



Rising Waters

Compiled by Janet Parris

With the flood-waters of hurricane Katrina and the rising river waters during the final days of 2005 fresh on everyone's mind, important questions have been asked by many local residents:

"Will our local drainage system be enough to handle the amount of rain predicted?"



"What can I as a resident do to help keep the drainage system working properly?"

Our local drainage system is a network of underground storm drain pipes, open channels, creeks, pumps and detention basins. This system carries runoff

away from streets and homes. Regular maintenance of this system is important to managing storm runoff. The County of Sacramento has a proactive drainage maintenance program which includes cleaning drain inlets, laterals, creeks and waterways, and regular maintenance of pump stations. In fact, more than 100 miles of storm drain pipe and 200 miles of creeks and channels are cleaned annually by County crews.

Residents can help keep this system working properly. By regularly raking and bagging leaves, gravel, bark, and other landscaping materials that collect in front of their homes, residents can significantly reduce the chances for the storm drains to become plugged. These materials should never be put into the storm drain system but instead should be removed and placed in a garbage or yard waste container and collected with the regular refuse pickup.

County of Sacramento Department of Water
(continued on page 5)

Creeks & Migratory Birds

by Beth Etgen

Do you think that birds have an easy life? Think again. Wild birds face dangers every day, many of which are related to human activities. The biggest threat to birds is human disturbance of their habitat. In spring and autumn, the sky can become dark with countless birds flying between their breeding grounds and wintering grounds. When people destroy or change the areas that birds rely on for stopovers on their migration routes, fewer birds can survive.

Migration can take birds from the Arctic to Antarctica. While most species' journeys are not that long, many birds—even small songbirds—travel impressive distances. Where birds migrate depends on a variety of elements, but food, water, and shelter is the most important. Many species of birds will seemingly travel several thousand miles out of their way but actually take that route because of the availability of food sources.



Tree swallows migrate north every summer to feast on flying insects along creeks. Photo: Brian Gilmore

Although the Central Valley of California has long been recognized as an important waterfowl wintering area because of its ample food supply and mild temperatures, less than ten percent of California's historic wetlands still exist today. Yet these dwindling resources are the breadbasket for millions of waterfowl and other birds. More than 60 percent of the birds migrating along the Pacific flyway spend the winter in the rich wetland habitats

(continued on page 5)



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Creek Watch Editor - Betty Cooper

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 fourth Monday of each month at the Arcade Creek Recreation and Park District office.

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

A Street is a Terrible Thing to Waste

by Walt Seifert

In the middle ages, garbage was tossed and chamber pots emptied into the street. Over the centuries we became more fastidious about dumping offal in public spaces. Yet we still dump green waste. To this day, the cities of Sacramento, Davis and Woodland have "loose-in-the-street" pick up of dumped trash using "the claw" and a garbage truck.

Most localities across the state enjoy efficient "containerized" green waste collection. For example, Sacramento County residents put green waste in large plastic bins for pick up every other week.

Dumping yard debris in the street is less offensive than dumping garbage. But the practice does have environmental and other consequences—presently politely ignored.

Storm water quality - The Regional Water Quality Control Board believes "loose-in-the-street" pick up boosts total organic carbons and chemicals in run-off. Those substances wind up in our rivers and streams and harm aquatic life. Regulators are pressing, and sometimes forcing, cities to switch to containerization. They issued a Clean Up and Abatement order requiring Stockton to stop its green waste dumping.

Local flooding - Green waste clogs storm drains and causes street flooding.

Cost - Pick up by "the claw" costs 31 percent more than containers. That's just for labor and equipment. It doesn't include cleaning storm drains or pump station screens and other significant costs.

Air quality - Two vehicles, operating continuously, are needed to pick up piles of green waste. With containers, there is only one vehicle.

Bicycling - Trash piles are a hazard to bicyclists. They cause annoyance, fear, crashes and injuries. Piles frequently completely block bike lanes. Bicyclists can be forced into the path of autos. Crashing into a pile (difficult to see at night) can throw a rider over the handlebars.

Other impacts and costs - Piles of green waste attract illegal dumping and increase the need for street sweeping. "The claw" damages pavement and pavement markings. The piles are unattractive—newcomers are shocked when they see them. The piles can be a nuisance for pedestrians and for motorists trying to park.

Some people like the convenience of tossing yard debris in the street. Others worry that containers might not be big enough to hold all the leaves in the fall. A few residents have limited space to store another container.

In 1977, Sacramento voters overwhelmingly expressed a desire to continue "loose-in-the-street" pick up. But the choice before them then was different than it would be now. It was whether to place green waste into plastic bags and see the bags carted (expensively) to a landfill, instead of being composted. Now wheeled bins are easy to use and all green waste is recycled.

Dumping in the streets is a practice whose time has passed. It's hard to argue that convenience is more important than environmental protection, flood woes, neighborhood appearance or safety.

(continued on page 5)

Creek Plants: Blue Elderberry

by Bruce Swinehart

One of the most obvious large shrubs in our valley is blue elderberry, *Sambucus caerulea*. This large shrub may grow to 10 feet tall and sometimes even 30 feet tall. It may be considered a small tree. It is rather widespread in the west and is found along waterways (riparian habitat) of the valley up to 5,400 feet elevation. The California's Central Valley once had miles of riparian woodlands, but now fewer than 5% remain. Much of what remains is along our creeks.

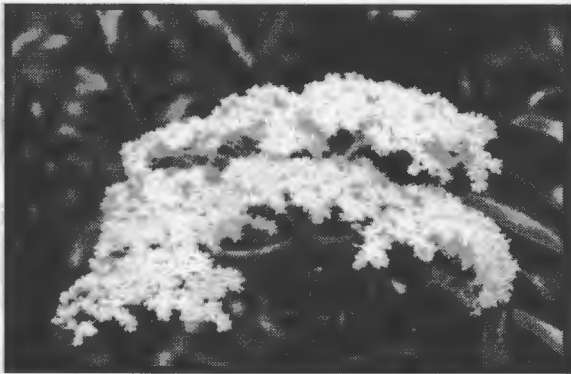


Photo: Betty Cooper

Today, the elderberry receives special attention and protection. Elderberries are the only home of the valley elderberry longhorn beetle, which spends its entire life on the plant. The beetles are so rare they are listed as threatened under the federal Endangered Species Act. The adults eat elderberry leaves and flowers. The larvae, or grubs, feed on the pith of the large stems.

The characteristic stalk of the elderberry leaf is 5 to 8 inches long and bears 5 to 9 leaflets. These leaflets may be up to 6 inches long. The edges are finely toothed and somewhat smooth. The white or cream-colored flower clusters are very obvious in spring and early

summer. The flat-top clusters may be 8 inches across and cannot really be confused with any other shrub. The tiny individual flowers are 5-lobed with 5 stamens.

In late summer the flowers ripen into a black berry with a whitish dusty coating that makes them appear blue. The berry is about 1/2 inch wide and very showy. They make some people sick when eaten raw but do not seem to bother others. Many birds and mammals utilize the berries. Band-tailed pigeons, house finches, flickers, mockingbirds, rabbits, squirrels and deer are but a few.

The stems of elderberry are filled with a soft pith that can be easily removed. As a boy I learned to make whistles from them. Native Californians knew about its musical qualities long ago. They called it the "tree of music". They made flutes and dance clappers from the branches by using a hot stick to burn out the pith. Even the scientific name implies its musical origin since sambuke in Greek means "a musical instrument made of elder wood."

The elderberry's flower heads can be dipped in batter and fried quickly to make a delicious fritter. To gather the berries, clip the clusters off, take them home and roll the berries off with your fingers. The berries are edible for all when cooked. Elderberry pie is one of my favorites. Berries can be used fresh or dried in the sun and then boiled in sugar for making pies later.



Photo: Brian Gilmore



Beetle photos: Theresa Talley

If you would like to harvest elderberry flowers or berries, take care to protect yourself and the beetle. Some counties spray vegetation along roads, so berries picked from these plants could be poisonous. Elderberries growing along waterways in the Central Valley are potential habitat for the beetle and should be left alone. Find plants in the Bay Area or above 1,000 feet elevation – outside the range of the endangered beetle. Berries can be picked from Central Valley plants growing in gardens away from streams or rivers – but be sure you have the property owner's permission. Remember to leave some for the birds.

What Good Are Bugs and Other Insects?

by Bonnie Ross

It is likely that humans would starve without insect pollinators. Insects have an amazing number of true ecosystem functions, the most obvious of which is plant pollination by bees, beetles, and a host of other insects. Another important ecological function is carried out by aquatic insects. While living in watery habitats, they can become food for a wide variety of fish, amphibians, birds, and mammals. They break down organic debris and recycle nutrients. Surprisingly, they also help humans.

Scientists use aquatic invertebrates as water quality indicators. This activity is called "bioassessment." The Dry Creek Conservancy is one of many volunteer organizations that attracts a host of volunteers to go out monthly and collect aquatic invertebrates. Then the same or other volunteers meet at Sierra College and identify the organisms. In this way, they can monitor the health of Dry Creek. This is an incredibly fun and inexpensive way to monitor water quality. In 2001 the State Water Resources Control Board published the California Streamside Biosurvey. The California Department of Fish and Game and the U.S. Geological Survey also employ aquatic biologists to measure river and creek health.

For anyone who doesn't know how to identify aquatic invertebrates, a quick and easy way to get an idea of how this works is by collecting a small sample of invertebrates with a fine mesh net. If your sample has only a few different kinds of organisms, it is likely that the water quality is poor. If the sample is diverse, it is likely the water quality is excellent. Water quality can suffer from any of the following conditions:



Mayfly adult and nymph Graphics by Tamara Sayre for Cornell University

Urban streams usually possess these negative environmental living conditions. Invertebrates that can live under these poor conditions include leeches, round worms (also called blood worms) and snails. Good quality water can support stoneflies, mayflies and caddisflies. To learn more about this fascinating subject just type in "bioassessment" on the World Wide Web. Maybe you will be lucky enough to discover ways to improve urban stream water quality while learning more about the critters that live in our creeks.



Caddisfly adult and larvae - Some caddisfly larvae build a protective casing from bits of gravel or organic matter. Graphics by Tamara Sayre for Cornell University.

- Toxic inputs such as insecticides and herbicides from home and farm use
- Lack of riparian vegetation to shade the water
- Erosion sites that pour sediments into the stream
- Very slow movement and warm water temperature
- Very little dissolved oxygen for animals to breathe.

Helping to Protect Frogs—As Simple As Taking A Walk!

Frogs and toads are "indicator species" for humans and other living things. Because they have porous skin, they often react first to hazardous environmental conditions. When frog species begin disappearing, it is a good indicator that something is wrong in an ecosystem. Want to help your local amphibians survive, but not too keen on wading in a creek? Now, all you have to do is listen. Frogwatch USA, a program of the National Wildlife Federation, allows anyone to report the locations of frogs from as close as their own backyard. Look up a location on the website or find your own, register online, and start listening for frog calls! When you hear or spot a frog, report the date, time, weather, and number of frogs or calls using Frogwatch's sophisticated website. Your reports help determine where frogs congregate and when, so habitat conditions, populations and weather patterns can be detected and utilized. It's also a great way to get children involved in wildlife awareness. To find out more, sign up as a volunteer, and start Frogwatching, visit the Frogwatch website at www.nwf.org/frogwatchUSA/.

Creeks & Birds *(continued from page 1)*

of California's great Central Valley.

Protecting and enhancing the quality creek habitat in urban, suburban and rural areas can go a long way in helping to protect both migratory and resident birds. Many species of birds get tangled up and die when caught in fishing line, six-pack rings, and other trash. Each spring the Urban Creeks Council of Sacramento hosts a Creek Clean Up Day and Celebration to heighten community awareness and involvement in caring for these smaller wetlands. Volunteers come out to designated sites to help haul out the tons of trash that can foul the water and creekside habitat. People are then part of the solution to preserving bird habitat while cleaning up the environment, a winning plan for both people and animals.

Rising Waters *(continued from page 1)*

Resources staff monitors storms on a 24-hour basis when rainfall is predicted. They notify appropriate personnel of flooding concerns so they can prepare for storm response activities. Even with accurate monitoring, creeks can flood with minimal warning. When high-intensity storms move through Sacramento County, flood-response officials need accurate stream level information quickly. The Department of Water Resources' staff developed an Automated Local Evaluation in Real Time (ALERT) system of 52 gauging stations, that collect rainfall and stream-level data. Residents can visit the ALERT Website to see current stream level data and trends (updated every 15 minutes) at www.saccounty.net (search ALERT).

A Street... *(continued from page 2)*

The Sacramento Area Bicycle Advocates is forming a broad-based Can the Trash! Coalition. The goal is to end the year-round dumping of green waste. Right now, the Coalition urges people to contact the city about its voluntary containerization program. That program provides *weekly* pick up of green waste in large 96 gallon containers and supplements it with nine "loose-in-the-street" pick ups in the leaf and pruning seasons. More information on the Coalition and Sacramento's voluntary program is at:

<http://www.sacbike.org/greenwaste/>

Creek Week 2006 A World of Discovery

Help clean a creek on April 29 and make some discoveries. Perhaps you will discover interesting debris in the creek. Some of last year's finds were interesting. Who knows what lurks in Sacramento creek waters this year, just waiting for you to discover and remove? Last year's 10 most interesting Creek Week trash items:

- Water pump
- Gas tank
- Volkswagen floor pan
- Fence
- Golf bag
- Animal skull
- Electric fan
- Street light
- Blow dart
- Baby stroller

CREEKS OF THE SACRAMENTO REGION – A SLIDE SHOW

Where: Arden Dimmick Library
891 Watt Avenue

When: Tuesday, March 28 at 7:30 p.m.

Who: Sierra Club and Urban Creeks Council

You don't have to get wet and muddy to learn about Sacramento creeks. Come see some pretty pictures and learn about the plants and animals that exist in creek corridors here. We'll even talk about creeks of the past. Learn just what a watershed group is and why these groups are important to the future of our area's creeks. Be inspired by the studies and service work being done by students who understand the value of our urban creeks and want to make a difference. Find out where Creek Week fits in. After the presentation, there will be time for questions.

Do you know of a class or youth group that would like to participate in hands-on creek discovery activities? Check out Sacramento Urban Creek Council's *Dipping Into Creeks* program curriculum and materials. See information on the website at www.sacto-ucc.org



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Creek Week 2006
A World of Discovery

In This Issue
 Rising Waters, p.1
 Creeks & Migratory Birds, p.1
 A Street Is A Terrible Thing to Waste, p.2
 Creek Plant: Blue Elderberry, p.3
 What Good Are Bugs? p.4
 Frog Watch, p.4
 Noteworthy items, p.5

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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
- \$25/Regular membership
- \$40/Family Membership
- \$100
- \$250
- Other _____

- I would like to be a member of the Sacramento Urban Creeks Council.
- I'm already a member; please accept my donation and renewal.

Make check payable to: Sacramento Urban Creeks Council.

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