



TORREYANA

THE DOCENT NEWSLETTER FOR
TORREY PINES
STATE NATURAL RESERVE

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Geologic History of Torrey Pines

by Mukesh Mehta

Why have professional geologists and geophysicists from 67 countries come to study the geology of the cliffs from Torrey Pines to Scripps Pier? Because the geology of this area is unique and complex.

Pat Abbott, Professor Emeritus of Geology at San Diego State University, walked us through the strata that make up the cliffs at Torrey Pines. He noted that the first law of geology, the Law of Superposition, states that in a sequence of layered rocks the layer at the bottom will be the oldest and the ones above will be progressively younger. It is simple and logical.

The cliffs at Torrey Pines follow this law, with the oldest exposed layer being the greenish-blue Delmar Formation, deposited in an ancient lagoonal environment during the Eocene Epoch, which lasted from 56 mya (million years ago) to 33.7 mya. This bottom layer of the cliffs at Torrey Pines is about 50 million years old. Above the Delmar Formation is the orange Torrey Sandstone, which was deposited in an ancient tidal environment about 45 mya. It is very similar to the tidal environment we see today.

The two upper layers at the park, the Lindavista Formation and the Bay Point Formation, were laid down much more “recently” during the Quaternary Period, 2.67 mya to the present time. The Lindavista is about 700,000 to 1 million years old, and the Bay Point about 125,000 years old. The two lower layers and the two upper layers represent two totally different histories, with a 44-million-year gap in the geologic record. We have “two different worlds here,” Prof. Abbott said. “When you don’t have the rocks, you don’t have anything to talk about.” The geologic term for this separation and

Docent General Meeting

Date: Saturday, September 9, 9:00 am

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

Speaker: Clarissa Anderson, Ph.D., Scripps Institution of Oceanography (SIO)

Topic: Rapid response to a massive marine mammal mortality event

Blooms of *Pseudo-nitzschia* are an almost annual occurrence in the California Current System. The last two years have seen sizable blooms, with significant marine mammal impacts, but what has made 2023 stand out is the duration of the late spring–early summer bloom and the relative severity of marine mammal mortality. Dr. Anderson will discuss this response and provide context for evaluating the impact and importance of this year’s harmful algal bloom.

Dr. Clarissa Anderson is a biological oceanographer with expertise in ecological forecasting and remote sensing. She is a researcher at SIO, where she also serves as the Director of Southern California Coastal Ocean Observing System and of the Cooperative Institute for Marine, Earth, and Atmospheric Sciences.

Refreshments: Docents with last names beginning with **J, K, L** will be responsible for providing snacks for this meeting.

discontinuity in the depositional sequence is an *unconformity*.

Looking at the two lower layers, why is the Delmar Formation greenish blue and the Torrey Sandstone orange in color? The coloring agent for both the Delmar Formation and Torrey Sandstone is iron. Organics in the

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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: **858.755.2063**

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Museum Shop.**

Delmar Formation caused a reducing (oxygen poor) environment that was rich in ferrous iron (Fe²⁺). The orange in the Torrey Sandstone was exposed to the atmosphere with an oxygen-rich environment, causing a rust discoloration because of ferric iron (Fe³⁺).

Prof. Abbott then explained another geological principle known as the Law of Uniformitarianism. It states that changes on earth have occurred in a uniform way as we see today over time, and that "the present is the key to the past." If we

understand today's geological processes, we can then read the past from geologic formations. Prof. Abbott showed examples from fieldwork carried out by his students to prove the validity of this law. As the tide ebbed and flowed, he had his students excavate the sand ripples left on the beach or lagoon. The cross section of the modern ripples look exactly like the sedimentary structures (known as cross bedding or current bedding) exposed in the Torrey Sandstone at Torrey Pines and preserved in rock that is approximately 45 million years old. Both the ancient and the modern structures indicate the direction of water flow and the currents.

Prof. Abbott then explained the significance of trace fossils, which are evidence of former life, such as dwelling in burrows, crawling/walking, feeding, and escaping burrows. Trace fossils indicate what the ancient organisms were doing or trying to do millions of years ago. He then talked about the oyster bed within

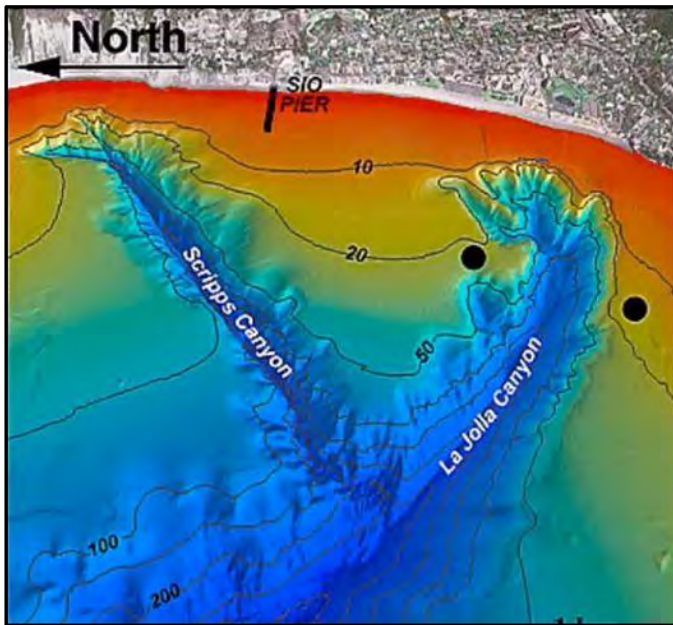
the Delmar Formation, which consist of *Ostrea idriensis* that have been deposited in a jumble of shells and are exposed in the cliffs along the beach near Flat Rock. Prof. Abbott challenged us to decide whether the oysters were deposited quickly in a high energy current, or *in situ* in a living reef. At low tide, fossils of possible salt-tolerant mangrove trees (right) are also exposed on the beach in the Delmar Formation, indicating a flat lagoonal environment 50 million years ago.

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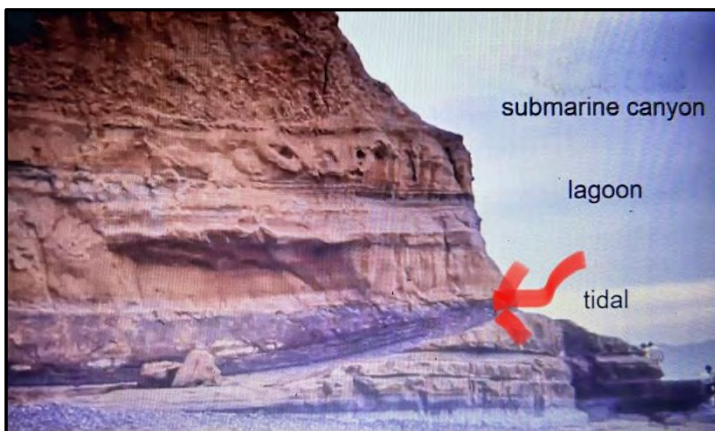


Prof. Abbott compared the modern Scripps and La Jolla submarine canyons off the coast and drew parallels to the ancient Eocene submarine canyons preserved in the rock layers along the beach.



He explained that we have a northern edge or wall of an ancient submarine canyon preserved in the Torrey Sandstone exposed on the Beach Trail, just north of the steps up from the beach near Flat Rock.

The Flat Rock area is part of ancient submarine canyon, and the footpath used today to get to Black's Beach is a geologic erosion surface in the Delmar Formation. This surface indicates a rise or drop in sea level, creating the erosion surface. Dark, soft lagoonal sediments were deposited on top of the hardened erosion surface and draped over a mound toward Flat Rock. As more sediments were deposited and buried, the incline was formed due to the pressure of overlying sediments. As water was squeezed out, the incline became steeper, as shown in the photo below.



The rise and fall of sea levels correlate with the advance and retreat of glaciers. As the sea level rose and fell, marine terraces were formed at Torrey Pines. As you walk down from the Lodge along the road, on the right side is an erosional surface and contact between the hard, reddish Lindavista Formation underlain by the much older Torrey Sandstone.



Photo by Roger Isaacson, 2005

Cobble layers (rounded conglomerates) are typical of this type of erosional surface, which was an ancient marine terrace. After Torrey Sandstone was deposited approximately 45 mya, it was uplifted and exposed to the surface and eroded until the Lindavista Formation was deposited approximately 1 mya. Other geological features exposed along the road are old plant roots that have been infilled with caliche (calcium carbonate) and show cross bedding or current bedding.

Further down toward the ocean there is contact between Torrey Sandstone and the Bay Point Formation, the top layer found in the Reserve. This is also an ancient marine terrace called the Nestor Terrace. Bay Point Formation is the youngest geologic deposit in the Reserve. It is about 125,000 years old and is very friable and susceptible to weathering.

A video of Prof. Abbott's talk is available at:
vimeo.com/854024418

General Meeting Minutes, August 12, 2023

About 50 docents attended.

Speaker: Pat Abbott, Professor Emeritus of Geology, SDSU, on the Geologic History of TPSNR.

Docent of the Month: Congratulations **Jennifer Greenberg**, a frequent Children's Program volunteer. Additionally, Jennifer seems to pitch in wherever and whenever there is a need. (See pg. 5.)

Special Heart Award: President **Matt Xavier** presented a special Heart Award to **Janet Ugalde**, former TPDS president and longtime board member, for her many years of work with the Children's Program and the Docent Training Program.



Public Bathroom Update:

Matt announced that the bathroom renovation project has been forwarded from the planning committee to the Service Center. This means the project will probably start in the fall of 2024. He thanked the TPC for helping to move the project along.

From the kitchen:

Marian Edelbrock apologized for the late coffee delivery, which stemmed from a rodent problem in the storage shed that has now thankfully been taken care of. Next month's meeting snack providers are those with last names starting with **J, K, and L**.

Louis Sands, Interpreter 1:

Upcoming dates:

Thurs., September 7: California Biodiversity Day at the Reserve with Senior Interpretive Aide Lila Beth Scott. We are going to teach visitors how to use iNaturalist. This is a chance to engage with the public.

Wed., September 13: Children's Program kickoff (see below.)

Sat., September 16: Docent Training begins. In addition to training in the Reserve, there will be modules in other locations, such as the Extension, due to overcrowding at the Reserve on Saturdays. Shuttles will be provided to bring the trainees to the appropriate sites when necessary.

More information will be coming via Google Groups about these three dates.

BLIK

A third training was completed on August 11. The BLIK is now open on Friday, Saturday, and Sunday from 10 to 2. Sign up on Better Impact. Matt extended a big thank you to **Ingo Renner** and the Seabees, who worked so hard to build the structure. Signage is coming soon.

Museum Committee

The museum committee is evolving and still looking for new members, especially those interested in taxidermy or who have contacts in that area. The first priority is to get a new woodrat specimen, or if that isn't possible, to refurbish the one we have. **Lynne Truong** is working on that. Better organization and curation of the Museum is another objective.

CARE Team

Team leader **Medi Denker** still needs two or three more members to adequately cover the docent membership.

OAKS (Optional Advanced Knowledge Session)

Barbara Wallach announced the next OAKS event is a beach walk on geology with **Mukesh Mehta** on Friday, August 18. (See photos on pg. 9.)

Science Fair Winner

Sanjana Kumar, one of the four Science Fair winners this year, presented her research: *Utilizing 3D Printed Engineered Living Materials to Breakdown Environmental Pollutants*. See her abstract in the August 2023 *Torreyana*. Her video is available here: vimeo.com/843532530

A video of the Business Meeting is available at vimeo.com/854015557

Children's Program

by Janet Ugalde, Program Director

We will meet Wednesday, September 13 at 10 am at the Children's Pavilion to plan for the school year. We look forward to reconnecting with our seasoned teammates and welcoming newbies! Please bring your ideas to share.

The Children's Program reservation system opened August 15. Many teachers have already signed up for 2023-24 field trips. Docents have started signing up, too. It's going to be a great year!

Docent of the Month: Jennifer Greenberg

Photo by Herb Knufken

Around 25 years ago, I accompanied my daughter's fourth grade class to Torrey Pines State Natural Reserve for the Children's Program. I was smitten by the whole experience and completely gobsmacked as the docent described the story of the gall wasps and the strange round formations on the branches. The docent's imprint was so strong that I made a note to myself that this is what I would become in my empty-nest stage of life. I thought, what a wonderful way to experience middle age and beyond... fresh air hiking the trails, conversing with interesting visitors, and the never-ending education and wonder! In 2014 I signed up for the docent training program, and here I am now. It's no wonder that the Children's Program is my strongest pull! I really enjoy the déjà vu of walking the classes through the Reserve. Volunteering at the TIK, time on the trails as a Roving Interpreter, and helping with special events are my great joys as well.

I further appreciate the paradigm shift that the docent training awoke in me. Galen Rowell's book *Many People Come Looking, Looking* relates his experience in Nepal's Himalayas, where he encountered a Tibetan monk who said, "Many people come, looking, looking. No good. Some people come, see. Good." For years I walked quickly through the Reserve, talking incessantly with friends, never seeing the wondrous details surrounding us as we sprinted through. What a loss! The docent educational program opened my eyes to nature's magical details and my spirit to the magnificence right in front of us. I am so glad now to "see."

I grew up camping and fishing in the high lakes of Idaho. The next phase of life was in the Pacific Northwest. My courtship years with my husband were spent climbing the peaks of the Cascade Mountain Range. Leaving that terrain was difficult as we arrived in San Diego in 1995.



Discovering TPSNR tucked into the city bustle was balm to our souls. Having easy access to this beautiful natural Reserve is nourishing, and I am always grateful to be a part of it.

The real gift is all of you interesting docents! I did not foresee the camaraderie and friendships. I continually learn from all of you and find you as captivating and intriguing as those early wasp galls! Much appreciation for this docent acknowledgement. Looking forward to many more years on the trails with all of you.

Next Monthly Board Meeting

Date: Wednesday, September 6

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.

Wait a Minute/Wazz here first!

by Rhea Bridy

Summertime in the Prickly Pear,
sharing the pollen in the pool,
all a bright yellow buzz of patience.



Junior Rangers Summer Program Shines at Torrey Pines

by Zuzana Volny, Senior Interpretive Park Aide

We are delighted to highlight the success of the recently concluded Junior Rangers Summer Program at TPSNR. This program marked another milestone as it made its second return following a temporary pause during the pandemic.

I extend my gratitude to **Gretchen Embree** and **Howie Wilcox** for significantly helping with the Junior Rangers this year. I would also like to thank Sr. Park Aides Vanessa Brock and Lila Beth Scott as well as docents **Gabriele Wienhausen, Pao Chau, Myrna Trust, Alan Myers**, and **Beverly Toth** for their valuable contributions. Your involvement enriched the program's activities, nature hikes, and educational sessions, enhancing the experience for the whole family.

The Junior Rangers program was met with immense enthusiasm from our participants, aged 7 to 12. Two 5-day sessions were held; throughout the programs, the children engaged in captivating themes such as mammals, plants, reptiles, Kumeyaay people, and stewardship.

A notable addition to this year's program was the introduction of parent walks. These guided walks, aligned with each day's theme, yielded encouraging participation from parents. This unique initiative fostered connections between families and provided an avenue for parents to engage directly with their children's discoveries and lessons.

The success of the Junior Rangers Summer Program underscores our collective commitment to inspiring a love for nature and nurturing future environmental stewards. With your continued support, we look forward to building on this achievement and continuing our mission to educate and empower the next generation.

Looking ahead, I am thrilled to announce our upcoming Junior Rangers program set to take place in September. This exciting new program will focus on the captivating world of sharks. During three weekends, the program will dive deep into the mysteries of these incredible creatures. A group of colleagues and I had the privilege of visiting the esteemed Shark Lab at Cal State Long Beach a few weekends ago. Our experience equipped us with valuable insights into sharks' behavior, new facts about sharks, and new activities for kids. We can't wait to incorporate this knowledge into creating an unforgettable educational experience for our young Junior Rangers.



Photo by Alan Myers



Photo by Zuzana Volny

CEED Event: The Discovery Center

The Discovery Center is an extraordinary collection of hands-on exhibits, gardens, and live animal ambassadors allowing visitors to "taste nature." aguahedionda.org

Date: Friday, September 8

Time: 10:30 am

Place: The Discovery Center, Agua Hedionda Lagoon Foundation, 1580 Cannon Road, Carlsbad

RSVP: Lila Beth Scott

Capacity: 15 docents

A Lodge by Any Other Name Is Still a Lodge

by Judy Schulman, TPDS Historian

This is the ninth in a series of articles by Judy Schulman about Torrey Pines Lodge, whose 100th anniversary we celebrated on April 8, 2023.

In doing newspaper research about the building of the Lodge, I have come across many words describing it. They fall into two categories, based on either description or function.

Most of the descriptive words referred to its Native American-looking architecture. The words *Indian style*, *Indian dwelling*, *Hopi Style* and *Pueblo Style* were the most commonly used. There were also references to it being a mountain lodge or a creative/artistic structure.

The function words were based on how the building was to be used. Most often it was referred to as a *refectory* (a room used for communal meals). Next often it was referred to as a *comfort station* (a public rest area for travelers or campers). There are a few references to it being a *tea room* (early ads did mention that they had a proper English-style tea). Because it was hard for older cars to go up hills, it makes sense that it was also described as an *auto resting stop*.



My favorite function word came not from a newspaper article but from a postcard (circa 1923-1928, based on the stamp box on the back side) that referred to our Lodge as the *Torrey Pines Tavern* (an establishment for the sale of beer and other drinks to be consumed on the premises, sometimes also serving food). I have never read anything about the Lodge serving alcohol! Plus, this postcard was produced during Prohibition (1920-1933). So why they used that word is a mystery to me. By the way, there is a Torrey Pines Pub in Las Vegas.

What's New in the Reserve

by Louis Sands, State Park Interpreter I

Fall is on the horizon, and it will present our beautiful Reserve with the same survival opportunity found in all seasons: how and when to adapt to inevitable change(s). Adaptation is a continual process, an interesting confluence of past, present, and future needs and realities. Its expressions at the Reserve are varied: evergreen and deciduous leaves, wind and insect pollination, diurnal and nocturnal activity, structural and behavioral features.

As docents we learn of the many plant and animal species adaptations at the Reserve, but even our knowledge will evolve – as will our interests and service choices. That call to adapt or die applies to us as well! Let us use each season to take stock of our resources (personal and material), determine which additional resources are required, consider our values as an organization of stewards, and commit to those values. Our choices matter, individually and collectively.

This fall we will have plenty of adaptation opportunities for all to consider:

- 1) Want to improve your knowledge of a particular subject? Consider the CEED program, OAKS walks, and general meeting lectures. Another option: ask the respective coordinators to sponsor a session on a topic of interest to you. There may be others who yearn for the same review!
- 2) Want to challenge yourself to try something new? Review the offerings in Better Impact; schedule yourself and show up with an open mind!
- 3) Want to improve an existing service opportunity? Ask any docent or park staff program coordinator about ways to provide constructive feedback. Of course, the best approach is to participate in the program yourself and “be” the change you would like to see. Nothing communicates your values louder than your own behavior.

That sleepy Reserve, where I became a docent in 2005, is long gone. We now welcome more than 3.5 million annual visitors from around the world. May Gray and June Gloom welcomed July and August to the party this summer! And San Diego was hit by a tropical storm on August 20 for the first time in eight decades. Change is here, folks, and there is more to come. What will YOU do?



What's on the Beach? Bean Clams

Article and photo by Kathy Dickey

Now that we have the lovely BLIK (Beach/Lagoon Interpretive Kiosk) attracting lots of visitors, I thought I would learn more and delve deeper into what we and our visitors might find on the beach. I hope to cover the common shells, kelp, shorebirds, rocks, exoskeletons, rays, jellies, and other objects (hopefully not trash!) found on our beach. Expect to see these articles every month or two. I hope you find them interesting and enjoyable.

Since all our visitors in July and August asked about them, our first focus will be on the **bean clam** (*Donax gouldii*).



This summer our beach was covered in spots by thousands of bean clams on the wet sand, in multitudes of colors. It was hard not to step on them! Most of them were open and empty little bivalves, but some were closed tight and still alive. (I tried to send some of those live ones back deeper into the water to help them survive.)

The colors are fabulous: yellow, rose, pink, pale blue, lavender, tan, brown, and orange. Some are striped. Often the inside is light to deep purple. They look like shiny pebbles until you see them close up. They are rarely larger than about half an inch. Calcium carbonate, the main shell ingredient, is white. The different colors of the shells come from the water in which the organism lives and from its diet.

Bean clams are filter feeders. Two siphons that look like snorkels extend from the two hinged shells that form the bivalve. One of the siphons takes in oxygen and food-bearing water; the other pumps out oxygen and waste. The mollusk also has a “foot” (actually, the underside of its body), which it extends in order to dig or rest in the soft sand.

The animals live in colonies just below the surface of the sand. The little living clams burrow into the sand about three centimeters deep at the edge of the surf and are moved around by the action of the waves. This helps to bring them

plankton for nourishment. However, some bean clams have survived in water as deep as 30 meters. They can be found from Pismo Beach south to southern Baja California.

Some years there are billions; then, all of a sudden, there will be a total dearth and not a single bean clam can be found anywhere. It is not really known what factors come into play in this “feast or famine” cycle. They do have many predators, including moon snails that feed on the bean clams. Gulls, shorebirds, and rays also feast on the abundance of clams. One hypothesis is that the die-offs are the result of mass infection of the population by a parasitic microorganism similar to *Perkinsus marinus*, which is known for disrupting oyster farming.

A hydroid animal, *Clytia bakeri* acts as a protector for some lucky clams, since predators stay away from them. See green feather-like attachments on a few of the clams in the photo to the left.

Bean clams live from one to three years. Female bean clams can reproduce after about 18 month. When water temperatures begin to warm in the spring, males and females broadcast their reproductive cells (their sperm and eggs) into the water. Females can produce at least a hundred thousand eggs at a time! Eggs and sperm can travel for miles, but who knows whether the sperm and eggs can intermingle, are eaten, or drift for days never finding a match? The odds of fertilization are low but when it does occur, a larval clam is born. Baby clams drift with the currents. They don't even resemble their parents but look like tiny flying saucers with cilia (beating hairs) around the edge. After a few weeks, they settle to the bottom and dig into the sand.

Bean clams are an edible marine bivalve that the Kumeyaay and Luiseño people would regularly collect. European settlers also collected them for food in the 1800s, and they were popular during the Depression years. Gathered alive, the clams can be made into a delicious seafood broth or chowder.

Donax gouldii is named in honor of Augustus Addison Gould (1805-1866), who described nearly 1,100 molluscan species. He was a physician, as well as a conchologist (one who studies the shells of mollusks) whose research on invertebrates remains a standard reference still used today.

References:

explorebeaches.msi.ucsb.edu/sandy-beach-life/sand-dwellers

en.wikipedia.org/wiki/Donax_gouldii

70milescoast.com/bean-clams-a-closer-look/

[Wilkes \(or U.S.\) Exploring Expedition to the Pacific \(1838-1842\)](#), which was published in [Atlas Mollusca & Shells](#) (see volume 12 of the Expedition series).

Photo News (Geology Month):



Debby Sherman showing off the geology props at the TIK



Post rain slide on Aug. 21; *photo by Craig Carlisle*

CEED: Tijuana River Estuary

by Mukesh Mehta

On August 4, in the “dog days of summer,” our CEED event took us to the 2,500-acre Tijuana River National Estuarine Research Reserve at the Mexican border. The Tijuana Estuary is the end point of the 1,739-square-mile Tijuana River watershed and is a natural filter between river and ocean waters. Nearly three quarters of the watershed lies in Mexico. It is designated as a “wetland of international importance.”

We were received at the Visitor Center by Reserve Docent Ron Peterson and his guide-dog, Gidget. Eleven Torrey Pines docents braved the noonday sun to attend the tour. Ron explained that he had lost his eyesight due to glaucoma but is able to sense light through his right eye. He indicated that he would be using his four other senses to lead the tour. At our



Geology OAKS Beach Walk, August 18, led by Mukesh Mehta; *photo by Barbara Wallach*



Looking closely at the sedimentary layers, a coal deposit was observed in bottom rock layers, possibly from ancient trees or mangroves buried in the geologic past; *photo by Annette Ring*

Mindful Walks at Torrey Pines, we use all five senses; some docents from the Mindful Walks team were present for this unique experience.

Ron told us that the Tijuana River Reserve acknowledges that this is the land of the First People, an ancestral Kumeyaay home. Today the Reserve’s stewardship is under a three-way partnership between California State Parks, NOAA, and the US Fish and Wildlife Service. After many years of neglect, including the dumping of sewage and garbage, the estuary was cleaned up and is now one of San Diego County’s environmental success stories.

As we started the tour, Ron noted that we would visit three plant communities: coastal sage scrub, riparian, and salt marsh. Stroking his hand through a densely foliated plant with substantial long stems and small golden-yellow flowers, he described it as a “bottle brush” and identified it as goldenbush. Next Ron stopped and described “slimy citrusy berries” with “leather-shoe-touch” serrated edges and said it was a lemonadeberry bush, and we all agreed. After crossing a

narrow bridge, Ron counted 30 more steps and stopped. At this location he pointed out different types of riparian willows: the Arroyo willow, which he felt with his hands and said has long flowing branches with galls; and the Goodding's willow, which has leaves with serrated edges. Ron described many other bushes and trees in vivid detail and told us how the Kumayaay used them. The long stems of arrowweed were used for thatching and arrow making; white sage leaves (waxy, velvety, fragrant) were used for respiratory illnesses; the taco-shaped leaves of the sumac plant were boiled to make tea to help during childbirth.

Ron explained that plants which grow in salty or alkaline soil are called halophytes. He showed us the pickleweed plant, which feels like a chain of small pickles and has a salty taste. The leaves are fused together and store salt in their small cavities.

Nature Journaling: Translating Your Thoughts to Paper

by Laura Chaing

Have you ever wanted to remember parts of a hike with more than just a quick snap of a photo? Nature journaling is a more personal way to create memories and engage with nature in a thoughtful and introspective way. Grab a pencil and paper and give it a try! You don't need professional art or science skills to get started.



Don't know where to start? Begin with your surroundings. Choose a spot on your page to write about where you are, the date and time, and what the weather conditions are. This is called metadata. When you look back at your page, it will help you remember the moment. If you revisit the same place and subject, you can also make comparisons and new connections with what you observe in the future!

Don't worry about making it perfect.

Journaling is not about creating flawless artwork. No need to display your journal in a museum or submit it to a contest – your journal is for you to create and enjoy. Focus less on the art and more on what observations you have and connections you make.

Choose a topic. What are you interested in? If you enjoy birds, you can journal about how many you saw while on the trail.

- How big were they?
- Did they hide in bushes or soar in the sky?

Before the end of the tour, Ron reflected on being vision-impaired and advised us to visit a doctor to check for glaucoma and macular degeneration. After the end of the tour all of us, including Ron, went to a local taco shop for lunch.



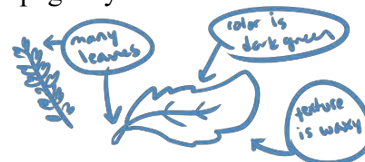
If birds move too quickly, plants may be more your speed.

- Is a plant in bloom?
- What do its leaves look like?
- Do its leaves or flowers have a smell?

Leave space for thoughts. Give yourself a few prompts. “I noticed...I wonder...This reminds me of...” and when you’ve written a sentence down for each, try to keep going. Once you start writing, thoughts will flow easier. Before you know it, you may fill out more of your page than you expect.



Still Stumped? The world is your oyster! Your journal is your playground. Try different things – experiment until you find something that helps convey your thoughts. There are many ways to personalize your journal. You can draw arrows to connect thoughts to images or related observations. Writing headings, drawing boxes or bubbles, and color coding can help separate different thoughts. Play around with different tools such as colored pencils, watercolor, highlighters, and markers. The more you journal, the more familiar you will be with yourself and the process, and you will likely pick up some favorite “go-to’s” in your journal page layouts.



And of course, the most valuable advice of all: Just do it!

Torrey Pines Book Club

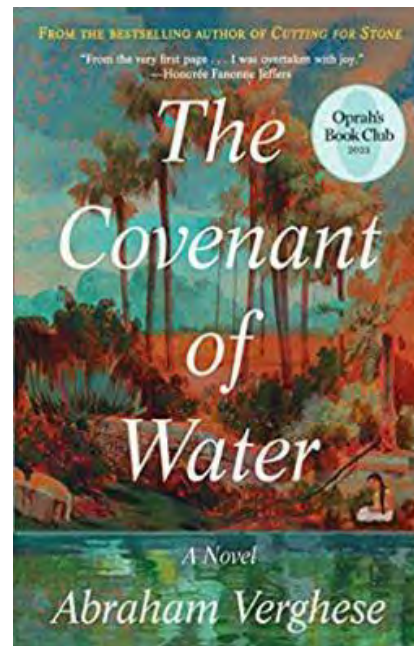
We will continue to meet via Zoom at our regularly scheduled time. Please notify **Annette Ring** if you plan to participate or if you need any extra help getting connected.

When: Tuesday, September 12, 1:00 pm

What: *The Covenant of Water* by Abraham Verghese

Amazon says:

The Covenant of Water is the long-awaited new novel by Abraham Verghese, the author of the best-selling *Cutting for Stone*. Spanning the years 1900 to 1977, the story is set in Kerala on South India's Malabar Coast, and follows three generations of a family that suffers a peculiar affliction: in every generation, at least one person dies by drowning – and in Kerala, water is everywhere. At the turn of the century, a twelve-year-old girl from Kerala's long-existing Christian community, grieving the death of her father, is sent by boat to her wedding, where she will meet her forty-year-old husband for the first time. From this unforgettable new beginning, the young girl – and future matriarch – will witness unthinkable changes over the span of her extraordinary life, full of joy and triumph as well as hardship and loss, her faith and love the only constants. *The Covenant of Water* is one of the most masterful literary novels published in recent years.



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

October 10: *The Ministry for the Future: A Novel* by Kim Stanley Robinson

Torrey Pines Docent Society Bird Survey: August 2023

Number of species: 64

Mallard 28	Brown Pelican 38	American Crow 17	California Towhee 78
Surf Scoter 2	Great Blue Heron 3	Common Raven 14	Rufous-crowned Sparrow 1
California Quail 12	Great Egret 3	Cliff Swallow 5	Spotted Towhee 16
Eurasian Collared-Dove 1	Snowy Egret 8	Bushtit 54	Hooded Oriole 8
Mourning Dove 76	Yellow-crowned Night-Heron 2	Wren 112 (Many areas were surveyed)	Red-winged Blackbird 2
White-throated Swift 3	Osprey 3	Blue-gray Gnatcatcher 6	Orange-crowned Warbler 5
Anna's Hummingbird 27	Cooper's Hawk 2	(Many areas were surveyed.)	Common Yellowthroat 17
Allen's Hummingbird 10	Red-shouldered Hawk 1	California Gnatcatcher 8	Yellow Warbler 1
Virginia Rail 2	Red-tailed Hawk 1	House Wren 12	Black-headed Grosbeak 2
Long-billed Curlew 2	Great Horned Owl 1	Bewick's Wren 33	
Heermann's Gull 6	Downy Woodpecker 3	California Thrasher 17	Observers: Andy Rathbone,
Western Gull 60	Nuttall's Woodpecker 15	Northern Mockingbird 8	Donna Mancuso, Marty
California Gull 2	American Kestrel 2	Western Bluebird 4	Hales, Tsaiwei Olee, Kathy
Caspian Tern 10	Peregrine Falcon 2	Scaly-breasted Munia 20	Dickey, Kathy Estey, Debbie
Royal Tern 2	Black Phoebe 4	House Sparrow 1	Regottaz, Steve Neal, Reed
Brandt's Cormorant 12	Say's Phoebe 1	House Finch 125	Buell, Monica Stupaczuk,
Double-crested Cormorant 7	Ash-throated Flycatcher 8	Lesser Goldfinch 94	Robert Turner, Karen Turner,
	Cassin's Kingbird 7	Dark-eyed Junco 2	Manolo Turner, Gary
	Hutton's Vireo 5	Song Sparrow 41	Graham, David Walker
	California Scrub-Jay 11		

View this checklist online at ebird.org/checklist/S147495581

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