



Torreyana

A bimonthly newsletter for
Torrey Pines State Reserve

Issue 247

September 1997

FLASH! TUESDAY, SEPTEMBER 16TH

Ranger Staff/Docent Appreciation Party!

In the true spirit of cooperation, Ranger Chris Platis and staff and docent committee, headed by Diana Wenman, have put together a buffet for guests and their spouses to enjoy at the Mutual Appreciation Party on Tuesday, September 16th at 6:00 p.m. at the Lodge. Please RSVP to either Chris or Diana before September 10th. (755-2063 or 544-0457)

Docent-of-the Month Awards

Members of the Torrey Pines Docent Society are enthusiastic about their individual interests, but they are also willing to volunteer for extra duties. The most recent recipients of the Docent-of-the-Month award have proven that they're always ready to serve in many versatile ways. Congratulations! **July recipient, Diane Sachs'** interest in nature began in New York with trips to the Museum of Natural History and the Zoo. She learned of the Docent Society through Barbara Moore's nature walks and joined in 1989. She's also a docent at Scripps Aquarium. Her early experience as a Girl Scout leader giving nature walks, and eight years spent on the Pine Ridge Indian Reservation, teaching the Lakota-Sioux children, makes her an invaluable member of the Children's Program. As a docent, Diane has volunteered whenever needed, whether selecting photos for brochures, organizing

refreshments for the Kumiai Festival, or jumping in to fill a vacant post. Besides her children's walks, she keeps fit by line dancing at the Solana Beach Community Center.

Kathy Estey, August Docent-of-the-Month, is a dedicated protector of native plants in TPSR. She heads the exotic plant removal team who works hard to remove unwelcome species. Also, with an eye towards the future, she was one of the founders of the Children's Program "because kids are going to be the saviors of our planet." Her love of the outdoors takes her hiking, backpacking, camping and birding when ever possible. She's also a member of the Bird Count team, which sights and records numbers and species of birds in TPSR. Yet for the past year, Kathy, who is in charge of the new docent T-shirts, can be found at the end of each meeting supplying docents with their new summer greens instead of rushing outdoors to find an interesting bird. As a book lover and staff member of the *Torreyana*, she introduces a new column in this issue called Book Corner. That's versatility.

Next Docent Society Meeting

Saturday, September 20th 9:00 a.m.

Jerry Schad, PhD, professor of Physical Science at Mesa College, will speak about the Reserve and other wonderful places to hike noted in his book *Afoot and Afield in San Diego*.

Book Corner *American Nature Writing, 1997*

—Kathy Estey

For years, nature writing has been considered a lesser form of writing. The Sierra Club, through its annual book of the best of nature writing, has sought to change that. Our library has the newest volume, *American Nature Writing 1997*, selected by John A. Murray.

As in the previous volumes, every reader should find at least one selection which will be read several times, each time with more appreciation of great writing. This volume has 24 selections, most only a few pages long—the perfect length to read before falling asleep at night.

The Sierra Club seems to seek out new writers, and there are some wonderful ones here. But my favorite selection is by Ann Zwinger. Her essay *Bright Angel Trail:Coda* is the story of a trip through the Grand Canyon with her grown daughter during a cold Christmas season. The essay includes information on the geology of the Grand Canyon, some history of the Indians that have lived there, and examples of the flora and fauna of the region. She also includes some very human grumbling about how cold it is and how difficult it is to hike in freezing rain. Ann Zwinger sounds like someone you would want as a docent.

Another of my favorite selections is *Sing Me Down the Mountain* by Stephen Trimble. He writes about raising his children to appreciate nature, a wonderful essay for adults who would like to introduce their children or grandchildren to the great outdoors.

There are other essays by well known writers such as Rick Bass, Terry Tempest Williams and Barry Lopez. They cover nature spots from old farms in the Midwest to isolated valleys in Montana and many wonderful places in between.

So for all of you who perhaps don't have the time or inclination to read a 400 page book, but still enjoy good writing, check out either this volume or the 1996 volume that Marc Gittelsohn has placed in our library.

Bird Counting — a New Experience —Twinx Hauer

Torrey Pines State Reserve is at its loveliest in the early morning with only a few joggers to disturb the rabbits, squirrels, and birds. So why not join Hank and Jane Baele's dedicated birders to help count the numbers and species of birds in the Reserve. There are five areas to be covered: the Lagoon and beach, Flintkote Road, the Guy Fleming and Razor Point Trails, the Lodge area, and the Extension.

Each area, of course, is completely different and even a novice birder can be helpful and get much enjoyment out of exploring new vistas. On a misty morning the lagoon is very beautiful with nothing breaking the silence but the sounds of birds and small rustling in the brush.

On the bluffs above Flintkote, there are big ragged caves where nests have been built, and in the early summer it is possible to see parents feeding babies. The nests have obviously been in use for years judging from the sheets of white below most of them. Some even have clusters of wasp nests. Flintkote is another world. On the second of August we saw around three hundred finches along the trail.

The bird count varies enormously through the year with midsummer being the lowest. Near the Lodge, however, there are still our noisy scrub jays and quail. Ravens can be found along the Guy Fleming Trail or doing barrel rolls above the ocean.

The more docents that join in the count the easier it will be for the small group of birders who have been splitting up, often spending an extra morning to cover all the areas. For the neophyte, one of the great rewards is the pleasure of seeing the Reserve in the early morning light and hearing the scratching of a towhee in the chaparral. So join us at 8:00 a.m. Saturday, September 13th, at the South parking lot.

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DOCENT LIBRARY FOCUSES ON CALIFORNIA'S NATURAL HISTORY

—Marc Gittelsohn

"The California Natural History Guide" series is published by the University of California Press. Its volumes provide accessible, scientifically based accounts of the flora, fauna, landforms, climates, and habitats of our state. The illustrations are good but often quite small. Those in color are often separated from the relevant texts. The books we have in this extensive series are arranged by the subjects under which they may be found in the docent library. An asterisk (*) indicates this title was added to the collection since this Library List no. 16 appeared in the *Torreyana* in November, 1992.

BIRDS:

Cogswell, Howard L., *Waterbirds of California* #40 (1977)

EARTH SCIENCES:

Bailey, Harry P., *Weather of Southern California* #17 (1966)

FISH:

Fitch, John E., *California Marine Food and Game Fishes* #28 (1971)

*Fitch, John E., *Tidepool and Nearshore Fishes of California* #38 (1975)

INDIANS:

Balls, Edward K., *Early Uses of California Plants* #10 (1972)

*Heizer, Robert F., *Natural World of the California Indian* #46 (1980)

INSECTS:

Garth, John S., *California Butterflies* #51 (1986)

Powell, Jerry A., *California Insects* #44 (1979)

MAMMALS:

*Jameson, E. W., *California Mammals* #52 (1988)

Orr, Robert T., *Marine Mammals of California*, New Ed. #29 (1989)

MUSHROOMS:

Orr, Robert T., *Mushrooms and Other Common Fungi of Southern California* #22 (1968)

NATURAL HISTORY:

Jaeger, Edmund C., *Introduction to the Natural History of Southern California* #13 (1966)

*Schoenherr, Allen A., *Natural History of California* #56 (1992)

PLANTS:

Clarke, Charlotte Bringle, *Edible and Useful Plants of California* #41 (1977)

Crampton, Beecher, *Grasses in California* #33 (1974)

*Grillos, Steve J., *Fern and Fern Allies of California* #16 (1966)

Hale, Mason E., Jr., *Lichens of California* #54 (1988)

Ornduff, Robert., *An Introduction to California Plant Life* #35 (1974)

Raven, Peter H., *Native Shrubs of Southern California* #15 (1982)

*Schmidt, Marjorie G., *Growing California Native Plants* #45 (1980)

TIDEPOOLS:

Hinton, Sam, *Seashore Life of Southern California: an Introduction to Animal Life of California Beaches South of Santa Barbara*, Revised Ed. #26 (1987)

TREES:

Peterson, Victor P., *Native Trees of Southern California* #14 (1966)

*Johnson, Verna R., *California's Forests and Woodlands: a Natural History* #58 (1994)

Editor's Note: We are very fortunate to have such an excellent natural science library, thanks to Marc Gittelsohn, retired head of UCSD's Undergraduate Library, who continues to build on it for greater docent enlightenment.

Sorrento Valley Road Closure — A Rare Opportunity

Edward Navarro, Superintendent of the San Diego Coast District of the Department of Parks and Recreation, recently sent a letter to the Del Mar City Council supporting the continued closure of Sorrento Valley Road to vehicle traffic, and explaining how this would contribute to the environmental quality of Los Peñasquitos Lagoon. Docents, please note this information in case you are asked about the closure of Sorrento Valley Road.

The road acts as a partial barrier to wildlife movement in and out of the lagoon ecosystem. Since 1993 Los Peñasquitos Lagoon has been isolated from other large natural open space areas to the east to which it was formerly connected. The maintenance of viable wildlife populations in Torrey Pine State Reserve in part depends on the establishment of wildlife corridors reconnecting the lagoon to these other areas. One such connection is the underpass currently being constructed under the I-5, Highway 156 interchange. This underpass will be 315 feet wide and will connect the eastern lagoon to the enhanced riparian corridor along Carmel Creek. The elimination of vehicle traffic along Sorrento Valley Road will encourage the use of the corridor by wildlife.

Two breeding pairs of the endangered clapper rail were found to be using the portion of the lagoon immediately to the west of Sorrento Valley road during the winter of 1996-97. Closure of the road to vehicle traffic would help to protect this species.

Vehicle traffic along the road contributes pollutants such as oil, antifreeze, rubber and asbestos to the lagoon watershed. Because runoff from Sorrento Valley Road drains directly into the lagoon its contribution of such pollutants is great relative to the amount of traffic which uses it. The elimination of vehicle traffic along the road would contribute to improved water quality in the lagoon.

Sorrento Valley Road as a vehicle right of way is not conducive to visitation of the Lagoon. The road is narrow and has no pullouts. Walkers and bicycle riders rarely used the road when it was shared with motor vehicles. Closure of the road to motor vehicles would give access to this portion of the lagoon for nature study and bird watching.

Navarro adds that the last few months of road closure has not caused any major problems. "Permanent closure of the road to vehicles offers a rare opportunity to take a positive step to improve environmental conditions in this area."

Whitaker Bench Dedicated



Relatives, former associates, and friends of Dr. Thomas Whitaker, along with the ranger staff, met in the Whitaker Garden on Sunday afternoon, July 27, to dedicate a teak bench in his memory. Beverley Whitaker Rodgers, who presided at the ceremony honoring her father, thanked the donors and also the TPA and ranger staff for handling the purchase and installation of the bench. After reminiscing about his interests in Torrey Pines, she introduced several attendees, who shared their recollections of Dr. Whitaker. Harriet Allen, speaking for the TPA, noted some of his major contributions: long-time president of the TPA, an editor of all three editions of *Torrey Pines State Reserve*, and a leader in the Torrey Extension campaign. Beverley Rodgers's daughter, Kim Westhoff, recounted her obvious fond memories of walks she and her brother had with their grandfather, his commitment to education, and his enjoyment of sharing his knowledge.

Torrey Pines has been fortunate in having had loyal friends committed to its preservation for its almost 100 years as a park, starting with E.B. Scripps and Guy Fleming in the first part of the century and Dr. Whitaker as it ends. Let us hope that the next 100 years will see similar friends of Torrey Pines. — J.C.

Notes from the Archives — Cliff Road
Maryruth Cox from Alex Bevil's history file

In 1929 it was not easy to commute to San Diego from Del Mar. The road wound around Del Mar hill, under the railroad, across the slough on a wooden bridge, in the Torrey Pines hill, and then south on the mesa. The wise traveller went down the Biological grade (Scripps Institute of Oceanography) to avoid robbers in La Jolla and Rose Canyons.

La Jolla promoters pushed for a new highway carved from the Torrey Pines cliff. Tourists might invest in La Jolla real estate after they saw the spectacular views across the water. San Diego city manager Lockwood made plans for the cliff road.

But there was opposition: "—a road through the park would create an objectionable and uneradicable scar—" (Ralph Cornell). H.W. Shelton and H.K. Trask formed "The League to Save Torrey Pines Park" and suggested an alternate route up Sorrento Valley, around the park. The battle was joined, for and against the cliff road:

Against: "—two steam shovels and a road-building gang, unembarrassed by geologic or aesthetic consideration, could probably make short work of the cliffside project—" (Maurice Allen). "—cliff's whole face would have to be blasted off—as unthinkable a deed as to blow away the facade of Notre Dame—" (Julia Trask).

For: "—are we going to let tourists run across a mud flat and up a blind canyon?" (J.H. Andrews) "—there will be created an unhealthy real estate situation—" (Acker).

The city Park Board tabled the request for a cliff road and appointed an engineer, W.W. Crosby, to survey the situation. He reported on three possible routes: a] inland through Sorrento Valley; b] the cliff road through the park; c] a road adjacent to and east of the existing one. He favored the Sorrento Valley route as the least expensive.

When the Park Board rejected the city's plan, Judge Conkling, city attorney, was incensed: "—the state legislature never approved dedication of Torrey

Pines park—" (Conkling). The park board had no authority! Conkling advised the city council to rescind the original ordinance making Torrey Pines a park, go ahead with the cliff road, then reinstate the park.

The city council followed Conkling's advice but the president of the park board, Olmstead, was infuriated. He sued the city, and Superior Court Judge Haines decided that the park board did have authority over Torrey Pines.

The city council would not back down; they appealed the decision and furthermore, set an election for August to let the voters decide about the new road. A leading opponent of the cliff road, park commissioner George Marston, was dismayed: "—I am inclined to think that a majority of people are for getting a road through Torrey Pines park on the score of economy—it might be better to save Torrey Pines from the devastation of the cliff road—by compromise—" (Marston).

When the park board accepted the 'east' route (the present Torrey Pines grade), the city cancelled the election. Soon four steam shovels were hacking away at the Torrey Pines hill, and by 1932 the road from Del Mar through Torrey Pines had assumed its present form. For almost forty years it was the main entrance to San Diego from the north. When Interstate 5 was built through the Sorrento Valley, commercial and high-speed traffic finally by-passed Torrey Pines Park.



Saved from destruction—the present TP entrance is also used by bicyclists, joggers and pedestrians.

Nature Note — Cliffs

—Don Grine

Spectacular cliffs are an important part of the scenery at Torrey Pines State Reserve. The land must descend somehow from the 100 meter altitude at the lodge to sea level at the beach. The view of the Reserve from Del Mar shows a gradual steepening of the slope to the beach to about 45 degrees halfway down. Then the land plunges vertically to the sand. What is needed to produce an almost vertical cliff rather than just a steep slope of 45 to 60 degrees?

The first requirement is for layers of rock strong enough and thick enough to stand up in a cliff. If we dig a trench in weak soil, the walls will collapse when it is a few feet deep. Even in strong soil, OSHA (Occupational Safety Health Administration) requires shoring of trench walls to prevent collapse on workmen. The Delmar Formation, Torrey Sandstone, and Lindavista Formation are all strong enough but the Lindavista is not thick enough to make much of a cliff. The more recent Bay Point Formation is not strong enough to form a very high cliff so it erodes into our "badlands" topography with very steep slopes but no cliffs higher than a few meters.

The second requirement is for a mechanism to cut the cliff. The mechanism was man's machinery in our road cuts by the Fleming trail and on North Torrey Pines road. In several of our canyons, streams cut the rock, most notably for the cliff in the Torrey Sandstone opposite the Rim trail. Our biggest and best cliff is along the beach where the waves cut out the bottom of the cliff. The cutting process occurs mostly at high tide during winter storms. The hard cobbles on the beach are thrown against the cliff by the million. The cliff top falls when the undercut is too great. If you look up from a recent rock fall, you will usually see an arch in the cliff face. The arch shape is self-supporting even if the rock above it is cracked.

The third requirement for a cliff to exist is that debris must be prevented from accumulating enough to bury it. Debris comes from rock falls from the cliffs and from soils washed down from the slopes above the cliffs. A hard, nearly level cap rock at the

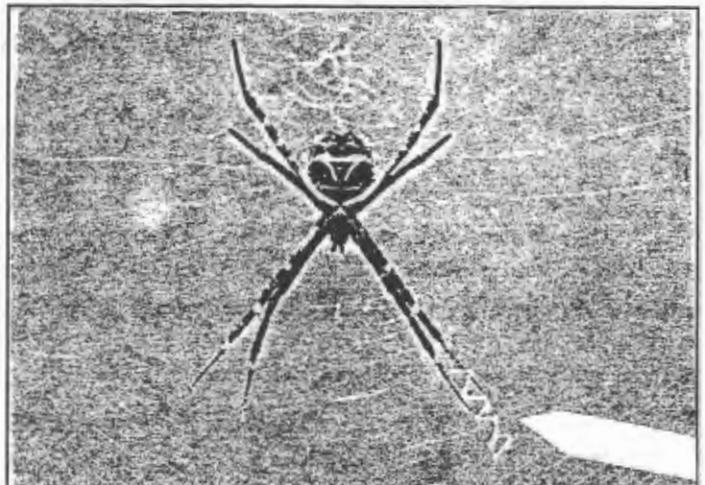
top of a cliff will reduce the wash debris and protect The Lindavista Formation is the cap rock for our road cuts. The old beach cliffs at various elevations in the Reserve have been buried so well that they are hard to see at all. In our road cuts, debris removal is by trucks. In the canyons, streams remove debris during floods. On the beach, debris is removed by storm waves during high tides.

Cliff erosion is also caused by water from rain or such human uses as lawn watering draining into cracks behind the cliff. Friction along the cracks is reduced and landslides result. When you see water running out of cracks in a cliff, stay back!

Silver Argiope Spider

—John Carson

During recent years there have been several explanations offered for the zigzag patterns in the web. Reasons suggested for the pattern, which reflects ultraviolet (UV) radiation, include: irregular patterns in the web make the spider less noticeable to bird predators, the UV reflection simulates that of some flower petals and attracts insects, and the pattern camouflages the web by helping it blend in against the UV-reflecting plant background. According to Ric Vetter, a spider authority in the UC Riverside Entomology Dept., there is still no consensus among arachnologists regarding the purpose of the pattern, called a stabilimentum.



Bottom side of adult female silver argiope spider.
Arrow shows stabilimentum (probably still being constructed.)

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Address changes go to:

Torrey Pines Docent Society
Shirley Musser, Membership Chair
P.O. Box 2414
Del Mar, CA 92014
TP Lodge Telephone: 755-2063

Torrey Pines Association
P.O. Box 345
La Jolla, CA 92038

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Torreyana Lite.....Glen Dunham
Proofreader.....Marion Dixon
Staff.....Jack & Joann Cannon
Kathy Estey
Twinx Hauer
Bob Margulies

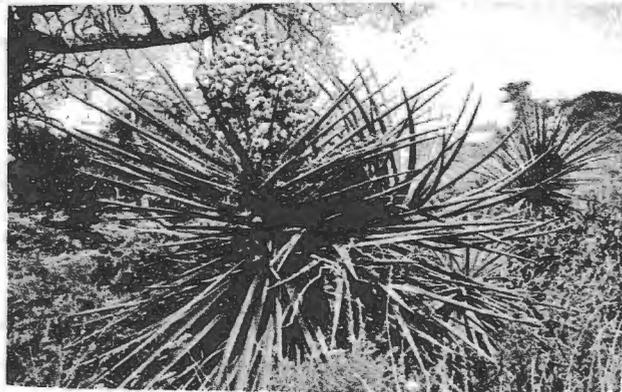
Editor's Corner— The next deadline for submissions is October 20th.

Nature News

— John Carson

The Yucca-Moth Relation - The well-known mutualism of yucca species and yucca moths is often described by saying that each yucca species is pollinated by its own specific moth species. According to information Ron Lyons recently received from Prof. Judie Bronstein of the U. of Arizona, the taxonomy of the yucca moths is still being determined, so the blanket statement about the yucca and moth is not yet justified. Complicating this issue is the presence of yucca moths that lay eggs in yucca without pollinating them (they are called "cheaters" because they have only vestigial mouthparts).

Yucca whipplei - Bronstein also mentioned that recent research on this yucca indicates it is really a new genus between Yucca and Hesperaloe and is being unofficially called, obviously, Hesperoyucca.



A *Yucca whipplei* now called Hesperoyucca?

The Yucca and the Moth From Barbara Wallach's Children's Manual

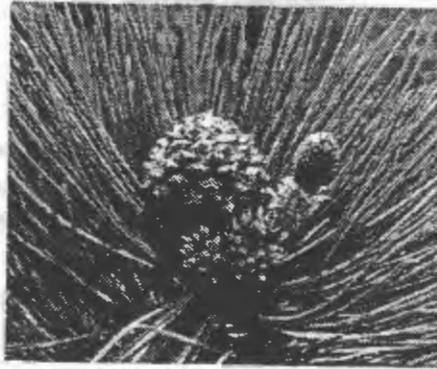
When the yucca produces a flower, a female moth flies to the flower. She gathers pollen, shapes it into a ball, and carries it in a modified mouth part to another flower. She pierces the flower's pistil, and lays her eggs inside. She then puts the pollen on top of the pistil, thus pollinating it. Seeds begin to grow next to her eggs. The pistil turns into a seed pod.

In four day's the eggs hatch and little caterpillars emerge and begin to eat the seeds. The caterpillars grow and are ready to leave the yucca plant.

They make a hole in the seed pod and spin a thread similar to that of a spider. With this thread, they lower themselves to the ground and bury themselves. For almost a year, they stay in the ground. During this time, their bodies change and the caterpillars become moths. Summer arrives, the moths leave the ground and the whole process is repeated.

TORREY PINES

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DOCENT SOCIETY

SEPTEMBER DUTY CALENDAR

SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
	1 LABOR DAY L Dixon W Bressler L Desmond W Bennett	2 L Margulies L Amann	3 L Musser L Huber	4 L Smith L DeWitt	5 L Ganeless L Weir	6 L Choffee W Stone L Camporini W Tanalski
7 L Heller W Cassell L Gaarder W Kamen	8 L R.Miller L Cooper	9 L Talberts L Davis	10 L Fredericks L Huber	11 L Jacobson L Hauer	12 L Gaarder L Gittelsohn	13 L Grain W Marley L Dixon W Stiegler
14 L Choffee W D.Miller L Anasis W Grine	15 L Katz L Rudolph	16 L Hansen L Davis	17 L Sachs L Fredericks	18 L Smith L Hauer	19 L Ganeless L Weir	20 MEETING L Heller W Brav L Schulman W D.Miller
21 L Clark W Cassell L Desmond W Kamen	22 L Katz L Cooper	23 L Talberts L Wenman	24 L Musser L DeWitt	25 L D.Miller L Wenman	26 L Rudolph L Gittelsohn	27 L Grain W Brav L Camporini W Tanalski
28 L Stone W Bressler L Stiegler	29 L R.Miller L Campbell	30 L Weir L Campbell	Duty Coordinator: Ann Campbell 755-1934 Hours: Lodge Daily 10 - 1, 1 - 4 Walks Sat/Sun/Holidays 11 and 1 If you cannot do your duty, please arrange your own substitute.			