



TORREYANA

THE DOCENT NEWSLETTER FOR
TORREY PINES
STATE NATURAL RESERVE

Issue 465

April 2024

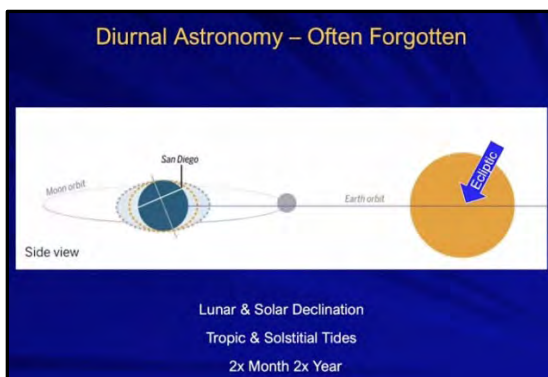
Rising Tides

by Dan Hammer

After remaining stable for two thousand years, global sea levels have risen dramatically since the start of the Industrial Revolution in the mid-1800s. At the March TPDS meeting, Dr. Reinhard (Ron) Flick framed this change within two lifetimes: from the birth of his German *oma* (grandmother) in 1898 through the probable lifespan of his American granddaughter, who is likely to live into the 22nd century.

Dr. Flick, a Research Associate at Scripps Institution of Oceanography and a consulting coastal oceanographer, called his presentation “Not Your Oma’s Sea Level! King Tides and Sea Level Rise in Southern California.” He explained southern California peak high tide patterns and some of their consequences and described observations of mean sea level and sea level fluctuations, and what the future may bring on our coast.

Dr. Flick opened by describing the constituents of peak high tides (commonly called king tides) and sea levels, beginning with tidal astronomy. When the moon and sun are aligned, we have semidiurnal (twice-daily) spring tides and neap tides. Another factor is seasonal variation when the angle of Earth’s rotation changes with the seasons, as seen in this chart:



Docent General Meeting

Date: Saturday, April 13, 9:00 am

Location: St. Peter’s Episcopal Church Parish Hall, Del Mar

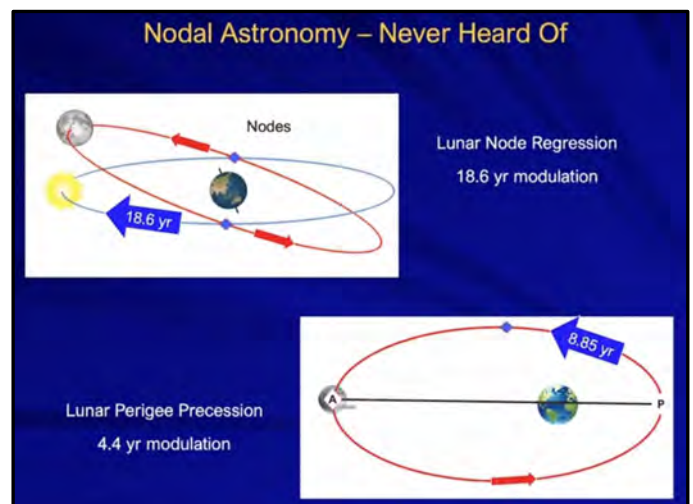
Topic: Torrey Pine Management in a Changing Ecosystem

Speaker: Darren Smith, Monica Stupaczuk, Cara Stafford, Charlie Kerns from California State Parks; Christa Horn from the San Diego Zoo Wildlife Alliance

The topics covered will include bark beetle management, an update on the Climate-Ready Reforestation Project, pitch canker and other pathogens, mapping tree mortality, and management considerations. There will be four 10-minute presentations followed by a 20-minute Q&A with the full panel.

Refreshments: Docents with last names beginning with **D, E, F** will be responsible for providing snacks for this meeting.

Two other cyclical variations in tidal astronomy occur when the moon’s orbit varies: once when it crosses the path of Earth’s orbit around the Sun, and another when the moon is closest or furthest from Earth:



(Cont. on pg. 3.)

The Torrey Pines Docent Society publishes the *Torreyana* monthly, edited by Joan Simon and Dan Hammer on alternate months, and is formatted and produced by Roger Isaacson. Submissions are due on or about the 20th day of the preceding month and may be emailed to

Editors@torreypine.org.

Please send postal/
email address changes to:

Torrey Pines Docent Society
1155 Camino Del Mar #404
Del Mar, CA 92014

Attn: Membership or email to

Membership@torreypine.org

Web sites:

TP Docent Society: torreypine.org

TP Conservancy: torreypines.org

Visitor Center phone: **858.755.2819**

TPDS Executive Board Members:

President: Matt Xavier

Vice-president: Harry Proctor

Treasurer: Lynne Truong

Secretary: Rosemary Wareham

Directors-at-large:

Roger Isaacson

Lisa Kakone

Gary McCook

Evelyn Vance

Gabriele Wienhausen

TPSNR Staff:

Supervising Ranger: Dylan Hardenbrook

Rangers: Stephanie Adams, Kyle Knox,
Dave Richards, Jesus "Chuy" Salinas
Rodriguez

Interpreter 1: Louis Sands

Sr. Interpretive Park Aides: Laura Chaing,
Lila Beth Scott, and Zuzana Volny

© Torrey Pines Docent Society
Since 1975

All rights reserved

FLASH - Don't forget to donate
your ZooNooz magazines to the
Museum Shop.

President's Message

Strolling down the new San Francisco Bay Trail on the eastern reaches of Foster City, my hometown, I was seeking solace, relief, and a change in perspective. It was a warm March day. A storm had passed a day earlier, so the sky was clear with multi-hues of blue. The strong-scented fennel and pickleweed were prevalent as always. There were birds everywhere too. A large flock of Willets resting on the mudflats became disturbed by a Peregrine Falcon. The fast flyer dove down for an easy lunch. However, the Willets outsmarted him as they flew in formation in a random pattern to confuse the hunter. The falcon eventually gave up after several dives. Once again, the natural world offered a lesson: Staying together as a team was effective.

As a child, I often walked down a block from my house to the bay shore to explore what the muddy brown bay water would reveal as the tide receded. There was always something new to discover. My favorite memory replayed in my head - my brother Mark and I catching, with our bare hands, a juvenile leopard shark that had been stranded in a tide pool. We carefully walked on the soft mudflats to get to the water's edge where we could feel his fine sandpaper-like skin as he swam into the bay. My brother and I were always a team, and here we were *ecological warriors* taking action to save one of Mother Earth's creatures. Another example of teamwork in action!

The board of directors voted to create a new work group to review the Roving Interpretation (RI) program. I want to thank co-chairs **Coach Vance** and **Harry Proctor** for taking on this important effort as well as **Gabriele Wienhausen** for her extraordinary work on developing RI programmatic opportunities. **Pao Chau** also serves on the committee.

The membership rosters have been printed and they are available in the Library. Thanks to **Jeannie Smith**, **Roger Isaacson**, and **Lynne Truong** for all their efforts to compile, format, and print the roster.

Lastly, congratulations to **Barbara Wallach**, who was presented with the State Parks Superior Achievement Award at the February meeting. I think everyone would agree that she is an inspiration to us all!

Happy trails to you.

Matt Xavier

TPDS President

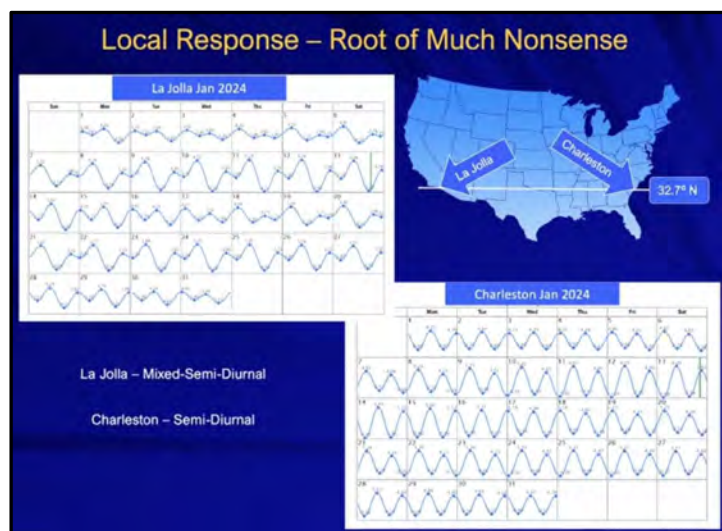


Inside

Rising Tides	1, 3-4
President's Message	2
Meeting Minutes	4
Docent of the Month	5
Mindful Walks	5
CEED Hike: Pamo Valley	6
Women's Day	7
Bee of the Month	8
What's On the Beach? Sand Fleas	9
Bee Survey	9
TP Book Club	10
Bird Survey	10

(Cont. from pg. 1.)

These astronomical influences produce different effects on different coasts. For example, La Jolla, CA and Charleston, SC both lie at the same latitude (37.5 degrees North), but one is on the eastern edge of the Pacific Ocean and the other on the western edge of the Atlantic. The astronomical influences on both coasts are the same, but the local responses are not. On any given day, La Jolla has one high tide that is much higher than the other high tide and one low tide that is much lower than the other low. Charleston's highs and lows, by contrast, are much more even, as you can see on these tide charts from January 2024:



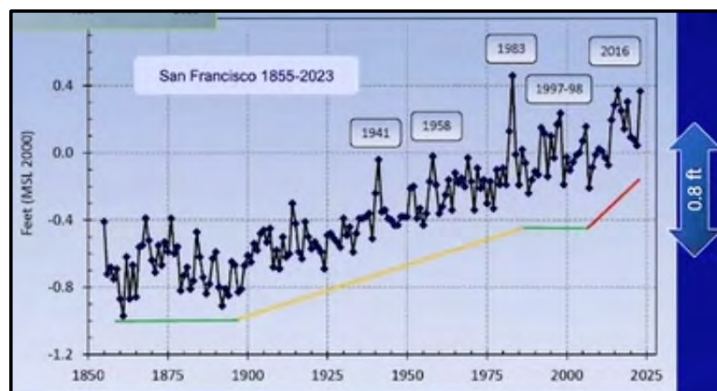
Moreover, La Jolla's higher high (HH) occurs before its lower low (LL). The daily sequence is always HH-LL-LH-HL-HH. The diurnal inequality between highs and between lows has profound effects on the California coast. To cite one major example, when the tide turns after HH, water from rivers, lagoons, and harbors rushes out to sea, producing a scouring effect that keeps their mouths open. This natural scouring helped give California some of the world's finest natural harbors, including San Francisco Bay and San Diego Bay.

Another constituent of extreme high tides is El Niño, when normal easterly trade winds weaken and warm water is pushed back east, toward the west coast of the Americas. These conditions raise sea level and tend to increase the frequency and volume of king tides for up to two years at a time.

The most extreme tidal events occur when there is a conflation of warmer waters, peak high tides, high surf, and storm surge. In January 1983, all of these constituents came together in San Diego to wreak havoc, most memorably in La Jolla, where 13-foot waves broke windows and washed tons of rocks and kelp into the Marine Room restaurant; Dr. Flick recalled touring the site and seeing a grand piano floating through the dining room.

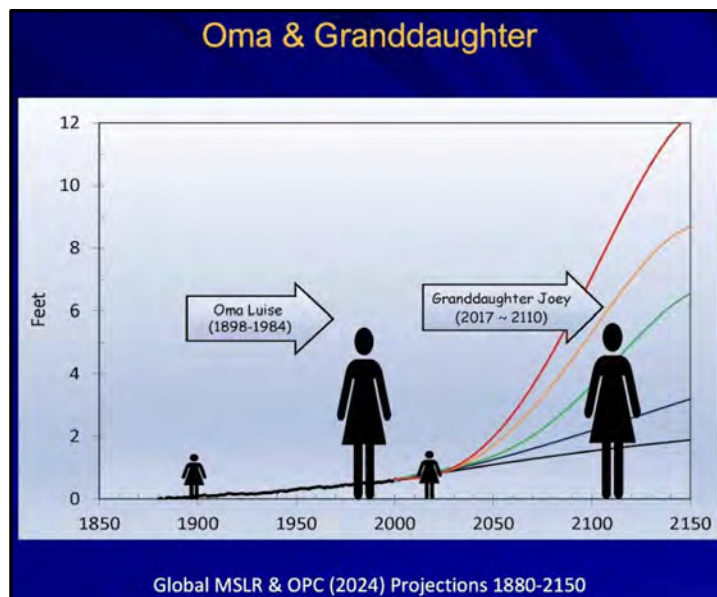
Aside from these types of conditions and the aforementioned astronomical cycles, sea levels remained stable from the dawn of the Common Era to the dawn of the Industrial Revolution. But as soon as factories began spewing carbon dioxide into the air, greenhouse gas warming began. As early as 1863, Irish atmospheric scientist John Tyndall proved that increased carbon dioxide warmed the atmosphere. In 1896, Swedish chemist Svante Arrhenius demonstrated that a two- to threefold increase in carbon emissions would warm global temperatures by 8 degrees Centigrade.

An annual survey of average sea levels in San Francisco Bay is the longest such record in the United States. As you can see in this chart, sea level has climbed steadily except for a brief leveling off caused by large-scale wind patterns in the Pacific Ocean:



Overall, the sea level has risen by about 0.8 feet in the past century.

Dr. Flick concluded with a chart showing California sea level rise in the lifetimes of his grandmother and granddaughter:



Using 1880 as a baseline, by 1898 sea levels rose to cover baby Oma's toes. By the time she died in 1984, they had risen up to her ankles. Between then and granddaughter

Joey's birth in 2017, they rose up to the new baby's waist (almost a foot). As you can see from various estimates of sea level rise going forward (from best-case to worst-case scenario), sea levels are likely to rise between two and five feet in Joey's lifetime.

So, what is to be done? How can we protect our coasts from rising tides? Dr. Flick stated that as individuals, we could join groups and take collective actions to combat global warming. As a society, we must find and maintain a balance between the natural environment and human impacts, including commercial activity, recreation, and coastal access.

To strike this balance, Dr. Flick recommended a three-pronged approach: mitigate, adapt, and retreat. Mitigation might include a steadily increasing fee on carbon emissions, with the proceeds invested in public works benefiting the environment. Adaptation measures include beach sand replenishment, sand retention, and coastal armoring. Retreat involves moving vulnerable structures and activities away from the coast and the rising sea.

If you missed Dr. Flick's presentation or want to see it again, [click here](#).

GENERAL MEETING MINUTES: MARCH 9, 2024

Speaker: Ron Flick, PhD, spoke about the rise in sea level (see article on pg. 1). Approximately 55 docents attended.

Parking passes for monthly meetings at St. Peter's Parish Hall: passes were distributed at the meeting. Please contact **Rosemary Wareham** if you still need a pass.

Docent of the Month: **Dee Huang**, class of 2024, is the docent of the month. He has participated at the TIK, Lodge hosting (including pest cleaning), and a variety of other activities. See pg. 5.

Ranger Report: Park Ranger Stephanie Adams sent a heartfelt thanks to all the docents who worked at the TIK and Lodge when the trails were closed.

Earth Day: TPSNR will celebrate Earth Day on Sunday, April 21. Contact **Lynne Truong** to help with this event.

BLIK, North Beach Construction: The BLIK will be open Friday to Sunday from 10 am to 2 pm starting Saturday, March 9. There will be three different construction projects at North Beach in the coming months. The BLIK, restrooms, and part of the North Beach parking lot will be fenced off. The BLIK will continue in its current location until access is curtailed when the fence is installed. After that time, the BLIK will probably operate from the North Beach shed. The projects include installation of large cable, shoring up the railroad bluffs and repairs, and replacing the

concrete ramp and improving walkways near the south bridge over the 101.

Task Force for Roving Interpreter: **Harry Proctor** and **Coach Vance** are co-chairs of this task force, which is reviewing and evaluating the Roving Interpreter program. So far, ideas include stationing docents at trail "hot spots" to help with interpretation of particularly interesting or important things and stationing docents at very busy places and/or trail entry points to help visitors with directions and Reserve etiquette.

TP Google Groups Email: **Matt Xavier** reminded everyone to avoid topics not pertinent to the Docent Society when posting on Google Groups, including politics. "Be kind and thoughtful." **Patti Montgomery** reminded docents not to "reply all" unless your reply is important to all.

Refreshments for April Meeting: Those with last names beginning with **D, E, F** are responsible for bringing food. **Marian Edelbrock** suggested fruit, nuts, and other healthy food in addition to the usual yummy sweets.

New Membership Roster: New rosters are available in the Lodge library. You can also request a PDF roster from **Lynne Truong**. The yearly printed Roster is produced by **Jeannie Smith** from the MS Access database that she maintains in sync with Better Impact contact info.

Trail Maintenance Issues: If you find issues with the trails, email them to Trailissues@TorreyPine.org. Include photos, if appropriate, so that the maintenance staff can assess the problem more easily.

Whacky Weeders: Everyone is welcome; new docents are especially encouraged to try weeding. Contact **Lynne Small** for more information.

Wildlife Survey groups: We have two survey groups: the Birders and the WannaBees (tracking native bees). Questions can be sent to portal@torreypine.org

Link to program

video: vimeo.com/921589550?share=copy

Business meeting

video: vimeo.com/921577161?share=copy

Next Monthly Board Meeting

Date: Wednesday, April 10

Time: 1 – 3 pm

Place: Children's Pavilion (or docent library, depending on weather or number attending)

Everyone is welcome, but please let a board member know if you're coming.

See pg. 2 for list of board members.

Docent of the Month: Dee Huang

Photo by Herb Knufken

I was very surprised and extremely honored to be named Docent of the Month. I am a “newbie” (class of 2024) and still in the process of getting familiar with the various wonderful programs offered by the Docent Society.

I came to the United States from Taiwan in 1973 to pursue graduate study in physics/biophysics. I joined the Scripps Clinic & Research Foundation (later renamed The Scripps Research Institute, now Scripps Research) as Director of their Nuclear Magnetic Resonance (NMR) Facility. In the early 2000s, I started participating in volunteer work with the Torrey Pines Project at ScrippsAssists. It was a once-a-month project, working with Park rangers and staff members on various maintenance/weeding projects. I became that project's leader from 2008 until my retirement at the end of 2022.

I was fortunate to be able to attend the docent training class of 2024. From all the training sessions, I gained more in-depth knowledge of the Reserve's extensive biodiversity, its geologic changes over millions of years, and the efforts by the TPDS to educate young visitors with critical information about the surrounding environment. I look forward to working with fellow docents in various capacities to communicate with visitors, provide them with additional information about the Reserve, and encourage their appreciation of the beautiful place they are visiting.



Mindful Walks: Embracing Peacefulness

by Santosh Nichani; photo by Beverly Toth

Within the bustling city of San Diego lies a sanctuary of tranquility and natural beauty – Torrey Pines State Natural Reserve. Nestled atop rugged cliffs overlooking the Pacific Ocean, this island in a suburban ocean offers more than breathtaking views and hiking trails. It provides the perfect backdrop for mindful walking, a technique that cultivates awareness and presence in every step.



Mindful walking at Torrey Pines begins with a conscious intention to immerse oneself fully in the present moment. As visitors step onto the trails, they are greeted by the rustle of wind-blown trees, the scent of coastal sagebrush, and the rhythmic crash of waves against the white Torrey sandstone cliffs. Each sensation invites deepening awareness and connection with the natural world.

The first step in mindful walking is to bring attention to the body. Walkers tune into the sensation of their feet making contact with the earth, feeling the texture of the ground beneath them. They synchronize their breath with each step, inhaling and exhaling harmoniously with their movement. This simple act of coordination fosters a sense of relaxation and of feeling grounded.

As walkers continue along the trails, they focus on the surrounding environment. Torrey Pines boasts a rich biodiversity, with native plants and wildlife thriving in the coastal habitat. The walkers observe the intricate patterns of leaves, the vibrant hues of wildflowers, and the graceful flight of birds overhead. Each sighting reminds them of our interconnectedness with nature.

Mindful walking also encourages gratitude and appreciation for the present moment. Amidst the hustle and bustle of daily life, Torrey Pines offers a refuge for introspection and renewal. Visitors can cultivate a deep sense of peace and well-being by immersing themselves in nature's sights, sounds, and sensations.

BLIK: Learn at Lunch

Topic: What's on the Seafloor? Geology of the Offshore Environment of TPSNR

Speaker: Docent Ed Saade, class of 2024

When: Wednesday, April 3 at noon

Where: North Beach Parking Lot

Ed Saade is a California Registered Geophysicist and the president of EJS Solutions. He has 49 years of experience in international hydrographics, coastal zones, and ocean engineering.

In a world filled with distractions, mindful walking at Torrey Pines gently reminds us to slow down, breathe, and savor the beauty surrounding us. Whether strolling along the beach or meandering through the coastal scrub, each step becomes a journey inward to reconnect with our inner calm and tranquility.

The Mindful Walks leader guides visitors to experience the healing power of nature, what Ellen Browning Scripps called the "re-creational power" of this astonishingly beautiful and resilient land.

We meet outside the Lodge every Sunday at 8 am. Join our Mindful Walks leader, who will guide you through a unique and fantastic experience.

Please check the [website](#) for more information.

CEED Hike: Pamo Valley Trail, Ramona

by Mukesh Mehta

Háawak (pronounced HAAWka), a traditional greeting in the Kumeyaay language, was how we were all greeted by Juan A. Reynoso, known as "Nemuuly" (Grizzly Bear) in his native tongue. Mr. Reynoso, a Kumeyaay storyteller and educator, was our leader on this hike.

Thirteen Torrey Pines docents traveled about an hour east of Torrey Pines Reserve to the serene Pamo Valley Trail in Ramona, which is part of the San Dieguito River Park (SDRP). This is a portion of the Coast to Crest Trail, extending from Del Mar to the source of the San Dieguito River on Volcan Mountain near Julian. [Click here](#) to see the SDRP map.

Photo by Mukesh Mehta



Everyone gathered in a large circle for introductions. Mr. Reynoso asked us to voice our expectations for the walk. Many expected to experience nature and to hear the stories of the Kumeyaay people. Because this was a public event, there were many other people who joined us from the San Dieguito River Valley Conservancy. Mr. Reynoso was supported by a ranger along with staff members and volunteers from the Conservancy.

A few hundred yards into the hike, we stopped at a small bridge that crossed a running stream. Mr. Reynoso asked everyone to close their eyes, take a few deep breaths, and listen to the stream and the sounds of nature. He said, "Imagine 150 years ago a community of Kumeyaay people sitting along the bank of this flowing stream exchanging stories of their ancestors. It was a time to connect with communities from around the region."

The next stop was hidden from the main trail and is not accessible to the public; it could only be accessed with permission from the ranger.

It was a lichen-covered, weathered granite outcropping with a series of holes called *morteros* located in what Mr. Reynoso referred to as the "Kumeyaay kitchen" where the people ground acorns, chia seeds, bones, and even meat. Some holes were deeper, suggesting that these *morteros* were used for multiple generations, over about 14,000 years.



Photo by Joanne Miale

According to Mr. Reynoso, the *morteros* were near a stream because the acorns had to be soaked to remove the bitter taste. *Morteros* were always within a circular oasis of oak trees. The trees were planted by the Kumeyaay people to give back to the natural environment, a testament to their stewardship and reverence for the land. The “Kumeyaay kitchen” was also a meeting place where many communities exchanged ancestral and mythological stories and ideas.

Further along the hike we saw a variety of native flora including mission manzanita, miner’s lettuce, California buckwheat, lupine, and chia sage. We also saw mature live oaks and sycamores. This habitat was a mix of sage scrub, oak woodland, and grassland. We were a little early for the wildflowers, so a return visit to see them is highly recommended. As a parting gift, all the hikers were presented with a map of the San Dieguito River Valley printed on cloth fabric, which shows the location of the Pamo Valley.

Women’s Day Activities Celebrate Females of Torrey Pines

Article and photos by Angela Bailey

Friday, March 8 was a beautiful day to celebrate Women’s History Month and International Women’s Day at Torrey Pines. Senior Interpretive Park Aide Zuzana Volny designed four interpretive stations around the Reserve to engage visitors with stories of the power of females in the animal kingdom.



Through these thoughtful activities, docents and park aides collaborated to share our appreciation for the unique strengths of females found at Torrey Pines. Park Aides Laura Chaing and Lila Beth Scott shared Peregrine Falcon facts with visitors on the South Overlook of the Guy Fleming Trail. **Gabriele Wienhausen** (above) embodied the spirit and legacy of Ellen Browning Scripps, dressed to impress and interact with visitors at the Scripps Overlook; she then went on to her Lodge hosting shift dressed as Ms. Scripps.

Barbara Wallach (below) and **Sue Lange** hosted a special female woodrat display outside the Lodge. At the West Overlook, visitors learned a few things about female bees from Zuzana Volny and **Howie Wilcox**.



Additional docents **Steve Neal** and **Alan Myers** positioned themselves at strategic points and directed visitors towards interpretation activities. The on-trail activities hosted by docents and park aides were a special treat for visitors, especially as most of the Reserve remained off-limits due to the prior days’ rain. Despite the closure of the park road and trails, each interpretive station had at least 100 visitors, and the Peregrine Falcon station had about 400!

Bee of the Month: Evening Bees, *Hesperapis*

by Jess Mullins

Photo by Thomas J. Barnes on the Guy Fleming Trail;
inaturalist.org/observations/162671447



The April bee of the month is commonly known as the “evening bee” (*Hesperapis* spp.) within the bee family Melittidae. While 22 species of evening bees have been formally described in North America, this number likely underestimates the actual diversity, with many more species awaiting formal description. Because of the ongoing need for taxonomic revision, these bees are typically identified only at the genus level on iNaturalist.

Evening bees can be spotted flying throughout the year across their range, but at Torrey Pines State Natural Reserve they are particularly abundant in April. Like many of the over 20,000 bee species worldwide, evening bees thrive in arid regions such as San Diego County. They construct their nests by digging holes in the soil near their host plants, exhibiting a completely solitary lifestyle.

The majority of bees in the *Hesperapis* genus are pollen specialists, meaning each species collects pollen exclusively from a specific type of flower. Their flight season typically coincides with the bloom of their host plant. Common flowers frequented by *Hesperapis* at the Reserve include yellow pincushion, tidy tips, California bush sunflower, common goldfields, sea dahlia, California poppy, sun cups, popcorn flower, and beach morning glory. If you encounter any of these flowers in bloom, take a moment to observe, as you may spot an evening bee! These bees vary in size, ranging from about the size of a Tic Tac to that of a Good & Plenty. They have black bodies with pale to yellow hair, with their distinctive bright blue-green eyes serving as their most recognizable feature.

Source: Stage, Gerald Irving. *Biology and systematics of the American species of the genus Hesperapis*, Cockerell. University of California, Berkeley, 1966.

Check out more of the wild bees that the WannaBees have found at the Reserve this year:

[inaturalist.org/observations?place_id=any&q=TPSNR
BeeMonitoring2024&search_on=tags&taxon_id=6309
55](https://inaturalist.org/observations?place_id=any&q=TPSNR+BeeMonitoring2024&search_on=tags&taxon_id=630955)

April CEED: Del Mar Mesa Preserve

Date: Friday, April 12

Time: 8:30 am

Place: Trailhead to the Del Mar Mesa Preserve at the cul-de-sac at the east end of Rancho Toyon Place

(<https://maps.app.goo.gl/pTJzuFCH9ZVjSXFS8?qst=im>)

Duration: Approximately 2.5 hours

Difficulty Level: Intermediate; 3.5 miles, 200' incline;

Leader: Ingo Renner

RSVP: Mukesh Mehta (Please check membership Roster for his email.)

This hike is geared toward native plants and habitats. Bring water, a snack, and a sense of adventure.



I Love the San Diego Sea Dahlia

by Rhea Bridy

Good morning, Sunshine!
Dressed in buttery, lustrous
yellow

Your petals like silky-tapered scarves
Ready to flirt and float and flap in time
with pine and lovely breezes.

I love how you track the energy of fiery star,
East to West and straight
up tall at noon.

Among the succulent green and sandstone,
the Spring, the Bees and Me
will be communing.

What’s On the Beach? Sand Fleas

by Kathy Dickey; photo credit: CA Dept of Fish and Wildlife

This article was difficult to write. My problem was: Do these critters, like fleas, bite us – or not? Articles in the literature were varied. As I learned, it depends on the species and the location. Along the coasts of North America, there are over 90 species that claim to be **Sand Fleas** (aka sand hoppers, beach hoppers, land shrimp). These tiny creatures are not fleas at all, or any kind of insect, but are amphipods, tiny shrimp-like crustaceans.



Lift up an old pile of kelp on a San Diego beach sometime, and you will see hundreds of these little guys hopping all around. It’s a fun activity for kids. Take a walk along the shoreline at dawn, at dusk, or at night and you might experience them bouncing around on your feet or ankles as they search for decaying plants (especially kelp) and decaying animals for food. They burrow into the sand during the heat of the day.

In San Diego, our common species is *Orchestia agilis*. It is about 1/8 of an inch long and looks like a tiny gray hot dog. They do NOT bite humans. They live an average of one year.

However, there are other similar species that DO bite people. Most live elsewhere, but there is a larger-sized variety, *Excirolana chiltoni*, that occasionally pop up in swarms of thousands at our beaches and bays. They normally prefer the waterlines of the tropics and subtropics.

“They can be pretty nasty when they get going,” Richard Brusca, an invertebrate zoologist at the University of Arizona and a former curator of crustaceans at the San Diego Natural History Museum, told the Los Angeles Times in 1993. “They’re like mini-sharks” that can attack you “like a wolf pack” but with a bite comparable to that of a mosquito. However, it is unclear what causes these rare and sudden increases in the abundance of *E. chiltoni*, Brusca said.

“My recommendation is to not freak out,” said Ryan Hechinger, a parasite ecologist at Scripps Institution of Oceanography who has been bitten by the isopods several times. “If bitten, simply get out of the water and remove the isopods if they are still latched on.” It is possible to make the isopods scatter by moving around, he added, but the only way to guarantee you won’t be bitten is to stay out of the water.

Lots of other true insects might bite you at the beach, such as mosquitos, biting midges (also known as no-see-ums), and wasps. Yikes! But... have fun, play safe, and don’t let the “beach bugs” bite.

January and February Bee Counts (as of March 1, 2024 iNaturalist.org)

[Click here for inaturalist.org/observations](https://www.inaturalist.org/observations)

Native Bee Species by Common Name	Guy Fleming	Margret Fleming	Mars Scenic	Marsh Trail	North Fork	Parry Grove	Razor Point	Total
4								
5 Yellow-faced Bumble Bee	12			3	1		1	3
6 Metallic Sweat Bee	4	4		1	1	7		2
7 Small Carpenter Bee	2			1	1			1
8 Bumble Bee								1
9 Sweat Bee								1
10 Black-tailed Bumble Bee						1		
11 California Bumble Bee				1				
12 Mountain-digger Bee								1
13 Total	11	4		6	3	8	1	5
14								
15 Bee survey observers:								
16	Bonnie Nickel, Cindy Pencek, Craig Chaddock, Karen Fraser, Scott Henry, Robert James, Tina Tong, Tsaiwei Olee, Phillip Rouillard, Tom Barnes, Gabriele Wienhausen							

Torrey Pines Book Club

We will continue to meet via Zoom at our regularly scheduled time. Please notify **Annette Ring** if you plan to participate or if you need any extra help getting connected.

When: Tuesday, April 9, 1:00 pm

What: *I Contain Multitudes: The Microbes within us and a Grander View of Life* by Ed Yong (author of *An Immense World*)

Amazon says:

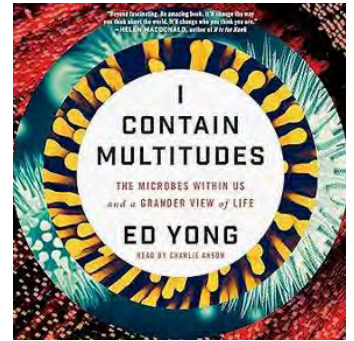
Every animal, whether human, squid, or wasp, is home to millions of bacteria and other microbes. Pulitzer Prize-winning author Ed Yong, whose humor is as evident as his erudition, prompts us to look at ourselves and our animal companions in a new light – less as individuals and more as the interconnected, interdependent multitudes we assuredly are.

The microbes in our bodies are part of our immune systems and protect us from disease. In the deep oceans, mysterious creatures without mouths or guts depend on microbes for all their energy. Bacteria provide squid with invisibility cloaks, help beetles to bring down forests, and allow worms to cause diseases that afflict millions of people.

Many people think of microbes as germs to be eradicated, but those that live with us – the microbiome – build our bodies, protect our health, shape our identities, and grant us incredible abilities. In this astonishing book, Ed Yong takes us on a grand tour through our microbial partners and introduces us to the scientists on the front lines of discovery. It will change both our view of nature and our sense of where we belong in it.

All TPDS docents are welcome. Meetings usually last an hour and a half.

May 14: *The Book of Hope: A Survival Guide for Trying Times* by Jane Goodall, Douglas Abrams, and Gail Hudson



Torrey Pines Docent Society Bird Survey: March 2024

Number of species: 84
(+3 other taxa)

Blue-winged Teal 1
Cinnamon Teal 4
Northern Shoveler 10
Gadwall 4
American Wigeon 14
Mallard 9
Green-winged Teal 21
Canvasback 4
Redhead 3
Lesser Scaup 40
Surf Scoter 250
Bufflehead 13
Hooded Merganser 5
Red-breasted Merganser 3
California Quail 10
Pied-billed Grebe 1
Western Grebe 140
Eurasian Collared-Dove 2
Mourning Dove 30
White-throated Swift 5
Anna's Hummingbird 38
Allen's Hummingbird 3
hummingbird sp. 3

Ridgway's Rail 1
American Coot 107
Long-billed Curlew 15
Willet 5
Sanderling 50
Heermann's Gull 2
Western Gull 13
Herring Gull 1
California Gull 12
Black Skimmer 1
Caspian Tern 2
Red-throated Loon 1
Black-vented Shearwater 1
Brandt's Cormorant 44
Double-crested Cormorant 9
Brown Pelican 1
Snowy Egret 10
Great Egret 3
Great Blue Heron 4
White-faced Ibis 34
Osprey 1
Cooper's Hawk 3
Red-shouldered Hawk 3
Red-tailed Hawk 7
Belted Kingfisher 1
Nuttall's Woodpecker 13
Northern Flicker 1

American Kestrel 6
Peregrine Falcon 3
Black Phoebe 5
Say's Phoebe 9
Cassin's Kingbird 2
Hutton's Vireo 4
California Scrub-Jay 12
American Crow 39
Common Raven 45
Northern Rough-winged Swallow 24
swallow sp. 3
Bushtit 62
Wrentit 66
Red-breasted Nuthatch 1
California Gnatcatcher 7
House Wren 30
Bewick's Wren 42
California Thrasher 14
Northern Mockingbird 6
Scaly-breasted Munia 4
House Finch 58
Lesser Goldfinch 27
Dark-eyed Junco 14
White-crowned Sparrow 26
Golden-crowned Sparrow 1
Savannah Sparrow 11

Savannah Sparrow (Belding's) 6
Song Sparrow 56
Lincoln's Sparrow 2
California Towhee 71
Rufous-crowned Sparrow 1
Spotted Towhee 29
Western Meadowlark 40
Red-winged Blackbird 2
Orange-crowned Warbler 32
Common Yellowthroat 33
Yellow-rumped Warbler 16

Observers: Nancy Richardson, Donna Mancuso, Paul Mulholland, Maryanne Bache, Janet Ugalde, Karen Messer, Kathy Estey, Robert Turner, Manolo Turner, Marty Hales, Tsaiwei Olee, Robert James, Steve Neal, Phyllis Kuszniere

View this checklist online at ebird.org/checklist/S164153862

Herb Knufken's amazing photo gallery, including many birds, may be found here: pbase.com/herb1rm



Torrey Pines Docent Society
1155 Camino Del Mar #404
Del Mar, CA 92014
(858) 755-2063
torreypine.org