



Misnumbered -
jumps from
79-790

TORREYANA

Published for Members of the Torrey Pines Docent Society, #90, Nov., 1982

NEXT DOCENT MEETING: Saturday, November 20, 9:00 A.M., Visitor Center

Steven Crouthamel, Assistant Professor of American Indian Studies at Palomar College, whose specialty is symbolic and medical anthropology, will give a slide-lecture presentation titled, "Early Adaptations to the Southern California Coast- a Time Perspective".

There will be a short meeting for the Board of Directors following the general meeting.



NOTICE TO 1982 TRAINING CLASS ASSOCIATES

Docent Alert! Docent Alert! This is an All-Points-Bulletin to be on the lookout for lost new associate members. Subjects were last seen in March in the vicinity of Torrey Pines State Reserve. Description of subjects: valuable & necessary to the Docent Society.

If you would like us to help "find" you, please call either Duty Coordinator, Ruth Hand (459-9020), or President Judy Schulman, (452-7683). A lack of response on your part will be taken as meaning that you wish to remain "missing".

This notice is only applicable to those new associate members who have not been recently contacted by us by phone.

Secretary's Notes by Julie Marine

October 16
Attendance 28

Pres. Judy Schulman began the meeting at 9:00 A.M. Prize question for the group- "What was the population of San Diego in 1850?" Answer: 798 people. The winner- Kathy Watton.

Ranger Bob Wohl gave a report on the new exhibit booths in the lodge designed by Joe Farrar. Bob hopes that we may be able to fill these cedar cases with history and nature exhibits by next year. The cases have been treated with a protective finish, and each booth is moveable. Suggestions- that the displays could be rotated, and that some of the older cases may be altered by lowering the stands and tilting the cases to provide better viewing for young people. Docents input is most needed now. The cost total for the cases- \$12,000. The State of Calif. paid \$9,500, and the balance was donated by the Torrey Pines Association. Additional monies from state funds may also be used, by June 1, '83, for displays and for the interpretive garden. Ceramic tiles to identify plants are a part of the renovation cost.

The guest speaker was Tom White, currently with the State Fire Prevention Dep't. He is project coordinator for the Wildlife Project in Lake Morena and Laguna Mt. area in San Diego County. The objectives are to improve fire management programs, and to reduce the intensity of fires which result in damage to the forests and wildlife. Tom showed slides of areas where fires have burned over 3,000 acres, many resulting in destruction of plants+extensive soil erosion. We were shown charts, such as the Potential Fire Frequency Chart, illustrating 4 major fire potentials at various elevations- pine oak, mixed chaparral, chamise and coastal sage. There are many opinions about the controlled burn method, and the importance of fires is a debated issue.

Natural fires caused by lightning are common in San Diego mountains. The Laguna fire burned 175,000 acres in 1970. Methods to control fires include: fuel breaks, disking, controlled burns, brush harvesting, use of goats, and green belts such as golf courses. Our sincere thanks to Tom White for a most informative talk, and for the books on chaparral management studies he has donated to the Docent Library. Through the strong efforts of Tom White and the group he represents, there may be ways to reduce the potential of a large fire at T.P.S.R., where mature stands of coastal chaparral could cause such an intense fire that it could ruin the Torrey Pines and cause untold damage by erosion, and even affect the lagoon with silt damage. Permanent damage? Perhaps. I certainly hope not.



ANIMAL TALK



OPOSSUM (Didelphis Marsupialis)

The opossum, America's only marsupial, is also its most primitive mammal. He is two to three feet long, including a one-foot-long prehensile tail. His fur is greyish-white, with black legs and feet and light colored toes. You couldn't call him a fussy eater. He enjoys insects, berries, eggs, plants, mushrooms, grains, garbage, carrion, rodents and all sorts of "good stuff" like that. They make their homes in logs, trees, rock crevices, and abandoned dens of other animals, preferably near water. Natives of the Southeastern United States, they were introduced into California in 1928. Two vocalizations have been noted; a low growl and a hiss when disturbed.

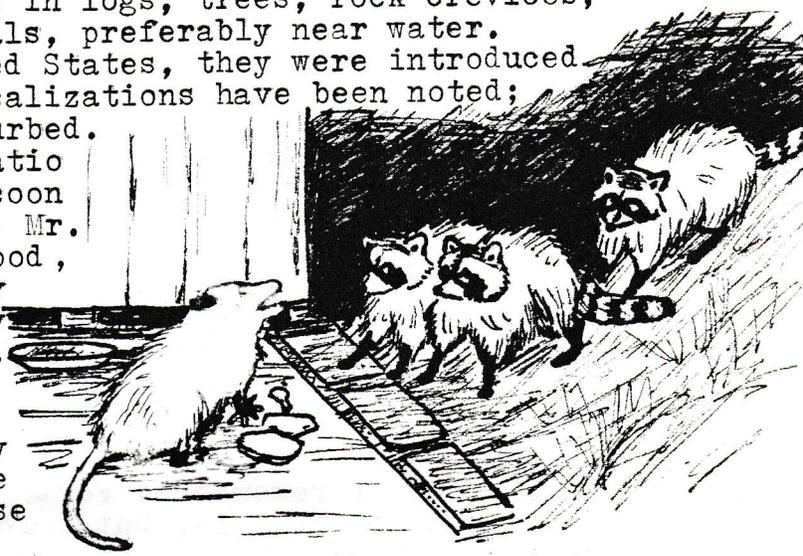
There was a possum on our patio one night, when three of our raccoon friends showed up for a handout. Mr. possum, standing over the free food, opened up wide, showing all fifty teeth, and letting out a low, very authoritative growl!!.....EXIT... three raccoons!.....backwards! Despite the encroachment of civilization, the possum is actually increasing in numbers. There are less of his predators around these days and Possums are shamelessly prolific. Mama has up to seventeen "place settings." Litters are usually

from eight to fourteen and in the deep south, sometimes, have three litters in a year. After a gestation period of only twelve days, the half-inch-long babies crawl out of the birth canal, and into mama's pouch, where they attach themselves to a nipple. They remain in the pouch, warm, safe and well fed, for about sixty to seventy days. After that they ride "piggyback" for a while. When frightened, the possum is able to throw himself into a catatonic state, lowering his heart-beat and respiration, till, for all practical purposes, he is dead. Somehow, this is supposed to discourage predators. I think I would opt for scooting up the nearest tree myself, but to each his own.

Possums are interesting, unusual, and best of all, survivors. Hope they will be around for another hundred thousand years!

Written and illustrated by
June Warburton

June



A NEW AND SCIENTIFIC METHODOLOGY FOR THE CLASSIFICATION OF SPECIES OF THE GENUS PINUS

Two and a half wars ago the United States Army (Reserve) declared me a gentleman. In a futile and misguided effort to make me an officer as well, I was sent to Fort Benning, Georgia. T.I.S., The Infantry School, or Benning's School for Boys, has plenty of boondocks, though the term was used only by Marines back then. The predominant vegetation, besides kudzu, is pine, longleaf pine, Pinus polustris and the loblolly pine, P. taeda. At that time I had no inkling that I would be a Naturalist one day, but I did notice that the longleaf pines around B.O.Q. (for those of you who haven't had the benefits of a liberal education, that means "Bachelor Officer Quarters") had needles from a foot to a foot and a half long.

One of the more well traveled Lieutenants said that, in Japan, pine needles were used as toothpicks. Being scientifically inclined, I gave it a try. The pine needles from the trees around the company area were too thin and too brittle for the effective picking of teeth. I stuck to the little birch sticks out of the box. Since then I've been in and out of Japan several times, including two month-long stays. I don't recall ever being offered a pine needle as a toothpick. I put the whole thing out of my mind.

One day, not long ago, I brought a brown bag of leftover corn on the cob. You know what kind of problem THAT causes. I was desperate. I remembered Fort Benning. A Torrey pine needle got me out of trouble, but I found that it was too thick unless you have large gaps between your teeth. I began trying the needles from some of the other species of pine which are grown in the San Diego area. The rating of pine needles as toothpicks on the customary scale of one to ten leads me to propose a new method for classification of pines. Here are some samples:

The Monterey pine, P. radiata, has needles too long, too thin, and too flimsy. I have to put down this popular garden tree as a mere "one".

Another popular garden tree, the Aleppo pine, P. halapensis, has needles of about the right length. They are strong but thin, very good if your teeth are closely set. I give it an "eight".

A third very common tree is the Canary Island pine, P. canariensis. Its needles are very long and thin but quite strong. It rates a "seven".

The needles of the Italian stone pine, P. pinea, are thin and weak. The stone pine is a beautiful tree and probably the best shade tree of the pines, but, as for toothpicks, it rates a poor "four".

The needles of the common piñon, P. edulis, are too thin and much too short. Don't try to pick out the pine nut from your teeth with one. It's no better than a "two".

Another piñon, the singleleaf, P. monophylla, varies according

to location. The samples from the Tehachapi Mountains are too short, and much too thick. It gets a "one". Specimens from the Lagunas are thinner, but still rate only a "two".

The Torrey pine has already been described. It rates a strong "seven".

The Torrey's cousin, the Coulter pine, *P. coulteri*, has needles as strong, almost as long, and they are conveniently flat. I give the Coulter a solid "nine".

And the perfect toothpick? It's to be found right next to my front door. It's that bonsai favorite, *P. thumbergiana*, the Japanese black pine. Its needles are the right thickness, and they are very strong. I hope my well traveled lieutenant friend is a retired "Heavy Colonel" by now. The Japanese black pine is a "ten".

Hank

Judy's Gentle Conglomerations of Thought

My mother sent me the following article from an October 1982 issue of the National Enquirer. Knowing about the growing problem of pollution and industrialization in the area, she wanted to know if I'd heard any interesting "conversations."

Startling but True

Trees Can Send Each Other Danger Signals

By MARSHA MAY

Trees can actually warn one another of danger, say university researchers.

"These are communications that nobody previously suspected exist," declared Dr. David Rhoades, zoologist and chemist at the University of Washington at Seattle.

When a tree is attacked by insects, it does two things, he said. It sends out airborne chemical signals to other trees, warning them—and it changes its own chemistry to defend itself by making its leaves less appetizing to the insects.

Dr. Rhoades, a senior research associate, and Prof. Gordon Orians, also of the zoology department, have investigated the subject for four years. The team set out to study the idea that plants respond to insect attacks by increasing their own levels of defensive substances.

They experimented with willow and red alder trees, webworms and deadly tent caterpillars that can strip a tree of foliage in only a few weeks.

"We found that if we put insects on a tree certain chemical changes took place in the tree itself in about 12 days," said Dr. Rhoades.

"Most notably, we found increases in the chemical substance tannin that made the foliage less attractive to



insects and less digestible." But to their surprise, the scientists also discovered that other trees in a radius of about 65 yards were also changing the quality of their leaves, making them more bitter-tasting with additional

tannin. "The message goes off to other trees in the area — and all the trees react in the same way, by changing their chemistry to make them less tasty and to 'defend' themselves that way. It usually takes about three

days for nearby trees to pick up the emergency signals from the test trees.

"The farther away the trees from our test trees, the longer the signal took to reach them."

The researchers think that

the chemical communication is sent through the air — and now they're trying to find out how it works.

"We know that cone-bearing trees give off a smog-like haze of chemical substances similar to gasoline and we think that this is the way trees communicate with each other," said Dr. Rhoades.

Scientists at Dartmouth College in New Hampshire are now duplicating the work of the University of Washington experimenters.

"We had test trees, young sugar maples, some of whose leaves we ripped off, and 'listening' trees," said Prof. Jack Schultz, research assistant professor at Dartmouth. "We found that after 48 hours, the listening trees showed distinct reactions to the attacks on the test trees. Frankly, we all thought Dr. Rhoades was crazy when he said trees communicate — but our experiments prove he's right."

CANYON TRAILS by Helen Chamlee

November is golden leaf time in our mountains. By the last weekend in October the deciduous oaks display enough yellow color so that experienced oak spotters can pick them out on distant slopes. Not so easy in summer when they and neighboring live oaks are all big, green, roundheaded trees.

The live oak is a large, spreading tree, its branches frequently sweeping the ground. Its trunk is stout and irregular and may have unexplained knobs and bulges. The bark is silvery gray and smooth on young trees, becoming dark rough with age. Live oak's leaves are oval or oblong and usually, but not always, have sharp teeth along their margins. Its crown is so dense that you can't see through a live oak-- no telling what is out there on the far side. On the other hand, you can see right through or under the branches of the Kellogg oak, the one that will color up in autumn. Its branches are upward-reaching, or somewhat flattened, giving the tree a graceful layered look. Its twigs are slender and flexible, so that it moves in the wind, whereas the live oak is pretty stolid. It doesn't get excited, just stands there.

People say of the Kellogg oak that it "looks like a real oak". This remark is never inspired by the live oaks with their small leaves which never change color before falling, as do those of a proper oak. In fact, they don't even fall but just stay on the trees all winter, still green.

Leaves of the Kellogg oak are large and lovely in spring, summer and fall. They emerge in spring soft and crinkled, in delicate hues of lavender, pink or crimson, quickly turning to bright, glossy green. Mature leaves are four to eight inches long, two to four inches wide, and deeply lobed. Each sharp-pointed leaf has several teeth, all ending in stiff bristles. Summer long these leaves sparkle in mountain sunshine, bright against the deeper hue of the evergreen live oaks and blue-green of the pines. We look for gold on our trees, and gold we find.

For about a month the trees with the gold and orange leaves are the Kellogg oaks. In winter they are the ones with no leaves at all, the only deciduous trees in the main mountain forest. Scientifically speaking, this oak is *Quercus kelloggii*, Kellogg oak in English-- that name is familiar and easy enough to remember-- it's on all the cornflake boxes.

Any of our higher mountains, Cuyamaca, Palomar, or Laguna, will do for gold leaf searching, but I suggest Pine Hills for your trip this autumn. Turn right off Rt. 78 about six miles east of Santa Ysabel. Pine Hills is old apple country, with some orchards still in production. Here you will get bonus color, the pure flame red of seedling wild pears along the road. Willows in the low places are gold and rust. Around private homes are liquidambar and Chinese pistache trees, unbelievably brilliant against blue afternoon sky. A little higher are the Kellogg oaks in their glowing gold.

Take time to drive these curving, uncrowded roads (all paved and well signed) and be glad you can go look at red or yellow leaves and then come home to frost-free San Diego.

Getting to Know You

JUNE WARBURTON

I was born and raised in Rochester, New York, so the flora and fauna of the west were very strange to me at first. Now, after living in San Diego for twenty-six years, I feel like a native and spend every spare moment hiking and climbing in the canyon near my apartment. (My neighbors think I am just a harmless eccentric.) I can't remember a time in my life when I was not actively engaged in the study of animal life. (The coyote has been a pet project for years.) Since my interest was centered mainly on animal life, I never really got into the study of plants and trees. Since becoming a member of the Docent Society, I have been introduced to the fascinating world of wildflowers, chaparral and of course our magnificent Torrey Pines. I have been an artist all of my life and now, thanks to Judy and Millicent, I have the opportunity to combine my two interests, art and nature. I'm looking forward to many exciting years of association with the T.P.D.S., and I would like to thank all the kind and patient Docents who have helped me through my training period.

Docent Doings

Congratulations to June Warburton! She is the latest member of the 1982 training class to become a full member.

We welcome Pam Van Atta and Monique Murthy to our associate membership.

Former docent Sue Karcher visited Torrey Pines in early September. President Judy Schulman gave her a grand tour. Sue now lives in West Lafayette, Indiana, where she is an instructor in the Biology Department at Purdue University. She also is a research scientist studying plant molecular biology. Sue was very happy to visit TPSR again.

The Museum of Man at Balboa Park invited docents to a Docent Day program October 18. There were displays from 12 Docent groups. Torrey Pines docents present were: Isabel Buechler, Glenn Dunham, Ruth Hand, Millicent Horger, Julie Marine, Ellen Quick and June Warburton. A slide show on Peruvian history, culture and art was a highlight of the day, but best of all (in addition to the delicious "goodies") was the opportunity to become acquainted with other docents and share ideas.

TORREY PINES DOCENT SOCIETY
 PRESIDENT- Judy Schulman
 Deadline for Torreyana copy
 the 25th of each month.
 Send contributions to:
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 Phone: 481-9554

Poetry Corner

NOVEMBER

By William Arnette Wofford

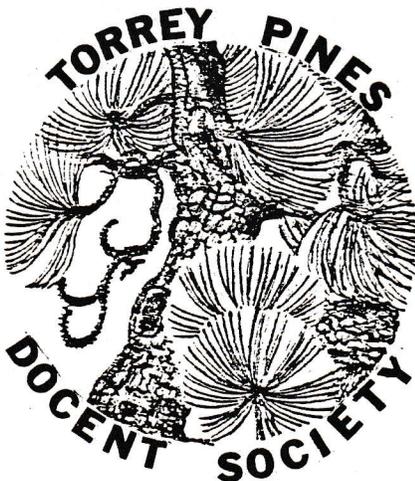
Now with October's bright fire
 spent,
 Her flaming pageant too soon gone,
 November, in gray sandaled feet,
 Walks softly in the woods at
 dawn.
 With misty veils of lavender
 Caught at her throat with
 russet bands,
 She counts her acorn rosary
 All through the day with
 withered hands.

JAPANESE POEM

Cry, cry, o crickets
 Of the wooded hill,
 Full well I know
 Why you chirp so mournfully,-
 You're sad to see autumn go.
 - Fujiwarano Okikage
 (About 900 A.D.)

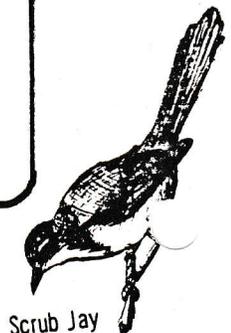


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Scrub Jay