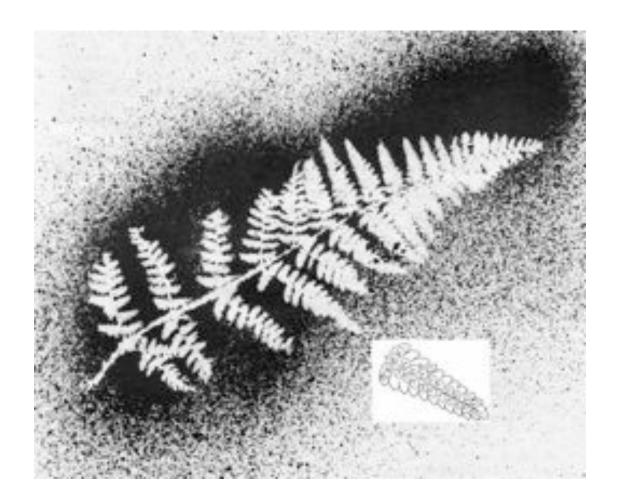
# Obispoensis

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



# Wood Fern - Dryopteris arguta

The illustrations accompanying this article were taken from two different sources. The ink splatter of the leaf was done in the 1970s by Alice Meyer for a cover of the Newsletter of the local California Native Plant Society Chapter (*The Obispoensis*). Alice and her husband, Bud, were Los Osos residents who were very active in local environmental organizations in the 70s and 80s. The small leaf segment drawing was done by Bonnie for Dr. David Keil and my plant taxonomy textbook.

My guess is that most will recognize the illustrated plant as a fern. It is the wood fern, *Dryopteris arguta*. I know of only one wood fern plant in the Elfin Forest. It is just off the boardwalk near the junction of the spur that leads to Siena's view. This plant was discovered during one of my third Saturday in May, SWAP wildflower walk a few years ago. To my knowledge, no others have been found. Outside the Elfin Forest, wood ferns are common in wooded areas along the coast and eastward into the Santa Lucia Mountains. They are localized east of the Santa Lucia Mountains. They are particularly conspicuous under oaks on north and east facing slopes especially where other low growing vegetation is scarce.

Wood fern, like all our native ferns, produces stems that grow horizontally and completely underground. They are called a rhizomes. Leaves of native ferns seem to arise directly from the ground. As in all plants, leaves arise from buds produced near the tips of stems. Since the leaves are in tight cluster, the rhizomes must be highly branched and very short. This also means that everything above ground is leaf. The blade is produced on the leaf stalk or petiole. The petiole continues into the blade as a midrib. In wood fern the deeply dissected blades are borne on veins that branch from the midrib. This makes them twice compound. The inset drawing is one of these leaflets. Ferns do not produce flowers or seeds. Nonvegetative reproduction is done by asexual spores and sexual gametes. The fern plant we see in the wild and in our homes and gardens produces spores. Spores are produced in specialized structures called sporangia. In wood fern, as in many of our other native ferns, the stalked sporangia are borne in clusters on the underside of its leaf blade. These clusters are called sori, or singular, sorus. Many of the identifying features of ferns revolve around the sorus. In the leaflet drawing, the sori are shown as heart or kidney-shaped features. These features represent the sterile, protective covering of the sori known as indusia. In wood fern, the roundish sorus is covered by this heart or kidney-shaped indusium. The sporangia would be maturing between the indusium and the underside of the leaf. When the spores are mature and ready to be dispersed, the indusium dries up or completely falls off.

Wood ferns should make an excellent garden plant. They do best in moist, well-drained soils. Like almost all ferns a shady or semi-shady location would be best. To be truthful, I've only seen this fern growing in very well drained sites. I suspect it wouldn't do very well in flat yards with adobe soil no matter the exposure.

— Dirk Walters, illustration by Bonnie Walters

#### CONSERVATION

Our chapter submitted comments on the Draft EIRs of both Carrizo Plain solar projects. I was invited to tour the Topaz Project, which is generally north of Highway 58 and centered around the site of the old solar panel site that was torn down years ago. Topaz is composed of low, stationary solar panels bolted to aluminum frames that can easily be removed if necessary. The entire area has been disturbed by agriculture, but there is some grassland in which native species are returning. CNPS has argued for keeping grassland and using more of the existing ploughed ground, but there is some opposition from those that don't want to see Williamson Act lands converted in this way. There are some large protected areas in which scarce listed plants could be increased as part of the mitigation, and the botanic part of the DEIR is one of the best I have seen. We agree with the developer that this is an excellent site for solar power, given the winter tule fogs in the Westlands area along I-5 that has been suggested as an alternative. The site will not have a large visual impact on the national monument.

The final EIR is out for the Sunpower Project, which will sit south of 58 and reaching to Belmont Trail. Site disturbance will be far greater than for Topaz. Visibility will be higher, impacting the vistas of Soda Lake as seen from the highway. The final EIR has finally produced some decent plant data, and it appears that the Array #8 bank of generators will have a big impact on CNPS 1B plants and significant wildflower fields. Only avoidance and appropriate grassland management will suffice to protect these resources. The EIR also recommends off-site mitigation, but there is no such program as part of the project at this time. CNPS will argue first for avoidance, but, in the event of approval, that the offsite mitigation will take place in the flower fields immediately west of the project and north of the vernal pool area along Belmont Trail. At the current time we see no evidence that the take of CNPS listed species can be mitigated to Class 2 (Less Than Significant), based on current project description.

CNPS has been asked to join an Advisory
Committee on a new North County Habitat
Conservation Plan, and I need information on the
locations of botanic assets in the areas defined by
the Paso Robles zone of influence. I have already
suggested adding what is left of vernal pools around
the airport, most of which have been obliterated by
vineyards.

— David Chipping

#### **President's Notes**

The rain and warm weather has fuchsia flowered gooseberry, trillium and ceanothus in full flower, and now, in mid January, the accursed veldt grass is setting seed. If not global warming, it is certainly global weirding. It seems to me that we should make notes on early flowering when we see it as it could be useful in global warming studies.

North County members will be happy to know that we will be having our March 3 meeting at the Atascadero Association of Retired People (AARP) Hall, which is right across the parking lot for the Lake Pavilion at Atascadero Lake. We are planning a great show on the flowers and landscapes of the Carrizo Plain and east County.

A reminder that April will include Native Plant Week, and we are getting quite a few organizations signing up to do something special during the week. Spread the word and feed me contacts.

- David Chipping

#### A Warm Welcome to New Members

Megan Dolson, Richard Marks, Michael & Candy Millett, Bruce & Deedle Whitcher and Judi Young

Thank you to our chapter Renewing Members: Frances Alrich, LynneDee Althouse, Edythe Ayers, Anthony Baniaga, David Bauer, Thomas Becker, Charles Blair, Wendy Brown, Mark Brunschwiler, Vince Cicero, Helen Davie, Laura Eliassen, David Fross, Cynthia Gaulin, David Gurney, Joy Hanson, Neil & Ann Havlik, Diane Harrison, Arthur Hazelbrook, Barbara Johnson, David Krause, Erik Layman, Rick Mathews, Deven May, Wallace McCray, Melissa Mooney, Helene Montgomery, Mardi Niles, Judy Neuhauser and John Chesnut, John Nowak, The Morro Group, Peggy Pearce, Lynne Peterson, Virginia Rarig, Rhonda Riggins, Martie Rutherford, Simon Timms, Scott Trees, William Vanherweg, and John Veres

### **Chapter Meeting**

Thursday, February 3, 2011: "Carrizo Plain Ecological Reserve - Biodiversity, Monitoring, and Research" by Bob Stafford

The Carrizo Plain Ecological Reserve contains a wide variety of vegetative communities. This botanical variety supports an equally diverse faunal assemblage which will be explored during this presentation. We will also look at past, present, and future wildlife research projects and how all of this information will be used to direct the future management direction of the ecological reserve.

Bob Stafford has worked as an associate wildlife biologist for the California Department of Fish and Game for over 19 years and he has worked in the San Luis Obispo county unit for the

past 13 years. He has extensive experience working with the endangered vertebrates of the San Joaquin Valley as well as large mammal species such as black bear, tule elk, and pronghorn. His current duties include developing a land management plan for the Carrizo Plain Ecological Reserve, including the Chimineas Unit.

Meet at the Veterans Hall, 801 Grand Avenue, San Luis Obispo, 7:00 p.m. 7 - 7:30 p.m. enjoy social time, refreshments and browse our book table. The meeting begins at 7:30 with a little time for chapter business and announcements, followed by the presentations.



# **BOOK NEWS**

Some interesting titles are reappearing at our book table in February. Be sure to stop by and see...."Indian Uses Of Native Plants" is a perennial best seller. "Memories Of The Land" will give you a background information on many of our SLO placenames. How many of you were aware that Los Berros is the Spanish name for watercress which Father Crespi found growing in the creek on September 4, 1769? I think of that every time I drive by. "Mountains Of Fire" gives us legends and background information on our

beautiful Morros which are greening up so charmingly after all our recent rains. "Wildlife Watchers Guide To SLO" is a great reference to carry along on your leisurely drives. I've purchased just one of each of the following to see if there is any interest in carrying these on our table. "SLO Trail Guide", "Back Roads of SLO", "Exploring SLO Backroads", "Best Family Adventures In SLO", and "Exploring SLO County". Looking forward to seeing you at the booktable in February. — Heather Johnson

# Community Service Award presented to Yolanda Waddell and Pete Sarafian at the Annual Banquet

#### Yolanda Waddell

In the late 1970's and early 1980's, Yolanda Waddell and her neighbors enjoyed walking their dogs and studying native plants and animals in the strip of low woods and shrubs between their homes and the eastern arm of Morro Bay. Then one day they were shocked to see signs about a housing development to be built replacing the lovely woodland. She says "housing would disturb that web of life... Elfin Forest is like a laboratory, a place to study and learn. All kinds of questions can be answered there."

Yolanda joined with others to fight the potential loss, and in 1985 this group organized a new chapter of Small Wilderness Area Preservation. SWAP is a tax-exempt non-profit organization designed to help people preserve small natural areas from development by establishing regional chapters that act independently, subject to concurrence or approval of the corporation board of directors. Yolanda became the first president of the Los Osos/Morro Bay Chapter of SWAP in 1985.

Under Yolanda's leadership, SWAP members researched

the history of the 90-acre area known as the Elfin Forest, developed a prospectus stating the importance of this natural area, monitored legal proceedings, and lobbied legislators. In 1987, over half of the Forest was saved and became a permanent part of Morro Bay State Park. The fight continued to save the remaining 39 acres, with Yolanda remaining very active on the SWAP Board of Directors after turning over the Presidency to Rose Bowker in 1990. The chapter won over a million dollars of state and federal grants and raised over \$200,000 in matching funds, then persuaded the San Luis Obispo County Supervisors to give the final grant necessary to buy the property closing escrow on July 13, 1994. The County accepted the property as part of County Parks, provided SWAP would act as steward for the property. SWAP continues its "friend of the parks" stewardship to today, and Yolanda continues to wear multiple hats in the organization. She has spent many hours working with the Weed Warriors to relieve native plants of pressure from alien exotics. She has edited Oakleaves newsletter since its inception in the 1980's. It is currently a bimonthly 12page publication including in each issue a full-page article on a plant species by Dirk Walters. She has co-authored major portions of every publication, including the 200species vascular plant section of the pocket guide "Plants and Animals of the Elfin Forest Natural Area" and each of SWAP's annual calendars. She has contributed much to the development of educational materials and acted as docent for many groups of school children, introducing them to the native plants and animals of the Elfin Forest

Yolanda has also served for many years on the Board of Directors of the parent organization of SWAP, assisting other chapters in their successful efforts to preserve

and their complex interactions with each other, their

climate, and other environmental factors.

properties, including the East West Ranch property near Cambria saved by North Coast SWAP, the cliff-top Wilcox Property in Santa Barbara re-named the Douglas Family Preserve, and a canyon property purchased by the Verdugo-San Rafael Chapter and deeded over to Santa Monica Mountains Conservancy.

In recognition of over three decades of vision, leadership, and plain old "politicking," SLO-CNPS is pleased to recognize Yolanda for her on-going, dedicated, and freely given Community Service.

#### **Pete Sarafian**

As Conservation Chair, Pete Sarafian has been responsible for implementing SWAP's Adopt-A-Park contract with San Luis Obispo County Parks to act as stewards of the El Moro Elfin Forest. He has spent more than 500 hours each year coordinating work by SWAP's Weed Warriors, California Conservation Corps crews, and other volunteers and habitat restoration contractors to bring the Elfin Forest's habitats to a health state.

In May of 2009, the San Luis Obispo County Community Foundation selected SWAP Conservation Chair Pete Sarafian to receive its 2009 Sustained Environmental Contribution award for his decade-long work to free the Elfin Forest of invasive plants, control erosion, and to restore native plant habitats.

County Parks officials have reported "Veldt grass is under control and has largely been removed from the Elfin Forest. Veldt grass once covered over 20 acres of the Elfin Forest. Portions of the Forest have been planted with native habitat...Erosion into the Morro Bay Estuary has been decreased...Spur trails have decreased...and other invasive plant species have been removed...The amount of monitoring—and the expertise Sarafian provides—results in a very high level of forest maintenance and preservation, a level the County could not provide."

The SWAP Board of Directors reports that Pete has attended State, County and Cuesta College classes to learn more about the Elfin Forest and its plant habitats. He and Conservation Committee member Bob Meyer obtained "take permits," certification from U.S. Fish and Wildlife Service to act as snail monitors. Also, Pete obtained a Qualified Applicator Certificate in 2008, which is a permit to spray herbicides on the most difficult-to-remove invasives such as Cape ivy and African asparagus vine. Pete is an active member of the California Invasive Plant Council and the San Luis Obispo County Weed Management Area.

In recognition of these efforts and accomplishments, SLO-CNPS is pleased to recognize Pete for his continuing, committed, and significant Community Service.

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#### Horticulture

With the cool weather of January here, is now a good time to prune California native oak trees? The answer is yes, cool weather is a sign for oak trees to become dormant. When an oak becomes dormant it looses most or all of its leaves. In this state the oak has slowed or shut down most of its food production. Also, most of the sap, which was located in the branches during the growing season, has moved down to the roots. With the sap located in the roots, trimming of branches, even the large ones, will not cause bleeding. Bleeding is the term given to cut wounds that leak or bleed sap. Leaking sap is the number one attractant for beetles and other insects. These bleeding, cut surfaces can also be a way for bacterial and spore related diseases to enter the plant's vascular system. Another good reason to prune during this dormant state is because without leaves it's much easier to see which branches should be removed. This is most important if you want to shape your oak a certain way. Oaks have a

tendency to have many dead or dying branches located inside their canopy. These dead branches can be safely removed. First make a small under cut and then cut down from above until the branch falls off. Also you may want to cut out any crisscrossing branches. These branches can cause problems later on when the oak becomes mature. Pruning of California live oaks (oaks that do not loose their leaves) is done basically the same way. The only difference is that the leaves are still on the tree so it's harder to see which branches to remove. Take your time and make sure to wear gloves and eye protection. Live oaks have spines on their leaves that can cause bad scratches on your face.

Now that you know a little bit more about pruning oaks and how cold weather can help, I hope you will feel a little more comfortable with cutting branches. Take care and happy gardening. John

# A Special Benefit for CNPS Members

Growing Grounds Farm is a non-profit wholesale nursery Adult Vocational Program of the Transitions-Mental Health Association. They have a large selection of California natives. They are not open to the general public. However, for CNPS-SLO chapter members ONLY, the Growing Grounds Farm is open for plant purchases on the 3rd Tuesday of each month, from 2-4 p.m. at the Growing Grounds Farm on Orcutt Road. Visit their web site, www.growinggroundsfarm.org, for more information about the Farm.

Obisopensis 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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# 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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