# Obispoensis

Newsletter of the San Luis Obispo Chapter of the California Native Plant Society



#### Filaree

#### Erodium moschatum & E. cicutarium

I assume it is not news to anyone that California in general and the Central Coast in particular has been experiencing an extreme drought. That means that most native plants, that are adapted to this situation, have been in waiting mode and are not doing much of anything. One ecological category of plant that seems to be able to grow under these extreme conditions is the weeds. What is a weed? The best definition I know is "a plant adapted to the disturbed conditions caused by humans or their livestock." By the way, 7+ billion humans and their livestock currently make up 98% of mammalian biomass. This is up from 0.1% at the beginnings of Agriculture some 9,000 years ago. Human habitats include yards, vacant lots, crop fields, pastures. I suspect all of you have your own favorite definition of a weed. Bonnie came up with a new definition for a weed while she was working on the drawing for this issue of the Obispoensis. She noted that "a weed just says thank you when you put a sample in a cup of water and continues to grow as if nothing important has happened, whereas native plants tend to begin to wilt even before you can get them into water." Weeds have a high tolerance for adverse physical condition, but most usually do not tolerate competition from other plants. Filaree belongs to the lowest classification given to weeds, as it pretty much stays out of little disturbed native vegetation.

The two species of plant discussed this time are members of the genus *Erodium*. They are *E. cicutarium* (coastal heron's bill, red stemmed filaree, red-stem filaree, red-stem stork's bill) and E. moschatum (white-stem filaree). The illustration this time is a composite of Bonnie's new and old drawings plus an additional digital scan. The large central drawing is of a whitestem filaree that was growing under crowded conditions. Note that most of its largish compound leaves, which are attached to the stem just above the root, are orientated nearly vertically. Contrast this with the scan of the red-stem filaree that was growing in a totally open habitat without nearby plants. It has its leaves lying almost flat on the ground. This is how all filaree species (including red-stem filaree) orientate their leaves when they grow in the open. The two filarees are found everywhere along the coast wherever humans or their livestock have modified the land. Prize winning gardeners will keep them at bay, but not ordinary people. These species are also found in disturbed ground in the interior, but there they are likely to share the ground with several other species of filaree. All these other species (E. texanum, E. macrophyllum, E. botrys, and E. obtusipicatum) have simple leaves. E. botrys is also to be expected along the coast.

When Carl Linneaus first described the filarees, he put them in the genus *Geranium*. Later *Geranium* was split into three genera (*Erodium*, *Geranium* and *Pelargonium*) based on the number of male structures displaying fertile or pollen producing anthers. There are five in *Erodium*, seven in *Pelargonium*, and ten in

Geranium. The rest of the flower, sepals, petals and female containing structure, gynoecium, differ only quantitatively among the three genera. There is a generalized flower and gynoecium included in the illustration. These are from an early edition of Dr. David Keil and my Vascular Plant Taxonomy text. Of particular interest is the gynoecium. Note the bulges at the bottom. These contain the actual seeds. Then there is the very long central portion (style) that resembles a bird's beak. It is this structure that leads to the common names that have been applied to these plants, i.e., heron's bill and stork's bill. Seed dispersal in these plants is also illustrated. When the seed is mature the gynoecium begins to dry out. As it dries, it splits vertically into five parts. Each part contains a basal seed-holding portion attached to its elongate portion of the style. When fully dry, the style portion begins to coil upward with increasing speed. By the time the coil and seed have reached the top of the style, it has enough momentum to be flung into the air and away from the parent plant. Most of them will land several inches beyond the reach of the parent plant. This is the sweet zone for seed dispersal. It is far enough from the parent to prevent competition but close enough to still have a similar environment. Dispersal over long distance is very risky because the probability of a seed landing in a favorable habitat approaches zero. Long distance dispersal among weeds is contrary to this thinking. We carry weed seeds with us and when the seed falls away from us, where is it likely to land? It will probably be in another human dominated environment. Oh, by the way, after the seed-style complex lands on the soil, the style portion continues to expand and coil with changes in humidity. This allows for the seed to be pushed along the soil surface for a secondary dispersal. It also can serve as a "drill" to bury the seed in the soil.

Our two common coastal filarees are not native Californians. Like most of us, their ancestors came from Eurasia. When they arrived is uncertain as they were already here when the first botanical surveys were done. When I first arrived in California I was easily persuaded that native California plants were great and the rest were terrible weeds. When I made the mistake of saying, "isn't it a shame that there is so much filaree in this pasture," in the presence of a rancher, the rancher quickly turned on me. He said in essence, "thank God for filaree! It is what makes my operation profitable. Cattle (and guinea pigs) love it; it is one of the first plants to appear in the pasture in the spring and it continues to be present throughout the grazing season." I haven't been foolish enough to bad mouth filaree since. Both species of filaree are not only good forage for cattle, but they also are good for human grazing as well. The Web tells of people using the young spring leaves like parsley in salads and the roots in various medicinal ways. There is one last item about filaree. It can be so numerous in grazed pastures of the interior that they can produce what appears to be reddish-pink haze coating the ground. Look for it mid-morning when they are in full bloom. You might also try to imagine how many flowers it would take to create that haze.

Dirk Walters, illustrations by Bonnie Walters

#### CONSERVATION - THE MONTAÑA DE ORO PHOTO SURVEY

Our chapter has just completed a significant baseline photographic study of Montaña de Oro State Park, and presented to Vince Cicero, Senior Environmental Scientist for the State Park's San Luis Obispo Coast District. The study consists of about 4,500 photographs taken during the months of January and February. Each trail and road has been walked, and photo locations identified by Global Positioning (GPS) where photographs were taken. These were usually at all four points of the compass, sometimes as many as eight at a site. Photographs were taken at low but sufficient resolution to allow scientists to identify the plants at some future date, this being the object of the study. Every photograph is registered with a title such as "MDO35.27520-120.84944-E1.29.14". After the MDO tag, the decimal latitude and longitude follows, followed by the direction of the camera "E" and the date "1.29.14". The photographs are collected in a file structure with folders given to each trail, and this is echoed by files that contain the latitude and longitude data. This data has been saved as a ".kml" file, which can be dropped onto Google Earth to reveal the location of each photograph. The whole park, or just a single trail can be selected for viewing. In addition the latitude and longitude from a picture title can be "cut and pasted"



Vince Cicero of California State Parks accepts the Montaña de Oro Photo Study from David Chipping

into the search field in Google Earth and the viewer immediately taken to the photo site. The presentation to State Parks was a DVD containing the photo and Global Position files, plus a descriptive narrative. Why do we do this? Having heard people lament that they would love to have known what a place looked like a century ago, we decided to speak. David Chipping

#### PRESIDENT'S NOTES - A LOT OF THANKS

A special thanks to Sharon Lovejoy for a spectacular talk at our annual North County meeting in Atascadero, particularly in reminding us that a garden is an ecosystem and that we would be well served by understanding what all the insects and birds contribute to the system. We also gave a major thank you to Jeff Prostovich, Sharon's husband, for the great help he has given our chapter by serving as Publicity Chair. That position will be filled by Judi Young, who has created and maintains our beautiful web page, and we offer our deep thanks as public outreach keeps our chapter alive. Our Board is very hard working and would appreciate help in several areas. The wonderful Heather Johnson will be stepping down from the Book Sales position,

where she has built one of the best sales tables that I have seen in any CNPS chapter. She is responsible for much of the financial health of the chapter, and has taken care in finding new botanic titles to make available to our membership. Heather, and her husband Jim, could be seen at every meeting setting up the display and then packing it all away and storing it at their house until next time. Heather's shoes will be hard to fill, but possibly we could share the position among several volunteers who share the table-sittings. Heather will be happy to talk about this with you. We also could use some help in maintaining the membership rolls and our mailing list. Call or email David Chipping if you want to find out more. ® David Chipping

# California Native Plant Week April 12 - 20, 2014

## **April Chapter Meeting**

This month's meeting is the Malcolm McLeod Memorial Trip. The location has been changed to **Coon Creek** at Montaña de Oro State Park. See Field Trips, Saturday, April 5. There is no meeting at the Veterans Hall this month.

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### In Appreciation of Joan O'Donnell

by Kristie Haydu

The San Luis Obispo Chapter of CNPS recently received a generous surprise in the form of a bequest from wildflower lover Joan O'Donnell. Joan's daughter Paddy McNamara contacted CNPS to let us know that her mother passed in March of 2013 and that Paddy, Joan's husband Laurence, and Joan's other daughter Cathleen Scott would like to honor their mother's memory by making a donation to our chapter in the form of a gift of \$3,000. It was their intent to assist in CNPS's efforts to conserve California's native



plants and to give lasting joy to others who also treasure the experience of seeing local wildflowers in bloom through their donation. Some of the family's fondest memories of Joan and one of Joan's greatest delights were taking rides throughout the Central Coast to look at wildflowers.

Joan grew up in Pasadena, lived for a while in Santa Barbara, and eventually settled in Arroyo Grande during the late eighties with Laurence. She was a dedicated home maker and kept a large garden at their home in Arroyo Grande. Joan would wear big hats and large sunglasses and would load the family into the car to drive around local natural areas in search of wildflowers. Matilija poppy, California poppy, and lupine were some of her favorites. Joan was 90 when she died.

On January 9, 2013 the chapter board voted unanimously to place this donation into the Malcolm McLeod Scholarship Fund, which supports college students' botany and plant ecology research projects. Environmental regulations, land use determinations, and policies that protect and conserve California's native plants are in part based on science to help inform these decisions, so the board felt that this was an appropriate use of the funds.

We are deeply grateful for the O'Donnell's gift and for the family's generosity through support of CNPS. The future of CNPS and our ability to continue to conserve, protect, and advocate for California's native plants and our botanical legacy depends largely on these types of contributions. Planned giving and bequests like this are ways to help ensure the future of California's natural habitats and the diversity

of plants that reside within them. If you would like more information regarding donations of this nature please contact any of your local CNPS representatives and visit our website for more information at <a href="http://support.cnps.org/page.aspx?pid=353">http://support.cnps.org/page.aspx?pid=353</a>.

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#### SAVE THE DATE

Sudden Oak Death Blitz - May 16, 17, and 18, 2014

Sudden Oak Death (SOD), a serious exotic disease, is threatening the survival of tanoak and several oak species in California. In May 2013, SLO CNPS Chapter volunteers participated in the 2013 SOD Blitz sampling event. A total of 872 trees were surveyed and samples were collected from 89 trees. There were no SOD positive trees found during this survey. We need to continue the sampling and will be participating in the SOD BLITZ in 2014 and need volunteers to attend the training and collect samples in May 2014.

- **Training** Friday, May 16, 7pm to 8:30 pm SLO County Department of Agriculture 2156 Sierra Way, San Luis Obispo, CA <u>Map Link</u>
- Collecting Saturday and Sunday, May 17 and 18 (Locations TBD)
  All of the materials necessary for the training and the collecting over weekend will be provided.

Additional information on the SLO County 2014 SOD Blitz will be provided in the SLO Chapter May newsletter and posted on our website: <a href="http://www.cnps-slo.org">www.cnps-slo.org</a>. For additional information on SOD and the SOD Blitz project, please visit <a href="http://www.sodblitz.org">http://www.sodblitz.org</a>.

Special thanks to all of you who contributed and participated in 2013 and I look forward to having the same level of participation in 2014. Lauren Brown, SLO Chapter Invasive Plants Committee

# Field Trips

Saturday, April 5, 2014, 9:00 a.m., Malcolm McLeod Annual Field Trip Meeting has been moved to Coon Creek at Montaña de Oro State Park, because of the drought conditions prevailing this year. This will be our monthly meeting for April. Meet at the parking lot at the south end of Montaña de Oro State Park, at the mouth of Coon Creek. We will walk along the creek to see several species in bloom, including many trilliums (*T. angustipetalum*) and observe the spring re-growth after last year's controlled burn. For more information call Dirk Walters, (805) 543-7051 or Bill Waycott (805) 459-2103, e-mail bill.waycott@gmail.com.

Sunday, April 6, 2014, 9 a.m. CNPS and Sierra Club Spring La Purisima Burton Mesa Wildflower Walk: Meet at the La Purisima Mission Parking Lot, corner of Purisima and Mission Gate Roads (2295 Purisima Rd. Lompoc) at 9 a.m. for this annual California Native Plant Society and Sierra Club spring tour of the beauties of the Burton Mesa Chaparral. This is turning out to be a fair year for wildflowers, annuals as well as shrubs; Optional afternoon tour. Sturdy shoes, lunch & liquids, camera and binoculars advised. For more information, call Charlie at 733-3189 or Connie at 735-2292

Saturday, April 12, 2014 9:00 a.m., Wildflower, Native Plant Week, and Earth Day Weekend at Figueroa Mountain: The Santa Lucia District, Los Padres National Forest will hold one of its Wildflower Weekends on Figueroa Mountain in conjunction with the California Native Plant Society. This tour will feature a local celebration of the third California

nia Native Plant Week (3rd week in April, the 14th - 21st this year). Meet at 9 a.m. at the Fire Station on Figueroa Mountain Road. Turn left at the SR 154-Figueroa Mtn. Road intersection near Los Olivos, and proceed to the Fire Station parking lot. This will be a "drive and stroll" tour of this year's display.

Sturdy shoes, lunch and liquids, and camera and binoculars recommended. Call Helen Tarbet at 925-9538 ext. 246 or Charles Blair 733-3189 for details.

Saturday, April 19, 2014, 10:00 a.m., Clearwater Color Nursery, Los Osos. Join Elliott Paulson, owner and manager, for a visit to the nursery. During the tour, we will view the different stages of propagation of California native and other Mediterranean species, taken from seed and cuttings, to produce commercial nursery stock. Elliott will discuss different propagation strategies for California native plants. Anyone having natives that are difficult to propagate can bring their cuttings to the nursery for discussion during the tour. After the tour, we will accompany Elliott to the adjacent property, to see cultivation of California natives. The Clearwater Color Nursery is located at 2335 Jacaranda Lane in Los Osos. When traveling west from San Luis Obispo, it is the third left turn off of Los Osos Valley Road after passing the Turri Road intersection. Bring water and snacks, and dress in layers for changing weather. A hat, sunscreen, and sturdy shoes are always recommended. For more information, call Bill at (805) 459-2103 or e-mail bill.waycott@gmail.com.

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# Dedicated to the Preservation of the California Native Flora

The California Native Plant Society is a statewide non-profit organization of amateurs and professionals with a common interest in California's plants. The mission of the Society is to increase understanding and appreciation of California's native plants and to preserve them in their natural habitat through scientific activities, education and conservation. Membership is open to all. Membership includes the journal, *Fremontia*, the quarterly *Bulletin*, which gives statewide news and announcements of the activities and conservation issues, and the chapter newsletter, *Obispoensis*.

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*Obispoensis* is published October through June except January. Items for submittal to *Obispoensis* should be sent to rhotaliing@charter.net. The deadline is the 10th of each month. Botanical articles, news items, illustrations, photos, events and tidbits are welcome! Visit the websites:

www.cnps.org & www.cnpsslo.org