

Spring  
Summer  
2016

# LAGOON TIDINGS

*Inside:*

Animal Discoveries  
Leadership Spotlights  
Events, and More!



San Elijo Lagoon CONSERVANCY  
*Connecting communities. Protecting nature.*



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Pitch a topic: [SanElijo.org/LTmagazine](http://SanElijo.org/LTmagazine)



L–R: Gibson and Gillingham at Gibson's 20<sup>th</sup> Anniversary Celebration

## President's Message

By Doug Gillingham, Board President

**stra·te·gic (strəˈtējik)/adjective**

1. Relating to the identification of long-term or overall aims and interests and the means of achieving them. 2. Strategic has its origins in the Greek *strategos*: a general, the commander of an army; but comes to English with more delightful flavor from the French *stratégie*: the art of a general. Let's lobby Websters to add the art part back into the definition: relating to the artful identification ... Who's with me?

The Conservancy is currently working on an artful update to our strategic plan. We are looking ahead five years and beyond to chart a course of what we want to accomplish and how to get there, building on our four paths of service of conservation education, habitat restoration, land acquisition, and scientific monitoring and advancement. Our goal is to continue to up our game of protecting nature and connecting communities, while working from a foundation of financial sustainability, leadership capacity, passion for the cause, and accountability to you, our supporters, who make our work possible. Stay tuned for updates.

The Conservancy has come a long way in its 29 years, advancing from a small band of committed volunteers to a professionally managed organization with the resources to accomplish its founders' dreams. For the past 20 of those years, we have benefited from the leadership and talents of our Executive Director and Principal Scientist, Doug Gibson. Congratulations to Doug on his 20th anniversary of service to the lagoon and the community, and a toast to more good things to come! — Cheers, Doug



Wind Poppy (*Papaver heterophyllum*)

## Jewels in Spring Breezes

They are one of the spring jewels in the reserve. Native wind poppies are found from Central California to Baja California below 4000 feet. They occur primarily in grassy openings in the chaparral. Here in the reserve, they may be found in one or two grassy spots along the trail on the south side of Central Basin, between the Rios trailhead and the Gemma Parks loop trail. Long, slim, and nearly leafless stems support its flowers. They seem to float above the surrounding vegetation, moving with the gentlest breeze. Biologists have speculated that this motion makes wind poppy flowers, like waving flags, more visible, attracting pollinators from a greater distance and helping to ensure successful pollination and production of seeds for next spring's plants.

Wind poppies are "fire-followers". These are annual plants which have seeds that are stimulated to sprout by fire. Dormancy is broken by one or more cues including heat, smoke, or charred wood. The bright orange color of wind poppies comes from organic pigments called carotenoids, which can be shades of yellow, orange or red.

This article is adapted from our [Guide to the Plants of San Elijo Lagoon Ecological Reserve](http://SanElijo.org/PlantGuide), online at [SanElijo.org/PlantGuide](http://SanElijo.org/PlantGuide). Learn about dozens of plants with an array of beautiful images to help ID your discoveries.



Scientists obtain sediment samples

## Wildlife Cameras Reveal **DIVERSITY**

The cameras are discreet. Critters aren't aware that they're posing for a photo. The conservancy's new wildlife monitoring program is under way. We thank San Diego County Board of Supervisors for awarding a Neighborhood Reinvestment grant for this program, upon the recommendation of Supervisor Dave Roberts.

With the guidance of San Diego Tracking Team, two trail cameras were installed in the reserve. The cameras support both motion sensor and time-lapse capabilities, and have recorded a diversity of animals that live in and visit the reserve: bobcat, mule deer, and coyote, for example.

Photographing wildlife helps staff biologists to monitor population size, presence, and behaviors, such as feeding, nesting, and predation. Additionally, cameras will be used to monitor vegetation growth and the flow of water through the mouth of the lagoon.

An intern will soon join our Sage Environmental Leadership program. This conservation leader will have an integral role in developing the conservancy's wildlife monitoring program.



## San Elijo's Electrifying Lagoon

*By Orianna Bretschger, PhD,  
Assistant Professor J. Craig Venter Institute*

There's more to mud than what is underfoot. Since 2010, the Bretschger Lab at the J. Craig Venter Institute has partnered with San Elijo Lagoon Conservancy to sample lagoon sediments. We're analyzing mud to learn about microbes, such as bacteria, archaea, and fungi, which can break down organic material and recover energy. The Bretschger group is working with students from San Pasqual High School in Escondido, a conservancy partner school, to use the sediments for developing technologies for sustainable wastewater treatment. The students are learning research techniques and new terminology: Winogradsky columns and mud batteries, for example, are instruments that culture a diversity of microorganisms.

Back in the lab, our group uses sediment to study extracellular electron transfer—translated to students—it's how microbes are the ultimate recyclers and can actually produce electricity! Sediments are used for microbial fuel cells, systems that use bacteria as catalysts to treat wastewater and simultaneously produce electricity.

The approach developed by the Bretschger Lab can begin to unravel the complex microbial interactions that exist in global sediments, soils, ocean, and freshwater resources. San Elijo Lagoon samples are described in a 2014 article published in *International Society of Microbial Ecology Journal*.



# EVENTS

## On the Horizon



## SUMMER CAMPS

### Lagoon Discovery

When you think summer camp, does it include nature discovery? Campers, ages 6–9, can explore the wonders of San Elijo Lagoon, and make friends while playing and learning outdoors. Choose from weeklong sessions in July. Spaces are filling. Register soon.

Cost: \$150  
Scholarships Available

## Insects at Night

August 12      Members \$5 | Public \$10

Join an after-dark experience in San Elijo Lagoon Ecological Reserve. Expert Moe Magoski will give participants an overview on local insects before we head off to explore. He will help you gently capture, identify, and release back into the wild, many of San Elijo Lagoon's nighttime inhabitants. All ages.



Chris Hoover



## Nature Photography Workshop

June 5

Members Free | Public \$5

Seeking higher quality outdoor photography skills? Join the nature photo workshop and tour with photojournalist Jac Flanders. You'll learn tips on how to capture the best moments in nature with wildlife and people in focus.

Register

SanElijo.org/  
Events

## SUMMER SUNSET SERIES

June 16 | July 21 | August 18      Members Free | Public \$5

Explore San Elijo Lagoon as daytime heat shifts to cool summer evenings. Listen for the *kek kek kek kek* call of the endangered Ridgway's Rail in the lagoon's marshes. We'll conclude with a "taste of the trails" refreshment. This is nature's happy hour; an evening aglow with discovery.





## Keep Touring

Guided Tours Every  
Saturday Morning



### Family Fun Days *Free*

June 5 | July 3 | August 7

Here in the Great Outdoors, children can uncover cool mysteries and amazing facts about nesting birds, animal tracks, and the Kumeyaay people. Each adventure-filled Family Fun Day features hands-on crafts, TRACK Trails activity guides, and the opportunity to earn a Junior Ranger badge. Presented by: San Elijo Lagoon Conservancy, County of San Diego Parks & Recreation, and Kids in Parks.



## Volunteer

### Roll Up The Sleeves

June 18 | July 16

Dig in. Volunteer in Lagoon Platoon community habitat restoration. You can assist staff biologists with invasive plant removal and seed collection, or building new dune habitat for birds, like the Snowy Plover and California Least Tern.

## BIODIVERSITY TOURS *Free*

### Trail Detectives

May 29

Join an investigative tour to analyze evidence of animals on the trail. Critter clues reveal which animals have touched down, slithered across, or padded over unseen. Led by naturalist Susan Elliott.

### Drought-Savvy Plants

June 26

Living with little rainfall is challenging for all of us, but some species handle it better than others. Ever wonder why the Lemonade berry's leaves never wilt? Become more familiar with the lagoon's native drought-tolerant plants and their unique adaptations. Led by naturalist Mike Blanco.

### Looking Back

July 24

Coastal wetlands are naturally dynamic, as is our history within, and adjacent, to San Elijo Lagoon Ecological Reserve. Learn more about some of the ways both nature and humans have altered the landscape of the lagoon over time. Led by naturalist Emmy Garnica.

### People and Plant Relationships

August 28

Step back in time, about 10,000 years, and learn about the cultural traditions of the Kumeyaay. Discover the plants and other coastal resources they relied upon then, and still use today. Led by naturalist Kathy Dickey.

# Volunteers



## Plant Seeds of Inspiration

Tony Gunroe digs dirt. Literally. As a Lagoon Platoon steward, he volunteers behind the scenes once a week for habitat restoration. Tony records when native plant species flower, set seed, and begin dormancy in the reserve. Data will help guide the ideal season(s) for seed collection and propagation. He reflected on his recent experience with an Eagle Scout trailside enhancement event. "The hope for

preserving our natural spaces lies in our youth," shared Tony. "These young men are at the crucial age of developing independence, and deciding what kind of adults they'll be. Each scout left dirty and sweaty that day, having learned a fulfilling role in what it takes to preserve these spaces for generations." That's where we'll find Tony: planting the seeds of inspiration.



## How to Admire a Rattlesnake

Susan Elliott is happy in nature, whether it's pointing out a harlequin bug on a bladderpod plant, or inspiring kids to watch a Snowy Egret slowly stir mud with its feet for something to eat. "Students get such a kick out of these experiences," shared Susan, "and I enjoy watching them make these discoveries for the first time." An encounter with a rattlesnake was memorable.

"The moment the rattlesnake was identified,

everyone stopped, and momentarily freaked out," recalled Susan, who calmed the class, and asked them to step back and quietly observe from a distance. "Once the students relaxed, they were able to notice the snake's pattern and count the number of rattles. To see the nearly immediate conversion from fear to intrigue was hugely satisfying for me." Susan shows how fun it is for youth to unplug and enjoy the beauty around them.



## Bring the Family Back

As a child, Edie Berendsen recalled lying on grass to follow the path of ants, and being awed by the beauty of birdsong. These were simple observations that inspired her to become a lifelong steward of nature. While leading a public tour, Edie recognized a nine-year old student from one of her previous field trips. He had returned to show his parents what inspired him at San Elijo Lagoon.

"That was particularly rewarding for me," mentioned Edie, "So I asked the student to help me co-lead the walk. I was amazed by how much he remembered from his field trip." Edie frequently leads field trips and has become a local celebrity among her students. Several students recently shared that they'd had the *best field trip ever* with her.

Join our volunteer *naturalist* team.

[SanElijo.org/Naturalist](https://SanElijo.org/Naturalist)



# Partners

## Ki's Commitment to Sustainability



Ki's Restaurant is upping its commitment to discourage single-use packaging. "At Ki's, the environment has always been an important concern," shared Lorraine Harland, restaurant manager.

Bring your Ki's container back for re-use and receive a discount on your purchase, or the option to donate the discount to the conservancy. Ki's Restaurant is a valued conservancy supporter, and continuing sponsor of our biennial Birds of a Feather.

## Did You Know?

80% of marine debris comes from inland sources.



## Valuing Downtime

Elvi Benitez-Mackintosh is a third-grade teacher and technology specialist at Felicita Elementary in Escondido, a partner school. She began participating in our conservation education program seven years ago. "When I started training for marathons, my running club introduced me to incredible trails and open spaces throughout the county," revealed Elvi. "I came to love these places and wanted to ensure they would be maintained for future generations."

From organizing student recycled art, to environmental research projects, it's all about the future. Elvi also recruits volunteers for debris cleanups. "I naturally value the need for students to be proficient in technology," added Elvi, "but I'm alarmed by the amount of time students spend onscreen. It's important to have a balance of screen and outdoor time." Elvi fosters stewards of the environment, bringing with her the steely resolve inherent in long-distance runners.

## In Their Own Words



## #LoveYourLagoon Photo Contest Winners 2016



**John Scales**  
Adult Division

Front cover: Jumping Fish

How do you photograph a leaping fish? "It took many, many tries," said John Scales, "Too many to count, to capture the perfect jump." His image shows the nature center from the Pole Road, where he waited for a mullet to make its splash into photo contest fame.

**Fun Fact:** Why do mullet jump? Several theories: to escape predators, to remove parasites or sediment in the gills, to increase oxygen. Or it simply feels good.



**Reese Mathews**  
Youth Division

Back cover: Sticky Lemonade Berries

It's in the details. "The Lemonade berries looked fuzzy and interesting," recalled nine-year old Reese Mathews. Reese toured the lagoon with her grandfather and smartphone. She added, "It's an open area with lots of fresh air and a beautiful place to visit when you want to go on a walk."

**Fun Fact:** When sweetened, it's like lemonade. The Kumeyaay taught us that soaking Lemonade berries in water creates a refreshing drink.



**Terry Rodgers**  
People's Choice

Back cover: San Elijo Lagoon

Terry Rodgers honors his oasis. "You wouldn't know from the warm colors that it was windy and cold when I captured that springtime image on the westernmost trail," revealed Terry Rodgers. "I waited until the final shards of sunlight had disappeared below the horizon and walked back to my car in chilled darkness."

**Fun Fact:** Many lagoon supporters describe that having nearby access to escape into nature is what rejuvenates them—sunsets included.



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Sticky Lemonade Berries  
by Reese Mathews,  
First Place Youth Division



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by Terry Rodgers,  
People's Choice Division

