

## 8,600-acres of Cascade foothill woodlands conserved

by John W. Hunt,

Executive Director,

Northern California Regional Land Trust

Over 8,600 acres of California's iconic Cascade foothill woodlands have been permanently conserved through cooperation and commitment of local landowners, ranchers, hunters, non-profit and private-sector partners, county officials, and state and federal agency personnel. Northern California Regional Land Trust (The Land Trust), a 501(c)(3) nonprofit organization, orchestrated this effort.

Initial funding, provided by California Wildlife Foundation, catalyzed substantial support from a diverse spectrum of partners, including: California Department of Conservation and Strategic Growth Councils' Sustainable Agricultural Lands Conservation Program (this funding program is part of California Climate Investments, which uses proceeds from the state's cap-and-trade auctions to reduce greenhouse gas emissions while providing a variety of additional benefits to California communities), California Wildlife Conservation Board, the Arthur L. and Elaine V. Johnson Foundation, the Joseph



Paul Kirk

Intermittent stream, flowing through oak woodland on Garner Ranch.

and Vera Long Foundation, Sierra Nevada Brewery, Sierra Nevada Conservancy, and United States Department of Agriculture (USDA) Natural Resource Conservation Service's Agricultural Conservation Easement Program (ACEP).

John Sewell, manager of the Rose Ranch in Tehama County, visited The Land Trust in 2012 to discuss practical avenues for permanently conserving the ranch and properties of interested neighboring landowners. Mr. Sewell's expressed conservation goals were tempered by the very real and practical needs of the landowners and their existing cattle operations. Upon initial review of the approximately 5,500-acre Rose Ranch and neighboring ranches within the surrounding Pine Creek watershed, The Land Trust staff recognized the extraordinary value of conserving these lands.

The area supports an enormous diversity of wildlife and botanical resources, and compelling scenic and open-space characteristics. Additionally, these ranchlands are punctuated by springs, seeps, and small streams, which enhance the properties' structural diversity and provide excellent dispersion of water resources for cattle and wildlife. The combination of these characteristics and proximity to other protected lands to the north and east serve vital needs of wide-ranging wildlife species, including: golden eagle, prairie falcon, black bear, and mountain lion. These lands also provide critical winter range and migration corridors for the East Tehama Deer Herd, California's largest migratory deer herd.

By 2013, the neighboring Garner Ranch (Tehama and Butte counties) had come forward to express interest in conservation

— continued on back page

### Inside

#### Pages 2–5

##### California Oaks Coalition Actions

Clover Valley, El Dorado County, Monterey Downs, Napa County, Richmond Hills, Sacramento, and San Luis Obispo County

#### Pages 6–7

##### California Wildlife Foundation

##### Partner Reports

Carrizo Plain, Climate Kids, and Earth Discovery Institute



# Saved the Richmond Hills



Friends of the Richmond Hills

## Coalition Actions Victories and Deliberations

California Oaks Coalition is a statewide network organized to address issues in counties where oaks play a critical wildlife habitat role and are essential in sustaining healthy watersheds.

The groups listed below are partnering with California Oaks to conserve oak-forested lands for future generations.

Battle Creek Alliance/Defiance Canyon  
Raptor Center  
California Invasive Plant Council  
California Native Plant Society  
Californians for Western Wilderness  
Carpe Diem West  
Clover Valley Foundation  
Elder Creek Oak Woodland Preserve  
Endangered Habitats League  
Environmental Defense Center  
Environmental Protection  
Information Center (EPIC)  
Environmental Water Caucus  
Forests Forever  
Friends of the Richmond Hills  
Friends of Spenceville  
Hills for Everyone  
Los Padres Forest Watch  
Napa County Water, Forest and Oak  
Woodland Protection Committee  
Northern California Regional  
Land Trust  
Planning and Conservation League  
Sacramento Tree Foundation  
Santa Clarita Organization for  
Planning and the Environment  
(SCOPE)  
Sierra Club Placer County  
Tejon Ranch Conservancy

### The four areas of support being developed are:

- 1) research and advocacy updates (available at [www.californiaoaks.org](http://www.californiaoaks.org));
- 2) information to be disseminated via the media to educate and engage the public;
- 3) tools for engaging in planning processes and educating opinion leaders; and
- 4) materials to inform local, regional, and state governmental agencies of opportunities for and benefits of protecting oak woodlands.

## Protections enacted through Richmond Hills Initiative

California Oaks Coalition is happy to report that the Richmond City Council voted on January 24, 2017 to protect 430 acres of oak forests and savannas, streambeds, wetlands and vernal pools adjacent to Wildcat Canyon Regional Park in Contra Costa County. The City Council's action followed the submission and qualification of enough signatures to qualify the Richmond Hills Initiative for the 2018 ballot.

As reported in the Fall/Winter 2016 newsletter, California Oaks teamed up with Oaks Coalition members Friends of the Richmond Hills and Forests Forever to support the Richmond Hills Initiative. Forests Forever collected over one-third of the signatures for the measure, which amends the Richmond General Plan in the hills above El Sobrante Valley by enacting large-lot rural zoning that can only be changed by the voters of Richmond; limiting development on hilltops, ridgelines, and steep slopes to prevent landslides and

preserve scenic views; protecting wetlands, streams, and wildlife habitat for rare and endangered species; and designating the area for agriculture, outdoor recreation, and similar compatible uses.

Friends of the Richmond Hills demonstrated strong citizen support for the measure, rallying over 40 proponents to attend the January 17th City Council meeting when the measure was certified for the 2018 election ballot and the January 24th meeting when the City Council deliberated on the measure. The City Council voted on three possible courses of action after the measure was certified: they could have authorized a study of the impact of the initiative, placed the initiative before the voters, or immediately adopted the provisions of the initiative. The Council chose unanimously to adopt the measure—capping a nearly two-year effort to design, write, and collect petition signatures for the ordinance, which went into effect immediately.

## El Dorado County must protect its oak resources

El Dorado's Planning Commission is holding a public hearing April 27, 2017 to receive public comment and prepare recommendations to the Board of Supervisors on the Final Environmental Impact Report (FEIR) and approval of the General Plan Biological Resources Policy Update, Oak Resources Management Plan, and Oak Resources Conservation Ordinance. Over 55% of the county's oak woodland acreage growing below 4,000 feet is at risk. California Oaks is joining with Center for Sierra Nevada Conservation, Sierra Forest Legacy, and the El Dorado Chapter of California Native Plant Society to oppose the FEIR. We will be reporting on developments through our electronic newsletter.



Tripp Willich © 2016

### El Dorado County oaks

Visit [www.californiaoaks.org](http://www.californiaoaks.org) to subscribe and <http://bit.ly/2mtsk1N> to view the FEIR documentation.



## Clover Valley Foundation: 18 years of perseverance

California Oaks Coalition member Clover Valley Foundation (CVF) has worked for 18-years to preserve 622 acres of open space and wildlife habitat in Rocklin, CA. The parcel contains 33 Native American sites, over 28,000 oaks (valley oak, interior live oak and blue oak) wetlands, and Clover Valley Creek.

CVF's vision is to protect and restore the site's historical and cultural features, habitat, and ecological function. This could include creek restoration to bring back migrating fish, including Central Valley Steelhead Trout, which are listed under the federal Endangered Species Act as threatened. Ultimately, CVF wishes to create a preserve with non-invasive trails and interpretive stations, a museum, and a wildlife refuge.

CVF is fighting a proposed subdivision of 558 homes (down from 941), which includes a proposed parkway, surface roads, and a commercial strip mall. Visit [www.clover-valleyfoundation.org](http://www.clover-valleyfoundation.org) to lend your support!

### Clover Valley's oak woodlands in region under the greatest threat

Nearly one-quarter of California's oak woodlands grow in the Sacramento region, with oaks covering approximately 20 percent of the landscape. This region is more at risk of development than any other, with one-sixth of its oak woodlands and oak-forested lands considered to be vulnerable.

The region contains over one-third of the state's blue and valley oak woodland. Interior live oak woodland contains blue oak, valley oak, black oak, gray pine, and ponderosa pine. Canyon live oak and black oak woodlands include Douglas-fir, ponderosa pine, and incense cedar.

Black oak and canyon live oak dominate the region's oak forests.

Gaman, T. and Firman, J., *Oaks 2040*  
— *The Status and Future of Oaks in California*.  
California Oak Foundation, 2006.



Jeffrey Firman measures hillside oaks in San Luis Obispo County on a sampling plot, part of the Atascadero native tree inventory.

## San Luis Obispo County enacts oak woodland protections

San Luis Obispo County's Board of Supervisors unanimously approved a permanent oak protection ordinance in April, following the unanimous adoption of the ordinance by the Planning Commission in February. Janet Cobb, Executive Officer of California Wildlife Foundation/California Oaks, testified at the Board's April hearing along with many community members. One local activist, Holly Sletteland, who serves on the Board of Directors of California Native Plant Society's San Luis Obispo County Chapter, submitted a petition with over 1,100 signatures in favor of the ordinance.

Protections were enacted after almost one-year of work by the county's Planning and Building Department and oak activists, building on efforts that began over 20-years ago to protect the county's iconic oaks. Strong reporting on the issue by local media kept the issue in the public eye after an outcry in response to photographs taken by a neighboring agriculturalist that juxtaposed the wooded landscape with an image that showed the devastation after a clear-cut of oak trees at Justin Vineyards.

The ordinance provides protections for the county's pastoral landscape from outside corporate interests—Justin Vineyards is owned by the Wonderful

Company. An urgency native tree protection ordinance took effect in July 2016, shortly after the clear-cut, and governed activities on unincorporated lands outside of the county's coastal zone, which has its own protections. Originally in place for 45-days, it was twice extended, and continues until the permanent measure goes into effect in May.

The permanent ordinance, which is considered a compromise, limits clear-cutting and removal of blue oak (*Quercus douglasii*), coast live oak (*Quercus agrifolia*), interior live oak (*Quercus wislizeni*), valley oak (*Quercus lobata*), and black oak (*Quercus kelloggii*) on parcels of land of one acre or greater. Click on: <http://bit.ly/2p98CpG> to read the ordinance.

A second permanent ordinance, approved in March, strengthens the approval process for the construction of agricultural water storage ponds and reservoirs. This ordinance was enacted after Justin's neighboring well owners raised concerns about potential impacts to their water supplies by the construction of a large reservoir in the area that was clear-cut.

Planning staff will conduct public outreach about the ordinances. These measures, together with the Open Space Element of the General Plan and voluntary Oak Woodland Management Plan, are giving the county tools for valuing and protecting its natural heritage.

## Proposed Monterey Downs development stopped by community action

Monterey Downs, a proposed 771-acre, equestrian-themed development, which threatened 41,000 oak trees—including approximately 315 acres of coast live oak woodland—was defeated in late 2016. Announced in 2010, the proposed development, actively opposed by California Oaks, through the provision of information and letters opposed to the project, would have annexed into the Monterey City of Seaside and included portions of the former Fort Ord Military Base. This ill-conceived project ended when Seaside's City Council rescinded all project approvals and the Environmental Impact Report (EIR) in a 5-0 vote in December 2016. This followed Monterey Downs LLC's letter to City of Seaside on November 30, 2016 terminating all negotiations and actions related to the project.

### A multi-tiered approach brought victory

These actions followed Seaside City Council's approval of the development, in a 3-2 vote, in November 2016. LandWatch Monterey County and other opponents responded by gearing up for a referendum to overturn the approvals and by filing a lawsuit with Keep Fort Ord Wild over the EIR. In addition to the threat the project posed to oak woodlands, plaintiffs challenged the inadequate water supply for the development, the lack of analysis of project phases and special events, traffic impacts, and greenhouse gas impacts from oak tree destruction and from methane generated by horse manure.

When asked about lessons learned that may be helpful for other oak protection efforts, Michael DeLapa, Executive Director of LandWatch Monterey County credited the multi-tiered approach—a lawsuit, citizen organizing, threat of a referendum, relentless work keeping local media focused on the issue—in overturning the project. He also noted that LandWatch Monterey County is continuing its vigilance and its call for wise urban planning. LandWatch's website ([landwatch.org](http://landwatch.org)) provides additional detail on this effort as well as other issues and actions.

## Voters locked out of Napa Water, Forest, and Oak Woodland Protection Initiative

A Napa County initiative to enhance water, forest, and oak woodland protections was dealt a blow by a Court of Appeals (First Appellate District, Division Three) decision issued on March 1, 2017, which affirmed actions that have kept the initiative off the ballot. The decision followed a February 22nd hearing that challenged a decision by the Napa Registrar of Voters, upheld by Napa County Superior Court, to keep the measure from appearing on the ballot. Proponents, represented by Shute, Mihaly & Weinberger LLP, are planning to file an appeal with the California Supreme Court in April.

The Napa Registrar of Voters initially verified that the Water, Forest, and Oak Woodland Protection Initiative had enough valid signatures to qualify for the November 2016 ballot. But, three days later, at the insistence of County Counsel, the Registrar refused to place the measure on the ballot. (Further background can be found in the Fall/Winter 2016 California Oaks newsletter, available at [www.californiaoaks.org](http://www.californiaoaks.org).)

Appellants filed two *amicus curiae* briefs in late 2016. One, prepared by Remcho, Johansen & Purcell, LLP, represented *Amici*: California Wildlife Foundation; **California Native Plant Society**; Corporate Ethics International; **Environmental Defense Center**; **Forests**

**Forever**; Forest Unlimited; Friends of Harbors, Beaches, and Parks; Greenbelt Alliance; **Planning and Conservation League**; and Save The Bay. It focused on why the initiative complies with the full text rule and why upholding the trial court's reasoning would distort the full text rule in ways that would gravely affect the initiative process in California. (California Oak Coalition members are denoted in boldface text.)

The second brief was prepared by Professor Eric Biber, University of California, School of Law, representing *Amici*: **California Native Plant Society**, Center for Biological Diversity, **Environmental Protection Information Center (EPIC)**, and Sierra Nevada Alliance. It covered the ecological importance of oaks for soil, water, and wildlife; threats to oaks; the inadequacy of current legal protections for oak woodlands; and the importance of flexibility in developing best management practices. Amicus briefs were also filed in support of the respondents.



Photograph taken at top of Soda Canyon road, where Napa County oak woodlands are being removed for conversion to vineyards.

## Oaks and Watersheds

Oaks play a vital role in sustaining agricultural and natural landscapes. Oak woodlands produce abundant leaf litter that enriches soil and improves its water-retention capacity. Oak root systems and above-ground woody material—snags, stumps, and downed branches—further stabilize soil, preventing erosion, replenishing groundwater, and maintaining cool creek and stream temperatures vital to aquatic organisms.

Oaks play a central role in other ecological processes as well. The authors

*We took care of the agricultural preserve, and now we need to take care of the agricultural watershed.*

— The late Volker Eisele, quoted by Mike Hackett of Napa County Water, Forest and Oak Protection Committee

of the Oak Woodlands chapter (Davis, Frank et al.) in *Ecosystems of California* describe oaks as a foundation species, using Ellison et al.'s definition of such a species as "...one that 'controls population and community dynamics and modulates ecosystem processes,' whose loss 'acutely and chronically impacts fluxes of energy and nutrients, hydrology, food webs, and biodiversity.'"



# Oaks in the urban landscape: the Sacramento perspective

by Zarah Wyly, Restoration Ecologist, Sacramento Tree Foundation

Here in the City of Trees oaks linger from pre-development native woodlands and provide substantial benefits to people and wildlife. It is common to find stately valley oak (*Quercus lobata*), blue oak (*Quercus douglasii*), and interior live oak (*Quercus wislizeni*) trees preserved in big backyards, parks, and schoolyards. These native oaks thrive in our local urban environment while providing habitat for wildlife, much needed shade, and air and water quality benefits. They are also beautiful, drought tolerant and easy-to-grow. But should we plant oaks in our yards? Are they appropriate as urban street trees?

In Sacramento we believe the answer is yes. Given an appropriately sized planting location, native oaks are fantastic urban canopy trees. Most native oaks are categorized as large trees and must be planted 8 feet from sidewalks and driveways, 15 feet from building foundations, and 30 feet from overhead utilities. Below are reasons why we love oaks, and critical considerations for planting and care:

**Drought tolerance.** Investing in drought tolerant trees maximizes urban forest benefits while using water responsibly. This being said, today's average landscape needs an overhaul to properly accommodate a native oak or any drought tolerant tree. Oaks and lawns are almost always incompatible. Native oaks thrive in a system with infrequent, deep summer irrigation while lawns need regular, abundant, shallow irrigation. The best solution is to give up some grass for a mulched area or perennial bed for the tree, and to water appropriately (not relying on lawn sprinkler irrigation) to grow a healthy tree with a robust root system. When established this way, most native oaks can be grown in a "rain garden" setting with little to no supplemental irrigation required post-establishment.

**Habitat.** Planting a native tree is a great way to support local wildlife. Unpublished Sacramento studies have found our urban oak canopy supports migratory native birds at a higher rate than non-native tree canopy. In total, California oaks are associated with more than 300 vertebrate species and 5,000 insect species. Here in Sacramento we often find native beehives buzzing about in large oak trees.

**Proper care.** All urban oaks need care tailored to their planting location and life stage. Large landmark oaks often decline in the decade after development since established trees do not respond well to change. Installing a lawn under a large oak or neglecting to water a tree separately from other landscape features are some of the most common mistakes. Guidelines on caring for mature oaks and planting new trees can be found at: [www.californiaoaks.org](http://www.californiaoaks.org) and <http://sactree.com/learn>. For further information, *Oaks in the Urban Landscape—Selection, Care, and Preservation* can be purchased from [anrcatalog.ucanr.edu](http://anrcatalog.ucanr.edu) (enter the title in the browse window).

Native oak trees can be an excellent tree choice for urban areas and help to create sustainable landscapes. May their cooling shade, beautiful structure, and complementary wildlife find a home in your community.



Blue Oak at Antelope Community Park

Sacramento Tree Foundation



Ron Russo in the Mojave Desert

## Scientific accolades for gall expert

Many oak enthusiasts are aware of Ron Russo's observation that California oaks support over 200 species of gall wasps. The author of *Field Guide to Plant Galls of California and Other Western States* (UC Press, California Natural History Guide Series), Mr. Russo was recently distinguished by the naming of two new species of gall insects in his honor.\*

Mr. Russo discovered a gall—pictured on page 220, plate 182 in the Field Guide—on December 21, 2004 of a Cooper's box thorn near the California-Nevada border. He successfully hatched male and female moths in December 2010 after a number of visits to identify growth patterns of the host plant and to collect galls. The moths lived three months, during which time he photographed them, observed their mating patterns, and tested their temperature tolerances. Two years later entomologists Vazrick Nazari, Ph.D. and Jean-Francois Landry, Ph.D. examined the DNA of the moths, confirmed them as a new species, and revised the entire genus, thereby describing several new species. One of the new species, *Symmetrischema russoi*, is named in Mr. Russo's honor.

The second insect was discovered when adult midges emerged from bud galls on wild honeysuckle that Mr. Russo collected in the Oakland hills in 2004. Mr. Russo sent the midges to Raymond J. Gagne, Ph.D., Research Entomologist Emeritus with USDA's Systematic Entomology Laboratory, Smithsonian National Museum of Natural History. Dr. Gagne published a paper revising the genus for three midges, describing and naming a new species, *Lonicerae russoi* Gagné, after the midge that Mr. Russo discovered.

\*California Oaks distributed copies of the Field Guide to members in the past, but the book is now out-of-print, selling for over \$400 a copy. Two of Mr. Russo's shorter publications are available on the Oak Tree Care page of [www.californiaoaks.org](http://www.californiaoaks.org).





**Carrizo Plain Conservancy's vision is a future based on conservation, restoration, recovery, and connectivity.**

## A new partnership on Carrizo Plain

by Neil Havlik, Ph.D.,

President, Carrizo Plain Conservancy

**C**arrizo Plain in eastern San Luis Obispo County is a sparsely settled region of large ranches and dry farmed croplands of hay or grains. Dry farming reached a peak in the 1930s and 1940s but started to decline as costs increased and rainfall became less reliable. Most of these areas reverted to annual grassland dominated by non-native Mediterranean grass species. Rainfall was greater and more reliable in the northern portion of Carrizo Plain, so areas there remained in production, some to the present day.

The Nature Conservancy (TNC) pursued several large Carrizo Plain land conservation transactions, culminating in the purchase of the 80,000-acre Oppenheimer property in 1982. A partnership was then established among TNC, California Department of Fish and Game (now Fish and Wildlife, CDFW), and the Federal Bureau of Land Management (BLM), to jointly manage their holdings in the area. This led to creation of the Carrizo Plain Natural Area in 1996 and, ultimately, establishment of the 250,000-acre Carrizo Plain National Monument by President Bill Clinton in 2001. The partnership continues to this day, and is expanding, as noted below.

Several proposals for solar power facilities in the northern Carrizo Plain area became publicly known in 2009, generating lively and lengthy public debate. Approval by the County of San Luis Obispo included the imposition of more than 125 conditions, ranging from environmental mitigations to bus pooling for workers (of whom there were more than 1,000 at the peak of construction) to reduce impacts on traffic. Enhanced environmental protections were

secured through litigation that followed the county's approval of the projects. This resulted in the conservation of over 30,000 acres of lands in northern Carrizo Plain as well as renewed interest in expansion of conserved lands and connection of these lands to the National Monument.

The vision for all of these efforts is an enlarged and restored Carrizo Plain. A new partnership, which is still coalescing, aims to advance the vision. Among the partners are: BLM, which manages the Carrizo Plain National Monument; CDFW, which owns and manages several large tracts within or adjacent to the Monument, as well as the recently established North Carrizo Ecological Area; and the Sequoia Riverlands Trust and Carrizo Plain Conservancy, which together manage about 8,000 acres of conserved lands in the northern Carrizo Plain area.

California Wildlife Conservation Board (the acquisition and project-funding arm of CDFW), TNC, and California Wildlife Foundation (CWF), are assisting the land-



**San Joaquin Kit Fox (*Vulpes macrotis mutica*), listed as endangered at the federal and state levels.**

owning agencies with vital support and advice to further collaborative programs in Carrizo Plain. An example can be found in the formation of the Carrizo Biological Working Group, which will bring together scientists from these and other agencies to share experiences and suggest new approaches for restoration of Carrizo Plain. The Working Group will be an outgrowth of a similar effort undertaken by the solar power companies to focus on the research findings of their biological monitoring contractors and agency representatives. Among the objectives of the Working Group will be vegetation restoration; diversification of Carrizo Plain grasslands (especially in the areas of former dry farming); improved reproductive success of deer, pronghorn, and tule elk; and improved nesting habitat for the many bird species that utilize the Plain.

Carrizo Plain's habitat is composed of grassland and desert, bordered by mountain shrublands and woodlands. It contains one of the highest concentrations of rare,

**The Carrizo Plain partnership goal is to become one of the largest restoration efforts in the United States.**

threatened, and endangered species in the country. There are several federally listed endangered species

(including blunt nosed leopard lizard, California condor, giant kangaroo rat, and kit fox), as well as several other important species of concern (including pronghorn, tule elk, antelope squirrel, and burrowing owl). Extensive research into the needs of these species resulted in modifications to the solar projects' layout. Continuing research efforts are aimed at improving wildlife habitat throughout the northern Carrizo Plain area and into the National Monument.

A large, 1950s-era subdivision, known as California Valley, lies in the area between northern Carrizo Plain conservation lands and the National Monument. Designed in the days before environmental impact reports and other environmental considerations, this 7,000-lot subdivision spreads across some 20,000 acres of mostly open, undeveloped lands. The local water supply is very limited, thus only a fraction of the lots have been developed. Further, many of the lots are physically unsuited to development because of poor soils and drainage, high water levels in the wintertime, poor road access, sensitive habitat conditions, and

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**CARRIZO** — *from previous page*

other limitations. A long-term goal of the Carrizo partnership is to conserve the area's more sensitive and fragile habitats. This will be accomplished through acquisitions,

transfers, and donations of property. CWF has funded Carrizo Plain Conservancy's resource conservation planning and land acquisition in California Valley. Visit [www.carrizoplainconservancy.org](http://www.carrizoplainconservancy.org) to learn more.

## Under the tutelage of mighty oaks

by Mary Duffy,

*Outreach and Education Biologist,*

*Earth Discovery Institute*

San Diego County is unique in having nine distinct habitats, from coast to desert. Earth Discovery Institute (EDI) is an environmental outreach and science-education organization that connects youth to San Diego's native oak habitats, exploring county refuges and reserves with hundreds of fourth and fifth grade students each year.

An entire food web can be found in, above, and beneath oaks. Under the shade of coast live and Englemann oaks, students learn how trees cool the environment, sequester carbon, and absorb light. They also learn that more than 300 species use oaks for food, cover, and reproduction.

EDI students often visit Crestridge Ecological Reserve (CER), where a riparian corridor supports a closed-canopy oak woodland. This 3,000-acre parcel, owned by the California Department of Fish and Wildlife and managed by Endangered

Habitats Conservancy, serves as an outdoor classroom. Students examine cultural relics and learn about native peoples who once depended on acorns for food. Students also plant oak woodland habitat species, and learn how roots, fungal mycelia, and leaf litter capture moisture.

Youth observe the threats wildfire, invasive pests, drought, and climate change pose to oaks and the wildlife they support. The 2003 Cedar Fire burned most of CER's coastal sage scrub and chaparral plant communities, but many of the old oaks survived because of their protective bark. Since then, goldspotted oak borer—an insect pest that was likely introduced through imported firewood more than a decade ago—has killed some of the oldest oaks.

EDI is inspiring future scientists, encouraging stewardship, and building cultural understanding, using oaks as the focal point of its pedagogy.

To learn more about Earth Discovery Institute and its environmental education programs go to [www.earthdiscovery.org](http://www.earthdiscovery.org) or contact [info@earthdiscovery.org](mailto:info@earthdiscovery.org).



**There are over 40,000 endangered species on the Earth. Students research how climate change affects species and tell the story through a class book project.**

## Climate Kids from High Tech Middle School create book on climate change

The Climate Science Alliance–South Coast is a partnership of organizations and agencies focused on sharing ecosystem-based resiliency approaches to safeguard area communities and natural resources from climate change risks. The Alliance's Climate Kids program, with fiscal and administrative management provided by California Wildlife Foundation, educates elementary to high school students on climate change through art, science, and storytelling.

Climate Kids engages students from San Diego, Mexico, and local Native American Tribes. In November 2016, Climate Kids partnered with High Tech Middle School in San Marcos. Sixth grade students learned about climate change, endangered and endemic species, and how they can be environmental stewards. They created their own book of stories about climate change, which Climate Kids is sharing with students throughout San Diego as an example of how youth can make a difference.

To view the book visit: <http://bit.ly/2hN9RtF>. To learn more about Climate Science Alliance visit: [www.climatesciencealliance.org](http://www.climatesciencealliance.org).



**Students explore the wonders of Crestridge Ecological Reserve's Englemann and coast live oak woodland with Earth Discovery Institute.**



**Large American black bear (*Ursus americanus*) at wildlife pond in blue oak woodland on the Rose Ranch**

### *Cascade foothill woodlands* — from front page

easements as a viable mechanism for protecting their rangelands. California Wildlife Foundation Board Member Lynn Barris reached out to offer support for The Land Trust's conservation work at approximately the same time. Thus began an enormous effort to capture a superb conservation opportunity while setting new precedent for coordinated-community conservation.

The Land Trust's first step with land-owners and project partners is to identify shared and complementary visions, goals, and objectives. This opens the door to an enormous spectrum of conservation partners, increases our mutual understanding, and vastly expands the potential of our conservation work. The strategy for the Rose and Garner Ranches was a simple exercise in civics: identify common interests, roll-up your sleeves, and work together.

Over the next four years, Land Trust staff worked relentlessly—reaching out to non-profit partners, agency personnel, and community members—to generate the support necessary to secure the neighboring Rose Ranch and Garner Ranch Conservation Easements.

The willingness, foresight, and cooperation of all partners has ensured these ranches will continue to provide open space, wildlife habitat, and scenic and agricultural values fundamental to the region's quality of life, *forever!* An excellent lesson with incredible results! Together, we have succeeded in conserving a place of irreplaceable value and

have grown community capacity to do more.

To learn more about the Northern California Regional Land Trust visit: [www.landconservation.org](http://www.landconservation.org) or call 530-894-7738.

#### **Conserving Cascade woodlands**

The conservation of Rose and Garner ranches builds upon a campaign, spearheaded by California Wildlife Foundation/California Oaks, that raised \$6.2 million to place a conservation easement, held by Northern California Regional Land Trust, to protect the last 4,235 acres of the 18,434-acre Rancho Llano Seco in Butte County.



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428 13th Street, Suite 10A  
Oakland, CA 94612  
tel 510.208.4436  
fax 510.268.9948

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### **How you can help:**

California Oaks is a fund within California Wildlife Foundation (CWF), federal tax identification number 68-0234744. Contributions of cash, stocks, and bonds are tax deductible. California Oaks also works with partners to protect land and establish easements for conservation purposes.

- Send a donation in support of CWF/California Oaks. A donor directive form is included in this mailing and a secure donation can be made from our website: [www.californiaoaks.org](http://www.californiaoaks.org).
- Spend time in an oak woodland or forest. Click on [www.californiaoaks.org](http://www.californiaoaks.org) for a summary of oak landscapes around the state that have public access. Some of these areas are described in *Oaks of California*. The list of walking opportunities also includes some areas that have been preserved since *Oaks of California* was published.
- Please consider including oak conservation in your financial and estate planning efforts. Additional information can be found at [www.californiaoaks.org](http://www.californiaoaks.org).
- Be vigilant about threats to oak woodlands and oak forested lands in your community and email California Oaks for information: [oakstaff@californiaoaks.org](mailto:oakstaff@californiaoaks.org).
- Sign up for the Oaks e-newsletter at [www.californiaoaks.org](http://www.californiaoaks.org).
- Send letters in support of oak protections. The Oaks e-newsletter and Take Action page on the Oaks website provide background and template letters.

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