



Torreyana

A quarterly newsletter for
Torrey Pines State Reserve

Vol. 1, Issue No. 1

January 1999

NEXT DOCENT SOCIETY MEETING January 16 at 9 A.M.

Our guest speaker will be Prof. Tom Rockwell, San Diego State University Geology Department. Professor Rockwell has done extensive research on Pleistocene marine terraces in the San Diego area and will discuss these terraces found in the Reserve.

A Note from the Incoming TPDS President

I look forward to serving as your president this year. As you probably know, I've been a docent for only three years, but I have grown to love this place from my visits the past 20 years. All of the individuals I have had the pleasure of meeting so far have been wonderful, and I anticipate getting to know all of you.

1999 is going to be a great year, with an impressive foundation laid by Diana Wenman and last year's Board. We will be celebrating the 100th anniversary of the Reserve and intend to involve everyone in this historical event. Interpretive walk schedules will emphasize the Extension and our excellent children's program. We hope to be involved with the Reserve staff on the expansion plans of TPSR for the newly created Carmel Mountain Preserve.

I believe we are challenged to address urban planning and land use issues and will be involved with the TPA to that end. How is the Reserve being negatively impacted by piercing aircraft noise from Miramar and bumper-to-bumper traffic down North Torrey Pines road? These are questions that can't be ignored.

We will continue to work closely with the Reserve's excellent staff and involve all docents in discussion and decision-making. And finally, I appreciate knowing your opinions, so let me know what is good and bad from your perspectives. Thank you.

Ken Baer

Docent Society Dues Reminder

It's time to send in your membership dues for 1999: \$10 for full members, \$25 for supporting members (Note: this does not apply to TPA). Please mail checks, made out to Torrey Pines Docent Society, to: TPDS, ATT. Shirley Musser, Box 2414, Del Mar, CA 92014, or put checks in membership box in the docent room. Please write "membership" or "dues" on checks. Dues and updated applications must be in before 1999 parking passes are handed out.



Tidings from the TPA

Freda Reid

The Torrey Pines Association has a Board of Counselors consisting of people with varied accomplishments, some of them "old hands" both figuratively and factually and others with experience and enthusiasm essential for our existence as a viable adjunct to the Reserve.

Opal Trueblood and Sally Spiess are well known in the halls of the San Diego City Council, frequently speaking up on behalf of environmental issues. Opal is currently vice-chair of the San Dieguito River Park Citizens' Advisory Committee among other commitments. Sally was an energetic president of the TPA and was the leading advocate for the preservation of Wilderness Gardens in Pauma Valley.

John Shelton is indispensable as our professional geologist, treasurer, book coordinator, temporary membership chairman (aided by his wife, Mary Ann), and has perhaps the longest association with the Reserve. Francis Armstrong is a third generation Californian with a long-time interest in preservation of open space and a knowledge of the local flora. Freda Reid started the herbarium in the 1960s, edited the third edition of the Green Book, and helped publish the recent TPA book.

Bob Warwick is a well-known La Jolla bookseller who is in the La Jolla Historical Society. He always offers sage advice and chairs the "Wildlife Corridors" subcommittee. Bill Evarts became a Counselor after writing the text and doing the beautiful photography for the TPA book *TORREY PINES: Landscape and Legacy*, which qualifies him as most knowledgeable about all aspects of the Reserve. Bob Coats (great-grandson of Guy Fleming and our connection to the past) is secretary and succeeds admirably in distilling often verbose meetings into a page or two of text. David Goldberg made a major contribution to the publication of the TPA book and now applies his computer talents to the financial management of the Association.

Nancy Weare, who is a leader of the Del Mar Lagoon committee, and Marti Kaye, who chairs the Del Mar Farmer's Market Committee, are known in the San Dieguito area for their interest and active participation in environmental efforts, and we are fortunate to have this encompass Torrey Pines State Reserve. Jan McMillan has been mayor of Del Mar and is involved with organizations concerned with the San Dieguito River Valley. She often focuses our attention on area-wide issues impacting the Reserve.

David Crawford is an articulate promoter of environmental causes, especially those related to the coastal area. Diana Bergen is a landscape architect, a field which has not previously been represented on

the Board, and she provides valuable assistance to the TPA as a consultant and activist. Finally, Courtney Coyle is a La Jolla attorney paying special attention to local environmental issues. She keeps us all informed about potential problems which may impact the integrity of the Reserve.

To All the Docents and Staff

THANKS FOR A GREAT YEAR! Just a few words of thanks to all the docents, rangers, and staff, who made my presidential year so interesting and productive. Also, special thanks to the Board for the gift of the Jane Darin Fiber Art Doll.

Being president gave me the opportunity of meeting so many docents whose names I knew but not the people, and working with a lot of you opened up marvelous friendships I shall treasure always! It was good to see the cooperation and respect grow among the TPDS, the TPA, and the TPSR staff, and I think the Reserve will benefit more and more with each passing year from our shared resources, both human and financial. The 75th Lodge Celebration was a very fine event and a wonderful precursor for the next two anniversaries.

The addition of a TPDS web page has created a site for the whole world to appreciate and enjoy (I met one couple from San Francisco who said they read about TPSR on the Internet and made a point of coming to visit us while in San Diego), and our new self-publishing project will allow the school kids who come a chance to purchase some wonderful items that focus on TPSR. Our essay contest is in the beginning stages, but the schools are enthusiastic, and we should be receiving some marvelous stories about their experience here.

I know that Ken Baer will continue to enlarge on the good work that has been done by all in the past, and I wish him and all of you a very

HAPPY NEW YEAR!

Diana Wenman

Torreyyana Status

Because no docent has yet volunteered to become the new editor, Del Roberts and John Carson (both former editors) have offered to alternate doing a quarterly *Torreyyana* as a temporary way of keeping the newsletter alive. The Board is considering all options. Docents having suggestions should discuss them with Ken Baer or Irv Hansen.

Periodical Information

Publication Title: *Torreyyana*
Issue Date and Number: See front page
Publication Schedule: Quarterly
Organization: Torrey Pines Docent Society
PO Box 2414, Del Mar, CA 92014

Another Great Holiday Party

A large crowd of hungry docents (is there any other kind?), Reserve staff, and guests gathered at the Lodge for a noontime feast on December 12 in perfect weather. Even some birds joined the party: a flock of cedar waxwings stuffed themselves with berries on a toyon shrub close to where docents were seated. (During the meal a deer was also spotted by Bob Margulies in the ravine just below the north overlook outside the Lodge.) Joining the docent party at President Diana Wenman's invitation were several TPA Counselors, including President Opal Trueblood, Vice President Freda Reid, Treasurer John Shelton and his wife Mary Ann. Following tradition, the Lodge had been decorated the previous week by docents and new members coordinated by Liz and Les Stiel of the 1998 trainee class.

Afterwards the group moved to Torrey Circle for the remainder of the party activities and awards. Diana Wenman introduced Opal Trueblood, who spoke of the increasing efforts of the TPA and TPDS to coordinate their programs to support the Reserve. As an example, the Society recently purchased a much needed computer system for the Reserve staff, and the TPA has pledged over \$5,000 for new furniture that will provide more efficient utilization of the staff office space.

Diana presented 10-year engraved acrylic service awards to Jeanne Heller, Del Roberts, Walt Desmond, and Bob & Jane Talbert. Bob & Marge Amann and Pete & Margaret Bardwick received 15-year plaques. Congratulations to all these docents for their continuing dedication to the Society and the Reserve.

Karen Griebe received the Honoree Award for her years of service handling the Lodge bookstore operations. Honorees now receive a special award pin, which Del Roberts arranged to have made. It features a pine cone design drawn by Jim Cassell. (Editor's personal note: Del deserves special thanks for this and her many other contributions during 1998 in addition to her outstanding work as *Torreyana* editor, a full job in itself.)

Congratulations, June - June Brickelmaier was presented with the Society's most prestigious award, Docent of the Year, in appreciation of her service as treasurer since 1991, believed to be the most years for a Society treasurer. June joined TPDS shortly after returning to La Jolla in 1989 and, fortunately for the Society, has made the Reserve her "second home." Speaking for the staff, Bob Wohl thanked June for all her work here.

New Members - Training Officer Jim Cassell presented new badges to the following trainees who have completed all the requirements and are now full members: Gary Grantham, Don Miller, Alba Overgard, Jack Paxton, Holly Teetzel, and Les & Liz Stiel. Congratulations and welcome !

Gavel Transfer - Diana Wenman concluded the formal part of the party by handing the presidential gavel to Ken Baer, who becomes president on January 1. Del Roberts then presented a gift to Diana on behalf of the Board and docents in appreciation of her year as president. Diana was surprised and pleased to find that it was a Fiber Art Doll, made by her friend Jane Darin. These are one of a kind, have won many awards, and are on display in shows and museums.

For some views of the party, see the next page for photographs.



Bob Wohl and June Brickelmaier



Del Roberts Ken Baer Diana Wenman



Part of the group enjoying the holiday party food.



The new award pin
(shown about 1.5X)



Marge & Bob Amann with their 15-year award.

CARMEL MOUNTAIN PRESERVE

One provision of Proposition M, approved in the election on November 3, was establishment of Carmel Mountain Preserve, the last undeveloped coastal mesa in our area, located about 1.5 miles southeast of the intersection of Carmel Valley Road and I-5. On November 25, 1998, officials of Pardee Homes (owner of this property), Mayor Susan Golding, and representatives from organizations involved in writing the proposition met at this site for a ceremony conveying title of 150 acres at no cost to the City of San Diego. Representing DPR, which may become involved in managing the preserve, were TPSR Supervising Ranger Bob Wohl and District Chief Ranger John Quirk, the latter representing District Superintendent Ed Navarro. Mike Madigan, senior vice president of Pardee Homes, unveiled a plaque that will be eventually placed at a future public entrance to the preserve. The plaque reads as follows:

CARMEL MOUNTAIN PRESERVE

On behalf of the unprecedented coalition of community leaders, conservation groups, business organizations and residents who worked together to make Carmel Mountain Preserve a reality, we dedicate this last undeveloped coastal mesa of its kind in the world to the people of San Diego.

May its natural wonders serve as both a permanent refuge for rare and endangered plants and animals and a monument to the efforts of so many to preserve our natural heritage for future generations.

Pardee Homes
Sierra Club
Endangered Habitats League
Friends of Los Penasquitos Canyon Preserve
Carmel Valley Community Planning Board
November 25, 1998

(Since most docents haven't had an opportunity to meet the new Chief Ranger, they will be interested to learn that he is no stranger to TPSR. Although John Quirk has spent most of his ranger career in the redwoods parks and most recently in Anza-Borrego Desert State Park, he started his DPR career in 1978 as a park aide in TPSR. His first supervisor was no other than Bob Wohl!)



Mayor Golding signing the ceremonial transfer.



Bob Wohl and John Quirk (r) by the plaque.

A Kathy Estey Book Review

THE GEOGRAPHY OF CHILDHOOD

Why Children Need Wild Places

by Gary Paul Nabhan and Stephen Trimble

The Geography of Childhood is a collection of eight essays, four by each author. Both authors are well known naturalists and nature writers, who have been friends for years, and who each have two children. These essays have been written over several years and focus on the relationship between adults, children and nature.

I must admit a bias in favor of anything Gary Nabhan writes. He has the ability to clarify complex situations and make sense of common experiences. For example, in his essay "A Child's Sense of Wildness," (p.5), he writes "I realized how much time adults spend scanning the land for picturesque panorama and scenic overlooks. While the kids were on their hands and knees, engaged with what was immediately before them, we adults traveled by abstraction." For those who have traveled with small children in natural places, this accurately describes the situation. And for those who teach nature to children, this should be a reminder of how to connect children with nature.

And for those who are involved in teaching nature to children, the essay "Going Truant" speaks of the importance of field trips, in ensuring that the environment will have some defenders in the future. Gary Nabhan feels that these experiences are one of the reasons "that only 8 percent of American adults feel that the quality of environment is a major issue in their lives, while over 90 percent of our children feel it is a major issue with them ..." (p. 40).

I found Stephen Trimble's essays not as meaningful to me and would appreciate someone else reading both and telling me why. Part of the problem is that Mr. Trimble tends to use too many quotations from others. The value of Mr. Nabhan's essays is that so much of his writing is from his own and his children's experiences. So often in reading his essays, I could remember similar experiences in my own family.

One of Mr. Trimble's essays, "A Land of One's Own," discusses why there are fewer women nature writers, and he gives some valuable answers as to

how to encourage girls to be more involved in outdoors activities. He feels also that what females see as their self worth has more to do with relationships than with testing themselves in nature, and that girls tend not to continue their interest in outside activities as they become adults.

The essay "Children in touch, Creatures in Story" tells of some research Mr. Nabhan did with Southwestern Indian children to find if they were maintaining the relationship with earth that their parents and grandparents had. He found that, though they remained close, they obtained the majority of their knowledge about nature thorough the media rather than from their adults. This essay identifies some of the problems with trying to nurture children's interest in the land, and he has some fairly specific ideas as to how to improve a child's nature education.

"Learning Herps" was probably my favorite essay. It discusses our relationship to creepy, crawly things. Mr. Nabhan gives a very personal accounting of his experiences with his children and lizards. However, the most touching part of the essay was his own experiences, one of which led him to change his relationship with nature. He and his father were driving in a new development, which was being built on wetland. They almost hit a large snapping turtle on the road. His father rescued the turtle, and they took it home. The following day his father released the turtle in another wetland. But the young Mr. Nabhan was struck with the enormity of the turtle losing his home, and his father's actions and concern helped create what he calls himself: a "Do-gooder environmentalist."

These essays are of uneven quality, but the end result is a reminder that either as a parent, teacher, or concerned adult, we need to be aware of the impact we can have on children, and how important we are in rearing a new generation of concerned adults.

Paleobotany Investigation of Lagoon Sediments

Last October 28 Kenneth Cole, Research Ecologist with the U.S. Geological Survey, presented at the Lodge the results of his study of pollen in sediment core samples from Santa Rosa Island and Los Peñasquitos Lagoon. This talk occurred too late to include in the Reserve research article in the November 1998 *Torreya*. In introducing the speaker, Resource Ecologist Mike Wells noted that Cole has been a leader in paleoecology work, which has included such diverse subjects as fire ecology and 40,000-year-old fossil packrat middens. Several years ago Cole began this DPR project, which focused on Torrey pine pollen. He and graduate student Gene Wall described the work and results, summarized here.

Pine pollen can be easily distinguished from other plant pollen by size and surface features. While some pine pollens can be identified to species, the pollens of Torrey, Coulter, Jeffrey, and ponderosa pine are next to impossible to distinguish. This presents a problem of establishing that the pine pollen found during the project was really that of the Torrey pine. Cole pointed out that plant distributions throughout the world have been relatively stable for the past 4,000 years. Thus the present lack of other pine species in the lagoon watersheds, together with the prevailing wind directions, supports their view that the observed pollen is the Torrey species.

Cole also discussed how the ages of the core samples were estimated using radiocarbon dating of charcoal. He pointed out the problem with this method for times after about 1600 AD, caused by changes in atmospheric carbon dioxide resulting from the industrial revolution (large increases in combustion gases released into the atmosphere). Extensive use of historical records helped determine the age of pollen for this period.

Key Results -

a) **Santa Rosa Island** - The pollen record shows that the Torrey pine has been there for the past 5,000 years. During a period about 3,000 years ago, there was a significant increase in charcoal, which suggests that either there was an increase in vegetation because of a wetter climate or that Native Americans burned the vegetation. For about the last 200 years there has been a sharp increase in grass pollen, which correlates with the introduction of large herbivores (horses, cattle, etc.) on ranches. The ranchers periodically burned the vegetation to stimulate new plant growth for their animals.

b) **TPSR (Los Peñasquitos Lagoon)** - Torrey pine pollen was found for the past 3,600 years. The variation in amounts found indicates that there are more trees now than 2,000 years ago, possibly caused by an increase in moisture (this correlates with what is interpreted as an increase in ferns during this period). No pollen was found older than 3,600 years, which Cole explains by saying that the lagoon area was probably open water prior to this time.

In addition to the pollen data, Cole described other work done as part of understanding the past history of the lagoons. There were chemical analyses of the core materials, which showed a large increase in lead for Los Peñasquitos Lagoon that correlates with the use of leaded gasoline in automobiles. Other measurements, such as magnetic susceptibility, were also made. The attendees left the talk realizing that this research project, as is typical for research, involved much more than looking at pollen under a microscope.

Report from the Ranger

'Tis the season to be giving and receiving and enjoying each other, and spreading cheer, as many of you did at the Docent Holiday Party. My last column focused on staff and people changes. This time I want to talk about changes involving "things" — and giving and sharing and enjoying! Within the hour, I will be driving over to Kearny Mesa with Jeannie Smith and picking up the wonderful computer that your Docent President, Diana Wenman, just paid for yesterday. This will be installed by Jeannie over the next several days on the ranger office side of the Lodge. Jeannie, Diana, and Jim Cassell have already set up a docent-exclusive new computer in the docent room. So now we will have two new computer systems in the Lodge, thanks to the generosity and thoughtfulness of the Docent Board and membership. Thank you all for doubling our computer capacity at the Reserve, and for helping us all to do our job better and more effectively.

Last week was more chaotic than most. While the painters were finishing off the outer carapace and wood lintels, windows, and doors of the Lodge, the inside was being rewired with new phone lines and nine ultramodern, sophisticated phones. I hope you enjoy the brighter shade of beige (or is it yellow-white?). Only the wood that was previously painted "raw umber" was painted. Otherwise, what were natural log beams and doors (see the garage for authenticity, down to the original hardware) remained the same. If you have any questions about how to operate the new multi-functional phones — yes, you have one at the docent desk, identical to the ones on our desks, but don't despair — ask Allyn or one of the park aides. All you have to do is press the red blinking button, labeled Line 1. You don't even have to pick up the phone receiver — it goes right to speakerphone. To make it easier, just pick up the receiver, and you don't even have to push a button! It will roll over to the next line automatically. Confused? Join the rest of us. Next column I'll go into how to transfer an incoming call to us. We're still working on how to retrieve our voice mail! And good news! Our message machine gives out all the mundane information you folks at the front desk get tired of saying (Allyn's voice telling them to "press 1 for directions, press 2 for hours and fees," etc.)

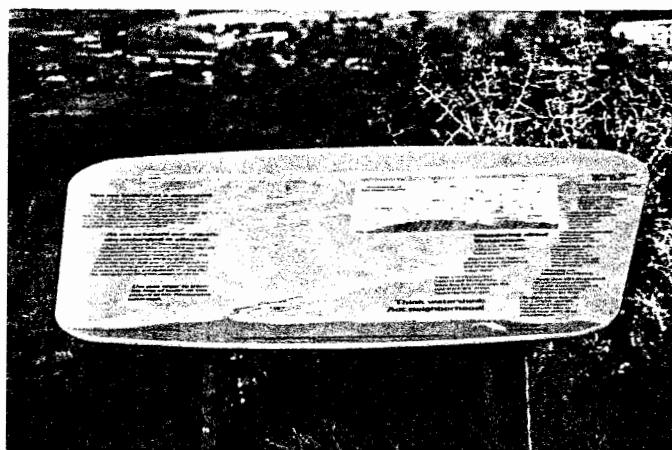
So don't panic. They're only dumb machines and we're smarter than them. It's just that they make us feel stupid. But we're human beings! We're the ones with the intelligence! And as William Faulkner exclaimed when he won the Nobel Prize, "We Shall Prevail!" (But in the meantime, how do I transfer this call?)

Bob

Reserve Gets New Interpretive Signs

On December 3, Los Peñasquitos Lagoon Foundation and Torrey Pines State Reserve held a dedication ceremony for a set of newly installed Los Peñasquitos Lagoon Interpretive Signs. There are six signs: one by the overlook just north of the Lodge, one east of Torrey Circle, and four by the North Beach Lot. The signs were paid for by the San Diego Metropolitan Wastewater Dept. (a mitigation project), designed and made by the Exhibits Dept. of the San Diego Natural History Museum, and installed by the maintenance staff at the Reserve. Joan Jackson, chairperson of the Foundation Board, said the signs were designed to focus on the Lagoon, tie the Lagoon into the regional ecology, and identify actions visitors could take to help protect the area. The next time you are at the Lodge or North Beach, take a moment to check out the new signs.

A photograph of the sign near Torrey Circle is shown below.



Torrey Witches' Brooms - A Little More Data, A Lot More Questions John Carson

An article in the May 94 *Torreya* summarized the results of an extensive literature review of brooms with emphasis on those in pines. Before discussing recent observations on a Torrey broom, some information from the prior article will be covered for the benefit of docents who have become members in the last few years.

Witches' brooms are abnormal growths that occur on many woody and non-woody plants throughout the world. While pathogens cause most of the brooms, this is not always the case for pines. Examples are a) those in the nearby Laguna Mts. in Jeffrey and Coulter pines that result from infestations of dwarf mistletoe, and b) brooms in Jackpine and others that result from genetic mutations. After reviewing much of the literature and observing the long-term healthy state of the Torrey pines with brooms, I believe that these brooms are likely the result of genetic mutations.

Nowhere in all the reviewed literature was there any information on how the number of needles per bundle was affected by broom growth, if at all. So I was surprised and intrigued a few years ago to see a display in the Lodge by high school student Nicholaas Webb which showed the results of his counting needles per bundle (hereafter denoted N/B) in the broom in the small pine on the Razor Point Trail. He found: 100% 5 N/B in the normal part of the tree; 2% 3 N/B, 40% 4 N/B, and 58% 5 N/B in the transition to the broom; 4% 3 N/B, 78% 4 N/B, and 18% 5 N/B in the middle of the broom.

Several weeks ago docent Vernie McGowan called me to say that a large Torrey pine with a broom in Del Mar was being trimmed and asked if I was interested. You bet! I dashed up there, learned that the owner did not want the broom removed, but was able to get the tree trimmer to cut off a 2-foot-long branch from the top of the broom. This branch has denser needle growth than normal but not that of a thick broom. The side branches are still short. A counting of N/B on most of the branches yielded wide variations. There were 3, 4, 5, and even a few

2 N/B, with no consistent pattern for location of branch. For example, one small branch had one 2N/B, six 3N/B, sixteen 4N/B, and six 5N/B. Another branch had five 4N/B and nineteen 5N/B.

Hank Nicol [1] mentioned that branches in normal Torrey pines have been found in the Reserve with only 4 N/B or 3 N/B, this apparently being uncommon. So far I've found no information on any relationship between the age of a branch and N/B. For example, is there variation in N/B at the growth end of a branch, and if so, does this account for part of the variations I observed with the broom branch? To check this, I looked at the needle bundles at the ends of large branches (those close to the ground) of mature trees near the Lodge and parking lot. I was surprised to discover that many branch ends had a few 3 or 4 N/B and even found one with just 2N/B (by looking at the wrapping at the base of the needle bundle it is easy to verify that a needle or two hasn't broken off).

Is there a number of needles per bundle that characterizes the Torrey brooms? Or is there considerable variation within a broom or between brooms? And how about normal Torrey pines? Are a few N/B less than 5 common? Only in new growths? Or along the entire branch? At this point there are more questions than information. One obvious project is sampling N/B along a sufficient number of Torrey branches to get statistically meaningful data on N/B for normal trees. Doing this for the few brooms accessible is obviously a more difficult project.

At this time I believe much more work needs to be done and am reminded of two relevant comments by Sherlock Holmes:

"I have no data yet. It is a capital mistake to theorize before one has data. Insensibly one begins to twist facts to suit theories, instead of theories to suit facts." [2] And "The temptation to form premature theories upon insufficient data is the bane of our profession." [3]

References:

1. Nicol, D.W., *Notes From The Naturalist*, p.2.
2. Doyle, A.C., *A Scandal In Bohemia*.
3. Doyle, A.C., *The Valley of Fear*, Chapter II.

More About Plants and Numbers

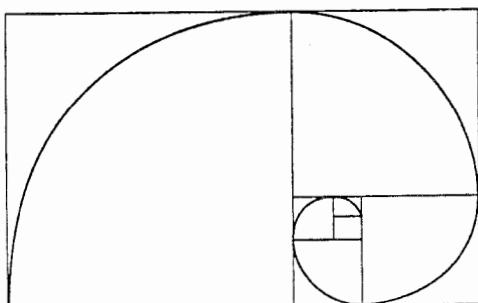
(for mathphiles)

John Carson

In the March 97 *Torreyana* article on the Fibonacci series and plants, I described how this series shows up in much plant structure and growth. This note covers an aspect not discussed in that article. This series is 1,1,2,3,5,8,13,21,34, ...in which the n^{th} term is the sum of the preceding two terms. For many flowers, such as the tightly packed disk part of sunflowers, sets of opposite sense spirals can be superposed on the flowers, and the numbers of the two sets of spirals are adjacent terms in the Fibonacci series. As mentioned, this can also be done with the tips of the scales of pine cones.

The spiral that fits these plant patterns is not just any spiral. It is the logarithmic or equiangular spiral, described in polar coordinates in the simplest form by $r = e^{\theta}$ (the exponential function) in which $e = 2.718\dots$, and r is the distance to the spiral curve at the angle θ measured in radians from the reference axis. This curve appears in many physical and biological forms. In processes in which the rate of change of some quantity is proportional to the quantity itself, such as growth of bacteria, the solution of the equation describing the process is the exponential function. So it is not surprising that this spiral shows up on the plant patterns.

What is more unusual is another connection between the Fibonacci series, plant growth, and the spiral. As discussed in the previous article, the ratio of adjacent terms in the series (with the larger term in the numerator) for increasingly large numbers in the series approaches $(1 + \sqrt{5})/2$, which = 1.618... This is called the golden ratio and it shows up in plant growth (described in the article). Rectangles with length to width equal to this are called "golden rectangles" and are considered aesthetically pleasing by artists. There is a surprising relation between golden rectangles and the equiangular spiral. A set of nested golden rectangles can be inscribed in the equiangular spiral as shown below [1]:



Those interested in the history of e will find a fascinating account in Maor's book [1].

Mathematically challenged readers who got this far and wonder about its relevance to the "real world" are referred to the following exchange, in which Scotland Yard Inspector MacDonald questions the pertinence of a suggestion from Sherlock Holmes:

MacDonald: "I don't doubt it, Mr. Holmes; but that is no business of ours."

Holmes: "Is it not? Is it not? Breadth of view, my dear Mr. Mac, is one of the essentials of our profession. The interplay of ideas and the oblique uses of knowledge are often of extraordinary interest." [2]

References:

1. Maor, E., *e: The Story of a Number*, Princeton U. Press, p.137, 1994.
2. Doyle, A.C., *The Valley of Fear*, Chap. VII.

An Enquiry to the Editor

Reserve staff member Charlie Kerns wrote regarding the article by Maryruth Cox in the Nov. 98 *Torreyana* in which she mentioned 40" of rain in one month in San Diego in 1916. He points out that the official records (which are for downtown San Diego) show that the record yearly rainfall, which was in 1884, is only 27.6". Maryruth will check her reference for the 40" number to find where it was measured. (Ed. Note: The average yearly rainfall on Mt. Palomar is 40" and considerably higher rainfalls have been measured there. The question appears to be what the record rainfall is for the Los Peñasquitos Lagoon drainage.)

Editor's Notes:

- 1) All readers are in debt to Jeannie Smith, who didn't learn until the night before leaving on vacation that a complete set of mailing labels was needed. Somehow she printed over 650 labels and still was able to leave the next morning. THANKS.
- 2) Disclaimer: The color prints used in this issue are all acceptable as prints. How they reproduce in this issue depends on the copy processing used, over which I have no control. (I've been fooled before!)
- 3) Having been a Sherlock Holmes enthusiast since a teenager, I couldn't resist adding a few quotes from the Sacred Writings, as the stories are called.

John Carson

Guest Editor for the Jan. 99 Issue

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The *Torreyana* is issued by the Torrey Pines Docent Society, which gratefully acknowledges the assistance of the TPA in its production.

The guest editor thanks the following docents for their help with this issue:
proofreader - Marion Dixon,
circulation - Jack & Joann Cannon,
Twinx Hauer

New Bridge in the Extension

The Gully Trail in the Extension, closed the past several years because of serious erosion that made one section impassable, is now open after the construction of a bridge over the gully. During the first part of December Ranger Chris Platis, SPA Rick Thompson, Park Aides Jody Hochstein, Todd Prior, and Nicky Tader along with several National Civilian Community Corps (NCCC) members worked on the bridge. The main support consists of three 25-foot-long telephone poles that span the gully. These have additional support in the middle from sections of telephone poles sunk deep into the base of the gully. (To this issue's editor, the ruggedness of the bridge suggests it will survive through the next ice age.)

Along with the bridge work, the west end of the Gully Trail was moved northward and now joins the Mar Scenic Trail north of the position shown on the current Extension map. As you walk east on this new part of the Gully Trail, you'll pass through stands of tall stalks of giant rye (*Leymus condensatus*).

Special thanks to all the staff and NCCC members for a fine job.



The new bridge with NCCC member Rich Gorman on it.

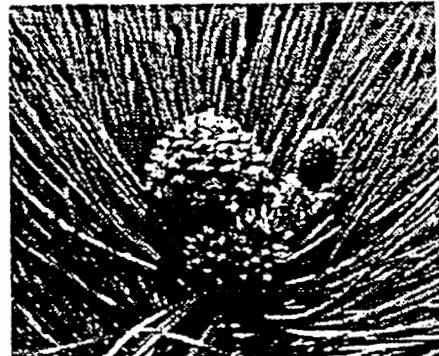
Fog Drip in the Redwoods

An article in the Nov. 27 issue of the San Diego-Union Tribune, p. A-31, describes recent research which is believed to show that fog drip from the redwoods contributes much more water to the ground underneath the trees than previously thought. The research will be presented in the Jan. issue of *Oecologia*. Before readers jump to the conclusion that fog drip may be important here for the Torrey pines, keep in mind that the redwoods are huge, presenting very large surfaces on which fog can condense, and there is likely more thick fog along the north coast than here. (Editor's comment: I'll review the journal article as soon as it becomes available.)

Thanks to TPA member Freda Reid for telling me about this research and providing a copy of the newspaper article.

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