The Watch

Newsletter of the Watsonville Wetlands Watch
Summer 2006

Watching Over the Prairie

The sentinel sits atop her perch on an old lichen-covered fence post. When a threat appears she lets out a series of squeaks to warn her family before seeking refuge herself. In an interesting example of altruistic behavior in animals, a California ground squirrel will draw the attention of a predator in order protect other squirrels. Although the squirrels she is warning may not be her own offspring, generally they are so closely related that even if she is killed the genes that she shares with her family will have a better chance of survival. Thus the sentinel behavior is favored by the forces of natural selection.

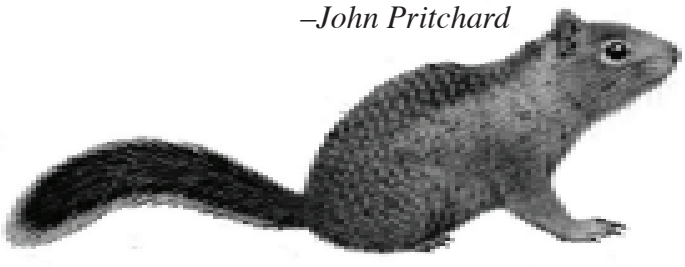
The California ground squirrel, often considered a pest to be eradicated, is now being recognized as a keystone species in our grassland ecosystems. A keystone species is one that is essential to the functioning of an ecosystem as with a stone arch where the removal of the keystone causes the whole wall to collapse. When they are at the peak of health California ground squirrels are very handsome animals with a thick speckled coat and bushy tail. They often stand on their hind legs with their front paws tucked in on their chest looking like curious little people.

Ground squirrels are very important prey for a wide variety of predators from snakes to foxes to golden eagles. But even more important are their excavations. The burrows that these squirrels create are extensive and have an essential influence on their habitat. One study showed a colony of 6 females and 5 males inhabiting a burrow with tunnels totaling over 225 meters (740 feet) in length, reaching 8.5 meters (28 feet) below ground, with 33 openings. In grassland where there may be very few places such as rocks or logs that animals can hide under these burrows are an important refuge. Some of the important species that may be found in the burrows of squirrels include the burrowing owl, the red-legged frog, the Santa Cruz long-toed salamander, the long-tailed weasel, and various snakes including the beautiful ringneck snake.

On the California Department of Fish and Game - West Struve Slough property that Watsonville Wetlands Watch is helping to restore, we have a large colony of ground squirrels. The colony runs the length of our grassed waterway restoration project for over 60 meters (200 feet). The squirrels are shy and quickly retreat underground when people approach. They love the annual barley that has been planted for erosion control, eating the sweet shoots and dropping the leaves on the ground near their burrows. Our program of mowing the grassland has greatly improved habitat for the squirrels. Mowing promotes the tender new growth that squirrels savor and creates the open conditions that they feel comfortable in. They are better able to seek food, see predators and quickly retreat to their burrows when the vegetation is very short, less than 6 inches.

While California ground squirrels are certainly not endangered and are not officially a "wetland species" they are very important to the health of the Watsonville wetlands system. A growing understanding of the ecological role filled by these animals reveals why preserving the areas adjacent to wetlands is essential to the conservation of some of our most rare and important wetland wildlife.

–John Pritchard



Cleaning up our Water

Much has been written about, legislated around and pontificated about water quality. To try and solve, or even begin to come to grips with the enormity of the problem in an article about water quality would be an exercise in futility. But… I will attempt to put a face on the problem.

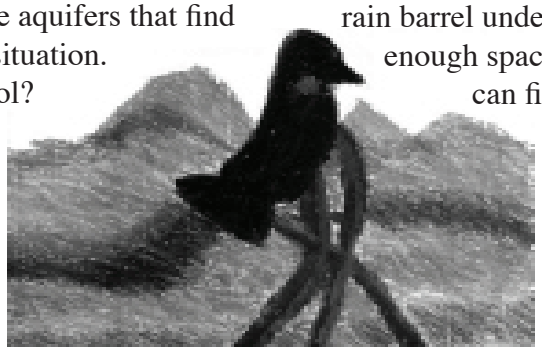
First we must face the fact that since the first European-Americans settled this continent there has been this notion that there is an endless supply of water available. That, believe it or not, is true. Water is constantly recycling itself. It doesn't disappear never to be seen again. What goes unnoticed in that statement is the term "clean" or "potable" water. Unfortunately humanity has grown over the millennia and their use has caused the degradation of the water quality. Just in the United States alone there used to be over 200 thousand acres of wetlands. Today less than half remain. Wetlands were nature's filters. Any pollutants that found their way into our lakes and streams were removed as the water found its way through the many swamps, prairie potholes, sloughs, marshes and coastal estuaries. The urbanization of America has caused runoff from development that is extremely high in pollutants. At a time when we should be restoring, or at least conserving, our remaining wetlands we still seem to be bent on finding other uses for the land. A lot of money is spent every year on steel and mortar monoliths that attempt to treat the polluted runoff. Instead of draining more wetlands we should be encouraging landowners to put back into production the wetlands that over the last two centuries have been compromised. Not only would these wetlands naturally remove any pollutants from the water, but they would also recharge the aquifers that find themselves in an overdraft situation. And what about flood control? Wetland areas that usually captured floodwaters and spread them out into the landscape were developed into urban areas that then needed to be protected from those same seasonal floods. What a waste.

What we need is a quantum leap backwards. We need to un-invent the wheel. We need to start educating our youth about the advantages of using the environment at our doorstep to our advantage. These are the people who are going to make a difference. They don't have the disadvantage of cultural values that have been ingrained into the day to day routine which seem to be pervasive in everyone else. They still see the world as an amazing place, full of possibilities. They don't know that it's done this way or that, just because that is the way it has always been done. Why not use that naïveté to the advantage of the environment, and humanity.

We could start in our own homes and businesses. If we all (I mean **everyone**) could reduce the amount of runoff we generated from our homes and businesses to the pre-development state, our aquifer overdraft situation would be solved. Not only that, but our quality situation would be solved simply by the fact that all the pollution that is generated from the runoff would be captured in the plants and soil and naturally degrade into its basic elements.

There are a small number of people (actually the number is growing) who subscribe to the concept, or better yet, the science of Low Impact Development (LID). This discipline embraces many easy and inexpensive processes for dealing with urban runoff. The simple concept of capturing rainwater for reuse or retention and peculation may seem to some as too hard. In actuality it couldn't be simpler. If you enjoy gardening than all you need do is create a rain garden. Or if you just want to save the water for reuse in your garden, put a rain barrel under your downspouts. There isn't enough space or time to go into detail, but you can find designs online at: www.lowimpactdevelopment.com

- Bruce Arthur-



PVHS Teachers and Students Get Their Feet "Wet" with BWET Grant

During the past year, eight Pajaro Valley High School teachers have been working together to develop integrated, hands-on activities for their classes. These activities are designed to use Watsonville's unique wetlands as a giant outdoor classroom.

Examples of activities that teachers have adapted include testing West Struve Slough water quality in Gary Martindale's chemistry class, landscape painting of Hanson Slough in Dave Perez's art class, and studying Pajaro Valley's pre-European landscape in James Evans' U.S. History class.

The outdoor classroom opens a new door to learning, providing an opportunity for students to experience our wetlands firsthand. With each field trip, students discover something unique, such as a Santa Cruz garter snake or Pacific tree frog, which connects them to their environment in ways the classroom cannot. These connections help build a deeper appreciation for our slough system.

Hands-on learning experiences also provide youth with an opportunity to "give back" to the wetlands through restoration and collecting data for math and science based activities.

"When we worked on habitat restoration for our Integrated Science ecology unit, the kids went beyond the standards-based lesson and put their heart and soul into the planting [of native plants]. They really enjoyed it and felt like they were doing something valuable," says PVHS science teacher Gary Martindale.

According to Martindale, students also appreciate that Watsonville community members have come and participated in their field trips as volunteer docents. "Kids notice when community members care enough to show up."

Over 200 students have participated in BWET field trips so far. During the summer, teachers are completing and refining their activities. More students will have an opportunity to experience these activities in the Fall. By the time this project is finished, at least 35 site-based activities will be made available to other Watsonville area teachers.

Watsonville Wetlands Watch would like to thank interns Corinne Hamill and Jenna Stein for the many cheerful hours they gave to help teachers implement and evaluate their BWET activities.

This project was made possible thanks to funding from a BWET (Bay Watershed Education & Training) grant through NOAA.

- Rachel Garrett

Rich Moran's biology class carries out a transect study on the West Struve Slough Reserve.

Biology students examine freshwater algae under the microscope.

Super Volunteers

There were many surprises in the long road to creating the new Patrick J. Fitz Wetlands Educational Resource Center. Among the top good surprises are the number of new volunteers who gave their time and talents so enthusiastically the project.

We will highlight a few of them in each issue of the Watch starting with Rob Edwards, Kathy Gamble and David Mikzarek. These three have never met each other and each worked independently, yet their combined efforts are linked. As a result of their work, they saved us thousands of dollars, and added beautiful one-of-a-kind furniture to our center.

Rob Edwards teaches archeology at Cabrillo College and had been a part of our docent training program for several years. He envisioned and created the successful "archeology technology" program at Cabrillo, I heard that Cabrillo College had purchased some new classroom furniture and called Rob to give him a laundry list of furniture we needed for the WERC. Sure enough, Rob and some of his students in the archeology technology program looked around and were able to locate what we needed. Thanks to them we have been able to recycle several dozen comfortable wooden classroom chairs and an unframed flat file, thereby saving both money and the environment.

However, the furniture needed work. **Kathy Gamble** responded to my call for volunteers to refurbish the chairs. On a sunny fall day we lined them all up to give them their first ever bath. As we scrubbed the wood backs and seats, glimmers of their past beauty began to show through. Turning them over to access the collection of gum on the undersides of the seats, we saw that they were dated 1966! These forty year old beauties were beginning to take on a new lease on life. Now they needed to be stained and re-varnished.

I began to plan another volunteer day for this next task, but Kathy insisted that over time, she could do them all at home in her driveway. Still not quite able to believe she would take on all 28 chairs on her own, I nevertheless helped her load half of the chairs into our two cars and transported them to her garage. When those were done Jim Van Houten piled them into his truck and brought a new batch of chairs to her.

It took Kathy many days and untold hours to do all 28 chairs. In fact, her neighbors were sure she was starting a restaurant with all those chairs lined up in her driveway to dry. The end result was amazing. They were transformed into beautiful, strong, fully restored classroom chairs. Perhaps they have another 40 years in them.

Then there was the flat file. It had sturdy strong drawers in an equally sturdy frame, but it lacked a top, back and sides. I called a carpenter, **Dave Mikzarek** who had done a good cabinet job for a friend. He looked at the files, gave a reasonable estimate for the job and took the files to his shop. When we were ready to move into the building, he delivered the beautiful maple flat files that are now in the visitor center and refused payment, saying that the files were his donation to the center.

From acts like these, and many others, the Center represents a coming together of many people in our community. We could not have built it without this generous support.

Be sure to look at these furnishings at the new Patrick J. Fitz Wetlands Educational Resource Center. They are the tangible evidence of the many volunteer hours which have gone into this community project.

– Carol Whitehill

Gary Martindale's Integrated Science class researches the wetland food web at the Fitz WERC computer lab.

Andrea Rich Named 2006 Master Wildlife Artist

WAUSAU, WISCONSIN: The Leigh Yawkey Woodson Art Museum has named Santa Cruz, California, woodcut artist Andrea Rich as its 2006 Master Wildlife Artist. She will receive the award during the preview opening of "Birds in Art" on September 8, 2006. As the Woodson's 28th Master Artist, Rich will be represented in "Birds in Art" by a dozen artworks that exemplify her complex woodcut designs.

In announcing the 2006 Master, Woodson director Kathy Kelsey Foley praised Rich for her artistry, creativity and originality, and her mastery of a challenging medium.Rich is a native of Racine, Wisconsin, and earned a B.S. in art education at UW-Whitewater. She resides in Santa Cruz, California. Rich has participated in fifteen previous "Birds in Art" exhibitions, beginning in 1989, and is the third woman to be designated a Master Wildlife Artist in the exhibition's thirty-one-year history.

Hansen Slough, by Andrea Rich

Egret over Pond, by Andrea Rich

The 2006 "Birds in Art" exhibition, on view September 9-November 12, will feature 130 original paintings, sculptures, and graphics created by an international roster of artists. The exhibition's full-color catalogue, featuring an essay about Andrea Rich, will be available for $18.50 plus $4.50 S/H. A poster featuring a Rich image also will be available. For more information, contact the Woodson Art Museum at 715-845-7010 or museum@lywam.org

Andrea Rich was commissioned by the Watsonville Wetlands Watch to create woodcuts for "Watching the Wetlands", our book about the slough systems by Jerry Busch.

Our congratulations to Andrea! We're proud to have her work enriching our effort.

Join Watsonville Wetlands Watch

and help protect our wetlands! Membership of $25 a year/$15 student or senior, supports efforts to preserve and protect slough systems in the Watsonville area. You will also receive The Watch, our quarterly newsletter.

Name_____
Address_____
City/State/Zip _____

Send your check to Watsonville Wetlands Watch
Post Office Box 1239
Freedom, CA 95019-1239

Calendar

Get those hands dirty!

Meet at the Fitz Wetlands Educational Resource Center at 9am. to join the Restoration Team as we restore several areas in and around Watsonville. We work until 12 noon - and always make time for a walk and tour of our local wetlands flora and fauna. Please wear a hat, work clothes and sturdy shoes. We supply the gloves, tools, and a snack.
No experience necessary - just a desire to help these wonderful ecosystems.

In the coming months we'll spend our time weeding and ensuring the survival of our Spring plantings, mulching, collecting seeds, watering our plantings, planting natives, and enjoying these beautiful Saturday mornings in the wetlands.

Upcoming dates are:

July 8th	August 12	September 12
July 22nd	August 26	September 26

July 15th - Plant Walk and Workshop on the cultural and medicinal uses of the native plants of the Pajaro Valley, given by Patrick Orozco of the Pajaro Valley Ohlone Indian Tribal Council. 10am - 12 noon. To be held at the Fitz WERC. Space is limited; Cost is free.

To register please email jonathan@watsonvillewetlandswatch.org or call 728-4106.

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Our mission:
Watsonville Wetlands Watch is dedicated to the protection, restoration and appreciation of the wetlands of Påjaro Valley.