

No. 154 May 1988

Next Docent Society Meeting

SATURDAY, MAY 21, 9:00 A.M. AT THE VISITOR CENTER

Docent Jared Aldern will give a presentation of the new video format for the slide room. He will illustrate its use with some nature tapes. This docent-supplied equipment was chosen after careful research by Jared, who is an expert in this field. Be sure to come to learn how easy it is to operate.

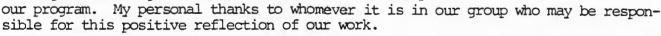


Docent President's Notes by Parker Foster

Saturday, April 9, the first meeting of the 1988 docent trainee class was convened by Michael Fox. Seventeen new candidates enrolled for this session, and it appeared from this observer's point of view that we have been blessed

with a very fine group of new people. I am hoping that all regular docents will make themselves known to these new people as their paths may cross and assist them in any way possible during these next several weeks.

Prior to the start of training, we had a fairly extensive publicity campaign in five regional newspapers. The interesting thing is that, in questioning the new trainees during the first session, fully half of them said they responded to our program through a personal interest expressed by one of our regular docents, most particularly someone working at the Lodge desk who took the trouble to explain





Secretary's Notes by Patricia B. Foster

<u>Trainees</u>: Parker V. Foster, president, announced that 17 persons attended the docent training session which began April 9. Besides the regular training sessions, Michael Fox will conduct optional nature walks for trainees four Sunday mornings.

Non-Native Plant Removal: Bob Wohl, Supervising Ranger, introduced Glen Omvig, TPSR employee, who is in charge of a program to remove non-native plants such as Hottentot fig and European stock. Docents were requested to assist him.

Lock Cars: Bob also reported four automobile break-ins in parking lots in the last 24 hours. Bob stressed the importance of locking cars.

Slide Equipment: Jared Aldern will give a presentation of the new Panasonic slide show equipment at the May meeting.

Shop Report: Rowdy James reported that, in the last two weeks, 45 sets and 270 individual photographic postcards had been sold. These are the new cards photographed by Bill Evarts.

Rowdy requested that docents write sales slips plainly, check prices of items, and indicate the specific item or name of book sold.

<u>Invitations</u>: Parker announced invitations for docents to attend: (1) All-Docent League Meeting, Globe Theater, Balboa Park, May 2, 9:00 A.M.-2:00 P.M., \$12 including lunch; (2) Anza Borrego State Park Reception, Visitors' Center, April 30, 6:00 P.M.-8:00 P.M. Sign-up sheets were available.

<u>Docent Duty Reminders</u>: Maurie Brown passed out "Six Reminders of Docent Duty-Torrey Pines" and reiterated the importance of effective Lodge duty and meaningful nature walks.

<u>Wildflower Photos</u>: Herb Swanson said the pictures he took on the March nature walk could be ordered, payment in advance: set of 20 slides or prints, identified, \$7.00. Individual pictures are 35 cents each.

Off-Reserve Meeting: Michael Fox asked members to submit suggestions for an off-Reserve meeting, to be held later this year or early 1989.

Brothers' Talk and Walk: An extensive talk on the Reserve wildflowers and plant life by Bill Brothers concluded the meeting. After refreshments, Bill identified plants on an informative walk for docents and trainees.

NEW TRAINERS, CLASS OF 1988 by Michael Fox

The following 18 persons have joined the 1988 docent training class:

Jack Cannon, Jo Ann Cannon, Marvin Davis, Walter Demond, Chris Ditmar, Elberta
Fleming, Phoebe Forrester, Nancy Gartland, Rosanna Guinasso, Jeanne Heller, Jim
Jackson, Carol Lucic, Joan Nimick, Teri O'Mara, Del Roberts, Bob Talbert, Jane
Talbert, Terry Weine.

So far, the Sunday optional nature walks have been most successful, with almost the entire group on one walk, and more than a third on others.

WHAT GALLS OUR PLANTS? by Elizabeth Nicoloff

When I say "It galls me that. . .," I am saying that it chafes, irritates me. It bugs me. The word gall comes from the Latin galla, a swelling. This paper is about galls on plants, the swellings caused by the irritation of parasites, most often insects or funguses. There is a myriad variety of galls, so many that the study of galls has its own name: cecidology. Galls occur on almost any part of a plant—branches, stems, leaves, flowers, roots—and they come in many forms. Some are like warts, some are large balls, some are whimsically shaped protuberances, some are distortions. Some are brightly colored, others are drab. Oddly, for the most part, they have little effect on the plant on which they grow. Unless extremely heavily infested, galled plants appear to be as vigorous as untouched ones.

Galls on Oaks



Contract of the second

Let's have a look at some of the galls we are most apt to come across in the Reserve. The one we usually encounter first is the striking "oak apple" on the scrub oak. Several can be seen right now on the scrub oaks east of the Lodge and below the canyon rim toward the end of the adobe wall.

But what is this? Apples on oak trees? When they are freshly formed in spring, they are rosy balls that really do look like apples. But they are food for insect larvae, not for us. A cynipid wasp, appropriately called gall wasp or gallfly, causes these apples to grow. Insects are, as you know, often species specific—that is, a specific insect interacts with a specific species of plant. The California gallfly, a tiny insect not more than ½" long, deposits her eggs in the fall on a scrub oak or other white oak stem. When the larvae hatch in the spring, they secrete enzymes that cause the tree to grow the gall. The larvae remain inside, each enclosed in a separate chamber and feeding on the edible sugar converted from the plant starch by the enzymes. When the larvae mature, they tunnel their way out and fly away, leaving the exit holes you see in old brown galls.

But that is not all the story! Once formed, the gall attracts other insects and mites. Some burrow into the gall just to eat the gall tissue. Others go in to parasitize the wasp larvae, and still others to parasitize the parasites. So your oak apple may be housing a busy community of voracious activity. If you put an oak apple in a glass jar with a screen top, you can watch to see what insects emerge. You may see ten or more different species. Nor does the story end there. Other creatures, too, know what is inside oak apples. Birds, especially acorn woodpeckers, enthusiastically drill into the apples, probing for edible morsels. Then, when the apples fall to the ground, rodents find them tasty food. But don't sample one yourself! They are extremely bitter with tannic acid, to our taste absolutely inedible. The gall tannin is used for tanning leather and making inks and dyes. The Indians crushed and boiled oak apples to make an eyewash.

Other Galls

What am I to say about the magnificent witches' broom in the pine tree down the road from the Lodge? Is it a gall? Its origin is not known for sure. Witches' broom growth is common on pines and on coyote brush. There are two easily discerned smaller ones on the lagoon-side stretch of the Guy Fleming trail, and there is a tree in the Big Basin (Hank took us there once to see it), of which fully half is witches' broom. This dense stemmy growth is usually caused by a rust fungus, but often the cause is not known. Such appears to be the case with our pine brooms.

WHAT GALLS OUR PLANTS? (continued)

Besides the possibility of fungus, Hank has told us of another possible cause—a mutant gene. He has planted some seeds from witches' broom cones with inconclusive results. No seed, at least, has grown into a complete witches' broom tree. If Hank or anyone else ever proves genetic origin, then our Torrey pine witches' brooms are not galls at all.

The coyote brush (Baccharis pilularis) witches' broom, though, is definitely a gall, caused by a rust fungus. In the spring the fungus brings on a stem swelling 6-7" long and maybe $3\frac{1}{2}$ " thick. It has long cracks and bright orange spores, which later become powdery white. The witches' broom, a thick cluster of very short stems, grows from this elongated swollen part, and the main stem of the plant dies back to the gall. The witches' broom dies after one season, and eventually the entire gall dries and crumbles. I have seen this gall here and there on the coyote brush around the Lodge and along the road. The best ones I have found are on the west side of the road, opposite the park maintenance yard. While you are examining the coyote brush, look also for a $1-1\frac{1}{2}$ " long spindle-shaped stem gall that is induced by a moth. This moth gall is hollow and contains a single occupant, which emerges in the fall still a larva, lowers itself to the ground on a thread of silk, and pupates there. I haven't seen one yet this year, but I keep looking.

There is another, rather quaint coyote brush gall that you can see lots of right now. This is a midge gall, a lumpy greenish yellow, sometimes purple, ball enclosing terminal buds at branch ends, with tips of leaves protruding. Inside live several larvae of the midge that induced the gall, each in its separate chamber and often with a number of parasites as companions.

Another gall easy for you to find is the leaf gall on the black sage. Numerous little warts, each round on the top of the leaf and conical on the under side, pepper the leaves and petioles. The conical portion has a depression in its tip which is the mouth of a tubular opening down into the larval chamber. When ready to emerge, the midge that grew and developed inside comes out through this opening. The same gall, but usually larger, grows on the white sage leaf. Again, I have not seen this gall



yet this season. Let's watch for it, too. There are two clumps of white sage on the Rim trail which should be good hosts for this midge. Another big clump along the Guy Fleming is too far off trail for nature walks. If we asked, do you think our chief Ranger might authorize a spur path from the trail to this clump?

This is no more than a beginning look at galls. There are many, many more in and near the Reserve on coast live oak, manzanita, California sagebrush, willow, yes, and on poison oak (though this I do not intend to inspect closely). And there are more gall-inducing creatures such as mites, moths, and aphids. If, by now, you are thoroughly hooked, we can have a look at some of these other galls on another occasion. You will find that looking at galls adds another dimension to a nature walk, another intriguing facet in the pattern of endless interactions among living organisms.







News and Notes

TPSR LURES BRIDAL COUPLE FROM TOKYO



Takekazu Kanai and his bride, Reiko, flew all the way from Tokyo in April for the sole purpose of being married at Torrey Pines State Reserve. They spoke their vows about 11 A.M. Saturday, April 9, on the east overlook behind the Lodge, while new docents were listening to nature information nearby. The bride made a vivid splash of color against the green pines and bushes in her beautiful crimson and white kimono with a gold obi tied at the back in a huge butterfly bow. No information about why the couple chose the Reserve to tie the knot is available. We do know they wouldn't have minded the restriction on rice-throwing, since that isn't a Japanese custom. Perhaps, like other couples, the guests threw the recommended bird seed....As the popular season for wedding approaches, watch for more ceremonies in our locale.

EXOTIC DOCENTS? MAY 1988

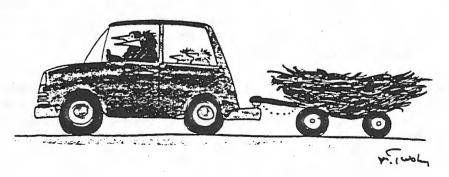
If you've always dreamed of being exotic, now's your chance. Just take a large plastic bag from the box on the shelf in the docent room, head for the Guy Fleming trail, fill the bag with Hottentot fig plants, and leave it by the trail for a Park Aide to pick up. Then you've earned the title, "Exotic Plant Remover." (If this isn't what you had in mind, try it anyway—the exercise may get you on your way to another meaning of "exotic.") Glen Omvig is in charge of this removal project, and no doubt he won't care if you mix sea fig up with the Hottentot. They've mixed themselves up anyway, so who can expect a mere docent to keep them straight?

WELCOME BACK, CHRIS

In the game of Ranger moves, TPSR has captured Chris Platis once again. Chris has been on duty at South Carlsbad and San Elijo while Allyn Kaye took a turn with us. Chris says he's glad to be back on the Reserve and hopes to be here until next January at least.

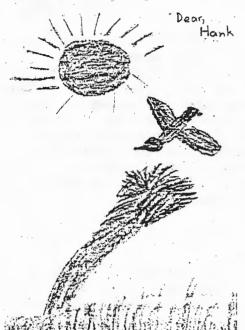
TORREY PINE BASKETS GET AROUND

Everybody knows local products are sometimes hard to find where they are produced. So it seems to be with baskets made from Torrey pine needles. Maybe the reason is that they can command higher prices elsewhere as exotic objets d'art. On a recent trip to Keystone, Colorado, we spied three handsome Torrey pine baskets in an arts and crafts shop, made by San Diegans Fran and Neil Prince. Prices ranged from \$140 to \$265. We're told that the Princes are well-known for their high quality work—but we couldn't locate any of it in this area.



THANK YOU!

Sometimes I feel I'm not appreciated. Then I get a packet of letters. . . . Hank



Dear Ranger, I like your big garden. It is beautiful.

from Yining Cheng

Dear Ranger thank you for the feeld trip I love it was fun from Danielle

To Hank, The trip was Real fun. I liked feeding the birds and going on the trail, my freinds were pulling on me because I was walking to slow.

Your pal Jaclyn

Dear,

Hank I liked the band-Aid plant.

Michelle

This is the best trip I ever bean to.

Jeffrey

Dear Ranger

hank. Mrs. campell thinks that it is the Best hike we have had in Secent grade. I do to. The pine trees war wonderful. So was thi feeld trip. I hope we have more feeld trips thare thanks Jenny

Dear ranger hank,
I thought the field trip was varry neat I as specaly liked the yuka plant string
I cant whaet intel I come again. from, Karen

Dear,

Hank I liked the Drinkin founten! I liked everything you had. I Liked the stuffed wolf it is cute. Thak yoyu are class loved it. Love, Marisa

Book Shelf



The two books listed below have recently been added to our books for sale:

Flowering Plants: The Santa Monica Mountains, Coastal and Chaparral Regions of Southern California (Capra Press, 1986, \$16.95). "To be able to call the plants by name makes them a hundredfold more sweet and intimate. Naming things is one of the oldest and simplest of human pastimes." This epigraph by Henry Van Dyke in this well-illustrated little book provides docents with one answer to why they—and our visitors—feel the need to know plant names. Many species common to TPSR are shown in excellent photos here by members of the California Native Plant Society, with text by Nancy Dale that adds to the brief descriptive information available in most field guides.

Seashore Life of Southern California, by Sam Hinton (U.CA. Press, 1987, \$11.60). This is a new, revised edition by the multi-talented oceanographer, whose fine illustrations accompany his text. The color photos are almost better than views you may get of the real thing—e.g., the giant keyhole limpet. A helpful glossary will cue you in on what it is to be "benthic" and what an "ambulacral groove" and "Aristotle's lantern" refer to.

Torrey Pines State Reserve may not have an "exaltation of larks," but in May and June this area, like the rest of San Diego, has a most musical medley of mockingbirds. Sometimes sleepers disturbed by the nighttime raptures of Mimus polyglottos might wonder whether it really would be a sin To Kill a Mocking Bird, as Harper Lee propounded in her Pulitzer prize-winning novel by that name in 1960.

As a child, I first heard mockingbirds on a wind-up victrola in our living room. "Listen to the Mockingbird" was a popular record in the 1920's in places like my home town (Soo, Canada), where the real song wasn't available—and maybe in places where it was.

The next time I heard mockingbirds was in June 1961, when we moved to La Jolla. The real thing this time.

It wasn't just the loud, insistent, sleep-killing singing that let us know we had an aggressive avian creature in our vicinity. Shortly after our arrival, we were attempting to prepare for a picnic in our garden. Each foray outside brought on an attack of bombing birds. We called an Audubon Society member. "Of course," she sniffed, "they have a nest nearby. You never should have let them build there." Preventing birds from building nests—even if we had arrived in time to do so—was a course we'd somehow missed (and haven't taken yet, either).

These 10-11" bundles of feathers will, indeed, dive on creatures enormously larger than themselves who approach too close during the nestling phase. A crouching cat sneaking up on possible prey is often sent scampering (and sometimes injured) by a winged fury that is fearless at this time of year.

The flashy behavior and unparalleled singing of mockingbirds more than makes up for their somewhat drab appearance. Both male and female are soft gray on the back with white wing bars and large white upper-wing patches visible in flight. The long almost black tail has white outer feathers, and the breast is off-white. In spring it is only the males that sing; they do it day or night, especially if the moon is bright. They are famous mimics. One bird has been known to imitate 30 other species of birds. Sometimes they also echo such sounds as pianos, squeaky gates, sirens, and catcalls. Each phrase is repeated several times, and I have counted more than 30 phrases in a single repertoire.

Once a female arrives and nesting begins, the song grows quieter. Most courtship singing is over by early summer, but a frustrated male who can't find a mate may carry on for weeks longer. Females join the chorus at other times of year, but the song is never as exuberant as in spring.

Mockingbirds also have some distinctive little bits of action. In spring the male does a short loop flight into the air, settling back on the same perch, perhaps another display to impress females. In fall either sex may perform a hostile border dance that consists of two birds with raised heads and tails hopping back and forth along an imaginary line that separates their territories. "Stay on your own side of the fence" sort of thing.

If you are looking for mockingbird nests, try shrubs or trees 4-10' high. Philip Unitt in *The Birds of San Diego County* says they like broken chaparral or woodland edges where there are berry-producing plants such as toyon. He notes that they have

BRIEF BITS ABOUT THE BOARD (continued from April issue)

A few facts to help you know the new officers of Torrey Pines Docent Society better:

Elizabeth Nicoloff is continuing for another year in the office of treasurer, where she aims to keep accurate records and pay all obligations promptly, as she has in the past. Not only has Elizabeth been a most valuable docent for nine years, but also she is noted for the bag of items she carries along to enhance her walks. She was formerly a canyoneer with the Museum of Natural History and a docent with the Museum of Man.

* * * * *

Patricia Buckley Foster, secretary, took care of public relations during the past year for the Bocent Society, which she had joined a year earlier. Pat will continue to do this along with maintaining records for Society and Board meetings. She was formerly an English teacher and still continues to teach part-time. On the side she does oil painting and gardening.

* * * * *

Maurie Brown took on a second year as duty coordinator and hopes she can improve the use of docents in their volunteer duties. This is her third year with TPDS. Retired from graphic communications, Maurie lent her professional skills this past year to the development of postcards for the Reserve. She keeps her ear to the ground in the Sierra Club and Torrey Pines Association, providing a valuable link for our group with them.

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Marion Dixon as editor of the Torreyana requests leniency while she learns the ropes and strives to maintain the standards of careful editing and good taste set by her predecessor, Isabel Buechler. This is Marion's fourth year as a docent. She is retired from an early career in journalism and a later one as a coordinator of volunteers in a UCSD program.

A MEDLEY OF MOCKINGBIRDS (continued)

adapted well to man-made changes in the environment. They are common year round in local residential areas and parks.

They prefer to eat fruit and insects, but if your feeder happens to be in their territory, they will take over, keeping other birds away. Then, if you want to attract other species, you may have to move the feeder.

Mockingbirds lay three to six blue-green eggs with dark spots. The nestling phase lasts about 12 days, the fledgling for as long as four weeks, during which time the parents may start a new brood.

Incidentally, our species is known as the "Northern Mockingbird," even though that seems like a misnomer here. Its range is widespread, by now covering most of the United States. Clearly—and fortunately, in spite of its Macbeth-like ability to murder sleep—this is one species that is not on the endangered list.

(For further information about common resident birds in TPSR, refer to former Park Aide Jim Bittner's "bird-of-the-month" column in earlier Torreyanas: 9/86, wrentit; 10/86, scrub jay; 11/86, Audubon's warbler; 12/86, northern pintail; 3/87, red-tailed hawk; 4/87, Western grebe; 5/87, Bewick's wren.)



Los Peñasquitos Lagoon Foundation P.O. Box 866 Cardiff, CA 92007

LOS PENASQUITOS LAGOON FOUNDATION REPORT by Jessie La Grange

At its April 13 meeting, the Foundation passed a motion to apply for a grant from the Coastal Conservancy to finance administrative costs for a secretary, stationery, and mailing. Steve Zimmer volunteered to send a request from his development company for release of escrow funds for this purpose.

The Coastal Conservancy report by Joan Jackson reminded members of the May 11 meeting with representatives from the Trust for Public Lands. Also, on May 14 there will be a Wetlands Conservation Forum at the Huntington Library sponsored by a number of Southern California groups.

Lee La Grange reported lagoon closures on March 11 and 25. The latter coincided with neap tides and active surf and was described in detail. The return build-up of sand for the beach has started but has not been accompanied by the spring rains needed to supply sufficient flow from inland to push the encroaching sand back to sea and beach.

Chuck Spinks showed photos illustrating a fluidization experiment at the mouth of the lagoon during the March 11 closure. Further studies of this pumping procedure are planned. At this time (April 13), the lagoon is closed. There are no favorable tides during daylight to attempt another machine opening this spring or summer.

A committee was named to investigate and evaluate a Poway project for impounding secondary treated sewage water that has met EPA discharge standards. The plan would provide roadside and landscaping irrigation from a holding pond in Poway. This storage basin could allow the release of water as needed into Peñasquitos Creek to provide the volume and velocity to maintain flow to the sea, particularly during neap tide cycles. A similar technique has been used successfully in a northern California estuary to maintain tidal action.

Steve Zimmer reported that the Sierra Del Mar-Pointe Del Mar Open Space Easement has been accepted for management by the Coastal Conservancy. A ceremony will be announced to celebrate this important 20-acre acquisition.

The next meeting of the Lagoon Foundation will be May 11 at 5:30 P.M. (PLEASE NOTE TIME) at the Great American Savings public meeting room, Big Bear Shopping Center, Solana Beach.

The love of Mother Earth
brings with it a sense of peace and
harmony between
man and earth and all living things.

--Popovi Da, Indian Values

Torrey Pines Docent Society

President: Parker Foster

Deadline for Torreyana copy is the 25th of each month. Send contributions to the editor:

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Staff: Isabel Buechler, Georgette Camporini, Grace Martin.

If you are cut off from nature, you lose your enthusiasm for life. Anyone living close to nature cannot be bored.

-- Jacques Cousteau



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