Vernal pool monitoring – a five year retrospective

Hattie Brown, Conservation Science Program Manager

Vernal pools are seasonal wetlands that form in depressions in the landscape where rainfall collects during the winter and slowly evaporates over the summer. This wet-then-dry environment is home to numerous threatened and endangered plants throughout California and springtime in vernal pools hosts a lovely display of color and activity as annual plants flower and set seed for subsequent years, amphibians lay eggs in evaporating pool water, and bees prospect for pollen.

Recognizing a need for current, accurate, and uniform data to inform management of native and endangered vernal pool plants across the Santa Rosa Plain, in 2007 we launched our Adopt a Vernal Pool program in partnership with the California Native Plant Society Milo Baker Chapter. Five years after the program’s inception, we’ve trained over 70 Citizen Scientist volunteers to monitor the endangered vernal pool plants Sebastopol meadowfoam, Sonoma sunshine, and Burke’s goldfields. We published a paper on Citizen Science, established a website for information exchange, led field trips and walks, and collected priceless data that helps assess if the endangered species are recovering or declining. Through repeated observations of the invasive species Pennyroyal mint in vernal pools, we launched a pilot study to remove the weed and will implement large scale removal next season. The future holds the possibility of a vernal pool field guide, a vernal pool conference, and the long-term data that will ultimately aide the recovery of endangered species.

Every year, a number of people ask the same question, “Was it a good year? Did a lot of endangered plants germinate and grow? More than in previous years?” Data from this 2011 spring are still arriving, but my own measurements show fewer endangered plants this year than last year. The more difficult question to answer is, “Is this normal?” A “bad” year does not mean a species is going extinct, and a “good” year does not mean the species has recovered. Only through long-term data, standardized data collection like that collected by Adopt a Vernal Pool Citizen Scientists do we begin to see a trend.

Thank you Adopt A Vernal Pool partners: CNPS Milo Baker, the City of Santa Rosa, the Sonoma County Agricultural and Open Space District, the California Department of Fish and Game, Audubon Canyon Ranch, and the many Citizen Scientists who slog through muddy field and tall grass, brave ticks and cattle to count flowers on their hands and knees.

Protecting and Restoring Sonoma County’s Ecological Treasure

Executive Director Report - David Bannister

As spring turns into summer we are all very busy here at the Foundation. Is our unseasonable late spring/early summer rain the result of global climate change? How about the incidence of extremely powerful storms and tornados elsewhere in the country? No one can say for sure about any individual event but climate scientists have predicted that increased temperatures will result in increased water vapor in the air and that in turn will lead to more intense storm events. In the fall of 2009 the Laguna Foundation hosted a conference to talk about how natural resource managers and agricultural interests can initiate and further conversations about the need to think about and plan for how natural systems and agriculture will need to ADAPT to climate change. From that conference a collaborative group called the North Bay Climate Adaptation Initiative (NBCAI) was formed. Made up of our non-profit partners (Pepperwood Preserve, Sonoma Land Trust, Sonoma Ecology Center and others) as well as governmental and quasi –governmental agencies (Agricultural Preservation and Open Space District, Goldridge Resource Conservation District, California Coastal Conservancy) and with support from the Community Foundation Sonoma County, we have been heavily engaged in the important collaborative effort.

Construction has started on the Laguna Learning Center and we certainly are looking forward to having this new facility to house our Education Program activities. The extended winter weather has slowed construction a bit but hopefully it will be full steam ahead now. There are still Naming Opportunities available so if you would like to memorialize a loved one with a bench, table or other dedication plaque and by so doing help us complete the project, please visit our website homepage to get more information and to see the opportunities still available.

One of the major threats to the Laguna ecosystem biodiversity is invasive species and we have a particularly difficult one in the form of the invasive aquatic plant called Ludwigia. Earlier this year we reconvened a Task Force that had been inactive for five years. The goal of the Task Force is to come up with a long term management plan to reduce the impact of the plant on the ecosystem. Shortly after the Task Force first met the City of Santa Rosa presented us with a proposal to remove Ludwigia plant biomass as an offset to nutrients the City discharges in the Laguna in wet winters. While this is not the long term solution the Task Force seeks, the group nonetheless endorsed the plan for its short term benefits: nutrient reduction, reduced sedimentation in the waterway, improved dissolved oxygen (as the plant decays in the fall, it contributes to increased sediment and lowers dissolved oxygen), increased open water areas that are needed by waterfowl and aquatic species alike, reduced mosquito breeding habitat and improved water carrying capacity thereby reducing flood danger. At this writing it appears likely that a plant biomass removal project may move forward this summer.

A Fond Farewell and a Warm Welcome

As many of you know by now, our Restoration Program Manager Catherine Cumberland is leaving the organization at the end of July to go back to school to pursue a Masters degree in Ecology. Catherine has been with the Foundation for over 5 years. She was promoted to department Manager from Project Supervisor in the fall of 2009. We will miss Catherine’s dedication, knowledge, infectious laugh and her great Laguna Keeper leadership. We wish her graduate school success and hope to see her back in Sonoma County in a couple years!

After conducting a six week search for just the right candidate for the position, we are happy to say that we have hired John Guardino. John has been doing a very similar job for the last several years at the Southern Sonoma Resource Conservation District. John farms a piece of property on Cunningham Marsh and has been involved in a number of watershed wide natural resource planning efforts, so he is very knowledgeable of the geo-political landscape as well as our funders and partners. We are excited to have John on board!
Active Spring Season for Education Programs

Christine Fontaine, Director of Education Programs

From Rohnert Park to Windsor and Rincon Valley to Sebastopol, docents traveled to 19 schools this spring to deliver Learning Laguna to 420, 2nd-4th grade students, bringing our totals for the school year to 956 students in 38 classes. Docents contributed over 1266 hours in direct teaching time – that represents an approximate $27,000 value to the Laguna Foundation! Thanks docents! You provide an important community service. But don’t just take our word for it!

Thank you for this wonderful program which gives my students opportunities they would not otherwise have! Monica Thompson, Steele Lane School

I really liked how well the docents presented the material and kept the students engaged. Ashley Paul, Bellevue School

Hi wonderful Laguna docents. Thanks again for giving our kids an environmental learning experience they will never forget. You’re the best! Marisa Vossen, Hidden Valley Elementary

In addition to teaching all those students about the Laguna and providing hands-on time in nature for children to explore and discover, this spring docents also tabled at the Pepperwood Wildflower Festival and Santa Rosa’s Earth Day Celebration, took over 110 people to view the nesting egrets, herons and cormorants at the Delta Pond Rookery, led 3 custom-designed group walks, helped at three public education events (Alpha Farm Evening Walk, Laguna Paddle, and Vernal Pools of the Santa Rosa Plain), and were active in training the new volunteers who participated in the 10-week docent training course.

The Docent training program was lively this year and each session was packed with dynamic learning opportunities for the trainees and the trainers! One session even involved walking through knee-deep Laguna waters soaking a trail! On May 21st, nineteen new volunteers graduated to become full-fledged docents, bringing our docent circle to 75 people. Look for your opportunity to become a docent next spring!

Laguna Foundation welcomes 19 newly trained volunteers into the Docent Circle!
Joy Anagnostis, Hank Birnbaum, Donna Briggs, Brendan Brown, Tish Brown, Melanie Goodpasture, Hugh Helm, Diana Laczkowski, Pam Murnane, Sheila O’Brien, Michelle Olson-Brueggemann, Michael Papaik, Doris Parker, Gail Powell, Ray Robinson, Anita Smith, Peggy Tourje, Linda Widdifield, Greg Zirbel

Congratulations to ALL docents! We just completed our 24th season of Learning Laguna!
Last Chance to Get Invited to the BBQ!

Being a Member of the Laguna Foundation has benefits! In addition to knowing that you are helping with our mission to protect, restore and educate the public about the Laguna ecosystem, your membership gets you invited to special events such as our annual Appreciation BBQ.

Our second annual Appreciation BBQ is coming up on July 16th, and people had so much fun at the inaugural event last year that we heard about it for weeks! The event is held at Georgetown, an Old West “town” constructed for multiple movie sets, located on the banks of the Laguna. Many thanks to the Smith family for allowing us to have a party on their beautiful grounds! The place is amazing and the event promises to be even better, so if you aren’t a Member yet, you will want to become one to secure your invitation to this great event.

To become a Member, please complete the envelope enclosed and mail it in today or go online at: www.lagunafoundation.org/donate_membership.htm. You will also continue to receive our Meanderings newsletter, a static sticker for your car, and more!

Laguna Bird Anthology Project

Here is a chance to read your own stories on birds or see your photos in print! Please read the following letter from our Past Board Secretary Denise Cadman:

Dear Supporters of the Laguna,
I am requesting your stories and art for a Laguna Bird Anthology project. If you would consider contributing or want to know more about the project please read on.

My name is Denise Cadman. For those of you whose path I have not yet crossed, I am a biologist and educator working for the City of Santa Rosa and a long time supporter of the Laguna Foundation. My goal is to assemble short stories, essays, poems and art into a book that can be sold with all profits benefitting the Laguna Foundation.

The theme of the anthology is birds. Your reflections should focus on observations or experiences taken from the Laguna watershed. Multiple contributions will be considered. I am planning for a printing in color to include many beautiful illustrations and photographs.

If you are interested please give me your name and the method you prefer to be contacted (phone, email, post, carrier pigeon). If you already have something in mind (poem, story, photograph) let me know that as well. I will be in touch with everyone individually and will provide more details and a final date for submission which I anticipate will be some time in the fall. Please share this announcement with friends and artists living in the watershed.

I look forward to hearing from you,

Denise Cadman
(707) 543-3408
dcadman@srcity.org

“Perfect Landing”
Photos: Lucy Aaron
The 2010–2011 Laguna Keeper season wrapped up in mid-May, concluding another year of satisfying work. A total of 280 participants contributed nearly 1000 valuable Saturday morning hours to help make the Laguna a better place. **Highlights of the year’s work include:**

**September 2010, Planting along Duer Creek.** The riparian corridor along Duer Creek now has a 100-ft. setback on both sides, and plantings extend from Kelly Marsh to the eastern farm boundary, about 1/3 mile away. Plantings on the west side of the farm access road have grown quickly and we expect the east side to establish similarly. Laguna Keepers started work along Duer in 2008, and there are about 3,000 trees growing now where previously there were none.

**October 2010, Delta Pond.** A new planting site, with challenging soil conditions. The City of Santa Rosa replaced the existing discharge outfall from Delta Pond with a new, more environmentally-friendly system. As you might guess, the installation utilized heavy equipment that led to serious soil compaction. Digging just one hole at this site is a struggle, and in late September we had 700 holes to dig in very dry conditions. Fortunately, the job was in the hands of our ferocious restoration tech, Jesse Heiny. He rented an auger, rounded up a few friends, and got it done. Amazing.

After the holes were made, seniors from Summerfield Waldorf School came and planted the trees. Compared to the digging, this was a piece of cake, but still a tough piece. Finally, on the first real rainy day of the 2011 wet season, a nutty band of Laguna Keepers showed up to install weed mats. Whew; planting done. Now to install irrigation….

**December 2010, Stone Farm.** A small but symbolic start to the installation of the Learning Center landscape. Since there’s still a lot of work to be done on the paths and below-ground irrigation system, we were limited to working just on the area in front of the house. But it was good to get going on this long-awaited project. We planted bulbs, hedgerows, and even a few oaks.

**January 2011, Tree-A-Thon.** Another great event; even better than last year. We felt more relaxed on our “home turf;” the weather was perfect; and Stu and Rosalie Schroeder were here with their beautiful draft horses, providing carriage rides to the site. Participants planted about 500 trees, then returned to the farmhouse for pizza and prizes. Irwin Creek now has well over a thousand plantings. Earlier plantings, on the southwest side, have really taken off. You can see them as you cross the Sanford Road Bridge.

**March 2011, Meadowlark Field.** By the time we’re through, Laguna Keepers will really have something to be proud of at this site. We’ve been planting there since the earliest days of the volunteer program, a little at first, then larger projects as time went on — most recently the 2010 Tree-A-Thon. Over 3,000 trees have been planted so far. A young riparian forest is already going strong on what was once a degraded field, and this spring we restored several more acres. Volunteers from Congregation Shomrei Torah and LandPaths joined the Keepers to plant 500 willows. We’ll be back again in the fall with oaks and ash trees. By 2015, there will be more than 6,000 plantings at the site!

Kudos to all the Restoration volunteers!
The Gala committee has been hard at work (since last October!) planning another fabulous event to support the Foundation’s programs. Our annual fundraiser will be held **Sunday, September 11, from 2-6 pm**. Note that time; we’ve extended the event by an hour on the front end so participants will have 33% more time to enjoy the views, the food, the company, the art and oh yes, the wine!

The Garden Art Theme introduced last year was a big success so it is coming back again this year. Look for even more creative and whimsical bird feeders, baths and nesting boxes, outdoor furniture, fountains, sculpture of various medium, ladies garden art hats, and more.

Please consider being a Sponsor of the Gala. Sponsorship levels come with mention in the program, event signage and tickets! See the form below or go to our website to become a Sponsor. Many thanks to those Sponsors who are already “in.” See our website for a list of these generous individuals and businesses and please patronize them.

The food last year was very well received so coming back is Pizza Politana, the heirloom tomato tasting and desserts from ZIX Cookies. New this year will be BBQ Jamaican Jerk Chicken Skewers by Bay Laurel Culinary and other surprises.

Some things change and some stay the same! Wine is going to be fantastic as well; a couple of small, hard to find but highly sought after wineries have agreed to participate for the first time, along with our wonderful past participants.

This event is going to be the party of the year! If you haven’t been in the past, make sure to check it out this year. The location is outdoors at 3601 Vine Hill Road, Sebastopol, at the spectacular Vine Hill House complete with fabulous views overlooking the Laguna, the Santa Rosa Plain, and across to the Mayacamas Mountains.

In order to make sure you have a ticket, please fill out the form below and mail it back with your check. We are expecting a sell out, so please don’t delay!!

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### Garden Art Gala 2011

**Sponsor or Ticket Order (please check one):**

- [ ] Bald Eagle Sponsor ($10,000+, includes 20 tickets)
- [ ] Golden Eagle Sponsor ($5,000, includes 15 tickets)
- [ ] Otter Sponsor ($2,500, includes 12 tickets)
- [ ] Bobcat Sponsor ($1,000, includes 6 tickets)
- [ ] Heron Sponsor ($500, includes 4 tickets)
- [ ] Egret Sponsor ($250, includes 2 tickets)
- [ ] **Individual Tickets ($75 each)**
- [ ] I’m sorry I cannot attend, but enclosed is my contribution of $____ to help your event be a success.

(If sponsoring) please list in the program and promotional materials as: ________________________________________________

Name(s): ____________________________________________
Street Address: ________________________________________
City, State, ZIP: ______________________________________
Phone: ______________________________________________
Email: _____________________________________________

Enclosed is my check or I prefer to charge my Visa or MasterCard:

Name on Card: _______________________________________
Credit Card #: _________________________________
Expiration ___/___    Signature ____________________

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Photos: Robert Hart

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**Protecting and Restoring Sonoma County’s Ecological Treasure**
Thank you to our generous supporters since our last *Meanderings*…

**Membership Donations**


**Membership Donations continued**


**Tree-A-Thon Donations**

Samantha Bauer, Gary and Margaret Becker, Ezbon Jen, Glenn and Franny Minervini-Zick, Bob and Pam Murnane, Frank Skubic, Aluna Soupholphakdy, Heidi Stewart, Terry and Kimberly Szalai

**Other Donations**


**Cotati Creek Critters**

Michael and Sachiko Knappman, Rotary Club Of Rancho Cotati
The Laguna de Santa Rosa Foundation, founded in 1989, works to preserve, restore, and inspire greater understanding and appreciation of the Laguna de Santa Rosa wetland complex, which is the largest tributary of the Russian River and one of Sonoma County’s richest wildlife areas. The Foundation conducts educational programs, implements preservation and restoration projects, conducts scientific research, works with landowners and public agencies to protect and improve Laguna resources, and advocates for appropriately managed opportunities for the public to enjoy the Laguna.

Laguna de Santa Rosa Foundation
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www.lagunafoundation.org

We want the Laguna to be a healthy part of our community, forever. Please join us in providing lasting support for the work of the Laguna Foundation in its mission to safeguard the Laguna by remembering the Laguna Foundation in your will or estate plan. Through this simple and effective method, you can contribute to the Laguna legacy and really make a difference. Your gift can be directed for general or specific purposes or as part of the Laguna Legacy Fund at the Community Foundation Sonoma County, where a portion of fund gains will be used to help Laguna Foundation operations, and the Laguna Legacy Fund will grow to provide enduring support for the future.

If you’ll let us know that you have remembered the Laguna Foundation with a gift via your will or estate plan, we will provide a dignified attribution, and invite you to become a honored member of the Laguna Legacy Society.

There are many ways to provide a planned gift to the Laguna Foundation. For more information about supporting the work of the Foundation and securing the Laguna’s future, call Executive Director, David Bannister, (707) 527-9277 x103 or email: david@lagunafoundation.org