Conserving Wild Places
by Diana Ruiz

Due to shifts in land use from farmland and open space to urban areas, many programs of the Riverside-Corona Resource Conservation District (RCRCD) now focus on conserving our remaining native habitat lands. The conserved lands help improve water quality and infiltration, stabilize eroding soils, and create corridors which link larger blocks of habitat for wildlife movement and migration. Today, RCRCD works to improve degraded habitats by:

- removing invasive plant and animal species
- propagating and re-establishing native plants and breeding and re-introducing native animals
- removing trash and debris, and more.

After restoration is completed, staff continue to monitor for critical wildlife species, invasion of exotic weeds, water quality, off-road vehicle (ORV) intrusion, noise, and other impacts.

RCRCD also protects important areas from future development by accepting donations of land (fee title) and conservation easements. RCRCD holds 32 separate properties, including 20 conservation easements and 12 donated (fee title) lands. These lands include more than 1,500 acres of riparian, coastal sage scrub, oak-woodland, and chaparral habitat and are home to several federally threatened species of wildlife.
Restoring Habitat and Species
by Shelli Lamb

The Riverside-Corona Resource Conservation District (RCRCD) has been working to restore native habitats to conserve lands and species since the 1990’s. It all started with our efforts to remove Giant reed (Arundo donax) from local waterways in the greater Riverside area, mainly along the Santa Ana River.

RCRCD is NOT a regulatory agency, as are the Army Corps of Engineers, US Fish and Wildlife Service, California Department of Fish and Wildlife and the Santa Ana Regional Water Quality Control Board. However, RCRCD assists developers and stream managers (permittees) when habitat is altered or removed and when mitigation is required by a regulatory agency. RCRCD works with individual landowners, developers, Caltrans, Counties, Cities and other agencies and organizations to help them carry out their mitigation requirements.

A jurisdictional area is “under the jurisdiction” of at least one regulatory agency where conservation laws apply. If you are impacting a jurisdictional area, in this case, a creek bed, stream, or waterway that has flowing water during some part of the year, permits are required for any alteration, even maintenance. Some areas may not seem like they would be considered jurisdictional, but even a dry creek bed may be if it is designated as a “blue-line” stream on a USGS topographic map.

In the early 2000’s, RCRCD began helping “permittees” carry out their mitigation on development sites, as well as offsite on RCRCD properties to help reduce both “temporal” and long term impacts. Temporal impacts are those that happen immediately, right after the habitat is removed. Since habitat takes many years to recover or become established, there is a loss between the removal time and when the habitat is mature enough to provide food and cover for native wildlife. Long-term impacts are those that occur when habitat is removed forever, converted to another land use, and not replaced. This is considered a net loss, and is the main reason why the program was established: to provide for “no-net-loss” of riparian (along a waterway) habitat.

In 2008, RCRCD was the first to apply for and be approved to conduct an “In Lieu Fee Program” (ILFP) in the Los Angeles District of the Army Corps of Engineers. This program brought together federal and state partners to help streamline the permitting process for mitigation that occurs because of a development or maintenance activity.

If you would like more information about our In Lieu Fee and other mitigation programs, please contact Shelli Lamb at (951) 683-7691, ext. 202 or lamb@rcrcd.org.

For more information, please refer to our publication:

Historical records show that as early as 1969, RCRCD was working on preserving open space: District Conservationist Earl Shade (Soil Conservation Service) worked on an Arroyo Development Study with the Riverside 2000 Committee of the Chamber of Commerce.

From 2003-2011, RCRCD assisted a joint Riverside County/City Arroyo-Watershed Committee (CCAC) that worked to protect local waterways, adjoining wildlife habitat, and water quality. The committee, comprised of city and county volunteers and staff, sought to improve coordination between the City and County, reviewed development standards, and worked to educate the community about the value and care of waterways (streams, creeks, washes, arroyos and the Santa Ana River). CCAC became a standing committee of the City of Riverside and Riverside County in 2004 and developed the publication Conserving Waterways in 2012: http://rcrcd.com/uploads/files/ConservingWaterways.pdf
Native Plant Restoration Tools
Resources for Planting the Right Place at the Right Time
by Dr. Arlee Montalvo

Deciding which native plants to use in the restoration of southern California shrublands is a nuanced task, further complicated by rapid climate change. Our native plants are suffering from warmer summers and winters, prolonged drought, and unusual rainfall patterns. RCRCD Senior Plant Restoration Ecologist, Dr. Arlee Montalvo, and Postdoctoral Intern, Dr. Erin Riordan, have been working with Dr. Jan Beyers of the US Department of Agriculture, Forest Service, Pacific Southwest Research Station to provide restoration planners and land managers with information to help them identify which plants and source populations would be most valuable to use depending on the location of a restoration site. Two tools are being provided by this project:

- species distribution models (SDM) under contemporary (baseline) versus projected future climates, and
- species profiles that contain detailed information about ecology, reproduction, seed biology, plant-animal interactions, horticulture, and uses of the plants.

The species distributions models provide maps of the location of suitable habitat across the landscape for 44 different plant taxa. The models use statistical methods that relate the physical environment to plant occurrences drawn from museum and survey data under contemporary climate conditions. They also incorporate future climate projections to map how suitable habitat may change by mid-century. A manuscript on the species distribution modeling with maps for all 44 taxa is in press and will be available for download very soon (Erin C. Riordan, Arlee M. Montalvo, and Jan L. Beyers. 2018. Using Species Distribution Models with Climate Change Scenarios to Aid Ecological Restoration Decision-making for Southern California Shrublands. PSW-RP-270).

To learn about our local native plants, take a look at the species profiles that have been posted on our website: http://rcrcd.org/#Plant_Materials.

Sign Search and Selfies Competition!

Learn about your watershed and win a $200 Amazon gift card. Locate a minimum of six different signs to compete. Capture photos of yourself visibly (“selfie”) in front of 63 educational signs that have been installed throughout the Santa Ana River Watershed.

Submit your photos to the Santa Ana Watershed Project Authority (SAWPA) by September 2, 2018.

See rules, an interactive map, and submission form at www.sawpa.org/signsearch.

Hint: You can find two signs at RCRCD facilities:

- **LandUse Learning Center** (Open soon 7 days a week. 4500 Glenwood Dr., Riverside, CA 92501. Contact (951) 683-7691, ext. 207 or snyder@rcrcd.org)
- **Sycamore Creek Interpretive Center** (Open Thursdays, Fridays, and Saturdays 9 AM - 3 PM and by appointment. 11875 Indian Truck Trail, Temescal Valley, CA 92883. Contact: (951) 277-0219 or SCIC@rcrcd.org). Both are closed holidays.
RCRCD staff enjoys partnering with the local Riverside-San Bernardino Chapter of the California Native Plant Society (CNPS). We host a variety of CNPS activities at our facilities and co-sponsor workshops and the annual native plant sale.

Some of the interesting offerings this partnership has provided include:

- A habitat restoration project in the Tequesquite Arroyo at Bonaminio Park, led by Dr. Arlee Montalvo. CNPS volunteers planted native plants into a bioswale that drains into the newly restored alkali meadow at the park. The plants were raised from local genetic stock at the RCRCD nursery.

- Dr. Gordon Pratt gave an amazing talk about native plants and how they interact with butterflies: *Making Butterfly Habitat Using Native Plants and Other Things*. He described what native plants would be great to use in a network of urban gardens to help conserve our broad diversity of butterflies. After the lecture, the participants planted a butterfly garden at the facility.

- *Tree Armageddon! Can We Save Our Trees?* a mini-symposium was conducted by Drs. Richard Stouthamer, Akif Eskalen, Tom Scott, and David Morgan May 27, 2017. Guests learned about the invasive insects and diseases that are killing native and other trees in urban and wildland habitats of southern California, and about what our local research teams are doing to slow and limit the spread of the insects and diseases.

- Willie Pink, Tribal Elder and Cultural Advisor presented *Native Californian Uses of Native California Plants*. Willie spoke about how to manage wild populations of important food and fiber plants sustainably. Guests learned how to make string from the bark of native plants and sampled a variety of foods that Willie made from acorns, cactus fruits, chia seeds and more.

- Fred Roberts spoke about *Oaks of Southern California*.

- *Ditch Your Lawn!* Kerwin Russell and Arlee Montalvo provided guidelines for redesigning water-wasting landscapes into beautiful, low water-use gardens. They also covered how to use the online Calscape tool to guide plant selection: http://calscape.org/

- Barbara Eisenstein presented *Wild Suburbia: Learning to Garden with Native Plants*.

Look for the annual CNPS Native Plant Sale next November with experts to answer gardening questions and tours of the Land-Use Learning Center.

Learn more about CNPS at https://riverside-sanbernardino.cnps.org/

and on Facebook at https://www.facebook.com/CaliforniaNativePlantSocietyRiverside-SanBernardino

Willie Pink demonstrated how to make baskets and string from native plants.
Thank You Weed Warriors!
by Dr. Arlee Montalvo

On a clear, cool, and sunny morning in March, thirteen volunteers convened for our second annual Weed Warrior Day at Sycamore Canyon Wilderness Park in Riverside, and they were amazing! The Mays family came all the way from Lake Elsinore to join us. Together, our group removed many hundreds of non-native mustards from the hillside. Last year, we removed the Mediterranean rocket, *Sisymbrium erysimoides*, and huge amounts of Sahara mustard, *Brassica tournefortii*. We could see that effort paid off; these species were now only scattered around the hillside. This year we worked on removing the stubborn short-pod mustard, *Hirshfeldia incana*. Fueled by donuts and energized by our war cry “one hill at a time”, the warriors managed to clean the hillside! Our hope is to set the stage for regeneration of coastal sage scrub plants on the hill. Already, we observed many seedlings of brittlebush, *Encelia farinosa*, and scattered native annuals.

This Weed Warrior Project was a collaboration between the Riverside City Parks, Recreation, and Community Services Department; California Native Plant Society; Santa Ana River and Orange County Weed Management Area; and RCRCD. If you would like to learn how to lead a weed warrior event, don’t hesitate to contact Dr. Arlee Montalvo at Montalvo@rcrcd.org or (951) 683-7691, ext. 218.

You Can Help Wildlife

- Be especially watchful for nests between February and August, and keep away from them.
- Use climate-appropriate and wildlife-friendly trees and plants.
- Some leaf litter and dead wood is wildlife-friendly.
- Keep trees watered during drought.
- Avoid using chemicals that may harm wildlife, reduce beneficial insects, and poison prey.

To learn more, see: http://treecareforbirds.com and www.cavityconservation.com

Find a licensed arborist in your region: https://www.treesaregood.org/findanarborist

Did you know that birds nest in all these locations?

How to Spot a Red-tailed Hawk
by Michele Felix-Derbarmdiker

Have you ever spotted a large, brown bird with a reddish tail while out on a drive or walk? It is quite possible that you spotted a red-tailed hawk (*Buteo jamaicensis*), one of the most widespread and common species of hawk in North America. Once you have some key bits of knowledge, you will be able to spot these beauties all over Southern California.

**Habitat/Feeding**

The red-tailed hawk can be found in a variety of habitats that provide high points for perching and open spaces for hunting. The hawk will survey terrain or soar in high circular motions in search of prey. When it spots potential prey, the bird will have a smooth, slow, skillful dive with outstretched talons. This hawk can eat a variety of prey, helping it be versatile and survive a variety of habitats, including human habitats. What can you find on the menu, you ask? Squirrels, rabbits, voles, rats, lizards, frogs, birds, insects, bats and carrion are part of the red-tail’s diet. *Bon appetit!*  

**Breeding**

In late winter or early spring, you may be lucky enough to spot a red-tail pair preforming their courtship display. Red-tailed hawks are monogamous and can mate for life. Their display involves an impressive ceremony of aerial acrobatics and plunging dives to Earth. If love is in the air, the pair may lock talons and descend in a beautifully choreographed tumble towards Earth, letting go of each other at the last moment. The pair will construct or repair an old nest with large sticks and greenery. The female may lay 1-5 white, splotchy-brown eggs. Once the chicks arrive, both parents participate in rearing. The chicks are fully grown and fledge the nest after approximately 50 days.

Thank you to professional photographer DeeDee Gollwitzer for the use of her hawk photos.
**Identification**

The red-tailed hawk is a stocky, large member of the genus *Buteo*. It has an average wing span of 49-inches and weight of 2.4 lb. Members of *Buteo* are known for broad wings and short wide tails. The red-tailed hawk is most often confused with the red-shouldered hawk. There are several indicators that can help with a correct identification when identifying a perched red-tail, look for:

- brown colors on the head and back
- light red-rust colors on the breast
- a brown colored belly band
- a spotted white to cream colored V shape on the back
- a glimpse of rust-red tail feathers.

While identifying a soaring or flying red-tail, look for:

- rounded wings
- dark brown marks on the leading edge of the wings
- a dark colored head
- red-rust color of tail and a pale breast

Just to complicate things a bit, there are several subspecies of red-tailed hawks that have geographic variations in color.

**Threats**

Red-tailed hawks are not listed as a threatened or endangered species and have a stable population. However, they still face threats which are mainly linked to humans. We humans like to build on open, flat land which the hawks prefer for hunting. Hawks also face threats from automobile and power line collisions, shootings, and poisoning from eating poisoned rodents.

Come by the Sycamore Creek Interpretive Center (SCIC) and you may see the red-tailed hawk pair that call our property home. They were observed courting, and we hope they will nest nearby. They can be seen soaring over the center, calling, or perched on the tops of our sycamores.

For information about SCIC, contact us at (951) 277-0219, at RCRCD’s main office: (951) 683-7691, Ext 223, or see http://www.rcrcd.org/#Sycamore_Creek_Interpretive_Center
The Riverside-Corona Resource Conservation District (RCRCD) is in the process of developing a native fish aquatic facility in the greenbelt area of Riverside. The facility will allow for additional study and propagation of southern California native fish to assist in their recovery and conservation. The 10-acre greenbelt parcel is a gently sloping site that will accommodate “raceways” that will be used to breed fish for restoring populations in tributaries of the Santa Ana River. Of the six native fish species that remain in southern California, five occur in the Inland Empire.

Staff will be working with the five inland species:

• The Santa Ana Sucker is listed as a threatened species.
• The Coastal Rainbow Trout, sometimes called steelhead for the fish that make it back and forth from the ocean, is declining in numbers and is listed as threatened or endangered, depending on the location of the population.
• The Three-spine Stickleback is listed as endangered.
• Santa Ana Speckled Dace
• Arroyo Chub.

The sixth species, the Desert Pupfish, survives in a few small ponds near the Palm Springs area and San Felipe Creek in Imperial County.

The aquatic facility will include 300-foot long streams that mimic natural waterways to facilitate spawning. The streams will provide for both broodstock adults for the propagation of young and young fish for relocation and translocation sites. The tributaries that are selected to be stocked will be determined based on hydrologic and habitat assessments.

RCRCD is the only agency in southern California that holds and breeds native fish for conservation projects to establish wild populations and to rescue fish after fires and other catastrophic events. A native fish stream and fish runs have been used for research and propagation at our Resource Conservation Center main campus for over 15 years. The facilities are permitted by the California Department of Fish and Wildlife [1600 permit] and the US Fish and Wildlife Service [10(a)(1)(a) permit].

For more information about Southern California native fish, see Protecting Our Native Fish at http://rcrcd.org/uploads/files/ProtectingOurNativeFish.pdf
2018 California Envirothon
by Erin Snyder

Three teams from Riverside competed in the California Envirothon on Saturday, April 7, 2018: two teams from Arlington and one first-time team from North High School. The Envirothon is an outdoor natural resource education program for high school students, grades 9-12. In the field, students are challenged to work as a team to answer written questions and conduct hands-on projects focusing on environmental issues. Students from all over California join together to explore the environment in five disciplines: Forestry, Wildlife, Aquatics, Soils and a current environmental issue. This year the topic was “Western Range Management: Balancing Diverse Views.” Oral presentations were given based on written scenarios which challenged the teams’ skills at problem solving, teamwork, and critical thinking. See the full scenario prompt at http://caenvirothon.com/wp-content/uploads/2018/03/2018ScenarioPrompt.pdf.

The competition day dawned with high moving clouds and cool breezes at the Wind Wolves Preserve, west of Bakersfield. Soon eleven teams from California high schools were registered, in yellow t-shirts, and rotating from station to station. Rain held off until just before lunch, but spirits were not dampened.

The winning team was from Granada Hills Charter High School that will represent California at the National Conservation Foundation Envirothon, July 22-28, in Pocatello, Idaho.

Congratulations to Arlington High School’s “Mountain Lions” team for placing third in the competition. The team includes Marshall Jones, Elizabeth Accomando, Ben Noriega, Michelle Hiller, and Ademola Alagbada under the direction of teacher and advisor Sheri Harris.

Arlington’s “American Lions” team included Eric Gutierrez, Christopher Ding, Marisol Montoya-Aguilar, Gabriela Ramirez and Karmenita Cox.

North High School’s “Huskies” were represented by Sandy Gonzalez, Avery Hansberger, Caleb Lane, Kaitlyn Sanchez, and Alfredo Azola with teacher advisor, Lillian McCandless.

Congratulations to all participants, teachers and assistants for a job well done.

Many thanks to the resource professionals that helped the students prepare for the competition:

- Peter Fahnestock, Natural Resources Conservation Service Soil Scientist
- David Weise, Bonnie Corcoron, and Gloria Burke of the US Forest Service
- Bob Packard and Karen Riesz, biologists for the Western Riverside County Multi-Species Habitat Conservation Plan
- Brett Mills, San Jacinto Basin Resource Conservation District
- Erin Snyder, Resource Educator at RCRCD.
Castleview Neighborhood Heroes
by Diana Ruiz

I take my hat off to CAP: the Castleview Arroyo Project is a group that formed with the purpose of protecting and utilizing a neighborhood treasure: the waterway at their local park. Using Nextdoor.com, a few Castleview Park neighbors invited the nearby community to a meeting. At their initial gathering, 20 people helped structure their group with four subcommittees and the mission to provide ongoing stewardship of the recreational and natural resources of Castleview Park. Engaged neighbors developed short term goals to clean-up the arroyo and use it for natural resource education. Long term goals include preserving the natural features of the undeveloped portion of the park and improving access to those areas, including the waterway.

Siren Orinion and Daisy Valdorino applied for and received a Small Sparks grant through the City’s Neighborhood Engagement Division to host their first event: a creek clean-up. Other concerned neighborhood leaders emerged and helped plan subcommittee and park planning meetings, including Jennifer Becker and Jamie Micallef. RCRCD provided copies of Living on the Edge of the Urban-Wildlands Interface: http://rcrcd.com/uploads/files/LivingOnTheEdge.pdf

On November 4, 2017, 40 volunteers donated 270 hours toward the clean-up effort. While the adults worked in the arroyo, Daisy (Ollin Healing Arts) and Nicole Geiger engaged the children in educational activities about the importance of protecting natural resources. Larry Deckel and Chuck Tobin also helped organize the event while Alisa Srmala of the City’s Parks, Recreation and Community Services Department guided the clean-up efforts.

Chuck Tobin, in speaking to Riverside’s City Council on April 24, said “What was interesting about this project was how spontaneous it was…. and the response of the neighborhood…. These people weren’t directed, they just came together.”

Timing is everything, so to avoid impacting birds during nesting season, CAP planned its second event as a low-impact bird walk, along, but not inside the arroyo. UC Riverside’s Dr. Norn Ellstrand led the group and introduced us to local species, bird calls, and including a bird ID app: Merlin from the Cornell Lab of Ornithology (https://www.allaboutbirds.org/guide/merlin/id). RCRCD’s Erin Snyder and Kirstyn Kay provided a birdhouse craft for kids.

That fun morning we saw 20 different kinds of birds that Dr. E added into the online eBird list, including a variety of hummingbirds, wrens, warblers, towhees, and finches. For the complete list, use this link to accept the Castleview checklist into your eBird account: https://ebird.org/shared?subID=UzQ1MDI4NjI4&s=t.

Thanks to all who have helped protect the Castleview Arroyo and who have created an active neighborhood organization. Find out more on Facebook at Castleview Arroyo Project (CAP) or https://www.facebook.com/groups/137090570232978/
Cal Naturalist Training
by Erika Presley

The Riverside-Corona Resource Conservation District (RCRCD) is pleased to be offering the California Naturalist certification course for the inland Southern California region. The training will begin on June 6, 2018 and will run for eight weeks. The course will tell the story of the Santa Ana Watershed beginning at the mountainous headwaters in the San Bernardino National Forest and ending at the mouth of the Pacific Ocean. Instructors Erika Presley and Erin Snyder will introduce participants to the natural history and local ecology of this beautiful and diverse landscape, including current issues, such as sustainability and climate change.

Guest presenters and topics include:

- Peter Fahnestock, a soil scientist of the USDA Natural Resource Conservation Service will provide an overview of California geology and soils;
- Dr. Chris McDonald, Inland and Desert Natural Resources Advisor with UC Cooperative Extension will teach about the diverse plant communities of California, as well as provide an introduction to botany and field identification;
- Dr. Arlee Montalvo, RCRCD’s Senior Plant Restoration Ecologist will give an overview of the extreme natural diversity found in California;
- Bonni Corcoran, Biological Sciences Technician with the US Forest Service-Pacific Southwest Research Station will introduce the class to forest, woodland and range management practices; and
- Brian Schomo, the Natural Resources Manager for the Riverside County Habitat Conservation Agency will be talking about endangered species and local wildlife.

Participants will be engaged in a comprehensive environmental science curriculum with lectures, field trips, and hands-on learning activities, while being immersed in the diversity of the Santa Ana Watershed. Students who complete this course will become part of an active and vibrant base of California volunteer naturalists and citizen scientists that promote the ongoing appreciation and stewardship of California and its natural resources.

For more information about this course, please contact Erika Presley at Presley@RCRCD.org or (951) 683-7691 ext. 223. Find the registration form on our website at http://rcrcd.org/#California_Naturalist_Program

Castleview Arroyo Restoration
by Diana Ruiz

The Riverside-Corona Resource Conservation District conducted a project for the City of Riverside this past year at Castleview Arroyo. The purpose of the project was to:

- improve the quality of habitat for native birds, reptiles and amphibians
- restore the natural functions of the creek, and
- improve water quality.

Before any work was begun, a nesting bird survey was conducted. When it was determined that there were no nesting birds (last August), non-native trees, including fig, Brazilian and Peruvian (aka: California) pepper trees, Shamel ash, and 70 Mexican fan palms that were 15 feet or taller, were cut and removed. RCRCD then replanted 40 native trees, including sycamores, cottonwood, black willow, and walnut.

The project and subsequent three-year monitoring will help mitigate for impacts from a Sycamore Canyon Business Park development.
UPCOMING EVENTS

LandUse Learning Center

Open 7 days a week starting June 9. Weekends 9 am - 4 pm. Closed holidays and June 16, 30 & July 14

California Naturalist Training (See article page 11)

Wednesdays: June 6 - July 25, 6-9 pm at RCRCD, Building F. No class July 4. Three field trips on Saturdays - June 16, June 30 and July 14, 9:00 am - 5:00 pm. Capstone presentations and graduation Saturday July 28, 9 - 12 pm.

UC Master Gardener Program Information Sessions

Learn about the Master Gardener training program starting Sept. 2018. Information meetings Thursday, June 7 or June 21, 10 - 11:30 am. Western Municipal Water District Classroom, 14205 Meridian Pkwy, Riverside. Rosa Olaiz: 951-683-6491 x230 or rmolaiz@ucanr.edu

Sycamore Summers for Grades 1-6

Fridays at 10:00 am (see dates below)

Sycamore Creek Interpretive Center

11875 Indian Truck Trail, Temescal Valley

For more information and to RSVP: (951) 227-0219 or SCIC@RCRCD.org

June 29  Maps and Compasses  July 27  Desert Animals
July 13  Amazing Native Plants  Aug 10  California Raptors

Docent Training

For the LandUse Learning Center: Saturday, September 1. Please contact Erin Snyder if you are interested in helping at the garden. Snyder@rcrcd.org or (951) 683-7691.

Sign Search and Selfies Competition (See article page 3)

Submit your selfies with Santa Ana River Watershed signs for a chance to win a $200 Amazon gift card. Deadline to submit your entry is September 2, 2018. Rules, interactive map, and submission form at www.sawpa.org/signsearch.

If you would like to receive future issues of this newsletter electronically, please send your request to snyder@rcrcd.org.

Printed on recycled paper. You can help prevent waste by recycling this publication or passing it on to a friend.