

The Explorer

*Newsletter of Cabrillo National Monument
and the
Cabrillo Historical Association*



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Winter Delights

*There is no season such delight can bring
As summer, autumn, winter, and the spring.*

William Browne, 1621

Certainly we must agree that all the seasons bring their delights to Cabrillo National Monument, but we feel that those brought by winter surpass those of the other three. It is this time of year that rains rejuvenate the native vegetation on the monument's slopes, along the Bayside Trail, and in the coastal region; the low afternoon tides permit us to explore the wonderful world of the intertidal region; and soon we will be able to witness the annual migration of the gray whale. In no other season are the skies as clear, the vistas from the park as extensive.

The Cabrillo NM staff works diligently all year long to ensure that the "winter delights" remain undiminished. We have reported on the various programs to preserve our natural resources in earlier issues this year, but the six-year study to determine the health of the intertidal region deserves special emphasis because of the monitoring and educational program now in place. Superintendent Terry DiMattio writes about this program in our lead story.

Superintendent's Report



by Terry DiMattio

I usually do not write about a single topic, but in this issue I want to focus on the Tidepool Protection, Education and Restoration Program that we implemented on November 9. This program is one of the most important things we have done since I have been superintendent. Its purpose is to restore the health of the intertidal area, while allowing visitors to continue to explore this fascinating yet fragile part of the park. This comprehensive program is based on the findings of the six-year study that marine biologists Gary Davis and John Engle have been

conducting since the fall of 1990. We are troubled by these findings, but believe that if we act now, we may be able to restore the tidepools so our children and our children's children will be able to enjoy them.

According to the Davis-Engle study, the health of the tidepools at Cabrillo NM has deteriorated dramatically over the past 20 years. Seven of 13 key indicator species have declined or have virtually disappeared from the tidepools. California mussels have declined by 87%, feather-boa kelp 84% and thatched bar-

nacles 75%. While other species such as owl limpets and gooseneck barnacles have not declined as significantly—23% and 29% respectively—abalone and ochre sea stars have all but disappeared from the tidepools. We strongly suspect that human factors, such as trampling, collecting, and rock-turning by the 70,000 to 90,000 people who visit the tidepools each year, have contributed to the loss of species.

In addition to being a popular recreational and educational resource enjoyed by tens of thousands of people each year, the tidepools are a nursery for many deeper ocean species. Healthy tidepools are essential to the survival of many animals, such as lobster, wooly sculpin and opaleye. Many animals, such as abalone, sea stars, barnacles, mussels, and limpets, make the tidepools their home, while some wading and shore birds like great blue herons, snowy egrets, willets and turnstones, rely on visits to the tidepools for food.

If we are to preserve and maintain a healthy intertidal ecosystem, we believe we must implement a prudent, scientifically based program that will enable the tidepools to recover while allowing visitors to enjoy them. I believe the Tidepool Protection, Education and Restoration Program is just such a program. It consists of three parts, each critical to its success: The first part focuses on educating our visitors and enforcing park regulations. We now are assigning more park rangers and Volunteers-In-Parks (VIPs) to the tidepools during low tides than we have in the past. We recently recruited and trained over 20 new VIPs, along with some VIPs from our current ranks, to form a cadre of people in uniform to help us protect the tidepools and educate those who visit this fragile ecosystem. These concerned and dedicated staff members will help our visitors find often hard-to-spot tidepool plants and animals, show them how to observe these curious creatures in the least harmful way, and answer their questions about our tidepool program. The increased number of rangers and VIPs will also deter such things as rock-turning and collecting.

The second part of the program is to continue the monitoring program that Gary and John established in 1990. Twice



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each tidepool season, in the spring and fall, park rangers, VIPs and scientists, will collect data from 99 separate plots in the three tidepool zones. These data will be analyzed and compared against earlier data to determine whether the number of key indicator species has increased, decreased or stayed the same, and if other actions to restore the tidepools may be necessary.

In the third part of the program, we have designated Zone 3, the southernmost and least-visited part of the tidepools, as critical habitat and have closed it to the public to allow it to recover. Zone 3 is approximately 300 meters long, beginning just south of the Navy Marine Sciences Center. Zones 1 and 2, each also about 300 meters in length, host 90% of the people who visit the tidepools, and will remain open to the public during regular visiting hours, 9 a.m. to 4:30 p.m. daily. Zone 1 is located at the access point for the tidepools and is the most heavily used. Closing Zone 3 will also allow us to use it as a control and to compare the data from it against the data from Zones 1 and 2. It will also help us determine if regional environmental factors, such as pollution and rising ocean

temperatures, are affecting the tidepools.

As stewards of the cultural and natural resources at Cabrillo NM, it is our responsibility to protect, preserve, and restore the tidepools as part of the heritage each of us enjoys as Americans. The Tidepool Protection, Education, and Restoration Program is at the heart of the mission of the National Park Service: to conserve the resources and values within our care unimpaired for the enjoyment of this and future generations. It is also the right thing to do. We cannot do anything less.

Nineteen ninety-six has been a good year for Cabrillo National Monument and for our visitors. We finished the General Management Plan and exhibit plan for the new exhibit room on Cabrillo and the Age of Discovery, remodeled the interior of the visitor center, reached an agreement with the City of San Diego which addresses our concerns about the proposed expansion of the Point Loma Wastewater Treatment Plant and its effect on the monument, published the first two editions of the park newspaper, removed hundreds, if not thousands, of exotic plants from the Point Loma Ecological Reserve through a partnership with the US Navy, and took the first practical steps toward restoring the tidepools.

To everyone on the park staff, the Cabrillo Historical Association, the Cabrillo Festival, Inc.; to those in our system support office in San Francisco, and to our neighbors the U.S. Navy, U.S. Coast Guard, the City of San Diego; and to the individuals and community groups who contributed to our success, thank you for your support and another great year. We wish you the merriest of holidays and a new year filled with good health and happiness.

TERRY DIMATTIO

The Whalers of Ballast Point

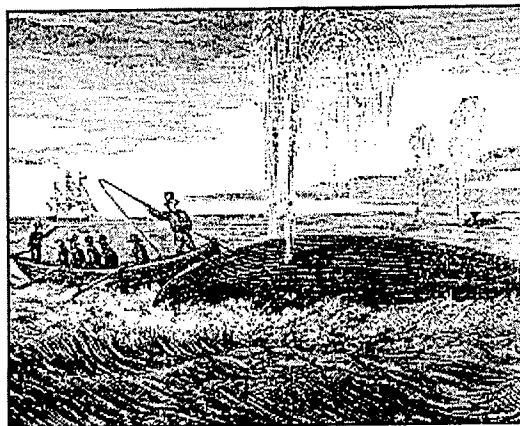
by John Golda

Every winter, thousands of visitors thrill to see Pacific gray whales as they migrate along Point Loma's rocky shore. Today the thrill is different from what San Diegans of the 1800s must have felt. Whales embodied the wonder and bounty of nature, and oil. Many species of whales grew scarce during the mid-1800s because of the extensive demand for their oil as lamp fuel and lubricating oil for Eastern factories. The gray whale, a somewhat overlooked species, took on a new significance as other whales began to disappear from the seas and the price of oil skyrocketed. San Diego and Ballast Point played an important part in the history of the whaling of the gray whale.

Whalers of the 19th Century had a variety of names for the gray whales (*Eschrichtius robustus*): grays, California rangers, mud diggers, hard heads, and devilfish, are just a few. A moderate-sized whale, it did not produce a great amount of oil when compared to the right whale or humpback. A mature whale of 35 to 45 tons may have produced an average of 30 to 40 barrels of oil. Some large individuals reportedly provided almost 100 barrels. Gray whales, feeding on the amphipods living in the shallow muddy bottoms, stay close to the waters of the coastline as they migrate to and from the waters of Baja California and the Arctic Ocean. Whalers learned that they could wait and the whales would come to them. But the gray whales earned the whalers' name, "devilfish." They had a reputation for putting up a tremendous fight when wounded, and the cows were credited with going to great lengths, even when mortally wounded, to defend their young. Whaleboats were frequently destroyed and a number of whalers lost their lives when grays turned on their attackers. The danger inherent in hunting these whales initially made them too risky and a low

priority, but as the price of oil climbed and whaling technology advanced, the gray whale became a more attractive prize.

San Diego Bay had been a traditional haunt of the gray whales, possibly as one of the northernmost calving lagoons. One author stated that as late as the 1840s the "bay was a favorite resort for female whales in the calving season... scores of them could be seen spouting and basking in the sunlight." This attracted the attention of the whalers. Shore whaling stations had sprung up along the California coast by the mid 1850s. In 1857, the brothers Alpheus and Prince William Packard scouted the San Diego and Baja coastline looking for profitable sites for their whaling stations. The Packards set up in San Diego and were busy in 1858; by 1860 they had moved their operations to Ballast Point. Their success inspired others. Soon there were two or three companies operating on Ballast Point, on North Island, and even on a ship anchored in the bay. In *The History of San Diego*, William E. Smythe states that "by 1868, there were two companies with



whales could be found along the kelp beds of Point Loma as they headed south for the lagoons of Baja California.

Unlike the whaling done by large whaling ships that would leave port for years at a time, most gray whales were hunted by whalers stationed at small outposts along the coast line. A series of stations and outposts were set up along the coast where the whales' routes could be observed and near the lagoons where the females calved. A variety of stories allude to the role that Captain Robert Israel, the last keeper of the Point Loma Lighthouse, and his family played in signaling the whalers. In some of these stories, the Israel children earned extra money by signaling the presence and direction of whales to the whalers on the point; in others, Captain Israel ran up a red or yellow flag (or even a table cloth according to other sources) as the signal.

In any case, once a whale was sighted, a boat was sent out to intercept it.

A technical innovation that improved the efficiency of the whalers was the bomb lance, a harpoon mounted with an explosive head that was designed to explode after entering the whale's body. These were generally shot at the whale from a large gun. The bomb lance often proved lethal to the whales, but the bodies were not always recovered. It was estimated that after harpooning, perhaps as many as two whales were

lost or escaped for every one that was brought back to be processed. Those that were successfully captured were towed back to the shore station. At the station, the blubber was cut from the body and boiled, or "tried out," in large cauldrons.

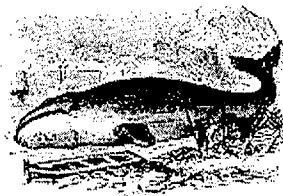


twenty men at work in the boats and a dozen rendering oil, and it had become a favorite diversion of San Diegans to go out to the lighthouse and watch the chase." Even after steamships and whalers had driven the whales from the bay, gray

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That oil was then poured into casks or barrels and held until shipped to market. At Ballast Point, a station was set up among the ruins of Fort Guijarros on the inland side at the base of the point. There were a number of warehouse and shop buildings and two 150-gallon try pots to process the whale oil. Like the tiles salvaged for use in the Old Point Loma Lighthouse, the whalers apparently made use of what they could find among the ruins of the old fort. Some of those same Spanish tiles paved the work area around the ovens of the try pots. One member of the public who visited the station left us a description of the work done on Ballast Point: "At each try pot was stationed a man with a large strainer, whose business it was to fish out the pieces of blubber as fast as they became sufficiently browned. These pieces were then pressed to extract the oil, after which the refuse was used for fuel. It seems to have burned very well, but made a 'villainous stench.'" After being stripped of its blubber, the remains of the carcass were then cast adrift on the currents to be consumed by sharks and gulls.

The years between 1860 and 1865 are said to have been the height of the gray whaling industry, thousands of gallons of oil produced every year in San Diego alone. Whaling continued on Ballast Point until 1873, when the U.S. Army evicted the whalers in order to begin work on an artillery fort that was to protect San Diego. The whalers shifted operations to North Island and to other stations along the Baja coast in Santo Tomás and Cape Colonette. The fort was never built and the whaling companies returned to



Ballast Point from 1883 until 1886, but the whales were gone.

By 1886, it was reported that only 300 barrels of oil were produced in San Diego; whaling had disappeared completely by 1888. Whales were no longer being seen in the numbers that earlier had attracted the attention of such men as the Packards. While whaling stations like the one at Ballast Point had taken their toll, a significant cause of the whales' disappearance was the impact of whaling in the calving lagoons of Baja California. The gray whale cows would give birth to their offspring in the warm, shallow lagoons of Baja, while the bulls stayed out in the somewhat deeper waters. The whalers knew where to find them. A disproportionate number of females were killed and their orphaned offspring, left unable to fend for themselves, died. It was only a matter of time before the population stood at the edge of extinction. Steps were taken in 1937 to save the gray whale before it was too late. Many nations agreed to limit or ban entirely the hunting of gray whales. In 1994, it was officially removed from the Endangered Species List. It is believed that the population of gray whales has reached the numbers that it had prior to the commercial hunting that began in the mid-1800s.

As for the Ballast Point whaling station—a symbol of the thrill and industry of the whaling age of San Diego—it fell into disrepair and disappeared. Only some old maps, photos, and a few recollections remain to illustrate the buildings and shanties which at one time housed the

whalers
and their
work. Archaeologists
searching



among the ruins of Fort Guijarros found a layer of greasy, dark brown sand. That layer was made up of a mixture of soot from the ovens of the try works and sand from the point. Scattered through it were artifacts of the whalers' life on Ballast Point. Pieces of broken glass, the remains of tobacco pipes, and the remnants of their meals will tell us something of the whalers and their time. This archaeological site has the distinction of being the only shore whaling station to be examined thus far in North America. What is learned there will one day help us to understand the story of Ballast Point whalers and their hunt for the gray whales. For now, we can sense a different thrill as we watch the whales on their annual journey past Point Loma.

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Editor
Jim Nauman

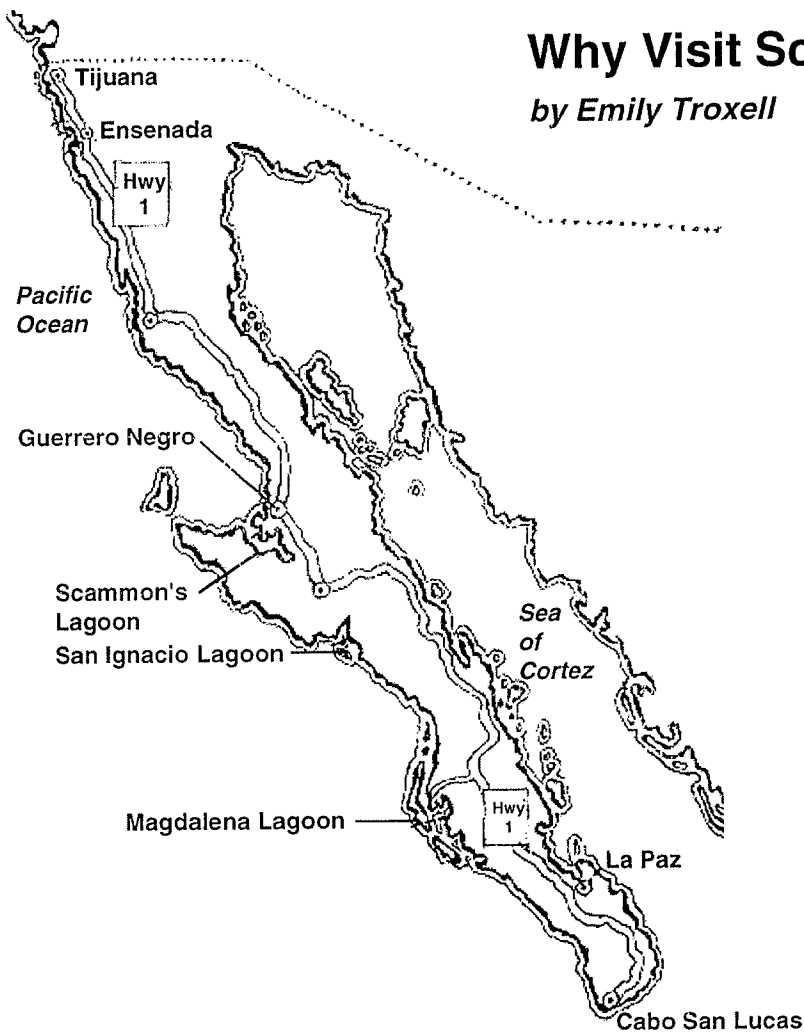
Staff
Edmond Roberts
John Golda
George Herring
Debbie Stetz
Emily Troxell
Mary Beth Vygrala
Samantha Weber
Bill Armstrong

1800 Cabrillo Memorial Drive
San Diego, CA 92106-3601

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Why Visit Scammon's Lagoon?

by Emily Troxell



Traveling through Baja California can be a real adventure. Automobile travel is the least expensive way to reach Scammon's Lagoon, the closest calving and breeding grounds of the Pacific gray whale. Having few roads from which to choose means fewer ways to get lost; only one major road (Highway 1) goes south from Ensenada. The biggest travel problem is poorly constructed, narrow two-lane roads. The availability of gasoline and diesel fuel is a constant consideration. Sites where they can be purchased are clearly identified on most maps, but availability of supplies of just about any kind is uncertain in Baja. It is best to take advantage of every opportunity to refuel.

There is a great deal to be seen along the way to the lagoon. Although the desert areas of Baja are among the driest in existence, they support a wide variety

of interesting vegetation..

The city of Guerrero Negro (Black Warrior) is the closest town to Scammon's Lagoon, but it is a good 500-mile, two-day drive from San Diego. While it is a large town by Mexican standards, it is a mere hamlet by ours. There are several restaurants and other establishments on the poorly paved main street. From Guerrero Negro, an undeveloped road leads into El Vizcaino Biosphere Reserve. The lagoons used by the whales are located about 20 miles from Guerrero Negro. The road is rough and if there has been rain, it may not be passable. Adequate camping facilities are located near the docks to the Nursery in Scammon's lagoon. The facilities are primitive and the cost is about \$3.00 per day.

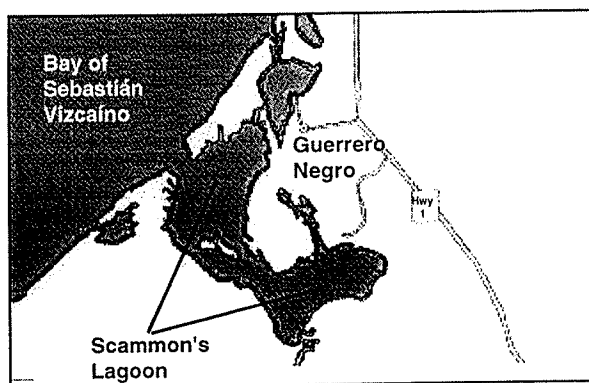
The purpose of El Vizcaino Biosphere Reserve is to protect and preserve the natural and cultural riches, and to

integrate local economic activities into the conservation process. El Vizcaino consists of 2,546,790 hectares. [1 hectare = 2.471 acres] and contains a wide range of habitats provided by a huge system of lagoons cut into the desert. The plains are bounded on the inland side by dunes which rise into the Sierra of San Francisco and fall into the Gulf of California.

At the present time about 35,000 people live on the reserve—fishermen, farmers, ranchers, and those employed at the salt works. Agriculture is made possible by extensive irrigation. The farmers produce grains, vegetables, forage, and fruits, and support small-scale goat farms and fisheries along the Pacific coast. Fishermen, organized into cooperatives, harvest abalone, lobster, seaweed, and scale fish. All are aware of the nature of the reserve, and work toward balancing preservation and use of the area. However, the balance between use and preservation is very tenuous.

A major commercial activity is the production of salt. The area containing the salt flats is adjacent to the lagoons and is the largest basin devoted to solar evaporation of salt water in the world. More than six million tons of salt were produced in 1995 alone. The flats are colored rich shades of red to almost yellow, the coloration caused by a hypersaline ecosystem. These salt flats contain a great variety of microorganisms which survive in the absence of oxygen-fixing nitrogen. With the aid of sunlight, the metabolism of microbial systems participates directly in salt production by intensifying the evaporative processes. This produces one of the purest sources of sodium chloride in the world. Because of its purity, much of the salt is sold in Japan where it is used in the paper and plastic industries.

Since the salt flats are adjacent to the calving grounds of the gray whales, there



is concern that salt harvesting may interfere with the breeding and calving processes. Some researchers feel that this industry could be conducted on nearby islands where it would have much less impact on the whales. Others see no problem with the present arrangement, since the industry requires very little human activity.

Gray whales breed and give birth mainly in coastal lagoons of Baja California. Scammon's and San Ignacio are two of the lagoons falling within the boundaries of the reserve; Magdalena Bay is another calving lagoon located south of these areas. The Mexican government has long been interested in the protection of the whales and has taken steps to insure that the calving and breeding grounds are carefully regulated. All commercial activities in the lagoons require a costly permit which regulates the amount of traffic on the waters. Further, rules for interaction with the whales are strictly enforced.

At the beginning of this century, the whale population had decreased to fewer than 1000. At that time, the Mexican government provided for the protection of this critical breeding habitat. They also enacted legislation that prohibited hunting whales in other Mexican waters. These regulations, along with other governments' legislative controls, limit interactions with the whales along their entire migratory path. This type of protection has allowed the whales to reestablish their numbers to a current census of approximately 23,000.

Whales are not the only creatures of interest in the Scammon's area. The waters provide a rich breeding habitat that supports the larvae and young of many mollusks, crustaceans, and fish

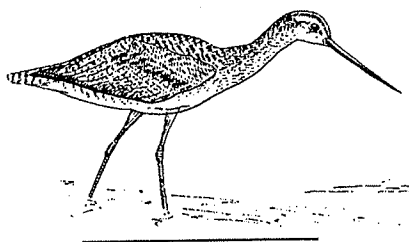
which, in turn, provide food for a wide variety of animals. These lagoons also provide major nesting sites for many north American migratory birds, including willets, whimbrels, marbled godwits, plovers, black brants and more than 20 species of ducks.

Bighorn sheep live on the slopes of the Sierra,

while golden eagles reign supreme in the thermals above. El Vizcaíno is also home to the last 150 members of the endangered peninsular pronghorn deer, known in Spanish as *berrendo*. These are among the fastest mammals in the world, capable of speeds up to 55 miles per hour. Two centuries ago there were millions of these herbivores living in northern Mexico.

A visit to Scammon's Lagoon today will allow visitors a chance to charter a skiff operated by local fishermen. The gray whales have become accustomed to this human activity, and appear to be almost as curious about the humans as the humans are about them. Consequently, it is not uncommon for whales to approach the boats. There is something mystical about being able to come into

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direct contact with these great creatures. While there are questions about whether human interaction with the whales is a completely positive relationship for the whales, it does seem to provide humans with another avenue by which to understand these giant mammals.

Why visit Scammon's Lagoon? It is a place of diversity, a place of economic development, a place of enlightenment.



Winter is fast approaching the coast of Cabrillo National Monument and the gray whales cannot be far behind. The annual Whale Watch Weekend is being planned for the weekend of January 18th and 19th, 1997. Several area organizations including the San Diego Natural History Museum and Cabrillo Marine Museum will have hands-on exhibits. Guest speakers will include scientists, photographers, teachers, and other whale experts. Also included in the days' activities will be a children's program aptly named *A Whale of a Tail*. A photo exhibit on gray whales will be displayed in the Visitor Center throughout the month. As always, park rangers and volunteers will be stationed at the overlooks to help visitors spot the migrating whales. If you're looking for "a whale of a time," mark your calendar for our whale watch weekend!

Mary Beth Vygrala

Watching the whales go by

by Edmond Roberts

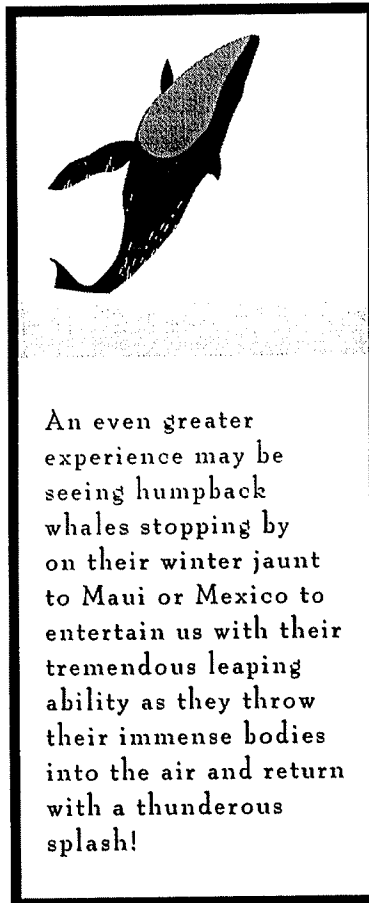
Where great whales come sailing by,
Sail and sail, with unshut eye
Round the world forever and aye

Matthew Arnold

The migration of wildlife is one of nature's great spectacles, and the coast of California offers an unsurpassed opportunity to observe at least one of these events. World-renowned migrations occur around the world. Movement of the great hordes of wildebeests across the African plains, the harrowing non-stop flight of tiny blackpoll warblers across the Atlantic Ocean to South America, the staggered flight of monarch butterflies across the great plains and deserts of the United States to the central highlands of Mexico, and perhaps greatest of all, the annual journey of the great whales along the west coast of North America have been internationally publicized. But, in Southern California, no migration surpasses the coastal journey of the gray whale (*Eschrichtius robustus*) in popularity.

Why is this activity so popular? Perhaps we need to look at the natural history of these remarkable mammals and their historic interaction with people. San Diego indeed offers perhaps the best of two worlds to observe and understand these animals. It offers some of the best research facilities, best weather conditions, and accommodations to monitor and enjoy this great phenomenon—the annual journey of the whales. Each year, just as it has for more than a century—150 years to be exact—excitement grows with the expected arrival of the Pacific gray whale. Charles Scammon and other whalers pursued the whales in the coastal waters for the oil from their blubber, an act that decimated the whale population. Today, whales are pursued just as single-mindedly, although for different reasons. Modern whalers (sightseers) seek only a view, a gentle stroking, or perhaps a lasting photograph. In order to experience the whales there is no longer a need to abandon any creature comforts. All levels of accommodation are available along the migratory route, from tent camping to luxury hotels. And, observation may

take place just about anywhere—from the deck of a luxury yacht, recreational whalewatching boat, a favorite restaurant on the coast, or while walking, hiking, or biking along an isolated trail near coastal cliffs from Torrey Pine State Reserve to Cabrillo National Monument at elevations from 200 to 400 feet. For the more venturesome, a trip to Baja California, Mexico, could also be quite rewarding. But, what species of great whales are there?



An even greater experience may be seeing humpback whales stopping by on their winter jaunt to Maui or Mexico to entertain us with their tremendous leaping ability as they throw their immense bodies into the air and return with a thunderous splash!

Results of statistical information collected by the National Marine Fisheries, the California Cetacean Society, and observations by recreational boaters and sport fishermen off the Southern California Coast indicate that the possibility

of seeing whales is improving; in recent years a variety of whales have been sighted. Most common sightings are of gray whales, due to their regular migration along the coast. But even more important in recent years are the year-round sightings being reported by local fishermen. These frequent observations have attracted tremendous attention by researchers all the way from Alaska to the Sea of Cortez. As a result more is known about Eastern Pacific grays than any other whale in the wild. But, other whales are also attracting attention due to increased sightings off our coast. During the previous five years surveys taken between the coast and 300 nautical miles offshore have provided some interesting estimates on a variety of whales.

The Order Cetacea, comprising whales, dolphins, and porpoises, is broken into two suborders: Odontoceti (toothed whales) and Mysticeti (baleen whales). Toothed whales are generally smaller, the sperm whale (*Physeter macrocephalus*) being the exception. The largest number of individuals observed during scientific surveys were toothed whales. This in itself does not, however, indicate that all is rosy. Some estimates showed a decrease during the survey period compared to previous surveys. The high for this suborder was the short-beaked common dolphin (*Delphinus delphis*) showing an estimated increase from 226,000 to 372,000. Dall's porpoise (*Phocoenoides dalli*), on the other hand, showed a dramatic decrease from approximately 78,000 to 48,000. Are these fluctuations the result of something ominous or just due to the whale's choice of traveling outside the aforementioned 300-mile corridor? While there appears to be cause for concern, the chances of seeing and enjoying the antics of cavorting whales are still very good along our coast.

The suborder Mysticeti (baleen whales), representing the largest of the whales (including the largest animal on earth) and those with the slowest reproduction rate, appears somewhat more precarious, but there are also good signs. Gray whales account for the largest estimated number—approximately 23,000, reaching suspected pre-commercial whaling estimates of 1846, while numbers of

some other whales in this suborder are not nearly as significant. Estimates of the Minke whale (*Balaenoptera acutorostrata*) was 201, sei whale (*Balaenoptera borealis*) 26, and Bryde's whale (*Balaenoptera edeni*) only 24. Disappointing also was the absence of the Family Balaenidae (Right Whales) represented by the bowhead (*Balaena mysticetus*) and the northern right whale (*Eubalaena glacialis*) which were not observed during the survey. They may have been among approximately 300 unidentified large whales observed during the study but this is unlikely. This group is easily identified by their large, chunky bodies and large heads—measuring one-third of their body length. But, imagine the excitement of finding approximately 1200 sperm whales—the attraction that drew both New England and Portuguese whalers to California in

the mid 1800s. Imagine seeing 1700 blue whales (*Balaenoptera musculus*), the largest animal on earth, capable of growing to more than 100 ft. and weighing 160 tons. An even greater experience may be seeing humpback whales (*Megaptera Novaeangliae*), “the singing whales,” stopping by from their winter jaunt to Maui, Hawaii, or Mexico to entertain us with their tremendous leaping ability as they throw their immense bodies into the air and return with a thunderous splash; or maybe a more subtle visit by a rare right whale such as the one that appeared a few years ago near the research facility of the Southwest Fisheries Science Center in La Jolla as if to say, “Folks, you missed me in your survey but I’m still here.”

Nature provides a variety of adaptations to permit survival. Monarch butterflies’ life expectancy can increase from

six weeks during spring and summer to six months during fall and winter so that they may migrate thousands of miles and preserve the species. A bird no longer than six inches can store enough energy to fly non-stop thousands of miles over open ocean. Sperm whales can store enough oxygen to enable them to hold their breath for an hour and perform the most grueling task of capturing giant squids. Gray whales, once hunted to the brink of extinction but now recovered, appear to seek contact with their former hunters and are providing unforgettable experiences.

And so, whether your interest in wildlife watching is insects, birds, marine animals, or some other creature—even people, perhaps—California is probably the place. And San Diego with its ideal climate, public parks and accommodations offers one of the best locations for a lasting natural experience.

Volunteers at Cabrillo

After presenting the results of Gary Davis's study, the park formed a tidepool committee. Twenty-five new tidepool monitoring volunteers are the direct result of this committee. The official duties of the tidepool VIPs will include education, monitoring, and protection of the critical tidepool habitat. There was a huge response from the public to participate in the program. The 25 VIPs selected come from varying backgrounds and include an accountant, a geologist, college professors, a journalist, students, government workers, a therapist, a teacher, housewives, computer specialists, and retired workers. The volunteers spent three Saturdays absorbing information about the park and the tidepools, and as of November 9th are being “thrown to the sharks” (sent to the tidepools). The new volunteers who are trained and ready to help us preserve the tidepools are: **John Anderson, Anna Burgan, Maureen Burkett, Shelley Duncanson, Beth Gramoy, Pierce Harris, Ulla Kordel, Phyllis Lebowitz, Tom Lide,**

Roger McCollough, Jocelyn Morgan, Mike Moser, Eileen Murphy, Kevin O’Leary, Susan Piercy, Jim Richards, Jennifer Rogers, Edith Rudy, Darrel Sims, John Smaldino, Jim Stewart, Nancy and Tim Taino, Sarah Wagner, and Ursula Weston. The creatures in the tidepools will be in good hands with these new folks!

Mary Beth Vygrala

Cabrillo National Monument welcomes new librarian

For the past year, VIP Lois Marriott has been serving as Cabrillo National Monument’s librarian. And the best part about it is that she is a REAL librarian! Lois worked ten years at the library of San Diego State University as Coordinator of Circulation Services. In 1976, she went on to Southwestern College as Library Director and was promoted to Dean of Instructional Resources. She retired there in June 1994, but being a dedicated librarian, couldn’t leave the land of books, and accepted a short-term position at the public library in Monterey Park (Los Angeles).

Cabrillo National Monument had been

without a librarian since VIP Flo Reynante moved to Santa Maria last year. Ellie Neely, Chair of Cabrillo Historical Association, had heard of our plight and contacted her good friend, Lois Marriott, and told her of the position. That’s all Lois needed to hear. Since November 1995, Lois has been working in our library and doing a tremendous job! She is in the process of a complete inventory of the books and is looking for automation services to put the catalog system on computer. Thanks to Lois, Cabrillo’s library is really getting spruced up!

Lois lives in a downtown condominium complex with her husband, Dale. They have been married forty-three years, have five children and twelve grandchildren. You would think she was busy enough between her family and volunteering at Cabrillo, but Lois is also active with the San Diego Zoological Society, edits a newsletter for C3, and is “doing projects” for the new library planned for downtown San Diego. Once a librarian, always a librarian!

The staff of Cabrillo National Monument is very happy, and grateful, to have her taking charge of our library. Thanks Lois!!

Debbie Stetz

The San Diego Quarantine Station and Marine Hospital Service *by Debbie Stetz*

When the Old Point Loma Lighthouse was built in 1855, San Diego was not much more than a few old wooden and adobe buildings clustered around a central dirt plaza. At that time, San Diego no longer served as a military outpost for Mexican or Spanish soldiers, but the city played a new role in the development of the west. Lighthouses figured prominently in that role, and San Diego's citizens were ecstatic about their new lighthouse. Ships could now be safely guided into the harbor, bringing in much-needed commerce and also the important sense of establishment of a vital, growing city.

This phenomenon occurred all along the west coast as ship traffic in the developing harbors of other fledgling cities increased. But along with their exotic cargoes for trade, ships also brought in contagious disease and pestilence. Afflicted seamen burdened port city hospitals—which could usually provide only comfort and not cure.

The United States government had long been aware of this problem and as early as 1798 had passed an act providing for the care and maintenance of sick or disabled seamen. A tax of 20 cents a month on the salaries of sailors provided the revenue for the Marine Hospital Fund which was established for the construction of hospitals at shipping ports on rivers, lakes, and seacoasts.

This laid the groundwork for America's first national public health organization, the Marine Hospital Service.

The scope of the Marine Hospital Service grew as the federal government became more involved in fighting epidemics such as cholera, yellow fever, and smallpox. The treatment of these and other diseases became controversial as doctors and scientists disagreed on ways of control and eradication. But the idea of isolating the infected was acceptable, though inconsistently enforced from state to state.

In 1877, when a yellow fever epidemic in New Orleans spread rapidly up the Mississippi river valley, national at-

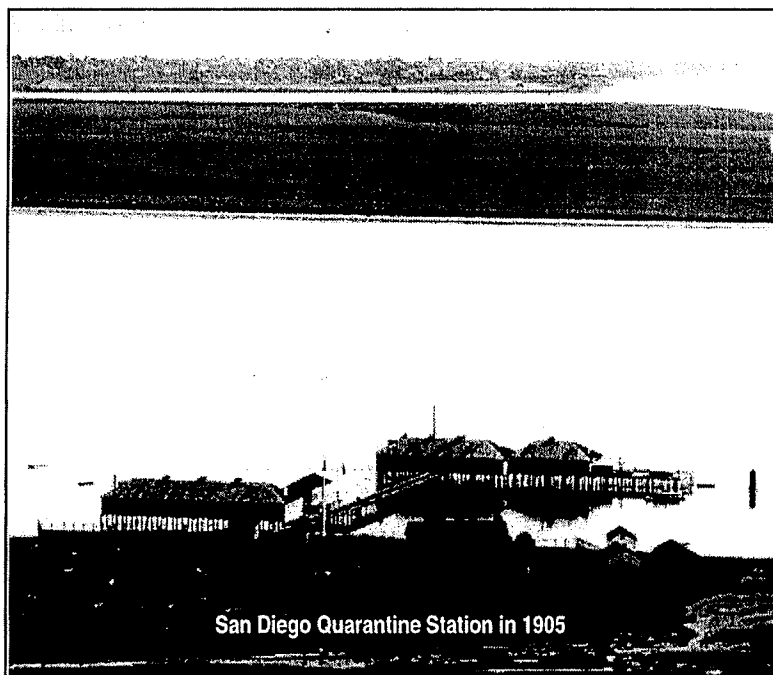
were put into operation in the nation to prevent the spread of infectious diseases from incoming vessels. Marine hospitals were affiliated with the quarantine stations and by 1890 were serving over 50,000 sailors.

During the 1880s, San Diego had grown into a bustling port city with well over one thousand ships per year bringing in loads of passengers and supplies. The San Diego County Board of Supervisors, concerned with the burgeoning increase in ship traffic, formed a committee to promote the establishment of a national quarantine station. Plans by the U. S. Treasury Department were underway by 1889, designating a location on the bay side of Point Loma on beach land adjacent to the Army's Fort Rosecrans. The area chosen, known locally as "La Playa," was the site where early Mexican hide and tallow trade was conducted. It was also described by Richard Henry Dana in *Two Years Before the Mast* as a site of many important historical events,

including the first unofficial raising of the American flag in California in 1829.

Construction of San Diego's Quarantine Station, modeled after the San Francisco Station on Angel Island, began in 1892. The simple wood-frame structures consisted of a hospital, officers' and attendants' quarters built onshore, with a boathouse and a warehouse for the disinfecting chamber and machinery built on a 500-foot pier. Dr. Winfield W. McKay was appointed the first supervising surgeon. When the station was formally accepted for

operation in 1893, Dr. McKay and his four assistants suited up in their new uniforms complete with "U. S. Quarantine" spelled out in gold letters across the band of their black silk caps. Dr. McKay worked diligently for improvements at the quarantine station, eventually obtaining telephone service, fresh water piped in from the city's main system, additional



tention for a federal quarantine policy quickly forced congressional action. The Quarantine Act of 1878 empowered the Marine Hospital Service with sole quarantine authority in the United States. The first two federal quarantine stations were then established on Ship Island in the Gulf of Mexico and at Sapelo Sound in Florida. By 1895, ten quarantine stations

land for an isolation camp, and a detention barracks constructed on the end of the pier.

All ships returning from foreign ports were inspected for disease, and if detected, the ship could be detained at the quarantine station for up to 48 hours. During the station's first year of operation approximately 113 ships were held for inspection. Standard quarantine procedures required the supervising surgeon and an assistant to row to the ship, board it, and search for evidence of disease. If an infection was suspected, the ship would berth at the quarantine station pier; all clothing, bedding, and textiles would be removed and placed in the disinfecting chamber for 30 minutes at temperatures over 212° F. The ship was then washed inside and out with a solution of bichloride of mercury, the hatches sealed, and sulfur dioxide gas forced into its hold for 24 to 48 hours to fumigate it. The ship's medical records were inspected and any passenger suspected of infection was quarantined. The dead from infectious diseases were immediately buried and their belongings burned. A typical quarantine experience was undoubtedly humiliating. In the *San Diego Union*, M. C. Nason, a resident of San Diego, told about his visit to Seattle in 1900 when an outbreak of smallpox resulted in three weeks' detention at Victoria, British Columbia:

That night we were vaccinated and our clothes . . . were tagged and sent ashore to be fumigated. Unfortunately, many of us were unprepared for this, having but one suit of dress in our cabins. [The] next morning before we were turned loose like sheep on a lonely island, we had to go through a building, strip ourselves and pass under a hot shower bath and then were given the clothes we gave up the night before. When we [ate] breakfast in the dining room that morning, a queer site presented itself. Down came both ladies and men wrapped in blankets, some with shoes and some with sheets wrapped about their feet. The men resembled Roman senators, the women Indian squaws.

The San Diego Quarantine Station inspected well over 100 ships per year for contagious diseases and continued to operate into the 1900s despite some early calls for closure

Around the turn of the century, the Marine Hospital Service took on a broader role as industrialization changed the face of the United States. A series of laws beginning in 1891 required the Service to provide medical inspection for all immigrants to the United States. At that time, 20 million immigrants poured into America's cities, creating squalid tenement conditions ideal for the growth of epidemic diseases. Marine Hospital Service physicians were required to make

been declining as public health and education improved. The Naval Reserve used this as an opportunity to set up camps on portions of quarantine station property to train nearly 1000 new recruits for service during World War I. Senior Surgeon A. H. Glennan suspected that the Navy was developing a plan to take over the station property and expressed his concern to the Surgeon General in Washington, D. C. But the Navy had already established its presence on the property with improve-



medical diagnoses for the Immigration Service. By 1912, continued research and better public education for the growing population were recognized as essential for the control of disease, spurring Congress to change the name of the Marine Hospital Service to the Public Health Service.

The San Diego Quarantine Station inspected well over 100 ships per year for contagious diseases and continued to operate into the 1900s despite some early calls for closure. The Navy had successfully established the Naval Coaling Station in 1908 on War Department property adjacent to the quarantine station and had been pushing for removal of the station to make room for its own facilities.

When Dr. McKay retired from the station in 1916, quarantine activity had

ments to the boathouse and construction of six new buildings.

During the 1920s, station activity declined rapidly, resulting in deterioration of the quarantine station and wharf, and by the 1930s, public health had improved so much that quarantine was not often necessary. In 1937, rumors began to circulate around San Diego that the U. S. Public Health Service was contemplating closure of the station. Although newspaper articles dispelled the rumors, the Navy began occupation of the quarantine station property in 1938 for expansion of the Navy Fuel Depot (formerly known as the Coaling Station). The wharf, and possibly some buildings, were demolished, but quarantine activity continued for a short time to inspect shipments of fruits and vegetables for infesta-

tion and plant disease.

At the beginning of World War II, the quarantine station was phased out as the Navy took control of the property and converted many of the buildings for military purposes. In 1942, 11.2 acres were officially transferred from the Public Health Service to the Navy for establishment of the Naval Electronics Lab. Since then, most of the original quarantine station buildings have been demolished to make way for more research and development facilities. But two original buildings, although altered, still remain: the Attendants' Quarters (Building 190) and the Isolation Hospital (Building 121).

Building 190 is the only survivor of the original quarantine station buildings built in 1893. Building 121 was constructed by the Naval Reserve in 1918 and used by the quarantine station until after the Reserve left in 1919. Building 121 has been moved from its original location and both buildings have been

altered significantly. But Building 190 still remains in its original location and has retained some of its original design and workmanship; it is used today as a clubhouse. The Navy recognizes its historical importance as one of the few remaining buildings of the quarantine era and has nominated it to the National Register of Historic Places.

In late 1891, when bids were accepted for the construction of the the San Diego Quarantine Station, the light of the Old Point Loma Lighthouse had already been permanently extinguished. The lighthouse operated for 36 years, the quarantine station would last approximately 44 years; they both played an important role in the development of San Diego's harbor. Both have gone through many changes, but fortunately the preservation of these buildings will keep their interesting histories alive for many generations to come.

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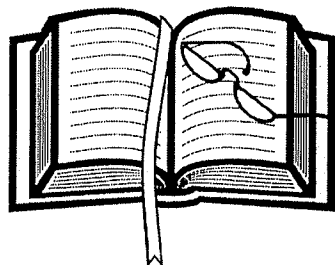
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From the CHA Bookstore

by Mary Northrop



Cooler weather brings many changes to San Diego. Wetsuits, snowboards, and skis come out of storage. The days get shorter and the whales begin their migration to the south. The surf begins to pound and the tides become "radical." Activity at Cabrillo National Monument's tide pools is greatly affected by this seasonal cycle. But should you find the tide very high and the tide pools to be under water, you can still gain a lot of useful information by visiting the Cabrillo Historical Association's bookstore in the Visitor Center.

Recently, I read a delightful book



about life in a tidepool. *Pagoo*, written by Holling Clancy Holling, focuses on the life cycle of a hermit crab and the tidepool environment in which he lives. Scientific and technical names lose their sting as pronunciation and definitions are provided. A highlight of the book is the many beautifully colored illustrations. *Pagoo* is short for *Pagurus*, the scientific name for the hermit crab, so the learning starts immediately. We follow *Pagoo*'s development from

a microscopic hatchling to a young crab in search of food and a suitable home for his growing body as he narrowly escapes from predators who want him for a tasty meal. Each part of the chain of life is

explained in detail.

Although written for children, I found this story to be engaging—one even adults will enjoy. What a nice way to learn about our tidepools!

The staff of Cabrillo Historical Association looks forward to assisting you in your search for the perfect holiday gift this season. Perhaps you know someone who would appreciate a copy of *Pagoo*.

Mary Northrop works in the Cabrillo Historical Association Bookstore

Sharing resources: the growth of Cabrillo National Monument

by Carol Knipper

When I was growing up I shared a bedroom with my twin sister Robin. As is typical with siblings, we at times argued and when no resolution could be reached we would claim territory within the room and loudly announce that the other was forbidden to enter that imaginary zone. I was always pleased with this arrangement since "my half" of the room included the door and I thus had the position of power. Of course, she claimed that this was unfair and would try to establish an agreement whereby she could use the door and in exchange I could get to the closet and the hamster. If we became too vocal, a proclamation from Mom reminded us that *she* retained exclusive jurisdiction throughout our house (and over our lives at the time). At times we had to put up with each other with a compromise resolution that seemed distasteful, but eventually we realized that we both could benefit greatly from sharing our "resources," and that our cooperation benefitted the entire family.

These are lessons learned as children and revisited as adults. Establishing jurisdictions in the government is, of course, much more complicated and the ramifications of its actions are far greater—both in benefits and consequences—than a sibling squabble. Cabrillo National Monument, its resources and the people of the United States have benefited from recurring legal actions and cooperative agreements that have expanded its borders and created effective resource and visitor protection.

The genesis of Cabrillo National Monument is well known. The half-acre monument established in 1913 by Presi-

dential Proclamation was the beginning of the jurisdictional history that had begun over a half-century before. When created, the monument was within the limits of the military reservation of Fort Rosecrans, a sprawling military reserve that encompassed most of Point Loma. Title to the land for the Reservation had passed to the United States under the 1848 Treaty of Guadalupe Hidalgo. The land was reserved for military purposes by an Executive Order of February 26, 1852. By an act of March 2, 1897, the State of California ceded to the United States exclusive jurisdiction over all land within the state held, occupied, or reserved by the government for military purposes. The U.S. Army at that time had title to the lands on Point Loma out to 300 yards beyond low tide.

The Presidential Proclamation has been a valuable tool for Cabrillo National Monument—invoked three times in its history for the benefit of establishing and enlarging the park boundaries. A presidential proclamation gives the president authority under certain federal laws to execute those laws expeditiously for the benefit of the United States. Most com-

monly, the Antiquities Act of 1906 is utilized for the benefit of the National Park Service, as its mission is to protect cultural and historic resources. Under the Antiquities Act the President is authorized to "declare by public proclamation objects of historic or scientific interest that are situated upon the lands owned or controlled by the Government of the United States to be national monuments, and may reserve as part thereof parcels of land, the limits of which in all cases shall be confined to the smallest area compatible with the proper care and management of objects to be protected." And, by such a presidential act, Cabrillo National Monument was established on October 14, 1913.

The half-acre site, under jurisdiction of the War Department, was designated as a monument to recognize Juan Rodríguez Cabrillo. It received very little official attention even though it was a perennial favorite and the crush of visitors placed an ever-increasing demand for more land to better serve the public. The National Park Service, established in 1916, was slow in responding to the needs of new monuments, many of which, like Cabrillo, were left in the War Department until 1933 when they were officially transferred to the National Park Service for management. Guided by the mission of the NPS, Cabrillo National Monument was able to focus on its need to protect its resources and serve the public. The plan was to impress the Army with demands and wait for property to become excess to the needs of the military.

In the late 1930s Army lands within Fort Rosecrans Military Reservation became surplus to their needs. The Navy was interested in acquiring lands on Point Loma for use in connection with its installations and operations. This proposed intraservice transfer was approved on the condition that approximately 80 acres of the transferred land would be made avail-

able for addition to Cabrillo National Monument. Once again through a Presidential Proclamation—this time by



The Old Point Loma Lighthouse under War Department jurisdiction, prior to acquisition by the National Park Service

Dwight D. Eisenhower—80.6 acres were transferred to the National Park Service on February 2, 1959. In this land transfer Cabrillo National Monument went from merely managing the lighthouse and commemorative statue to managing the coastal sage scrub and newly acquired tidelands.

The value of the newly acquired tidepools the National Park Service was immediately evident. Even in the late 1950s the tidepools were hugely popular, and the staff at Cabrillo National Monument was cognizant of their unique value as one of the premier intertidal areas of the west coast. Still, the park service was in no position to demand more land; it had to wait for opportunities as land was declared surplus by the Navy. In the late 1950s the Navy once again proposed to declare surplus two more tracts of land, one tract at our southwest boundary, the other at the north. Both parcels were slightly over 40 acres in size. The pens were on fire as memos flew between agencies and departments, since nothing would be sweeter then to acquire these for the park's sake and for the sake of the resource. This time there were greater interests beyond our borders. Although the park tried to dissuade the City of San Diego from choosing the land immediately north of our boundaries for the proposed sewage treatment plant, the city's needs were overriding; we reluctantly had to accept our new neighbors to the north. And to the south there was a pressing need to develop a facility to convert salt water to fresh. The Office of Saline Water (OSW) within the Department of Interior obtained the 43-acre parcel at our southwest border on December 12, 1960.

But the saline water plant was only temporary. After the facility was designed and built it was dismantled and shipped to Guantánamo Bay, Cuba, to support U.S. troops and prevent any action from Fidel Castro to deny them water. By 1964 this 43 acre parcel was again declared surplus, but this time it seemed that it would be relatively easy for Cabrillo National Monument to obtain it. We certainly had a significant resource to protect and the nearly one million visitors were entitled to better marine interpretation and park facilities. Since the OSW and NPS were both within the Depart-

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ment of Interior it seemed likely that just a stroke of the Secretary's pen could accomplish the transfer, and, in fact, that was done: On February 18, 1966, Assistant Secretary of the Interior Anderson signed an agreement transferring to the NPS the 43-acre property, buildings and all!

The park immediately submitted plans to renovate the buildings for a maintenance/storage facility and \$40,000 was earmarked for the project. But as fate would have it, there was a fire at Mount Rainier National Park and the funding was diverted. A larger problem loomed as the Navy cried "foul" and demanded that its interest be considered, promptly submitting an application for withdrawal of the 43 acres from public domain for its use in the Naval Electronic Laboratory Center.

Here begins the long, drawn-out administrative battle which reminded me of my childhood trying to divide up a room with an equally demanding sister. At the helm of Cabrillo National Monument was the capable superintendent Tom Tucker, who, through volumes of memos and about six years' time, resolved the issue. The Navy did have a right to apply for the 43-acre parcel, and its needs for a national electronics laboratory were specific, making the Point Loma site uniquely qualified. These needs were impressive and they insisted on closing Cabrillo Road and claiming the buildings recently acquired by the park service for their new project. This plan would have dismantled Cabrillo National Monument, as visitors—and even park rangers—would be restricted from the park's tidelands.

With persistent bureaucratic gamesmanship, Superintendent Tucker was able

to negotiate with the Navy a plan that has resulted in the situation we see here today: The park was able to keep access to the tidepools, and in exchange for the loss of the maintenance facility was given the 6.9 acres and \$40,000 for the present lower maintenance building site. This deal was finalized in January 1970, and the Naval Undersea Research and Development Center and the Naval Electronic Laboratory Center (NELC) immediately occupied the old saline treatment plant. It is interesting to note that San Diego State University had also petitioned for this parcel for use by students as a marine laboratory. The Department rejected the request, stating that the buildings were needed for a maintenance facility. In support of the University, U.S. Congressman Bob Wilson sent a searing letter to the Secretary Udall announcing that "It would be an embarrassing blow to the nation's oceanographic effort if students were to be deprived of a valuable marine research facility just because our government couldn't find another place to store tools and equipment." The Bureau of Commercial Fisheries also wanted the site for a research oceanarium, but these petitions were weak contenders as the larger interests of the Navy and Park Service were being considered.

In 1971 the NELC and the NPS entered into a Mutual Aid Zone Agreement whereby that tract of land formerly and briefly owned by Cabrillo NM could be administered jointly for the benefit of the resource and the public. Its jurisdiction, however was still firmly with the U.S. Army in the tidal area adjacent to the U.S. Coast Guard lighthouse and with the U.S. Navy on the remainder of the tidelands north to the sewage treatment plant. According to superintendent Tucker, this agreement was "not getting the job done, and Cabrillo rangers are frustrated in carrying out obvious needs in protecting the tidepool environs." The problem, according to the Secretary of the Interior's field representative in a 1972 memo, was due to "...trespasses on and destruction of the tidepools which were technically under Army and Navy jurisdiction. The Army and Navy lack personnel to protect these tidepools. The National Park Service has sufficient personnel and interest in the problem to protect the tidepools but

lacks the legal authority to do so." At this challenge, the Field Solicitor, the park's legal counsel, pored over existing federal codes and provided the opinion that sections in Title 16 of the United States Code explicitly allow the expenditures of Park Service funds to protect and administer areas under the jurisdiction of the Government. Therefore in such areas, Park Service Rangers have the authority to cite and/or arrest violators of laws and regulations relating to the National Parks. With this interpretation a Cooperative Agreement was signed between superintendent Tucker and the Commanding Officer of the NELC on May 12, 1972. The impact was that the area within the Mutual Aid Zone "shall be administered by Cabrillo National Monument for recreational use pursuant to Title 16 U.S.C. section 17-2(b)." A similar agreement was signed by the Army Corps of Engineers on October 30, 1972. These agreements authorized the NPS rangers to enforce the Code of Federal Regulations in the tidpool

area. These mutual agreements are in effect today, and Cabrillo National Monument still has only administrative control of the tidpool area.

Like a poor relation waiting for a hand-me-down, Cabrillo National Monument benefitted yet again from the Navy's land surplus. In mid-1973 the park received notice that the Naval Facilities Engineering Command had declared excess 54 acres on the eastern slope of the monument. Once again a presidential proclamation—this time by president Gerald R. Ford—resulted in increasing the size of the park. It is interesting to note that, much to the dismay of the park service, intentionally or unintentionally the Bayside Trail, through the language in the legislation remains Navy property; the park service utilizes it through an agreement.

Surprisingly, by 1975 the park was looking forward again and identified a whopping 1260 acres on Point Loma that Cabrillo should ideally encompass. This

would be hard to accomplish, considering the interests of the Navy; the favored presidential proclamation might be hard to apply since one of its criteria—"the smallest area compatible—" would be difficult to meet. But national parks are enduring and Cabrillo will undoubtedly benefit again from its land-laden sister agency by whatever legislative tool it may require. Even now the boundary lines between the navy and park service on resource management objectives have become blurred with our mutual understanding and commitment to its protection of the natural resources. Perhaps we *are* like sisters who have argued over what is best and who gets what only to discover that it is Family that ultimately matters. As we have claimed our park boundaries through mutual resolve over the years, we discover again and again that it is through agreements sharing boundaries, knowledge, and responsibility that the natural and cultural resources are best served. It is the Resources that ultimately matter.

CHA news

by Eleanor Neely



Each year, Cabrillo Historical Association submits a summary of its fiscal year accomplishments to the Conference of National Park Cooperating associations. This year, it was my privilege to submit the summary for FY96.

The CHA staff and board members should be proud of their dedication and hard work in providing Cabrillo National Monument with the following:

Cabrillo Historical Association provided \$15,000 for a Schematic Design Proposal for a military history exhibit. The monument, situated at the tip of Point Loma and gateway to San Diego Harbor, shares the peninsula with coastal military installations operated by the Coast Guard and the Navy. And, during the early part of this century, the monument was part of an Army coastal artillery base. Thus, Cabrillo NM provides a splendid location for a military history exhibit. In addition, the Association pro-

vided funding for Barry Joyce's recently published *A Harbor Worth Defending: A Military History of Point Loma*.

The Association sponsored a series of four lectures entitled "Point Loma—Gateway to San Diego." Topics ranged from the preservation of Point Loma's native plant and animal communities to its military significance.

The Association provided \$5,000 for a new PIX System in the visitor center, offering visitors computerized information about the park's interpretive services. Also, CHA worked with NPS's Harper's Ferry Interpretive Center to make available a new park film about Juan Rodríguez Cabrillo.

In addition to upgrading the library by adding rare books on Spanish exploration, the Association provided funds for a new park newspaper. This will broaden visitors' knowledge of and appreciation for Cabrillo National Monument and its important role in the protection and interpretation of the park's natural resources.

The largest financial contribution came in the form of a newly renovated Visitor Center/Association Bookstore. The renovation provides better lighting and dis-

play fixtures, and also offers the visitor a better opportunity to have contact with park rangers and Association staff members.

The Association continues to support Cabrillo's volunteer program, the reprinting of park brochures, and many education programs associated with local schools. CHA continues to fund the quarterly newsletter *The Explorer*, which is circulated to park friends, neighbors, and visitors.

The success of the park's mainstay events continues year after year with Whale Watch Weekend, the annual Cabrillo Festival, National Park Service birthday, and the Old Point Loma Lighthouse anniversary receiving funding from CHA.

The Cabrillo Historical Association staff and board members continue to assist Cabrillo National Monument by serving park visitors in the Association bookstore and assisting with educational publications and presentations. Make it a point to visit your park during the holidays!

Eleanor Neely is Chair of the Board of Directors of Cabrillo Historical Assn.

The Birds of Cabrillo National Monument

Rare species attract eager seekers *by Volunteer Claude G. Edwards*

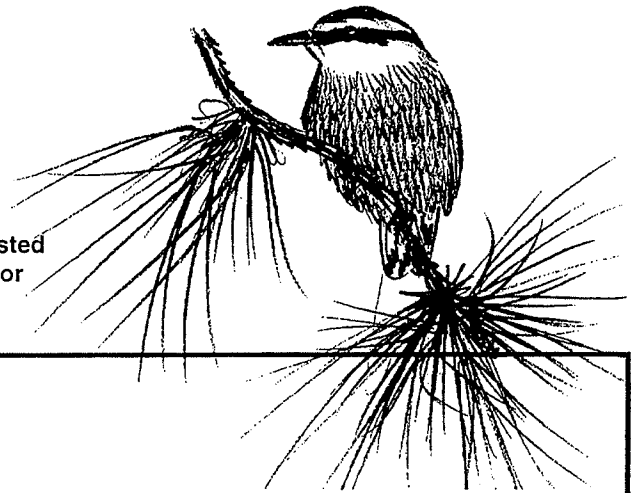
The fall migration season of 1996 has turned out to be a very busy and exciting time. There have been several pronounced movements or "waves" of migrants in the area as indicated by the list of rare and unusual birds that have been found by diligent observers.

Much of the attention by bird watchers has been focused on Fort Rosecrans National Cemetery where the acres of verdant lawns punctuated by trees and tombstones create an oasis for tired and temporarily disoriented migrants that pass over Point Loma. Every year, coastal low fog and coastal winds cause migratory birds to lose track of where they are going or to be displaced along their route. They find the varied habitats and vegetation of places like Point Loma Nazarene College, the cemetery, and Cabrillo National Monument to be worthwhile places to make a "pit stop" to rest and refuel before continuing on their way.

Migratory birds can originate from a broad area of North America, eastern Asia, and even tropical America. Although the majority of them are expected to appear in and pass through our region, it is amazing to determine what routes certain migrants have taken to make their way to Point Loma. Birders refer to some of the more unusual species as "vagrants;" others are simply out of their usual habitat or slightly out of range as a result of encroaching weather systems or deficiencies in food resources where they normally range.

Included in the following list are some of the migrants that have appeared on the Point this season—much to the delight of interested observers:

Illustration of red-breasted nuthatch by the author



White-winged dove
Gray flycatcher
Tropical kingbird
Red-breasted nuthatch

Sage thrasher

Red-eyed vireo
Yellow-green vireo
Tennessee warbler

Lucy's warbler

Chestnut-sided warbler
Prairie warbler
Palm warbler
Black & white warbler

American redstart

Painted redstart

Summer tanager
Scarlet tanager

Rose-breasted grosbeak
Indigo bunting

Green-tailed towhee
Orchard oriole

Normally associated with desert areas
Normal fall migrant; rare winter visitor
Rare post-breeding migrant from Mexico
Numerous this year; out of normal habitat and range

Rare, but regular migrant and winter visitor along the coast

Vagrant from eastern U.S. and Canada
Very unusual vagrant from Mexico
Rare but regular vagrant from across Canada and eastern U.S.

Rare migrant from the desert southwest

Rare but regular vagrants from eastern North America

Regular rare migrant from southern Canada and eastern U.S.

Very rare vagrant from southwestern mountain woodlands

Rare but regular migrant to the Point
Very rare vagrant from eastern North America

Rare but regular vagrants on Pt. Loma

Uncommon migrant and winter visitor
Rare vagrant from eastern U.S.

*The
Explorer*



Cabrillo Historical
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