

BIDWELL PARK REFLECTIONS

A QUARTERLY PUBLICATION *from* FRIENDS of BIDWELL PARK  SPRING • 2010

Take a Good Look at the Nature of Bidwell Park!



Chico Creek Nature Center's Grand Opening
Howard S. Tucker Exhibit Hall
& Kristie's Nature Lab
March 27, noon - 4 PM
1968 E. 8TH Street, Chico, CA 95928

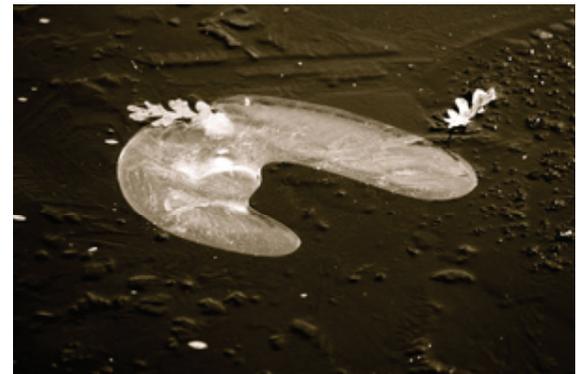
Please join in the celebration of the long awaited opening of the new interpretive center on the grounds of the Chico Creek Nature Center. View fabulous interactive exhibits on the nature of Bidwell Park, join in naturalist led programs, animal presentations and more. Facility viewing at noon with ceremony beginning at 2:00.

Volunteer - Sunday, March 21

Help the Chico Creek Nature Center prepare for the grand opening of their new building. Pull out weeds, fill potholes in the driveway, sweep patios, rake up magnolia cones, etc. Come anytime between 10:00 am and 3:00 pm. Sponsored by Friends of Bidwell Park.

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Ferns in Bidwell Park

Ferns are the oldest group of vascular plants on earth (vascular means they have specialized water and food-conducting tissues). The earliest fern fossils date from the Carboniferous Period, a full 200 million years before the first flowering plants and 360 million years before animals first lived on land! Ferns were successful early in the game. Like the alligator and shark, many bear striking resemblance to ancient ancestors and others evolved as completely new forms in counter to challenges of changing geologic, climatic and ecological settings.



Fern Wall photos © John Dittes

The Jepson Manual of California plants lists about 103 species of ferns and related fern-like plants occurring in the state. According to the 1986 Vern Oswald flora, twenty of these can be found in Upper Bidwell Park. Although one would really need to scour the park's various plant communities to see them all, a nice "fern sampler" is offered by an easy walk along the north-facing "Fern Wall" on the south side of Big Chico Creek, east of the parking area on Centennial Avenue. Within the reach of a few hundred-feet, observant eyes might find the 4 fern species and 2 fern "allies" that grow along the rock face among lush mosses and lichens.

Considering the life-cycle of ferns, it makes sense that the "Fern Wall" supports so many. In fact, most of the fern species in Bidwell Park are also found along the north-facing slope elsewhere on the south side of the creek. Why? Why aren't there more ferns out on the sunny open slopes where the brightly-colored wildflowers lure their pollinators?

The answers to these questions have in large part to do with the fact that ferns, unlike the fancy "newcomers", don't reproduce with flowers, fruits or seeds. They don't produce pollen so they don't need birds, bees or wind to bring male pollen and female egg together. So what?

What they do need though is ample surface water, even if only available as a thin film, through a good portion

of the growing season. See, even though ferns are considered "primitive" vascular plants, they share an important reproductive detail with us "higher" animals. During one phase of the fern life-cycle, male structures borne on a tiny, rudimentary leaf-like plant (gametophyte) produce tailed-sperm (a gamete) that actually swim through surface water over to the female structure where an "egg" (the other gamete) is fertilized. The resulting "zygote" develops into an embryo that grows and matures into the familiar leafy "fern" plant (sporophyte) that we all recognize.

The mature fern produces spores in sporangia on the bottom surface or at the tips of fronds (leaves). These spores disperse with wind and water, and if enough moisture is available and other factors appropriate where they land, they germinate and grow into another tiny gametophyte plant that produces sperm and egg again, to start the cycle over. This is called an "alternation of generations", with large sporophyte producing tiny gametophyte, and tiny gametophyte producing large sporophyte, over and over again.



Although there are some ferns that do grow in drier sunnier sites, they reach peak diversity and abundance on the moister, cooler north-facing slopes on the south side of Big Chico Creek, especially on steep rock surfaces where a thin film of water is predictably available.

Reorganization of General Services Department

Chico's General Services Department consists of three divisions; Administration, Operations & Maintenance, and Park. On February 5, General Services Director Dennis Beardsley retired from City service after more than 12 years. The current Director of Operations and Maintenance, Ruben Martinez, became the General Services Director effective January, 2010. Ruben's previous position will be removed from the budget.



A new position, "Park & Natural Resources Manager", has been created to oversee the newly renamed Park, Open Space and Preserve Division within General Services. This person will be responsible for the planning and organization of this division, along with directing and coordinating the use, maintenance and operations of parks, open space areas, greenways and preserves. In addition, the position will provide staff assistance to the Bidwell Park and Playground Commission, City Manager and City Council. With these changes in General Services, the ongoing operating costs of this department are expected to decrease by approximately \$67,000 per year.

This new manager, Dan Efseaff, will start full time work around March 1. Dan has a Master's Degree in Biology from CSU, Chico and worked for River Partners for many years as a restoration ecologist. He most recently worked for Yolo County Resource Conservation District as their Executive Director. Dan is an avid outdoor recreation enthusiast.

(Reorganization information from City of Chico 2009/2010 Final Budget, available online at www.ci.chico.ca.us)

New Park Commissioner Appointed

Bidwell Park and Playground Commissioner Aaron Skaggs resigned in December, 2009 when he moved to Sacramento for a new job. In February, the Chico City Council appointed James Mikles to fill the 3 remaining years of Mr. Skaggs' term. Mr. Mikles was one of 11 applicants for this volunteer position. According to his application, he has lived in Chico for 23 years, is currently Vice-President of Golden Capital Network and is an avid park user. For more information about him and the other applicants, see the City Council 2-16-10 Agenda and Reports on the city's web site at www.ci.chico.ca.us.

Join Park Watch - Training March 18 & 20, 2010

Park Watch is an organization of volunteers who help the City of Chico care for Bidwell Park and its visitors.

If you walk, bike or ride horses in Bidwell Park at least 4 hours a month, you can make your park experience even more valuable and fun by joining Park Watch.

Attend the required training session for new volunteers March 18, 6:30 pm to 9:00 pm at the Chico City Council Building in Conference Room 1. There is also a follow-up park walk on Saturday March 20 for the new volunteers.

For more information, contact Senior Park Ranger, Jessica Erdahl at 896-7834 or email ParkWatch@ci.chico.ca.us.



Wet Weather Policy

Recently, the City of Chico hired a consultant to develop a wet weather policy, in large part to address the soil damage that occurs specifically from mountain bikers, equestrian and disc golfers during the wet season. Initially, the policy basically stated that if rainfall amount reached 0.75 of an inch in a 24 hour period, the trails in Upper Park would be closed to bikers, equestrians and the 2 disc golf courses would be closed. To determine whether the trails should be reopened for these activities, a Park Ranger walks a designated area at the disc golf course and around Horseshoe Lake and if his/her foots sinks more than ½ inch at any location, the trails remain closed for an additional 24 hours.

Many questioned how the protocol was derived. For example, the policy did not account for cumulative rainfall. Would the trails be closed if it rained 0.50 inches two days in a row? Others have asked if the “foot test” was an accurate way to determine soil resiliency; how far is a human foot supposed to sink in places where there is only an inch or less of soil in the first place; how about where the soil is only ¼” deep to begin with? Is the foot of a 120 pound Park Ranger equivalent to the foot of a 1200 pound horse?



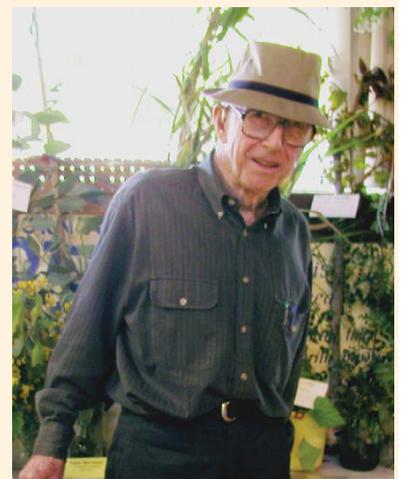
Bootleg Trail photograph © Steve Green

At the December 28, 2009 Bidwell Park and Policy Meeting, City staff discussed the latest changes made to the Wet Weather Policy. At this point in time the “criteria” for closing trails occurs with a rainfall event of only 0.25 inches and trails will remain close if a foot print is observed (regardless of depth) at 3 of the 10 locations tested at each site. This policy will reviewed on regular bases and will be modified as needed to improve effectiveness.

Donations Needed for Removal of Large Spanish Broom Shrubs from Upper Bidwell Park

Led by the late John Copeland, the Mount Lassen Chapter of the California Native Plant Society (CNPS) has been removing highly invasive flammable Spanish broom shrubs from Upper Bidwell Park for many years. However, it is difficult for volunteers to reach broom-infested areas on the south side and in Iron Canyon.

The Big Chico Creek Ecological Reserve (BCCER), just upstream of Bidwell Park, solved this problem by creating a paid, trained broom eradication crew with specialized equipment for major broom removal projects, including a gas-driven winch and boat to get equipment to remote sites. The BCCER has completed the initial removal of all broom in their part of the Big Chico Creek watershed, now spending about 500 hours a year monitoring and removing new plants.



John Copeland

This year, their 4-person crew is available to start removing broom from the inaccessible areas of Upper Park at a cost of \$500/day. To sponsor this work, CNPS has pledged \$300, FOBP \$1,000, and the Chico Park Division \$750. If you would like to make a tax-deductible donation in support of this broom removal project, send your check to Friends of Bidwell Park, PO Box 3036, Chico 95927. Note on the check that you would like it to go towards broom removal.

Cat Population on the Rise in Park

For the last 10 years, the Chico Cat Coalition (www.chicocatcoalition.com) has done an outstanding job of trapping the hundreds of cats and kittens dumped in Bidwell Park, spaying and neutering (costs reimbursed by the City of Chico), and finding permanent homes for them. Because of their no-kill policy, they also continue to care for cats too wild to be adoptable, housing them in a barn. Currently they do not have resources to care for additional cats, and have stopped trapping adult cats. As a result, the number of cats in the park has noticeably increased. At a recent Park Committee meeting, the Coalition proposed initiating a trap/spay/release program as a way to maximize the use of their limited volunteer resources.

At the same meeting, the Butte Humane Society (www.buttehumane.org, BHS) said they're trying to raise funds to set up a low-cost spay/neuter program in a former vet. hospital that would also be large enough house the BHS's cats. In addition to providing a much-needed veterinary

service, a healthier environment for the cats, additional space for dogs at BHS's current building, this new program could become a source of funding for BHS. The City of Chico will host a public discussion on February 24 at 7:00 pm to review the city's feral and abandoned cat problems and take comments regarding possible solutions.

The purpose of this meeting will be to host a forum in which citizens and organizations can come together to form an independent group that will work together to address this problem.

Dumping cats in the Park is punishable by imprisonment and/or a fine of \$1,000.

If you see anyone abandoning an animal in the park, immediately call the Chico Police Department at 897-4911

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State Route 99 Chico Auxiliary Lane Project

A segment of this project will affect Bidwell Park, namely the project's Phase 2 reconstruction of the northbound SR 99 on ramp from SR 32, the construction of a northbound auxiliary lane through Lower Park and, in Phase 3, the southbound auxiliary lane and southbound SR 99 off ramp at SR 32. When the project was proposed, the Bidwell Park and Playground Commission voted to recommend adding these auxiliary lanes on the outside, but were overridden by a subsequent City Council vote to construct the lanes between the existing 4 lanes, a vote which was later confirmed by the governing agency.

As a mitigation that is required before Phase 2 of the project is started, in November elderberry bushes within the project area were dug up and transplanted into a mitigation bank in the Sacramento area. Mitigation could not be done on-site because there is no mechanism in place for permanent, verifiable monitoring within the park.

Project Manager Andy Newsum (Butte County Association of Governments, www.bcag.org) provided this update on the project status: "We are acquiring the necessary rights of way to accommodate the project and expect to have right of way completed by May of 2010. After right of way is completed, the final plans have to be completed, then the project advertised for construction. That target is to advertise for construction in the Fall of 2010. Construction would then begin in the Spring of 2011. This is the earliest the project would happen and is dependent upon available funding from Proposition 1B bond sales, which have been slow."



Elderberry Relocation

photograph © Karen Laslo

Soil Erosion- It's More than Skin Deep!

It's easy to see that severe soil erosion is not a pretty thing to look at. In Upper Bidwell Park, the slopes between Horseshoe Lake and Monkey Face are crisscrossed with the brown barren scars from years of foot-travel. In many places, ever-widening trails spread laterally down steep slopes leaving broad swaths of barren rock. The scars of soil erosion are more than skin-deep though. Native wildflowers, wildlife and water quality all suffer from the affects of soil erosion.

What is soil erosion?

Soil erosion is the permanent loss of an irreplaceable natural resource. It is a 3-step process which involves the detachment of soil particles from the soil mass, the transportation of those particles downhill by floating, rolling, dragging and splashing and finally the deposition of the particles in new locations at lower elevations. Wind can also permanently erode damaged and exposed soil surfaces.

How strongly do rain drops interact with soil particles? The speed of a rain drop reaches terminal velocity at about 15 miles per hour, which hits exposed soil with enough force to detach soil particles, sending them flying off in all directions. If the soils are saturated, these particles will land in ponding water which is subject to transportation by gravity. Moving down slope, this run-off picks up volume, velocity and turbulence, stripping off even more soil to add to the flowing slurry.

What suffers from soil erosion?

Other than looking ugly, run-off high in sediments causes declines in aquatic life in nearby creeks and rivers because it increases cloudiness (turbidity). High turbidity reduces the amount of sunlight that penetrates the water



Bootleg trails on Monkey Face photo © Steve Green

which in turns reduces photosynthesis and survival of submerged aquatic plants. Aquatic plants support insects, which in turn support fish, which in turn support other animals (including people). High sediments also kill aquatic life directly by coating the gills of fish and other organisms, depriving them of life-giving oxygen. Life-choking sediments also get deposited in gravels used by spawning salmon, smothering eggs and young newly hatched fish larvae, which live in the spaces within the gravels.

Why is soil erosion a problem in Bidwell Park?

Some of the shallowest soils in northern California are on the Tuscan Volcanic Surfaces. In places, soils that have taken many millennia to develop are less than a few inches in depth. The shallowest soils in Bidwell Park are on the North Rim and South Rim ridge tops on each side of Big Chico Creek; these soils are only inches deep to bedrock. When it rains, these soils quickly become saturated. Typically, the shallow soils transmit water laterally in a subsurface drainage network. However, when the soils are disturbed and unvegetated, the subsurface water becomes surface water, gaining energy draining in channels and eroding adjacent soil. Soil from these volcanic surfaces can be lost quickly and forever.

Trails play a significant role in soil erosion. Not only do trails remove vegetation that prevents soil erosion, they also act as linear watercourses. Trails intercept and concentrate the natural movement of water that passes over and through the soil profile. Where soils are intact and properly functioning, rainfall is absorbed to the point of saturation, after which additional water either slowly

continued on page 7



Multiple trails scar wildflower field © Steve Green

passes over the vegetated surface, or seeps laterally through the soil profile itself. When this laterally-seeping water encounters a trail, it quickly gathers volume, velocity, and erosive force. Too often, the new rivulet will broaden and meander before it finds an eventually stable channel and bed.

Understandably, people generally do not like walking or bike-riding on trails that actively convey water. As a result, foot and bicycle traffic tends to concentrate on the still-vegetated margins of the “trail-streams”. While this lateral travel helps keep people dry and mud-free, it further impacts vegetation at the vulnerable eroding edge and causes the trail to widen and expose even more barren rock surface, which collects even more water and increases erosive potential.

One consequence of this kind of trail degradation is that parallel trails are established as people try to stay out of the water and mud. The creation of multiple trails (trail braiding) is a major concern for Upper Bidwell Park. Examples of severe trail braiding can be seen at two disc golf courses in Upper Park. Trail braiding can also be observed around the Horseshoe Lake area; there, the soils have a high clay content which also contributes to poor drainage. On the North Rim Trail, one can observe extreme trail widening and braiding. What was once an old single lane dirt road has now become 20 to 30 foot wide swaths of exposed lifeless bedrock.

It is impossible to replace the soil and ecological functions that are lost. The scars of our momentary carelessness will mar the beauty and function of the landscape for many centuries to come.

You can help!

The best solution to soil erosion is to avoid it from happening to begin with. Respect park rules and refrain from mountain biking, horse-riding and playing disc golf when the trails are closed during the wet season. If you are hiking in Upper Park during the rainy season, please stay on designated trails! Avoiding mud puddles in the trails is only making soil erosion in the park worse. If you walk in the rain, you should be willing to get your shoes wet and dirty. If you enjoy using Upper Park trails, do your part and volunteer for trail maintenance or donate money to the Park’s volunteer program.



“Trail Streams” photograph © Steve Green

Privet Tree Removal in Bidwell Park

Privet trees have spread rapidly through Bidwell Park since their introduction to Chico. This massive and rapid invasion dramatically reduced the number of native plant species in many locations by out-competing natives for resources such as water, nutrients and sunlight. In 2004, park staff and FOBP decided to focus on removing these privets. This effort to eradicate Japanese and European privet from Bidwell Park has taken several big steps forward within the last year.

Crews from CAL FIRE's Salt Creek Conservation Camp dug out hundreds of large privet trees from an area along Vallombrosa Ave, between Crister and Madrone. CSU Chico fraternities and California Conservation Corps members worked on privet removal in the area east of Caper Acres. More recently, a group of Butte College students tackled numerous smaller privet sites on the north side of the creek (see photo).

Since 2004, thanks to the efforts of the park maintenance staff and countless volunteers, a vast majority of all of the privet trees between Lost Park and Five Mile Recreation area have been removed, hundreds of thousands of trees ranging in size from 1' seedlings to 70' towering trees loaded with seeds.

Of course, there's still more to be done—the area east of Caper Acres needs much more work and there are still several thousand privet trees scattered throughout Lower Park that need to be removed. Also, the Bidwell Park Golf Course fairways are ringed by Japanese privet trees, containing probably as many as have been removed in the rest of the park. However, except for at the Golf Course, this is definitely a project where the end of the initial removal is in sight, perhaps within a couple of years. Privet pulling sessions will be scheduled during the coming months. Check the calendar at www.friendsofbidwellpark.org when you have time available to help.

Japanese privets are one of the invasive plant species in the Butte County Weed Management Area's Noxious Weed List.



Butte College students Shane Connor, Shaun Hayworth, Michael Kirmiz, Katie Williams, Michael Williams, Kassi Strickland and Luis Dominguez pull privet in the Park Photograph by Susan Mason

More Volunteers Needed for Invasive Plant Removal Projects this Spring

Winter and early spring are the best time for removing many invasive plant species from the park. It's easier to work in the cooler weather and the additional clothing necessary for this cool weather also provides protection from poison oak and blackberry thorns. FOBP and the City of Chico will offer many scheduled work sessions during the next four months. See the FOBP calendar at www.friendsofbidwellpark.org for details—keep checking as the schedule changes from week to week

Bidwell Park Events Calendar

Sunday, February 28 • Upper Bidwell Park Hike Hike from Five-mile into Upper Park
Then, join the Yahi Trail along Big Chico Creek. Round trip is about 5-7 miles. Bring lunch, water and comfortable shoes with tread. Starting time is 9:00am at Five-mile south parking lot. For more information, contact Jeanne at 899-9980. Sponsored by the Sierra Club Yahi Group.

Second Saturday Bird Walks in Upper Park
March 13, April 10, May 8 and June 12 [Altacal Audubon Society](#) is leading monthly field trips in Upper Bidwell Park. For March, we will meet at 8:00 am at parking lot E. (Horseshoe Lake) on the left just past the gun club (follow Wildwood Ave for 1.75 miles and turn left just before the gate). From there, we may start walking, or maybe drive a short distance further up the park road and start our field trip at a different location. Bring binoculars, water, snacks walking shoes and proper clothing for the expected weather conditions. Rain cancels. For more information contact: Steve King at 342-6715.

Thursday, March 18 • Bidwell Park and Playground Commission's Policy Advisory Committee Meeting. Starting at 6:00pm at the Chico City Council Chambers Building. See Agendas & Minutes for specific details. This meeting will focus on the draft Memorandum of Understanding for operation of the Hwy 32 disc golf course.

March 18, 20 • Park Watch Training - see pg. 3

March 21, Sunday • Maidu Medicine Walk

Meet at 9:00 am at Horseshoe Lake parking lot (E) with hiking shoes and water. We will take a leisurely hike to see and hear about 30 local plants that the Maidus used in their crafts, food, and medicine. Over at noon. Leader: Wes Dempsey

Saturday, March 27 • Name That Wildflower
Beginner's wildflower identification workshop. Morning session at the CSU, Chico Herbarium, afternoon session in Upper Bidwell Park. From 8:30 am-4:30 pm. Cost is \$35, includes Peterson's Field Guide to Pacific States Wildflowers, a magnifier, snacks & beverage. For more information, contact Lawrence Janeway at 898-5381 or see Herbarium to pre-register. Jointly sponsored by CNPS Mount Lassen Chapter and the Friends of the Biological Sciences Herbarium.

Vernal Pools Conference March 25-26

"Vernal Pool Conservation—Research Progress and Problems: Is Recovery Possible?" Sponsored by [AquAlliance](#). See Vernal Pools Conference for details. Followed by field trip on March 28.

March 28, Sunday • Upper Bidwell Park & Bidwell Ranch Vernal Pools & Wildflower Walk

Meet at 10:00 am at the east end of Wildwood Park's parking lot. Come learn about Bidwell Park's unique vernal pool habitats with soil scientist, Andrew Conlin and biologist, John Dittes. You will be amazed. Walk will be about 1 1/2 to 2 hours. Wear sturdy shoes as it may be wet. Sponsored by Friends of Bidwell Park. Heavy rain cancels,.

Volunteer Projects in the Park:

Volunteer Tuesdays, Wednesdays, Saturdays or Sundays in the Park. Remove invasive plant species, pick up litter. Visit website calendars or phone 624-3982 for updates.

Project tools, instruction and water provided onsite. Please bring your own water container if possible! Dress for the weather (in layers) and wear closed-toed shoes. Volunteers under 18 need to have a parent/guardian release form signed prior to work. Download: [Declaration of Assumption and Release of liability](#).

For more postings and information on upcoming Bidwell Park hikes and activities, check the calendar pages on [friendsofbidwellpark.org](#), Chico Creek Nature Center, [www.bidwellpark.org](#) and City of Chico's Volunteer Calendar [www.ci.chico.ca.us/](#).

Art in the Park - Karen Laslo

On December 8th it was really cold here in Chico. At 7:00 in the morning I bundled up and headed over to Sycamore Pool in Bidwell Park to take photos of the ice that had formed overnight. On my way out, I took a photo of our out-door thermometer to record how cold it really was: 18 degrees!

Here are some of the photos I took that morning. Spring and summer each has its own beauty, but today I'm reminded of the remarkable sights to be found in the darkest days of winter.



photography by Karen Laslo

Winter Skies 1

*In darkest winter,
just when we need
to see more sky,
the trees,
in unwitting kindness,
drop their leaves.*

Karen Laslo