

OPEN SPACES

Palos Verdes Peninsula Land Conservancy

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Third Grade Education Program a Success

Eighty-five third-graders at Silver Spur Elementary School participated in the Conservancy's pilot educational program, designed to teach children about some of the native plants and animals in the vicinity of their school. The program, funded by a grant from Las Candelistas, included an in-class session and a volunteer-led nature walk.

Children learned about insects, sage brush, bush sunflower, wild cucumbers, wild oats, lupine, barley, and fennel. Each child was required to find specific plants and check them off on a checklist. "I think this is very educational and informative," said 9-year old Brian Edelman on the trail. "We've learned some of this in class, but this walk is better because we can see the whole plant and not just clippings."

The program was developed by Barbara Dye, chair of the Conservancy's Education Committee, and Deena Sheridan, director of the third-grade pilot program. Sheridan developed the materials and presented the in-class portion of the program. She also selected the trail, trained the 15 parent volunteers, and led the nature walk for the classes.

"We want to share with children what is so special about the Peninsula and build community support for open space," explained Dye. "Many of these children have never had the opportunity to take a walk in a natural area, and we want to pique their curiosity about some of the natural features around them," added Sheridan. "I have a son near this grade level, and he is beginning to be excited about nature. This is a perfect age group for this program."

Montemalaga Elementary will be the next school in the pilot program. The first one-hour, in-class session, held in mid April, introduced the 90 third-graders to Peninsula geology and mammals. Sheridan will be training volunteer parents to assist with the upcoming nature walk portion of the program.

The remainder of the Las Candalistas grant funds will be used to provide teachers with the information they need to include a local habitat component in the district's new hands-on science program, and to identify open space and trails near all of the district's nine elementary schools.

"We are very pleased to be working with the school district on this effort," noted Dye. "We'd like to use the natural open space as a laboratory for our schools, bringing students outdoors both for nature walks and for scientific investigations."

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McGowan Appointed Executive Director



Kathleen McGowan of Rolling Hills Estates is the Conservancy's new Executive Director. McGowan is a licensed Professional Engineer and brings to the Conservancy more than ten years of environmental consulting experience. She replaces Judy Christmas, who has served in this position for the past four years.

McGowan's technical expertise includes industrial/hazardous waste site investigations, regulatory compliance assessments and property transfer audits. She has worked on projects in California and throughout the United States, and has taught college courses in industrial and hazardous waste management, water treatment and air pollution.

McGowan has a B.S. in chemical engineering from Johns Hopkins University and an M.S. in environmental engineering from Georgia Institute of Technology.

A newcomer to Southern California, McGowan ran her own consulting business in Atlanta, Georgia, before her family's relocation to Southern California nearly two years ago. "My husband and I were drawn to Palos Verdes by the reputation of the school system, but we immediately fell in love with the exquisite beauty of the Peninsula. I feel very fortunate to have the opportunity to apply my professional experience in a cause as worthwhile as preserving this beauty."

Kathleen brings a level of expertise to the day-to day management of the Conservancy that will allow us to be more responsive to government, business and community groups. The Conservancy is a resource on environmental and land use issues, and Kathleen's experience will help us fulfill that role more effectively.

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New Opportunity for Land Preservation Funds

A new opportunity for land preservation is planned for the November ballot. If put on the ballot by the Board of Supervisors and approved by voters, the Los Angeles County Park, Beach and Recreation Act of 1996 would make funds available for preservation of natural open space on the Peninsula, as well as in other parts of the County.

A similar act, known as Proposition A, was approved by over 62% of voters in 1992. Funds from the 1992 measure were responsible for preserving 28 acres on the Peninsula, dedicated as the Linden H. Chandler Preserve in 1994. Over \$4 million remains for use in Rancho Palos Verdes and \$1.4 million in Palos Verdes Estates.

Funding amounts for the 1996 measure have not been set, but the Conservancy has submitted applications on behalf of Rancho Palos Verdes, Rolling Hills Estates, and Palos Verdes Estates. As with Prop A, use of these County funds must be approved by the appropriate City Council and the Board of Supervisors.

The specific amount of the bond act, \$270 million, is approximately half that approved in 1992, and the impact on each property owner will also be half that for Prop A, about \$6 per year for an average parcel.

To see how the 1996 Act might impact you, look at your current property tax bill. The amount you would pay would be half of that shown for "LA County Park District."

City Councils of Palos Verdes Estates, Rancho Palos Verdes and Rolling Hills Estates have unanimously supported the Conservancy's applications for specific funding and placing the new Act on the November ballot. The Board of Supervisors will be formally considering approval of the 1996 ballot listing at meetings to be held in the next couple of months.

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Bugs and Trees Fight Disease

Among humans and other vertebrates, a standard aspect of the immune system for fighting disease is centered in certain lymphatic cells. The T cells are products of the thymus, a lymphoid gland located above the heart, and the B cells are produced in bone marrow.

The T's and B's have not been found in insect species analyzed up to now. In fact, some scientists have argued that insect lives are so short, and reproduction is so rapid, that such an immune system isn't really needed.

However, against this theory is the fact that many disease microorganisms can double in number within about one hour or less, making them able to saturate the insect's body in perhaps ten hours, which is a short time compared to the months needed for the insects to increase significantly in number.

The insects that have been tested do actually respond quickly to bacterial attacks. Phagocytes (the prefix "phago", derived from Greek, means "eating") are specialized cells which can ingest foreign particles, including bacteria. These cells, in insects, recognize the foreign bodies and within a few hours antibacterial substances are generated to fight the invaders, thus leading to curing of the incipient disease.

As for trees, let's consider their ability to fight some causes of human disease. One cause which has become serious in the nuclear age is nuclear waste, which can contaminate food sources and create other hazards.

In India, Myanmar (formerly Burma) and Sri Lanka (formerly Ceylon), a tree of the species *Strychnos potatorum* grows in forests. The seeds of that tree have, for hundreds of years, been crushed and put into dirty stream or well water as a cleaning substance, because of its ability to cause fine particles to unite into large masses and thus be easily removable to make the water potable. Nowadays, those seeds have been found to

bind with various metals, an important one of which is uranium. Each quantity of seed can apparently absorb 20-25 times that quantity of metal, measured in the standard international unit, moles.

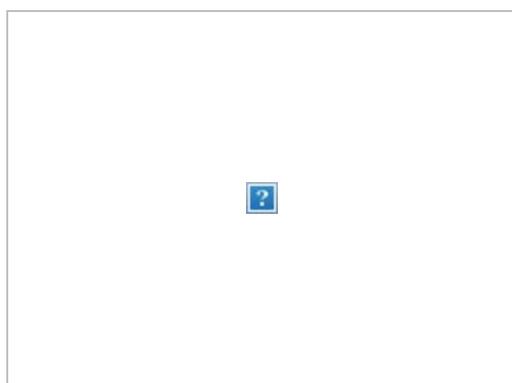
The seeds' absorbency depends on several internal proteins which are created by the action of specifically identified genes. Attempts are now being made to clone those genes, and to use the clones as a manufacturing tool for producing the proteins in sufficient amounts for industrial uses. Those uses could include removal of uranium from reactor effluent, and removal of cobalt (which can become radioactive) during steel production for the nuclear industry, making nuclear waste disposal easier and safer.

These seeds are the first known examples of plant substances which can bind with a wide range of metals. As such discoveries are made, it becomes more and more evident that we must preserve species diversity in flora and in fauna. Since habitat destruction is now a major, or the major, cause of extinction, we must preserve the habitats even if we do not yet know all the benefits which such preservation will yield!

by Joe Slap

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Plein Aire Exhibition Planned for Spring



If you are out hiking on Peninsula trails anytime during the next several months, chances are you will see one or more artists painting the Peninsula landscape. Three artists, Daniel W. Pinkham, Amy Sidrane, and Rick Humphrey are all painting "plein aire", that is, "out-door" in preparation for an art exhibit scheduled in the spring of 1997. The theme of the show is "Palos Verdes Peninsula, An Artistic Interpretation." The purpose of the show is to benefit the Palos Verdes Peninsula Land Conservancy.

Painting outdoors from life is not unusual. In fact during the turn of the century a group of very prominent landscape artists came to California to paint the golden land. Their desire was to capture the landscape in its unspoiled condition (an exhibition of these artists' work is currently on exhibit at the Joan Irvine Smith Museum in Irvine; for more information call 714-476-0294). They formed an organization called the California Art Club and were responsible for the major art colonies of Laguna Beach and Carmel.

Like the early California painters, the works of Pinkham, Sidrane, and Humphrey are greatly influenced by the Impressionist Movement. Rather than painting in the more realistic style of earlier traditions, they are carrying on the tradition of their predecessors and interpreting the subject matter through the use of color and texture, producing an emotional statement rather than a photographic representation.

Pinkham, Sidrane, and Humphrey grew up on the Peninsula and share the Conservancy's desire to help

preserve these beautiful natural open spaces. "For artists, this is a very special area," notes Humphrey. "The open space, lighting, and views are inspirational and unique in our area." The paintings will cover all areas of the Peninsula and many will be painted right from the hiking trails. More updates on the progress of this upcoming show will be announced in future newsletters. The Conservancy is establishing a committee to plan the show. If you'd like to help, please call our office at 310-373-0202.

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Visit to Machado Lake Provides Glimpse of the Past

The area near the intersection of the Harbor Freeway and Pacific Coast Highway that includes Machado Lake, Ken Malloy Regional Park and the Defense Fuel Support Center is rich in history. From bustling Indian villages to Spanish land grants and cattle grazing, from truck farms and sheep grazing to the present industrial urban landscape, profound changes have taken place here in the last 200 years.

Early accounts and excavations tell us that at the time of the Spanish exploration of Southern California this area supported the greatest concentration of Native Americans in the Los Angeles basin and possibly in all of Southern California. Several Gabrielino/Tongva Villages were thriving in close proximity to Lake Machado. The exact locations of the villages are unknown, due to the transformation of the landscape for refineries, highways and other development.

This area met the important requirements for village location: high ground overlooking surrounding areas, accessible fresh water and abundant food sources. The largest of these villages was called Suangna, which meant "Place of the Rushes." Masaungna, believed to be adjacent to Suangna, denoted "Second Place of the Rushes." "Rushes" are the reedlike plants which grow in wetlands. Munikangna, placed above Pacific Coast Highway and Gaffey Street, meant "Place of the Small-Large Hill." Ngna was the word for "place of" and is part of all the village names of the Gabrielino. Surviving place names have dropped the last "n" for ease of pronunciation, as in Topanga and Cahuenga. There were several more villages stretching along what is now Gaffey Street to Point Fermin.

Six Villages, One Chief

At least six villages in the San Pedro/Wilmington area were under the administration of a single chief when the first Spanish explorers arrived. This was rare; a chief was usually responsible for a single village. He must have been very powerful and influential, because this was a major hub of trade. As chief, his duties included entertaining visiting dignitaries, overseeing trade, distributing wealth and settling disputes. The concentration of population here was due to the fact that the surrounding habitat was so rich and varied that it was not necessary to move seasonally as was true in most areas, and the villages could be occupied all year.

When Juan Rodriguez Cabrillo anchored off the coast, he named the bay "Bahia de los Fumos" or "Bay of Smokes", probably due to the many campfires necessary for a large population. Sebastian Vizcaino, on a later expedition, arrived here on Saint Peter's day, and we now know this area as San Pedro Bay. Unlike Cabrillo, Vizcaino ventured ashore and made contact with the locals. While there, he lectured them on Christian doctrine, in Spanish, and desecrated a native shrine. When the Spanish sailed off and into a dense fog, the villagers probably were relieved and bewildered.

Most Productive Ecosystem

The lowland was a vast landscape of sloughs, lakes, seasonal wetlands, tidal estuaries and willow forest. This combination of brackish and freshwater marshes was one of the most productive ecosystems on the planet. Much of the Los Angeles Basin was a flood plain which was seasonally inundated as rivers overflowed their banks, creating sloughs and supporting a thick riparian forest of willow, cottonwood, sycamore and alder. An area covering much of present day Wilmington, Harbor City, Gardena, Carson and Torrance was wetland and willow forest habitat. The first Spanish to view this area named it Canada de Palos Verdes (Valley of Green Trees).

The Gabrielino's transportation here was by boats constructed of bundles of reeds lashed together. It was said that a man could paddle a reed canoe from Redondo to Long Beach. The reed-like plants which grew in the marshes, a combination of bulrush, cattail and common reed, are collectively called rush or tule. A visit to Machado Lake, one of the last remnants of this habitat, can give one a glimpse of how this area once appeared.

Birds Blot Out Sun

These areas were tremendously abundant in game. Early settlers remarked that flocks of birds in flight were thick enough to blot out the sun. This was an important stop along the Pacific flyway for populations of birds that we can not begin to imagine today. When hunting waterfowl, fishing or checking his traps, a hunter needed to keep an eye open for the grizzly bear [*Ursa major*] in order that he not become the prey. At the top of the food chain, this imposing animal was regarded with great respect. Ironically, this animal, which graces the California State seal, has been exterminated from the state.

A network of tidal estuaries, stretching from San Pedro through Long Beach, connected the sea and briny mud flats with brackish sloughs such as Machado Lake, and was a source of abundant clams, oysters, fish and game. The outer coast provided plentiful supplies of fish, shellfish, crustaceans, edible marine algae and shells [important trade items] For the open sea, stout plank canoes were used for fishing, hunting marine mammals and trading voyages to Santa Catalina Island.

The hills of the Palos Verdes Peninsula were a patchwork of grassland and coastal sage scrub, which provided grains, bulbs, fresh greens, medicinal plants and game. Herds of pronghorn antelope and deer roamed freely, grazing on the grasses, herbs, and herbaceous perennials. Mountain lion, black bear, gray fox, coyote, ground squirrel, rabbit and quail were also populous. Hawks and falcons shared the sky with the turkey vulture, condor and eagle. The latter was viewed by the Indian with great reverence.

It is my personal belief that groves of Coast Live Oak [*Quercis agrifolia*] provided acorn meal to an already plentiful menu. Oak trees grew throughout California and were planted and tended by the local inhabitants. Since this area was occupied for many thousands of years, and implements for the grinding and processing of the acorn have been found in archaeological digs, it stands to reason that these utilitarian trees would have been a part of the landscape. The wood of the coast live oak is a fuel of the highest quality and the tannin found in its bark is very useful in the process of tanning hides. These two factors would have doomed these trees to the axes of the cattle ranchers who settled here early in the years of the ranchos. Since written descriptions of this period are scarce, no proof exists for this hypothesis and it remains a subject of conjecture.

Because of the immense variety of resources available to them and their ideal location for a flourishing business of trade, "the people of the rushes" must have considered themselves fortunate. But this seemingly idyllic existence came to an end soon after the arrival of the Spanish.

by Tony Baker

This article was prepared as part of a training manual for Conservancy Nature Walk Leaders. A walk was held on the Defense Fuel Support Depot property in February, and the Machado Lake and Ken Malloy Park area will be visited on August 10. For more information on our Nature Walks, call our office, 310-373-0202.

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