

The Explorer

Newsletter of Cabrillo National Monument
and
Cabrillo National Monument Foundation



Vol VI, No.4

Spring 2000

The Natural Resource Challenge and Cabrillo National Monument

by Terry DiMattio, Superintendent, Cabrillo NM

The National Park Service has embarked on an exciting new endeavor that could greatly benefit Cabrillo National Monument. Called the Natural Resource Challenge (NRC), it is a five-year program designed to improve the care that we in the National Park Service give the natural resources under our stewardship. National park areas, including Cabrillo NM, are "becoming increasingly crowded remnants of primitive America in a fragmented landscape, threatened by invasions of nonnative species, pollution..., and incompatible uses of resources...." The preservation and protection of these resources in the 21st century will require active and informed management. To quote from the NRC,

"If we are to protect these resources into the far future, we must know more. We must expand existing inventory programs and develop efficient ways to monitor the vital signs of natural systems. We must enlist others in the scientific community to help, and also facilitate their inquiry. Managers must have and apply this information to preserve natural resources.

"Once this information is in our hands, we must share it widely, so that child and adult, amateur and professional can benefit from the knowledge uncovered in these places. Parks...should become increasingly "useful" to surrounding communities as benchmarks and repositories of environmental information.

"To unlock this information, we need to revitalize and expand our natural resource programs, strengthen partner-

The Natural Resource Challenge has arrived at a propitious time for Cabrillo NM. It identifies 12 areas under three broad challenges that require our attention and commitment. We are already active in many of these areas.

ships with the scientific community, and share knowledge with educational institutions and the public."

The Natural Resource Challenge has arrived at a propitious time for Cabrillo NM. It identifies 12 areas under three broad challenges that require our attention and commitment. We are already active in many of these areas. As the Challenge is implemented, we hope to be able to take advantage of the funding that becomes available to increase our efforts to improve the care we are giving the natural resources on

Continued on page 2

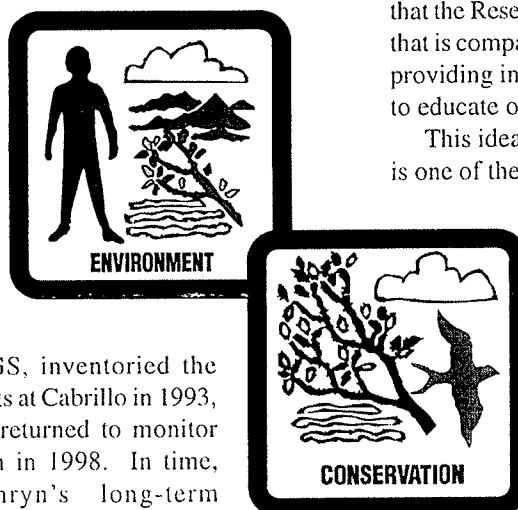
Point Loma.

Protect Native Species and Their Habitats The challenge here is to identify and protect the native and sensitive species that live in our parks, and to identify and remove the nonnative species that are threatening to take over. For the past several years, we have been active in these two areas. For instance, Dr. Mike Simpson, San Diego State University, is conducting a plant survey to identify any rare, threatened or endangered plants at Cabrillo NM. In 1992 we prepared the first edition of our Vegetation Management Plan. Since then, the Resource Management and Visitor Protection and Maintenance Divisions have been removing exotic plants, such as eucalyptus, acacia and *Carpobrotus*, or ice plant, from the monument. In addition, each summer, the young people in the Youth Conservation Corps (YCC) program have been removing invasive, nonnative plants from the monument and the Point Loma Ecological Reserve.

Provide Leadership for a Healthy Environment Our challenge here is not only to comply with all environmental laws, but to apply the highest standards of environmental stewardship in our operation. This challenge also includes doing all we can to protect and improve the quality of the air and water in our parks. For construction projects at Cabrillo, we are preparing the compliance documents that are required under National Environmental Policy Act (NEPA) and the Coastal Zone Management Act, to ensure that what we propose to do does not adversely affect the environment or harm coastal resources. Cabrillo NM has long been known as a great place to enjoy the view. While we cannot effect air quality in the San Diego region, we have been, for the past several years, monitoring visibility from the park. And, while we do not have any sources of fresh water here, we are looking into the need to monitor the quality of the ocean water in the rocky intertidal to see if it is affecting the relative abundance of the plants and animals there.

The third challenge is to **Connect Parks to Protected Areas and Parks to People**. This challenge has several fac-

tors. It includes the need to expand our efforts to inventory park resources, and then once we know what we have, to monitor those resources over time so we can learn what kind of condition they are in. Once we know what their vital signs are, we can develop, if necessary, appropriate strategies to protect and restore these resources. As many of you know, we have been monitoring the rocky intertidal area for 10 years now. As a result of Gary Davis and Jack Engle's findings, we implemented the Tidepool Protection, Education and Restoration Program in the fall of 1996. On the terrestrial side, Kathryn McEachern, a plant ecologist with the Biological Resources Division (BRD),



USGS, inventoried the plants at Cabrillo in 1993, and returned to monitor them in 1998. In time, Kathryn's long-term monitoring effort will help us determine whether or not we need to take active steps to enhance or restore the sensitive coastal sage and maritime succulent scrub habitats found here.

The need to inventory and monitor park resources, and those in the Point Loma Ecological Reserve, leads directly to another part of this challenge: collaborating with others in the scientific community. Many parks, including Cabrillo, do not have the staff or expertise to study all of the natural resources under our care. Therefore, we need to invite others to help. An example of collaboration with outside scientists is our work with Dr. Robert Fisher, another BRD scientist. Dr. Fisher and his colleagues, with the help of park staff and VIPs, are inventorying the reptiles, amphibians and

macroinvertebrates on Point Loma. At the end of his five-year study next year, we will have valuable information about the abundance and distribution of "herps" within the Point Loma Ecological Reserve, and a protocol to continue the study with our own staff.

The long-term preservation of the natural resources in parks makes areas like Cabrillo NM and the Point Loma Ecological Reserve reservoirs of information and centers of broad scientific research and inquiry. To encourage this, the Natural Resource Science Division has been facilitating the use of the Reserve as a research site. In addition to Fisher's herp study, other scientists have studied mammalian carnivores, bats, and birds. This use helps inform others that the Reserve is available for research that is compatible with park goals while providing information the staff can use to educate our visitors.

This idea that parks are for learning is one of the most important aspects of the Natural Resource Challenge. "Protection of park resources requires a knowledgeable public." It is our responsibility to share as widely as we can our knowledge of park resources to enhance the public's ability to learn from and to enjoy its

parks. The rangers in the Interpretive Division are doing this with our school programs on tidepools, the natural resources on the Bayside Trail, and the other programs they present to our visitors. The interpretive rangers also are working with the other divisions to plan and produce a new audio-visual program on the tidepools that will be shown in our auditorium. Together with the Cabrillo National Monument Foundation, the staff is planning a new book on the natural resources of Point Loma. You can read more about this exciting project in Jim Nauman's article [pg. 11].

In the months ahead, as the Natural Resource Challenge is implemented across the National Park System, I will keep you informed of how it will help us take better care of the sensitive resources that we, the Navy, Coast Guard,

Department of Veterans Affairs, and City of San Diego are preserving on Point Loma. As you can see, we are already doing a number of things that fall under the umbrella of the NRC. The Challenge is a great opportunity for us to work with our local partners and our colleagues at Santa Monica Mountains NRA and Channel Islands National Park to ensure that the next generation will be able to enjoy this special place that is Cabrillo National Monument.

Correction

The article on living history in the last issue of *The Explorer* (Winter 1999, page 4) stated that VIP Mike Love had dressed as a Spanish sailor at the Cabrillo Festival. Mike was actually dressed as a Spanish soldier.

The Explorer

published quarterly
by
Cabrillo National Monument

funded by
Cabrillo National Monument
Foundation

Debbie Seracini, Editor
Jim Nauman, Production

1800 Cabrillo Memorial Drive
San Diego, CA 92106
www.nps.gov/cabr



printed on recycled paper

Sargassum weed

by **Bonnie Becker,**
CNM Marine Biologist



You may have noticed that every year, staff and volunteers at Cabrillo National Monument spend countless hours removing "exotic" species of plants, such as ice plant and eucalyptus, from the park. Did you know that we have an exotic species in our tidepools as well? Sargassum weed (*Sargassum muticum*), a brown seaweed with little ball-shaped floats, is originally from Japan, and had never been seen in North America until the 1940s.

We call these plants "exotic," "introduced," "non-indigenous," "alien," "non-native," or "invaders" because they are not native to southern California. Before humans came on the scene, organisms had natural limits to their distribution that caused them to exist in specific places on the planet. Animals and plants evolved together over millions of years; they competed for resources, ate each other, and made each other sick. Over millions of years, the result was usually a balance among the resident critters, allowing many different species to coexist. When an invader enters an ecosystem it might not be susceptible to the predators and parasites of the area. Quite often, the invader is tolerant of a wide range of conditions and is able to outcompete the native species and dominate its new area. This new species throws off the long-term balance of the ecosystem, and can cause widespread changes in community structure and function.

When humans started to wander the earth, they often took their local plants and animals with them. People have been introducing species around the planet since the Polynesians hoisted their first sails. Before people started taking transcontinental trips, no North Americans had ever seen wheat (originally from the Middle East), oranges (from Southeast Asia), cows (from Europe), or modern horses (from Asia). Even the apple—the star of good ol'

American apple pie—is originally from western Asia (yes, Johnny Appleseed spent his life spreading an exotic species around the country). Ninety-eight percent of our food comes from introduced species—representing a value of \$500 billion a year!

But not all invaders are so beneficial to us. Fifteen percent of exotic organisms in the US are considered harmful, including gypsy moths, zebra mussels, and green crabs. The number of exotic species being transferred around the world has increased significantly during this century. Exotic pests have caused crop damage, altered environmental conditions, and caused human disease.

Besides outcompeting native species and altering habitats, the invasion of exotic species is altering our landscape, making the fascinating diversity of ecosystems we enjoy look increasingly the same. "San Diego Bay is beginning to look like San Francisco Bay, which is beginning to look like Tokyo Bay" (Crooks, 1999). The problem of exotic invasions is often listed as one of the greatest threats to biodiversity worldwide. Since Columbus landed in the New World, over 300,000 organisms, at a cost of \$123 billion per year have been introduced (according to a study from Cornell University headed by David Pimentel)!

Many invaders travel in the ballast waters of ships. For example, after a ship has dropped off its cargo in Hong Kong, it is much lighter than when it was loaded. In order to keep the vessel in the water the crew will fill the ballast with local water, which usually contains many baby plants and animals. When they get to their next port of call—Los Angeles, perhaps—they will dump the water containing the Chinese critters into the harbor in order to free up space for their new cargo. Most of the travelers don't make it in their new conditions, but sometimes a few of them

survive and begin to reproduce. If the new ecosystem is particularly stressed, the invader can move into the disturbed area more easily. San Francisco Bay is notoriously full of exotic species from ballast waters; it is the most invaded ecosystem in the United States—212 introduced species are known to be there, and they are increasing at a rate of one new species every 24 weeks. In some areas, invaders make up the majority of the community; in some regions of the bay 100% of the common species are non-native. These cause problems ranging from fishery crashes to train crashes (a non-native worm caused structural damage to train bridges).

One ballast-water invasive, the zebra mussel, entered the Great Lakes in the 1980s and continues to decimate freshwater ecosystems and clog water pipes, at an estimated cost of \$5 billion to the region. After the catastrophic introduction of zebra mussels, Congress passed the Nonindigenous Aquatic Nuisance Prevention and Control Act of 1990, which establishes a task force responsible for addressing this problem. Coast Guard regulations enacted in 1993 established mandatory ballast-water release regulations for the Great Lakes ecosystem. Voluntary guidelines were established elsewhere in the United States. If these self-policing programs don't work, the Coast Guard must enact mandatory ones.

So, my article is almost over and I haven't told you about the subject of our story, *Sargassum muticum*. Sargassum weed caught a ride to the West Coast on the shells of young oysters that were transported from Japan to be raised in a fish farm in British Columbia in the 1940s. It began to propagate north and south when fertile branches and fronds broke off and floated with the currents. In 1958, an occurrence of the algae was reported in Mission Bay, although its presence in San Diego was not documented until 1969. Today, it is found as far south as Punta Abreojos in Baja California. Incidentally, northern Europe has also been invaded by this species in the past 25 years, where it has become dominant in some places. You can see a fair amount of this weed

Why don't we try to remove Sargassum like we do iceplant?



in our tidepools, usually mixed with the surfgrass. We do have a small amount of a native species of Sargassum weed, recognizable by the tiny points on its small spherical floats.

So the question that is begging to be asked is "Why don't we try to remove Sargassum like we do iceplant?" The answer is that the removal of this plant would undoubtedly do more harm than good. If we were to muck around the tidepools tearing out the plant, we would greatly disturb the community around it. The free space created would be bathed with water containing various spores, propagules, seeds, and larvae of organisms of the region. Our new space could easily be colonized by the progeny of Sargassum plants in the region, making our efforts a waste. Fortunately, the plant is not dominating the middle or lower intertidal zones, and we have yet to observe a serious negative impact from it. In England, where Sargassum causes big problems for boaters and fisherman, an attempted eradication program was unsuccessful. 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.

Melissa Wilson, a graduate student from Moss Landing Marine Laboratory, is studying the effects of this invader on intertidal ecosystems from central California to central Baja California. She will be surveying sites with a variable amount of Sargassum and comparing the native plant communities between them. She would like to know if

the invader might be causing a loss in the number and abundance of the native species. Cabrillo NM is one of her field sites and she will be working at our park in the spring. Once her study is done, we will be able to compare the state of our Sargassum invasion with other sites in southern California and decide if our current strategy is causing damage to the park.

Invasive species are a problem you will undoubtedly be hearing more about in the future. I'll be sure to keep you informed about the status of Sargassum in our tidepools.

Information for this article came from:

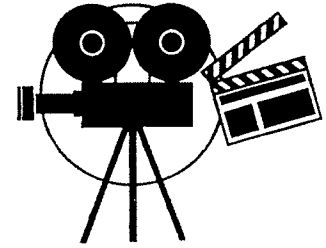
- Abbott and Hollenberg, *Marine Algae of California*
- Stewart, *Marine Algae and Seagrasses of San Diego County*
- Crooks, Life forms from beyond their shores are invading, *The San Diego Union-Tribune*, 1/27/99
- Gardner, Aquatic stowaways threaten coast, *The San Diego Union-Tribune*, 4/25/99

Websites about invasive species:

- General information on exotic algae: <http://www.mbari.org/~conn/botany/browns/jacque/default.htm>
<http://nas.er.usgs.gov/algae/algae.htm>
- A report of indigenous invasions of SF Bay (Cohen and Carlton, 1995): <http://nas.er.usgs.gov/publications/sfinvade.htm>
- Information about US policy on invasive species and ballast water: <http://nas.er.usgs.gov/publications/iirpt.htm>
<http://www.uscg.mil/hq/g-m/mso4/contents.htm>
<http://nas.er.usgs.gov/ballastlinks.html>
- National Park Service <http://www1.nature.nps.gov/wv/textotics.htm>
- The economic cost of invasive species: <http://ens.lycos.com/ens/jan99/1999L-01-25-05.html>
- <http://www.sciam.com/explorations/1999/021599animals/index.html>
- The Dirty Dozen (the 12 worst exotic species in the United States, from The Nature Conservancy): http://www.tnc.org/news/magazine/nov_dec/index.html

Cabrillo National Monument tidepools to "Go Hollywood"

by Karl M. Pierce, Chief of Interpretation, CNM



Each year, thousands of people sit in the auditorium at Cabrillo National Monument to watch one or more of the audiovisual programs that the National Park Service offers each day. These programs interpret Juan Rodríguez Cabrillo's life and explorations, the annual migration of the Pacific gray whale, the history of your national parks, and the plant and animal life found within the tidepools of the rocky intertidal zone on the western edge of Cabrillo National Monument. While the other programs were all produced during the 1990s, the slide program on the tidepools, *Steps to the Sea*, dates to the early 1980s. But that is in the process of changing!

The monument's interpretation staff, members of the Division of Natural Resource Science, rangers in the Resource Management & Visitor Protection Division, and representatives of Cabrillo National Monument Foundation have begun planning a new audiovisual program to replace the aging slide presentation. We hope to have the program in place by the end of 2001 or early 2002. With a generous planning grant from the Cabrillo National Monument Foundation, the monument staff is already working with a film producer from the National Park Service's Harper's Ferry Interpretive Design Center. As planning and pre-production progress, a script writer and documentary film production company will be contracted to produce the video, using funds from the National Park Service Recreation Fee Demonstration Program (your park entrance fees at work). Along the way, several NPS and outside experts on intertidal ecology and biology will also be involved. Besides presenting the most up-to-date information and incorporating changes in how the intertidal zone is managed, the NPS

has set as a goal to produce a program that is innovative, appealing, and accessible to as broad an audience as possible.

In addition to the age of the slide presentation, this change is being fueled by data coming out of the tidepool inventory and monitoring program underway by the Natural Resource Science Division's staff and cadre of dedicated volunteers. These data have changed the way that we look at the tidepools, and the way that they are being managed. However, increased knowledge



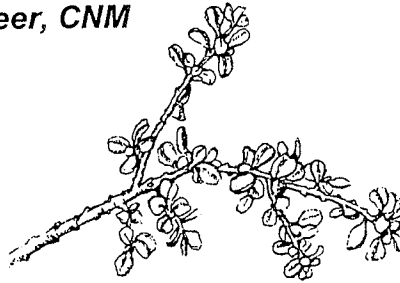
alone will not be enough to preserve the fragile rocky intertidal ecosystem. Each year it receives approximately 100,000 visitors. While the great majority of the visitors are well-intentioned, many of the tidepool creatures are placed under stress by trampling and handling, and, occasionally fall victim to such illegal activities as poaching or collecting. As a result, some of these species just aren't doing well. Also of concern are litter, debris that washes ashore, and the effects that water quality may have on the organisms that make their home there. Contaminants that may enter streams, rivers, and storm drain far away may wash into San Diego Bay, out into the

Pacific Ocean and into the tidepools. And, as a recent spill of treated effluent from the nearby wastewater treatment plant and resulting temporary closure of the tidepools attest, we must remain aware of the plant.

National Park Service Director Robert Stanton announced the Natural Resource Challenge in the fall of 1999. This challenge was a call to NPS managers, resource managers, scientists and interpreters to rededicate ourselves to science-based management of the natural resources within the national parks. It was also a call to redouble our efforts to educate the public about the parks' resources and the steps needed to ensure their continued existence as living, thriving systems. And it is a call for partnerships with the private sector, NGOs, educational institutions, and other government agencies at all levels to utilize all available resources within and outside the National Park Service in that effort. With this new audiovisual program on the rocky intertidal zone at Cabrillo National Monument joining our arsenal of live interpretive and education programs, way-side exhibits, brochures, books, and the efforts of staff and volunteers, the National Park Service hopes visitors will join us in achieving just that.

Cabrillo Answers The Natural Resource Challenge

By Jason B. Barbosa, Volunteer, CNM

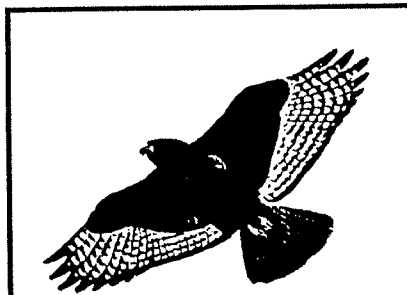


While walking the Bayside Trail of Cabrillo National Monument it is easy to get caught up in the beauty that surrounds you without ever giving a second thought to the forces of nature at work. The sounds of seals, gulls, and the occasional blast of a fog-horn can quickly aid in the freeing of one's mind. But what is actually going on below your feet? What is the purpose of all these weedy-looking things that surround you while walking along the trail and why is it so important that you stay on the trail; what meaning does this all have, and *what is the national park doing to protect it?*

Coastal sage scrub is an important facet of a larger ecosystem that once thrived in the area of Point Loma. This form of vegetation that once dominated the land has been replaced with homes, roads, and parking lots; it now exists only in isolated pockets. Although some areas are now being protected, there is no corridor for the animals to travel from one area to another, an ingredient vital to the survival of many species. This impact can be seen through the reduction of several species that depend on coastal sage scrub for their basic survival needs. According to our Natural Resource Science Division, seven of the nineteen reptile species indigenous to the Point Loma area have been lost due to consequences resulting from human impact.

The coastal sage scrub is an entire ecosystem that hosts organisms largely dependent on one another for their survival needs. At the base of the ecosystem are the decomposers—worms, bacteria, and fungi. These organisms feed on dead and decaying material, return-

ing it into the soil as organic compounds—a role vital to maintaining soil fertility. The more fertile the soil the more vegetation it can support, thus providing more food for yet another level in this diverse ecosystem, the her-



As predators such as the red-tailed hawk zoom overhead, lizards and mice scurry to the shelter provided to them by the plants of the coastal sage scrub community.

bivore. The more herbivores there are, the stronger the ability of an ecosystem to supply the needs of carnivores—the populations of such meat-eaters as foxes, hawks, and owls. Another important element of the coastal sage scrub is its ability to provide protection for resident species from predators. In comparison, this would be equivalent to bomb shelters during an air attack for humans. As predators such as the red-tailed hawk zoom overhead, lizards and mice scurry to the shelter provided to them by the plants

of the coastal sage scrub community.

One thing I find most fascinating when it comes to the study of an ecosystem is its interdependence: when one portion of the system falls, there is a tremendous potential for the entire network to crumble. This, to me, serves as a constant reminder of just how interconnected we are as a world ecosystem. The National Park Service has recognized this, and has responded by creating the Natural Resource Challenge. In the establishment of the Natural Resource Challenge, the park service has set forth the following four goals: First, "Natural parks are preserved so that this generation and future generations can enjoy, benefit, and learn from them." Second, "Management of the national parks is improved through a greater reliance on scientific knowledge." The third goal is to see that "techniques are developed and employed that protect the inherent qualities of national parks and restore natural systems that have been degraded; collaboration with the public and private sectors minimizes degrading influences." The fourth goal is that the "knowledge gained in national parks through scientific research is promulgated broadly by the National Park Service and others for the benefit of society."

Although NPS Director Robert G. Stanton announced the Natural Resource Challenge on August 12, 1999, similar goals were already on the mind of Terry DiMattio, Superintendent of Cabrillo National Monument. In the fall of 1995 he noted not only the park's historical significance, but also the vital role that it plays in the preservation, analysis, and interpretation of the monument's native natural resources.

He appointed the park's first Chief of Natural Resource Science. A graduate of the University of Michigan, Samantha Weber, has taken on the responsibility of enhancing knowledge about the park's natural resources with the aggressiveness of a wolverine.

The second goal of the Natural Resource Challenge states that the management of the national parks can be improved through scientific knowledge. That is the purpose of the Natural Resource Science Division at Cabrillo. Since its creation, this division has been working with other national parks and outside resources on ways to better understand the ecosystem that thrives on the Point Loma reserve. Working with people like Dr. Robert Fisher from San Diego State University, the park has established a long-term monitoring program that aggressively studies vascular plants, macroinvertebrates, reptiles and amphibians, and most importantly makes comparisons between areas that are disturbed versus undisturbed.

Through the relationships that the park is establishing with other parks and natural resource experts we are continuing to learn better techniques for studying and maintaining the natural resources that exist throughout the park. These efforts are vital to both the natural ecosystem and to the other divisions in the park working to achieve the same goal.

Another team at the monument that is *crucial* to the success of the Natural Resource Challenge in relation to the coastal sage scrub community at Cabrillo is the Resource Management and Visitor Protection Division. Carol Knipper, the division chief, is very thorough when it comes to habitat restoration. Her team has been active in preservation of coastal sage scrub through the removal of exotic or invasive plant species in accordance with the park's Vegetation Management Plan. Over the past five years this project has cost nearly \$100,000 per year in order to meet the goal outlined in the Challenge as "protect native species."

One example of protecting the native species is the effort to remove *Carpobrotus* (ice plant) from the park. At one time ice plant was believed to



**...take the time to
relax and imagine
what Juan
Rodríguez
Cabrillo may have
seen as he sailed
into the bay.**

prevent cliff erosion as well as offering fire protection through its natural fire-retardant structure. We now believe that this plant contributes to cliff erosion by its incredible weight.

Monitoring of the cleared areas involves photographs (at specific points) and line transects (a process which involves one permanent line location from which a surveyor draws several random samples). Monitoring of these areas takes place biannually. The goal of the monitoring is to both document visual changes and to gain a better awareness of species diversity for a given location within the park.

The Division of Resource Management and Visitor Protection is also taking steps into the field of education. By working closely with groups such as the Urban Corps of San Diego, California Conservation Corps, and the Youth Conservation Corps, Carol's team is teaching these young workers about plant identification. The close relationship with youth groups aids Carol's staff in teaching the importance of the coastal sage scrub ecosystem, increasing their awareness of the necessity of removing exotic plant species.

On your next visit to Cabrillo National Monument, take a leisurely stroll down our bayside trail. Take the time to stop and smell the sage, challenge yourself by attempting to count all the different species comprising the coastal sage scrub community. Most importantly, however, take the time to relax and imagine what Juan Rodríguez Cabrillo may have seen as he sailed into the bay. In this day of constant development, the fight for preservation is continual. Enjoy what we have, and fight to protect that which others set out to take away. This is your earth; take control of it, cherish it, and nurse it back to good health. In layman's terms, that is what the Natural Resource Challenge is all about.

West by Northwest 2000: "Preservation and Interpretation into the New Millennium"

by Carol Knipper, Chief, Resource Management and Visitor Protection Division, CNM

On March 13, 2000, the conference began!

Traditionally, the Pacific West Region—formerly the Western Region and the Pacific Northwest Region, hence the conference name (with a slight play on words from the movie with the other compass bearings)—of the National Park Service sponsors a biannual meeting for natural and cultural resource managers. The objective of these conferences (often referred to as workshops) has been the sharing of ideas among the parks in the region.

It was not too many years ago, in an age of less-advanced communication, that many parks were island-like in their remote settings. Each park was trying to solve a myriad of cultural and resource management problems ranging from how to handle pests to how to manage artifacts and rare or endangered species. These workshops served as a focal point for rangers to exchange ideas and to hear the unifying message of support or political reality from the Washington office. Even now, sharing data, recounting our successes and our failures, and enjoying the camaraderie of colleagues are all important factors in enhancing our individual programs and reinvigorating our collective mission as caretakers of America's natural and cultural heritage.

This year, along with natural and cultural resource managers, the

interpretive branch of the parks attended. Interpretation has the rewarding but sometimes challenging task of gathering information and formulating it to be understood by the visiting public and school groups and in formats ranging from digital audiovisual presentations to bulletin boards. Truly, it is the interpretation profession that promotes our mission to a vast audience both domestically and internationally.

The theme of the workshop this year (the term "workshop" is used to stress our mutual sharing of ideas and experiences, rather than just a series of

The agenda for this weeklong session was filled with such intriguing workshop sessions as "Competing Issues and Resolutions," "Connecting People to Parks," "Parks as Learning Centers," and "Fire in Resource Stewardship." There were more than 60 presentations by the people actually doing the work in the field.

This year the conference hosted such noted speakers as James Loewen, a history professor best known for his books on how America remembers its past: *Lies Teacher Told Me: Everything Your High School History Textbook Got Wrong*, and *Lies Across America: What*

Our Historic Markers and Monuments Get Wrong.

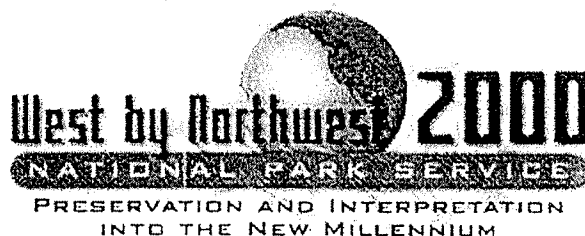
Brock Evans, Executive Director of the Endangered Species Coalition; Dwight Pitcaithly, Chief of Cultural Resources for the NPS National Capital Region; and Paul Hutton, a historian who has appeared in, written or narrated more than one

hundred television documentaries and can often be seen on the History

Channel, also added their insight and wit to make this a memorable workshop.

This workshop was exceptional in the fact that the Director of the National Park Service, Robert Stanton, was in attendance. Stanton's presence signified the commitment of the National Park Service to science-based natural and cultural resource management as he kicks off the new

NPS Natural Resource Challenge program. This provided a wonderful chance for Cabrillo National Monument



The West by Northwest workshops are always popular. They are a time for getting reacquainted with friends and colleagues, affirming that we're committed to doing important and valued work, and providing the challenge that somehow we could be doing more things better.

Resolution," "Park Futures and a Changing Public," and "NPS Leading the Way in Resource Stewardship."

to show off its programs and its diverse resources to the head of the park service.

The workshop also hosted a day of field trips; there is probably no better place to plan field trips than San Diego County! Full-day trips included a boat tour out to the Coronado Islands, led by Marge Stinson from the San Diego Natural History Museum. Cabrillo National Monument Foundation members Jim Nauman and Eleanor Neely, together with John Ellis, led a group on San Diego's colorful past to Mission San Luis Rey and Rancho Guajome where noted preservation architect Wayne Donaldson addressed the group, and then on to the San Diego Archaeological Center.

Night Sky issues were discussed during an evening field trip to Mt. Laguna Observatory and educational programs were presented at half-day trips to the San Diego Zoo, Sea World, and Birch Aquarium. For those attending who wanted to give something back to the local environment, there was a workday to pull exotic vegetation at Torrey Pines State Park and Cabrillo NM. Nearly all of the more than 300 registrants saw and learned much about the natural beauty and history of San Diego. But the fun didn't stop there! At the opening evening icebreaker at Cabrillo NM attendees enjoyed the city lights and the dancing of the Ballet Folklórico. Thanks to the contribution of the

Cabrillo National Monument Foundation, this dance troupe performed traditional Mexican dances from the Old California days.

The West by Northwest workshops are always popular. They are a time for getting reacquainted with friends and colleagues, affirming that we're committed to doing important and valued work, and providing the challenge that somehow we could be doing more things better. We don't know where the workshop will be held in 2002—it will likely be at another city on the West Coast, but it was great to be a part of the workshop planning here, in America's Finest City at America's Finest National Monument!

The earth in balance: We are the fulcrum!

By Jason B. Barbosa



I have a pair of yellow sunglasses; they are polarized and provide maximum protection against the sun's harmful rays. At least that is what the man in the booth said. Of course, he was wearing the same glasses, but he had a Goofy hat on, too—Goofy as in the character from Disney. He said the hat protects him from the sun's harmful rays bombarding his skin and promoting skin cancer. I hate wearing my sunglasses, but only about half as much as my newly acquired Goofy hat; but, you see, *I have to wear them.*

I have to because, long before I was even a thought in this world, people made a decision that I would live in a world which would require humans to

wear special pieces of clothing in order to survive. They made this choice mostly because *they* were tired of riding on horses and farming their lands for subsistence. You see, long ago people made a determination not to work in harmony with nature, but rather to attempt to gain a faster, more chaotic lifestyle, challenging everything that thrives in nature. Somewhere, long ago, those people thought I would join in their war to show nature that humans were the conquerors and that nature should bow to our desires. They were

wrong! I chose nature's side.

Today, the most basic classes taught to our children in schools explain how we, as a human race, are dependent upon the elements in nature for our very survival. Yet, as adults we continue to ignore what we learned in grade school. Thomas Berry in his essay "Returning to Our Native Place" wrote, "If the earth does grow inhospitable toward human presence, it is primarily because we have lost our sense of courtesy toward the earth and its inhabitants." Truer words, perhaps, have never been spoken.

Instead of taking control of our planet, the majority would just let the big businesses make the decisions. "As long as it doesn't affect my meaningless life," they say. Well it does! The production of chlorofluorocarbons (CFCs) was a smash hit back in the 1950s; everybody who was anybody was in some way using products that contained CFCs. Come to find out

continued on page 10

some years later that CFCs are destroying our natural sunglasses and skin block—the ozone layer. Another hit in the late 50s was the use of DDT. Such a hit, in fact, that people crossing into the United States from Mexico would sit inside their cars while customs agents sprayed their vehicles with DDT to prevent bugs from migrating into the U.S. Today we look back at those who lived then and say, “What the hell were you thinking?” Well, I’ll tell you what they were thinking:

In their own way they were thinking, “Hey kids, how about some fast food. Who cares what the industry is doing to the tropical rain forests that provide much of the oxygen we need in order to survive.” Many of them were thinking, “Honey, I think we should sell our little four-cylinder now that we have some extra money and get one of those big off-road vehicle types, just in case we ever need it

The answer to the question “Why should we protect the biosphere?” can be looked at from many different viewpoints. For me, the answer is quite simple: without the biosphere we as a race simply cannot survive. The earth, however, will survive and it will replenish itself as it has in the past. In fact, that is the argument put forth by many corporations when it comes to matters concerning the environment. What they fail to understand is that while they won’t be around for the starvation of our race, or for the day that the last humans will be on their backs gasping for the last drop of air from our atmosphere, their grandchildren may.

While people like you and I understand the full meaning of the relentless destruction of our planet bit



If people like John Muir had not fought for the land as they did, what would we have to marvel at today?

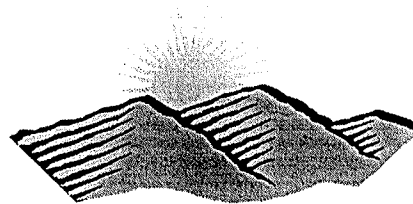
by bit, others seem to think that the world’s great leaders will come together and save us from doom. Leaders like Oprah, Jesse Ventura, and Jerry Springer will, in the minds of those others, show them the way to a brighter future for themselves and their siblings.

The fact of the matter is that the world is growing inhospitable to humans, and yes, it is because we have grown less courteous to our earth. What is relevant is an understanding that we are here not to destroy this beautiful creation, but rather to embrace it and cherish it. If people like John Muir had not fought for the land as they did, what would we have to marvel at today? If we don’t continue to fight, just as they did, for the lands that we have now and even more land in the future, then what will our children be left with?

A long time ago people made a decision that affects the way I live today. Forced to coat my skin with a chemical and wear sunglasses to protect myself from one of God’s creations, I continually say, “This is not what I want for my grandchildren.” I want for them something that I could never have: a clean and healthy environment—one that has a strong atmosphere, good soils, and wonderful trees everywhere; this is what I want for my grandchildren. A chance to live in the wilderness in a way which now I can only dream of. So

for my grandchildren I believe not only in protecting our biosphere, but enhancing it to our fullest potential.

In the future, my grandchildren will look back and wonder if I ever thought about what the world would be like for them. They will find this and future writings of mine that are meant to promote environmental awareness for their generations and beyond. So what will your grandchildren look back and find in your thoughts and behaviors? Are you thinking of them, or are you still too self-absorbed to have the common courtesy to care?





Cabrillo National Monument Foundation

The Cabrillo National Monument Foundation is doing its part to implement the Natural Resource Challenge as detailed in Superintendent Terry DiMattio's report. An important part of that challenge, he states, is "the responsibility to share as widely as we can our

knowledge of park resources to enhance the public's ability to learn from and to enjoy its parks." For the past several months, the Interpretive Media Committee of the foundation has been working with park staff to produce a 140-page book on the natural resources of Point Loma. It is well along in the planning stage and it is our hope that it can go to press in 2001.

The book is intended to provide an easy-to-read overview of the coastal sage scrub ecosystem and near-shore environment of the Point Loma peninsula. It will describe the ecosystems and the biodiversity of their plant and animal communities, and will stress the interdependence of the populations of those communities. Throughout, the publication will focus on the importance of preserving these precious and diminishing natural resources. In addition, it will describe strategies for their management and protection.

Chapter topics will include geology of Point Loma, climate and oceanography, the near-shore intertidal and kelp forest ecosystems, plants and animals of the coastal sage scrub, human history and impact, and management of the resources. Authors have been recruited from Scripps Institution of Oceanography and San Diego State University, as well as Cabrillo NM's natural resource science, interpretive, and resource management staffs. Other National Park Service personnel and local scientists and historians will be involved as consultants.

Our goal is to produce an attractive, lively, informative publication that will complement and extend the interpretive and educational programs of Cabrillo National Monument and assist the National Park Service in its challenge to preserve the resources under its stewardship for future generations.

Foundation members and prospective members are invited to a sunset reception and tour of Cabrillo National Monument on April 13, 2000, from 5:15 to 7:15 PM. There will be special tours of the Fort Rosecrans Coast Defense exhibit and living history demonstrations at the Old Point Loma Lighthouse. Light refreshments will be served.

Membership in the Foundation provides the opportunity to assist Cabrillo NM in its important educational, scientific, and historic preservation programs.

For a brochure and membership application, please call (619) 222-4747 or write to Cabrillo National Monument Foundation, 1800 Cabrillo Memorial Drive, San Diego, CA 92106.

The Foundation and the Monument are grateful for the support of the current CNMF members (as of March 25, 2000):

Julia Alameda
Jose Alves
Mr. and Mrs. Joaquín Anguera
Mr. and Mrs. Kurt Bake
Dr. Larry Beck
Marty and Annika Bohl
Joyce J. Boyer
Richard Brown
Mr. and Mrs. John A. Bruhn III
Ruth K. Burrington
Tony and Andrea Calabrese
Rita Campbell
Betsey and Bob Clopine
Thomas and Sandra Cook

Mr. and Mrs. Randi Coulthard
Joe and Marly Da Rosa
Jack Damson
Mark and Karen Davis
J. Chris Dawes
Pauline Des Granges
Terry DiMattio
Vera Dunlap
Pamela Dunn
Lee Durand
Dr. Bernard Eggertsen
Col. (Ret) and Mrs. John Ellis
Lorraine Ertmer
Robert and Virginia Fassler

Dr. Reinhard Flick
Kathleen Fox
Rick Garbini
Angela Giglitto
Mary Giglitto
Wendy and Martin Gillespie
Mr. and Mrs. W.R. Goddard
Connie K. Golden
Teresa Gomez
Mr. and Mrs. William Griswold
Joanne Hickey
Paul and Barbara Holz

continued on next page

Cabrillo National Monument Foundation Members (cont'd)

Col. and Mrs. Peter Houben
Jean Jardim
Ken and Marquita Keach
Mr. and Mrs. Paul Kettenburg
Catherine Leahy
Mr. and Mrs. Bruce Leidenberger
Judith Liu
Cabrillo Motor Lodge
Alex M. Loebig, Jr.
Dorothy and Alan Lord
Michael Love
Mr. and Mrs. Charles MacVean
Nee W. Mah
F. Dale Marriott
Daniel McPherson, Jr.
Mr. and Mrs. Louis Meyer
Mr. and Mrs. Warren Milroy

Dr. Jim Nauman
Eleanor Neely
Cynthia Núñez
Mr. and Mrs. Quentin Olson
Mr. and Mrs. John Orlando III
Curtis Page
Harold Palash
Mr. and Mrs. Robert Paul
Jim and Barbara Peugh
Peter and Sandra Phillips
Barry and Charlotte Randall
Elise Rogerson
Pamela Rose
Marcie Rothman
Margaret Roulette
Monte Sahba
Barbara Shramek

Isabelle Skidmore
Donna Smith
Mr. and Mrs. Stephen Stangland
Dr. Raymond Starr
George Steele
Leo and Hedy Stone.
Mr. and Mrs. Hugh Story
Edward Streicher
Eric and Ann Swanson
Thomas Tucker
Yanon Volcani
Karin Von Thaden
Joseph Wambaugh
M. Howard Wayne
Samantha Weber
Capt. and Mrs. Richard Williams
Don and Jill Young



The Explorer
Cabrillo National Monument
Foundation
1800 Cabrillo Memorial Drive
San Diego, CA 92106

NON-PROFIT
ORG.
U.S. POSTAGE
PAID
PERMIT 2381

SAN DIEGO, CA