



UPWIND

from the Arcata Marsh
Interpretive Center
Vol 24, Issue 3, Summer 2017

Our Mission: To stimulate understanding of the Arcata Marsh & Wildlife Sanctuary, its relationship with Arcata's integrated wastewater treatment system, the surrounding watersheds and bay, and their link with the Earth's water cycle

In This Issue: Board Candidates Sought... Annual Meeting & Volunteer Appreciation Lunch... Upcoming Lectures... What's New at the Marsh... Wastewater Treatment Tour... Seeking Volunteers... Board Candidate Application... Flowers & Pollinators Lecture... Barn Owl Lecture... Sea Level Rise Lecture... Artist... Calendar... Visitor Log... Members & Donors

Why Wouldn't YOU Make a Good FOAM Board Member?

We are looking for THREE FOAM members (or people willing to join the organization) who care about the Arcata Marsh & Wildlife Sanctuary and would like to translate that feeling into action. If you've wondered about a new way that you can help the Marsh, here's your opportunity! Board members are expected to attend monthly meetings and volunteer at least 4 hours/month (see page 3).

FOAM has a small membership base on which to draw. You'd be working with a great group of people to improve a place we all love. Please call me at 407-0395 or 502-5080 to find out more.

P.S. Board applications are due by **Friday, August 25.**

Elliott Dabill

FOAM Annual Meeting & Volunteer Appreciation Lunch Set for September 24

Members and volunteers, please mark your calendars for Sunday, September 24, starting at noon. That is when FOAM will hold its yearly get-together with you.

We'll begin with delicious barbecued albacore by Dave Couch, supplemented by salads, drinks, and dessert. Then, Volunteer of the Year awards will be given out (a certificate, AMIC bookstore voucher, and our immeasurable thanks) and the election results announced.

The 4th Annual Arcata Marsh Bird of the Year award will be presented. You'll also get an advance look at FOAM's annual report, which summarizes what we've accomplished during the last year.

Upcoming Friday Lectures

On August 25, Elliott Dabill will present about "Mosses and Ferns: The First Plants." Elliott, current FOAM president, has been searching for natural history stories over a lifetime. With degrees in biology, education, and nursing, the current focus of this retired high school biology teacher is the primitive plants:

mosses, ferns, and horsetails.



Elliott Dabill points out some moss to his faithful companion, Coco.

On September 15, David Couch will present about "Wastewater Treatment at the Arcata Marsh." David is the wastewater operations supervisor for the City of Arcata and a founding and current FOAM Board member. He will cover the current new technologies, such as "Blue Frogs," to keep water treatment at the Marsh as natural as possible.

All lectures are free and begin at 7:30 pm at the Interpretive Center. For more information, or to guarantee a seat, call 826-2359.

2016-17 Board of Directors & Officers

Officers

President: Elliott Dabill

Vice-President: David Couch

Secretary: Katy Allen

Treasurer: Sue Leskiw (also UPWIND Editor)

Other Board Members

Stan Binnie

Cindy Kuttner

Bill Prescott

Alex Stillman

Jane Wilson

Website: www.arcatamarshfriends.org

Facebook: www.facebook.com/Friends.of.the.Arcata.Marsh



Installing the amphitheater benches. Photo by George Ziminsky.

What's New at the Arcata Marsh

By Gretchen O'Brien

A beach wheelchair is now available for the public to borrow at the Interpretive Center. An attendant is needed to push the chair; checking it out requires a credit card number left as collateral. The chair is kept in a new locking storage box on the front deck. The balloon tires on the wheelchair offer a cushioned ride on gravel trails.

The Marsh needs a few new recruits to staff the front desk on weekends. Most volunteers staff the center once a month, usually a 4-hour shift. There is opportunity to bring a book or craft project during slow times and we have resources to help you answer questions from the public. Anyone interested can come by to pick up the volunteer application.

I have spent more time monitoring the construction of the Humboldt Bay Trail than I have been at AMIC, so there are no new displays in the exhibit hall. The trail section through the Marsh is nearly prepared for paving and bridges are planned to go in late August.

The outdoor amphitheater is currently under construction. Benches have been installed and a storage box has been placed. A fire ring will be centered in front of the benches and allow for fireside storytelling by this fall. Major donors (\$500+) will be recognized on a plaque affixed to a boulder at the site.

The native plant garden is in need of help! Some of the natives we planted are doing very well but non-natives are looming over them. Anyone willing to pull non-natives and clear out around the natives should please contact me.

An Afternoon at Arcata's Wastewater Treatment Plant

By Katy Allen

On July 29, 16 adults and two children joined Dave Couch, City of Arcata wastewater operations supervisor and long-time FOAM Board member, for a special tour of Arcata's wastewater treatment plant. The tour provided an opportunity for the public to learn not only how the current system works, but also what upgrades and improvements are planned over the next few years.

Dave began by reviewing the history of the plant, which began quite humbly with just a straight pipe full of raw sewage dumping into Humboldt Bay. This method was used until 1950, when the first real treatment plant was built. It consisted of a primary treatment method using a clarifier, then dumping into the bay. Later that decade, the oxidation ponds and chlorination system were installed. In 1986, due to the Clean Water Act, changes went into effect adding secondary treatment of the effluent via treatment marshes that, at the time, was quite innovative.

Because the treatment plant infrastructure is aging, Arcata is in the process of planning a major upgrade. Besides improving the existing structures, the city wants to get rid of chlorine gas and introduce ultraviolet light for disinfection. To do this, the quality of the wastewater flowing into the disinfection area must be upgraded.

The City has already begun to improve the function of the treatment marshes. Floating plant mats that completely cover the treatment marsh surfaces are being removed in strips, a little at a time. Machines called "Blue Frogs" are then placed on the surface of the open water to dredge up and digest the "hydrogel," a black, gooey substance that has built up on the bottom of the marshes. When completed, the plan is to plant water parsley in these areas.

Funding for the upgrades will come from the State of California's revolving fund, which provides very-low-interest loans. Gone are the days of the 1980s when the upgrade was funded by an 80% out-right grant!

Some fun facts that I learned:

► Disposable wipes are the bane of all wastewater treatment plants. They clog up the pumps!

► Experiments are being done by HSU researchers to see how effective the treatment marshes are at filtering out caffeine. So far, it appears that they do a good job. If so, perhaps hormones from birth control pills and other pharmaceuticals could be kept out of our waterways. (At present, there is nothing preventing this.)

► Morning glory and tomato seeds are extremely hardy. Plants from both have been seen growing in the compost that has been through the digesters and hot composting!

Besides our continuing need for volunteers to staff the welcome desk, we're also looking for someone to keep our website updated and post events to Facebook. Contact Janet Zich for more information at jpz1@suddenlink.net.

**Application for Membership on the FOAM Board of Directors
for a 3-year term beginning October 2017**

FOAM bylaws allow for individuals to request nomination for election to the Board of Directors. The election will be held by mailed ballot prior to the Annual Meeting. Information about nominees will be sent to all members in early September as part of the Call to the Annual Membership Meeting process. **To insure inclusion in the membership mailing, this form must be received by Friday, August 25.**

Questions? Contact Elliott Dabill at 407-0395 or 502-5080, e-mail edabill@me.com.

1. I would like to be a candidate for the Board of Directors for a 3-year term beginning in October 2017.

Name _____

Address _____

Phone (home/cell) _____ e-mail _____

2. I have read and do accept the provisions of the “Specific Duties of Board Members” below:

- ▶ Attend the monthly meeting of the Board of Directors and actively participate in its decision-making process.
- ▶ Commit to at least four (4) hours a month of additional activities, which can include staffing the Interpretive Center, leading tours, and/or participating on at least one committee or special project.
- ▶ Participate to the extent possible toward the success of public events that promote the Marsh.
- ▶ Assist with fundraising by making a personal donation so as to be a current member of FOAM and solicit donations from friends and individuals known to support our goals.

3. Candidate statement: Suggested content — What is your vision for the Marsh, your area of active interest in the Marsh, any related background/expertise? (Continue on separate sheet if needed.)

**Snail mail to Sue Leskiw at 155 Kara Ln, McKinleyville CA 95519 or
scan and e-mail to sueleskiw1@gmail.com. Deadline for receipt: Friday, August 25.**

Coastal Spring Flowers & Pollinators

By Jane Wilson

“O April showers may bring May flowers” and also their pollinators, if climate change doesn’t screw up the timing. Pete Haggard, co-author of *Insects of the Pacific Northwest* (available in the AMIC bookstore) and lover of California native plants, was the FOAM lecturer in May. He and his wife Judy have a wonderful home garden that strives for biological diversity. He fervently believes and practices gardening with native plants. The Haggard garden is a great system of checks and balances. Pete never buys critters like ladybugs and solitary bees. Instead, he creates a garden that the native critters inhabit. His work and play in the garden causes no harm to these critters that protect the garden.

Solitary bees are just that. When they are sold, they are collected into one place where diseases and their predators are delighted to take advantage of their unnatural condition. Where a solitary bee would be safe in her tunnels where she leaves her young, when gathered together, birds, wasps, other predators, and diseases have orgies of gluttony. Pete has found that the bee tunnels can run as shallow as 1 to 2 inches, so he tills no deeper than that in order not to disturb them.

If you see little round holes cut out of leaves, leaf cutter bees probably live in your garden. They use the cut-out leaf portion to roll a cylinder stuffed with pollen in which to lay an egg that will be safe underground.

Did you know we have glow worms here? They are beetles. The male has beautiful multi-divided antennae, which helps him detect odors, especially of females. The females and larvae have a wormish look and eat slugs and snails.

Angelica, related to carrots, is beautiful, aromatic, and attracts anise swallowtail butterflies. Henderson’s angelica and Angelica Lucida look a lot like cow parsnip.

Red alder is a great wildlife tree. Lichens like to grow in its branches. Insects overwinter in the lichen and eat it.



Barn Owls: Secret Saviors of Napa Valley Vineyards

By Jane Wilson

In July, Dane St. George, an HSU wildlife masters student, gave a totally enjoyable talk about North American barn owls, describing some of the research being done with Napa grape growers to help control rodents such as gophers that injure the crops. The growers are trying the alternative method of building barn owl nesting boxes because they think it helps, not because they’re avid environmentalists.

Barn owls are short-bodied, short-tailed, long-legged birds of prey with broad, long wings, perfect for catching small mammals. The oldest barn owl fossil dates from 25 million years ago. They are the most widespread owl species, found in a broad range of open habitats.

Males and females display reversed sexual dimorphism: males are smaller, as in other raptors, and paler. They are mostly monogamous with site fidelity, though they only stay together while breeding and raising chicks, which takes about 3 months. Even after the chicks can fly, the parents still feed them for 2 or 3 weeks. The father gets food for everyone from the time the mother sets on the nest until the chicks don’t need her warmth. She never leaves to nest during this time. Breeding occurs between February and July. Barn owls are cavity nesters and will nest in boxes. The entry hole must be big enough for them to enter (15-25 cm) but not large enough for a raven with an appetite for owl chicks to enter.

Barn owls make lots of sounds, all of them kind of wheezy. If you

spook easily, they sound like screams from a horror movie.

To learn more, come to AMIC and view the excellent pictures on our public computer under FOAM lectures. On Facebook, look up “Barn Owl Research HSU.” You’ll be glad you did. Dane and possibly some of his coworkers may return in about a year when some of their research is completed for another presentation.

Hooooooooo Guards The Vineyard?

Who’ll Be the Next Atlantis?

By Jane Wilson

It was an honor to listen to Michael Furniss present in June. He is retired and travels throughout the US and around the world that are in danger of flooding to help them plan for the future. For some, it will mean vacating. Michael has extensive knowledge in hydrology, watershed management, forest ecology, wild land, civil engineering, fish passage, and monitoring systems.

We are in a human-caused climate change that has put us in the midst of a slow-motion flood. Sea level change has been part of the Earth’s history since there has been land and water. Sometimes, it has been incredibly fast. However, over the last 6000-7000 years, sea level has been stable, which has enabled human civilizations to develop, often on stable waterfronts. Some 35 million people live near a coast or waterway. We have been living in a sweet spot. We have had a stable climate.

We are changing that, to our peril. We have hastened change by our build-up of carbon dioxide concentration. There is 40% more now than there has been in a million years. Climate change is warming up the oceans, where most of atmospheric heat goes. Warm water expands, takes up more room. Ice is melting in Antarctica, which affects the globe in a big way. Right now, glacial melting only accounts for 0.15-0.37 meters of rise but that doesn’t include ice sheets melting and collapsing.

(Continued on page 5)



Song Sparrow.



Joan Sikkens.

**SEPTEMBER/OCTOBER ARTIST
JOAN SIKKENS**

I began watching birds in the 1970s while attending Colorado State University and working toward my degree in zoology. In those early days, I learned from my teachers and mentors to consider every sighting a good one—especially if you can put a name to it. To this day, when people ask me if I’m seeing anything interesting out there, I can report sincerely that it’s all interesting.

I find great satisfaction and joy in sharing my experiences through photography. Birding can be a very solitary endeavor—and can be maddening to others who prefer not to walk a while, stop, and scan. Repeatedly.

So, capturing birds and other living things with my camera allows me to share the experience of birding without a soul around. My camera is powerful enough to get some nice shots (Nikon COOLPIX L820 with a built-in 30x zoom lens), but I value sharing what I see as much as I do the quality of the photo.

At the top of my list of favorite and frequently visited haunts is the Arcata Marsh. Its paths begin with and lead to beauty—in both the ordinary and the breathtaking. I can be reached at sikkens.j@sbcglobal.net.

(Continued from page 4)

Oceans change slowly, but changes initiated by forces such as climate change and CO2 concentrations are stored in the oceans waiting to arise. Many things can be predicted about sea level rise but tipping points cannot be predicted. If all the ice on Earth melted, the United States would flood. “Chasing Ice” is a good movie to see.

Would you like to get a rough estimate of where sea level will be in 2100? Stand right above the water when there’s a king tide. Imagine the water coming to the top of your head. That’s it.

We are in a sweet spot, not only globally but locally. Our proximity to the ring of fire off our coast gives us relatively less vulnerability. Much of our coastline is steep. Gentle coastlines flood much more than steep ones. Where I live will someday be under water. The East Coast is in danger. Land rising and falling

affects sea level. Near Arcata, the land is falling but not as much as in Galveston, Texas. In this area, the current estimate of sea level rise is 9 inches per century. If you want to get an idea of where the water will reach, the tsunami warning signs are very similar to sea level vulnerability.

Now we have dikes to keep the water at bay, but they are in very bad shape and there is no government entity responsible for their upkeep. If sea level rises a meter, lots

Calendar of Events

[Docent tours leave the Interpretive Center every Saturday at 2 pm]

August—Nature art glass by Melissa Lawson Zielinski

August 10—FOAM Board Meeting, 6:30-8 pm

August 25—Lecture on mosses and ferns by Elliott Dabill, 7:30 pm (see p. 1)

August 25—Deadline to apply for FOAM Board candidacy (see p. 3)

September-October—Bird photographs by Joan Sikkens

September 14—FOAM Board Meeting, 6:30-8 pm

September 15—Lecture on wastewater treatment at the Marsh by David Couch, 7:30 pm (see p. 1)

September 24—FOAM Annual Meeting & Volunteer Appreciation Lunch, noon (see p. 1)

of these dikes will fail. Even though it would disturb the lives of Arcata residents, there would be many benefits from letting the bay expand.

We have decades of warning and are highly adaptable when push comes to shove. We can also be very stubborn in defending our lifestyles. That might have to change.

If you want to read more about our area in this challenging time, search online for “Humboldt Bay Shoreline Inventory, Mapping, and Sea Level Rise Vulnerability Assessment” by Aldaron Laird, Brian Powell, and Jeff Anderson.

Visitor Log

The Interpretive Center had 1356 visitors in May, 1355 in June, and 1535 in July.

Thanks to Our Supporters, May-July 2017

- ▶ Best Friends (\$100+): Susan Halpin; Lorraine Miller-Wolf
 - ▶ Sponsors (\$50-99): Richard & Chris Beresford; Lynn & Steven Jones; Bill & Carolyn Prescott; Rich Ridenhour*
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 - ▶ Donations: \$159 in AMIC donation box
- * = New member

FOAM
Friends of the Arcata Marsh
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Mark Your Calendar for:

Mosses & Ferns Lecture, 8/25

Board Candidate Application Deadline, 8/25

Wastewater Treatment Lecture, 9/15

Annual Meeting/Volunteer Lunch, 9/24

MEMBERSHIP APPLICATION



Name _____

Address _____

City, State, ZIP _____

Phone _____ E-mail _____

Please check the appropriate membership category:

Individual \$25 Family \$35 Student/Senior \$18

Sponsor \$50 Best Friend \$100 Life Member \$750

I would like more information about volunteering for FOAM,

FRIENDS OF THE ARCATA MARSH, PO Box 410, Arcata CA 95518

arcatamarshfriends.org

A tax-exempt, nonprofit 501(c)(3) organization, EIN #68-0232871. All donations are tax deductible.

If you are receiving a complimentary copy of this newsletter, please consider joining FOAM.

If you were a member, but have allowed your membership to lapse, please renew.

(See mailing label for your expiration date.)

Interpretive Center street address is 569 South G Street, Arcata.

FOAM mailing address is PO Box 410, Arcata CA 95518. You can reach us by phone from 9 am to 5 pm Tuesday through Sunday and 1 to 5 pm Monday at 707-826-2359.