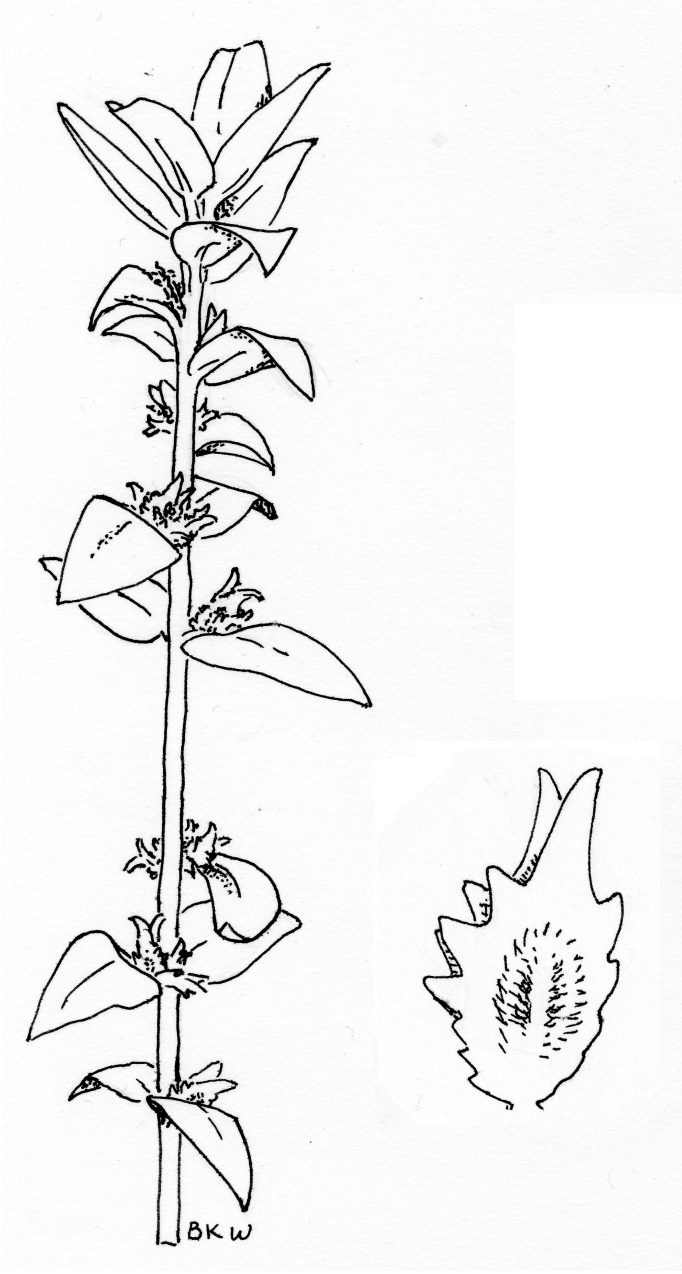
Obispoensis

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



DECEMBER 2011

Watson's Salt Bush (*Atriplex watsonii*)

The plant featured on the this cover of the *Obispoensis* would not generally be considered worthy of presentation to a general audience. Its flowers are tiny; its appearance mundane. It belongs to a plant family past students in Cal Poly's Field Botany class nick named the "**Uglyaceae.**" It grows along the uppermost edge of coastal salt marshes and edges of coastal sand dunes. However, even though it is a salt marsh plant you probably won't have to worry about getting your feet wet. This is because it grows where it gets inundated only by the highest of tides. It is *Atriplex watsonii*, or the Watson's salt bush or Watson's orach. The model for this plant was growing in the in the uppermost reaches of Morro Bay salt marsh.

The recognized common names are just translations of the scientific name which often happens to nondescript looking species. *Watsonii* is named in honor of Sereno Watson (1826-1892) who worked as a curator in the Gray Herbarium and was a student of plants of the Western United States. He was a participant in the Clarence King expedition that studied the natural history, especially geology, of California in the middle of the 19th Century. He published the *Botany of the King Expedition* in 1871. Orach is derived from the Middle English common name for the plants included in this genus. Salt bush is the more contemporary common name applied to all members of this genus. This is in spite of the fact that not all of them grow in salty soils or are bushes. It is true that most members of the genus do favor or require salty or alkaline soils. The habit of this salt bush is a prostrate to mounded perennial herb. It has very thin stems, that spread out latterly, becoming mounded only in the center. At its tallest it is less than 10 inches tall. However, individual plants can grow to several feet in width.

The drawn plant is in fruit. Why show it in fruit? Well, the most obvious reason is that as this is written it is fall/winter and this is when it is in fruit. But, more important, it would be even less exciting when it is in bloom as the flowers are very tiny. Male (staminate) flowers are borne on separate plants from the the female (pistilate) plants (dioecious). The male flower clusters are located in the axils of leaves and are in the form of short, dense spikes. The plant shown is pistillate. We know this because there are clusters of small, paired bracts in the angle between stem and leaf base (axils). Bonnie has drawn one of these "bract sandwiches." One would expect to find a dry, single-seeded fruit between the two bracts, but most of the bract pairs are empty. Like many plants that occur in difficult environments, such as salt marshes, most of their resource budget is expended on just surviving rather than on sexual reproduction. A second evolutionary consideration is that the probability of a new individual plant's establishment in difficult environments is itself extremely low. So, why waste energy producing seeds when they will have an extremely low probability of finding an available site in which to germinate and grow.

Some may have noticed that I have not identified the family to which salt bushes belong. This is because my old taxonomy texts and the upcoming *Jepson Manual* are going to place it in different families. Classically, before DNA sequence data, salt bushes were placed in the goosefoot family, Chenopodiaceae. When the DNA sequence data became available, it was noted that genera of the mostly temperate zone chenopods and the mostly tropical family, Amaranthaceae, came out together. This led to some taxonomists to combine the two families into one. Since Amaranthaceae is the older name, it had "priority" over the name Chenopodiaceae. Therefore, if the two families are combined, then the Rules of Botanical Nomenclature require that Amaranthaceae be used. The classical Amaranthaceae contains only three genera in California (only one of them the very common & weedy pigweeds, *Amaranthus*) In contrast, the classical Chenopodiaceae loom large. It consists of at least 17 genera and many species. Although most common in deserts, the family is found in many other habitats as well. In other words, the classical Chenopodiaceae contains many species that dominate many habitats in California, whereas the classical Amaranthaceae are minor components which most of us see only in our weedy flora. - Dirk Walters, Illustration by Bonnie Walters

President's Notes

I think our November meeting was the highest attendance we have ever had at a regular meeting, thanks mostly to the host of Cal Poly students. Randy Baldwin's fine presentation of plants that are "in the trade" and the human interest of their history of introduction might reinforce the notion that study of native plants is not just about learning latin binomials. The key now is to find activities that will hold the interests of these students. Ideas?

As I noted earlier, we are starting to mount plant lists on the web site. I have added a scan of historical plant lists produced in the 1970s by Bud Meyer. Dr. Keil has

President's Notes continued

contributed a Checklist of the Plants of Shell Creek with Jepson-2 nomenclature, and I have found checklists of plants in vicinity of the Dairy Creek Golf Course taken from environmental reports. I have started working on a Coon Creek trail guide. If you have anything that might remotely be of interest and worth posting on our site, please send it to me. - David Chipping

Conservation

I would like to thank all of you who turned up to the South Bay Advisory Council to support Audubon's proposed removal of eucalyptus from the eastern end of the tidal marsh. Unfortunately our ecological arguments did not win the day, which fell to poems, odes to the joy of seeing the trees, false claims of their biological value, and accusations of racial profiling of Australian natives, etc. This was only the first round, and the issue will move to regulatory commissions, where we have another chance.

On a good note, NRCS has some funds to treat Cape ivy infestations of the Chorro Creek Wetlands Restoration area, and Linda Chipping and I went with them to GPS infestation locations. We also have some interest from State Parks in treating fast-worsening pampas grass infestations on the Coastal Terrace north of Arroyo de la Cruz. Our involvement with the County Weed Management Area committee is so useful in regard to notification of agencies and getting action.

We might have seemed to have lost when the Local Agency Formation Commission approved bringing large hunks of Price Canyon into Pismo Beach's sphere of influence, which we opposed, but than LAFCO placed so many stringent restrictions that any development will be much much smaller than envisioned by the developer-land owners. - David Chipping

Chapter Meeting

Thursday, 7 p.m., December 1, 2011. Veterans Building, 801 Grand Avenue, San Luis Obispo

Program

Using Calflora's integrated mapping platform to understand and conserve California flora: recent results and prospects for further future improvement.

Daniel Gluesenkamp is Executive Director of the Calflora Database, where he helps the leading source of California wild plant information to develop innovative new mapping, data analysis, and management planning tools. Prior to joining Calflora Dan worked for Audubon Canyon Ranch, habitat protection and restoration work across 30 properties and conducting research on invasive turkey impacts and nitrogen deposition impacts on vernal pools. He earned his Ph.D. in 2001 with "The ecology of native and introduced thistles," and in 2009 discovered a Franciscan manzanita plant growing on a traffic island at the Golden Gate Bridge. Daniel Gluesenkamp is a founder and past president of the California Invasive Plant Council and co-founder of the Bay Area Early Detection Network (BAEDN).

Calflora started as an 8-character dos code for a database available only floppy disk. The emergence and expansion of the World Wide Web has made Calflora's services widely available to nearly 19,000 registered users. The nonprofit is now an important source of wild plant information for thousands of citizens, educators, researchers, and conservation professionals, who use depend on Calflora for location information, species information, photos, and other resources.

Daniel Gluesenkamp

In 2006 Calflora began working with the Bay Area Early Detection Network (BAEDN) to build neoGIS tools for use by conservation professionals reporting and managing harmful invasive plants. This collaboration has grown into an integrated mapping platform that brings together a great diversity of field data collection methods to move plant occurrence information into the shared cloud database, and then provide users with a growing set of powerful visualization and resource management tools. Recently, supporting partners (including BAEDN, Cal-IPC, CNPS, and NRCS) have invested in data compilation efforts, as well as exciting new tools that give land managers and scientists improved ability to map, manage, and understand our changing flora.

This talk will provide an overview of Calflora's suite of tools, including Android and iPhone mapping apps, geotagged photo submission tools, GIS upload and display tools, and even tools for planning and tracking conservation action. Finally, we will discuss upcoming projects, how these tools and information can be applied to solving growing conservation challenges, and talk about what it will mean when we know where all California's plants can be found.

FIELD TRIPS

Sunday, December 4, 9 a.m., Black Hill, Morro Bay. This is a 3 mile (4.8K) round trip hike with 600' (1830 m) elevation gain on a good dirt trail. We will be identifying and explaining flowers, bushes and trees along the way. At the top we will enjoy views of the ocean, Morros and surrounding towns. Meet in the marina parking lot in Morro Bay State Park across from the campground entrance right next to the Natural History Museum. Rain cancels. Should you need additional info, call leader Al Normandin at 534-0462.

Saturday, December 10, 9 a.m. Fungal Foray, Cambria, led by David Krause, Mark Brunschwiler, and Dennis Sheridan. 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 poison oak. The hike will be easy, about a 3 hour stroll through the woods. For additional information e-mail or call David Krause (dkincmbria@aol.com (805) 927-5182) or Bill Waycott (bill.waycott@gmail.com (805) 459-2103).

Saturday, December 17, 9 a.m. Oats Peak-Coon Creek Loop, Montaña de Oro. A moderately difficult hike up the side of Valencia Peak, following the ridge to Oaks Peak, then dropping into Coon Creek Canyon and returning to the start. Hiking distance is 8 miles (13K) with an elevation gain of 1,300 feet (396 m), and total of 4 hours. Meet at the parking lot area at the start of the Bluff Trail near the visitors' center at Spooner's Cove. Bring adequate water, snacks, and dress in layers for the weather; a hat and sturdy shoes are advised. For info, call Bill at (805) 459-2103, bill.waycott@gmail.com. The plants, animals, and the geology of the area will be topics during the hike. Rain and/or threat of rain cancels.

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Field trip report: Visit to Atascadero area: Stadium Park and Adobe Springs, 23rd October 2011

Ten CNPS members joined members of the Atascadero Land Preservation Society (ALPS) at Stadium Park. Bruce Bonifas introduced us to the organization and the excellent Bill Shepard Memorial Garden. The garden has a plant identification map and is nicely laid out, so we recommend a visit (plant list available at: http://www.supportalps.org/BillShepardGarden_brochure.pdf). The garden was once a favorite cruising area for off-road vehicles and was "rescued" by ALPS. Mike Orvis, John Goers, and Doug Chisholm of ALPS took us on several trails in Stadium Park. We climbed gently sloping trail up the southwest facing side of Pine Mountain among blue oaks and gray pine and then chamise, redberry, and black sage. There were a scattering of late season flowers and very fine views in all directions. We returned through the natural bowl that has been a setting for events and concerts but is still relatively undeveloped.

We then drove to an ongoing ALPS project, the Adobe Springs which are adjacent to Traffic Way and northeast of downtown. It is marked by a small island of willows and dogwoods supported by perennial springs and seeps. We ducked through the thick understory to find the largest spring which had an impressive flow. The spring was used by early homesteaders, and some of their original European grapevines still exist today. ALPS intends to keep this area in a natural state, but all their attention is now being directed to the "Three Bridges Project" on land they have obtained along Highway 41 west of town.
For more information about the ALPS organization: http://www.supportalps.org/ALPS/Welcome.html - Bill Waycott

A Warm Welcome to New Chapter members

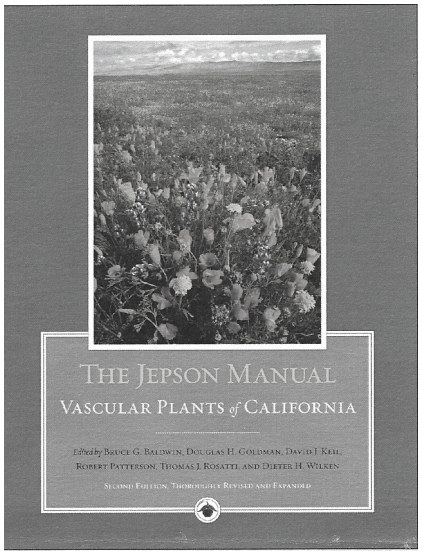
Antonieta Albinana, Terry Andre, Ria Bacigalupa, Jay Bonestell, Mike Bush & Jeanin Miller, Terry Curry, Melinda Elster, Mireille Rabier and Deborah Schlanser

Thank you to Chapter members that have renewed: Leslie Cohn, Nancy & Will Cunha, Connie Geiger, Susan & Myron Hood, Bob Hotaling, Lionel Johnston, Jerry Kirkhart, Barbara Rosenthal, Steve Schuler-Jones, Warren Sinsheimer, Jean Burns Slater, Bob Sloan and John Veres

BOOK NEWS

Glenn Keator has agreed to be our guest speaker at the upcoming January SLO-CNPS banquet in Morro Bay. Our December meeting at the SLO Vets hall will be your only chance to pick up his books if you don't already have them on your bookshelves.

California Plant Families by Glenn Keator and *Designing California Native Gardens* by Glenn Keator and Alrie Middlebrook will be available on our December book tables.



If you ever run across *Complete Garden Guide To The Native Shrubs of California* and *Complete Garden Guide to the Native Perennials of California* both by Glenn Keator, grab them and run. These are books to treasure. *In Full View* is another of his books that has gone out of print and is hard to find. Great read.

The new *Jepson Manual* will arrive about mid December. Unfortunately they won't give us a price break and this tome is a big one. I've ordered 5 copies, price is $125 each. Ouch! See you at the book table. -Heather Johnson

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 Society activities and conservation issues, and the chapter newsletter, *Obispoensis*.

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