

Ludwigia Control Project Completes Year One

Julian Meisler, Restoration Project Manager

The Laguna Foundation recently completed its first year of *Ludwigia* control on nearly 150 acres of channels and marshland. *Ludwigia*, a non-native aquatic plant, has invaded sections of the Laguna on a massive scale. Formerly open channels and wetlands have been buried under biomass for several years to the detriment of many of the Laguna's seasonal and resident species. Our three-year plan is to treat with herbicide, allow the plant to die back and then remove it by mechanical means. We learned a lot in this first year and our progress is encouraging.

We began in mid-July after receiving our permit from the Regional Water Quality Control Board. Under our supervision, the work was carried out by Clean Lakes, Inc., a company with over 30 years experience in aquatic weed control. High variability among the treatment sites required use of many different types of equipment, such as an airboat, a swamp cat, trucks, excavators and backpack sprayers. The channels were suited to airboats after opening a pathway for travel. We first cut a path down the middle of the channel using a floating tugboat-like machine equipped with fan-like blades that chop the plant.



Before: Looking east from Stony Point Road Bridge, July 2005. Photo by Amber Manfree.

As there was virtually no flow in the channels, we felt the risk of spreading the plant by this method was minimal.

The marsh presented a different challenge. These areas have recently become inundated year-round, creating ideal habitat for *Ludwigia*. The water is shallow and the plant density is immense, so airboats cannot be used in these areas. Our partners at the Marin Sonoma Mosquito Vector Control recommended using a swamp cat, a machine similar to snow cats common in ski areas but equipped to travel in up to 2 ½ feet of water.



After: Looking east from Stony Point Road Bridge, Oct. 2005. Photo by Amber Manfree.

After the herbicide was given sufficient time to work our next task was removal of dead and dying biomass. Again we used several methods to meet the conditions. In channels with easy access we used a long reach excavator and simply scooped the material from the channel, deposited onto the road for drying or directly into trucks and transported it into nearby farm fields. In wider channels with sufficient water we used aquatic harvesters, a floating machine that cuts and gathers the biomass for delivery on shore. Here again the material was moved to nearby farm fields for drying and eventual disking. In marsh

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Executive Director's Report—Dan Schurman



It seems that each time we go to press with this newsletter, it's as if we've got a new organization to introduce you to. New projects keep popping up and our staff is growing to meet the demand. Fortunately we've been able to keep pace on the revenue side as our project grant funding and individual donations have been growing too. Sometimes it feels as if we're growing too fast. But there are so many opportunities for Laguna revival after so many years of neglect that we feel we need to create an organization very quickly that can seize the moment and make strides for

the Laguna's health and public appreciation. Though it's bound to slow down this year, it's been exciting and gratifying to see so many things fall into place as they have during the past 30 months or so.

We're very glad to introduce you to a couple of new staff members. Maggie Arthur is our new Administrative Director, keeping our office systems organized and running smoothly. She comes to us most recently from Giant Steps Therapeutic Equestrian Center and the Friends of the Urban Forest in San Francisco. She has an Ecology degree from Evergreen College.

Joany Goodwin is our Major Gifts and Events Coordinator, serving as the primary staff to the ongoing funding campaign to build the Laguna Learning Center at Stone Farm, as well as all our other programs. Joany just completed our docent training last spring and has worked professionally in the wine industry during the past decade.

Our campaign and project to build the Learning Center continue, even if it's behind the scenes. We've received our initial permits and are developing the detailed construction drawings prior to applying for our building permit to begin

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areas removing the biomass is difficult: the conditions are simply too shallow for aquatic harvesters and too wet for terrestrial equipment. As a result, much of the biomass was left to decompose.

The final step, occurring as of this writing, is to dispose of the biomass. Our plan was to windrow the material, allow it to dry and then disk it into the soil. At the northern site, owned by the Department of Fish and Game, this plan appears feasible. The biomass was removed with aquatic harvesters and contained only a small amount of sediment. A warm fall helped dry it thoroughly, making the disking relatively easy. Material at the southern site was laden with sediment and it dries slowly. Disking the wet and silty material is impossible, so with the rainy season approaching we sought another solution. The experienced staff at Sonoma Compost recommended leaving the material in place over winter. In early summer of 2006 we will mix the biomass with other green waste and develop a compost ready by fall. Sonoma Compost trucked several loads to its facility to test different processing methods. Complex problems require innovative solutions, and we are seeking them out.

We won't know for certain if Year 1 was a success until Year 3, but we've made great progress toward reducing *Ludwigia* to a manageable level. We removed thousands of tons of biomass and learned a lot. Some of the problems encountered included incomplete kill and inability to remove biomass from select areas. All of these lessons will be incorporated into a plan for next year. Ultimately, only major restoration in the Laguna will address the *Ludwigia* problem, so the Foundation is developing a Laguna Ecosystem Restoration and Management Plan. Without this short-term control program, however, even the best long-term solutions will bring limited success.

Place Based Decision Making

Joe Honton, Restoration Plan Project Manager

Over the past year, our hopes for enhancing and preserving the Laguna have increasingly focused on the Laguna Ecosystem Restoration and Management Plan. When published, the "RMP" will be a blueprint specifying the scope of many different types of restoration and management activities. This is exciting because such a plan can lead us incrementally through many small projects; cumulatively these projects will result in the return of the healthy natural processes needed to improve the Laguna's ecology.

During our planning we've used different viewing platforms to look at the Laguna from various perspectives. At first, we used an issue-based platform: here the landscape takes on an appearance colored with a palette consisting of impairments and concerns: water quality, flood control and endangered species. The issue-based platform showed us how we have cut into the natural rhythms of the Laguna.

We soon learned the limitations of this perspective though, and began to migrate towards a value-based platform. This lens showed us the landscape painted with different cultural and economic brush-strokes: rural residential and urban landowners, agricultural operators, recreational visitors, and managers of public infrastructures. This perspective guided our analysis during the stakeholder process and gave us a way of listening to comments in a non-judgmental way.

Now that we've begun to put pen to paper, we've discovered a third, place-based platform. The Laguna's watershed is large and varied: for example, elevation ranges from a low of about 35' to a high of about 2729'. The average steepness of hillside slopes in the watershed is approximately 5%; but a quarter of the watershed's surface area is very close to being flat (less than a ½ % slope) while at the opposite extreme another quarter of its surface has a steepness that exceeds 14%. Ownership of the watershed is divided into 93,000 separate parcels; more than half are less than a quarter acre in size, but a one thousand of them are greater than 28 acres. These wide ranges in diversity are characteristic of every dataset we've analyzed.

We've collected and studied many additional datasets to help us with this perspective: vegetation and land cover, climate, underground water basins, geology and soils. In the future we hope to supplement this place-based decision making process with new GPS-referenced data on plant and wildlife occurrences, impervious surface distribution, water quality and hydrologic data, and more.

When overlaid, these datasets form a mosaic that can range from the simple to the complex. Emerging patterns provide good clues for our prioritization efforts. When coupled with our earlier issue-based and value-based perspectives, the overall landscape of the Laguna comes into sharp relief. The bottom line: solid recommendations about priorities and informed decisions about future restoration activities.

Executive Director's Report *from Page 1*

the restoration of the farmhouse. If all goes as planned, we should be ready to go by next dry season and possibly have the office relocated to the refurbished house about a year from now. To get there, we'll need lots of support from all segments of the community. Financial donors, work-day volunteers, builders and building material suppliers, skilled labor: our hope is that the community will come out in force for the Laguna and help us with donations of all sorts. If you're interested in getting involved, or know someone who is (or should be!), let us know.

For all of you who've given so much of your time, energy, passion, money and love to the Laguna and the Foundation, we thank each of you very much. Our staff is just about the best I could imagine and we are inspired and motivated each and every day by the support we receive from the community. It not only keeps the doors open and the programs running: it lifts all our spirits and keeps us movin' on towards our vision of a restored, healthy and celebrated Laguna that serves us all, human and non-human alike.

—Dan Schurman



Laguna Wildlife Area in September. Photo by Mary Abbott.

Learning about the Laguna: It's All About the Connection!

Mary Abbott, Education Coordinator

As the birds begin their migration to more southerly parts of the world, they are passing through the Laguna. Some birds are arriving to spend their winter here: say hello again to the Golden and White Crowned Sparrows, Ruby Crowned Kinglets, Says Phoebe and Cedar Waxwings. Maybe a flock of Short-eared Owls will spend some time with us again this winter. The Great Horned Owl juveniles, born last Spring at Kelly Farm, have continued to hunt and socialize near the nest.

Children are flocking again too: to Learning Laguna for the Fall season when they discover magnificent Garden Spider webs all over the Laguna, cradle some crawdads, learn about bird migration, see those great White Pelicans overhead and connect with a docent they call their own.

This Fall, the Education Program began to embrace some new concepts around how we connect with kids and their families. As we promote Learning Laguna to more and more economically disadvantaged schools, we are encountering more children and parents with limited English skills. The stated goal of the Education Program is "to increase our community's awareness, appreciation and knowledge of the Laguna to foster a personal connection with the Laguna that inspires the community to preserve it for future generations." The question became, how can we do a better job connecting with them?

The first part of the answer we are developing is to provide transportation scholarships to the schools, to make it possible for these children and parents to get out on a field trip in the first place. Many children from local city school districts have little or no experience with things we take for granted like trees, flowing water, birds, bugs and a safe space to experience nature. Last year, we began collecting a \$2 fee per child for the program, which was put into a fund to provide transportation scholarships. As soon as we began offering the scholarships, teachers jumped for the chance and seven classrooms have been able to take advantage of this new opportunity this Fall. Of course, the need remains great, but this is a start.

Docents Jymme Purtill, Patrick Woodworth and Barbara Briggs-Letson recently formed a Multi-cultural Committee to look more closely at how we interact with the non-English speaking community. They are beginning to develop a vocabulary for us to use in the Laguna and gave us a mini-workshop at this year's "Breakfast in the Laguna." While we may not deliver Learning Laguna in Spanish, we are creating ways to *connect* on a personal level by asking "Como se dice en Espanol?" We will be actively recruiting Spanish speaking docents next Spring, promoting docent led walks to the Latino community and continuing to raise our own awareness of other cultural ways of connecting with the Laguna.



The wonder of life seen through a magnifying glass. Water contains the tiniest plant, duckweed, and the tiniest creature, scuds. All part of the web of life. Photo by Shay Picton.

Thank you Fircrest Market for feeding Laguna-Keepers during the 2005/06 volunteer season!

Community Walks Program Expands

If you are interested in deepening your practical knowledge of the Laguna, you may be interested in a new series of walks and talks in the Laguna, which began this Fall. In three sessions, we touch on the habitats, wildlife, flora and fauna of the Laguna when we visit three different sites. The series offers hikes, hands-on activities, bird watching, and lots more!

The series costs \$45 for Laguna Foundation donors/volunteers (\$65 all others) and will be offered again in the Spring. Please contact Mary Abbott, Education Coordinator for further information at 527-9277 x2 or mary@lagunafoundation.org.

Watch our website for postings of these and other docent led walks.

2006 Docent Training – Coming Up!

Are you a life-long learner? Do you love to share your knowledge of nature with others? Like to work with children? Want a community of others who love the same things? Looking for a meaningful volunteer commitment? Available week days? The Laguna Foundation Docent Circle may be just the thing that's been missing in your life!

10 week training covers the science and lore of the Laguna with a focus on Learning Laguna, the elementary school activities program.

Orientation to docent training will be in February, with the training beginning March 6, 2006. Please contact Mary Abbott, Education Coordinator for further information at 527-9277 x2 or mary@lagunafoundation.org

Saving Salamanders on the Santa Rosa Plain

Dan Schurman, Executive Director

If only the charismatic, elusive amphibian of the Santa Rosa Plain had any idea how much attention, concern, time and resources are being paid to its fate! We can only hope that the remnants of its population will stick around long enough to see if our efforts will pay off.

There are now three distinct planning processes underway aimed at a plan for recovery of the salamander. The myriad agencies and regulations and multiple processes confuse even some of those involved, to say nothing of the community at large. Here's a synopsis.

Shortly after a lawsuit brought by the Center for Biological Diversity (CBD) forced the U.S. Fish & Wildlife Service (FWS) to list the CTS as endangered, FWS was sued again by Sonoma County municipalities in an attempt to force the Service to deliver a recovery plan that would inform and influence the local cities' and county government's own planning and development processes, some of which had come close to a halt with regulatory uncertainties and delays. FWS, along with other state and federal regulatory agencies, agreed to work with local agencies in a collaborative recovery strategy process. It was hoped that such a process would yield a plan more reflective of local concerns and realities, and be more focused on habitat preservation and species recovery on the Santa Rosa Plain than the FWS' usual process of designating a large area as "critical habitat". In addition to the FWS, the Strategy Team includes representatives from the California Department of Fish & Game (DFG), the U.S. Environmental Protection Agency, U.S. Army Corps of Engineers, the North Coast Regional Water Quality Control Board, Sonoma County, the cities of Santa Rosa, Cotati and Rohnert Park, and representatives from the development/landowner community, the Sierra Club and the Laguna Foundation.

This group has met regularly over the last eighteen months. Their Conservation Strategy document is now in final draft form and has just completed public

review. The document will be finalized in October and from there its fate, and the salamanders', is in the hands of an "Implementation Committee" of local elected officials and administrators who will put in place the necessary legal and governing instruments and infrastructure to carry out the plan.



"California Tiger Salamander" sculpture by Adelle Counce, contributing artist to the Laguna Art and Garden Gala. Photo by Joany Goodwin.

The strategy seeks to focus conservation in the highest-quality remaining habitat by identifying several large "conservation areas" in which habitat preserves will be created. The primary mechanism for funding creation of the preserves will be through imposition of mitigation requirements on projects within the overall planning area. How quickly these preserves are assembled and how contiguous they will be will largely be determined by the market: the pace of development and the willingness of landowners in the conservation areas to sell their land for preserves.

At the same time that this local conservation strategy process has been unfolding, FWS has been sued again by the CBD, seeking to force the Service into designating critical habitat as required by the Endangered Species Act (ESA) and by their own policies. Currently, FWS has given the local governments an early December deadline to produce and implement an acceptable conservation strategy as an alternative to critical habitat designation. If the locals miss that deadline, as is likely, then FWS will designate critical habitat. In anticipation of this, FWS has begun its required

public process for designating critical habitat, which created the confusing specter of two public hearings on the CTS issue happening within one week of each other in Santa Rosa in September, one on the local conservation strategy and another on the critical habit designation.

Further clouding the picture is a bill recently passed in the House that would drastically alter the ESA. Among many other provisions, it would eliminate critical habitat designations in favor of recovery strategy planning very similar to the processes underway in Sonoma County. A corresponding Senate bill has yet to be introduced.

The ultimate test is in any plan's implementation. As sound as we feel the Strategy Team's document is, it is only as good as the institutionalized commitment to see it succeed by our local governments. That is why the Laguna Foundation has been an active participant throughout the process and intends to remain so as the details of the plan's implementation are worked out. We feel very strongly that success depends upon the establishment of large, contiguous preserves, with a coordinated, region-wide restoration and management strategy and continuing ecological research to inform the recovery effort and enhance the long-term viability of the CTS and other listed plant species on the Plain. While these elements are part of the plan, we are very interested in how the structures are put in place to accomplish the crucial work of managing the preserves, the process and the necessary further research. These activities will be central to the success of the strategy and to the Laguna Foundation's larger vision for preservation and restoration of the Laguna and the Plain, and so we will remain actively involved in the coming months to influence the direction of this critically important initiative.

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Contributing artists Barnee Alexander, Mathilde Amiot, Jocelyn Audette, Genevieve Barnhart, Jane Baron, Don Bishop, Mary Black, Lenore Carrion, Adelle Caunce, Deborah Colotti, Tamsen Donner, Patrick Fanning, Louisa King Fraser, Mary Fuller, Joany Goodwin, Green Greenwald, Joe Honton, Don Jackson, Linda Kammer, Nemea Laessig, Joyce Libeu, Chiyomi Longo, Al Longo, Glenn Martinez, Robert McChesney, Penny Michel, James Millikan, Pat O'Connell, Hanya Popova Parker, Joe Purtill, Nancy Ricciardi, Micah Schwaberow, Jack Stuppin, and Kathleen Youngquist....**and our wonderful EVENT COMMITTEE:** Nina Arrabit, Mary Black, Susan Churchill, Pauline Fisher, Barbara Harris, Andrea Hibbard, Greta Larsen, Brooks Leete, Sandy Mays, Pat O'Connell, Nancy Peter & Kathleen Woolfe, plus volunteers Chris Bentien, David Baker, Lynn Berglund and Jude Mariah.

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Founded in 1989, the Laguna de Santa Rosa Foundation works to preserve, restore, and provide opportunities for the public to enjoy and learn about the Laguna, Sonoma County's richest region of wildlife habitat.

The Foundation is a nonprofit organization supported by contributions and grants. IRS ID #94-3155180. All contributions are tax-deductible.

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Art and Garden Gala a Great Success!

The second annual Laguna Art and Garden Gala was even better this year than last! This event, the Foundation's major annual fundraiser, was held at the beautiful Vine Hill House with a spectacular view across the Laguna. Artworks were donated for auction by many of Sonoma County's most celebrated artists, and guests enjoyed delicious food by Trends, paired with wines grown in the Laguna watershed. Desserts were by Foundation director Glenn Minervini-Zick (Zix Cookies) and Laguna docent Victoria Bowers (La Dolce V chocolatier). With mysterious and wonderful entertainment by the Mystic Family Circus, magician Ken Garr and impressionist Christopher Linnell, it was an afternoon to remember.

All proceeds from the Gala support the Foundation's general operations and education programs. It's a fun and thoroughly enjoyable way to support your organization—if you weren't there this year, we hope you'll join us for the next.

Thanks so much to our many sponsors, supporting wineries, art donors, and particularly to our stalwart Gala committee, who did such a splendid job in organizing this lovely party. All are listed on the acknowledgements page inside. And if you were there, *thanks for coming!*

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Mystic Family Circus performing on stilts at the Art and Garden Gala. Photo by Molly Matheson.