NOVEMBER PRESENTATION:
Eco-Cultural Restoration of the Mesopotamian Marshes from an Iraqi Perspective

Michelle Stevens, Ph.D.
Assistant Professor, Environmental Studies, CSUS

Most people think of Iraq as a desert nation, but in fact southern Iraq is home to extensive marsh habitat. At the confluence of the Tigris and Euphrates rivers, these were once the most extensive wetlands in the Middle East, covering an area larger than the Florida Everglades. The Iraqi government has been systematically draining these marshes for political reasons since the late 1980s, and they are now nearly gone, along with the indigenous Ma’dan people, who lost their livelihoods and were turned into refugees. A 2001 United Nations Environmental Program report called “the disappearance of the Mesopotamian marshlands” a major “environmental catastrophe that will be remembered as one of humanity’s worst engineered disasters.”

Michelle Stevens has been involved with the ecological and cultural restoration of the Mesopotamian Marshes of Iraq since 2002. Michelle recently attended a Biodiversity of the Middle East Conference in Jordan, where she is interviewing Iraqi scientists about their progress with the restoration, conservation and revitalization of the marshes. Her slide show will include historic images of the marshes and Marsh Arabs, progress toward restoring 58% of the marshes and recolonization of the marsh area, and new initiatives to create a Ramsar Wetland of International Significance and a Peace Park between Iran and Iraq.

Michelle has worked with wetlands ecology and ethnobotany for over 20 years. From 2002-2003, she was project manager of the marshes’ Eden Again Project, an initiative sponsored by the Iraq Foundation and the U.S. Department of State to develop a viable plan to restore the marshes. Besides hydrological modeling, the project is compiling a list of focal plant and animal species that can serve as biological indicators of successful habitat restoration. Michelle also worked with the Iraq AWARE Project in 2003-2004, and is now an assistant professor in the Environmental Studies Department at California State University, Sacramento.
Sanford’s Arrowhead  
*Sagittaria sanfordii*

**Family:** Alismataceae (Water-plantain)  
**Federal Status:** None  
**State Status:** None  
**Other:** CNPS List 1B (Plants Rare, Threatened, or Endangered in California and elsewhere)

*Sanford’s arrowhead* is an emergent perennial herb that occurs in a variety of aquatic habitats. It frequently occurs in shallow freshwater marshes and swamps. However, it can also occur in ephemeral drainages, stock ponds, rice fields, irrigation canals, and drainage ditches. Sanford’s arrowhead can be found at elevations ranging from zero to 650 m (zero to 2,130 ft) above mean sea level. The species blooms from May through October. The known range of Sanford’s arrowhead includes Butte, Del Norte, El Dorado, Fresno, Merced, Mariposa, Orange, Placer, Sacramento, Shasta, San Joaquin, Tehama, and Ventura counties. However, it may be extirpated from Orange and Ventura counties. Sacramento County has more documented occurrences of this species than any other county within the California Department of Fish and Game’s California Natural Diversity Database (CDFG-CNDDB).

There are five species of *Sagittaria* in the current edition of the Jepson Manual and this species can be easily differentiated from the others in the field by its sharply three-angled stems. Other species within this genus have pithy half-moon shaped stems. So, one can verify that it is in fact Sanford’s arrowhead by rolling the stem between the fingers; it should feel sharply triangular. This species has round tubers and relatively large leaf blades that are approximately 14 to 25 cm in length. The leaves are highly variable; they can be elliptic, narrowly linear with acuminate tips, oblanceolate, or somewhere in between. At first glance, one may overlook this species and mistake it for cattails (*Typha* sp.) when the leaves are nearly linear shaped. Most of the other species in this genus have sagittate leaves.

Sanford’s arrowhead flowers are typically unisexual and appear in whorls around the stalk. They have three triangular shaped sepals and three white petals. The pistillate (female) flowers have recurved pedicels and the staminate (male) flowers have papillate filaments and bright yellow anthers. The fruits of this species are relatively small (approximately 2 to 3.5 mm long) and have tiny (less than 0.5 mm) long ascending to erect beaks.

Evolutionarily, aquatic species such as Sanford’s arrowhead are really quite amazing because they have evolved out of their original aquatic environment, succeeded on land as terrestrial plants, and then have returned to the aquatic environment. Aquatic plant species have developed many interesting morphological and physiological adaptations that allow them to live in the anaerobic environment. Leaf polymorphism in *Sagittaria* is an example of such an adaptation. Members of this genus tend to produce more linear, narrow leaves when their environments are totally saturated and they occur in deeper habitats, while tending to produce broader leaves when water levels decrease and they are in shallower, more emergent conditions.

Unfortunately this species is continually threatened by grazing, development, recreational activities, invasive and exotic plant species, agriculture, pollution, sedimentation and urban runoff, and stream-bed alteration.

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**Gratitude**

*Betty Matyas* has stepped down as chapter historian after years of dedicated service. She has passed along her archives, but her own deep knowledge and memory cannot be replaced. Our chapter now needs someone new to carry on the important work of recording and maintaining our chapter’s heritage into the future. If you are interested in serving as the Sacramento Valley Chapter’s historian, please contact Mary Maret at (916) 961-4057, or mmaret@sbcglobal.net.
Chapter’s Fall Plant Sale a Blooming Success!

Marietta Pellicano (left) and her crew of volunteers did another fabulous job on the fall plant sale. Elderberry Farms Native Plant Nursery (right) made its retail debut with an impressive selection of American River Parkway flora, and we also welcomed Windmill Nursery (below left) as a new vendor. Member grown plants added to the terrific variety for sale. New volunteers like Natalie Anaston (below right) contributed their time as cashiers, book table and all kinds of help. Thanks to all for making the 2008 Fall Plant Sale a resounding success!

Peggy Berry observed that the eager first customer at the Fall Plant Sale was a neighbor of the American River Parkway who insisted on buying only plants native to the Parkway for his garden and yard. Chris Lewis (above) and the dedicated Elderberry Farms Native Plant Nursery volunteers can consider this purchase a validation of their vision and hard work to provide locally grown natives for gardeners and restoration projects in this area. This first customer purchased $200.00 worth of healthy specimens from the nursery’s debut offerings! How cool is that?

Wine, brews, appetizers and desserts!
Silent auction and raffle items:
- Nature oriented lap quilt by the Joyful Quilter
- Ceramics by Virginia Dains
- Artwork, books, crafts, fine wines, gourmet food baskets,
- Gift certificates, services and more... this list is going to grow between now and 11/1!

Visit Critterville, featuring the fauna that occupy vernal pool landscapes in central California!

Live folk/rock/celestial music by RSVP (Rock Stars for Vernal Pools) featuring Kathy Bradshaw, Chris Bronny, Jane Hicks, Steve Hartman, Sophia Jorgenson, Jaymee Marty, Brent Ratkovich, Becky Waegell, Keith Wagner, Mary Pakenham-Walsh, Rosie Yacoub and Slow

Suggested donation: $25 per person and reservations are required. For reservations, email to: cwitham@ncal.net
Donors will receive raffle tickets for the numerous door prizes. All proceeds will go toward vernal pool conservation, advocacy and education outreach efforts of the CNPS Sacramento Valley Chapter.

Contact Carol Witham, <cwitham@ncal.net> if you would like to donate items to the silent auction or raffle, volunteer to make an appetizer or dessert, or help out with the event. Info: <http://www.vernalpools.org/celebration>
If you cannot attend the event and wish to make a donation, send a check payable to CNPS Vernal Pool Preservation Fund to Carol Crofoot, 2280 Stillwind Ln., Rancho Cordova CA 95670.

www.SacValleyCNPS.org
November 2008
Calendar of Events

November 2008 Cal

NOVEMBER
Wed., 11/12  Chapter Board Elections at the monthly general meeting
It’s time to elect new executive officers. Nominees at press time include: Jennifer Stocks President; Carol Crofoot Treasurer; Hazel Gordon, Secretary. We currently do not have a nominee for Vice President. If you would like to nominate someone for any office, contact Mary Maret (916) 961-4057, mmaret@sbcglobal.net

Sun., 11/18, 8:00 a.m.
Habitat Improvement at the Effie Yeaw Nature Area
Leader: Jack Hiehle
Come and help Jack improve the Nature Area. Call Jack at 967-0777 if you can help with this project.

ONGOING
Native Plant Demo-Garden
Old City Cemetery
Saturdays and Sundays
10 a.m. until noon (Rain cancels)
Wear a hat, long shirt and boots (or sturdy tennis shoes). Also bring gloves, gardening tools and knee pads if you have them. RSVP by Sunday at 5 p.m. to confirm 929-7896. For more info, Sabrina soj@surewest.net

Chapter Meeting & Guest Speaker
2nd Wed. of month, 7:00 p.m.
(Jan-June; Sept.-Nov)
Shepard Garden & Arts Center, McKinley Park, Sacramento.
Meetings are free and open to the public. Books, Wildflower Seeds, and our SacValley t-shirt always available for purchase. Refreshments.

Habitat 2020
Second Monday of each month
11/10; 12/8  7:00 p.m. - 9 p.m.
NEW LOCATION: SMUD Bldg.
if you’re interested in working with leaders in the conservation community, contact Chris at (916) 812-2876 or lewisc916@yahoo.com.

November 2008 Calendar of Events

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Elderberry Farms Native Plant Nursery at Soil Born Farms
2140 Chase Drive, Rancho Cordova
Demo Garden Workdays
2nd Saturday of every month
Rain or shine, there is lots of work to be done.

Elderberry Farms Native Plant Nursery Workdays
To be arranged. To be e-mailed about Nursery Workdays send an e-mail to Chris at lewisc916@yahoo.com
See p. 6 for more details!

Chapter Board Meetings
4th Wed. of month 7:00 p.m.
(Jan-June; Sept.-Nov) Arden-Dimick Public Library, 891 Watt Ave. at Northrup, Sacramento 95864
Call Mary Maret for more information (916) 961-4057.

Sac Valley Chapter Volunteer Hosts Needed for CNPS 2009 Conference
Do you live in Sacramento or Davis and would you be willing to provide a place for a student to stay while attending the CNPS Conservation Conference January 17-19, 2009? We expect 800 to 1000 attendees, many of them students who will be presenting the results of their studies.

Other chapters are funding registration and travel expenses for students, but full support of lodging and meal expenses is beyond their resources. If you can help, contact Josie Crawford at jcrawford@cnps.org, or (916) 447-2677. For more information about the Conference, or other opportunities to volunteer, see www.cnps.org and click on the conference logo.

CNPS 2009 Conference Scholarship Opportunity!
The 2009 Conservation conference promises to be an exciting event that includes four consecutive plenary sessions, keynote speakers, plant photography and illustration contests, exhibitors, post-conference workshops, and more! Our chapter is proud to be able to fund six local students to attend this significant state-wide event and to cultivate young and enthusiastic participation in our organization. It is important for us to engage the next generation because they will be our next environmental leaders, responsible for helping us accomplish our mission of increasing understanding and appreciation of California’s native plants and to conserve them and their natural habitats into the future, through science, education, advocacy, horticulture, and land stewardship.

We have contacted botany professors from six local colleges and asked them each to recommend one outstanding botany student for sponsorship. Funds not awarded will be turned over to the State CNPS office to be allocated towards the general student sponsorship fund for the conference. The student selections have not yet been finalized so, if you or someone you know is a botany student and would like to apply for sponsorship to attend the conference, please contact Kristie Haydu (916) 899-9227 or pickleberry26@hotmail.com for more information.

Remember! There is no Chapter Meeting or Board Meeting in December. Have a Happy Holiday Season, and see you in January!
Other Events

Effie Yeaw Nature Center - Nov. 2008

Located in Ancil Hoffman County Park, 2850 San Lorenzo Way, Carmichael, CA

All programs are FREE unless stated otherwise.

Park entrance fee: $5.00 per car or FREE to ARNHA members.

Open 9:30 a.m. – 4:00 p.m. daily Nov. - Jan.

For more information about the Center or events, contact: <www.effieyeaw.org> or (916) 489-4918

Interactive Exhibit: Endangered Species of California's Central Valley

Sat., 11/1, 1:30 p.m.
Spooky Story Time
Spooky stories told by the Sacramento Storytellers Guild.

Sun., 11/2, 11:00 a.m.
Songs in the Wild
Join musician/naturalist Ryan Pocan to make a musical instrument with materials from nature.

Wed., 11/5, 8:00 a.m.
River Nature Stroll
Meet Jack at the old Fair Oaks Bridge on the north side of the river.

Sat., 11/8, 1:30 p.m.
Autumn Birding
Bring your binoculars!

Sun., 11/9, 1:30 p.m.
Turkey Vultures
Learn more about the amazing turkey vulture and its importance to our ecosystem.

Sat., 11/15, 1:30 p.m.
Footprints in the Wild
Explore the ways animals move and unravel the stories left in their footprints. Learn to recognize other animal signs and play scat bingo.

Sun., 11/16, 1:30 p.m.
Cold-Blooded Creatures
Some have scaly skin, some have slimy skin, some have legs and some don’t! Join us and find out what they are.

Birds of Winter in the Sacramento Valley - Pre-registration is required
Learn the finer points of identification, calls and natural history of winter birds in the Sacramento region with Ed Harper, longtime educator, tour guide and noted birder. Suitable for both beginning and experienced birders.

Fee: $80 includes all lectures and field trips.

LECTURES - Effie Yeaw Nature Center, Thurs., 7-8:30 p.m. 11/6 & 11/13
FIELD TRIPS - Saturdays, 8 a.m.-noon
Nov. 1, Ancil Hoffman Park
Nov. 8, Yolo Basin Wetlands, Nov. 15, Nimbus Fish Hatchery

To enroll contact Effie Yeaw Nature Center (916) 489-4918

Tues., 11/18, 8:00 a.m.
EYNC Nature Walk
A guided walk with wildlife expert Jack Hiehle. Meet in the Nature Center parking lot (in Ancil Hoffman Park)

Sat., 11/22, 1:30 p.m.
Habitat Hunt
All animals need habitat. Do we need the same things as wild animals to survive? Join a naturalist to take a walk to discover the different habitats in the Nature Area.

Sun., 11/23, 1:30 p.m.
Great Gobblers
Look and listen for wild turkeys as you explore their world on this guided walk through the Nature Area.

Sat., 11/29, 1:30 p.m.
Gifts from the Earth
Explore the ways Maidu Indians used plants for food, medicine, clothing and shelter. Tour the village and Nature Area to see some of the plants used in the past and present for many purposes.

Sun., 11/30, 1:30 p.m.
It’s the Season for the Salmon
History reports a time when salmon runs were so plentiful you could walk across the river on their backs. Come learn about the challenges facing the Chinook that travel thousands of miles in a cycle that has lasted for millennia.

Sat., 11/1
Friends of The Chico State Herbarium ANNUAL MEETING
California State University, Chico Holt Hall Room 129
Reception 3:00 pm, Meeting 4:00 pm
A short business meeting including an introduction and opening remarks by Greg Liggett, the new Herbarium Director SPECIAL PRESENTATION: “The Ecology and Evolution of Arctostaphylos” by Dr. Tom Parker, San Francisco State University. Details at <www.csuchico.edu/biol/Herb/friends/annual-meeting-2008.html>

Wed., 11/19
6th Annual Habitat Conservation Planning from Tahoe to the Bay Workshop
Registration deadline November 10. For more information contact: John Hopkins, Ph.D. coordinator ieh@cal.net

Sun., 11/23
Lithocarpus densiflorus: An Environmental History of Tanoak

The Geography Graduate Group Presents: The History Of California’s Landscapes Speakers Series - Part 1
Wednesdays, 5:10 p.m. - 6:30 p.m.
1150 Hart Hall, UC Davis

11/5 Jef Mount, UC Davis
The Changing Sacramento-San Joaquin Delta Landscape: Past, Present and Uncertain Future

11/12 James L. Patton, UC Berkeley
A Legacy of Joseph Grinnell: Predicting the Future of California’s Vertebrate Fauna from the Record of the Past

11/19 Hartmut S. Walter, UCLA
Extinction Hotspot: How Wildlife Vanishes in California

12/3 Charles Goldman, UC Davis
Lake Tahoe: Moving Beyond the Conflicts During Five Decades of Environmental Change
Support Elderberry Farms Nursery!

In November and December our seed collecting will continue as well as developing a Nursery training and work schedule. The days and meeting times will vary. Please let me know how you’d like to help: lewisc916@yahoo.com or (916) 812-2876.

We need help with:
- developing propagation protocols
- entering nursery records
- watering, potting up plants, weeding
- landscape design
- creating native plant & wildlife habitat
- collecting seeds and cuttings
- tool maintenance
- building nursery structures
- maintaining nursery structures
- writing monthly news articles!

"Native Plants can be likened to theatrical settings. In its native home each plant species is the backdrop and producer of an age-old drama -- one with a well-rehearsed cast of actors, mostly insects. When an exotic plant or even a native but not locally indigenous species is moved to a new land or locale, the cast of actors is left behind, and there is no plot, no play, for an interested audience to witness and enjoy.”

-Edward S. Ross

from Butterfly Gardening, The Xerces Society and The Smithsonian

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Chris loves nursery field trips! California Broom- Lotus scoparius, Brickle Bush, Brickellia californica- these are a few of our local beauties.
The California Rangeland Trust is celebrating its tenth anniversary. Since our inception, we have worked with landowners and our partners to conserve over 184,000 acres of rangeland in California. But there is much more work to be done in educating the public about the benefits of conservation easements and the habitat and culture that is lost when our rangelands are converted to development.

A conservation easement is a legal agreement between a landowner and a qualified land trust, conservation group or government agency regarding the future uses of private property. As a private property owner, you have a number of private rights that go along with the ownership of your property. By granting a conservation easement, you agree to give up some of those rights. In a conservation easement with the Rangeland Trust, typically most of the development rights are extinguished to maintain the conservation values and to help provide for the private landowner’s stewardship of the property.

The Rangeland Trust, a public non-profit, sees a tremendous amount of voluntary interest and has a long list of land owners awaiting funding for conservation easements on their land. This application list includes approximately 80 ranching families and nearly 440,000 acres. Notably, one third of these ranches are in California’s 25 fastest growing counties and thus face intense pressure from development or conversion to other non-agricultural uses. Additionally, nearly half of the ranches in application fall within the California Rangeland Conservation Coalition’s conservation priority area, in and surrounding the Central Valley.

Many of the fastest growing counties in California have some of our State’s most productive rangelands, yet our rural areas are often the most desirable places for new development. Uncontrolled growth and urban sprawl are the biggest reasons for the permanent disappearance of this habitat each day.

Protecting agricultural land and rangeland through conservation easements helps to maintain the viability of a region’s agricultural economic base. Land remains in private ownership and on the county tax rolls contributing to the local economy. Any potential income from an easement helps maintain the economic sustainability of the agricultural enterprise, which have often been in operation for generations. Conservation easements also protect a community’s scenery, natural resources, wildlife habitat and quality of life. Conservation easements on working rangelands provide a unique tool for the stewards of those lands to continue to practice the management principles that keep their land healthy and vibrant for generations to come.

The Rangeland Trust has been tremendously successful by partnering with other agencies and land trusts throughout California to conserve precious ranchlands. Continued collaboration with local land trusts, the Wildlife Conservation Board, the Trust for Public Land, The Nature Conservancy and other conservation-focused groups will be vital to our conservation goals.

The mission of the California Rangeland Trust is to conserve the open space, natural habitat and stewardship provided by California’s ranches. To learn more about the Rangeland Trust or to donate to help protect California’s rangelands, please visit <www.rangelandtrust.org> or call 916-444-2096.

J.B. Overstreet, owner of the Ecker Ranch in Madera County, conveyed an agricultural conservation easement over his 1,080-acre ranch in August 2008, permanently protecting the property from conversion to other uses. The California Rangeland Trust received over 100 letters from the Madera County community in support of the conservation of this historical and resource-rich property.

Photo courtesy of California Rangeland Trust
Nov.-Dec. 2008 Hibiscus

www.SacValleyCNPS.org

The Sacramento Valley chapter newsletter, Hibiscus, is published monthly, except for July, August, and December. Subscriptions are $10 per year. To subscribe solely to this newsletter, send your $10 check to: CNPS Sac Valley Membership, 2707 K St., Ste. 1, Sacramento, CA 95816-5113. Deadline for Hibiscus contributions is midnight of the Friday after the monthly meeting for possible inclusion in the next month’s newsletter. Email to bwolf@surewest.net

Give a gift of Conservation!

Looking for a great holiday gift idea for your nature-loving friends or relatives? Here’s one that’s quick and easy, requires no trip to the mall, saves gas and time, and one size fits all. **Give a membership to CNPS.** Each recipient of a gift membership will receive the monthly Hibiscus newsletter, the CNPS state newsletter and the journal **Fremontia**.

Is everyone you know already a member? Honor someone by making a donation to CNPS in his or her name. The donation can be restricted to support your friend’s special interest, such as research or vernal pools protection.

As our climate changes, conserving and cultivating California natives becomes an even more important task, crucial to preserving our state’s natural heritage and biological diversity. What could be a better gift than that to future generations? [Go to](http://www.cnps.org) Click on the JOIN button

Happy Holidays!

Sacramento Splash presents a **Nature in the Neighborhood Family Event!**

**Creatures of the Night**

**A Nocturnal Wildlife Walk**

at Mather Field

Saturday, November 8

6:30 p.m. – 9:00 p.m.

Join us as we venture into the woods around Mather Lake to discover the nocturnal creatures that rise when the sun sets.

**Splash Education Center**

4426 Excelsior Road

Mather, CA 95655

**Suggested donations:**

$10/adult, $5/child (5-18), Free/under 5. Children must be accompanied by an adult.

**Reservations strongly recommended**

Please visit [www.sacsplash.org](http://www.sacsplash.org) or call (916) 364-2437 for more info or directions.

Hibiscus introduces hyperlinks!

Many of the web addresses listed in this newsletter are now linked from within the pdf. Just click and go directly to the desired webpage!

Jan. 17-19, 2009

**Early-bird registration ends 11/15!**


Are you being served?

Subscribe to the chapter listserv by sending a blank email to: CNPS_SacramentoValley-subscribe@yahoogroups.com

Contact Harry Spanglet (spanglet@water.ca.gov) for more info.