Obispoensis

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



November 2015

Oval Leaved Snapdragon Antirrhinum ovatum

he drawing by Bonnie and article by Dr. Malcolm McLeod below appeared in the November, 1991 Obispoensis. When you read it you will see lots of similarities with our current drought situation as well as the much hoped for possibili-ties of an excellent rain year. Yea, el Niño! If we get the rain, we just may have a once a decade or so treat to witness. We can only hope. Malcolm was a long-time member of our chapter who served several years as out chapter president. He served many years as our rare plant coordinator. Malcolm mentions many names of people who came to see this rare event. They are a whose who of local last generation including naturalist-rancher Eben McMillan and botanists Clare Hardham and Clifton Smith. In 1991, the Carrizo Plains area was not yet a National Monument but a Natural Area administered by the Bureau of Land Management and the Nature Conservancy. It's the presence of this species, as well as number of other plant and animal species, that aided in it being designated a National Monument in 2001 by President Bill Clinton.

- Dirk Walters, illustration by Bonnie Walters

1991 Sighting of *Antirrhinum ovatum* (oval leaved snapdragon)

By Malcolm McLeod

My father always said that there are two kinds of weather in California, perfect and unusual. The rainy season of 1990-91 was quite unusual and perfect for at least one plant species. It began as the fifth year of a drought cycle. The rains came in March. These rains caused a number of unusual happenings to occur in the botanical world.

The oval leaf snapdragon blooms at long intervals when conditions are just right. Eben McMillan had shown Craig Cunningham the plant in flower in 1984 at Pinole Spring in the western edge of the Temblors north of the Carissa Plain. Craig got pictures at that time but I missed the flowering. Craig and I went back to that location the following year and could not find the plant at all.

It was reported by Hoover from Caliente Mountain in 1952. As far as I know it has not been seen there since that time. It was at one time found in southeastern Monterey and eastern San Luis Obispo counties in the inner coast ranges. It was reported from the western base of Cottonwood Pass and other places. Many populations have apparently been destroyed.

We [our CNPS Chapter] had taken a trip to Caliente Mountain in May. Several people including Clare

Chapter Meeting

"Native Plants in the Landscape - Cultivating the natural beauty of the Central Coast" This is a photographic tour of California Native Plant use in the landscapes of Madrone

Landscapes over the last 38 years.
Madrone
Landscapes has been designing, installing and maintaining gardens throughout San Luis Obispo County, emphasizing
California Native plant use, since 1977.



Rick Mathews is founder and

president of Madrone Landscapes, Design-Build-Maintenance firm, based in Atascadero. As a landscape contractor for nearly four decades, Mathews has incorporated the use of California Native plants since the 1970s. The wisdom of this approach has repeatedly become apparent, through several drought cycles. Madrone continues to favor Natives in their designs, as this presentation will convey.

Thursday, November 5, 2015, 7:00 p.m. Meet at the Veterans Hall, 801 Grand Avenue, San Luis Obispo.

Hardham and Theresa Prendusi were captivated with the wildflower displays which were present on the mountain. I at least had no inkling of the event which was about to occur. I believe Clare might have seen the snapdragon on that trip.

In June, I began receiving letters and calls with accounts of the sighting of the plant on Caliente Mountain. I also had offers from several people to show me the plant or even take me to see it. I was not able to get to see it at the height of bloom but I did get to see it and photograph it before it faded away entirely. It did bloom in profusion. Dirk got some excellent photographs of it and the buckwheat which was growing in great numbers with it.

Oval leaved snapdragon is a small annual plant, simple or much branched, about a foot or a little more tall. Many glandular hairs are present. Leaves are generally oval

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President's Input

By Bill Waycott

There's no time like the present to volunteer for a role with CNPS. There are several possibilities to help you find your niche within this awesome group of people. Here are some of the things going on in our chapter. Be sure to signup for our electronic announcements via email at cnpsslo.org. Look for "Get CNSP-SLO updates via email" on the right hand side. Just below that is the link to join or to renew your membership. Click on the green box.

- 1. The annual plant sale, for people who like to talk to the public and encourage them to use native plants. To be held Saturday, November 7 from 9:00 am to 3:00 pm at the Pacific Beach High School, next to Target on Los Osos Valley Road, in San Luis Obispo. Contact John Nowak (gritlys@gmail.com)
- 2. The rare plant monitoring group, for people who have time to help find rare, and sometimes rarely seen, native species, and keep tabs on their development. Contact David Keil (dkeil@calpoly.edu)
- 3. The plant propagation group, for people who like to tinker with native seeds and plant propagation. Contact Bill Waycott (bill.waycott@gmail.com)
- 4. The Sudden Oak Death fungus assessment team, for people who are concerned about plant pathogens that attack native plants on the central coast. Contact Lauren Brown (lbrown805@charter.net).

Oval Leaved Snapdragon continued

with no or very short petioles. Flowers are about 20 mm long with an open corolla throat. The upper lip is pink, the lower lip white. It is listed by the California Native Plant Society in [its] Inventory of Rare and Endangered Vascular Plants of California in list 1B – Rare and Endangered.

The sighting of this plant this year was an event which was duly recorded. Clifton Smith from Santa Barbara Botanic Garden and Jeanette Saintz managed to get up to see it. So did several people from the Bureau of Land Management and Nature Conservancy. We will check to see whether or not it flowers next year on Caliente Mountain. If it holds true to form it will not flower two years in a row or indeed until another time when conditions are right. **

- 5. The Hoover Herbarium volunteer group at Cal Poly, for people who want to really get into the details of our local flora. Contact Jenn Yost (jyost@calpoly.edu)
- 6. **The plant conservation committee,** for people who are keen to monitor environmental policies, insuring they are fair, accurate, and transparent. Contact: David Chipping (dchippin@calpoly.edu)
- 7. The San Luis Creek at the Mission Plaza restoration project, for people who want to see local native landscapes in our communities.

 Contact Bill Waycott (bill.waycott@gmail.com)
- 8. **The Website and Facebook group**, for people who are creative and familiar with social media. Contact Judi Young (judi@judiyoung.com)
- 9. **The public outreach group**, for people who like to meet the public and help set up the booth with books, pamphlets, and CNPS apparel. Contact Linda Chipping (lindachipping@yahoo.com)
- 10. The native plant photography group, for people who want to document the plants and habitats of this area, as well record the effects of climate change over time. Contact Marlin Harms (marlin93442@gmail.com)

Also, there are a few positions open needing your involvement:

- A. Chapter Secretary (if interested in taking on this important role for our chapter, please contact Jim Johnson jw_johnson@msn.com)
- B. Hospitality coordinator and Newsletter editor (if interested in taking on either of these fun-filled tasks, please contact Bill Waycott (bill.waycott@gmail.com)

November's Book Sale Table

In anticipation of the meeting program presentation and our annual plant sale, the book sale table will feature the many books that we offer on native plant gardening. In addition, we will have a table of gently used books at a very reasonable price for you to consider.

Membership Corner

The coming of fall should bring a flurry of falling leaves and (hopefully) new and renewing members. If summer lulled you into such a state of relaxation that you forgot to renew your membership or encourage a friend to join, please do it now! We have lots coming up in the fall and winter including interesting programs, plant sales, field trips and special projects. The more the merrier! In the meantime, I want to warmly welcome **Ellen Nelson** to the chapter and thank **Karen Osland** for her renewal.

- Holly Slettland

Conservation

October was, thank goodness, another quiet month as far as development project review was concerned. I attended and gave input to in what appeared to be an interesting project being conducted by the Corps of Engineers concerning coast erosion and beach sand management along the coast, and supposedly issues such as rising sea level. This is being performed on behalf of the SLO Council of Governments. My disappointment cannot be overstated. I was present at scoping meetings a year ago, and now find a year later that they have paid no attention to the effects of rising sea level on habitat and people around Morro Bay, and when I asked about their consultation with the National Estuary Program, their people didn't even know we had such a program, or that the Corps did studies on sedimentation in Morro Bay. In their economic evaluation they considered only the economic value of beach attendance by the public

and not erosion and stuff like the possible long-term risk to coastal properties. No wonder New Orleans flooded.

In other water related issues, the continued downward trends on the elevation of the groundwater surface along the coast south of Pismo Beach may be close to putting the groundwater-supported coastal lakes such as Black Lake at risk. The once-impressive peat wetlands of Black Lake Canyon just east of Highway 1 were drained and destroyed in the 1980s as springs dried up, and now the fate of the other wetlands is in question. I mention this as water use in the Nipomo Mesa area and the allocation of groundwater is becoming the subject of litigation between water management agencies. David Chipping

Hoover Herbarium Volunteer Sessions



Please join Jenn Yost and Dave Keil on Mondays from 1 - 3 pm and Fridays from 9 - 11 am. Come and adopt your favorite group of plants while working on a vouchered collection for The Flora of SLO County. We will be processing new collections, mounting, annotating, and accessioning plant collections from around San Luis Obispo County. No experience is necessary. You will receive full instructions. By helping out, you will be preserving collections for future scientific research and learning about our flora and new names in the process. Questions and RSVP to Jenn at jyost@calpoly.edu.

Thanks all, Jenn

California's Fall Colors

As one drives around in September, brilliant yellows, cheerful whites, subtle pinks, and even chartreuse greet us from bushes and roadsides. Except for the bright red leaves on Poison Oak, Toxicodendron diversilobium, few of our lower elevation natives have the brilliant red, orange, and yellow leaves that festoon mountains and eastern areas, yet many of our fall flowers and leaves have their own unique if subtle charm. This is when our fall-blooming DYC's come into their own. Even the lowly Coyote Brush, Baccharis pilularis, one of the few dioecious, shrubby, non-showy composites that I know of, has its "Fifteen minutes (or 1-2 months) of fame." The subtle yellow staminate flowers of the male plant, aka "Mr. Fuzzy-Wuzzy," shine with pride, and are quite fragrant, especially in bright sunshine. The white, powder-puff plumes and smaller blossoms of the female plants, aka "Mrs. Fuzzy-Wuzzy," greet those who have the eyes to see them.

This is indeed the season of yellow flowers. Prominent are the "diaspora" members of the *Haplopappus* genus, i.e., the various Golden Bushes, *Hazardia*, *Ericameria*, and *Isocoma spp*. The Mock Heather, *Ericameria* ericoides, looks as if its tops were spray painted. The tarweeds, *Hemizonia*, *Centromadia*, *Deinandra*, and *Madia spp*., Rabbit Brushes, *Ericameria* and *Chrysothamnus spp*., Goldenrods, *Solidago spp*., and Telegraph Weed, *Heterotheca grandifolia*, also greet the viewer.

White is represented by both flowers and plumes. Various *Lessingia spp*. bloom in the fall including one appearing late enough to be known as the "Christmas Daisy." A few late-blooming Buckwheats, *Eriogonum spp.*, Morning Glories, *Calystegia spp.*, and Mexican Elderberries, *Sambucus mexicana*, are evident. The Dandelion-like plumes of the composites, the pheasant feather-like plumes of the Western Mountain Mahogany, *Cercocarpus betuloides*, and the fluffy plumes of the Cottonwoods, *Populus spp.*, also liven the fall vegetation.

Pink is seen in the Twiggy and other Wreath Plants, Stephanomeria spp., maturing Buckwheats, Eriogonum spp., and the ubiquitous Naked Ladies, Amaryllis belladonna. But chartreuse? This is found in the rare but, in places, locally abundant Seaside Birdsbeak, Cordylanthus rigidus ssp. littoralis. A spectacular display can be seen on State Route 1 between Vandenberg Village and Allan Hancock College, where Deer Creek crosses the highway.

Ah yes, beauty is in the eye of the beholder. As plant lovers we should not only see our subtle fall beauty, but should be sharing this vision with others. Check Field Trips for our mid-October Burton Mesa Chaparral tour at the La Purisima Mission.

Field Trips

Sunday, November 1, 8:30 am (note change to Standard Time), Montaña de Oro State Park. This outing will feature a look at the northern half of MDO State Park. Meet at the turn off to the Horse Camp, a dirt road on the left side of the main road (Pecho Valley Road) about 100 yards from the entrance to the park. We will hike to the East Boundary Trail, to the Hazard Peak Trail, to the Hiedra Trail, to the Bloody Nose Trail, to the East Cable Trail, and back to the parking area. This is a moderately strenuous hike of 8 miles, a total elevation gain of 2000 ft., (some of which is in sand), with a total hiking time of 4 hours. Make sure to bring water, snacks or lunch. Sturdy shoes, sunscreen, hats, and jackets are recommended. No RSVP needed. Rain cancels. The local plants and animals will be discussed during the hike. For more information, contact Bill Waycott (805) 459-2103, bill.waycott@gmail.com.

Sunday, December 13, 8:30 am, Morro Bay SP. This outing will feature a look at the eastern half of Morro Bay State Park. Meet at the Quarry Trail trailhead on South Bay Boulvard, 1.4 miles south of Hwy 1 or 0.4 miles north of Turri Road. We will hike the Live Oak Trail, to the Park Ridge Trail, to the Chumash Trial, to the Crespi Trial, to the Canet Trail, to the Quarry Trail, and back to the parking area. There will be an option to ascend Cerro Cabrillo, as we near the end of the hike. This is a moderate hike of 5 miles, a total elevation gain of 300 ft. (for Cerro Cabrillo add another 500 ft.), with a total hiking time of about 3 hours. Make sure to bring water, snacks or lunch. Sturdy shoes, sunscreen, hats, and jackets are recommended. No RSVP needed. Rain cancels. The local plants and animals will be discussed during the hike. For more information, contact Bill Waycott (805) 459-2103, bill.waycott@gmail.com.



On Saturday, October 3, CNPS-SLO had a Book Sale Table at the Nipomo Native Garden's Plant Sale. Linda Chipping (center) organized the event with Marti Rutherford (right) and Mardi Niles joining her. It was a lovely morning and we were able to provide customers with a good selection of California native plant books to compliment their plant purchases.

- Linda Chipping

Lompoc Valley Botanical and Horticultural Society Fall Plant Exchange and Tool Sharpening Session

Sunday, 15 November, 2:00 p.m. Come share those extra favorite plants that are too good to throw away. We will also have tips on planting and pruning. Remember also that this is the meeting where we nominate next year's officers. We meet at the Lompoc Methodist Church at the corner of N. F and E. North Streets. Call Charlie Blair (805) 733-3189 or lybhs.org, for more information.

The San Luis Obispo Chapter of CNPS holds its meetings the first Thursday of the month, October through June, except January, at the Veterans Hall, Grand Avenue, San Luis Obispo. Refreshments at 7:00 and program at 7:30 p.m. You don't have to be a CNPS member to attend!

Obispoensis is the newsletter of the San Luis Obispo Chapter of CNPS. It is published October through June except January. Items for submittal to *Obispoensis* should be sent to rhotaling@charter.net. The deadline for the next issue is Tuesday, November 10. Botanical articles, news items, illustrations, events, and tidbits are welcome!

To find out more about the California Native Plant society visit the websites: www.cnps.org and www.cnpsslo.org

Officers & Committee Chairs

President

Bill Waycott (805) 459-2103 bill.waycott@gmail.com

Vice President

David Keil

dkeil@calpoly.edu

Secretar

Kristie Haydu (916) 899-9227 pickleberry26@hotmail.com

Corresponding Secretary

Marti Rutherford

slomire@msn.com

Treasurer

David Krause (805) 927-5182 dkincmbria@aol.com

Chapter Council Representative

David Chipping (805) 528-0914 dchippin@calpoly.edu

Chapter Wholesale Contact

Linda Chipping (805) 528-0914 lindachipping@yahoo.com

Conservation

David Chipping (805) 528-0914 dchippin@calpoly.edu

Cuesta Ridge Monitor

Neil Havlik

Education

Susi Bernstein (805) 481-46 92 fiddle58@att.net

Field Trips

Bill Waycott (805) 459-2103 bill.waycott@gmail.com

General Sales - Book & Poster Sales

June Krystoff-Jones (805) 772 4235 junemkj@gmail.com

Historian

Dirk R. Walters (805) 543-7051 drwalters@charter.net

Horticulture & Plant Sales

John Nowak (805) 674-2034 gritlys@gmail.com Suzette Giouard (805) 801-4806

suzette.girouard@gmail.com

Hospitality

Mardi Niles (805) 489-9274 mlniles@sbcglobal.net

Invasive Plants Control

Lauren Brown (805) 460-6329 lbrown805@charter.net

Legislation

David Chipping (805) 528-0914 dchippin@calpoly.edu

Membership

James Johnson (805) 528-0446 jw_johnson@msn.com Holly Slettland

hslettel@calpoly.edu

Newsletter Editor

Bob Hotaling (805) 238-6044 rhotaling@charter.net

Photography

Marlin Harms

marlin93442@gmail.com

Publicity

Judi Young

judi@judiyoung.com

Publications & Newsletter Mailing

James Johnson (805) 528-0446 jw_johnson@msn.com

Rare Plant Coordinator

John Chesnut (805) 528-0833 jchesnut@slonet.org

Webmaster

Judi Young

judi@judiyoung.com

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-tovolume 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 cyano-bacterial 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 (continued on next page)

Lichen (continued from page 7)

the thallus take place in the rolled-up apical branch tips, but increase in the 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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