What is it about Southern California and earthquakes? Why are we so prone to experience these earthquakes? Are there forces at work right now that will impact the incidence and severity of future tremors?

The answers to those questions all revolve around the simple fact that Southern California is sandwiched between two tectonic plates that grind relentlessly past one another. Over the last several million years, movements of these plates have dramatically reshuffled the Earth’s crust to create rugged landscapes and seascapes riven with active faults. Movement along the faults triggers earthquakes and tsunamis, pushes up mountains and islands, and lifts sections of coastline high above the sea.

Over geologic time, beaches come and go, coastal bluffs retreat, and the sea rises and falls. Nothing about Southern California’s coast is stable.

Our April program speaker, Keith Meldahl, not only understands all of this, but is also uniquely qualified to make it understandable for the rest of us. He is Professor of Geology and Oceanography at MiraCosta College. He earned his BA in geology from the University of Chicago and his MS and PhD in geology from the University of Arizona. He is the author of several books, including Surf, Sand, and Stone, which tells the scientific story of the Southern California coast.

Come join us as we take a virtual geologic excursion from San Diego to Santa Barbara. Our expert guide will reveal evidence about how the coast’s features came to be, and how they are continually evolving.
THE BVAS NATURE ENDOENDMENT

The BVAS Board is pleased to announce the establishment of the BVAS Nature Endowment Fund, the result of a two-for-one matching funds grant of up to $333,000 from Brian Malk and Nancy Heitel of San Diego and Napa Valley. Last November, Brian contacted BVAS to discuss his interest in possibly helping the organization meet some of its mission objectives. A meeting was quickly arranged, and, as luck would have it, about 50 students were touring the Nature Center when Brian arrived.

“It was wonderful to see Brian’s eyes light up as he watched the students interacting with the Nature Guides,” said BVAS president, Andy Mauro. “He is passionate about the need for children to be exposed to the beauty and wonder of nature, and about our need to preserve the environment for future generations.”

A week after the visit, BVAS received Brian’s generous offer of support. Under the terms of the grant, Brian and Nancy will contribute two dollars for every dollar BVAS receives in donations for the new endowment, until the fund reaches its initial goal of $500,000. This permanent endowment will produce a dependable stream of distributed earnings each year to support the Nature Center and BVAS nature programs, and to help it accomplish other elements of its mission.

BVAS has raised a little over $30,000 in early contributions to the new endowment. Adding to that total, over $10,000 in fundraising proceeds for the new endowment was generated from the Birdhouse Auction in March. As a result, after applying the matching funds grant, close to $150,000 of the $500,000 goal for the new endowment will already have been achieved by the time the fundraising campaign officially kicks off in late April.

“This is a unique opportunity for people to have an immediate and dramatic impact on the future of Buena Vista Audubon,” said Mauro. “Donors will be creating a lasting legacy of their love of nature as they see their contributions triple in value as a result of Brian’s and Helen’s pledge.”

Brian was born and raised in South Africa, where early on he developed his passion about wildlife and the environment. He is the owner of the Malk Family Vineyards, a winery in the Stags Leap District of Napa Valley. Brian is also a founding partner of the Midtown National Group, a boutique real estate investment company located in San Diego’s Golden Triangle. Last month’s Lagoon Flyer told the story of how his bike ride down South Coast Blvd. in Oceanside last November ultimately led to his pledge to help.

In recent weeks, news of the pending grant and new endowment fund began to spread among BVAS volunteers. Now with the formal announcement, the buzz of excitement might be likened to the sound made by crowds of elegant terns taking flight from one of our North County lagoons. Everyone realizes just how important this new endowment will be to the stability and future growth of BVAS.

Anyone wishing more information about the new endowment, or interested in having a confidential discussion about a possible contribution, is invited to contact Andy Mauro: 760-753-1266; akamauro1@gmail.com.

BIRDS AND CLIMATE CHANGE

A recently-released, in-depth report by the National Audubon Society shows that global warming poses a serious threat to a majority of North American bird species. In California, the report concludes that global warming threatens the survival of 170 bird species in the coming decades. This includes iconic California birds such as the brown pelican, Allen’s hummingbird, and yellow-billed magpie.

The study shows a direct link between where birds live and the specific climatic conditions that support each species. In developing the models, Audubon ornithologists analyzed 30 years of climate data and an extensive data base of historical bird records. Understanding the connection between climate factors and bird distribution helps project where birds will likely to be able to survive as future conditions change.

Shifts now being seen in local precipitation levels, temperature ranges, and the dates of seasonal onsets may have catastrophic consequences for certain bird species. While some species may be able to adapt to shifting climates, many other North American bird species will face an increased risk of extinction. The study predicts the ranges of almost 600 bird species under future climate scenarios, and finds that a majority of the species will lose at least 50 percent of their current range by 2080 if present trends continue.

How can the threat be lessened? The current and future territories that birds need to survive must be protected. And the severity of climate change needs to be reduced by cutting back on the release of greenhouse gases that drive global warming. BVAS is trying to do its part. Last year, BVAS completed several projects to improve energy efficiency at the Nature Center, earning “green” certification from the City of Oceanside. In January, it acted to preserve habitat with the acquisition of the lagoon parcel and establishment of the BVAS Wetlands Reserve. It hopes to conserve more land in 2016. Future articles in the Lagoon Flyer will provide updates on our understanding of climate change and its impact on birds. BVAS will be exploring how climate change affects our local birdlife, and what specific actions it and its members can take to address this threat to our environment.

—Contributors to this article included Joan Herskowitz, Andy Mauro, Natalie Shapiro, and National Audubon.
**WHELAN LAKE BIRD SANCTUARY WALK**

*Saturday, April 2—8 a.m.*

Join BVAS for our regular monthly walk and bird survey at this very popular and productive birding hotspot.  

**Directions:** From I-5, take Hwy. 76 East; turn right at Douglas Dr.; continue to the light at North River Rd.; go left on North River Rd. Pass through entrance gate and follow signs to the lake.

**Leader:** John Haddock, 760-941-7824.

**SECOND THURSDAY SURPRISE WALK**

*Thursday, April 14—8 a.m.*

Join our weekday surprise-location bird walk on the second Thursday of each month. Where we go is based on recent reports and Steve’s personal surveying. To get on the Second Thursday Walk notification list, please send an email with your name, phone number and email address to: stevanbrad@gmail.com.

**Leader:** Steve Brad, 760-633-1639.

**SAN DIEGUITO RIVER PARK BIRD WALK**

*Saturday, April 16—8:30 a.m.—San Andres Drive*

The seasons are changing at San Dieguito—winter birds are leaving, migrating birds are passing through, and local breeders are setting up shop. This is San Diego birding at its best!

**Directions:** *San Andres Drive.*—From I-5, take Via de la Valle east; go right on San Andres Dr. to end of road.

**Leader:** John Haddock, 760-941-7824.

**BASIC BIRDING WORKSHOP AND BUENA VISTA LAGOON BIRD COUNT**

*Saturday, April 30—9 a.m.*

Join the BVAS birders for our basic birding workshop and monthly bird count at Buena Vista Lagoon. No experience necessary. We meet at the Nature Center at 9 a.m. and then caravan around the lagoon to a series of selected stops for some friendly, informal, no-pressure birding.

**Directions:** Meet at the Nature Center parking lot.

**Leaders:** Joan Fountain; Tom Troy, 760-420-7328.

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**OCEANSIDE PELAGIC BIRDING BOAT TRIP**

*“An Intro to Pelagic Birding”*

*Sunday, April 10—8 a.m.—Oceanside Harbor*

Steve Brad will lead a 2-hour pelagic birding trip out of Oceanside Harbor as a special edition of his regular “Second Sunday” bird walk in April. BVAS has arranged this private charter with Oceanside Adventures, which offers natural history cruises aboard its specially-equipped, 50-foot catamaran. In addition to looking for whales and other marine mammals, the group will focus attention on the pelagic birds that frequent the ocean off Oceanside. The trip is designed to give participants a sense of what pelagic birding is all about, but from a more convenient North County venue and for a shorter amount of time on the water than the regular BVAS pelagic trips offered out of San Diego. Through the generosity of Oceanside Adventures, BVAS is able to offer this trip at a special reduced rate of $30 per person.

A limited number of advance sale tickets are available. Once tickets sell out, a standby list will be established in case of cancellations. If the trip proves popular, BVAS will consider offering this trip again in the fall. To make your reservation and reserve a spot on the trip, please contact Steve.

**Leader:** Steve Brad, 760-633-1639; stevanbrad@gmail.com.

**SAN DIEGO PELAGIC BIRDING WITH BVAS**

*Pelagic Birding Information and Trip Registration*

BVAS offers a series of pelagic birding trips out of San Diego every year. The trips are scheduled throughout the year to take advantage of the seasonal movements of ocean birds off San Diego’s coastline. Trips range from 6-12 hours, depending on how far offshore the target species are congregating.

Visit the BVAS pelagic website at www.sandiegopelagics.com for details about all pelagic birding activities, including trip schedules, charter boat landing locations, prices, target birds, prior trip lists, and photos. The first BVAS pelagic trip of the year will be a 10-hour excursion on April 30. A late spring trip will follow on May 21. Please check the website for info on trip fees and sign-up details. Birders are encouraged to sign up early for the pelagic trips to ensure their spots on the boat and to take advantage of often significant early bird discount prices.

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**Birding Big Morongo**

*April 22-23*

BVAS is hosting an overnight “Migrating Birders” trip to Big Morongo Canyon Preserve, a desert oasis nestled on the edge of the San Bernardino Mountains about 2 hours northeast of San Diego. The trip is timed to catch the height of spring migration. A limited number of rooms are available at the Super 8 Motel in Yucca Valley for Friday night, April 22nd. The price of $79 includes a continental breakfast. We’ll drive over on Friday afternoon, gather for a group dinner that night, and bird on Saturday before heading home late in the afternoon. Call leader for more info.

**Leader:** Dennis Huckabay, 760-757-6437.

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**APRIL BIRDING IN SAN DIEGO**

April is the busiest month of the year for breeding activity in San Diego. Evidence of courtship and breeding is all around—males singing for attention, birds building nests, parents feeding young. Most wintering birds have left, and the county is experiencing waves of migrant birds passing through.
**MEMBERSHIP/VOLUNTEERS**

### Bees and Beetles and Bugs, Oh My!

A Young Entomologists’ Corner has been installed at the Nature Center. Using actual specimens and our powerful projecting microscope, budding scientists can consider the basic question of what makes an insect an insect and explore the many varieties and forms of both aquatic and land insects. Games, books, photographs, and fun activities round out the experience.

Why insects? They make up over half of Earth’s living organisms and 90% of all animals. They live in almost all environments and temperatures, including those around Buena Vista Lagoon. Insects decompose waste, pollinate plants, and are the food source for many animals. Life as we know it could not exist in a world without insects.

This project is the brainchild of BVAS Education Chair Fran MacNeel and Board Director Kathy Billings, both long-time Nature Guides. The insect activity center culminates their work with the California Naturalist Program through UC Davis. The project team would like to acknowledge two BVAS stalwarts who provided inspiration for the exhibit: Retired U.C. entomologist Dave Dyer has led exciting bug walks at the Nature Center for many years, and Center Manager Annette Schneider now serves as the reigning BVAS expert on all tiny creatures that slither and crawl. The exhibit will evolve with the seasons and mirror what visitors will see on the trail, in the lagoon, and throughout the wetlands.

### If I had my life to live over, I would start barefoot earlier in the spring and stay that way later in the fall.

~ Nadine Stair

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### BVAS DONATION MINI-FORM (Clip and Send)

Name: ___________________________ Email: ___________________________

Address: __________________________

Amount: _______ Check (enclosed) _______ or *Credit Card _______

*Credit Card Info: # ___________ Exp. ___________

Please indicate how you’d like your donation applied:

**Nature Center & Programs:** _______

**NOTE:** For a limited time, donations of $100 or more received to support the Nature Center and BVAS conservation and nature education programs will be matched by a special two-for-one pledge and placed in a permanent endowment to create a dependable source of annual revenue for generations to come. See P. 2 for more details about this special pledge and lasting endowment.

** Ridgway’s Rail Society/Land Acquisition Fund:** _______

BVAS is still collecting funds to support its legacy campaign to restore and manage the newly-acquired lagoon parcel, and to purchase and restore the 31-acre property near the Whelan Lake Bird Sanctuary.

Send to: BVAS; P.O. Box 480; Oceanside, CA 92049.

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### BVAS OFFICERS, BOARD*, AND CHAIRS

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<tr>
<th>Position</th>
<th>Name</th>
<th>Phone</th>
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<tbody>
<tr>
<td>President</td>
<td>Andy Mauro*</td>
<td>760-753-1266</td>
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<td>Vice-President</td>
<td>Dennis Huckabay*</td>
<td>760-757-6437</td>
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<td>Secretary</td>
<td>Judi Wilson*</td>
<td>760-439-3649</td>
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<td>Treasurer</td>
<td>Sandy McMullen*</td>
<td>760-944-5690</td>
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<td>Dave Billings*</td>
<td>760-753-7925</td>
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<td>Bird House Auction</td>
<td>Kelly Deveney</td>
<td>760-721-2441</td>
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<td>Center Manager</td>
<td>Annette Schneider</td>
<td>760-945-8891</td>
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<td>Conservation Chair</td>
<td>Joan Herskowitz*</td>
<td>760-942-5167</td>
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<td>Education Chair</td>
<td>Fran MacNeel</td>
<td>760-929-9158</td>
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<td>Danny DiMento*</td>
<td>858-688-6891</td>
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<td>Nature Storytime</td>
<td>Mary Ellen Marquand</td>
<td>760-918-6622</td>
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<td>Newsletter Editor</td>
<td>Andy Mauro*</td>
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<td>Natalie Shapiro*</td>
<td>406-241-2153</td>
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<td>Ridgway’s Rail Society</td>
<td>Andy Mauro*</td>
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<td>Volunteers</td>
<td>Bob Crowell*</td>
<td>760-207-3884</td>
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<td>Webmaster</td>
<td>J.J. Springer</td>
<td>818-859-8244</td>
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### Become a Nature Guide

Help make a difference, one curious mind at a time!

The Nature Guides are a special group of volunteers, dedicated to introducing our community’s children to the wonders of nature. Working and learning together, the guides provide a variety of experiences to kids of all ages.

How often? What activities? It’s up to you. Just bring your enthusiasm, and we’ll provide the training. Contact Bob Crowell for more info (760-207-3884).
**BVAS NATIVE PLANT CLUB**

**NATURE CENTER GARDEN WORK PARTY**

Mondays at 10 a.m.—Every Monday morning, the garden crew gathers at the Nature Center to do a little maintenance work around the native plant garden and trails. Interested gardeners are invited to join the group for some casual gardening and friendly chatter.

**NATIVE PLANT GARDEN TOUR**

**APRIL 10—2 p.m.**

Are you feeling it yet? The bit of rejuvenating rain followed by days of bright sunshine has set it all in motion. There’s the hum of bees, the singing of love-struck birds. Butterflies are flitting around the garden. Fence lizards scurry out of your way with every step you take. You know it’s time to put that yard back in shape, but maybe you’re looking for a little inspiration? Well, we’ve got just what you need, and it’s all free. Come join us on the 2016 Oceanside Native Plant Garden Tour. This year’s tour will include over 18 native-plant gardens in the historic Seaside neighborhood of downtown Oceanside. Plant experts and neighborhood locals lead the 1.5 mile walking tour to see these front yard gardens. It’s a great chance to see what others have done, learn about a few new plants that just might be the perfect fit for your yard, and have all your questions answered by experts who know all the ins and outs of native plant gardening in San Diego. The garden tour is sponsored by the Oceanside Coastal Neighborhood Association and the Buena Vista Native Plant Club. Everything starts at 2 p.m. at St. Mary, Star of the Sea School, 515 Wisconsin Avenue, Oceanside. As people arrive they join the next small group tour, and go off on the easy walk around the neighborhood. Those wanting to take the tour on their own can pick up a self-guided map of the gardens for a small donation.

**KIDS’ CORNER AT THE NATURE CENTER**

**Joey’s and Johnny’s Clubhouse**—

**Sunday, April 17—1-4 p.m.**

Kids and parents are invited to stop by the Nature Center for some informal nature fun. How about a bug hunt along the nature trail? We bet the kids will have a few ideas of nature projects or activities they’d like to try. Come join the fun!

**Preschool Nature Storytime**—

**Monday, April 25—10 a.m.**

Bring your little ones to our monthly program that gently introduces them to the wonders of nature. We always have a lot of fun learning about the animals and plants that live around the lagoon and in our back yards. We’ll have stories, songs, a take-home craft, and a look into our surprise box.

**Questions?**

Call Mary Ellen: 760-918-6622.

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**Carlsbad Wild Birds Unlimited’s Intro to Birding Class**

with Andy Mauro

**Saturday, April 16—9 a.m.**

The Carlsbad Wild Birds Unlimited store is hosting a free class on April 16 for those interested in learning how to become birders. Would you like to know the name of the bird that’s visiting your feeder, singing in your front yard, or diving for fish in the lagoon? Maybe you feel a bit intimidated—there are so many different birds and many seem to look alike. The 45-minute class will be led by BVAS president Andy Mauro, who promises to gently ease any fears. While the class will focus on the more common birds regularly seen in our backyards and local parks, the techniques and special tips presented should help identify any of the species that frequent our county.

**Info and Reservation**—To reserve your spot in the class, call Wild Birds Unlimited at 760-720-1906.

**Location**—Wild Birds Unlimited; 2624 El Camino Real, Ste. F; Carlsbad, CA.

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**BUENA VISTA AUDUBON NATURE CENTER**

Tuesday-Saturday—10 a.m.-4 p.m.

Sunday—1-4 p.m.

**Location:**

2202 South Coast Hwy.

Oceanside, CA

**Mailing Address:**

P.O. Box 480

Oceanside, CA 92049

**Phone:**

760-439-2473

**BVAS Website:**

www.bvaudubon.org

**Pelagic Birding Website:**

www.sandiegopelagics.com

Follow us on Facebook and Twitter!

**Email:**

bvaudubon@sbcglobal.net
OH, WHAT A NIGHT!

For those of you who missed it, that’s a real shame. It was probably just as well though. We couldn’t have squeezed one more body into that Nature Center at March’s Birdhouse Auction! The place was packed and spirits were high. We were a bunch of happy folks coming together for some light-hearted fun, and all for the benefit of a cause and an organization we all believe in.

We share with you this happy moment with longtime friend Charlotte Gumbrel, as she holds her prized birdhouse auction purchase. Auction fans may recognize the distinctive style of the builder of that particular birdhouse, Carol Neer.

Yes, it was quite a night! We’ll report the results in the next issue. Thank you, everyone.

Here I wander in April Cold, grey-headed; and still to my Heart, Spring comes with a bound, Spring the deliverer, Spring, song-leader in woods ...

—Robert Louis Stevenson, *Flower God, God of the Spring*