



Creek Watch

Sacramento Urban Creeks Council

Creeks connecting communities

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Winter 2004

McClellan Park West Nature Area

by Brian Sytsma

Tucked away in the western portion of the former McClellan Air Force Base, now known as McClellan Park, lies a unique natural resource area, called the "West Nature Area." This 220-acre parcel of land is home to a wide variety of plants and wildlife.



With the exception of a small rice farming operation, the West Nature Area remained relatively undisturbed until the late 1980s. Around this time, the Air Force acquired the land and constructed a set of earthen ammunition bunkers in the central portion of the property. As a safety measure, the property surrounding the bunkers was designated by the Air Force as open space buffer.

"It's pretty amazing to go out there and see the diversity of the plant and wildlife species in the West Nature Area, especially when you consider it's on an industrial military base," said Molly Enloe, the Air Force's natural resources program manager.

Magpie and Don Julio Creeks meander through the area in a natural bed and bank, with thick stands of cattails, tules, and willows growing along the edges. White-tailed kites and red-tailed hawks nest in the few large trees that border the creeks, while dozens of red-winged blackbirds nest among the tules. Flocks of mallards and Canada geese are present year-round in the West Nature Area, along with pheasants, California quail, green herons, great blue herons, great egrets and many other species of birds.

The creeks are home to river otters, beavers, muskrats, garter snakes and western pond turtles. Surrounding

grasslands provide habitat for mice, voles, black-tailed jackrabbits, gopher snakes and California king snakes.

The West Nature Area also supports habitat for three species listed as threatened by the U.S. Fish and Wildlife Service – the giant garter snake, valley elderberry longhorn beetle and vernal pool fairy shrimp. Giant garter snakes prefer the aquatic and wetland habitats found in and around the creeks, while the valley elderberry longhorn beetle lives exclusively in the elderberry shrubs along creek banks. Vernal pool fairy shrimp inhabit the small seasonal pools that are scattered throughout the adjacent grassland areas.

Since closure of the base, the Air Force has designated the West Nature Area as a wildlife conservation area and has implemented a variety of natural resource protection measures. Signs and fencing have been installed that prohibit visitors from leaving the road. This is necessary to protect the sensitive habitats from possible damage and to avoid disruption of important wildlife activities such as nesting and feeding. Hunting and fishing are also prohibited in the area.

The Air Force is currently working with the U.S. Fish and Wildlife Service to formulate a plan for permanent preservation of the West Nature Area after the land is transferred to Sacramento County.

Sandwiched between North Highlands and Rio Linda, the West Nature Area is an island of natural diversity that provides a unique opportunity for local residents to learn about the native plants and wildlife of the Sacramento area. The Air Force Real Property Agency, which is responsible for base cleanup and property transfer, remains active in providing tours of the West Nature Area to schools, scouting groups, and other interested members of the public. If your group or organization is interested in visiting the West Nature Area, contact Brian Sytsma at (916) 643-1250 ext. 257.





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The purpose of the Urban Creeks Council of California is to encourage the preservation, protection, restoration, and maintenance of natural streams in urban environments. The goals are to educate the general public on the aesthetic, recreational, and ecological values of natural streams.

As a chapter of the statewide organization, Sacramento UCC assumes the same purpose and goals. The chapter holds regular meetings, develops educational materials, participates in neighborhood fairs and public events. It works with schools, neighborhoods, and youth groups to encourage creek clean ups and streambank restoration. It cooperates with city and county efforts to reduce pollution from stormwater runoff. It cooperates with other organizations to monitor developments along stream corridors. Membership is open to anyone who wishes to share in these activities.

Chapter meetings are generally held the second Tuesday of each month at the Arcade Creek Recreation and Park District.

Please call (916) 482-8377 for specific meeting dates and times.

Salmon in Arcade Creek

by Alta Tura

A group of Mira Loma High School students observed a salmon in Arcade Creek on November 18. Greg Suba, a former science teacher who happened to be with the students that day, reports that the fish was swimming in a pool of rancid water darkened by the tannin that had leached out of the many leaves in the pool. The blotchy salmon would come out from its hiding place under a log to tour the trash-laden pool then return to its hiding place. This salmon sighting downstream of the Horsemen's Association was one of several reported this fall in lower and upper reaches of Arcade Creek.

Why do we see salmon in Arcade Creek? Patrick Foy, Public Information Officer for the Department of Fish and Game, says one reason is the large size of this year's salmon run. In the Fall of 2004, 100,000 salmon came to spawn in the American River. A count of 30,000 to 40,000 is considered a good, healthy run. The 2001 and 2002 fall runs were also especially large, 118,000 and 130,000 respectively. If there are more fish in the system, then more will make wrong turns and survive to be noticed by creek watchers. Patrick says that in a year like 2004, salmon are sighted in various unsuitable waterways, such as agricultural drainage ditches. He gets calls from people asking that these lost fish be rescued and placed back in the river to try again.

Randy Smith, a longtime resident along the creek, admires the pluck of these piscine explorers. He theorizes that the best time to look for them is when the creek level has dropped after a rain storm. A good rain will raise the creek level, providing an opportunity for the fish to move upstream. As the water drops, the fish will become stranded in pools and wait for the next rain and the chance to move further up in search of adequate spawning conditions. As a rule, the fish will be easier to see when they are waiting in the pools.

Most salmon swimming up the Sacramento River that turn onto Steelhead Creek probably know to continue on to Dry Creek before turning eastward in their migration. Successful spawning occurs in restored and remnant gravel beds there. Those few adventurous salmon making a wrong turn up Arcade Creek, however, will have a fruitless search. Any Arcade Creek spawning areas that might have existed in the past have been covered over by silt for many years.

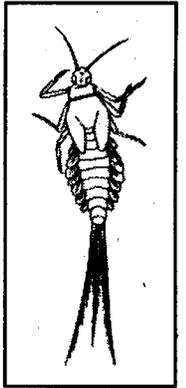
Arcade Creek was once healthy and a very different kind of creek. It may or may not have supported Chinook salmon. As suburban development occurred in the Arcade Creek watershed during the last half of the last century, the creek was forced to carry high flows of water much more frequently than before. Rain from winter storms used to percolate into the ground; stormwater would run off into the creek only in very heavy or long-lasting storms that saturated the ground. Now rainwater falling onto rooftops, streets, sidewalks, parking lots and other impervious surfaces flows quickly and efficiently through storm drains and into the creek. More erosion of the creek bank occurs under these frequent high-water conditions. Large quantities of soil that at one time formed the creek bank are scoured away, ending up as silt on the creek bed. This accelerated bank erosion and siltation of the creek bed is bad news for spawning salmon and most other plants and animals native to Arcade Creek.

Watch upcoming issues of *Creek Watch* for more stories of our urban creeks - past, present and future.

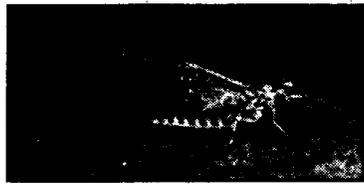
Creek Critters

Mayflies *by Bonnie Ross*

Mayflies are found in a diverse array of aquatic habitats from standing water to cold and rapid head-water streams. They are ecologically very important; essentially being the *first-order consumers* in all water bodies they inhabit. As a preferred food for most aquatic and terrestrial insectivores, they survive by sheer numbers alone. Mayflies were originally named because the majority of adults emerge from the water in May, although California mayflies emerge between February and November. As with all arthropods, their exoskeletons require that they molt (shed their shell-like skin) prior to growing. This is a dangerous time since they are most vulnerable while their new skins are hardening. Merritt and Cummins reports that, depending on the species, mayfly nymphs can molt between 12 and 45 times prior to becoming adults. Each molt moves the nymph into a new *instar*. While the great majority of mayfly nymph species live in the water for one year, some stay for only a few months. Others remain aquatic for two years.



What happens during their last instar is what makes the mayfly unique among flying insects. They first emerge from the water in a sub-adult, sexually immature stage called the "subimago". This stage can last from 1 1/2 to 48 hours. They are covered with hair-like microtrichia which renders them waterproof. Within hours they molt one last time.



Adult mayflies take to the air and form huge swarms. Most swarms are made up of males with the occasional female flying in to mate. As their Order Ephemeroptera implies, adult mayflies have short lives. They have no mouth parts and live just long enough to reproduce. In his book *Aquatic Insects of California*, Robert Usinger mentions that swarms in other areas of the world contain just a few hundred specimens, but swarms of many millions of these insects occur in the Sacramento Valley. Here in the Valley, they become an important food source for young salmon and other freshwater fish. Mayflies need clean water to survive to adulthood and are very sensitive to chemical pollution. As we creek stewards restore our urban creeks, we shall see many more salmon and steelhead and the swarms of mating adult mayflies that provide so much energy and benefit to the ecosystems they inhabit.

Thoughts from a Local Biologist *by Tim Pafford*

When I was a little boy, I was always messing around with water. I remember an incident of playing in rain-swollen puddles one stormy winter day after being sent home from kindergarten with a high fever. And I often came home muddy and wet after trying to change the course of the water flowing down the neighborhood gutters. At that time, for a native of the San Fernando Valley, this was about as wild and scenic as flowing water could be. Luckily, my parents loved the outdoors and always provided us kids with numerous trips to the most spectacular natural areas California had to offer, including real rivers and lakes. This opportunity to see natural areas and wild streams fueled my fascination and steered me to the biological profession that I have today.

Recently, restoration work on a 1.4-mile reach of Dry Creek was completed. The benefits to the creek included reduction of sediment, stabilized stream banks, and flood protection. The greatest benefit of all was installation of 1,100 trees to provide shade and nutrients for the creek and an additional 300 feet of suitable spawning habitat for salmon and steelhead, and easier passage for the fish to return home. Upon completion of this project, I had to reflect back to the old concrete gutter that I once played in, with its intermittent flows that drained into concrete pipes which drained to a skeleton of the once respectable Los Angeles River - now sterile and channelized with a concrete bottom and sheer concrete walls towering up two stories to meet business and residential structures.

Dry Creek, with its grassy tree-lined banks as it lazily meanders through Roseville, can hardly be compared to the Los Angeles River. Roseville and the neighboring areas are blessed with a gem. It may not be a blue ribbon trout stream, but Dry Creek has a lot to offer the community with the potential for more, well into the future. With proper stewardship, generations may continue to enjoy the fish and wildlife the creek has to offer, the serenity of the majestic oaks that gracefully line the streambanks, the miracle of the salmon and steelhead runs, and the opportunity for kids of all ages to investigate nature's wonders in a real stream. *Reprinted from Watershed, the Dry Creek Conservancy newsletter*

Mark Your Calendar!

Sacramento Creek Clean-up: Saturday, April 9

Elk Grove Creek Clean-up: Saturday, April 23

One-Day Salmon Count

Excerpts from an article by Gary W. Flanagan, preesident of the Granite Bay Flycasters Association

I remember reading an article in Field and Stream when I was about ten or eleven years old. I was living in K-part housing at Mather AFB. The article was titled "How to tell the difference between a "Creek" and a "Crick". The article went on to explain that a "Creek" was usually located some distance from where you live and was pristine and unpolluted. A "Crick" on the other hand was a local stretch of water in an urban setting which had a collection of old tires, broken glass, bums and rusted discharge pipes squirting out strange colored liquids that smelled bad...

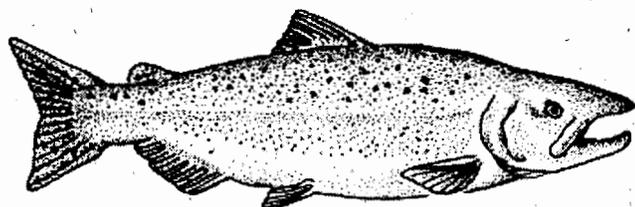
When I moved to Granite Bay in 1986, I carried that same mentality with me. I knew of Dry Creek, Miner's Ravine, Linda Creek, Secret Creek and the many other creeks that were in my neighborhood. I always regarded them as drains for the water that ran down my driveway after I washed the car. They certainly qualified as "Cricks" in my book and I never paid much attention to them when I drove past unless they were at flood stage and were threatening the neighborhoods.

Soon, after becoming a Granite Bay Flycasters member, I met Dave Baker. Dave is also involved with the Dry Creek Conservancy. Last year Dave had asked me if I would like to be involved with the annual one-day King Salmon count on the several reaches of Dry Creek. I was busy last year and couldn't accommodate Dave. This past year, Dave asked me again and I volunteered to help with the count.

The morning of November 19, 2004 I showed up at the [meeting point] and was paired up with GBF member Terry Chappelle. We were assigned a "reach" on Secret Ravine Creek. It was our job to count the live salmon, note the number and locations of "salmon redds" and count and tag the dead salmon carcasses. Our assigned reach began at Sierra College Blvd, just south of I-80 and went upstream to Brace Road...

After we suited up in our waders, we dropped into the "Crick" and began wading upstream. The water level was just above my ankles and the "Crick" was only about fifteen feet wide. I looked into the concrete tube that ran under a roadway and saw several discarded tires. It brought on a flashback to my childhood haunts and I was positive we would find no salmon here. Terry and I managed to negotiate the barbed wire without ripping our waders and sloshed upstream. After about a hundred yards I caught the distinctive whiff of rotting salmon. Unless you are a Steelhead Angler I suppose one would consider this an unpleasant smell, but for me it is as pleasant as the smell of Lilacs. Smells are a strong memory jogger and I have always associated the smell with steelhead season.

We climbed a downed tree and found two thirty inch salmon carcasses. After tagging, measuring, determining the sex of the fish and logging that they were non-hatchery fish, Terry and I continued upstream. I was more optimistic now that we had found evidence of salmon, and the "Crick" was starting to look a little more interesting. We rounded a bend and we saw a huge Cottonwood tree lying across the "Crick." This obstruction looked like it completely blocked any fish passage upstream and my heart sank. The water was percolating under the log through the decomposed granite on the "Crick Bed." The water had dammed up and was about knee deep. We halfheartedly moved upstream to where the damming effects started to subside and suddenly, we saw movement in the water. Several salmon were holding in a small riffle. Once we got closer, we realized they were sitting on two separate redds. Redds are the depression that salmon make by laying on their sides and shaking their tails in the gravel. This is where they lay their eggs once they are happy with the depth. Once the eggs are laid and fertilized by the male, another depression is made upstream and the gravel is broadcast downstream to cover and protect the salmon eggs. So this is how the day went. Every time we came across an obstruction, I was convinced we would no longer find any salmon. And there were plenty of obstructions in the form of trees, beaver dams and granite formations that split the water into tiny trickles with waterfalls up to five feet in height. Each time though, more salmon were upstream on their redds. Terry and I counted a total of twenty-nine live fish and fifteen dead ones. It took us several hours to complete our count but...I realized that Secret Ravine is indeed a beautiful "Creek" that deserves our protection and I was ashamed that it took me this long to see the Dry Creek Drainage as a special natural resource. These small creeks are important to the genetic diversity in salmon and steelhead populations that have been all but destroyed by the hatchery mentality of the past and present. These creeks are refuges for all native plants and animals that still thrive in our community.



CHINOOK SALMON or KING SALMON

Onchorhynchus tshawytscha

"...The fish are dusky above, silvery below with black spots on the dorsal and tail fins and along the sides. During spawning the color ranges from brick red to black, and the jaws of the males become hooked..." See the complete text and illustration in *The Outdoor World of the Sacramento Region*

Just Released...

A revised and expanded edition of the popular natural history field guide *The Outdoor World of the Sacramento Region* is now on sale. The 236-page volume, originally authored by the revered teacher and environmental activist Effie Yeaw, contains more than 600 local flora and fauna species. "Outdoor World" is published by the American River Natural History Association. It is available at some local book stores and is on sale at the Effie Yeaw Nature Center in Ancil Hoffman Park in Carmichael. The price is just \$13.95 plus tax, with a 10% discount for members of the American River Natural History Association. For more information, call 489-4918.

Dry Creek Watershed Weed Removal Underway

by Mick Klasson and Sarah Ross'

Dry Creek will soon be just a little bit more natural thanks to a weed removal project being launched by the Sacramento Area Flood Control Agency (SAFCA) in partnership with Sacramento and Placer Counties and the Cities of Roseville and Sacramento. The project, funded by the California Department of Water Resources, will remove red sesbania (*Sesbania punicea*) from Dry Creek and its tributaries.

Red sesbania is a shrub or small tree native to South America and sometimes used as an ornamental landscape plant in California. Its floating seeds find a way to a river system where the plant spreads rapidly along the water's edge, out-competing native plants essential for wildlife habitat and backing up water during times of flood.

The Dry Creek Watershed Red Sesbania Control Project (DCWRSCP) is an ambitious program to remove mature plants along the creeks. Removal of mature shrubs began last summer and will be followed by removal of newly sprouted plants in 2005 and 2006. Weed removal is occurring throughout the 101-square mile Dry Creek watershed in both Placer and Sacramento Counties, and includes sesbania removal on tributaries such as Miner's Ravine and Secret Ravine and some side canals and ditches. The contractor hired by SAFCA has removed the mature plants from over 80% of the watershed so far.

The project began in the upper watershed in Placer County, in areas that are publicly owned or have public flood control or maintenance easements. With the permission of landowners, the contractor then moved into the areas adjacent to private property adjoining Dry Creek and its tributaries to conduct weed removal on their lands. Red sesbania has been removed from the top of the watershed down to Marysville Boulevard in Rio Linda, with the exception of a small section upstream and downstream of Del Paso Boulevard. The remainder of the mature weeds will be removed in the spring of 2005.

SAFCA will continue to work with local public agencies and volunteer groups towards the development of a framework for control of red sesbania in the watershed over the long-term. For more information or to find out how to have red sesbania removed from your property, please contact Sarah Ross at (916) 874-6099.



Salmon Invade Dry Creek Again in November 2004

Last fall 16 crews of volunteers visited different parts of the Dry Creek and its tributaries, observing 773 Chinook Salmon between 9 a.m. and noon on Nov. 19, 2004. This compares to 680 salmon that were surveyed in 2003's first Snap Shot Day. Volunteers numbered at least 35 in 2004, and included Steve Hubbard, Marina Smith, and Bill Templin, who helped the Dry Creek Conservancy in their Second Annual Snap Shot Day survey of spawning and spawned salmon and their "redds".

Marina Smith is shown below 1) holding up one of the salmon flagged under the I-80 Bridge near Eureka Road; and 2) taking notes, as Bill (holding the camera) is preparing to tag, measure, and identify another salmon.



More information about the Dry Creek Conservancy, its salmon surveys and other activities:
<http://drycreekconservancy.org/data/DCC%20Fall%202004%20News.pdf>

Bill Templin, Sacramento Urban Creeks Council Board Member, and Watershed Coordinator for the North and Middle Forks of the American River
<http://arwg.org>



Sacramento Chapter
 Urban Creeks Council
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What creek critter provides an important food source for young salmon and other fish? See page 3 to find out!

Address Correction Requested

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Alta Tura
 4633 Q St
 Sacramento, CA 95819-4448

819+4448 16



SACRAMENTO

The Urban Creeks Council of Sacramento is dedicated to protecting and sharing the abundant natural treasures that make up the extensive creek systems of our region. As a member, you will receive many benefits, including our newsletter *Creek Watch*. To become a member or renew your membership, please fill out and mail the form below to: Sacramento Urban Creeks Council, 4855 Hamilton Street, Sacramento, CA, 95841

YES! I want to help Sacramento's creeks. Enclosed is my tax deductible gift of:

- \$10/Students
- \$100
- I would like to be a member of the Sacramento Urban Creeks Council.
- I'm already a member; please accept my donation and renewal.
- \$25/Regular membership
- \$250
- \$40/Family Membership
- Other _____

Make check payable to: Sacramento Urban Creeks Council.

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Questions? Call: (916) 482-8377 Email: ucc@arcadecreekrecreation.com