

* CALL FOR ACADEMIC POSTERS * CALL FOR ACADEMIC POSTERS *

AQUALLIANCE

DEFENDING NORTHERN CALIFORNIA WATERS

presents

Vernal Pools in Changing Landscapes: From Shasta to Baja

This conference is brought to you by AquAlliance and will be held on Thursday, April 10, 2014 at Sierra Nevada Brewing Company in Chico, California. Fieldtrips to explore some magnificent local sites will take place on Friday, April 11th.

The conference will provide valuable historical, scientific, legal, political, and visionary information regarding the vernal pool landscape. Scholars, agency representatives, and other professionals will present research and case studies regarding the biology and ecology of plant and animal species, landscape analysis, and conservation efforts. Dr. Robert Holland will present the keynote address.

The planning committee invites students and academics to **share their work and knowledge of California's vernal pool landscapes and species** with a poster. This will be a great opportunity for continuing education and networking. The deadline for poster abstract submission is **April 1, 2014**. A maximum of 20 posters will be accepted. Presenters must provide their own tripod or request a table that can support the poster against a wall (limited space for this option).

BRING A POSTER TO DISPLAY YOUR WORK

Topics: California's vernal pool landscapes and species

Where: Sierra Nevada Brewing Company Mezzanine

When: Thursday, April 10, 2014 5 p.m. – 6:30 p.m. along with Sierra Nevada hors d'oeuvres.

Abstracts: To have your poster considered for display, provide us with a poster abstract by **April 1, 2014**. If accepted, poster abstracts will be included in the symposium registration packet.

Poster set-up: Thursday, April 10 by 10-11a.m. Posters must be removed by 7 p.m. on April 10.

Directions for preparing the abstract

1. Please restrict the text of the abstract [excluding the author name(s), address(es), email(s), and talk title] to 250 words.
2. Use the Microsoft Word processing program, and submit the abstract electronically, as an "attachment" to an email message to **Robert Schlising** at rschlising@csuchico.edu. Along with your abstract submittal, please include your contact information: email, address, and phone number.
3. Please follow the format shown in the sample abstract below (slightly modified from the conference sponsored by AquAlliance in Chico, in 2010). Note that this sample indicates how joint authors can be listed, if appropriate, and that an asterisk (*) is used to indicate which of the several authors will present the poster. Also, if necessary, use superscript numbers to indicate different affiliations when there are multiple authors.
4. We recommend Times New Roman, 11 point font.
5. Please include some concrete information (goals, methods, results) in the body of the abstract, rather than only stating here what "will be described" or "will be discussed" in the talk.

Sample Abstract

CHRISTINA M. SLOOP*^{1, 2}, CAROLINA PICKENS², and SARAH M. GORDON²

¹Laguna de Santa Rosa Foundation, Research Program, 900 Sanford Road, Santa Rosa, CA 95401

<Christina@lagunafoundation.org>

²Sonoma State University, Department of Biology, 1801 E. Cotati Avenue, Rohnert Park, CA 94928

Conservation Genetics of Butte County Meadowfoam (*Limnanthes floccosa* Howell ssp. *californica* Arroyo), an Endangered Vernal Pool Endemic

The endangered annual *Limnanthes floccosa* Howell ssp. *californica* Arroyo is restricted to vernal pools in Butte County, California. Our study confirms previous isozyme results and suggests that any loss of occurrences represents a significant deficit in the species' genetic diversity, making it extremely vulnerable to chance catastrophes. Recovery requires active restoration of existing populations and permanent habitat protection. Determining extant genetic diversity and structure are key in identifying populations with unique genetic resources to design reintroduction efforts, and guiding the design of seed collection scenarios for long-term *ex situ* seed storage. We surveyed 457 individuals from 21 distinct occurrences using nine polymorphic microsatellite markers. We confirmed earlier accounts of low within-population genetic diversity: average allelic diversity = $1.9 (\pm 0.06 \text{ SE})$ alleles/locus; average Hobs = 0.10 ± 0.018 , average Hexp = 0.19 ± 0.015 , mean Shannon index 0.317 ± 0.025 , mean fixation index 0.556 ± 0.044 . The number of polymorphic loci ranged between 11-89%. Bayesian ordination determined 20 distinct populations. We confirmed high genetic structure among these ($F_{st} = 0.65$, $P < 0.0001$). We identified notable gene flow barriers across populations, confirming regional structuring between three previously defined population density centers and two outlying populations ($F_{st} = 0.21$, $P < 0.0001$). Population size estimates ranged between ~50 and > 5000 extant plants per site. All four Chico Airport occurrences had notably declined from 1992 population levels. We recommend close comparison of microhabitats of declining occurrences with genetically similar occurrences, to determine the potential for human-assisted gene flow via seed movement.

Poster preparation guidelines:

- **Presenters must provide their own tripod.** If you can't locate one, there is limited space available with tables we can provide. You must request a table by April 1st.
- A poster is an approximately 30" by 40" rectangular board.
- The poster display should be designed for eye-level viewing and made from simple graphic materials including tables, graphs, photographs, or illustrations.
- Identify the topic by Title in the top center of the poster, along with author(s), affiliation(s), address(es), and email(s). The Title should be readable from 3 meters away, with other print smaller.
- Place the information sequentially: beginning with the Introduction, Protocol/Methods, Results with Tables/Graphs/Photos/Figures, and Conclusions.
- Remember that a poster is not a paper. Rely on photos, tables, and figures to present your story. Avoid using dense paragraphs of text.