
Obispoensis

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



DECEMBER 2010

Jaumea carnosa - - Fleshy jaumea

The plant profiled for this issue of *Obispoensis* is, I believe, to be one of our more overlooked plants. It is *Jaumea carnosa*. It doesn't even have a good common name. I've only seen three used. The first is marsh jaumea which indicates its habitat. A second is simply a translation of its scientific name -- *Jaumea* (its genus name) and *carnosa*, which is Latin for thick or succulent. As can be seen in Bonnie's drawing, the leaves of this plant are somewhat fleshy. More often it is simply referred to as jaumea. The genus name (*Jaumea*) is derived from the name of a very poor (financially) but dedicated French botanist, Jean Henri Jaume. M. Jaume later added "*St. Hilaire*" to his name. So he is more commonly referred to in the literature as Jean Henri Jaume St. Hilaire.

Jaumea is a plant of coastal salt marsh borders where it tends to occur in the higher, less salty areas. Its succulent leaves would suggest that it solves the problem of excessive soil salt by accumulating salt in the cells of its leaves. But research in the 1980s showed that salt builds up in its roots but not significantly in its leaves when salt is added to soils in a greenhouse situation. Work in the 1990s showed that Jaumea grows fine in ordinary, non-saline soils as long as it has no competitors. Jaumea was able to survive moderately high saline soil content whereas non-salt tolerant plants could not. The species forms thick patches of prostrate stems that turn up at their tips. The relatively few paired leaves (opposite) are restricted to the short vertical portion of their stems. Roots arise along the horizontal stems as well as from members of its extensive set of underground stems (rhizomes).

Jaumea is a member of the sunflower family or Asteraceae (Compositae). This means it produces tiny yellow flowers in a small tight cluster (head) surrounded by usually three series of broad bracts called phyllaries. Bonnie has drawn two heads. One of the heads has what looks like petals radiating out from its edge while the other one lacks these "petals." If you tried to dissect out those "petals," you would find each "petal" to be part of a separate flower. Each flower possesses its own narrow ovary from which the "petals" arise. The ovary has the potential to mature into a fruit known as an achene. In other words, the "petals"

are the showy part (corolla) of the separate outer flowers in the head known as ray flowers. But why draw two heads? The other head obviously lacks these ray flowers. Both types of heads are found. Which is more common? I have seen many more of the ray-less heads, but this may simply be a error in sampling. My informal observation is that stems bearing heads with rays appear to be more common in the center of jaumea stands. This would indicate that they are formed by the healthiest stems growing in the more optimum portions of its habitat. This may be an example of plants being able to have the best of two genetic worlds. Heads with rays are more visible and thus would more likely be visited by pollinating insects (I've seen mostly bees) than less conspicuous ray-less heads. Therefore the heads with rays would more likely receive pollen from a different plant which increases its likely-hood of be out-crossed. Out-crossing tends to produce seeds with more genetic diversity. In contrast the ray-less heads are harder to see as well as often seem to not even open fully. This would lead to less or even no cross pollination and little of no genetic diversity. Therefore, jaumea has the potential of producing variable seed required to survive a variable future while simultaneously producing seed nearly identical to that from which its parents grew.

Jaumea ranges all along the Pacific Coast from northern Baja California all the way to Vancouver Island in Canada. References to the plant, except in floras, are few. It is left out of most wildflower books, even coastal ones. It doesn't seem to be poisonous to people or livestock and I was unable to find any culinary or medicinal uses for it. *The Jepson Manual* suggests that it could be used as a ground cover to stabilize poorly drained coastal areas in full sun. ☼ Dirk Walters, Illustration by Bonnie Walters

President's Notes

Another Plant Sale is behind us, and everybody likes our new location. We had a lot of people coming in due to our better visibility from the highway, thanks to our sign makers. Thanks also to all of the volunteers, to people to grew plants for the sale, and from those of you who bought plants and put our chapter on a firm financial footing. Even the threatening weather held off until the last half hour when we were packing up. (Continued on page 3)

President's Notes

Other groups are getting on board with our celebration of Native Plant Week in April. So far, both the SLO and Nipomo Native Gardens, BLM and the Friends of the Carrizo, and SWAP at the Elfin Forest are considering activities. If you belong to an organization that could join in the celebration, let me know about it.

Judi Young has redesigned and updated our web site at <http://www.cnps-slo.org/>. Take a look and tell us how you like it. Thank you Judi.✿ David Chipping

Conservation

We commented on the DEIR for the Carrizo Plain Sunpower solar array. Prior to writing the comment, we attended a meeting the developer held, in which they revealed biological information on rare plant distributions and possible revision of the project footprint that was not mentioned in any part of the DEIR. Our comments therefore reflected the feeling that the document was effectively useless. Another DEIR has just been released for the Topaz Project, which is further north, and we will be commenting. Nearer the coast the City of Pismo Beach has closed the EIR process on the annexation of 1,700 acres of Price Canyon into the city. The EIR is lacking planning specifics, and fails to identify proven sources of water for the project, so the project will have a hard job getting by LAFCO review, the next step in the annexation process. Although the City says its policies will force it to protect important biological resources, their history gives us considerable doubt. ✿ David Chipping

Field Trip

Saturday, December 18, 9 a.m. Fungal Foray led by David Krause and Mark Brunschwiler. On this morning field trip we will be looking for mushrooms growing in the Monterey pine forests of Cambria. Meet at the San Luis Obispo Vets Hall parking area on Grand Avenue at 8 a.m. **Meet at the Cambria Vets Hall at 9 a.m.** How to get there: Traveling north on Hwy 1, take a right at the stop light at Cambria Road, Cambria, go one block to Main Street and take a left and then a left again into the Cambria Vets Hall parking lot. There is no public restroom here. Bring water, your field guides and a mushroom basket for you may want to collect some edible varieties. Dress appropriately for the weather. Be prepared for *Toxicodendron diversilobum*. The hike will be easy, about a 3 hour stroll through the woods. For additional information call David Krause at 927-5182 or Mardi Niles at 489-9274.

Chapter Meetings

Thursday, December 2, 2010: "Botanical Innovations - Seeds and Stomata"

Our speaker is Charley Knight, a faculty member at Cal Poly focusing on plant evolutionary physiology. Dr. Knight will introduce recent areas of research in his lab including the evolution of seeds and stomatal density and size, and their connection with genome size evolution. He will address questions about what controls the evolution of seed size as well as guard cell size and density. He will present experimental designs to address these questions and ask for input from the CNPS group for species that would be ideal for a new study on stomatal function in trees and herbs. He is looking for species pairs within a genus (congeneric species) where one is an annual or perennial herb, and the other is a shrub or tree. Ideally both would be glabrous.

Meet at the Veterans Hall, 801 Grand Avenue, San Luis Obispo, 7 p.m.

CNPS Potluck Banquet

Date: Saturday, January 22, 2011, 6 - 10 p.m.
Place: Morro Bay Community Center, 1001 Kennedy Way, Morro Bay Cost: \$10
More information to come under a separate cover.

This is the January meeting, there is no other meeting in January.

Native Plant Sale a Success

A really big super thank you to all of volunteer's who braved the rainy weather and helped at the plant sale this year. In all the years I've worked the plant sale, there has not been a better crew. I can only think of only praise for all of you and can only hope that you will once again volunteer next year. As you probably know the plant sale is our biggest fund raiser and also the best way for us to outreach to the public. I saw many happy faces as people left the sale with hands full of plants, books and tee-shirts. We also had many new members sign up, which is great news for our chapter and the Society as a whole. Once again, thank you.

John and Karen, Plant Sale Chairpersons

Horticulture

The prune-ability of *Arctostaphylos* has been well known in the nursery industry for many years. I'm going to discuss my experience with the species I'm most familiar with, *Arctostaphylos moroensis*.

The Moro Bay manzanita grows in and around the Los Osos area. It has seeds that can survive many years in sandy soil. I have found them germinating in yards located around Montana de Oro State park. In many cases these plants come up in areas where their large stature would not be appropriate. Rather than removing them, I have transplanted some, or have talked the owners into letting me shear them into a hedge shape. Here are my results.

In most cases, I find that the plants are doing very well. They seem to live for many years under this intense pruning. The plants have maintained a much smaller stature, which is what the home owners wanted. They have developed a much denser canopy and their leaves have a much lusher color. The only downfall I have found is that the new growth can be a magnet for aphids. The aphids invade the new growth before it matures causing a red appearance as the insects drain the chlorophyll out of the new shoots. This new growth can also become deformed causing a very ugly mess. However, don't worry, you can prune off the infested new growth and then apply a soapy spray solution. It may be necessary to redo this treatment three times to rid the plant of all the aphids. There is also a reduction in leaf spot. Leaf spot can be a real problem on the older, mature leaves. Since the leaves are being trimmed all the time, the leaf spot can not take hold.

So now that you know a little bit more about *Arctostaphylos moroensis* and its attributes. I hope you will consider it as a hedge substitute. If you have any plant questions, please feel free to e-mail me. Until then, Happy Gardening. John

A Parting Offer From the Plant Sale

We had a few remaining plants for sale, and very inexpensively. If you didn't make it to the sale, or did but need a few more, consider some of the following. 1-gallon plants: Ceanothus 'Blue Jeans' (Holly Leaf Mtn Lilac) (2); Ceanothus thyrisflorus 'Snow Flurry' (White Flowered Mtn Lilac) (3); Garrya elliptica (Coast Silk-Tassel Bush) (4); Lavatera Assurgentiflora (Island Mallow) (3); Physocarpus capitatus (Ninebark) (2); Quercus berberidifolia (Scrub oak) (1); Salvia brandegei (4); Salvia 'Shirley's Creeper' (2). In 4 ½" pots, there are 8 *Arctostaphylos pumila* (Sandmat Manzanita). One gallons are \$3.00 each and the 4 ½" are \$1.50 each. Call Linda at 528-0914.

BOOK NEWS

A big THANK YOU to all our long-time and new friends who stopped by our table to browse, chat and shop. Thanks for your continuing patronage. We enjoyed your visits. Wasn't it great that the rain held off long enough for us to enjoy our day and that so many people found our new site? When you shop at our book and tee table you allow us to provide several scholarships during the year. We also contribute to "weed bashing" events and we are able to contribute to land purchases here in SLO. I'm always interested in your suggestions as to improving our offerings so if you have ideas, let's share. See you at the December meeting! Heather

A Warm Welcome to New Members

Barbara & Bruce Heublein, Diana Jimenez, Nancy Siepel, Cincy Smith, Patrick Stamile and Laurel Stephens

Thank you to our chapter Renewing Members:

Dawn & Joseph Aulenbrock, Ray Bedford, Leslie Cohn, Melinda Elster, Chester Gibbs, Nicole Molinari, Charmaine Rehg, Kathy and Hal Schartz Pam Tate, Elise & Tom Wheeler, and the Atascadero Native Tree Association

ADOBE SPRINGS

by John Goers

On the eastern side of Atascadero a five-acre tract of land with a series of artesian springs has been recently acquired by the Atascadero Land Preservation Society (ALPS). Appreciating the great historic and natural value of this resource to the community, ALPS named this parcel 'Adobe Springs' in recognition of an old adobe built nearby. The springs flow from pressure built within deep confined geologic strata resulting in consistent flow and temperature, minimally affected by surface weather.

Historically, many groups have utilized the springs. Assuredly, they provided reliable drinking water for Native Americans for many centuries while also being a valuable water source for wildlife, especially in late fall, when other water sources have dried. When European explorers began migrating and settling in this area, their use of the springs for drinking water is well documented. The Juan Batista de Anza party journeyed along the Salinas River corridor in the late 18th Century and benefited from these springs. In the 1810's, an adobe was constructed near the springs as a southern outpost for Mission San Miguel. In the mid-1800's, the adobe became the home of Pedro Estrada and his family after they acquired a Mexican land grant on the territory where Atascadero is today. The adobe lasted over 150 years and housed the Estrada's until 1897, and then was used by transients and railroad workers for many years. The adobe eventually disintegrated from neglect.

The Atascadero Land Preservation Society is the proud steward of Adobe Springs today. Future plans for Adobe Springs include restoration of native habitat with native plants and providing environmental education opportunities through docent led hikes for local schools and the community. For more information or to contact ALPS, visit www.supportalps.org.

Obispoensis is published October through June except January. Items for submittal to *Obispoensis* should be sent to rhotaling@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 and www.cnps-slo.org



2011 Jepson Herbarium Workshop Schedule is now available. The public programs, supported by The Friends of the Jepson Herbarium, are designed to provide members of the systematics, ecological, and conservation communities access to specialists in their field of study. The classes are designed to accommodate botanical enthusiasts from

beginners to specialists. Contact the Coordinator of Public Education, jepsonworkshops@berkeley.edu, phone (510) 643-7008, fax (510) 643-5390.

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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 quarterly 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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