

TPA

Journal

Journal of the Torrey Pines Association

Winter 2008

If the trees could speak

Karin H. Wilson

Vol. 4, No. 1

A walk through a "few" million years

Whether you're Scripps scientist Dr. Douglas Inman, or a first-time visitor to the Reserve, the geology of this place will always be a source of wonder

By Peter Jensen

Dr. Douglas Inman, one of the world's foremost authorities on coastal cliffs, canyons, and lagoons—and in particular the “rivers of sand” that flow along our shore—lives in a mid-century Modern house not far to the south of Torrey Pines State Reserve. Here the winds sweep in off the Pacific and funnel up a chaparral-clad canyon until they meet Dr. Inman's plate glass window, which can be seen to shiver slightly on a strong day. His study, clad floor to ceiling with books and scientific papers, stands to one side. Other walls and shelves in the cliff-top sanctuary host a fine collection of California impressionist paintings and objects d'art gathered by him and his wife Patricia Masters during their travels.

From this perch, a hint of a narrow trail can be seen threading down the hill. Dr. Inman helped hew and maintain it himself during the 50-plus years he has lived here. And here, too, falcons often gyre and gimbal in the wabe in the updraft between the cliffs' edge and the house. Offshore, the plumes of spouting Grays dot the limitless blue.

To a visitor, it seems the perfect stage to ask a perhaps presumptuous favor of a renowned scientist.

“Would you take a walk with me and explain how all this beauty came to be?”

And despite the fact that this once nimble man—sturdy as any mountain goat on a hanging trail—now gets around with the aid of two hiking poles, he replies that certainly, he'd be happy to. We agree to meet at the Lodge on a day late in the fall.

The choice of location is my first lesson. I thought we'd be walking the beach looking up at the geology.

“Oh we will,” says Dr. Inman. “But the Lodge is the best place to start. From there I like to look east and point out all the oldest areas draped around Black Mountain, with the uplift of the backcountry batholith in the distance: Palomar, Cuyamaca, Mt. Miguel. From High Point, we can see all of our region's geology, from the oldest to the most modern. Everyone is aware that Torrey Pines State Reserve is a wonderful place with a unique pine and setting, but it is also a great place to see geology.”

And so began a long, leisurely afternoon of exploring the Reserve through the eyes of a

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A meditative pose atop the enduring Del Mar Formation, a 40-million-year-old bay or estuary deposit



Pat Masters



past

present

future

Karin H. Wilson



Karin H. Wilson

President's Message

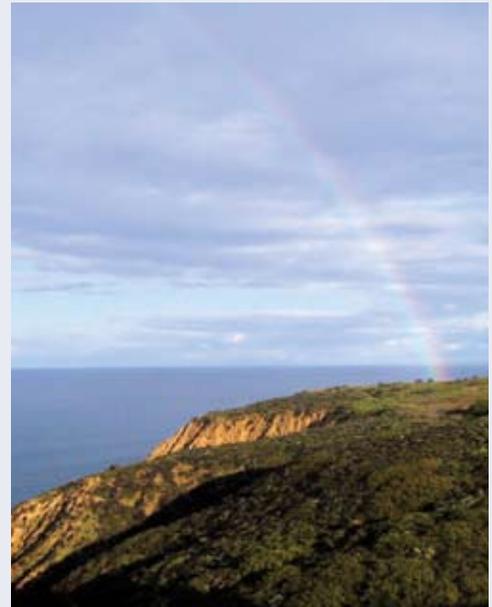
Your TPA becomes an accomplished Rainmaker!

We won't be modest about it: TPA single-handedly put a dent in San Diego's latest drought. How so? We scheduled two very successful public events in 2007, and our region's dire deficit of precipitation was interrupted by significant rainfall on both occasions!

On September 22, TPA sponsored the Plein Air Art Festival at the Reserve. For those who attended, it was a spectacular morning of towering nimbus clouds and fifteen waterspouts. The plein air artists took full advantage of Nature's moods, and two art auctions of their finished works at The Lodge at Torrey Pines (who generously organized and hosted the event) brought over \$60,000 into the Reserve's Endowment Fund. (For a heart-warming post-script, see the story on page 7.)

Our second big event, the symposium "10,000 Years at Torrey Pines State Reserve: The Land, the Sea, and the People" on December 1st, really caused a gusher. Downpours the previous day drenched the county, and a lake of muddy water lapped at the door of the auditorium on the Scripps Institution of Oceanography campus. But showers didn't dampen the enthusiasm of more than 100 audience members who raptly followed the presentations on archaeology, Native American history, ecological changes, and coastal evolution. All presenters agreed on the crucial role of State Parks in preserving the prehistoric sites along with their natural landscapes and plant communities.

Thanks to these successes, and the re-opening of the Beach Trail last June, TPA will be sponsoring more events with public-interest "precipitation potential." For starters in 2008, mark your calendars for the TPA Annual Meeting on February 24. Then on April 19,



TPA will partner with State Parks and the Docents for Earth Day festivities. Please visit our web site www.torrey-pines.org for details on these upcoming events and other wonderful activities to be announced later in the year. Don't forget your umbrellas!

On the topic of calendars, the TPA Board has recognized the need to synchronize its functions with the calendar year. Most of the non-profit community, we are told, operates on a calendar year—including our close partners, the Torrey Pines Docent Society. To facilitate planning and coordination here at the Reserve, TPA is holding its Counselor elections in January so that we can seat the new Board by the end of January rather than the end of March, as has occurred in recent years. Per our Bylaws, the TPA Annual Meeting continues to be held in February. At that time, we will introduce the new Counselors and officers and present plans for 2008.

Please look for your ballots arriving by mail and return them before January 26, 2008. See you in February for the Annual Meeting—rain or shine! ☘

—Patricia Masters

"TPA will be sponsoring more events with public-interest 'precipitation potential.'"

TPA Journal

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Your comments and articles are welcome.

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Torrey Pines Association

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TPA Board meetings: last Thursday of every month at 6:30 p.m. at the Lodge.



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Torreys for tomorrow

The Santa Barbara Botanic Garden (SBBG) has initiated a research project focusing on the only two known subspecies of Torrey pine trees in an effort to sustain this rare pine into the future. In cooperation with the U.S. Forest Service and the Laguna Blanca School, SBBG hosted a tree planting ceremony on its new Hay Hill Campus in Carpinteria in November, 2007. Torrey Pines Docent Society Vice President Tom Polakiewicz represented Torrey Pines State Reserve at the festivities. Plans are to plant 300 seedlings: 100 grown from the Santa Rosa Island stand, another 100 from Torrey Pines State Reserve trees, and 100 hybridized seedlings of Torrey pines from these two populations. Laguna Blanca students will do the planting and maintenance of the plots.

On a side note, Carpinteria is home to the world's largest known planted Torrey pine. At almost 7 feet in diameter, the tree, planted in 1888 in what is now a city park near the sea, is known as the Wardholme Torrey Pine and crowns out at almost 130 feet tall, with an equal spread. For a photo of the tree, search the web or go to a "big tree" connoisseur's personal website: www.arthurleej.com/a-bigtrees.html. 🌿



Tom Polakiewicz



Tom Polakiewicz

Above: The Hay Hill Campus is located on a beautiful ridge overlooking the Santa Barbara Channel. It is not open to the public but TPA members and Docents may arrange group tours by appointment.

Laguna Blanca students dig in to plant the seedlings.



Herb Knufken

Welcome Ranger Martin Urbach!

The Reserve staff is now up to full strength with the arrival of State Park Ranger Martin Urbach in December. A ranger for seven years, Martin comes from his last posting at the Orange Coast District. He is delighted to join the Reserve staff—in his previous career as a radiographer at Scripps Hospital, he passed the Reserve daily and dreamed of working here. He looks forward to focusing on trails safety, resource protection, and interpretation of the Reserve's splendors to our many visitors. Martin also is interested in strengthening communication with the Reserve's neighbors about protection of our resources. Please stop and say hello when you meet Martin on the trail. 🌿



Tom Polakiewicz

Bob Haller, the botanist from UCSB who studied the Torrey pines on Santa Rosa Island and found them to be a separate subspecies, chats with Docent VP Tom Polakiewicz.

You're a member, so...

Remember to mail in your ballots and visit our web site www.torreypines.org for updates on the TPA Annual Meeting and Earth Day events.



Peter Jensen, Doug Inman, and Pat Masters marvel at this monument to uplift and wave cutting. These painted cliffs of Torrey Sandstone – the dunes and shallow water channels of 40 million years ago – tell the story of a stream-cut, uplifting landform sculpted by waves traveling over a rising sea level

A walk through a "few" million years

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scientist...and a life-long teacher. Dr. Inman is Research Professor of Oceanography and founding Director of the Center for Coastal Studies (now Integrative Oceanography Division) at Scripps Institution of Oceanography, University of California, San Diego. He holds degrees in Physics, Geology, Electronics, and a Ph.D. in Oceanography. He is a Guggenheim Fellow, and he has served as a UNESCO Lecturer in Marine Science in a number of countries. Prior to joining Scripps he fought as a Marine in World War II on the beaches of the South Pacific—which accounts for some of his lifelong fascination with sand and waves.

A short newsletter like this one has room for no more than a few snippets from such a walk and talk. We'll share a few of the graphics here. Dr. Inman started bringing students to the beach of TPSR back in 1950, and he remains a patient teacher today.

One of the best ways to get to know him and some of the forces at work in the Reserve is through his teaching-tool website <http://coastalchange.ucsd.edu>. His wife, Patricia Masters Ph.D., a paleobiologist and current president of Torrey Pines Association,

also served as Project Manager for this Coastal Morphology Group—dedicated to the “exploration of coastal processes.”

After we departed the High Point and Lodge region, Dr. Inman took our small group down to the South Lot and southward along the beach. The tide was out—way out—and we all wandered far from the vertical (sometimes overhanging) cliffs. The Reserve’s steepest cliffs, Dr. Inman pointed out, are formed by “wave undercutting and cliff failure.”

Historically, erosion of the Reserve’s cliffs has been slowed by two factors: beach sand, which buffers the shore; and a harder layer of green-gray sedimentary rock at the base of our cliffs called the Del Mar Formation. Dr. Inman says its “thick shell layers have dissolved, and it is almost like concrete.”

Thanks in part to modern man’s dam-building proclivities, beach sand seems to be in shorter and shorter supply, leading to increased wave action at the base of the cliff and eventual failure of the fissured, less-stable sandstone above. (Hence the need, in part, for a new set of “beach stairs” on the trail from Lodge to beach.)

Dr. Inman’s and others’ studies of the Oceanside Littoral Cell—the “river of sand” that moves along our coast southward after spewing into the sea as sediment via the mouths of 11 seasonal rivers and streams—have shown that we gain, and lose, most of our sand along our region’s “littoral cell.” This 52-mile stretch of beach between Dana Point and La Jolla has lost “nearly one-half” its natural delivery of sand due to dams, sand mining, and urbanization.

Another beautiful feature of the Torrey Sandstone is revealed by a wind cave with concretion



Top right: From the sea to the mountains of San Diego County, a story of faulting and uplift

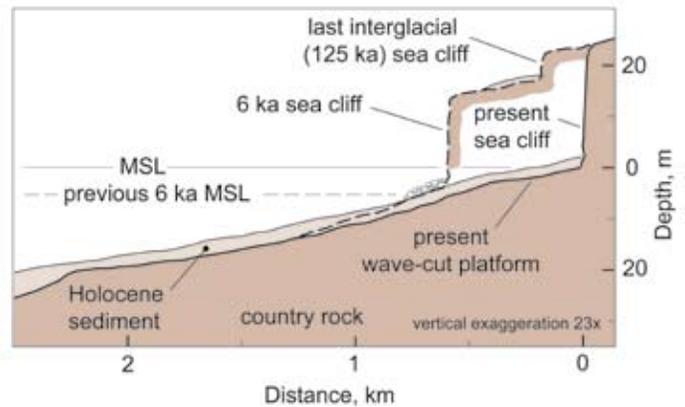
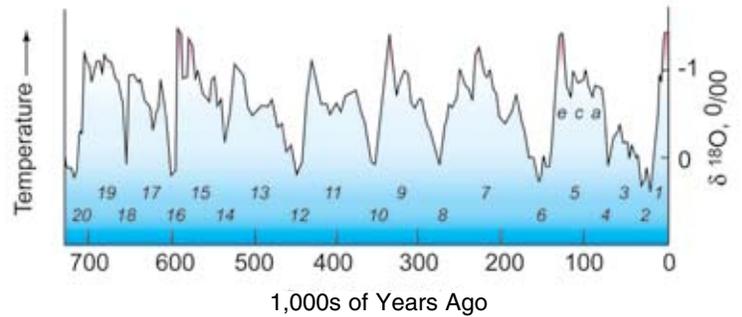
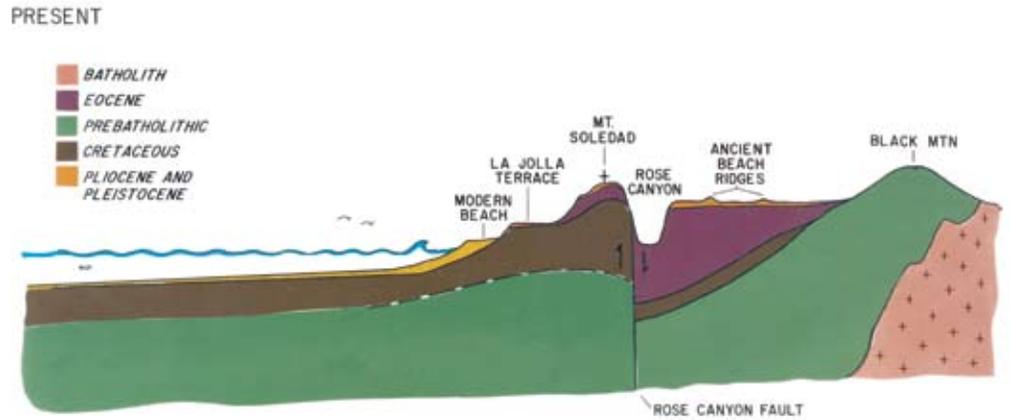
Middle right: Temperatures of ocean water, recorded in deep-sea sediments, can be used to estimate sea level changes over the past million years. For most of that time, the planet has been colder than present. We are now at the warm, interglacial high seastand on the far right of the graph. The last time the world was this warm and sea level this high was 125,000 years ago

As we stood at the base of the new stairs near Flat Rock, Dr. Inman showed us a topographic representation of the deep submarine canyons offshore. Scripps Canyon reaches in-shore close to La Jolla, and another side canyon extends almost to the end of Scripps Pier. Both are the eventual deep resting place or “sinks” for sand as it is moved down-coast by waves and currents.

Yet above us, high atop the cliff, we could see a “shell line”—evidence of ancient sea levels and the ever-grinding upward movement of our “collision coast.” With the sun going down and a cool mist settling in over the beach, we stood and imagined both coastlines—the ancient one and today’s. Our heads, and our hearts, were filled with the stuff of millions of years as we walked back to the Reserve entrance in the gathering dusk.

To learn more about the geology of Torrey Pines State Reserve, join one of the park’s many docent-led tours. For a more detailed study, consider becoming a docent: a good part of docent training focuses on the Reserve’s geological origins.

Recommended reading (in addition to Dr. Inman’s and Dr. Masters’s website): Inman’s “Littoral Cells” from the Encyclopedia of Coastal Science available as a pdf file at <http://repositories.cdlib.org/siol/cm/4/> and the McGraw Hill Encyclopedia entry on “Nearshore Processes” at <http://repositories.cdlib.org/siol/cm/8/>; “Walk Along The Ocean,” by Wolf Berger, Ph.D.; and “Waves and Beaches” by Willard Bascom.



Above: A west-to-east section through the Torrey Pines cliffs showing earlier stepped sea cliff of 6,000 years ago with remnants of the uplifted 125,000-year beach terrace still visible from the top of the Beach Trail stairs



Doug Inman pointing out the 125,000-year terrace (left) and the remnants of the 6,000-year sea cliff at Flat Rock



Presenters front from left: Therese Muranaka (Associate State Archaeologist and co-organizer), Speakers Tim Gross, Marla Mealey, Lynn Gamble, and Darren Smith. Back from left: Speakers Patricia Masters (organizer), Scott Mattingley, Dennis Gallegos, and Richard Carrico

Discussants: Lynn Gamble (SDSU), Carmen Lucas (Kwaaymii), Richard Carrico, and Therese Muranaka

Symposium Wrap-up

The clouds parted early on the first day of December, after heavy rains and floods the previous day, as more than 100 people wended their way to Scripps Institution of Oceanography for TPA's first symposium, "10,000 Years at Torrey Pines State Reserve: The Land, the Sea, and the People." By the end of the morning, everyone left with an awakened sense of the greater Reserve area – coastal waters, lagoon, woodland, and riparian valleys – that has nurtured Native Americans for more than 9,000 years. A surprise to many was the story of Ystagua, the village in Sorrento Valley where people built boats to fish the kelp beds, submarine



TPA member Scott Wilson browsing Associate State Archaeologist Marla Mealey's poster of the Reserve's prehistoric sites



Breaks included refreshments and plenty of conversation. Parks Environmental Scientist Darren Smith (facing camera) chats with attendees

canyon, and bay. They processed shellfish on many knolls around the lagoon, and roasted Torrey pine nuts in the Extension and main Reserve. Even the clan names have survived in Spanish mission records: *Cuilp*, *Leichap* (*La Chappa*), *Meteguir* ("strong" became *Duro*) and *Sichac* ("owl"). As Carmen Lucas of the Kwaaymii clan reminded us, her ancestors saw the possibilities of the natural world and were raised to take care of it. With their use of these resources came the acknowledgement of the beauty of the trees, the land, and the sea. ✂

To learn more ...

California Prehistory: Colonization, Culture, and Complexity edited by T.L. Jones and K.A. Klar provides the most up-to-date coverage of archaeological research in California with summaries of ten regions in the state and special topics including linguistics, DNA, trade, paleoenvironments, rock art, and the coastal migration hypothesis for peopling of the New World. Altamira Press, 2007.

Salt Water Boy by Melicent Humason Lee (1945, out of print but available from Amazon or used book stores). A charming story written for children features a young Kumeyaay and his coastal village, a few miles south of the Reserve.

Sycuan. Our People. Our Culture. Our History. (Sycuan Press) A lavishly illustrated, coffee-table style book that was the first to tell the story of the Kumeyaay written by a Kumeyaay, Michael

Connolly Miskwish. Available at the U.S. Grant Hotel and via the Sycuan tribal office (619) 445-6917.

Kumeyaay: A History Textbook, Vol. 1, Precontact to 1893 by Michael Connolly Miskwish. Intended as a text for classes he teaches at San Diego State University and Kumeyaay Community College on the Sycuan Reservation, this book contains extensive chronologies, maps, illustrations, and original source material. Available through the Sycuan tribal office.

The Autobiography of Delfina Cuero, A Diegueño Indian as told to Florence C. Shipek, 1970, Malki Museum Press, Morongo Indian Reservation. An intimate account of a Kumeyaay woman's life in two worlds.

The symposium DVD is available for viewing in the Docent Library at the TPSR Visitor Center. ✂

A match made in...Broken Hill

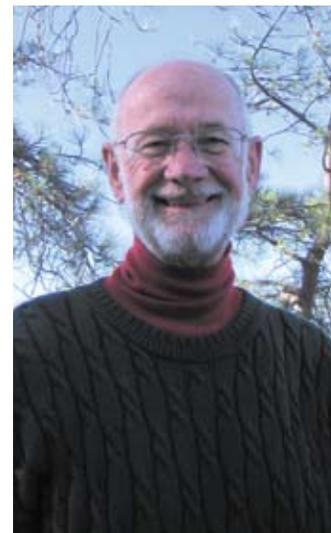
“Where should I set up my easel?” That was the question facing 20 of the finest plein air (“open air”) painters in the country as they set out to capture the extraordinary landscape of Torrey Pines State Reserve on canvas.

Some hiked off on their own. Others turned to members of the Torrey Pines Docents to lead them through the Reserve on the day they arrived, showing them favorite scenic views. One of the docents, Ken King, led two artists out to Broken Hill and other spots. On the days the artists were painting, Ken ran into these artists again and fell in love with the pastel works of one of them: Kim Fancher Lordier.

Kim wrote a nice note to Ken a few days after the event thanking him for showing her the reserve. Ken learned that she not only

won the Alfred Mitchell award at the invitational, but she had sold all of the works she produced there...with an exception: she hadn't been able to frame one work in time for the auction.

Kim sent Ken a picture of it, and it was of Broken Hill. Entranced with its beauty, Ken purchased it with the understanding that a part of the proceeds would be given to the Torrey Pines Reserve Endowment Fund. He and his wife Sheryl picked out a frame and it now graces a wall in their living room. Ken says that it not only is a beautiful painting that reminds him of one of his favorite places, but he also has a story to go with it! 🌸



TPA member and docent Ken King (above) and his wife Sheryl are proud owners of this stunning Broken Hill portrait

Pat Masters



Herb Knufken

Annenberg Foundation awards \$10,000 to bring underserved children to Reserve

By Pat Masters and Diane Greening

In July 2007, the TPA Board was pleased to host a visit from members of the Annenberg family. One outcome of that fortunate encounter was the receipt of a \$10,000 award to the Docents' Children's Program in order to expand their outreach to children who would not otherwise be able to visit the Reserve.

The Torrey Pines Docent Society runs this educational program during the school year for primary grades throughout the San Diego area. Fully 50 percent of the participating schools are located in low-income neighborhoods.

The \$10,000 contribution from the Annenberg Foundation will be used to expand the Docents' program into the Pinecone Club.

This pilot program will first bring the Reserve to the kids, by visiting them at an afterschool program at the Boys and Girls Club in Clairemont Mesa in January. The Docents will be bringing pinecones, tree sections, and some of their taxidermied animal friends to teach the children about the Torrey pine eco-



Docent organizers of the Pinecone Club: (L-R) Cecily Goode, Diane Greening, Barbara Wallach, Jeannie Smith

system and get the kids excited about their trip to the Reserve. In early February, the kids and some of their parents will board a bus at the Boys and Girls Club and come up to the Reserve. After a short talk by a ranger at the benches, they'll go out in small groups on docent-led hikes to experience nature in the Reserve first-hand. 🌸



Hubbell and Hubbell

"Green" architect Drew Hubbell to speak at TPA Annual Meeting

Please join us for the 58th Annual Meeting of the Torrey Pines Association, 3-5 pm on February

24, 2008, at the Martin Johnson House, Scripps Institution of Oceanography in La Jolla. Park free in TPA-designated lots.

It's a great time to greet old friends and meet new ones who share your passion for the Reserve. State Parks Environmental Scientist Darren Smith will fill us in on the health of the Reserve. We'll have warm and tasty refreshments as well as a spectacular view from the cliffs. Our last meeting held at the Martin Johnson House ended with a pod of frolicking dolphins roiling the golden waters at sunset.

Our speaker, Drew Hubbell, will discuss "Historic Structures and Green Design." Drew's diverse background ranges from historic restoration to adaptive reuse of existing structures to custom residential design. His firm specializes in sustainable architecture, green building materi-

als and the use of alternative building materials such as straw bales, adobe, and sprayed concrete construction. Currently he is in partnership with renowned artist James T. Hubbell, merging art and architecture in ecologically and aesthetically mindful ways.

Drew's education includes the architectural program at the Danish Institute of Study, Copenhagen, Denmark. His extensive travel throughout Europe, Asia, and the United States allowed for an architectural survey of historic material and building techniques, providing him with a rich design vocabulary.

Drew has been a member of Citizens Coordinate for Century 3, working on the committee for San Diego's Master Plan, "Towards a Permanent Paradise." He also participates in the North Park Main Street and El Cajon Boulevard redevelopment programs. In addition, he is a member of the American Institute of Architects Committee on the Environment and the Newschool Arts Foundation Board, and has been a member of the California Straw Bale Association since 1997. ✂

Who we are... www.torrey.pines.org

The Torrey Pines Association was founded in 1950 to encourage public interest in, and support for, the preservation of the rare Torrey pine trees and their scenic refuge. Since then it has played an active role in:

- achieving State Reserve/Preserve status
 - assisting in the acquisition of additional acres of native trees
 - funding educational exhibits
 - publishing informational and educational materials
 - managing memorial funds
 - renovating the Fleming house for use as an on-site ranger's residence
 - monitoring the overall welfare of the site
- We invite you to join with us in our ongo-

ing efforts to preserve and protect the rare Torrey pines and their scenic refuge by becoming a member of the Torrey Pines Association.

Please visit our website or contact us by mail for more information on membership levels. We also encourage contributions to the new Torrey Pines Reserve Endowment Fund. Donations will help protect and preserve the Reserve — a lasting legacy! Contact TPApresident@san.rr.com.

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