



Torrey Pinecone

A news bulletin for the
Torrey Pines Docent Society

August 2013

Biomimicry Expert Decries “Heat, Beat, Treat”

by Pat Finn

If we need – or want – something not found in nature – say, an automobile, new jacket or an iPhone – somebody manufactures it for us, and we buy it. Not only do we eventually throw it away when it becomes obsolete, but the process by which that hot new car is created is extremely wasteful in itself. Jacques Chirazi, an expert in biomimicry and sustainability, calls the way we manufacture goods “heat, beat and treat.” What he would really like to call it is obsolete.

Chirazi, manager of the City of San Diego’s clean Technology Program since 2007, spoke to the TPDS July meeting about biomimicry, the conscious emulation of nature’s genius. It is, he says, the reverse of the way we currently do things. In addition to using “heat, beat and treat,” we over-harvest natural products and engage in the use of extreme genetic engineering.

If something is not found in nature, says Chirazi, there is a reason.

We should take nature as our model when we’re looking for design solutions. He cited the gecko, whose feet allow it to cling to most surfaces, no matter how vertical, and the weaver bird, a marvelous natural engineer able to create elaborate nests – some housing hundreds of birds --

from leaves, grass or twigs. The design of a mollusk shell can be mimicked to make a super-efficient cooling design. The very structure of shark skin keeps it clean. These are species, Chirazi says, from which we humans could learn a lot.

How do we bridge the gap between what we need and what there is in nature without engaging in wasteful manufacture? Using biomimicry, says Chirazi, will lead us to “quiet our cleverness,” let nature come to us, and allow us to learn to live with the earth’s operating conditions we are

all subject to. Using nature as a model, rather than something to be overcome, will help us achieve what we want, sustainably. Chirazi spoke of the lotus, which has a natural, self-cleaning surface, as something to aspire to, for instance, in the design of hospital tables.

We should use nature as a measure and ask ourselves how we compare. Nature, he says, optimizes, rather than maximizes. It is cooperative, a champion recycler, resourceful and opportunistic. Nature makes constant use of cyclical processes and

Docent General Meeting Saturday, August 10th, 9 am

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

Title: Raptor Rehabilitation

Speaker: Nancy Conney of **Skyhunter's Raptor Rehabilitation and Education** will return by popular demand to share her experiences in working with raptors and will bring some live birds to further enhance her presentation.

Skyhunter's Raptor Rehabilitation and Education, formed in 1996, is a non-profit organization, staffed by volunteers who care for sick, injured and orphaned raptors. Skyhunter's rehabilitates as many as 300 raptors each year. They are currently responsible for 20 non-releasable raptors, including several hawk and owl species.

In addition to her personal attention and concern for raptors, Nancy is an instructor at the San Diego Natural History Museum, a presenter at many of the San Diego County Parks, and Vice President of the California Council for Wildlife Rehabilitators.

Refreshment Alert: In August, docents with **last names beginning with P, R, and S** are asked to bring some baked goods and special treats to share with the membership during the meeting break.

feedback loops. Nature is durable and tough because its very diversity lessens risk.



The wings of many large-winged insects such as butterflies and many plant surfaces remain dirt-free without chemical detergents or expending energy, simply by how their complex surface topography interacts with the physics of water molecules.

If you want to learn more about biomimicry, visit asknature.org, a project of the Biomimicry 3.8 Institute. And watch for information on a biomimicry conference in November to be held at the San Diego Zoo.

FLASH From Laura Lowenstein:
Don't forget to donate your Zoonooz magazines to the Museum Shop.

July 2013 Docent Meeting Minutes

Excerpted from notes of TPDS July 13, 2013 General Meeting, by Secretary Lynne Truong. Complete minutes are in the docent library.

Meeting called to order at 11am by President **Bill Eckles**.

Docent of the Month: Greg Howard was named Docent of the Month.

Spotlight On: Walt Desmond gave a delightful and educational presentation on Twilight: the crepuscular life after sunset at TPSNR.

Treasurer 's Report: (Carolyn Butterfield) The society is still in the black; income to date is ahead

compared to last year's income at this time. We had a substantial net gain last month and received two generous donations from the La Jolla Shores Surfing Association and Qualcomm.

President's Report: (Bill Eckles) He encouraged members to not hesitate to come to the Board for funding for projects. He also emphasized that the large funding reserve should enable the society to implement quality projects. In answer to question if the funding can be used to repair the Lodge, **Rick Vogel** representing TPA, said that the Historical Structural Report is almost complete after 18 months. The report will be the blueprint for Lodge rehabilitation and TPA will also help financially with the repair costs.

Reminders from Bill:

- Please take the Art in the Pines survey on Survey Monkey. The survey will be available for another two weeks. There are 50 responses thus far out of general membership of about 200 docents.
- Signs in and around the Reserve and the Lodge need Board approval. The Supervising Ranger will give final authorization based on the Board's recommendation and State Park's rules and regulations.
- Members are encouraged to sign up for TIK as a fun and interactive interpretation opportunity with visitors.

Strategic Planning: (Ken King & Janice Barnard)

There are four main task forces formed and members have met to work on their action plans. The Community Outreach group determined that their work is already being handled by the TPA.

The Safety group is doing inventory of current signs. Supervising Ranger Dylan Hardenbrook was an active

participant in the meetings and the group is working on signs and striping within six months.

The Interpretive group is working on plans to update the Whitaker and Lodge gardens and on developing new interpretive programs for the public. Refurbishing the museum and new taxidermy will be handled by the current Museum Committee.

The Digital Document group is active in archiving the newsletters digitally and making the archive searchable online for ease of access for docents.

Ken encouraged members who are interested in any of the group's activities to let Ken or Janice know and they will connect you to the right people. The groups are keeping the Board informed on the status of their ongoing projects.

Children's Program: (Barbara Justice) A trip to the Poway Kumeyaay Center is planned for August 15th. Louis Sands will email further details to participating docents.

Library: (Bonnie Hornbeck) There is a new book in the library, "A State of Change: Forgotten Landscapes of California by Laura Cunningham" donated by Tom Polakiewicz.

The meeting adjourned at 11:30 am.

All docents are reminded to wear your docent shirts and/or vest when you are working with the public, whether it be Lodge hosting or leading walks or any sort of activity in which you interface with people. Please do not buy uniform shirts that look like park staff uniforms. We should not be confused with the rangers or park aides.
Thank you!
Jeannie Smith

Docent of the Month: Greg Howard

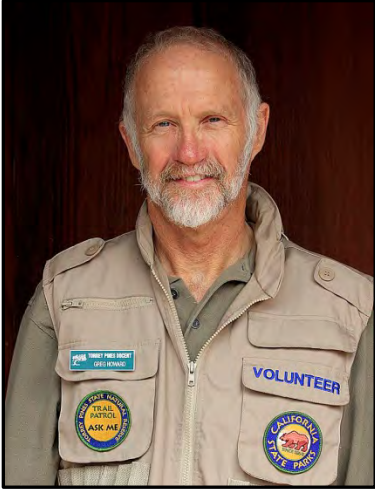


Photo by Herb Knüfken

I was born in Los Angeles and my family moved to La Jolla in 1964. I graduated from La Jolla High School and attended UCSD. I have always loved the outdoors and would ride my bike up the coast to Oceanside and back, often passing through the

Reserve and enjoying the natural beauty.

I am fortunate to be a partner in my family business, which makes key accessories (things that touch keys) and a new line of key blanks. I have been able to scale back my involvement in the business to about half-time this year and hope to be working even less next year and spending more time in the Reserve.

*I was a Sierra Club outing leader and met my wife, **Allison**, on a five-day trip I led in Yosemite. I enjoy participating in Lodge duty with Allison and I also love to hike the trails and do trail patrol.*

*I have been fortunate to work with some wonderful docents over the last few years. I have helped **Jeannie Smith** with docent badges and shirts. I have helped **Bobbie Kruger** with T-shirts for sale in the Lodge. I recently helped Lewis Sands create new signs for the taxidermy in the Lodge. I have*

*helped **Kristine Schindler** with trash clean-up along Hy 101.*

In closing, I would like to thank the TPDS for naming me Docent of the Month. I am honored to serve the Reserve and help in any way I can. I look forward to many more years of service.

Safety Task Force Welcomes Suggestions

The newly formed Safety Task Force welcomes ideas and suggestions to improve the safety and well-being of our visitors. Please contact one of us if you have recommendations.

Steve Tarkington
Kristine Schindler
Mike Pisor
Lillian Lachicotte
Ken King

REUSE, REDUCE, RECYCLE: & REFILL

by Diane Stocklin

No matter how small the start, the final science experiment of a middle-school student made a big difference in the hands of Torrey Pines Docents **Frank Burham** and **Sally Whitlock**. As part of the TPDS science award committee, they immediately saw the environmental value of Nilay Shah's study of "Plastic Biodegradation in a Marine Environment." Shah received the Young Scientist of the Year award from the San Diego Oceans Foundations, and thanks to Frank's foresight and hard work, TPSNR is now at the forefront of sustainability practices in the state park system, with the installation of its first refillable water system. What does it do? A water refilling station (see photo) is used to fill reusable water bottles, eliminating the sale and discouraging the use of disposable plastic water bottles.

Frank said with satisfaction after the installation, "Build it and they will come." And indeed the visitors did come to the TIK, an interpretive site in the upper west lot. "As **Isabet Yarrington** and I watched the recycle bins fill to overflowing with discarded water bottles, the need for refillable water bottles became

evident. The public support of this step was very positive and was evidenced by cash donations to TPSNR to further the program. Also, the TPDS Board and Supervising Ranger Dylan Hardenbrook believed in the project from



Frank Burham filling one of the reusable bottles (with a Torrey Pines Reserve logo) that are now sold in the Museum Shop and the TIK
Photo by Roger Isaacson

its inception. As optimists, their glass was half full, never half empty,” said Frank. He added, “Zion National Park rangers were generous with help and information about the implementation of their water refill stations, following the mandated change by the National Park Service. As docents, we have an obligation. We are stewards of this environment and our Green Team environmental-impact task force will research, embrace, and assist implementation of environmental programs selected by the Board.”

In 2006, 827,000 to 1.3 million tons of plastic PET water bottles were produced in the US, requiring the energy equivalent of 50 million barrels of oil. More than 75% of these bottles ended up in landfills. ([U.S. Government. Accountability Office, June 2009, p23.](#))

We are living in the “plastic age” with ubiquitous plastic production that permeates our lives. Why so much plastic? Monetarily, it is cheap to produce, but it is environmentally expensive, with the evidence of this cost becoming clearer.

WHY SHOULD WE CARE?

Plastic has a harmful impact on the environment and on all living organisms. It enters our oceans, often as beach litter, and into landfills with long degradable timelines, up to 1,000 years without sunlight (faster with sunlight). It creates adverse mechanical effects on 250 marine species and 100 types of sea birds, with plentiful evidence of birds, turtles and fish bound and confined by plastic debris. Ocean fish eat plastic pieces that magnify in number as they advance up the food chain, e.g. krill eat ocean plastic bits, mackerel eat krill, tuna eat mackerel and humans consume tuna. Even the smallest plastic bits continually leach chemical additives as the pieces of plastic, by adsorption, act like a magnet and eventually stick to animal and human fat tissue. For example, there are BPAs, which are endocrine disrupters; DDT, a neurotoxin; PCBs and PAHs which are carcinogens; and PBDEs which interact with thyroid and reproductive functions. The plastics stay in the body, continuing to leach the POPs (persistent organic poisons). ([Scripps.ucsd.edu, Goldstein, 2009.](#))

Current research is being conducted, often called Green Chemistry, with the hope of creating a non-petroleum-

based plastic, such as polylactic acid (PLA) that is totally biodegradable, but hopefully has some of the basic properties of petroleum-based plastics, including the low monetary cost to producers.

In the meantime, this TPNSR adoption of a sustainable practice, the refillable water stations, is the first completion of a goal envisioned by **Frank Burham** and the Green Team. Other goals include: REUSE again and again, REDUCE consumption, REDUCE waste, RECYCLE all and REFILL your water bottle. Stay tuned and, better yet, contact Green Team members with your “green” ideas.

Many Old Docent Newsletters Now Available Online and Searchable.

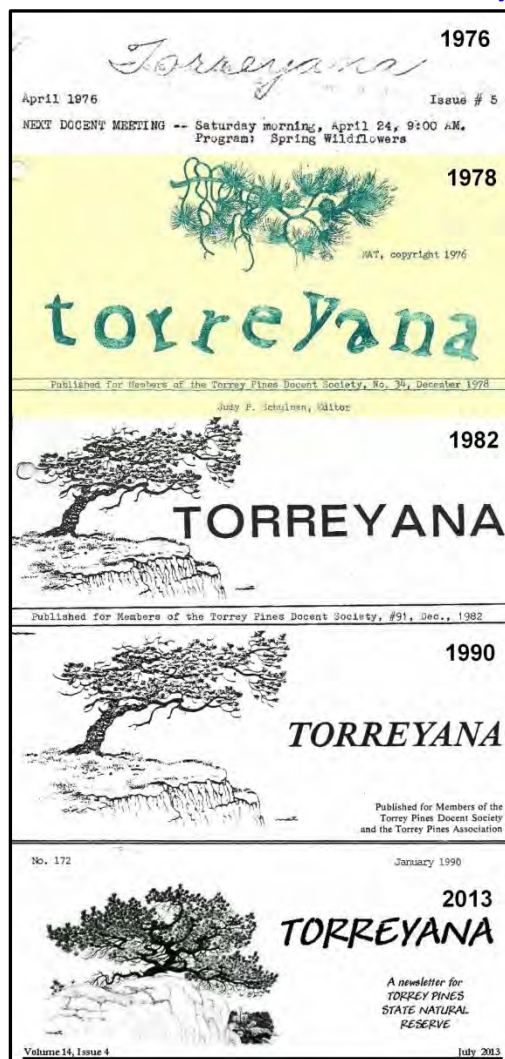
by Roger Isaacson

Motivated from working with the Digital Document group, I spent quite a few hours the past month scanning old docent newsletters back to Issue 1 (1975-6 mimeographed copies were very poor quality, unfortunately). About 80 new online links to PDF files can be found at torreypine.org/Torreyana/Archives.htm.

You will find an overwhelming amount of reading material. But, as a start, you will find a link to a [PDF file](#) that gives a few suggestions on interesting articles that may be found there that might pique your interest in some of the topics listed. For example, the [March 1981 issue](#) told a lot about the Guy Fleming House being refurbished for probably the first ranger occupancy in many years.

In 1995 the *Torreyana* became a bimonthly, making it easier to recruit new editors. In alternate months there were sporadic short notes. In 2000 the short notes became the *Torrey Lite*, followed in February 2001 by the first *Torrey Pinecone*. So far, over 400 newsletters have been produced by the TPDS since the first newsletter in Dec. 1975 with about 170 now available online.

We encourage you to browse some of the old articles and let us know if you see any that may be worth republishing. Contact editors@torreypine.org.



Beach Party Save-The-Date!

Join Docents and Staff for a fun celebration of the end of the summer season with a Potluck Beach Party.

When: Wednesday, September 18, 2013, 4 to 8 pm

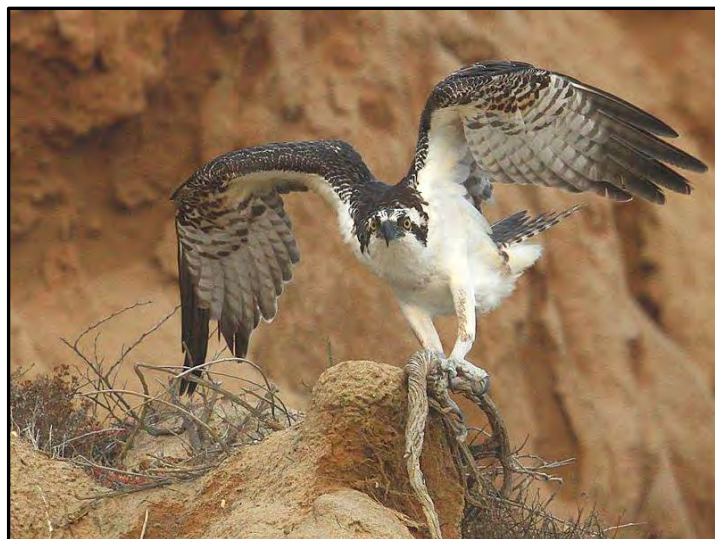
Where: At South Beach just to the left of the stairway after the entry kiosk

Please bring a dish to share and your own beach chair, plate, eating utensils, and drinks.

We'll have tables set up for everyone to set their food on.

Bring a musical instrument for a sing along!

Remember, no alcohol or glass items are allowed on the beach.



Osprey north of flat-rock in June

Photo by Herb Knüfken

Attention prospective/future birders

One of the most comprehensive--and most fun--web resources about birds is Cornell Ornithology Lab's "All About Birds" site. It's at tinyurl.com/cornell-u-birds. The site describes individual birds in the US (nearly 600 species). It has bird photos, range maps, recordings of songs and calls, and ID tips. It also has answers to FAQs, such as "I found a baby bird on the ground. What should I do?" And it has links to Livestream birdcams. For example, you can watch Red-tailed Hawk fledglings grow.

Torrey Pines Docent Society Bird Survey: July 6, 2013

Total of species 65

Gadwall 16	Osprey 2	Anna's Hummingbird 18	Northern Rough-winged Swallow 11	California Towhee 27
Mallard 18	White-tailed Kite 2	Rufus/Allen's Hummingbird 5	Cliff Swallow 21	Savannah Sparrow 6
California Quail 24	Red-shouldered Hawk 1	Nuttall's Woodpecker 7	Bushtit 20	Song Sparrow 9
Pied-billed Grebe 3	Red-tailed Hawk 2	American Kestrel 1	House Wren 3	Black-headed Grosbeak 3
Western Grebe 1	American Coot 2	Peregrine Falcon 2	Bewick's Wren 1	Red-winged Blackbird 17
Black-vented Shearwater 8	Killdeer 3	Pacific-slope Flycatcher 2	California Gnatcatcher 8	Yellow-headed Blackbird 1
Brandt's Cormorant 4	Long-billed Curlew 3	Black Phoebe 6	Wrentit 22	Brewer's Blackbird 2
Double-crested Cormorant 9	Western Sandpiper 1	Ash-throated Flycatcher 4	Northern Mockingbird 5	Brown-headed Cowbird 2
Brown Pelican 138	Western Gull 11	Cassin's Kingbird 1	Common Yellowthroat 8	Hooded Oriole 1
Great Blue Heron 4	California Gull 8	Western Scrub-Jay 4	Yellow Warbler 1	House Finch 73
Great Egret 4	Caspian Tern 7	American Crow 10	Yellow-breasted Chat 6	Lesser Goldfinch 25
Snowy Egret 11	Eurasian Collared-Dove 15	Common Raven 6	Spotted Towhee 15	House Sparrow 8
Green Heron 1	Mourning Dove 27			
Black-crowned Night-Heron 1	Greater Roadrunner 1			
	White-throated Swift 7			

Observers: Eva Armi, Gary Grantham, Herb Knüfken, Jack Friery, Bob Glaser, Kathy Dickey, Frank Wong, Margaret Fillius, Blair Francis, and Anonymous

Previous Bird Surveys may be found at torreypine.org/activities/bird-sightings.html

Herb Knüfken's amazing photo gallery may be found here: pbase.com/herb1rm



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The Pinecone, a calendar of events, notes from business meetings, and other items of specific interest to the docent membership, is published bi-monthly (even months). For odd months we publish the *Torreyana*. Please submit items by the 20th of the month to the Editor Editors@torreypine.org. This newsletter is edited by Pat Finn. Items for publication may also be left in the *Torreyana* mailbox in the docent library.

August 2013 TPDS Lodge Docent Hosting Calendar-- Updated 7/28/13

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
Lodge hosting hours: L- 9-12 L- 12-3 L- 3-6		Walks: W Sat/Sun/Hol 9:30 (Start 10:00) W Sat/Sun/Hol 1:30 (Start 2:00)		1 L-Griffiths/Malm L-Tarkington L-Simon	2 L-Donnelly L-Walters L-	3 L-C&B Hornbeck W-Geist L-Kornreich W- L-Ivany
4 L-Mussen W- L-Meier W- L-Potuznik	5 L-M Lewis L-Woo L-S&S Rose	6 Maids L-Fiorentino L-Phillips L-Paa	7 L-B Hornbeck L-Barnard L-Stehlik/ Batarseh	8 L-Fiorentino L-Beck L-Barger/Alley	9 L-MacConnel/ Schindler L-Donnelly L-Isaacson	10 Meeting L- W- L-B Doolittle W- L-
11 L-Mussen W- L-Bar/Torres W- L-	12 L-M Lewis L-Buckley/ F Doolittle L-Humphrey	13 L-Fischman/ diGirolamo L-Phillips L-Grindler/Blake	14 L-Colwell L-Barnard L-Eliot	15 L-Griffiths/Malm L-Hroutas/ Walker L-Simon	16 L-Burke L-Walters L-	17 L-McGee W-Farness L-Schulman W- L-Schulman
18 L- W-Barger/Alley L- W- L-	19 L-Donnelly L-Hroutas/ Walker L-	20 Maids L-Fischman/ diGirolamo L-Kebow L-Tozer/Hunt	21 L-M Lewis L-Barnard L-B&F Eckles	22 L-Johnson/ Hirst L-Beck L-Barger/Alley	23 L-Burke L-Tarkington L-	24 L- W- L-Bar/Torres W- L-
25 L- W-Schindler L- W- L-	26 L-Hroutas/ Walker L-Phillips L-Humphrey	27 L-Hroutas/ Walker L-A Howard L-Glaser/ Rosenwasser	28 L-Colwell L-Barnard L-Eliot	29 L-Donnelly L- L-A&G Howard	30 L- L-Alley/ Barger L-Martineau	31 L- W-Geist L- W- L-

To sign up for an opening, call the hosting docent (858-755-8219) to confirm the time and write your name in the Logbook. If you cannot do your session, please try to find your own substitute by switching with another docent or using the short-notice list. Then call the hosting docent to make the change in the Logbook. Coordinators: Irene Larrimore & Jan Lombardi