
Obispoensis

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



November 2010

Tule

Schoenoplectus (Scirpus) acutus, *S. californicus*
and *S. olneyi*

The cover illustration accompanying this article contains a set of drawings Bonnie did for Dr. David Keil's and my plant taxonomy text plus a new one of the plants' growth form. These species grow in areas where the soil is at least seasonally wet. These species require lots of fresh water but are capable of surviving periodic short exposures to salt water. They are commonly called tule or bull-rush. These tall (usually over 6 ft. or 2 m) more or less grass-like perennial plants resemble spears or pikes as they have no apparent leaves. (Leaves, except for short ones just below the flowers, are restricted to sheaths at the base of the stem.) Their flowers are borne in clusters just below their often sharp tips. There is a potential problem with the two common names given. These names have been used for members of two different genera from two separate plant families — the sedge (Cyperaceae) and the rush (Juncaceae) families. A look at Bonnie's drawings will show that the illustrated plant is clearly a sedge. How does one know? When I first took a plant taxonomy course, I learned a little rhyme which aided in identification of the three common "grass-like" families — the rushes, sedges and grasses (Poaceae). It goes, "*Rushes are round, sedges have edges, and grass comes in joints.*" "*The grass comes in joints*" part is a corruption of what the rhyme historically said. Since I was in college in the sixties and the corruption dates from then, I never learned the correct, that is, original wording. Maybe someone can help me out. Bonnie has shown a stem cross section. Note that it is triangular although the "edges" are rounded. Further, the flower clusters are sedge-like, produced in minute elongate clusters called spikelets. Each tiny flower is hidden behind a single bract. In these species the perianth (sepals and petals), is represented by dry, flat ribbons. Because "rush" is the name commonly used for members of the Juncaceae, I prefer the name tule over bull-rush.

There are two species of tule commonly found in our coastal wetlands. They are the common tule, *S. acutus* and the California tule, *S. californicus*. According to Robert Hoover, a third species of tule (*S. olneyi*) with its very sharply triangular stems is "occasional in marshes near the coast and rare inland." I've not actually identified this species so I know essentially nothing about it. The two common species are fairly easy to distinguish. California tule has bright green stems that are bluntly triangular while common tule possesses a grey-green round stem. The illustration is of a California tule.

A word about the 'S.' or genus name in the two species binomials. According to Jan Timbrook (2007) in her book, *Chumash Ethnobotany*, the correct genus name, according the Flora of North America Project and presumably the new *Jepson Manual* when it is published, hopefully later this year, will be *Schoenoplectus*. However, none of the current floras use this name so Jan Timbrook decided to continue to use the long established name, *Scirpus*. Tules have two extensive chapters in Jan Timbrook's book. She indicates the Chumash recognized two kinds of tule based on their cross sections — flat (actually not a tule but the cattail) and round, *tule redondo*. Some other tribes did acknowledge the difference between the triangular and round stem tule. As might be expected from two chapters devoted to one type of plant in an ethno-botany book, native people had many uses for the tule. Seeds, rhizomes, and young shoots were sometimes eaten although one source indicated that they felt gathering them for food (especially the seeds) was not worth the effort. The stems were bundled and the bundles overlapped to produce a thatching for Chumash dwellings. Bundles were also tied together in such a way to form a canoe-like water craft. Stems were also used extensively to form mats used in many ways. There are many other uses but I've not space to discuss them. However, I feel I have to mention one last use I did find intriguing. Poorer classes of women wove skirts out of tule because they couldn't afford the animal skins used for clothing by the upper classes of Chumash. I guess I was naive enough to think sorting into economic classes was found only in modern economic and political systems.

- Dirk Walters, Illustrations by Bonnie Walters

President's Notes

I want to thank all of the photographers and dessert creators who made our first meeting so successful. There were so many contributions that I think we will have to slightly trim the time allocated per presentation next year, but that is hard when so many of the photographs could have been on national magazine covers. While most pictures were of interesting and beautiful subjects, there were a couple of 4 talks with some solid scientific content, and one, from John Chesnut, showed very real evidence of climate change as desert sagebrush was replaced by high-temperature desert scrubs over the span of a quarter century. This emphasized the dual nature

of CNPS as a plant-appreciation group on the one hand, and a science-based conservation organization on the other. You don't have to have a botany degree to do good plant science, and I am going to suggest that any of you who would like to be involved in scientific data collection, monitoring, photo-surveys, horticultural suitability experiments and the like contact the appropriate program within our chapter.

As noted in the last newsletter, the third week in April has been designated as Native Plant Week in a California Joint Assembly Resolution. CNPS wants this to be celebrated throughout the county, and this should involve other conservation, horticultural, and natural history-related organizations. If any of you have any special relationships with such an organization, let me know.

We are going to need the usual help at the Plant Sale, but also could use some unusual jobs like sign-wavers to stand on the side of LOVR. If anybody wants to dress up like a daisy or something and dance around, we will welcome them. We have no shame when propagating the use of native plants.

David Chipping

Conservation

We're closely watching the Carrizo P4.0lain Sunpower solar array that is currently in the Draft EIR stage. There is a large population of *Layia munzii* of over a million plants that will be impacted by Solar Array #8, which is at the southwest corner of the project adjacent to Belmont Trail. Other impacted CNPS 1B species are *Layia heterotricha*, *Delphinium recurvatum*, and *Lasthenia ferrisiae*. The DEIR leans heavily on off-site mitigation, with specific mention of retirement of development in some lots within the California Valley subdivision. My one conversation with a Sunpower representative showed very little enthusiasm of land purchases outside of the project. You can read the biological portion of the DEIR at <http://www.sloplanning.org/EIRs/CaliforniaValleySolarRanch/deir/c06_biology.pdf>

CNPS finds itself in a difficult position on the numerous solar projects being fast-tracked throughout the deserts of California. We need to reduce fossil fuel use, but not at the expense of imperiling desert species such as tortoise. Impacts to plants are essentially being ignored, given that 'mitigation' for the more 'charismatic' tortoise has meant moving them into other areas where mortality has been extremely high. There is no doubt that we can have some solar in the Carrizo Plain, but it must have a footprint much more considerate of our rare plants.

David Chipping

San Luis Obispo Chapter Meeting

Thursday, November 4, 7:00 p.m. "Water Conserving Adaptations in Mediterranean Climate Plants"

The speaker is Ken Levine, a retired veterinarian from Arroyo Grande. Before becoming a Charter Member of the San Luis Obispo Botanical Garden and then a docent at the garden, his only exposure to botany was a course in poisonous plants that he took at U.C. Davis during his pre-vet years. The power point presentation will illustrate many of the ways that plants from Mediterranean climates have used variations in leaf and stem design to survive long periods of drought.

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

Thank You to Renewing Members

Jack Artusio, Paul Bestwick, Lauren Brown, Emily Coombes, Laura Cornett, Larry Davidson, Alan & Theresa Desmond, Michele Duero, Marnie Green, Sherman Griselle, Marlin Harms, Mary Hintz, David Horwitz, Bob Hotaling, William Johnson, Alice Koch, Karen O'Grady, Karen Osland, Linnaea Phillips, Bryan Potter, Barbara Rosenthal, Bill Shepard, Pam Thomas, Yolanda Waddell, Eleanor Williams and Alexandra Wyzga

BOOK NEWS

Well, maybe I should have titled this TEE SHIRT NEWS. We have new tees in beautiful jewel colors. Small, medium, large, xlarge, and xxlarge; both in short and long sleeves. All with our beautiful lupine designed by Bonnie Walters. Prices are \$17 for short sleeve and \$20 for long sleeve. Come check out these beautiful tees in November at our regular meeting on Thursday, November 4, 2010 and at our Annual Plant Sales on Saturday, November 7, 2010. We also will have some sturdy carry bags with our design. See you soon.

Heather

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



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Planting for the Future

Using tree mitigation funds the city of Atascadero and the Atascadero Native Tree Association (ANTA) have planted over 1000 native trees and shrubs on about 15 acres of city property. There are now eight planting sites – Paloma Creek Park, Heilman Grove, Las Lomas open space (blue oak), Stadium Park at Pinal (blue oak), Adobe Springs and three creek reservations.

Atascadero has a native tree ordinance. Mitigation, either in the form of payment into the tree fund, replanting or dedication of open space easements, is required when native trees are removed for development. The fund doubled in size during the recent housing boom. Unfortunately this meant many trees were removed. On one project alone more than 1000 oak trees were taken out and over 1300 more were impacted.

To better understand the condition of our native forest a tree inventory was completed and paid for from tree mitigation funds. The inventory became a practical possibility with the advent of GIS and digital aerial photography.

One finding was that *Quercus lobata* or valley oaks and *Quercus douglasii* or blue oaks were not regenerating. If a site supported either of these trees they were our first choice for planting. Along the creeks we also planted *Platanus racemosa*, California sycamore, as they also are not regenerating. Initially we planted only trees but soon decided to add shrubs for wildlife habitat and to introduce people to a larger variety of native plants.

The California Conservation Corps does the initial site preparation and planting. They also do subsequent removal of weeds. All plant materials have gopher and browse protection. We experimented with a new wire

mesh gopher basket. Planting was easier but the basket rolled to ground level and the gophers hopped right in. Also the gophers seemed to prefer sycamores and chewed off the roots around the basket. We lost a lot of the sycamores.

If water was available on site the existing irrigation system was expanded. The city contracted with a water truck to water the other sites. Two sites with heavy infestations of yellow star thistle have been sprayed. We do hand pulling within the browse protection, and weed whack to and around the plants. One site can be partially mowed with a tractor.

Two years ago we contracted with a nursery used by the forest service to grow 2000 local blue and valley oaks from acorns. Most of these were given to Atascadero residents. The nursery also experimented with some bare root stock using valley acorns. Thinking the success rate might be low we planted three bare root seedlings per gopher protection. In most cases all three seedlings survived and grew like weeds. We had expected the seedlings to be ready for Day of the Oak but Mother Earth had her own schedule and we had to revise the give-away date.

On the Las Lomas open space easement we had to replant 40 blue oak that were on a downhill slope because one of the residents thought the trees would block her view.

Atascadero covers 26 square miles and is a city within a native forest. Its topography of hills, valleys and seasonal creeks supports a variety of oak trees. We have become aware of how many trees it takes to make a forest and how much work it takes. Our one thousand trees and shrubs is a very small contribution to the regeneration of our forest.

Joan O'Keefe

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Annual Native Plant Sale

Shrubs - Trees - Flowers - Wildflower Seed - Books



New Location!

Saturday, November 6, 2010, 9 am to 1 pm
Pacific Beach Continuation High School
11950 Los Osos Valley Road, San Luis Obispo

The ANNUAL NATIVE PLANT SALE is in a NEW LOCATION. We are going to be at Pacific Beach Continuation High School on Saturday, November 6 from 9-1. The school is located on Los Osos Valley Road, on the opposite side from the Irish Hills Plaza Shopping Center and the Old Navy store. For those coming from Highway 101, go west on LOVR, stay in right lane and turn at the Irish Hills Plaza stoplight onto the LOVR's frontage road, immediately reaching the sale at the school.



For those coming east on LOVR there is an un-signalized left turn onto Garcia (which is adjacent to our sale) after the Madonna stoplight and before the Irish Hills Plaza stoplight. YOU CANNOT TURN LEFT AT THE IRISH HILLS PLAZA STOPLIGHT. If you miss the Garcia turn, then use one of the Irish Hills Plaza exits and circle around to the LOVR stoplight. Cross LOVR and turn left.

We plan to have a large number of plant species and cultivars, arranged by geographic area. We will have advisors on hand to help you make your horticultural decisions. This is our big annual fund raiser, so tell all your friends.



Join Today!

- Limited Income \$25
- Individual or Library \$45
- Family, Group \$75
- Plant Lover \$100
- Patron \$300
- Benefactor \$600
- Mariposa Lily \$1500

I wish to affiliate with the
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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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