petals, habitat, etc... Instantly it narrowed the search to a list of likely floral suspects with representative photographs.

(Continued on page 13)
Volunteer Corner

Everything we do is with volunteer labor. Every job, small or large, is important for getting things done. We appreciate our many, talented, generous volunteers. You can be one too! Contact Carol at 707-822-2015 or theralphs@humboldt1.com

Thank you!

Barbara Reisman for organizing our table at Humboldt Permaculture Guild’s Seed and Plant Exchange
Barbara Reisman, Barbara Kelly, and Jon Hill for staffing our table there.
Pete Haggard for giving a tour of the Arcata Community Center Native Plant and Wildlife Garden during the same event.
Barbara Reisman and Samantha O’Connell for presenting a fun pollination lesson at Union Street Charter School during their Earth Day activities.
Karen Isa for noticing a tree fern in her gully and planning to remove it, and Stephanie Klein for consulting about this possibly future invasive species.
Dave Imper, Greg O’Connell, Kathryn Johnson, Dan Ehresman, Ned Forsyth, Rebecca Manion, Joseph Saler, and three others for traveling to Red Mountain (just north of the Lassics, off Highway 36 on rough road) to check on and study the Two-flowered Pea in its new conservation easement, the Two-flowered Pea Reserve.
Northcoast Regional Land Trust for creating that conservation easement, and Maya Conrad for brokering the land sale.
Dave Imper for years of attention and organizing the protection of the world’s only population of the Two-flowered Pea, and Carol & CJ Ralph, Sydney Carothers, and Jane Cole for being partners in the project.

[Wildflower Show and Plant Sale thank-you’s are elsewhere in this newsletter.]

Jobs Needing People. Contact Carol for details.

Grant writing help for State Parks. Turn the tide on English Ivy smothering our two state parks in Trinidad by researching potential grants and answering the basic questions on the applications, so that Michelle Forys can complete them by simply adding the technical information. If you don’t know already where to look for grants, here is your chance to learn!

Conservation Issue Specialists. Follow some conservation issue of your choice and keep us informed in the newsletter and at Steering Committee meetings.

Coordinator of the Wildflower Show. Our team of wildflower show volunteers knows what needs to be done. We just need the person to think ahead and coordinate it all.

The Spring Plant Sale: a Parade of Plants

by Carol Ralph

The steady flow of plants in arms, boxes, and carts, heading for cars parked in the lot and field of the Manila Community Center on April 30 was a real sign that our native plant sales are supplying something the world wants! This is exciting because it means more people are aware of native plants. This is one of the biggest parts of our organization’s mission. It is also exciting because, thanks to the huge contribution of time, expertise, and energy of our volunteers, the sale was generating ample funds for our chapter to use in further promoting and preserving native plants. The excitement of the customers and of our volunteers was contagious and made a truly fun event.

The spring sale was a remarkable event also for its teamwork. Good delegation and coordination spread the many jobs among many people. Melanie Johnson was amazing with a list of names and contact information. She filled the roster of helpers needed during the two days of sale. Zeal Stephanoff supervised the great plant transport from our nursery in Bayside to the sale site in Manila. Ashley Dickinson supervised the unloading and organizing at the Manila end. Cynthia Packard supervised the cashier tables. Anna Bernard’s team counted plants from the contributing nurseries as they arrived and as they left. (If you have never counted serious numbers of plants, you may not appreciate the challenge this was.) Sam O’Connell made sure we had illustrated signs for all the species we were selling. Richard Beresford wrote publicity.

The chapter RECOGNIZES and THANKS all of these volunteers for contributing tremendously to our sale. Every job done was important, whether it seemed small or large.
In Appreciation: the 34th Spring Wildflower Show

A letter to the 66 volunteers who helped create and present this show

May 8, 2016

Dear Wildflower Show volunteers,

As I drove away from Manila a week ago, Sunday evening, my car and CJ’s car chock full of stuff, more than relief, I was feeling awe at what we—all had done, at what talented, hard-working, committed volunteers we had for this show. Thank you for being one of them.

Even if you think what you did was a small job, I can tell you it was not trivial. Even small jobs needed to be done well.

If what you did was a big job, thank you for giving that much. The result was worth it.

The show we put together was visited by approximately 156 school kids with their teachers and 746 “public.” Every visitor did not look at every flower, but every visitor experienced the fragrance of the room and the grand array of color and form. Some were drawn to the task of naming. Some were finding old flower friends, refreshing memories of special places, and meeting new flower friends, hoping to find them in the wild. Some visitors learned what is native, what is not. Some learned they had invasive plants in their yards, or that they could eat one of those native plants they often walked by. Some enjoyed charismatic insects that live on native plants. Some drew flowers at art night or at the phenology table. Some watched a beautiful slide loop about our rare plants. Some heard a tale about the Wiyot past, researched through the native hazelnut. Some bought books to further their study of plants at home. In short, we educated a lot of people about native plants, through a beautiful and enjoyable experience. Good job!

Watch for an invitation to a future gathering to further consider the show, what we did, and .........what we want to do next year. Before you know it, May 5-7, 2017, will be upon us!

Thank you, friends,
Carol
Wildflower Show Coordinator
North Coast Chapter
California Native Plant Society

FALL NATIVE PLANT SALE
SEPTEMBER 24
Jacoby Creek Land Trust’s Kokte Ranch
2182 Old Arcata Rd., Bayside
10 a.m.-3 p.m. / CNPS Members only pre-sale 9-10 a.m.

We have plant diversity!

• For the flower collector: 9 species of penstemon (including two Keckiiela), 4 buckwheats, 5 monkeyflowers, one California fuchsia
• For the local habitat garden: California Beeplant, Checkerbloom, Common California Aster, Yarrow, Fringecups, Candyflower, Red Columbine, Common Mitrewort, , Western Boykinia, Sword Fern, Wild Ginger, Evergreen Huckleberry, Silk Tassle, Salal, Beach Buckwheat, Beach Strawberry, Coyote Brush
• For the backyard pond or mini-swamp: Goatsbeard, Umbrella Plant, Cardinal Monkeyflower, Musk Monkeyflower, California Spikenard, Skunk Cabbage
• For the herbal medicinal garden: Yarrow, Coastal Angelica, Yerba Buena, Cascara
• For the deer-ravaged garden: 2 species of sage

And more! Our partner nurseries will bring numerous more species. Come see the diversity, be amazed, and find a surprise or treasure for your garden.

For further information: 707-826-0259 / northcoastcnps.org
For the recent fiscal year ending March 31, the chapter received $24,162 in income and had $20,201 in expenses. This leads to a net of $3,961. As expected, our plant sale income has leveled off, while our expenses were slightly higher than the previous fiscal year. A breakdown of our income and expenses for the latest fiscal year is shown in the charts below.

**Chapter Income (total $24,162)**

- donations (4%)
- membership revenue from State office (2%)
- t-shirt, poster and book sales (9%)
- sales tax received (7%)
- plant sales (78%)

**Chapter Expenses (total $20,201)**

- t-shirt and poster purchases for resale (9%)
- sales tax paid (9%)
- plant sale expenses (32%)
- special projects (Wildflower show and education - 19%)
- program related costs (3%)
- meeting expenses (7%)
- donations (2%)
- newsletter (Darlingtonia and Econews - 19%)

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.
North Coast CNPS Chapter Annual Activities Report
REPORTING PERIOD: Fiscal Year 2015 | April 1, 2015 – March 31, 2016

Each year local chapters of CNPS report the number of volunteer hours spent on their activities. Here’s what our club did last year to provide scientific information and lead / participate in conservation and public information efforts in order to protect native plants, plant communities, and landscapes – **over 4,400 volunteer hours**! Interested in participating this fiscal year? Please contact our President Carol Ralph at 707-822-2015 / theralphs@humbolt1.com.

<table>
<thead>
<tr>
<th>Event or Activity</th>
<th>Volunteer hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arcata Community Center Signage</td>
<td>10</td>
</tr>
<tr>
<td>Azalea parks restoration planning</td>
<td>6</td>
</tr>
<tr>
<td>Bee Fest tabling</td>
<td>7</td>
</tr>
<tr>
<td>Big Lagoon Bog restoration project</td>
<td>120</td>
</tr>
<tr>
<td>Bird Friendly Yards and Communities Campaign with Redwood Audubon</td>
<td>10</td>
</tr>
<tr>
<td>Board Meetings</td>
<td>87.5</td>
</tr>
<tr>
<td>CalIPC</td>
<td>16</td>
</tr>
<tr>
<td>Chapter Newsletter (528 recipients)</td>
<td>285</td>
</tr>
<tr>
<td>Coordination with the Wildlands Conservancy on Trinidad land acquisition</td>
<td>10</td>
</tr>
<tr>
<td>Facebook (over 1,600 people commenting), YahooGroups (670 activities members), and Website Content Management</td>
<td>100</td>
</tr>
<tr>
<td>Field trips</td>
<td>150</td>
</tr>
<tr>
<td>Garden Tours</td>
<td>14</td>
</tr>
<tr>
<td>Godwit Days tabling</td>
<td>20</td>
</tr>
<tr>
<td>Horse Mountain Trails participation</td>
<td>5</td>
</tr>
<tr>
<td>Humboldt Permaculture’s Seed and Plant Exchange tabling</td>
<td>6</td>
</tr>
<tr>
<td>Humboldt Weed Management Association Representation</td>
<td>2</td>
</tr>
<tr>
<td>Information gathering on local rare natural communities/evaluation of rarity rankings &amp; protection consistency across jurisdictions</td>
<td>20</td>
</tr>
<tr>
<td>Invasive plant homeowners visit</td>
<td>2</td>
</tr>
<tr>
<td>Lassics Lupin listing petition</td>
<td>200</td>
</tr>
<tr>
<td>Letter Writing: No Ivy League, Marijuana Grow Ordinance, Lassics Lupine</td>
<td>13</td>
</tr>
<tr>
<td>Monthly Evening Programs</td>
<td>108</td>
</tr>
<tr>
<td>Native Plant Week Planning &amp; Advertising</td>
<td>5</td>
</tr>
<tr>
<td>No Ivy League</td>
<td>6</td>
</tr>
<tr>
<td>North Country Fair tabling</td>
<td>22</td>
</tr>
<tr>
<td>Northcoast Environmental Center (NEC) Monthly Newsletter Article</td>
<td>20</td>
</tr>
<tr>
<td>Northcoast Environmental Center (NEC) Representation</td>
<td>100</td>
</tr>
<tr>
<td>Northwest California’s Mountains &amp; Rivers representation– MountainsandRivers.org</td>
<td>4</td>
</tr>
<tr>
<td>Nursery Weekly Work Parties &amp; watering</td>
<td>600</td>
</tr>
<tr>
<td>Plant Consultations</td>
<td>40</td>
</tr>
<tr>
<td>Plant sales</td>
<td>440</td>
</tr>
<tr>
<td>Rare Plant Treasure Hunts</td>
<td>380</td>
</tr>
<tr>
<td>Redwood Field Guide Project</td>
<td>200</td>
</tr>
<tr>
<td>Restoration activities Arcata Community Center Native Plant Garden</td>
<td>130</td>
</tr>
<tr>
<td>Summary of CNDDB data for Humboldt County (in progress)</td>
<td>50</td>
</tr>
<tr>
<td>Two-flowered pea at Red Mountain site</td>
<td>100</td>
</tr>
<tr>
<td>Vegetation Surveys (Plant Galls)</td>
<td>8</td>
</tr>
<tr>
<td>Wildflower show educational visits</td>
<td>100</td>
</tr>
<tr>
<td>Wildflower shows</td>
<td>1000</td>
</tr>
<tr>
<td>Wildflowers at Clarke Museum</td>
<td>7</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>4403.5</td>
</tr>
</tbody>
</table>

**Successes we would like to highlight and/or other details we’d like to share:**

- Promoting other groups’ native plant activities though our newsletter, website, and Facebook page
- For Native Plant Week: prompting or arranging for 9 walks, 8 garden visits, 2 lectures, 5 work parties, 2 wildflower shows, and 4 native plant sales; and working with at least 13 non-profits, government entities, and corporations
- Monitoring Plants: Big Lagoon Bog, Lassics Lupine, and the Two-Flowered Pea
- Petitioning to list the Lassics Lupine under the federal endangered species act
- Working on a restoration project for one of N. California few coastal fens, “Big Lagoon Bog”
- Facilitating the establishment of a conservation easement for the Two-flowered pea at Red Mountain
- Selling 3,500 plants through our two plant sales
- Donating money to: Baker Beach Restoration (for seeds), California Botanical Landscape Book (to support printing), CalFlora (to support it business)
Alternatively, we could search by a partial common name or genus, such as lupine or *Mimulus* and scroll through a list of pictures to identify the species.

The first few tries yielded accurate enough results that Carol became interested. At our lunch spot, Carol pulled out three guides in an attempt to identify four different kinds of buttercups. Our app does not provide detailed plant descriptions, but when cellphone reception hyperlinked to websites such as the Jepson guide, became available, we could help out with the plant identification. As this app readily admits, it does not pretend to replace a skilled botanist, but it can help with quick identification in the field. Usually when we try to identify a plant, we often spend a lot of time riffling through pages looking at many photos in a guide book. The significant advantage of this app is that the search criteria limits the number of possible plants and makes the search faster with more accurate results.

We were pleased with the field test of this app. Its strengths are that it is eminently portable, fast and accurate, stores an entire wildflower database on a phone or tablet, and is free. We appreciate the work the author Steven Sullivan has done to make all this information available for free. He has similar apps for central and southern California, Oregon, Washington, and British Columbia. Northern California in this app covers California north of the San Francisco Bay Area to the Oregon border. To acquire this app, download it at the Apple App (for Apple devices) or Google Play (for Android devices) stores.

2. CalFlora Offers Free Apple & Android Apps

“While out in the field, use your mobile phone to make wild plant observations and photos and then upload them to Calflora. We have a sophisticated android application called Observer Pro and an iPhone application called Observer. Use the advanced form on Observer Pro to take 3 photos -- automatically associated with your observation -- to help with identification. You do not need a data plan on your device or wifi in the field to use either of these applications.”

http://www.calflora.org/entry/applications2.html#smartphone

3. PlantID (PlantID.net)

Well, it’s not an app, but a website for identifying about 10,000 (and growing) California species, subspecies and varieties of trees, shrubs, flowers, ferns and grasses found in the wild. In addition to photos, it provides identification tips including: bloom time, likely habitat, flower color and shape, and other information entered by plant experts. You don’t need to be an expert to use it because “hints and captions are written to be understood by people with no botanical training. If we want to use a technical term, we describe it first in English, for instance “Daisy petals (ray flowers)”.”

California Plant Finder

Enter Your Location! (To skip plants you’ll never see)

Your County: 

Search By Name (For instance, Lupine)
Common Name: 
Botanical Name: 

Search By Appearance

- Plant Type:
  - Tree
  - Shrub
  - Flower
  - Fern
  - Grass

- Flower Shape:
  - 3 Petals
  - 4 Petals
  - 5 Petals
  - 6 Petals
  - Many
  - Penny Flower
  - Irregular
  - No Petals

- Flower Color:
  - Yellow
  - White
  - Pink
  - Violet
  - Blue
  - Red
  - Orange
  - Brown
  - Greens

- Leaves:
  - Alternating
  - Opposite
  - Basal
  - Whorled

Advanced
Search

North Coast Chapter Native Plant Nursery Update

At the nursery, with a very successful plant sale behind us, we have been working on cleaning up the nursery site, reorganizing plants based upon watering needs for the summer months, cleaning and sterilizing our containers and potting up plants for the upcoming fall plant sale which will be on Saturday, September 24th at the nursery site, located at the Jacoby Creek Land Trust, 2182 Old Arcata Road.

Wednesday’s are our regularly scheduled work days. We usually work from 10 – 1 or so. Due to limited on-site parking, for those who can, we meet at the Bayside Grange at 9:55 and carpool over. For those who are not able to work the entire time or prefer to drive their own car, you can park on site.

If you would like to be involved at the nursery, please let me know. I will add you to my nursery volunteer email contacts; we can always use more volunteers.

Reminder; our plant sale events fund the projects that our chapter is able to do such as sending our chapter’s newsletter and the Northcoast Environmental Center’s publication *EcoNews* to our members; provide scholarships to help HSU students; help pay for fuel for local schools so that they can attend the spring wildflower show and fund botanical research project requests, just to name a few. By providing native plants for sale to the public, we are also able to spread the word to many as to why you should have native plants in your garden. We need your help to continue to be able to fulfill these types of beneficial programs.

(Continued on page 14)
Neonicotinoids in Your Garden
From the CNPS Monthly Newsletter June 2016

In celebration of National Pollinator Week (June 20th-26th) the Xerces Society (xerces.org), the largest pollinator conservation organization in the world, brings awareness to the dangers of a commonly used class of insecticide known as neonicotinoids, or neonics. One of the many benefits of gardening with natives is their ability to provide food and habitat for pollinators. However, when treated with neonics, the insecticide is expressed systemically to all parts of the plant, thus turning pollinators’ sources of pollen and nectar into a toxic danger. The Xerces Society explains, “As a gardener, you have a unique opportunity to help protect pollinators by avoiding the use of these insecticides, asking your local nursery or garden center if plants have been treated with neonicotinoids, and encouraging your city or park district to use alternatives to neonicotinoids on plants that are visited by bees or are bee-pollinated.”

Jennifer Hopwood and Matthew Shepherd of the Xerces Society explore the effects of neonicotinoids in further detail in the article Neonicotinoids in Your Garden (http://www.xerces.org/wings-magazine/neonicotinoids-in-your-garden/)

Nursery Thank You’s from Chris

I would like to thank the following volunteers for their ongoing assistance at the nursery: Barbara Reisman, Jon Hill, Zeal Stefanoff, Patricia Parsons, Jane Stock, Sam O’Connell, Connie Gregerson, Mary Alward, Ashley Dickenson, Carol Ralph, Sabra Steinberg, and Karen Isa. We have volunteers who regularly water in addition to coming to our work days and they are: Mary Alward, Ashley Dickenson, Sam O’Connell & Connie Gregerson. I would also like to thank Chris Brant for once again maintaining the area around the nursery.

A special thank you to Jon for getting more pallets so we could get more plants elevated; to Richard Beresford for picking up, yet another, pallet of potting soil and to Zeal and Arlo coming to help just to off load it; to Mad River Gardens for providing the potting soil at their cost (support them because they help to support us!); to Richard and Jon for making the new enclosures for our pots so they are better organized and contained and for also helping to make the nursery safer by putting down rubber mats for us to walk on in the rain; to Sam, Barbara, my neighbors Sam & Frances Rich & Lisa Rosen and Richard who all came to my aid when we had the rat issue at the nursery and helped to replant all of the plants the rats dug up and to move the affected plants of the nursery and to our house; to Barbara Wilkinson and Robin Hamlin for potting up 40 native ginger plants for upcoming sales and to Barbara for willingly taking on extra tasks when I need to go out of town. Thanks to all of you. If not for your volunteering, we would not have a native plant nursery!
CALIFORNIA NATIVE PLANT SOCIETY
LEAF & FLOWER WORD SEARCH

CAN YOU FIND THESE LEAF & FLOWER TERMS?

ANTHER  PEDICEL
BLADE  PETAL
BLOSSOM  PETIOLE
CALYX  PISTIL
COROLLA  PLANT
FILAMENT  SEED
FLOWER  SEPAL
HYPANTHIDIUM  STAMEN
LEAF  STIGMA
MIDRIB  STIPULE
OVARY  STYLE
OVULE  VEIN
CHANGE SERVICE REQUESTED

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

Darlingtonia

Visit us at NorthCoastCNPS.org

**CALENDAR of EVENTS**
(Field Trips—pg 2 / Programs—pg 3)

**July**
- Sat 9: Plant Walk
- Sun 10: Hike
- Sat 23: Plant Walk
- Sat 30: Plant Walk

**August**
- Sat-Sun 6-7: Field Trip

**September**
- Wed 14: Program
- Sat 24: Plant Sale

**October**
- Wed 12: Program
- Sun 23: Hike

**November**
- Sat 5: Field Trip
- Wed 9: Program

**December**
- Wed 14: Program