

The

EXPLORER

Vol. VI, No. 6
Autumn 2000

*Newsletter of
Cabrillo National Monument
and the Cabrillo Monument Foundation*

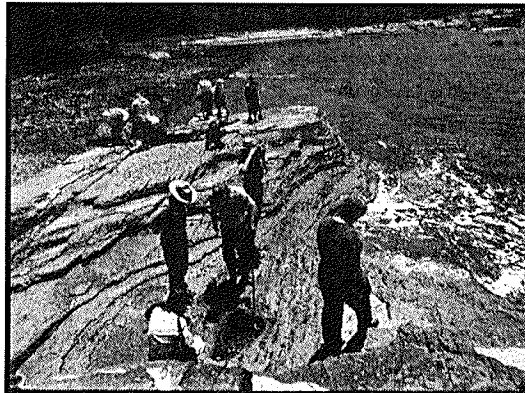
Meeting the Natural Resource Challenge

Fall is Resource Management time. As we look at the usual ebb and flow of the seasons of the Southern California native plant community, we realize that very soon the rains will come and bring the growing season. Our attention is drawn to the life cycles of all that makes up the natural areas of our park. It seems appropriate that at this time of year we should look at what is happening with our natural resources and their management.

The Organic Act of 1916 established The National Park Service and defined its mission: "...to conserve the scenery and the natural and historic objects and the wildlife therein and to provide for the enjoyment of the same in such manner and by such means as will leave them

unimpaired for the enjoyment of future generations."

The management of a park's natural resources requires a delicate balance between preservation and usage. Cabrillo NM is a much-visited urban park blessed with an exceptional intertidal region and one of the last remain-



ing coastal sage scrub plant communities in the nation. Preserving these precious resources while allowing visitors to study and enjoy them presents a con-

stant challenge. In this issue, Superintendent DiMattio and our Resource Management and Natural Resource Science staff members bring us up to date on several important issues. You will see that they are undaunted by the challenge.

Emily Troxell, Editor

Algal invasion in San Diego County makes world news!

by Bonnie Becker

Last spring I wrote an article in *The Explorer* about sargassum weed, an invasive alga that has lived in our tidepools for decades. In that article, I stated that:

"The plant is not dominating the mid or lower intertidal, and we have yet to observe a serious negative impact from it. Currently, we feel its removal would not be worth the disturbance to native plants. So for now, we have accepted this weed as a temporary resident of our park."

Now San Diego County has experienced a new, more dangerous seaweed invasion. This time we have been invaded by *Caulerpa taxifolia*, commonly called "caulerpa."

Caulerpa was cloned by Europeans in the 1980s for use as a hardy but pretty aquarium plant. In a plotline worthy of a Mary Shelley novel, their creation got out of control. Not surprisingly, caulerpa got loose in the Mediterranean in 1984, and after years without management, the plant has spread like a "roll of astroturf." The super-weed is very well adapted to spread and dominate. It can grow in a range of environments, often overgrowing all of the plants and animals living on the bottom of the ocean. If you cut off a very small piece of the plant and let it go in the water, a whole new plant will grow. Therefore, it is extremely easy for boats, fishing nets, or anything else that travels away from the original patch to spread it. It can survive for up to 10 days out of water, so boats that are trailered and moved great distances by land can spread it. Since it is toxic to most animals, few of them will eat it. Without grazing pressure, there is nothing to keep the plant in ecological balance. So in places like France, Spain, Monaco, and Italy, the entire marine ecosystem has gone from having a diversity of plants and animals to having a single one: their

coastal zones are covered by a carpet of caulerpa.

In 1999, the US Government banned the possession of caulerpa in this country. But this month, a small patch of the seaweed was found in Agua Hedionda Lagoon in Carlsbad, presumably from an aquarium that was dumped down a drain. News of the discovery quickly spread around the world; this was the first sighting of this devastating alga in the Western Hemisphere. People snapped into action immediately. The area has been blocked off, treated with chlorine, and the plant is being carefully removed. All reports, the most recent on September 13, indicate that the removal is proceeding successfully and the immediate threat appears to be gone.

But the consequences of a possible caulerpa invasion are so great that we cannot ignore the long-term threat. This event was a wake-up call for San Diego County and, in some sense, for the world. Our coastal habitats, already weakened by various human activities over the past century, are left vulnerable to invasions far more devastating than our resident sargassum. The dumping of a single fish tank could have caused the destruction of the coastal zone that we all love, depend on, and work so hard to protect. Education, such as the interpretation we do in the tidepools and visitor center of Cabrillo National Monument every day, is our best defense against such a catastrophe.



Caulerpa taxifolia

For more information, visit:

<http://ens.lycos.com/ens/jul2000/2000L-07-06-06.html> one of the original news stories that is still online
http://www.uniontrib.com/news/northcounty/20000721-0010_1m21lagoon.html *Union Tribune* on the eradication project at the end of July
<http://www.sci.sdsu.edu/CMI/swilliam/swilliam.htm> Dr. Susan Williams from SDSU on the subject
<http://www.mcbl.org/caulerpa/babbitt.html> Original letter to Bruce Babbitt from many scientists in 1999 requesting that caulerpa be outlawed (signed by some familiar names from Scripps and SDSU). Early recognition of the potential problem before it struck.
<http://www.isima.fr/ecosim/ct.html> for simulations of its spread through Europe
<http://www.com.univ-mrs.fr/gisposi/gistest/ctaxifolia/biblio/1erepage.html> European bibliography on the algae

Bonnie Becker, a graduate student at Scripps Institution of Oceanography, is CNM's marine biologist.

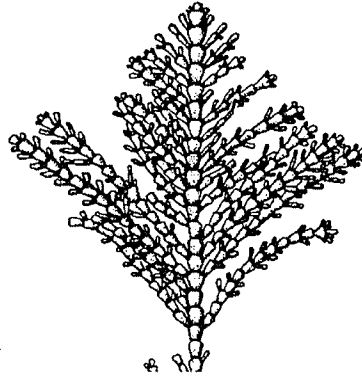
Summer study examines effects of human trampling in the tidepools of Cabrillo National Monument

by Bonnie Becker

The next time you are wandering around in the tidepools, look down at your feet. Assuming that you have not just climbed on to a boulder, you are likely to be standing on red algal turf (RAT). RAT is a mixture of many species of algae forming a mat on the flat surfaces of our intertidal region. It is dominated by red coralline species: small, erect, crunchy plants that secrete "skeletons" of calcium carbonate. If you are in a heavily visited area of the tidepools when you remember my suggestion to look down, you will notice that the turf looks quite different where it endures a lot of trampling than it does in more protected areas. It is thinner and is made up of more succulent or encrusting dark-colored species. In areas that do not receive much visitation, the turf is pink, spongy, and thick. This summer we did some research on the effects of this trampling on the RAT in the park. Our results were quite striking.

During the summer, I mentored a SURF (Scripps Undergraduate Research Fellowship) student, Robin Pelc, who is starting her senior year at Stanford University. She and I were interested in examining the trampled turf. Could we quantify how trampling changes the composition of the algae in the mats? RAT is a great place to hide if you are a baby animal, and many species use it as a nursery habitat. Does trampled RAT, with fewer crevices to hide in, do a poorer job of attracting new juveniles? We decided to study the RAT in Zone I, the most heavily visited area of the park, and compare it to Zone III, which has been closed to visitors as a marine reserve since 1996.

Robin and I collected small samples of turf from four study sites.



Corallina sp.

She took the samples back to the lab and spent countless hours sorting through them under a microscope. She measured many different aspects of the turf: thickness, species composition, weight, and sand content.

The results showed large differences between the two sites. Robin found that the turf in our closed area was twice as thick as in the visited area. RAT from the southern end of Zone I (where the majority of visitors walk) contains about 35% coralline species, while that in Zone III is made up of over 80% corallines—more than double! In addition, the nursery function of the turf was quite different in the two areas. During our study, there was a large amount of recruitment of *Littorina* spp., the little periwinkle snails found in the high intertidal as adults. In the southern end of Zone I, she counted an average of around 60 juvenile snails in each sample. In Zone III, she found an average of almost 300 in each sample—5 times more! The conclusion is that trampling of the turf in Zone I leads to thinner and altered mats of RAT. This modified RAT is a poorer habitat for recruiting juvenile animals than healthy, more coralline-dominated turf.

Cabrillo NM receives on the order of 100,000 visitors to the tidepools

each year, and our volunteers do a great job of protecting our resources from poaching and harassment. But the less obvious threat of this visitation, the unavoidable steps of humans, is causing our turf to be altered on long time scales. This change is most likely leading to a decrease in the amount of young animals that are entering our intertidal area. On the other hand, the benefits of high visitation rates—education, increased awareness and enjoyment of our natural resources—are part of our mission as a National Park. The closure of Zone III is an effective compromise to this tension between the need for both protection and access. We are allowing part of the algal community to recover and thrive, and the effects of the increased health of the turf will hopefully spill over into the surrounding areas. This study has shown us that the closure of Zone III is making a difference in the protection of our beloved marine resources.

This was a short-term summer research project, so the results should be considered qualitative. But they are so striking that it seems likely that trampling is indeed causing a number of changes in our tidepools. A more detailed, long-term study should be initiated to examine the long-term effects more rigorously.

From the Superintendent

by Terry DiMattio

I recently returned from the Discovery 2000 National Park Service General Conference in St. Louis. Together with about 1300 NPS colleagues, friends, and partners, we tried to look into the future and visualize the kind of National Park System that we would like to see. We were not trying to predict the future; rather we were trying to arrive at a vision for the National Park Service and the parks, monuments, historic sites, seashores, battlefields, recreation areas, and rivers that comprise the National Park System that is consistent with our mission. This is not going to be an easy task. It will undoubtedly take time and much thought before we can articulate a clear vision to the American people.

This got me to thinking about my vision for Cabrillo National Monument.

Since the theme of this issue of *The Explorer* is resource management, I would like to share with you my vision of Cabrillo NM and the care we provide to the resources that been entrusted to our stewardship. As you know, the monument is both blessed and challenged in terms of its natural and cultural resources. Together with our neighbors on Point Loma we administer increasingly significant



and sensitive remnants of once abundant coastal sage and maritime succulent scrub habitat. On the western edge of the monument we care for the fragile and vulnerable inhabitants of the rocky intertidal zone where the sea meets the land. Scat-

tered throughout the peninsula, on promontories and tucked into canyons and ravines, are the concrete and steel reminders of the Army's system of batteries, command stations, and searchlights that protected San Diego from an attack by sea. And crowning the park is the 19th-century sandstone, brick and bronze Old Point Loma Lighthouse. For a small park we have a wide variety of natural and cultural resources—resources that require our knowledge, skill and dedication if we are to preserve them unimpaired for the enjoyment and education of future generations.

As I have learned over my career,
preserving park resources is complex,
challenging, and rewarding.

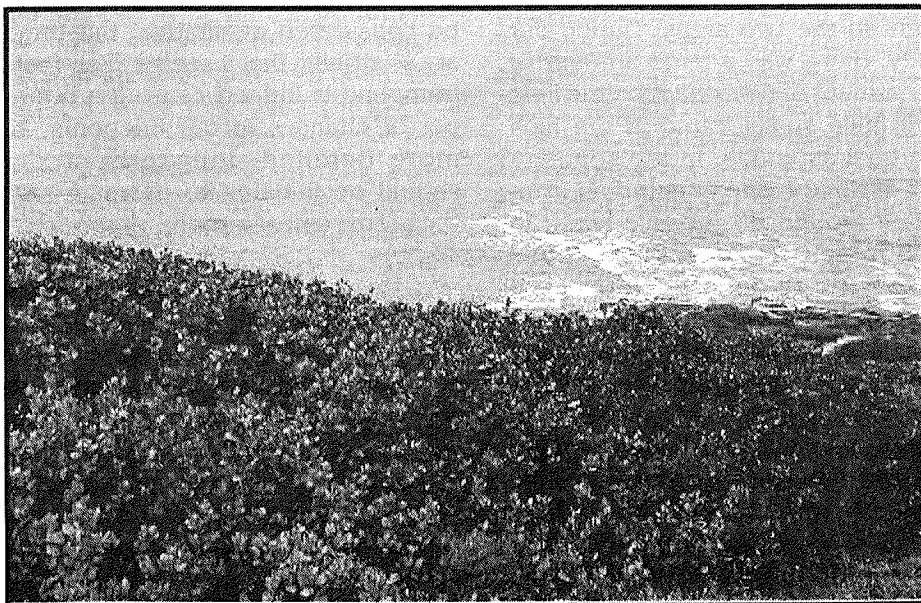
I do not know if what follows is the normal way vision statements are written so please bear with me. My vision for Cabrillo NM and its resources is:

- We know what plants and animals live within the monument, the rocky intertidal zone, and the Point Loma Ecological Reserve, their relative abundance and where they can be found.

- We understand the condition of these plants and animals and whether or not their condition is improving, declining, or holding steady. The condition of the rocky intertidal zone has improved above that in 1996 and key indicator species that had been declining are becoming more abundant.

- We know what exotic plants and animals exist in the monument, in the rocky intertidal zone and the Reserve, and we have removed them, or their populations are under control.

- We know the location, condition and significance of the prehistoric archeological sites within the monu-



ment; their condition is stable, and the information on these sites is properly recorded in the Archeological Sites Management Information System.

- We know the location, condition and significance of the historic structures within the monument, and the information in the List of Classified Structures is complete and accurate. The historic structures have been rehabilitated, restored or stabilized as appropriate and they are maintained in good condition.

- The artifacts and archives within our care are securely and properly housed in an environmentally-controlled storage facility and are readily accessible to the staff and researchers interested in the cultural and natural history of Point Loma.

- The area around the Old Point Loma Lighthouse has been restored to resemble its appearance in the 1880s, and it is accessible to all those who visit.

- The resources are protected through education and the enforcement of federal regulations.

- Through exhibits, publications, audio-visual and computer-based programs and ranger-guided activities, the story of the monument's natural and cultural resources is told to those who visit.

I hope that I have not overlooked some aspect of the care and management of the natural and cultural resources that have been entrusted to us. As you will see from reading this issue, and as I have learned over my career, preserving park resources is complex, challenging, and rewarding. If—through the hard work and devotion of our staff, Volunteers-In-Parks, and partners—my vision becomes a reality, we will have achieved the mission of the National Park Service to preserve “unimpaired the natural and cultural resources and values of the national park system for the enjoyment, education and inspiration of this and future generations.”

The Organic Act of 1916

We have referred to the Organic Act several times in this issue of *The Explorer*. For those who are not familiar with that landmark legislation, here is a brief exegesis:

In 1916, the Department of the Interior was responsible for 12 national parks, 19 national monuments, and 2 reservations. The U.S. Forest Service managed the Grand Canyon and Mt. Olympus (Olympic National Park) mainly for timber harvest. The Army stationed a cavalry unit in Yellowstone year round and sent troops to Yosemite and Sequoia in the summer. The superintendents in charge of Interior lands had little or no experience managing natural areas and little or no help from the Department. Because of bad roads and scanty accommodations, comparatively few people visited the parks. Without public support, Congress would not allocate funding—parks in 1916 were run on less than a shoestring.

From 1911 to 1915, numerous bills to establish a bureau of national parks had been introduced, but none had gotten out of committee. In 1916, Stephen Mather joined the Department and with Horace Albright began an aggressive campaign to educate congressmen and the public concerning the value of the national parks. Their campaign worked. In the summer of 1916, Congress passed the Organic Act, establishing the National Park Service to manage and protect national parks, monuments, and reservations. The act stated:

There is created in the Department of the Interior a service to be called the National Park Service, which shall be under the charge of a director. The Secretary of the Interior shall appoint the director, and there shall also

be in said service such subordinate officers, clerks, and employees as may be appropriated for by Congress. The service thus established shall promote and regulate the use of the Federal areas known as national parks, monuments, and reservations hereinafter specified, except such as are under the jurisdiction of the Secretary of the Army, as provided by law, by such means and measures as conform to the fundamental purpose of the said parks, monuments, and reservations, which purpose is to conserve the scenery and the natural and historic objects and the wild life therein and to provide for the enjoyment of the same in such manner and by such means as will leave them unimpaired for the enjoyment of future generations.

The authors of the Organic Act were well aware of the conflicts between use and preservation, but they also knew that Congress would never agree to exclude these areas from public use. Frederick Law Olmsted, Jr., came up with the language that defines the Park Service today. By law, the National Park Service is mandated to “conserve the scenery and the natural and historic objects and the wild life therein and to provide for the enjoyment of the same in such manner and by such means as will leave them unimpaired for the enjoyment of future generations.” This carefully-chosen language has weathered numerous lawsuits which have in general served to strengthen the National Park Service’s resource protection powers.



The evolution of an emblem

by Carol Knipper

The arrowhead is widely recognized for what it symbolizes: preservation and protection of natural and cultural resources; quality recreational experience and sanctity of intrinsic values such as solitude, reflection, and beauty.

Several weeks ago I was told that the topic for this issue of *The Explorer* was "natural resources." "That's great!, I thought; "That's what I do, that's why I am a ranger." In fact, this is why most rangers become rangers—either to interpret natural science concepts to visitors, or to study or protect nature. The natural resources, along with cultural resources of this nation, are the foremost concern of the National Park Service. We not only work at this, but we literally wear it on our sleeve. The oddly shaped brown patch on our left shoulder is emblematic of our dedication to our profession and has evolved to be the symbol of preservation, protection, and enjoyment of our natural and cultural heritage.

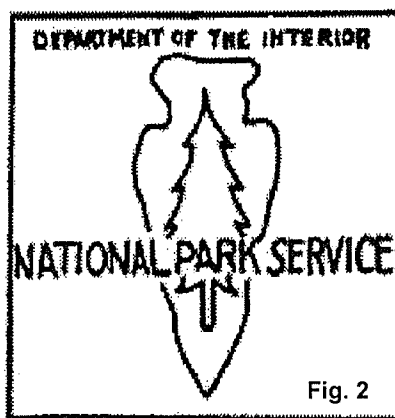


Fig. 2

NPS historian Bryce Workman has done research on the history of the patch. He discovered that for years there had been agitation within the Park Service for some emblem that would identify it as the shield did the Forest Service. A contest was held in 1949 because it was thought at that time that the only emblem used by the Service—the Sequoia cone—did not adequately symbolize it. The winner of the contest, Dudley Bayliss, collected the fifty-dollar prize, but his "road badge" design (Figure 1) was never used. Conrad L. Wirth, then in the Newton B. Drury directorate, served on the review committee that made the winning selection. He thought that the Bayliss design was "good and well presented, but it was, as were most of the submissions, a formal modern type." They had ex-

pected something that would have symbolized what the parks were all about.

Shortly after the contest was over, Aubrey V. Neasham, a historian in the (Pacific West Region) Engineering Division in San Francisco, in a letter to Director Drury, suggested that the Service should have an emblem depicting its primary function "like an arrowhead, or a tree or a buffalo." With the letter Neasham submitted a rough sketch of a design incorporating an elongated arrowhead and a pine tree (Figure 2). Drury thought the design had "the important merit of simplicity" and was "adequate so far as the symbolism is concerned." When Wirth became director in 1951, he turned Neasham's design over to Herbert Maier, then assistant director of Region IV. Maier's staff, including Sanford "Red" Hill, Cecil J. Doty, and Walter Rivers, were all involved in the design process and ultimately came up with the arrowhead design in use today.

The arrowhead was authorized as the official National Park Service emblem by the Secretary of the Interior on July 20, 1951. While not spelled



Fig. 1



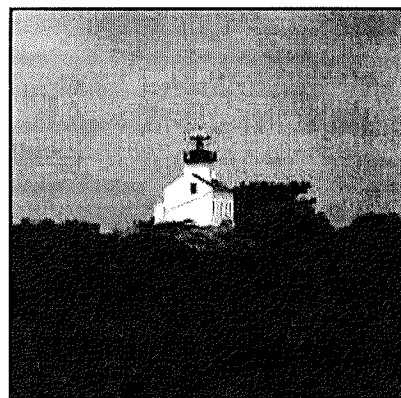
Fig. 3

out in official documents, the elements of the emblem symbolized the major facets of the national park system, or as Wirth put it, "what the parks were all about." The Sequoia tree and bison represented vegetation and wildlife, the mountains and water represented scenic and recreational values, and the arrowhead represented historical and archaeological values. The arrowhead was probably first used on an information folder for Oregon Caves National Monument published in April 1952. It soon gained recognition as the Service symbol and became widely used on signs and publications. Instructions for its use on signs were first sent to the field on September 25, 1952.

Amendment No. 12, September 2, 1952, to the 1947 uniform regulations prescribed the use of the arrowhead as a patch for the uniform. Enough of these patches were sent to each area so that each permanent uniformed employee received three and each seasonal uniformed employee received one. On March 7, 1962, the arrowhead design was designated as the official symbol of the National Park Service.

For a brief period of time the arrowhead as a park service emblem was in jeopardy. In 1966, Director George B. Hartzog, Jr., came forth with a new agenda titled PARKSCAPE U.S.A. (Figure 3). Hartzog assured employees that the symbol accompanying the program, three interlocking angles surrounding three dots, would supplement rather than supplant the arrowhead. Field reaction to this move was nevertheless unenthusiastic, for the representational arrowhead was far better liked than the abstract Parkscape symbol. Although a memo was sent out ordering the removal of the arrowhead from the uniform, Hartzog changed his mind before this unpopular directive could be implemented. The

arrowhead has continued to be worn on the uniform and to enjoy strong acceptance among Service employees. Not only does the park service emblem with its representative bison, sequoia tree and arrowhead strongly connect the ranger staff with the park service mission, the public associates it with the positive images and experiences they have experienced on national park lands. The arrowhead is widely recognized for what it symbolizes: preservation and protection of natural and cultural resources; quality recreational experience and sanctity of intrinsic values such as solitude, reflection, and beauty. The patch represents our job and what our job means to the American people.



Cabrillo People

Susie Qashu has joined the ranks of the interpretative division and our park family. She comes to us from Cumberland Island National Seashore, in St Mary's, Georgia, where she spent the first year of her intake training time. She was chosen to the NPS Intake program in 1999. This program provides training with the idea of preparing individuals to become productive members of the NPS family of professionals. Susie brings to us her background in education and holds a Master of Science in Oceanography as well as a wide range of experiences with other agencies and the Peace Corps.

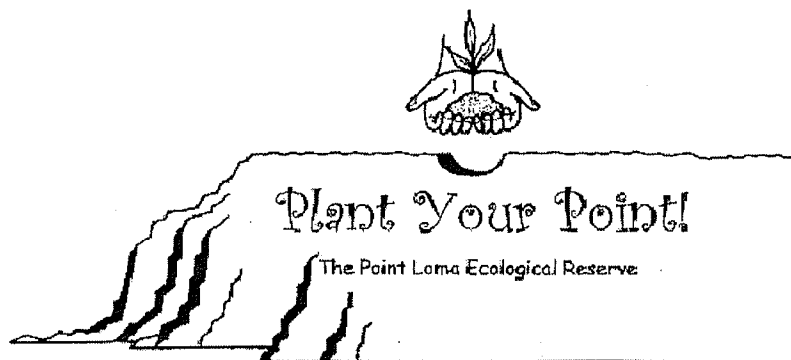
It is with pleasure that we an-

nounce the arrival of **Juliana Elizabeth Lane**, daughter of Marty and Gina Lane. Juliana arrived on September 12, 2000 at about 2:40 p.m. Her parents and her two brothers, Nick and Josh welcome her.

Let it be known to all that **George Herring** finally decided to get married, choosing as his mate, **Anita Burkett**. We are very happy to welcome this new couple to *The Family Circus* that is Cabrillo People. George and Anita are living in Ocean Beach, and both are taking courses at San Diego State. George is working toward a master's degree in history, and Anita is working on her teaching credential.

How does your garden grow?

by Carol Knipper



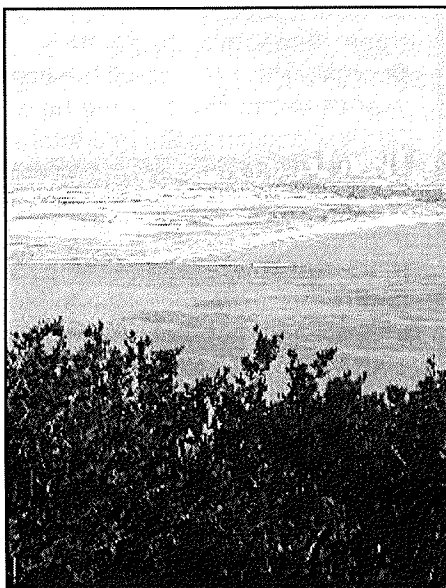
Earlier this summer we initiated a new program called "Plant Your Point!" and we have steadily gained new gardeners and new friends at Cabrillo. Nearly everyday I hear from someone about the latest status of their seedlings. The gardeners are either thrilled over the progress of fragile seedlings or dismayed at the lack of anything happening at all ("watering dirt!"). Today I looked at our flats and was overjoyed that the black sage that we planted two months ago is finally sprouting. There is satisfaction in the little things. It's not too late for you to join our gardening team.

I want to extend a special thanks to the following people for their green thumb effort!

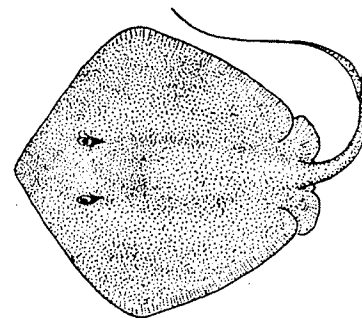
Vera Dunlap
Linda Masy
Darrell Sims
Chris Anderson
Fred Andrews
Jim Nauman
Kim Fahlen
Marlo Olson
Rhonda Stoner-Wagel
Dave and Vickie Coats
Emily Lawlor
Maybelle Buell
Jim Skryja
Carol Ann Vallee
Bruce Hanson
(Recon Environmental)
Ramona Lester
Sandra Rabago

Ranger Leto has been doing a great job setting up the containers, seeding them and watering them until they are adopted. Please give me a call if you'd like to join our gardening team, you can reach me at (619)523-4563 or email at carol_knipper@nps.gov.

We are still trying to erect a greenhouse on Point Loma; the compliance process continues to wend its way through all the appropriate channels. The greenhouse will be placed on Navy property; the Navy is working on the compliance requirements and seeing to it that electricity and water are available. The Cabrillo NM staff and volunteers will erect the greenhouse and oversee the day-to-day operations of propagating new native plants. This is going to be fun!

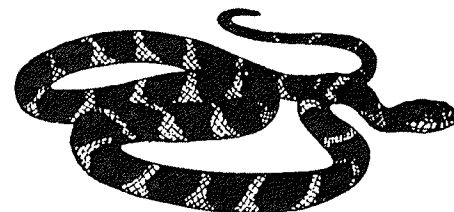


Wildlife sightings



Some wildlife observation reports that were recently turned in: thanks to all who participate!

- **gray fox**, statue area, 4/29/00 10:30 AM, Mike Love.
- **gray fox**, road to antennae field, 4/27/00, Darrel Sims.
- **ray**, tidepool zone, 3-in-deep pool east of boulders, 7/19/00, 6:00 AM, Joe Wilson (was helping Bonnie sample).
- **plume moth**, outside back room door, admin. bldg., 8/28/00 3:10 PM, Fred Andrews; (page 196, *Insects of the Los Angeles Basin*)
- **king snake**, rock wall where wedding bluffs meet pavement, 9/20/00, 11:30 AM. Visitors from Houston (we inferred king snake from description: "Dark brown with 'bright' yellow rings every 1-2 inches, no rattles."



Natural Resource Science

news bulletin

Some news flashes from the desk of the
Chief of Natural Resource Science

by *Samantha Weber*

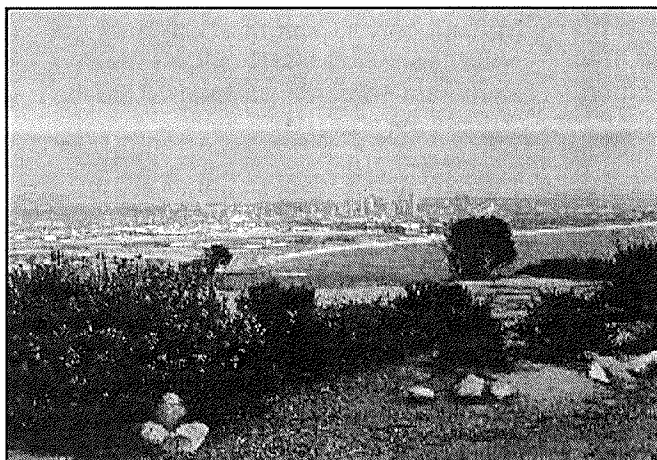
• **Bonnie Becker**, Cabrillo NM's Marine Biologist, has almost completed her 10-year report on the rocky-inter-tidal monitoring program—woo-hoo! You will be seeing highlights of her analytical discoveries in a subsequent issue of *The Explorer*, so we'll all be up to date on how the tidepools are doing. She's got some great entries in *this* issue of newsletter, so check her out!

• **The herp poster** is getting closer to being born. It will have beautiful color photos of all the reptile and amphibian species we find out here, and the species we used to have but don't anymore. Interpretive rangers George Herring and Karl Pierce are working on the text and doing a great job! The poster is intended for kids but I'm getting a bunch the second they're out for gifts to show my friends and family what we do and have here. It will be sold here in the bookstore by our CNMF partners. Poster layout and design are being done FOR FREE by the brilliant VIP Todd Partridge, also known as "Todd Partridge Designs" when he's not in OUR uniform J

• **Rosy boa** (*Lampropeltus getulis*) update: Our rosy (Julius Squeezer) is still being tracked by Carlton Rochester, of US Geological Survey (at San Diego State University Field Station, working for Dr. Robert Fisher), and we got money from the fabulous Cabrillo National Monument foundation so his work can continue next fiscal year. Thank you CNMF! Carleton is learning the home range for this animal (and others in the county) and keeping tabs on him because he's especially vulnerable to poaching—they make great pets but are vanishing in

the wild. Make sure any native species you buy are bred and not "borrowed" from the wild. We need them out here! So far, so good. He's still here...

• **FIRE!** I spent two unplanned weeks of August as an Expanded Dispatch Recorder in a very smoky Helena, Montana, at the Helena Interagency Dispatch Center to help out with the fire (or anti-fire?) efforts in that state. What that means is that when



fires get really busy and the volume of phone and radio calls asking for crews, equipment, and supplies is too much for the regular radio dispatchers to handle, they set up a phone (or 12) in another room so folks call "Expanded Dispatch" instead. We then order equipment, crews, personnel ("overhead"), etc. for them and get them to the fire camp or wherever they are needed. During conversations with the drivers (locals) at 3:30 a.m. (I had the 6 p.m. to 6 a.m. shift and that's when you're most sleepy so take strolls around the office), I learned that in 30 years, this last winter was the only one they remembered that had no snow. No wonder the place was up in flames!

Anyway, it was an adventure; the USFS folks were wonderful, knowledgeable, hard-working people, and I learned a lot. So, if you're interested, just ask me what a skidder or a lowboy is. Now I know! "Do you want four-wheel drives with that?"

• I have been busy working with Channel Islands National Park and Santa Monica National Recreation Area (together we are a network) on the study plan we are writing to acquire funding to conduct biological inventories for the three parks. This is part of the NPS Natural Resource Challenge. The taxonomic groups the park service is focusing on right now are vascular plants (non-algal, fungal or lichenous things) and vertebrates (no bugs or other backbone-free types). The final version was due on Friday, September 29th, and we'll see how it fares competing for funds against other networks of parks. It could bring lots of significant field work here, permitting us to learn more about the care and feeding of our beloved park.

• This next year we may be transitioning over into doing more of the herpetology survey ourselves (Natural Resource Science Division, that is), so any of you who have done this before or want to learn about reptiles and amphibians, are agile (climbing up steep hills on rocky terrain with equipment in your hand at 7 AM), and have some free time, say, every 6 weeks or so, let me know. I need to tend my pool of experienced VIP field biologists.

Contact me at

Samantha_Weber@nps.gov

or call (619) 557-7307. Thanks!

• **According to** the birding folks who know, we are into migration time and Point Loma is an amazing place to observe it, so if you are interested in pursuing, learning, or brushing up on your birding skills, now is the time! I just heard a rumor of two different sightings of the California gnatcatcher here in the last month or two. Not that I'm trying to encourage you to get out and enjoy the fresh air, or anything...Happy hiking!



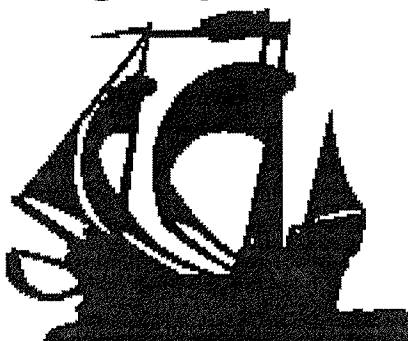
Cabrillo National Monument Foundation

We welcome you to the first edition of *The Explorer* in the new design. This page will appear in each issue, providing information on upcoming events as well as opportunities to support the educational, historical, and scientific activities of Cabrillo National Monument.

CNMF expresses sincere gratitude to Neil Finn and the America's Finest City Half Marathon for selecting the Foundation as beneficiary of the recent race. We also extend our thanks to the Wells Fargo Foundation for their generous donation, and to Pauline des Granges for her donation of a banner.

The CNMF Endowment Fund, established in 1997 with the San Diego Foundation, is another way you can support the endeavors of Cabrillo National Monument. Interested donors can call (619)235-2300 or log onto www.sdfoundation.org for more information.

Make a Lasting Legacy



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CALENDAR

October 13, 2000
Moonwalk member event

October 14
Cabrillo NM 87th anniversary

November 15
145th anniversary of the
Old Point Loma Lighthouse
Lighthouse tower open 10AM-4PM

Evening event for sustaining
members (details will be arriving
in the mail)

December 3
Lecture for members, 2:00 PM:
"After El Niño and La Niña—Normal
Unpredictable Winter Weather"
Dr. Daniel Cayan, Scripps Institu-
tion of Oceanography

January 20 and 21
Whale Watch Weekend, CNM



New Members

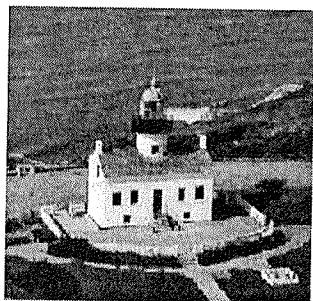
Cabrillo National Monument Founda-
tion and Cabrillo National Monu-
ment welcome the following mem-
bers who have joined us since
June 1, 2000. We greatly appreci-
ate your support.

Dr. and Mrs. John Ahlering
Norma and Tony Avendano
R. Mitchell Beauchamp
Mary R. Bradford
Anita Brown
Ian D. Campbell
Mark Carlisle
Barbara French
Helen Gorton
Patricia Ham
Monika and Jack Hardy
Dennis Harper
Bernice F. Hollerbach

continued on page 11

New CNMF members, cont'd

Ross and Sharon Irwin
 Steven and Barbara Keeling
 Philip M. Klauber
 Mr. and Mrs. John Lightner
 Scott MacLaggan
 Lupe Marquez
 Joe and Betty McCosker
 F. Marian McGee
 Richard L. Moore
 Robert Mott
 Kim Musgrove
 Vincent O'Hara
 Katheryn Pannier
 Bill and Dena Park
 Henry E. Phelps
 Susan Qasho
 Pat Raetzman
 John Rebelo
 Philip Reilly
 Antone and Phyllis Rose
 Steve Seaborg
 Donald Steele
 Capt. and Mrs. W. T. Stutzer
 Maureen Summers
 Jeff Swycaffer
 Jason Treiber
 Deutilde Varley
 Robert and Ginger Wallace
 Peggy Anne Watson
 Ed Zolkoski



Your membership in Cabrillo National Monument Foundation puts you in partnership with people of diverse cultures, interests, and backgrounds. All members share a commitment to protect and preserve the natural environment at Cabrillo National Monument and the distinguished history of the National Park Service.

CNMF BOOKSTORE

Extend your knowledge and enjoyment of the natural world. Here is a sampling of books available at the bookstore in the Cabrillo NM visitor center:

- *Afoot and Afield in San Diego County*, Jerry Schad. New edition
- *By the Seashore*, Tessa Paul. For ages 3 and up. Gray whale migration and coastal sage scrub habitat are explored.
- *California Coastal Access Guide* Information on public access to the coast, campgrounds, trails, etc.
- *50 Common Birds of the Southwest*, Richard L. Cunningham. 74% of the birds featured are seen at CNM; the Spanish names are included.
- *Bugs and Other Insects*, Bobbie Kalman. Great book for ages 3 and up; bright photographs.
- *Marine Mammals of the Eastern North Pacific*, Pieter Folkens. Guide to all 50 species of marine mammals in our waters. Facts, tips for identification.
- *Insects and Spiders*, Brian Williams and Brenda Williams. An excellent book for upper elementary school children.
- *Saving the Gray Whale*, Serge Dedina. Gray whale conservation in Baja California and the environmental impact of salt mining in the lagoons.
- *Sharks*, Jane Resnick. Great photos in this book should spark a desire for further knowledge in children.
- *Snakes*, Jane Resnick. This book with wonderful photos will capture the interest of children.
- *Seasons on the Pacific Coast*. Susan Tweit. With recommendations on the best places and times for coastal explorations. A perfect guide for the armchair nature lover.
- *Let's Hear it for Herps!*, National Wildlife Federation. Excellent herpetology workbook for teachers and students.
- *Lizards*, Robert Matero. Wonderful photos that will capture the interest of children.
- *Plant Life in the World's Mediterranean Climates*, Peter Dallman. Examines vegetation of the San Diego Region.
- *Play Lightly on the Earth*, Jacqueline Horsfall. Environmental activity book designed to help develop a respect for nature.
- *My Nature Journal*, Adrienne Olmstead. Plenty of information and activities for children to help them explore nature.
- *National Audubon Society Pocket Guide to Familiar Birds of North America*, Kenn Kaufman and John Farrand, Jr. A great guide for beginning nature watchers.
- *The Rise and Fall of San Diego*, Patrick L. Abbott. 150 million years of history recorded in the sedimentary rocks of San Diego.
- *Sea Otter*, Bobbie Kalman. This children's book has a vocabulary section.
- *Web Weavers and Other spiders*, Bobbie Kalman. An educational book for teachers and children with bright, interesting photos.
- *Whales and Dolphins*, Peter Howorth. A great source for students.
- *Pacific Coastal Birds*, Roger Tory Peterson. Easy-to-use flash guide to birds.





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