TORREYANA

THE DOCENT NEWSLETTER FOR
TORREY PINES
STATE NATURAL RESERVE

Issue 475 **March 2025**

Los Peñasquitos Lagoon: A Fascinating, Delicate Ecosystem

by Joan R. Simon

Barbara Wallach, one of our most celebrated docents,* led us through the ins and outs of the Los Peñasquitos Marsh Natural Preserve at the February 8 Docent Society meeting. Always the interpreter, she said her goal was to give us information on this special place to share with visitors, both children and adults.

Wetlands such as ours can be called a marsh, lagoon, estuary, bog or swamp; they are similar, though not identical, but the words are usually used interchangeably. They are among the most fragile ecosystems on the planet – right behind rainforests in terms of endangered habitats. We've lost most of our wetlands and lagoons in California, as has most of the United States, because "people build things where they want to, without thinking about what else is living there," Barbara said.

Los Peñasquitos, meaning "Little Cliffs," was the name given to our marsh in 1769 when the Spaniard Gaspar de Portolá and his expedition came to this area. The marsh itself is 569 acres; the watershed from which it draws water is about 60,000 acres, including Mira Mesa, Rancho Bernardo, Carmel Valley, and parts of La Jolla and Scripps Ranch. This huge area drains into our lagoon through very small tributaries and streams, carrying pollutants with them. Over time office buildings have gone up (and been taken down and rebuilt), along with roads, parking lots, and homes, bringing polluting run-off from all these structures and roadways to the lagoon.

Before the train trestle and the bridge over the lagoon were

Docent General Meeting

Date: Saturday, March 8, 9:00 am

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

Speaker: Herpetologist Jeff Nordland

Topic: Common Herps of TPSNR

Jeff will provide a brief overview of the most common reptiles and amphibians we are likely to see at Torrey Pines, including four species of snakes, three types of lizards, and two amphibians. He will bring live specimens of some of these species and during the Q and A period, docents will have an opportunity to get a close-up look, or even gently hold, the animals.

Jeff is well known to Torrey Pines docents from his participation at many Torrey Pines events (always with live animals). He earned a BS in Plant Biology from UC Davis in 1995 and an MBA from SDSU in 2004. He has led expeditions and collected herp records from all over southern California and maintains a diverse collection of small, friendly California native herps which he brings to numerous educational presentations each year.

Refreshments: Docents with last names beginning with **O, P, R, S** will be responsible for providing snacks for this meeting.

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 and Angela Bailey. Submissions are due on or about the 20th day of the preceding month and may be emailed to
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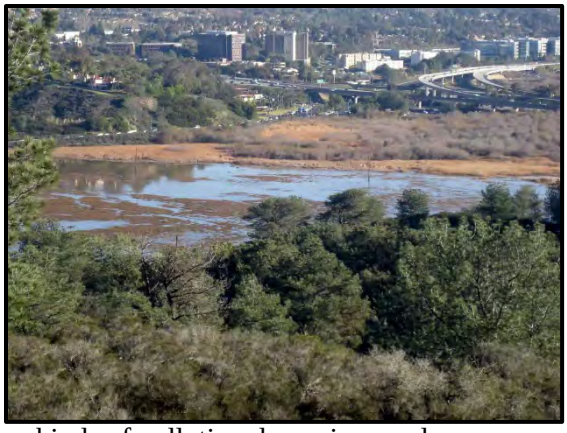
TP Conservancy: torreypines.org

Visitor Center phone: **858.755.2063**

FLASH - Don't forget to donate your nature and conservation magazines to the Museum Shop.

built, the opening of the lagoon to the ocean was where the South Beach parking lot is now.



Today the opening is squeezed into the northern edge of the lagoon. "Man has done a lot of playing around with the openings to the lagoons all up and down our southern coastline," Barbara commented.

Barbara distinguished between two kinds of pollution damaging our lagoon. "Point" pollution is where we can identify the specific place the pollution is coming from, such as a building project. "Nonpoint" pollution is just the usual trash that comes from an active population: wrappers, dog poop, motor oil, etc. Suffice it to say, there is plenty of both kinds, and as building continues (and even accelerates) within the lagoon watershed, pollution is only increasing.

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But it once was worse. There were three sewage plants within the lagoon, and they overflowed frequently. Two were removed (after strong community lobbying) and the remaining one (#56), along Sorrento Valley Road, now expels its waste at Point Loma rather than into the lagoon.

When the mouth of the lagoon closes, as it almost always does in the spring, heavy machinery is brought in to dig out the opening. Barbara showed dramatic photos of the flow of pollutants as the water exited a recently excavated opening from the lagoon. You can see the pollution plume as it moves along the coast south to La Jolla, then it is taken out to sea via the submarine canyon. In recent years, the channels that are dug to open the lagoon have become increasingly deep, eliminating large areas of mudflats where long-legged birds (such as herons) could use their long beaks to find food. This change in the dynamics of the lagoon has made it harder for these birds to thrive here.

Barbara also showed us photos of the sedimentation pools built along the side of Carmel Valley Road to catch the pollutants and debris as they drain from the road, keeping it out of the lagoon. ("It's pretty smelly," Barbara said.) Over the years, the Whacky Weeders have worked with the state and nearby residents to remove invasive plants along the road and replace them with natives.

As constrained and "scrunched" as our marsh is today, it continues to be a haven for a rich variety of plants and animals. Its biodiversity is as great if not greater than anywhere else in the Reserve. Starting with the fish and the birds, and moving on to mammals, reptiles, crustaceans, and insects, "they're out there in force," Barbara said. And because of the distinctive ecology of the marsh, many of the inhabitants have developed adaptations that a lot of the animals and plants in the main Reserve do not have.

A distinctive feature of wetlands is their brackish water, where salt water from the ocean mixes with fresh water from inland streams. The plants in the marsh are mostly halophytes, meaning they have developed different adaptations to deal with salt water. For example, salt grass is an excreter; it is able to take the salt out of the water and push it out to the edge of its pores. Pickleweed (*Salicornia*) is an accumulator. It separates the salt from the water and saves it in specialized chambers called vacuoles, which turn red and eventually fall off as the plant continues to grow. Pickleweed is also called "sea beans" and is very tasty. Feel free to try it! Alkali-Heath is another excreter. Salty Susan filters out salt using its roots.

Salt-marsh dodder is a parasite found in the marsh. It lives on the host plant and takes sustenance from it. You can unwind a strand of dodder and see all the little mouths that adhere to the host plant. Other plants common in the marsh are goosefoot (*Atriplex*), alkali weed, cream cups, wind poppy, fuschia-flower gooseberry, alkali bulrush (right), mule fat, and cattail, which the Kumeyaay used to make baskets. "This was a supermarket for them down in the lagoon," Barbara explained. Jimson weed (*Datura*), which smells like peanut butter, is also in the marsh. The hawk moth is the only insect that can pollinate the Jimson weed, because it has a large enough proboscis to reach down into the base of the flower. The riparian area at the far eastern end of the lagoon supports bigger trees, like willows and sycamores. Signs of raccoon and deer (footprints) and great horned owls (pellets) are often sighted in this area.

Barbara showed us many other creatures of the lagoon: solitary bees that build little chimney openings into their nest; horned snails, an indicator of the health of the lagoon – the more we have, the healthier the lagoon; rattlesnakes; and green shore crabs.

She showed us a male fiddler crab waving his one outsized claw, which he uses to attract a female to the tunnel he has built in the mud. The female may go to 15 or more burrows before finding one of just the right depth and location. If the male fiddler crab loses his big claw, it will regenerate during the next molting period.

The lagoon is home to mullets, one of the jumping fish (why they jump remains a mystery), and to staghorn fish, bottom dwellers that not many will eat because their fins, which they spread out, are very bony.

The lagoon's birds include coots, also called "mud slappers" because they have to run across the surface before they can take off. There are also whimbrels, godwits, and the Red-winged Blackbird, which "gathers a harem and mates with them all."

Other birds are the Ibis (in the eastern end of the marsh where water will stand), Mallards, Snowy Egrets, Hooded Mergansers, and Pintail ducks. Ridgway's Rail (endangered), "which looks like a chicken that's been sat upon and squashed," is narrow enough to go through the reeds; the Savannah Sparrow, which is also endangered, lives in pickleweed. (See Bird of the Month, pg. 10,)

To watch Barbara's full presentation, click here.
*For more about Barbara's honors see *Torreyana*, November 1998 and *Torreyana*, March, 2024. Barbara is also the recipient of the San Diego County Parks and Recreation 2017 "Champions Award."

General Meeting Minutes: February 8, 2025

Speaker: Barbara Wallach filled in for the scheduled speaker, who could not attend due to a family emergency. Barbara's topic was Los Peñasquitos Lagoon (see pg. 1). About 65 docents attended.

Docent of the Month: **Carolyn Maclean**, class of 2024, was co-chair of the December holiday party. She does frequent Lodge hosting and is participating in the new Roving Interpreter/Ambassador program.

Membership Update

Lynne Truong announced that 2025 parking passes for the Reserve are bright pink and available from **Jeannie Smith** at the meeting or from a park aide or ranger at the Lodge. VIP passes (100 and 200 hours) are being mailed to docents' home addresses. We have a total of 244 active members, including 117 Lifetime members, many of whom are active. Lynne stressed that it's important for Lifetime members to log their hours in Better Impact for State Parks records, which affect how much money State Parks allots to Torrey Pines.

Be sure your hours are recorded in BI correctly. At the TIK and when Roving, include the number of visitors with whom you have had meaningful contact. Send an email to **Roger Isaacson** if a shift that is automatically recorded needs to be canceled at the last minute, and he will remove the hours. When volunteering, always wear your vest and name tag.

Membership Roster

The 2025 Membership Roster will be published soon. If you have any changes to your profile (name, address, phone numbers), please send them to membership@torreypine.org by February 28.

Mindful Walks

Santosh Nichani reminded us that Mindful Walks are from 8 to 10 am every Sunday, starting from the Lodge. There will be a sunset Mindful Walk on March 20 at 5 pm to coincide with the Equinox (see pg. 8).

President **Matt Xavier** announced that the park road up to the Reserve was temporarily closed on Feb. 8 due to a sinkhole. [Repairs were done quickly, and the road was re-opened on Feb. 12.]

Parking passes for the church lot for 2025 were available at the meeting. Passes need to be visible in your car; otherwise, you could receive a $70 ticket from the City of Del Mar.

The **annual report** will be presented at the March meeting.

Conflict Resolution Process

Matt reported that the conflict resolution process to handle complaints has been finalized and will be posted soon. [It was sent out for review via Google Groups on 2/10.] Thanks to the team working on the conflict resolution process: **Bob Friedman, Jeannie Smith, Cres Torres, Ken Baer, Ron Styn, Harry Proctor,** and **Barbara Wallach.**

The Nominating Committee, which recommends new board members to be voted on by the membership, will be undergoing changes. Email **Matt Xavier** if you are interested in attending the meetings regarding the changes.

New Ramp at North Beach

Construction on the ramp to the beach under the low bridge at the North Beach parking lot is complete, and the ramp is now open (as of 2/22). The BLIK will be officially open on March 7; the next Learn at Lunch will be held there on March 6 (see pg. 6).

Earth Day will be celebrated on Saturday, April 19 as a day of service (e.g., beach clean-up, etc.). More information will be coming.

Wine in the Pines, an annual TPC fundraiser, will be held on Sat. April 26. There will be a docent sign-up for various tasks to assist at this event. (See pg. 10.)

Snacks at the next general meeting will be provided by docents with last names ending in **O, P, R, S**.

Judy Schulman, TPDS historian, suggested we show a short movie or video to enhance the meeting or in place of a speaker now and then. "Tides of Passion," a 28-minute movie, was recommended.

February CEED: Natural History Museum

At the CEED event on February 20, twenty-three docents enjoyed a fantastic tour of the Coast to Cactus exhibit at the Natural History Museum. A group from the Museum will be given a tour of the Reserve on March 3.

Docent of the Month: Carolyn Maclean

Photo by Herb Knufken

Surprise! Docent of the Month? I humbly thank you.

I arrived in this area ten years ago, curious and excited to discover where I'd chosen to live, eager to learn the names of the plants, birds, and creatures around me. Soon I found my way to Torrey Pines, and it was love at first hike! Little did I know then that my Torrey Pines journey would truly begin the day I met some wonderful docents at the Trailhead Map who informed, amused, and inspired me! As I turned away after this encounter, I knew I had found my tribe and couldn't wait to join the merry band of Torrey Pines docents.

Funny how different our relationship feels with something when we can name it! I can enjoy listening to a beautiful songbird, but when I can put the name Thrasher to it, I suddenly feel a connection. It's taking a while to learn the many names of nature, just as it's taking me a while to learn each of your names and feel that unique connection made.

Originally from Los Angeles. Two years in boarding school in Cornwall, England. Three years in San Luis Obispo. A year in San Francisco. A year in Ashland, Oregon. Thirty years in Seattle, Washington, with many visits to Olympic National Forest and Olympic National Park, many trips to the San Juan Islands and Vancouver, B.C. Two years in La Grande, Oregon. Many travels in Mexico with wonderful new birds, plants, and creatures to learn there! I love a lot of places, but I'm happy to say here is where I truly feel at home.

There's just not enough time in each of my days to be at Torrey … but each time I arrive, my joy is renewed. See you on the trails!

Best of all has been endless opportunities for learning and enjoying all things BLIK related. Especially our visitors' sheer joy and excitement regarding the exhibits and stories we all share related to discovery and beach/ocean/lagoon experiences.

TPDS 50th Anniversary: The Search for Volunteers

by Judy Schulman, TPDS Historian

These are among the earliest news articles I have found referring to the California Department of Parks and Recreation's quest for volunteers for the newly formed Docent Society. They ran from late 1974 to late 1975. Training would be informal and provided by the rangers. Programs that the new volunteers would offer included natures walks, showing slides, and film presentations. The only requirement was that volunteers have an interest in conservation and the environment.

The area manager of the San Diego coastal beaches said the volunteers "will be a tremendous help because of the ever increasing number of visitors to the Reserve in the winter months." (If they only knew how much that number would grow over the next five decades!)

San Diego Union-12/7/1974

Volunteers Asked To Help At Torrey Pines Reserve

San Diego Union Staff Dispatch

CARLSBAD — The state Department of Parks and Recreation is seeking area adult volunteers to perform educational services at the Torrey Pines State Reserve.

Jack P. Welch, area manager of the San Diego Coast State Beaches, said the services of persons with interest in environmental concern are needed to provide educational tours of the 1,000-acre reserve.

He said, "Torrey Pines State Reserve is a unique ecological island preserved by the state so present and future genarations may enjoy its undisturbed natural beauty."

The reserve contains the Torrey Pines, a variety of small animal wildlife, birds and plants and chaparral typical of the coastal area, he said.

Volunteers will be trained in informal courses by the state rangers to aid in presenting environmental and interpretive educational services for school groups and other reserve visitors.

The programs include nature walks, slide and film presentations and the identity of various plant and animal life.

The state park has a complement of four rangers during most of the year and employs temporary help in the summer months.

The volunteers, who receive no compensation, "will be a tremendous help because of the ever increasing number of visitors to the reserve in the winter months," said Welch.

The only requirements necessary for service as a volunteer are an interest in conservation and environmental concern.

Torrey Pines Reserve volunteer workers sought

The Torrey Pines State Reserve is looking for adult volunteer workers to perform educational and interpretive services for the reserve visitors.

Torrey Pines State Reserve is a unique ecological island which the California Department of Parks and Recreation is preserving so present and future generations may enjoy its undisturbed natural beauty.

The reserve is a place of educational values since it is the only place that visitors can observe the rare Torrey Pine growing in its native habitat.

Volunteers are needed to assist the permanent staff in accomplishing programs of environmental and interpretive education for school groups and reserve visitors.

Those who are interested should call or write to Jack P. Welch, area manager, San Diego Coast State Beaches, Carlsbad, California 92008, or phone 729-8947 for further details.

Dec. 15, 1975

What's On the Beach? Limpets

Article and photos by Kathy Dickey

When walking along the beach, I am often surprised at how many limpet shells I find. These animals are usually found on rocks, pier pilings, and sea weeds. They are commonly seen in our San Diego tidepools. How did they get on the beach? After death, the currents and waves must wash them over to the sandy beach areas.

The word *limpet* comes from the Old English, meaning "to cling" – apropos because these creatures do indeed cling to intertidal rocks. Limpets are members of the class Gastropoda (the snails), whose shells are made of a conical shield or plate shape. They seem like simple creatures, but they are certainly not. The word *gastropod* means "stomach foot" in Greek. The foot of the limpet is a strong muscle that acts like a suction cup, allowing the animal to adhere to rock surfaces. Its shell leaves a hollow in the rock called a home scar, which allows the limpet to better attach during low tide and helps to keep it from drying out. When they emerge from their hiding places (usually at night), limpets creep along using the foot to find food, leaving a mucus trail

so they can return to their favorite spot. They are territorial and will push away a competitor.

To eat, they use a file-like tongue called the *radula* to scrape algae, sponges, and other food items off rocks or pilings. Limpets have over 100 rows of teeth but use only their outer 10 to feed. New teeth can grow at a rate of 47 hours per row! In 2015, researchers found that limpet teeth are the strongest biological material known, exceeding spider silk. They have tiny packed mineral fibers called *goethite*.

To breathe, they pull water in underneath the shell, pass it over their gills and expel it through a place at the bottom of the foot, or in the case of keyhole limpets, they push the water out the keyhole. Limpets can live for 10 to 20 years. They have a three-chambered heart, two kidneys, and a digestive system. They also have two eyespots at the bottom of their two tentacles that can detect light and shadow. Their strong, thick shells are a good defense against predators. Some limpets are hosts to the scale worm, which will bite predatory starfish. Other potential limpet predators are crabs, fish, and some birds.

Usually in winter, limpets reproduce through broadcast spawning, where many males and females release sperm and eggs into the water simultaneously. The fertilized eggs (sometimes millions) become larvae that eventually settle onto rocks and metamorphose into adult limpets. Some limpets may start out as male and change into female as they grow.

The New Beachcomber's Guide to Seashore Life of California by J. Duane Sept lists 19 species of limpets in the San Diego area. A favorite of mine is the giant keyhole limpet (*Megathura crenulata*). In general limpets in the family Fissurellidae have a hole in the center area of their shell that is about a tenth the size of the shell. Most keyhole limpets are small (less than two inches long), but the whitish giant keyhole limpet shell can be as large as four inches long. When alive, they have a soft tissue mantle that can wrap over the whole shell except for the opening and spread out, making the giant keyhole limpet look as much as ten inches long. The meat of these limpets was eaten by indigenous people, and the shell was used as money.

References available upon request.

BLIK: Learn at Lunch

Date/Time: Thursday, March 6, 12 noon

Location: BLIK, North Beach parking lot

Speaker: Paul Tuskes, San Diego Shell Club

Topic: Mollusks of Torrey Pines Beach and Los Peñasquitos Lagoon

Bring your lunch, a chair, your curiosity, your own shells and any questions you may have about mollusks. No need to register. You may claim one hour on Better Impact under Training, Continuing Education (up to 12 hours per year).

BLIK Learn at Lunch is the first Thursday of every month at noon at the BLIK in the North Beach parking lot. All docents, park employees, and visitors are welcome.

OAKS: Geology Walk South of Flat Rock

by Mukesh Mehta; photo by Pao Chau

Why did 40 Torrey Pines docents gather on the beach near Flat Rock on a cool, foggy, drizzly February morning? They braved the elements to join my geological discovery hike south of Flat Rock, a mystical geological wonderland rarely visited due to high tides and limited access. We crossed over to the south side into a geological amphitheater that was ready to reveal its secrets carved into a symphony in stone. This iconic coastline has been studied by many world-renowned geologists over the decades; their references are available on request.

Ancient Submarine Canyon

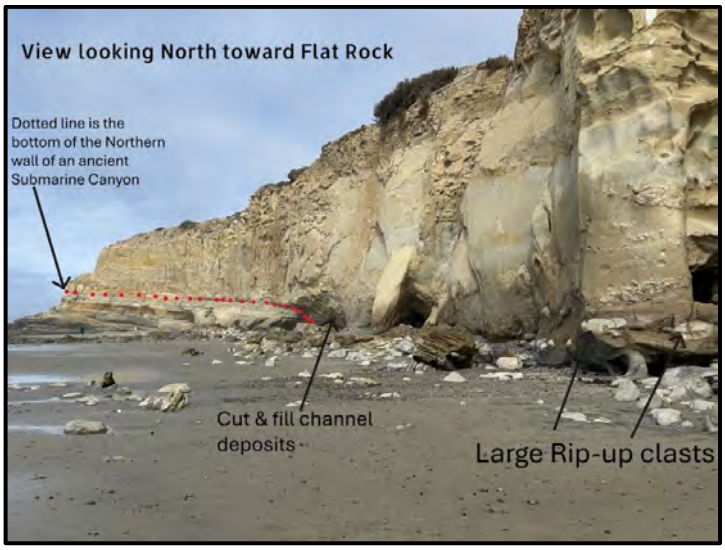
In front of the cliff face, we observed a striking geological contact sloping from left to right (north to south). This was the northern wall and bottom of an ancient submarine canyon. It was an erosional surface scoured by debris flowing underwater in high-density, gravity-powered torrents. On top of the erosional surface, we saw a mélange of sediments, rapidly deposited by the debris flow, forming depositional features such as current or cross bedding. Other depositional features were created by the loading of additional material on top of saturated sediments. With loading, as water is squeezed out vertically, dewatering structures are preserved in the cliff face.

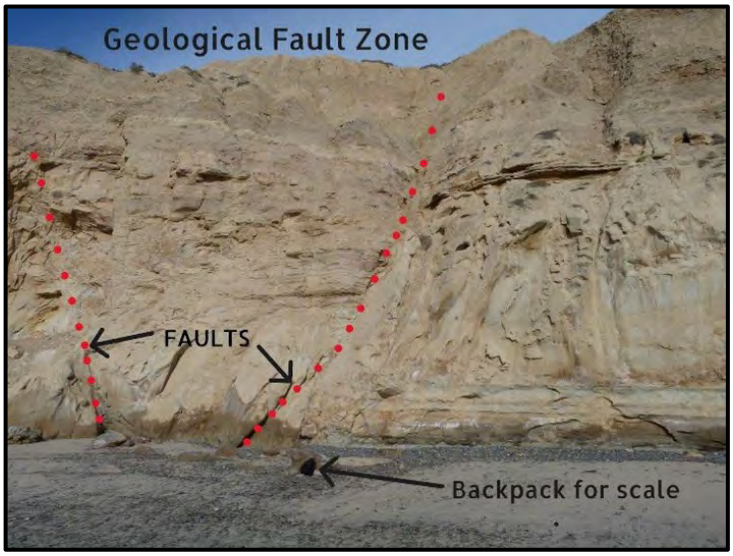
Rip-up Clasts

The debris carried in the high-density flow consisted of blocks of carved-off canyon walls called “rip-up clasts,” some the size of automobiles, eroding the bottom of the ancient submarine canyon. The evidence of this erosion and rapid deposition is seen today on the cliff walls where large rip-up clasts of rock have been deposited in a matrix of unsorted finer sediment.

Earthquake Faults

As we walked south, we stopped at an interesting cliff exposure where I asked everyone to participate and describe what was exposed. By group analysis, we deduced that the exposure was a near-vertical earthquake fault. The fault line had displaced horizontal rock layers by several feet. The fault is identified on the local geology map as the Carmel Valley Fault. The fault trends to the northeast from the beach; the other end is exposed along the west side of North Torrey Pines Road.





Thanks to **Barbara Wallach** and **Pao Chau** for organizing this OAKS geological walk.

Spring, At Last

by Rhea Bridy

With lilac-hued, trumpet-shaped blooms,
Yerba Santa explodes in sweet/savory scents,
While its iconic edged leaves and thick, wooly coat
Offer it a bit of protection.

How to Borrow a Book from the Docent Library

by Ray Eller

Borrowing and returning a book from the Docent Library is easy.

Check-Out Procedure

- Find a book you want to borrow.
- Locate the card in the sleeve at the back of the book.
- On the first line, enter the date borrowed and your last name; on the second line, enter your phone number.
- Place the card in the wicker basket on the shelf in the Library (next to the east-facing window).
- You can keep the book for up to two weeks.

Check-In Procedure

- Retrieve the card for the book you've borrowed from the basket.
- Enter the date you have returned the book on the card.
- Replace the card in the sleeve at the back of the book.
- Reshelve the book to its topic section (e.g., "Plants"), alphabetically according to the last name of the author.
- If you lose a borrowed book, please send a note to a member of the Library Committee, and we will see whether it can be replaced.

These instructions are located on the wall next to the basket.

New to the Library

Entangled Life: How Fungi Make Our Worlds, Change our Minds & Shape Our Futures by Merlin Sheldrake

Discover the "Wood Wide Web."

Does another universe of intelligent life live hidden beneath the ground we walk upon? More specifically, beneath the forests and fields? In his 2020 book *Entangled Life*, Merlin Sheldrake explores the often overlooked and misunderstood world of fungi.

He describes a world of lifeforms that behave as cognitive entities as they support, if not sustain, both plant and human life. Do fungal mycelial and mycorrhizal networks actually decide which plants and trees will barely survive and which will thrive? Do they use the laws of supply and demand to distribute nutrients to the root systems of plant life? And more basically, are fungi plants at all? These are a few of the many questions Sheldrake asks and answers as he reveals a totally new way of understanding life on planet earth. He teeters on the brink of hypnotizing the reader with facts and theories that are better suited to science fiction than biology. He supports his ideas with an enormous number of references to current researchers making mind blowing discoveries in the field.

Entangled Life will be available in the Docent Library on March 1.

Equinox Sunset Mindful Walk

On March 20, Mindful Walks will host a sunset hike from 5 to 7 pm to celebrate the Spring Equinox. The first day of Spring is when day and night are equal in length. It symbolizes balance and the renewal of life.

If you would like to attend, RSVP to **Cres Torres** by March 17. The walk will start from the Lodge. All hikers are welcome.

Our regular Mindful Walks, given every Sunday morning from 8 to 10, are guided walks where you can slow down, breathe fresh air, use your senses, and be present.

Museum Shop Spotlight

by Nancy Walters

If you have looked at our shirt inventory lately, you have surely noticed a change. We want to give a round of applause to **Greg Howard** for stepping up to be our new shirt manager. Greg has brought in a new supply of T-shirts and sweatshirts, reviving some old favorite designs and streamlining our shirt ordering process. Thanks to Greg and the shop team, especially **Valerie Thomas** and **Medi Denker**, for all their work on this project. Everything is freshly organized and stocked, so hopefully both visitors and Lodge hosts can easily find and restock shirts.

In case you haven't noticed, we are also selling Junior Ranger vests for children, perfect for the kids who want to be trail explorers.

Come in and check out the new merchandise!

Bee of the Month:
Tripartite Sweat Bee

Article by Gabriele Wienhausen; photos by Craig Chaddock

You are strolling along the Guy Fleming Trail and stop to get a close-up look at the delicate flowers of the San Diego wreath-plant. A tiny insect flies towards you and lands on your skin. It's a bee. You try to brush it away. It comes back. "Why does this bee keep bothering me? Is it aggressive? Does it want to sting me?"

This feisty little bee is most likely a member of the Halictid family, commonly called sweat bees. They got their name because they are attracted to human perspiration, which they lap up for its salt content. *Halictus* comes from the Greek words *hali*, meaning salt. Halictidae are one of the most abundant bee families, comprising almost 4,500 species. They can be found on every continent, except Antarctica.

One of the fascinating aspects of Halictidae is their varying degrees of social behavior. The family exhibits a broad spectrum of social structures, ranging from solitary nesting to complex eusociality, like honey bees, where a single queen lives with many workers.

One representative of the Halictidae family that you'll encounter often at the Reserve is the tripartite sweat bee (*Halictus tripartitus*), our featured species this month. This unpretentious small bee (0.2-0.6 inches or 4.5-14 mm long) has a brown to black metallic body with white stripes across its abdomen. Males are differentiated from females by their long antennae and slender bodies.

The tripartite sweat bee can be seen in the Reserve from March through October, with peak activity from June to September. These bees form annual colonies in flat, bare ground, with nests clustered together. Their nests consist of narrow burrows, sometimes branched, with brood cells arising directly from the burrows.

The tripartite sweat bee is partially eusocial. A bee foundress, a mated female bee, survives the winter in a dormant state. In the spring, she establishes an annual colony in the soil, with nests connected underground. The foundress produces a female worker brood that help to provision the nest and care for the young. Males and the next generation of overwintering queens are produced towards the end of the colony cycle.

The tripartite sweat bee is a diligent pollinator, often seen buzzing from flower to flower. Attracted by the vivid colors and enticing scents, it collects pollen to feed its offspring and itself. As it moves between flowers, pollen is transferred, aiding in plant reproduction and thus playing a significant role in the ecosystem.

Youth Program

by Janet Ugalde, Youth Program Director

Our winter session is already a success. After a visit by fourth- and fifth-graders from John Muir Language Academy, we received the following note from teacher Joy Bain:

> *"Thank you so much for a wonderful day full of learning and exploration! Our students and parent chaperones really enjoyed our visit to the Reserve!"*

The awesome team members who earned this praise are presenter **Debi Buffington**, shift leader **Lynne Truong**, and walk leaders **Kathy Dickey**, **Gail Gluckman**, **Jennifer Greenberg**, **Paul Howard**, and **Steve Neal**. When you see these folks in the Reserve, please give them the thumbs up they deserve.

We offer field trips on Tuesdays and Thursdays, and we will continue to add Friday rainy day make-ups. There are still plenty of opportunities for docents to participate. Team members: please check our schedule for newly added programs.

We invite all interested docents to share the joys of being a Youth Program walk leader. Please email me if you have issues or questions.

Bird of the Month:
Belding's Savannah Sparrow

by Robert James and David Walker;photo by Herb Knufken

The Belding's Savannah Sparrow (*Passerculus sandwichensis beldingi*) is a non-migrating subspecies of the Savannah Sparrow limited to coastal salt marshes in southern California and northern Baja California. Due to extensive habitat loss and fragmentation, it has been designated by the State of California as one of our endangered birds, but fortunately the outlook is more favorable now.

Savannah sparrows usually have a dash of yellow feathers between their bill and eyes. Compared to the more widespread winter migratory subspecies of Savannah Sparrow that also occur at the Reserve (mainly *anthinus* and *nevadensis*), Belding's is streaked darker, has a smaller bill, and shows less gray and brown coloration.

You can find Belding's in Los Peñasquitos Lagoon around the edges of the upper salt marshes. These areas are dominated by pickleweed (*Salicornia*) and alkali-heath (*Frankenia salina*), where the Belding's also nests. Starting in late winter and early spring, males are perched and conspicuously singing on pickleweed in the early mornings. Being considered semi-colonial in their restricted habitats, they are often observed close together and sparring for territories with their brethren.

Robert co-led the statewide survey in 1991, and the team estimated there were at least 1,844 pairs. (Supposedly there was a foolish young biologist surveying from the railroad bridge at Los Peñasquitos Lagoon and dodging an occasional train, but that rumor cannot be confirmed!) Over the years, with wetland restoration and management efforts throughout the range by many like-minded parties, the number of Belding's has grown, with the latest survey in 2015 tallying 3,740 pairs. Los Peñasquitos Lagoon was determined to support 105 pairs.

As stated in the most recent survey report, the most critical issues for Belding's remain the maintenance or enhancement of tidal flushing and the control of sediment, people, pets, and exotic predators. This is certainly the case for our lagoon. The survey authors also emphasized the importance of establishing a consistent hydrologic regime, which would be of great benefit to Belding's and other wildlife. For example, spring habitat flooding due to a blocked lagoon opening to the ocean can be especially deleterious to nesting success. During future restoration activity in the lagoon, implementing an avian protection plan to limit the timing of some work activities to ensure nesting success would also benefit Belding's.

Wine in the Pines:
Celebrating 75 Years of Conservation

by Solange Jacobs, Executive Director, Torrey Pines Conservancy

Join us for Wine in the Pines 2025, an unforgettable evening of fine wines, gourmet bites, and live music – all in support of preserving Torrey Pines. Hosted by the Torrey Pines Conservancy, this year's event is extra special as we celebrate our 75th anniversary and the legacy of conservation we've built since our founding in 1950.

Volunteers

Want to be part of the celebration behind the scenes? Nothing happens without you! Sign up today to volunteer (Click here). and help make Wine in the Pines an unforgettable event!

Sponsors

Do you know any local businesses that may consider sponsoring our event? Contact Solange Jacobs for information.

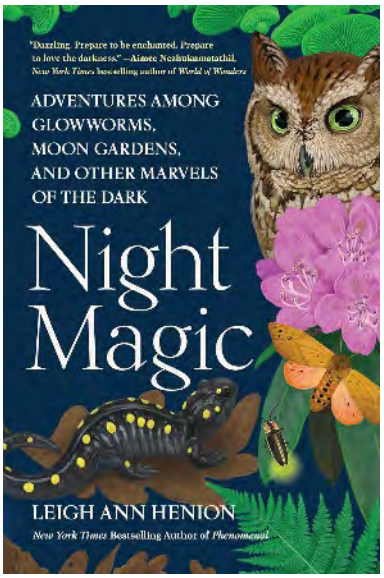
Deal for Docents

Early-bird ticket pricing expires at the end of February, but in honor of the Torrey Pines Docent Society's 50th anniversary, we are offering an exclusive 20% discount to the first 50 Docents who buy general admission tickets starting March 1. Simply enter **WIP20** during checkout to enjoy a small token of appreciation for your dedication to the Reserve. Get your tickets: Click here.

We look forward to raising a glass with you at Wine in the Pines 2025!

Torrey Pines Book Club

We will continue to meet via Zoom at our regularly scheduled time: the second Tuesday of each month at 1 pm. Please notify **Annette Ring** if you plan to participate or if you need any extra help getting connected.



When: Tuesday, March 11, 1:00 pm

What: *Night Magic: Adventures Among Glowworms, Moon Gardens, and Other Marvels of the Dark* by Leigh Ann Henion

Amazon says:

In this glorious celebration of the night, New York Times bestselling nature writer Leigh Ann Henion invites us to leave our well-lit homes, step outside, and embrace the dark as a profoundly beautiful part of the world we inhabit. Because no matter where we live, we are surrounded by animals that rise with the moon, and blooms that reveal themselves as light fades. The author explores her home region of Appalachia, where she attends a synchronous firefly event in Tennessee, a bat outing in Alabama, and a moth festival in Ohio. In North Carolina, she finds forests alight with bioluminescent mushrooms, neighborhood trees full of screech owls, and valleys teeming with migratory salamanders. Along the way, Henion encounters naturalists, biologists, primitive-skills experts, and others who've dedicated their lives to cultivating relationships with darkness.

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

April 14*: Nowhere Left to Go: How Climate Change Is Driving Species to the Ends of the Earth* by Benjamin von Brackel and Ayça Türkoglu

Torrey Pines Docent Society Bird Survey: February 2025

Number of species: *81 (+1 other taxa)*

Blue-winged Teal 5
Cinnamon Teal 3
Northern Shoveler 6
Gadwall 3
American Wigeon 31
Mallard 11
Green-winged Teal 5
Canvasback 3
Redhead 5
Lesser Scaup 27
Bufflehead 2
Red-breasted Merganser 9
Ruddy Duck 1
California Quail 2
Pied-billed Grebe 1
Western Grebe 76
Mourning Dove 51
White-throated Swift 13
Anna's Hummingbird 60
Allen's Hummingbird 23
Virginia Rail 1
American Coot 76
Whimbrel 15
Long-billed Curlew 1
Marbled Godwit 3
Willet 4
Greater Yellowlegs 1
Western Gull 19
California Gull 1
gull sp. 1
Double-crested Cormorant 15
Brown Pelican 76
Snowy Egret 7
Great Egret 7
Great Blue Heron 3
White-faced Ibis 30
Turkey Vulture 1
Osprey 1
Cooper's Hawk 4
Red-shouldered Hawk 3
Red-tailed Hawk 9
Belted Kingfisher 1
Downy Woodpecker 2
Nuttall's Woodpecker 18
Northern Flicker 5
American Kestrel 8
Merlin 1
Peregrine Falcon 1
Black Phoebe 12
Say's Phoebe 7
Cassin's Kingbird 10
Hutton's Vireo 6
California Scrub-Jay 31
American Crow 24
Common Raven 44
Bushtit 95
Wrentit 110
Ruby-crowned Kinglet 3
Golden-crowned Kinglet 1
Blue-gray Gnatcatcher 2
California Gnatcatcher 12
House Wren 10
Bewick's Wren 38
California Thrasher 34
Northern Mockingbird 6
Hermit Thrush 2
House Finch 118
Lesser Goldfinch 26
Dark-eyed Junco 12
White-crowned Sparrow 20
Golden-crowned Sparrow 4
Savannah Sparrow 6
Song Sparrow 60
Lincoln's Sparrow 2
California Towhee 89
Rufous-crowned Sparrow 1
Spotted Towhee 31
Western Meadowlark 6
Red-winged Blackbird 5
Orange-crowned Warbler 17
Common Yellowthroat 7
Yellow-rumped Warbler 29

Participants: *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 Kusznier*

Herb Knufken's photo gallery includes many birds: **pbase.com/herb1rm**

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