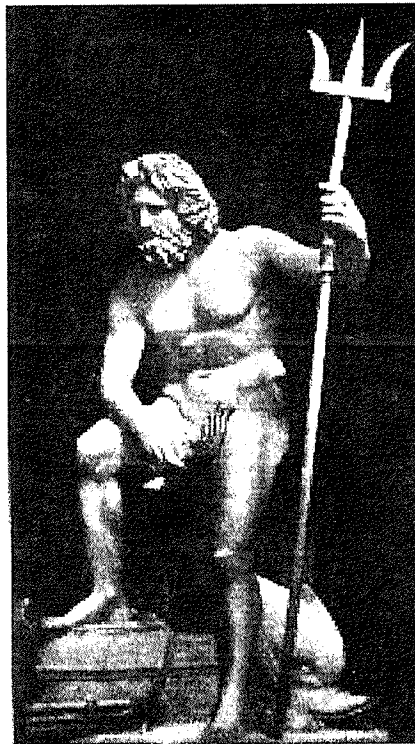


The EXPLORER

Vol VIII, No. 7
Winter 2005

Newsletter of
Cabrillo National Monument and
Cabrillo National Monument Foundation

Exploring Poseidon's Realm



On behalf of Poseidon and the citizens of his kingdom, we would like to extend an ocean of thanks to the Cabrillo National Monument Foundation (CNMF) for its support of Poseidon's realm. CNMF sponsors a variety of sea-inspired projects, from those related to tidepools, whales, and ocean life, to those focused on the lighthouse,

which guided mariners safely into San Diego Harbor.

CNMF contributed funds for the initial planning and grand opening of the exhibit "The Lighthouses of Point Loma," which will open March 26, 2005. (Please join us for this exciting event!) Thanks to CNMF contributions, the monument is also able to host an anniversary celebration for the lighthouse each year on November 15th.

The foundation has enabled Cabrillo National Monument to plan the upcoming tidepool film, which will help educate visitors about the tidepool ecosystem and how to care for it. The annual Whale Watch Weekend and Intertidal Life Festival, held each January, is completely funded through the foundation. Last year CNMF published the book *Understanding the Life of Point Loma*, which includes chapters about oceanography and the nearshore environments (tidepools and kelp forests). (The book is now available for purchase at the CNMF bookstore!)

The Volunteer In Parks (VIP)

program benefits from CNMF funding which supports the TPERP program training sessions. (Please see Beth Gramoy's article on TPERPs, on page five, to learn more!)

CNMF provides funding for research in Poseidon's realm by supporting volunteers who help with bi-annual tidepool monitoring and ongoing shorebird surveys. Additionally, CNMF funding made possible a mussel outplanting project to learn about water quality, and supported research on the ecological effects of trampling in the tidepool area. CNMF financed the development of a mussel larvae tracking method to learn more about the mussel population at Cabrillo National Monument and to assess how it compares to populations throughout San Diego's nearshore environments.

The generous contributions of the members of the Cabrillo National Monument Foundation and the funds generated by the CNMF bookstore enable far more exploration of and care for Poseidon's realm than would otherwise be possible. Poseidon is privileged to have advocates and friends in the Cabrillo National Monument Foundation!

Patricia Heusner, Editor



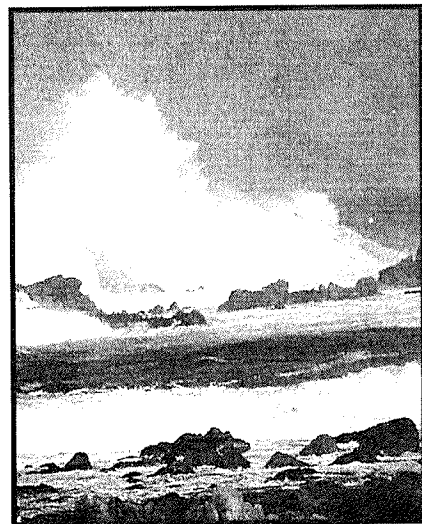
Superintendent's corner

by Terry DiMattio, Superintendent, Cabrillo NM

I remember well former superintendent Tom Tucker telling me when I was a new ranger at Cabrillo NM that the overriding theme of the park was "Man's Relationship with the Sea." At first I wasn't sure what Tom meant by that. But the more I learned about the monument and its several and various interpretive themes, the more I came to realize how true it was, and is today.

Although we might state it a little differently today, each of the monument's interpretive themes, and each of its cultural and natural resources is connected with or influenced by the sea. Cabrillo's voyage of exploration, the Old Point Lighthouse and its role in guiding mariners safely along the coast and into San Diego Bay, and the Army's coast defense system protecting the city and the Navy's fleet against an attack from the sea, come immediately to mind. For the monument's natural resources, the ecology of the tidepools and that of the Pacific gray whale are equally obvious. With a little more thought it is not hard to see how the ocean influences the coastal sage scrub and maritime succulent plant habitats on Point Loma.

Before I knew about Juan Rodriguez Cabrillo, the one thing that connected the park to the ocean was the Old Point Loma Lighthouse. As a boy in the 1950s, I came out with my parents and climbed the winding stairs into the lantern, stepped out onto the gallery into the brisk wind and looked out to sea. Of course, back then I did not understand the role of the lighthouse in the development of maritime commerce, or what it was like for the keepers and their families to live on Point Loma in



...each of the monument's interpretive themes, and each of its cultural and natural resources is connected with or influenced by the sea.

the 1880s. The rooms had not been furnished as they are now, there was nothing to tell the story of the lighthouse, and the grounds looked more like a beautiful city park than a remote government outpost perched on the end of a wind-swept peninsula four hundred feet above sea level. As I walk around the lighthouse today, its connection with the sea is more tangible than it has been since it was closed on March 23, 1891.

On Saturday, March 26, that connection will become even stronger when we complete the rehabilitation of the lighthouse setting that has been our goal since the early 1970s. On that

day we will open to the public the permanent exhibit, "The Lighthouses of Point Loma" in the recently constructed assistant keeper's quarters. It has been a long journey—one that began with Park Historian Ross Holland researching the history of the lighthouse and translating that research into articles, a book, and the historic-structures report for this familiar and beloved landmark. It became formalized in the Master Plan in 1976, and in the early 1980s we took the first concrete step by rebuilding the tower, replacing the metal roof with a historically correct wood shingle one and installing the correct 3rd Order fixed lens in the lantern. In 1995 we refurnished the rooms, put the correct-style wall paper on the walls and added period furniture, floor coverings and the personal effects that give our visitors the sense that people still live there. In the general management

plan in 1996 we reaffirmed our goal, and in 2003 we took the next step. We re-established the historic contours, built the rain catchment basin, outlined the site of the barn and oil shed, installed the picket fence and flagpole and built the assistant keeper's quarters. Recently, Chief of Maintenance Charles Schultheis and his crew—Dean Robinson, Carol Martin, and Anthony Terrell, and recently-retired Maintenance Worker Jeff Jefferson—installed the tongue and groove siding and the track lighting.

Over the last several years Chief of Interpretation Karl Pierce and his staff, both past and present, and several VIPs have been working on the final piece. Bob Munson, Marcy Marquez, New Thanyachareon, Patricia Heusner, Al Wolfing, George Herring, and VIPs Nancy Walton, Kim Fahlen, Linda Masys, Bill Doyle, and Howard Burdett, have been finish-

ing the exhibit plan, writing the labels for exhibits, and acquiring graphics, photographs, art, artifacts and reproductions for the exhibit itself. By Friday, March 11, the new exhibits will have been installed.

We hope you will join us at 10 AM on March 26 for the grand opening of the exhibit and stay to help us celebrate the completion of our journey. For decades to come, "The Lighthouses of Point Loma" exhibit will help connect hundreds of thousands of visitors, young and old alike, with their heritage and with the sea that is at the heart of Cabrillo National Monument.

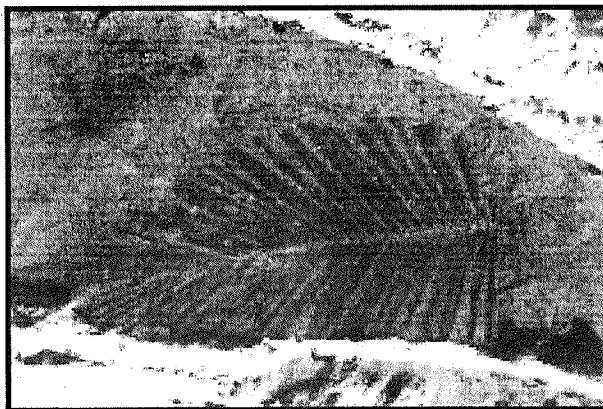
Discovery on the edge of Poseidon's kingdom!

by Bill Griswold



75-million-year-old fossil plant from Cabrillo National Monument is now on display at the San Diego Natural History Museum.

The fossilized leaf of a cycad, which lived in San Diego area 75 million years ago, is now on display at the San Diego Natural History Museum. This fossil was discovered several years ago in the sandstone cliffs of the tidepool area by a visitor at the monument, who reported it to a ranger. Museum



paleontologists Brad Riney and Richard Cerruti excavated the specimen with the help of rangers from Cabrillo National Monument.

The specimen was cleaned at the museum and is now on display as part of the museum's exhibit called "Fossil Hunters San Diego".

You can visit the San Diego Natural History Museum's website at <http://www.sdnhm.org/exhibits/hunters/index.html>

for more information on this exhibit.

Defending the borders of Poseidon's kingdom

by Patricia Heusner

In the tidepool area of Cabrillo National Monument, members of Poseidon's kingdom beckon naturalists, researchers, children, sweethearts, first-time beachgoers, and long-time limpet lovers. Eager to learn more about this treasured community, the National Park Service implemented a plan to study the tidepool ecosystem; the results of this research provided the basis for making decisions about how to best care for the tidepools and their inhabitants. The study, funded by the Cabrillo Historical Association (now Cabrillo National Monument Foundation) was conducted from 1990 to 1995 by the U.S. Geological Survey.

Researchers John M. Engle and Gary E. Davis hoped to gain a picture of the overall health of the ecosystem by studying these species: acorn barnacle, pink thatched barnacle, rockweed, California mussel, goose barnacle, owl limpet, feather-boa kelp, sargassum weed, red algal turf, surf grass, aggregating anemone, black abalone, and ochre sea star.

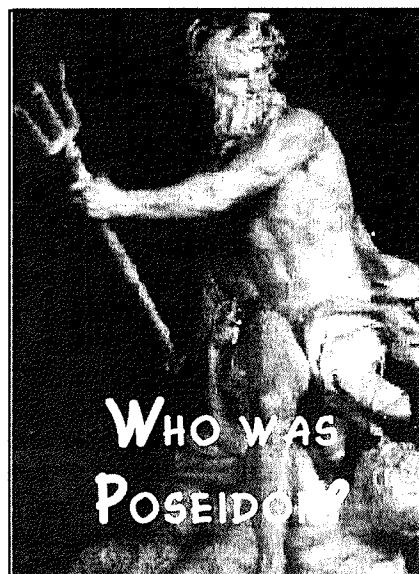
In their analysis, Engle and Davis found that two species declined moderately (owl limpets and goose barnacles), three spe-

cies declined drastically (feather-boa kelp, thatched barnacles, and California mussels), and two species that had not been seen in the area for a number of years remained absent (black abalone and ochre sea stars). These results made it clear that the monument, other agencies, and the public needed to take action to ensure the future livelihood of the tidepools.

Some of the suggestions made by Engle and Davis were as follows:

To lessen public use impacts at the Cabrillo tidepools, educational programs should be promoted, enforcement of regulations prohibiting collecting and minimizing disturbance increased, experimental research on ecological conditions encouraged, and an intertidal resource management plan developed. One option for this plan was to implement a zonal management scheme in which some intertidal areas are open to public visitation, some partially restricted, and others left in an undisturbed "natural" state. (Engle and Davis, 2000)

This scientific background inspired the TPERP (Tidepool Protection, Education, and Restoration Program), in which our stellar volunteers implement the above-mentioned suggestions. Read on to learn more!



IN GREEK MYTHOLOGY, POSEIDON (KNOWN AS NEPTUNE TO THE ROMANS) IS CONSIDERED TO BE GOD OF THE SEA. HE IS ONE OF THE SIX OFFSPRING OF KRONOS AND RHEIA. POSEIDON AND HIS BROTHERS AND SISTERS—DEMETER, HADES, HERA, HESTIA, AND ZEUS—ASSUMED POWER OF THE ENTIRE WORLD AND UNIVERSE. POSEIDON BECAME RULER OF THE SEA, ZEUS RULED THE SKY, AND HADES GAINED CONTROL OF THE UNDERWORLD. POSEIDON LIVED ON THE OCEAN FLOOR AND RODE IN A CHARIOT DRAWN BY HORSES; HE IS ALSO CONSIDERED TO BE THE GOD OF HORSES. HIS SYMBOLS INCLUDE THE TRIDENT, DOLPHINS, AND HORSES. HE HAD A VERY VOLATILE TEMPERAMENT, AND WHEN ANGRY MIGHT STRIKE THE GROUND WITH HIS TRIDENT TO PRODUCE EARTHQUAKES OR UNLEASH THE FURY OF THE SEA TO CAUSE SHIPWRECKS AND DROWNINGS (DEFINITELY A GUY YOU DON'T WANT TO MESS WITH). THIS BEHAVIOR ALSO LED TO HIS BEING CONSIDERED THE GOD OF EARTHQUAKES.

SAILORS CALLED ON POSEIDON TO PROVIDE SAFE PASSAGE ON THE SEA, SOMETIMES RESORTING TO DROWNING HORSES AS A SACRIFICE TO OBTAIN HIS PROTECTION. A LUSTY FELLOW, MYTHOLOGY IS CHOCK FULL OF TALES OF HIS AMOROUS LIAISONS. ONE WONDERS HOW HE HAD THE TIME, CONSIDERING THE MULTIPLICITY OF HIS DIVINE DUTIES.



The tidepool study resulted in TPERPs!

by Beth Gramoy

One of the conclusions of CNM's Tidepool study was that a "presence" was needed in the tidepools. And what a presence we got! Since the program first started in the Fall of 1997, we have had many Volunteers in Parks (VIPs) become specialists in the tidepools. Currently we have approximately 30 VIPs on board to cover all the low tide periods as well as some of the higher tide times that coincide with a lot of visitors, well—visiting. And, now we even have our own name, the TPERPs, which means Tidepool Protection, Education, and Restoration Program Volunteers.

What's it like being a TPERP? Great! Sometimes (oftentimes) it means getting your feet wet, or your clothes dirty, or breaking a nail or three. It also means a sense of fulfillment and an opportunity to meet many wonderful tidepool inhabitants as well as people from all over the world. It means fresh air and beauty and just plain fun. It's a good way to keep learning, to keep involved, to stay healthy, and it means making a difference, as shown by comparing how the tidepools are now to the time of the original study. Most of our visitors have never seen the animals living in the tidepools, especially in their natural habitats. I love to point them out and tell stories about them—the animals, not the visitors (though there are some stories I could tell about the visitors, too! There was this one lady from the Midwest...Oh, never mind). To show someone a sea hare and let him or her pet it, and then have

that person leave still talking about that 'huge, ugly black snail' means that the sea hare has made another friend and protector. It's so much fun to learn a story about each of the tidepool critters and then share it with a most interested and appreciative audience. The kids are the best, as they so quickly become little tidepool am-



bassadors. The CNM staff does a bang-up job at providing ongoing training on all the diverse topics visitors ask about. Some of the most commonly asked-about topics deal with the history of the park, why zone 3 is closed, the flora and fauna, tides, geology, geography, and even directions around the city and a good restaurant for lunch. But even on a cold, gray day when few visitors brave the weather, it is wonderful to just be there.

What do TPERPs do? We are

part of a great CNM team whose mission it is to preserve and protect the rocky intertidal for future generations while educating the masses, one visitor at a time. Our main duty is to enforce Zone 3 closure—the area of the tidepools that is closed to public access so that we might conduct research on how visitors and changes in the environment are impacting the

tidepool resources. Our second major duty is to protect the tidepools while ensuring that visitors have a safe, enjoyable, and educational visit. And how do we do all that? The formal training to be a TPERP is quite comprehensive, as are the opportunities for self-initiated learning. The training prepares TPERPs to be a little bit biologist, a little geologist, some oceanographer, with a sprinkling of geography and history and a whole lot of interpretation thrown in. And sometimes we are even a bit of a cop. We tell stories about the all animals one might see in and around the tidepools; we talk about tides and how they impact where the animals live; we point out 70-million-year-old rocks; we show visitors dead man's fingers and other marine plants; we spot gray whales during the winter mi-

gration season; and we encourage and enforce good tidepool etiquette. We do whatever we need to do to protect our precious tidepools while allowing the visitors the best experience possible. And at the end of our shift we go home tired and happy—knowing that the visitors are satisfied and the resources will be there tomorrow.

Navidad and Iztapa

by Bob Munson, CNM Historian

The theme of this edition of *The Explorer* is "Exploring Poseidon's Realm." We all know that the expeditions of Francisco de Ulloa, Hernando de Alarcón and Juan Rodríguez Cabrillo involved Poseidon's Realm, and there have been extensive works published on the expeditions. However, the names Navidad and Iztapa are relatively meaningless to most people although they have direct bearing on all these explorations. When you mention the Pacific explorations, many people immediately think of Acapulco or ask if the ships came around South America via Cape Horn. Although Magellan had found the straits named for him in 1520, the Spanish crown actively kept that route to the Pacific a closely guarded secret. The Crown did not want it known that there was a way to sail to the Pacific from the Atlantic. They wanted to keep the Pacific a Spanish lake. The route was also dangerous, and Panama became the focal point of trade instead. Acapulco was known, but not highly regarded, being considered a pest hole of miserable weather and disease.

For the early period the essential ports were Iztapa and Navidad.

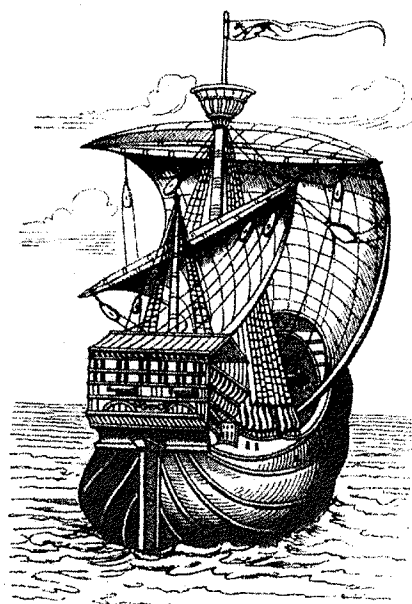
Iztapa

Iztapa was where the ships were actually built. It is about 15 leagues—about 35 miles—due south of the then Capital of Guatemala at Santiago (modern Antigua). Unfortunately, there are no contemporary descriptions of the port or town. It was located where the Michatoya river meanders into the Pacific Ocean and was a fishing village when the Spanish first found it in 1530. Iztapa is little more than an open

roadstead partially blocked by a huge sand bar. The surrounding land is low, flat and swampy. The actual shoreline is steep, the tides fast and strong, and the channel changed frequently during flood season. Pourade¹ notes that Iztapa "abounds in monkeys and parrots, but is so hot no work of any kind can be undertaken between noon and sunset by anyone, even slaves." Even so, it was still "the best seaport on the coast of the Mar del Sur." The river was navigable for some distance inland. There was an abundance of good timber nearby and an abundance of the local *pita* fiber which was excellent for making ropes and cables. There were numerous local villages to provide a diversity of food at low cost. The actual shipyard was located at Gibraltique a short distance up the river from Iztapa.

By 1535 there were three galleons and a galley under construction at the shipyard at the same time, each of 100 tons. It was noted that the town had "experienced sailors, skilled carpenters, and shipwrights." There was also at least one *cuadrilla* of slaves (100 men) working in the shipyard itself. Slaves were arriving all the time, bringing in timber, iron, sails, cable, tar and pitch. Other slaves working nearby were producing large quantities of food. Some of the *cuadrillas* bringing supplies from the interior were former Tlaxcalan allies who filed a formal complaint to the King that they were "treated worse than the children of Israel by Pharaoh." This and other internal difficulties in Guatemala slowed, but did not stop, the pace of ship construction.

There appear to have been few Spanish wives at Iztapa, as Bishop



Marroquín noted in a letter to the King on 20 November 1539. The *alcaldes* had "rounded up dozens of Indian women and girls to serve the men as bed companions, cooks and laundresses." By the time of Cabrillo's voyage in 1542 there were Spanish women living in Iztapa, although Cabrillo's wife, Beatriz, resided in the capital at Santiago, 15 leagues up the river. Houses in Iztapa appear to have been of wood thatched with palm leaves. After a decade of development, Iztapa was still a bustling seaport, shipyard, frontier boom town.

Navidad

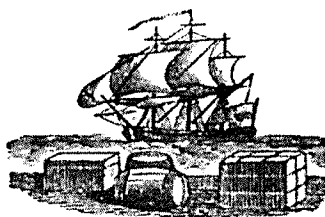
The port of Navidad had only been discovered in December 1540 and occupied on the 25th of that month—hence the name *Navidad* (Nativity). There are no contemporary descriptions of the port, beyond the fact that shops were built to assist in the outfitting and loading of ships. Photos of the area today show low hills covered with heavy green jungle-like growth coming almost down to the water with yellow sand beaches punctuated with occasional large gray rocks. In the background are steep mountains, and there are craggy islets off-

shore. Considering the newness of the site, buildings appear to have been comparable to other ports on the Mar del Sur, being made of wood with thatching of jungle palm leaves. Whether such a crude port would have wives and homes, except for the very lowest classes, is debatable.

Navidad is now a suburb of Melaque on the border of the Mexican states of Colima and Jalisco. It is 30 miles up the coast from modern Manzanillo, 100 miles SSE of Puerto Vallarta, and about 100 miles SSW of Guadalajara. Today this outpost jumping-off point for Spanish ships of exploration bound for the great unknown is the resort town

of Barra de Navidad with luxury hotels, water skiers, and yachts.

Other ports on the coast were



Acajutla, Guatulco, and Acapulco. Acajutla, to the south, was the seaport for the cities of Trinidad and San Salvador. It was also an open roadstead with a dangerous reef across the en-

trance. But in the absence of roads it was the only way for Salvadoran products to be shipped. Guatulco and Acapulco to the north were known but had not been developed at this time. Acapulco's time would come in the next century with the development of the Manila Galleon trade, but even then most people did not want to live there. Merchants came for the trade fairs when the galleons arrived, but returned to more comfortable and healthy Mexico City as soon as their dealing was done.

1 Pourade, Richard F. *The Explorers*. San Diego, Union Tribune Publishing Co. 1960

Coming soon: a new tidepool film

by Karl Pierce, CNM Chief of Interpretation

Visitors to Cabrillo National Monument will soon be able to see the new tidepool film, *On the Edge of Land and Sea: The Tidepools of Cabrillo National Monument*. After several delays and a change in the producer/director after the original producer/director accepted a new position, work on this 20-minute film is moving full speed ahead and is well on its way to completion. The film, which will replace the *Steps to the Sea* slide show that has been presented in the auditorium at Cabrillo NM since 1983, will explore the high, middle, and low intertidal zones and introduce visitors to the processes that cause tidepools to form and to some of the creatures that may be encountered while exploring the intertidal region. A highlight of the film will be



exquisite footage of the neighboring Point Loma kelp forest as it examines the relationships between the "amber forest" and the tidepools. New producer/director Anne Tubiolo, of the National Park Service's Harpers Ferry Center, contracted a new treatment and script for the film and we were off. With

participation from members of the Division of Interpretation, Division of Natural Resource Sciences, Superintendent DiMattio and Volunteers-In-Parks, production was

completed and the film is now in post production. Final editing is taking place and professional narration tracks are being recorded in English and Spanish. A musical score is being composed and will be added. To ensure that the film is universally accessible, it will include open

captioning and audiodescription. While no date for the new film's premiere has been set, we anticipate that it will be ready before the end of the current tidepool season.

The Explorer

is published quarterly by Cabrillo National Monument, funded by Cabrillo National Monument Foundation.

Patricia Heusner, editor
Jim Nauman, production

1800 Cabrillo Memorial Drive
San Diego, CA 92106
(619) 222-4747

CNMFKaren@aol.com

Cabrillo's other venomous snakes

(Including one from Poseidon's territory!)

by Pierce Harris

The Roman epic poet Virgil (70-19 BC) wrote in one of his dialogs "May you who gather flowers and strawberries from the ground, flee, you children, from the cold snake hiding in the grass." Virgil was alluding to the behavior of his critics as being sneaky or underhanded like a "snake in the grass." This slander of snakes has been with us now for two thousand years. Snakes are not sneaky; stealthy perhaps, in their avoidance of people, but not sneaky. Notwithstanding their efforts snakes do on occasion encounter people, which very often results in injury to the snake and sometimes injury to a person. John Henkel reports in an article called "For Goodness Snakes"¹ that about 6,500 people are bitten by venomous snakes in the U.S. every year and about five die. Others put the death rate as high as fifteen; either number is too small to be statistically significant, unless you are the victim. Henkel also mentions the class of snakes that is one of the subjects of this article: "mildly venomous snakes."

Here in the San Diego region, in addition to our harmless snakes we have four "mildly venomous snakes" and one "very venomous snake" according to the range maps in the Peterson field guide. The four mildly venomous are the California black-head snake, *Tantilla planiceps*; California Lyre Snake, *Trimorphodon biscutatus vandenburghi*; Night snake, *Hypsiglena torquata*; and the Ringneck snake, *Diadophis*

punctatus. The very venomous is the Yellow-bellied sea snake, *Pelamis platurus*.

Of these five potential inhabitants, Cabrillo National Monument's herpetology surveys have confirmed that two of the mildly venomous—the night and ringneck snakes—are residents of the monument. These snakes have slightly enlarged teeth at the rear of the upper jaw to facilitate injection of mild venom in prey. In most literature these snakes are referred to as harmless or not dangerous to people. John Henkel

the yellow-bellied sea snake is so well adapted to the marine environment that it cannot function on land.

in his article offers a warning. The statement "harmless" or "not a danger to humans" means healthy adult humans. A small child, any person with a weakened immune system or any person prone to anaphylactic shock or allergies could have a serious reaction to a mildly venomous snakebite. Emergency medical technicians, paramedics and emergency room personnel are warned of the problem, but for some reason field guides fail to mention it.

The "very venomous snake" of the San Diego area is a marvel of nature called the yellow-bellied sea snake *Pelamis platurus*. I'll refer to this snake as *platurus*, as its scientific name is shorter than the common. *Platurus* and the



western coral snake have by far the most potent venom in North America. Why, then, is so little attention given to *platurus*? The reason is that *platurus* is a true and permanent resident of the pelagic sea. It is born alive in the open ocean and spends its entire life cycle in the pelagic environment. This is the most common and widely ranging of the sea snakes. It is found in all the tropical and subtropical waters of

the Pacific Ocean. It is so well adapted to the marine environment that it cannot function on land. Its ventral body is shaped like the bottom of a boat so it rolls over on its side on land like a boat on the beach. Its tail is vertically wide like a paddle and functions like a sculling oar or the caudal fin of a fish. *Platurus's* eyes and nostrils are located high on the head so it may see and breathe while resting on the sea surface. The nostrils have valves like those of a dolphin and the skin is capable of absorbing oxygen and discharging carbon dioxide and nitrogen while the snake is submerged.²

Though the venom of *platurus* is one of the most toxic in the

world it is delivered through short needle-like teeth that reportedly will not penetrate most wet suits. Also in defensive bites it does not usually inject venom.³ Nevertheless the fatality rate from sea-snake bites is much higher than most other venomous snakes. This may be partially due to the fact that victims are in the marine environment and often far from medical help.

Though the range of *platurus* includes coastal San Diego it is practically never seen here, most likely because it prefers warmer water. Where conditions result in warm water moving our way from the south, as described by marine biologist Bonnie Becker in the Autumn 2002 volume of *The Explorer*, the presence of *platurus* might increase.

I have seen this snake on only two occasions, the first while on the Scripps Ship R/V *Horizon* off Punta Abreojos, Baja, California, in October of 1961. The snakes were about 100 meters off shore.

The water was very clear, about 30M deep, with a surface temperature of 24°C. The second occasion was the spring of 1964 while on the M/V *Alicia*, a charter fishing boat. The snakes were under and around kelp flotsam about 100M west of the Point Loma kelp beds. These snakes are very easy to identify as they are about 1M in length, the ventral side bright yellow, dorsal dark brown to black and the tail yellow with black spots. Where this snake has been found on beaches it has always been dead, injured or entangled in nylon net or matted nylon fishing line. If one were washed ashore high up on the beach by a storm its keeled body might prevent it from returning to the sea.

In the most unlikely event of *platurus* being in our area and the extremely unlikely event of one ending in our tidepool area it would probably attract a lot of attention due to its bright colors. It would be best to keep everyone

well clear and call someone with the right equipment and expertise to deal with it. An injured snake is more likely to bite than a healthy one and sea snakes can inflict a reflex bite response up to an hour after clinical death.

Though warnings regularly appear in magazines, newspapers, park guides, and on trail signs, thousands are injured by snakebites yearly. As the Roman writer Cicero observed "*Errare humanum est.*" Humans make mistakes. I would add, "Count on it!"

1 This article is available on the Internet at: http://www.fda.gov/fdac/features/995_snakes.html

2 An excellent article describing this snake can be found at: <http://waquarium.otted.hawaii.edu/MLP/root/html/MarineLife/Vertebrates/SeaSnakes.html>

3 <http://www.scuba-doc.com/seasnks.htm>



Don Robinson speaking at a Portuguese community festival

Donald M. Robinson

1919–2004

First CNM Superintendent

Donald M. Robinson, the first superintendent of Cabrillo National Monument, died on December 28, 2004, at the age of 85. He grew up in San Diego, attending San Diego High School and San Diego State College (now

SDSU). After serving in the navy during World War II, Mr. Robinson returned to San Diego and started his career at CNM in 1947 as Custodian. The monument was administered by Sequoia National Park at that time, but Robinson assumed many of CNM's administrative duties. He made use of one of the WWII coast artillery base-end stations as a whale-watching station for the public, resulting in throngs of visitors to the monument. He also encouraged local sportfishing boat operators to offer whale-watching cruises during the annual winter migration of the gray whales. He was responsible for initiating the annual sunrise Easter services at the monument that continue to the present day.

In 1956, as CNM's importance and visitation were increasing, ties with Sequoia were severed and

Mr. Robinson became Cabrillo's first superintendent. He remained in that position until August 1963, when he transferred to Crater Lake NP. Four years later, he went to Ventura to establish the headquarters of newly designated Channel Islands National Monument.

After a thirty-year career with the National Park Service, Don Robinson returned to San Diego, where he became active in Kiwanis and other civic activities.



Poseidon's vanishing jewelry

Compiled by Carol Martin

Historically, abalone was so abundant in the San Diego area that it supported a strong industry. Arthur H.F. McEvoy, in his essay about the history of Chinese fishermen in San Diego¹, notes:

By 1869, a year before Alonzo Horton built his bank, there were two colonies of Chinese fishermen on San Diego Bay....

The fishermen found their most rewarding resource in the black abalone that lived on the rocky bottoms just below low tide line. This fishery seems to have been pursued mostly by junks from the Roseville colony, which ventured as far as halfway down the lower peninsula in search of the shellfish. Theirs was solely an export commodity: Americans had not yet learned to like abalone, which according to Charles Nordhoff was "as much tougher than... a Long Island quahaug as that is tougher than an old boot."² Abalone from the southern coast was less worm-eaten than that taken from more northerly waters, and therefore more valuable.³ Though it only began about 1873, seventeen years after abalone was first taken by Chinese in California, the San Diego fishery quickly outgrew those elsewhere on the coast and was producing seven hundred tons annually by 1880.⁴ According to a government report, abalone "formed the bulk of exports to China and to Chinese colonists in other countries," and the San Diego fishermen led the state in the harvest.⁵

More valuable still was the abalone's shell, which the Chinese kept for sale after other Californians began to prize it for jewelrymaking.⁶ Merchants at San Francisco shipped abalone shell to England, Austria, the eastern United States, and China.⁷ Here, strangely, was a commodity for which there was at once a great demand and little competition, and the San Diego fishery grew in its good fortune.

Currently, San Diego's abalone population is a fraction of what it was historically; this serves as an example for care of the population in northern California. According to the California Department of Fish and Game,⁸

Abalone are easily overfished. They have slow growth, infrequent reproductive success, vulnerability to fishery-related injuries, high mortality of small animals, and need high densities for successful reproduction. These factors limit the ability of abalone to withstand a fishery. An abalone fishery could take decades to recover from collapse. Great care will be needed to prevent the northern California red abalone fishery from joining all the abalone fisheries which have collapsed worldwide.

The estimated total take (in 2000) was 728,000 abalone over 202,000 days of fishing; this number represents over 2 million pounds of abalone, which is too high to be sustainable. These levels of catch are similar to the take of red abalone in the southern California commercial fishery in the 1960s before the fishery started to decline. Since the southern California abalone fishery could not sustain this level of take, it is likely the northern California recreational fishery would not be able to sustain this level either. Red abalone in northern California are believed to grow slower and reproduce less frequently than those in the south; these population characteristics make northern red abalone even more vulnerable to overfishing than southern red abalones. To protect this valuable fishery, cautious management measures need to be taken. It is important to begin to protect abalone populations in early stages of overfishing since they recover very slowly.

¹ Arthur F. McEvoy, "In Places Men Reject, Chinese Fishermen at San Diego, 1870-1893." *The Journal of San Diego History*, Volume 23, Number 4, Fall 1977.

² Charles Nordhoff, *Peninsular California: Some Account of the Climate, Soil, Products, and Present Condition Chiefly of the Northern Half of Lower California*. New York: Harper Bros., 1888), p. 195.

³ *ibid*

⁴ George Brown Goode, et. al., *The Fisheries and Fishery Industries of the United States*,

Section IV, *The Fishermen of the United States* (Washington: Government Printing Office, 1887), Sec. IV, p.37; Thomas W. Chinn, ed., *A History of the Chinese in California: A Syllabus* (San Francisco: Chinese Historical Society of America, 1969), p.40.

⁵ W. H. Dall, "Notes on Fishing Products Exported From San Francisco, California, During the Year 1883," *United States Fish Commission Bulletin*, Vol. 4 (1884) (Washington: Government Printing Office, 1884), p. 125; Chinn, *op. cit.*, p. 41.

⁶ . Pourade, *Gold in the Sun* (Vol. 5 of *The History of San Diego* (San Diego: Union-Tribune Publishing Company, 1965), p. 156.

⁷ Goode, *op. cit.*, Sec. V, History and Methods of the Fisheries, Vol. 2, p. 625

⁸ California Department of Fish and Game, Marine Region website:
http://www.dfg.ca.gov/mrd/ab_info.html



Cabrillo National Monument Foundation

Richard B. Yale Sr. passed away December 29, 2004 at a veterans home in Aurora, Colorado at the age of 94. Mr. Yale was a founding member and the first president of Cabrillo Historical Association (now Cabrillo National Monument Foundation), a position he held from 1956 to 1958. He served on the board of directors on and off through 1983.

Even after he left the board Dick remained a close friend and supporter of both the Foundation and Cabrillo National Monument. He often attended special events at the monument, and would stop by to chat and get caught up on what was going on.

Dick had a life-long interest in and passion for publishing books. As a member of the board of directors, he helped initiate the association's publications program with such books as *The Whale Primer*, *The Old Point Loma Lighthouse*, and *Cabrillo's Log*, which for many years and through many printings helped educate tens of thousands of visitors about Cabrillo National Monument. In addition, he donated the funds for the park's first scanner, which allowed the park staff to scan documents into the computer and use them for various publications and exhibits.

Dick enjoyed life, and had a wonderful sense of humor and a treasure trove of stories that he loved to share. You could tell from talking to him that he had a special place in his heart for the cooperating association and Cabrillo National Monument and their role in telling visitors from around the world about the history of San Diego and the United States. He was a great friend of the park and the Foundation and will be missed.

Terry DiMattio, CNM Superintendent

Karen Eccles, CNMF Executive Director

Make a Lasting Legacy

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 contact us at (619) 222-4747 or by e-mail at CNMFKaren@aol.com

Calendar

March 23

CNMF member preview of new
Old Point Loma Lighthouse exhibits

March 26

Public Grand Opening of the Lighthouse
exhibits.

Wish List

The Foundation's computers are quite old—1998, 2001, and 2002—and are starting to show their age. The bookstore manager's computer that was purchased in 1998 has limited functions and we would like to replace it. The Foundation office would also like to acquire a laptop computer to use at off-site meetings and conventions as well as for recording minutes at board meetings.

Price of the Dell PC is \$500; the Dell Laptop is \$1000. If you are interested in funding either or both of these requests, please contact Karen Eccles by telephone at 619-222-4747, by e-mail at cnmfkaren@aol.com, or by snail mail at CNMF, 1800 Cabrillo Memorial Drive, San Diego, CA 92106

New Members

We welcome the following new members:

Rosemary Carey
Peg Ferrier
Gary & Judy Libby
Daniel Martin
Joseph Sczempka
Ron Vegnone
Jordan Waldman
Joseph Woznicki
Sergei Zubenko

Thanks for your support!

Please visit our website:

www.CNMF.org





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



NON-PROFIT ORG
U.S. POSTAGE
PAID
PERMIT
2381
SAN DIEGO, CA

