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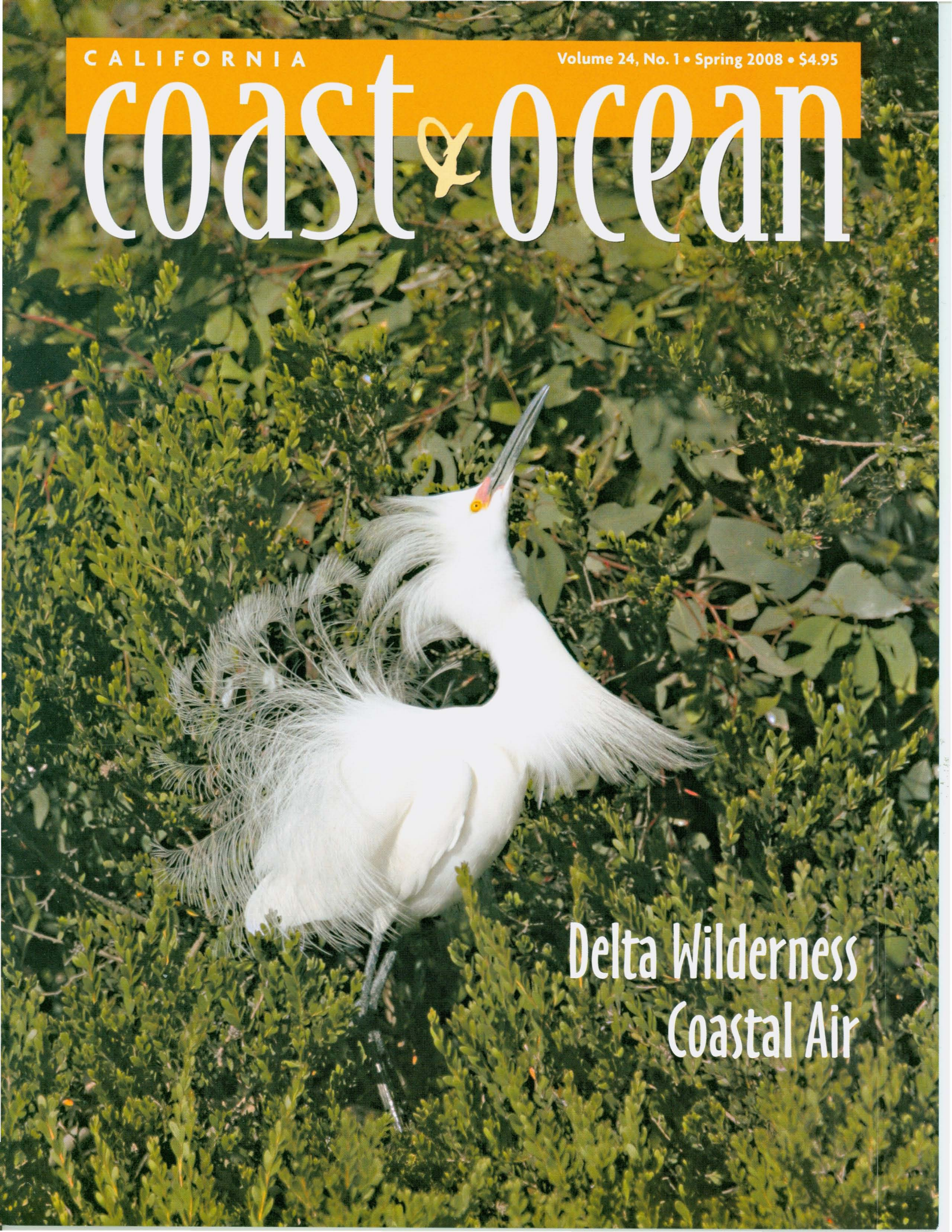

Delta Wilderness
Coastal Air

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Coastal Conservancy

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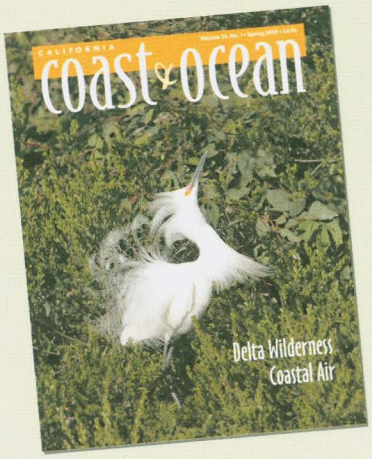

Cover photo: Snowy Egret *(Ardea alba)* in high breeding plumage at Lake Merritt, Oakland, by Joyce Gross

Inside Back Cover: Anne Canright

Back Cover: San Francisco Garter snake *(Thamnophis sirtalis tetrataenia)*, by Jeremiah Easter

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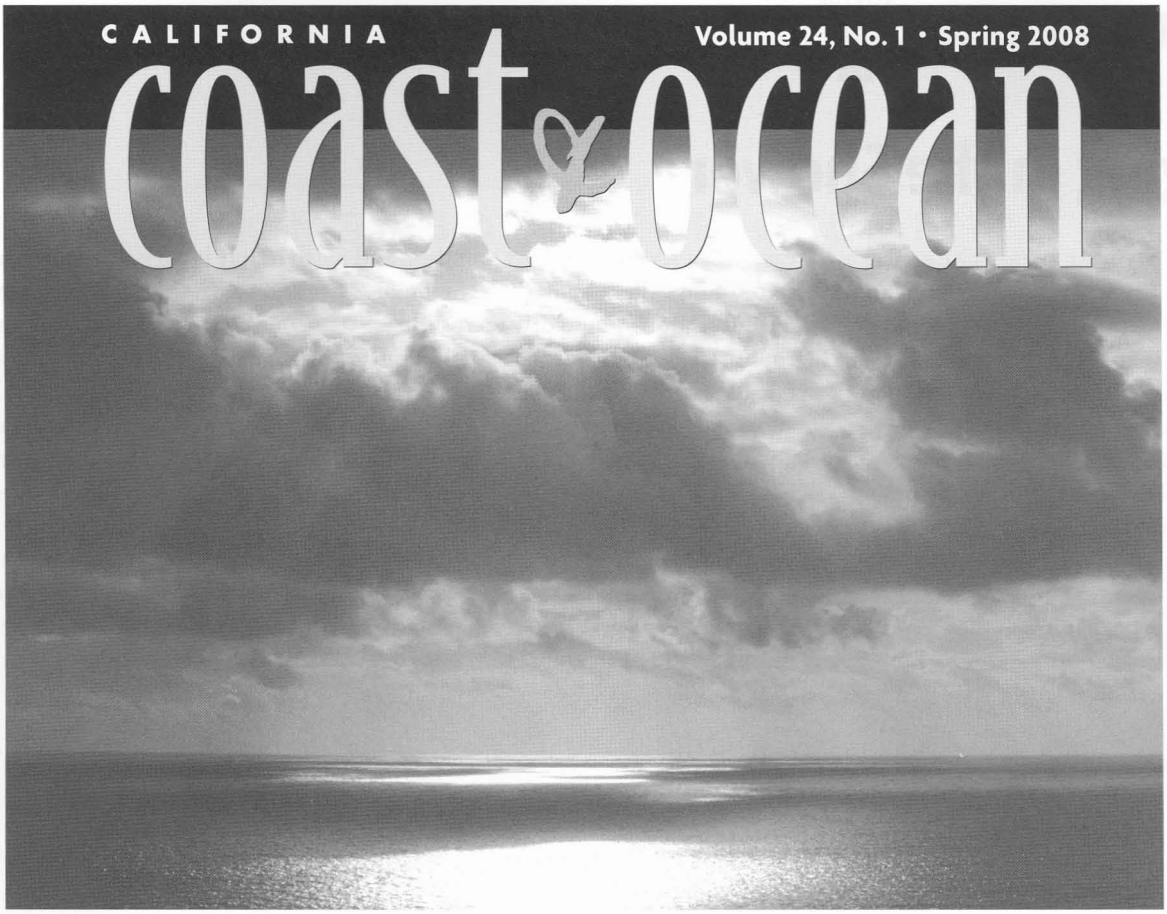

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COASTAL VIEWPOINT

Singing in the Shower

THE SHOWER AT OUR PLACE takes a while to warm up, so I now catch the cold water in a pot and use it for plants. If the orchids in the house don't need it I walk down to the garden and pour it on stringbeans or basil or geraniums. This little diversion takes only a few minutes, and it makes me feel good. Such a simple action won't help the fish in the Klamath River or drought-stricken farmers, but it connects me with water in an intimate way.

We may all be helpless in the face of changing wind patterns and ocean currents. We can't stop the glaciers from melting or save the drowning polar bears. Yet in that simple act of holding up a pot to capture drinking water that was about to run down the drain and into the sewage system, I feel that I am helping to bring about a change. I sense a connection with ancients who made clay pots to hold rainwater for the dry season and the farmers in southern California who did not plant this year because there would be no water for their crops.

Global warming will continue even if we all give up our cars and shut down the world's coal plants tomorrow. It's too late to reverse it. But that does not mean we can't do anything positive. We have the choice of either skulking around gloomily and closing our eyes to what alarms us, or moving in our own varied ways in a sensible direction. My little shower ritual makes me feel good, and I don't apologize for that.

Myriad such personal actions, together, play a role similar to that of micronutrients that work in the soil to make new plant life possible. They prepare the way for essential larger-scale improvements. It does appear that alarm about the fast pace of global warming and recent devastating natural events has opened the way.

When small creative acts by a few individuals can set the ball rolling, a bigger change may come about with surprising ease. Just a few years ago my grandson and some of his college buddies were rebuilding old school buses to drive across the country fueled by grease collected from fast-food restaurants. Really, I said. Really? What an adventuresome thing to try. Who knew that by now restaurant grease would be a prized commodity and at some restaurants would be secured with padlocks to guard it against thieves.

Or take plastic bags. You practically had to fight to keep sales clerks from packing everything into them. Now in San Francisco large grocery stores are no longer permitted to use them, so I find I sometimes have to ask for one. I save them and reuse them because they're scarce. Like Europeans, we are beginning to carry string bags in our backpacks and purses.

A great example of the power of small individual actions combining to major effect is Mono Lake. It's alive and well today because about 30 years ago a young biologist, David Gaines, and a few allies pointed out that if every toilet in Los Angeles had a brick in its tank, the city would have no need to draw water from the creek feeding the lake.

Now, of course, ultra-low toilets are not only available, they're required and also economical.

In this magazine we report on many creative and satisfying ways people are working to restore broken links between us and other creatures. At Mori Point in San Mateo County, an endangered red-legged frog, an endangered snake, and a lot of hikers and bicyclists are enjoying a coastal park without interfering with one another (except, of course, that the frog is food for the snake) (see p. 9). Los Angeles, taking a cue from Portland, Oregon, is replacing some impervious concrete with paving that lets water be absorbed into the ground rather than pour into storm sewers (see next issue). In Orange County, treated wastewater is being recycled into drinking water.

The largest, least expensive, and most environmentally sound source of water to meet California's future needs is the water currently being wasted in every sector of our economy.

—Waste Not, Want Not, *Pacific Institute*

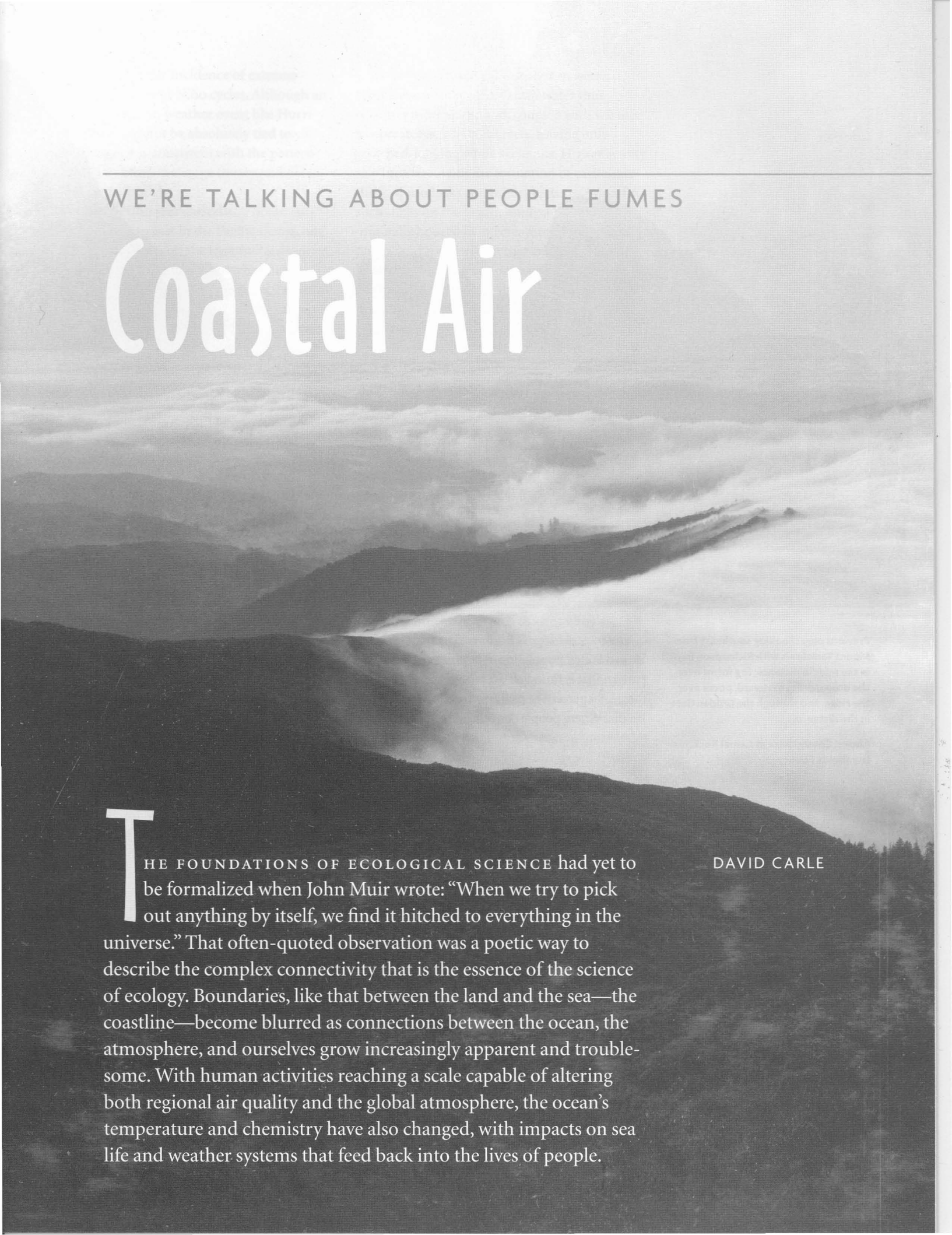
In the Sacramento–San Joaquin Delta, Captain Ronn Patterson steers his yacht *Delphinus* into a wilderness few have ever seen and talks about it as the greatest habitat in California—because of water. Some people who take his trip talk about "our water, their water," he says. "What I try to get across is it's *our* water. . . . For me it all starts with water. It all starts with a drop." The drop in the shower that flows to the sewer or the geranium pots, and to the bays, our Delta, the ocean. As air is indivisible (see p. 3) so, essentially, is water. Its power can tear apart, and it also can bring everything together.

—*Rasa Gustaitis*

USGS/G. K. GILBERT

WE'RE TALKING ABOUT PEOPLE FUMES

Coastal Air



DAVID CARLE

THE FOUNDATIONS OF ECOLOGICAL SCIENCE had yet to be formalized when John Muir wrote: "When we try to pick out anything by itself, we find it hitched to everything in the universe." That often-quoted observation was a poetic way to describe the complex connectivity that is the essence of the science of ecology. Boundaries, like that between the land and the sea—the coastline—become blurred as connections between the ocean, the atmosphere, and ourselves grow increasingly apparent and troublesome. With human activities reaching a scale capable of altering both regional air quality and the global atmosphere, the ocean's temperature and chemistry have also changed, with impacts on sea life and weather systems that feed back into the lives of people.

Previous page: Looking southeast from Mount Tamalpais with Richardson Bay in the middle distance; fog forms over the ocean, drifts eastward, pours over the ridge, and through the Golden Gate in the distance.

Above: Coastal haze at Camel Rock, Humboldt County

The coastal fringe is home to 53 percent of the United States' population, a population density pattern that is found all over the planet. In California, 80 percent of us live within 30 miles of the Pacific. Where people concentrate in coastal areas, exhalations and emissions from their many daily activities are spread by regional and global winds, with consequences felt far inland. Smog, particulate pollution, and the greenhouse gases, carbon dioxide and methane, are all part of the mix that I suggest we call "people fumes," so we can be realistic about the source of these problems. Individual daily acts like driving a car, innocuous in small numbers, turn into acts of pollution when multiplied by millions, simply because California's coastal air basins are so densely populated. The scale of certain individual pollution sources has also become immense. The southern California port complex at San Pedro and Long Beach, for example, produces 25 percent of the south coast's air pollution and is the largest stationary source of air pollution in California (see p. 8).

The atmosphere communicates with the seas about these troubling "people fumes." Ocean and atmosphere work as a system with linkages that transport and exchange heat, water vapor, carbon dioxide, oxygen, and other gases. As human activities during the Industrial Age led to increased concentrations of greenhouse gases and atmospheric temperatures rose, the ocean dampened both types of increases by absorbing heat energy and carbon dioxide. Since the early 1800s, about half of the manmade releases of carbon dioxide have been captured by the oceans. But that has had increasingly severe consequences for the ocean and for global weather patterns.

Sea levels have risen four to eight inches during the past century, largely because of thermal expansion—warmer water occupying a greater volume—rather than as a result of melting glaciers and ice caps, as is commonly assumed. (Ice melt, if we push warming too far, will lead to more ominous sea level rises measured in feet, rather than inches.) The warming happens at the surface, yet slow mixing has been detected as much as 10,000 feet deep, so the entire ocean world is affected. More heat energy in the ocean, as well as in the atmosphere, generates more severe weather. In the last 20 years, researchers at the Scripps Institute of Oceanography, in San Diego, have documented trends of rising storm

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wave heights, higher incidence of extreme waves, and shorter El Niño cycles. Although an individual extreme-weather event like Hurricane Katrina cannot be absolutely tied to climate change, it is consistent with the patterns predicted by climate change theory and ocean-atmospheric models.

During El Niño years, wind and ocean currents flow west to east in the Pacific Ocean, and warm water collects off the eastern Pacific coast. Jet streams and storm tracks overhead shift accordingly. In between El Niño years, La Niña may appear, when a "cool pool" forms in the Pacific waters closest to us and the currents and wind turn around and flow away from the coast. With El Niño conditions, southern ocean species increase off the central and southern half of California, while northern species of zooplankton and northern cold-water fish decrease within local kelp forests. Green-spotted rockfish *(Puffinus griseus)* declined by half after the 1970s, while warm-water fish like Garibaldi *(Hypsypops rubicundus)* increased significantly.

This past winter, the cycle brought us La Niña, and we experienced the coolest winter since the last La Niña, in 2001. Yet the long-term warming trend continued. A National Climatic Data Center report released in March noted that "the combined global land and ocean surface temperature was the 16th-warmest on record for the December 2007–February 2008 period" (0.58°F above the 20th-century mean). These changes have had profound effects on ocean life.

As carbon dioxide gas dissolves in water, it produces carbonic acid. Ocean water thus becomes more acidic and, coupled with warmer temperatures, kills coral reefs, leaving only bleached-looking white skeletons. Higher acidity also interferes with the formation of carbonate shells of mollusks and other creatures. We collect such shells on the beach, dimly aware that they originally housed living creatures. Microscopic phyto- and zooplankton that encase themselves in carbonate constructions are also damaged. Phytoplankton provide the photosynthetic base that begins ocean food chains, so they are critically important keystone species. Mess with their ability to survive, and the consequences could be widespread and profound.

All this should concern us, but it can be personally difficult to see the connections to ourselves and to grasp that our individual daily greenhouse gas emissions create problems for ocean species that must construct their bodies in sea water that is increasingly acidic because of higher atmospheric carbon dioxide levels.

A warmer atmosphere is also more energetic, and that affects wind patterns. Wind is one key to the California Current, which carries ocean water from north to south, down the coasts of Washington, Oregon, and northern California. As the rotating earth spins the shoreline eastward, away from that current, the water moves away from the coast. Nearshore surface water is then replaced from the depths (upwelling), and that brings upward nutrients that fertilize

CORBIS

phytoplankton. The result has been a highly productive life zone off our coast as the increased productivity passed up the food chain. But the warmer climate is causing troubling changes to the beneficial upwelling process. Scientists report that stronger and more persistent winds, linked to global warming, are promoting more upwelling and for longer periods. The result in recent years has been too much of a good thing: massive phytoplankton production, way more than can be consumed by feeding animals. When that plankton floating near the ocean surface dies, it sinks to the ocean floor and decomposes. Decomposition sucks oxygen from the water, resulting in dead zones.

A study by the Partnership for Interdisciplinary Studies of Coastal Oceans, published in *Science* in February, found oxygen levels much lower than in the previous 50 years during each of the last six summers off the coast of Washington, Oregon, and parts of northern California. In 2006, the study found nearly complete mortality among sea floor creatures such as crabs, which could not escape the dead zones. Finding no correlation with other ocean temperature variables such as El Niño cycles, the study pointed to climate change as the driving force. What was a beneficial, life-sustaining process, in the right balance, has been thrown off balance, with deadly consequences.

There are messages in these events that Californians need to appreciate: It really is possible to have too much of a good thing; more is not always better.

Just as it is hard to connect damaged mollusk shells and acidic ocean water with our individual greenhouse gas emissions, it is difficult to appreciate our complicity in these ocean dead zone events. Yet, the atmospheric changes affecting the ocean can be traced back to "people fumes," and that means you and me, our cars, houses, office buildings, factories, and ports.

Southern California's port complex at San Pedro and neighboring Long Beach serves over 3,000 vessels each year. It is the third-largest port complex in the world, and (why is this not a surprise?) both the ports have plans for massive expansion.

Cargo ships burn dirty, high-sulfur diesel fuel, an asphalt-like material that generates 1,800 times as many particulates as does the fuel for diesel trucks, including ultra-fine particulates that are considered especially serious health hazards. Emissions from ocean vessels have gone almost unregulated, primarily because 90 percent of the ships using U.S. ports sail into them

TOP: WILLARD S. WOOD/NOAA/NWS COLLECTION; BOTTOM: ©RICHARD ZMASEK

under foreign flags. United Nations efforts to reduce emissions from vessels have dragged on for years without resolution.

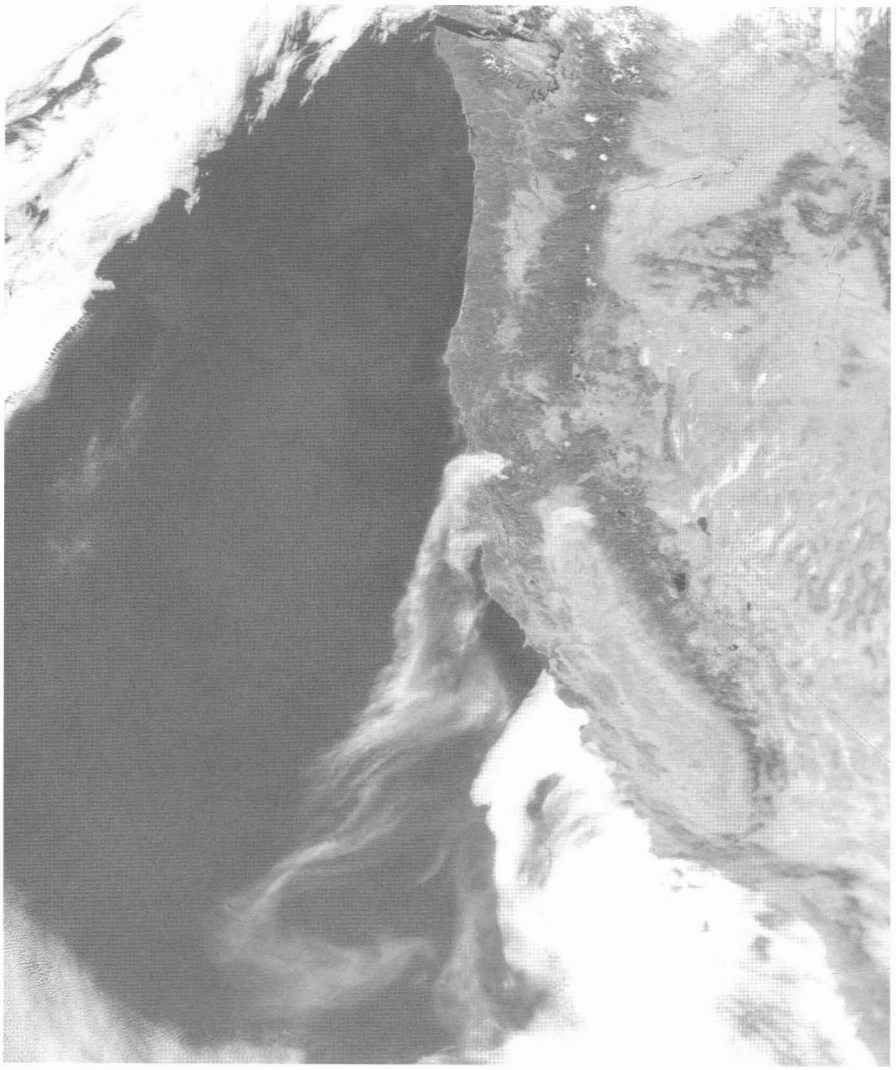
Once vessels enter our territorial waters, however, we have authority to require cleaner practices. Recent local, state, and federal measures are finally having some impact. In February, Congressional hearings considered proposed legislation introduced by California Senator Barbara Boxer that would require ships entering U.S. ports to burn cleaner fuels. During those hearings, a southern California emergency room physician called the San Pedro/Long Beach port region a "diesel death zone." Ultra-fine particulates slip past the mucus and cilia defenses of our respiratory systems and lodge deep in the lungs. There they interfere with air-blood gas exchange, reducing lung efficiency with grim consequences: asthma, cardiac problems, and early deaths. The California Air Resources Board calculates that movement of goods is responsible for 2,400 premature deaths every year.

Hundreds of thousands of people live near the southern California ports, as well as near the state's third-largest port, Oakland. They are, of course, most immediately affected, but the aerial effects from shipping are not limited to the immediate vicinity of the ports. The Santa Barbara County Air Pollution Control District estimates that ship emissions blowing onshore have essentially negated all the gains they have made by controlling emissions from cars and trucks, despite the fact that Santa Barbara has no commercial port and that container vessels travel 10 to 15 miles offshore.

Ships are not the only source of air pollution in ports. Cargo is transferred by diesel-powered loaders and forklifts onto thousands of diesel-powered trucks or to trains with diesel engines. Efforts have begun to provide electrical hookups so ships can use electric motors in place of their diesel auxiliary engines while in port and also to require cleaner-burning fuels in trucks and trains. But such efforts have proceeded too slowly for many port neighbors and the environmental groups that represent their interests.

When the Coalition for a Safe Environment and the Natural Resources Defense Council threatened to file a federal lawsuit this winter because of slow implementation of plans by the Long Beach port to reduce diesel particulate emissions, attorneys for the two organizations provided some pungent quotations: "Goods movement in California is responsible for more deaths every year than homicides. In view of that, 'trying hard' is just not enough." They also pointed out that "Long Beach Mayor Bob Foster has said many times that it is not right to have the children of Long Beach pay with their health so that people in the Midwest can buy cheap TVs from Asia."

So, Mr. Muir, your observation that everything is hitched together seems increasingly accurate and relevant. Though I live hundreds of miles inland, my purchasing decisions have consequences for people residing near the places where those overseas goods made their California landfall. The 21st-century global economy impacts air quality and personal health for far too many people, but my concerns come full circle as I also consider the carbon footprint of those goods—the greenhouse gas emissions inevitably produced as manufactured items move across the oceans in ships burning fossil fuels. Even the books I've authored in recent years are printed in China, because that is the place for publishers to go for high-quality color imagery. I'm dismayed to realize the size of the



NASA/SEAWIFS PROJECT

Opposite top: Bands of altocumulus clouds with cirrus filaments over Death Valley

Opposite bottom: Una palm near Tule Wash, Anza Borrego, with multiple cloud strata

Above: Smoke plumes from a forest fire in northern California carry far out over the Pacific.

carbon footprint and the climate and health impacts of these books, which are intended to improve environmental awareness of issues like water and air in California.

John Muir, you were correct, but the connections you described have consequences that go beyond anything you likely ever imagined. Comprehending that I am one of millions of people in this state and that there are billions more of us across the planet, I'll keep trying to appreciate those connections hitching me to everything else in the universe. ■

David Carle's books include three guides to understanding human influences on California's ecology and natural resources, published by the University of California Press: Introduction to Water in California *(2004),* Introduction to Air in California *(2006), and* Introduction to Fire in California *(2008). He was a State Parks ranger for 27 years.*

Ports Move to Reduce Diesel Truck Fumes

BUSINESS IS BOOMING at California's biggest ports, Los Angeles and Long Beach, but their neighbors are paying a price. Emissions from ships, trucks, and other diesel-powered vehicles and equipment at the ports are major contributors to air pollution, and residents in nearby communities are suffering elevated rates of cancer, asthma, and other illnesses.

A study released in January 2008 by the South Coast Air Quality Management District showed that lifetime cancer risks in residential areas adjacent to the ports of Los Angeles and Long Beach are higher than any other region in the Los Angeles Basin—well over 2,000 per million, compared to the average rate of 1,400 per million. "Asthma rates are through the roof around the ports, and cancer risks are about 3,000 times what the EPA thinks is safe," said Martin Schlageter, campaign director for the Coalition for Clean Air, which works with communties throughout California to improve air quality.

A major air pollution source at the ports is the fleet of more than 16,000 diesel-fueled trucks that haul the goods. Many are old and poorly maintained.

In November 2006, the harbor commissioners of the Port of Los Angeles and adjacent Port of Long Beach approved a joint clean air action plan designed to reduce their total emissions by 45 percent. Under this plan, within five years all trucks that regularly serve both ports must meet the U.S. Environmental Protection Agency's emission standards for vehicles built in 2007. The program is expected to reduce truck emissions by 80 percent. Most trucks will have to be replaced and, under the current system, the cost of replacement—$100,000 or more per truck—would fall on the owner-drivers, whose gross annual income in the Los Angeles–Long Beach area is about $42,000, according to a study by the California Air Resources Board. "We think that the costs need to shift up the line to the drayage companies and ultimately to the retailers," said Tom Politeo, co-chair of the Sierra Club's Harbor Vision Task Force. Schlageter added: "Replacing the trucks shouldn't be put on the backs of the drivers."

Both Politeo's and Schlageter's organizations are members of the Coalition for Clean and Safe Ports, which brought together community, environmental, and labor organizations. Partly in response to the Coalition's efforts, the ports decided to consider overhauling their entire freight transportation system. In April 2007, they proposed a joint Clean Truck Program, which would require drayage companies to become licensed port concessionaires, buy and maintain the fleet of trucks, and hire drivers as employees. Owner-drivers now working at the ports would get first priority in hiring. Trucks built in 1988 or before would be banned starting October 2008, and by January 2012, only trucks that meet 2007 vehicle emission standards would be allowed into the ports.

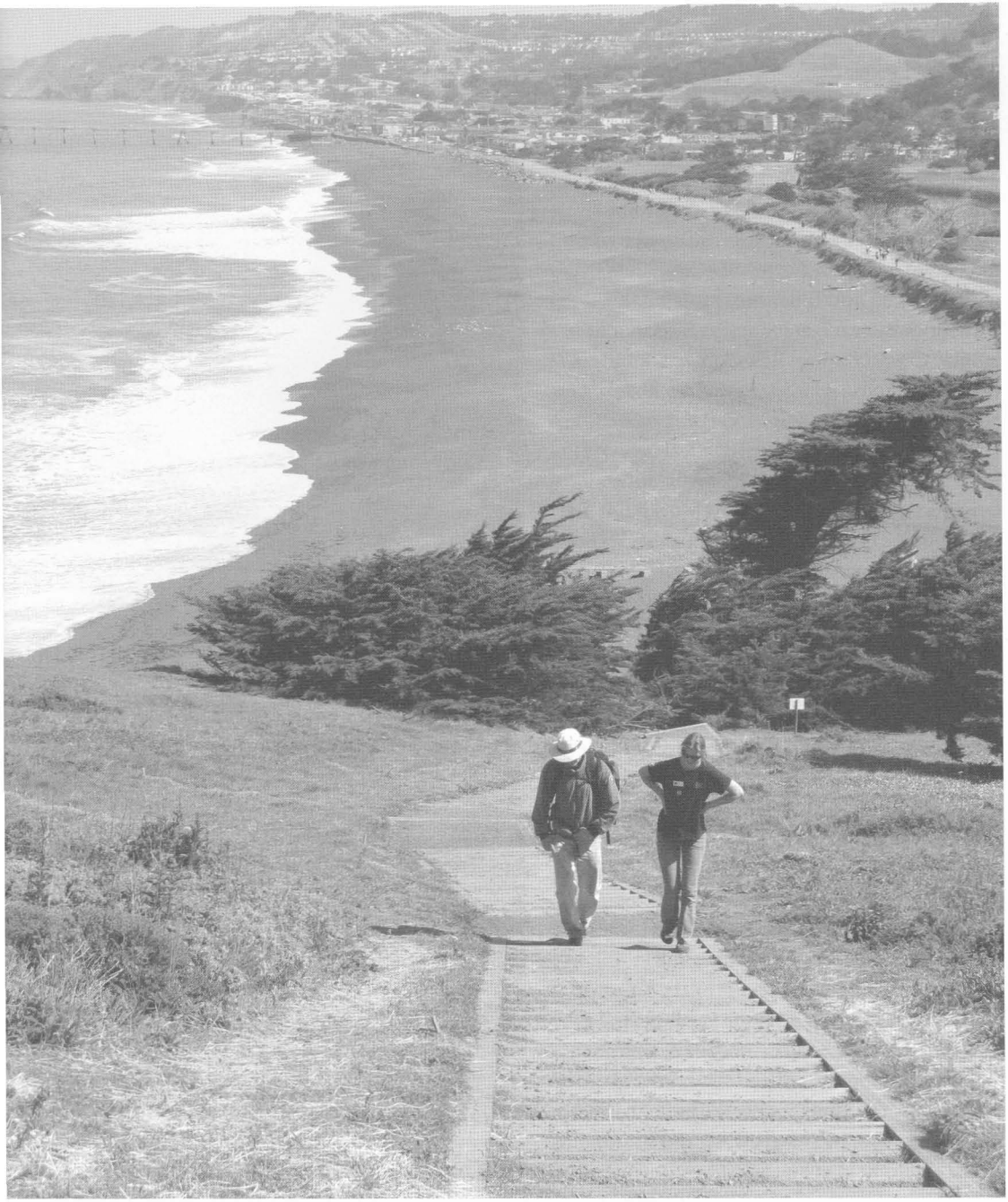
The program would also establish a fund to provide loans or grants to help concessionaires buy new trucks or, in limited cases, retrofit trucks. Revenue for the fund would come from new fees to be levied on each container of goods moving through the ports, supplemented by moneys from state transportation bonds and the ports.

Many port owner-drivers supported the plan, but trucking companies, shippers, and retailers have threatened to sue, arguing that the container fees and concessionaire requirements violate federal law.

In February 2008, the Port of Long Beach decided to drop the requirement that drivers become drayage company employees. "We needed to move forward quickly, and there was some question about how soon you could get the employee provision to work," said Port spokesman Art Wong. In March, Port of Los Angeles harbor commissioners approved their port's plan with the employee provision intact.

Both ports hope to begin offering finance packages for the purchasing of trucks. Members of the Coalition hope that Long Beach can be convinced to adopt the employee provision. "The more unified the programs are, the more chance they'll have for success," said Schlageter.

Los Angeles and Long Beach are well ahead of the state's other ports in implementing air pollution reduction measures. By 2014, trucks serving any port in California will be required to meet emissions standards for trucks built in 2007, under a measure passed by the Air Resources Board in December 2007. The Clean Truck Program is a major component of the southern ports' clean air plan. Other initiatives also moving forward aim to reduce emissions from cargo and cruise ships, harbor craft, trains, and terminal equipment. The ports have a long way to go to achieve the plan's goals. Even that may not be enough to ameliorate the health problems of nearby communities if the ports continue to grow as they have in the last decade—the number of container units moving through both nearly tripled—and if they expand to accommodate that growth, as they would like to do.



Making Space for an Endangered Snake—and More People Too

PUBLIC ACCESS AND HABITAT RESTORATION DON'T CONFLICT ON THIS HEADLAND

ANNE CANRIGHT

EILEEN ECKLUND

A new timber stairway climbs the bluff at Mori Point south of Sharp Park Beach.

WITH ITS WHITE, BLACK, and orange-red dorsal stripes, bright turquoise belly, and orange-red head—not to mention its red tongue and black lips—the San Francisco garter snake *(Thamnophis sirtalis tetrataenia)* is considered one of the most beautiful snakes in North America, if not the world. How wonderful to have such a creature in our midst!

Yet it has another distinction, one not so wonderful: through human actions over the decades, it has become one of the most endangered snakes on the continent. Declared endangered in 1967 by the federal government—one of the first species to be listed under the new Endangered Species Act—and in 1971 by the State of California, this shy reptile has steadily lost habitat to land development and pollution, and its beauty has led to illegal poaching by collectors. Today, with a population estimated at less than 1,500, the San Francisco garter snake can rarely be seen anywhere but in a zoo.

As if that weren't enough, its favorite prey, the California red-legged frog *(Rana aurora draytonii)*—the largest frog west of the Continental Divide, made famous by Mark Twain's story—is also endangered, because of habitat loss and competition from and predation by nonnative bullfrogs.

Historically, the snake and its froggy food were found in scattered marshes and ponds on both flanks of the Santa Cruz Mountains. (The snake's

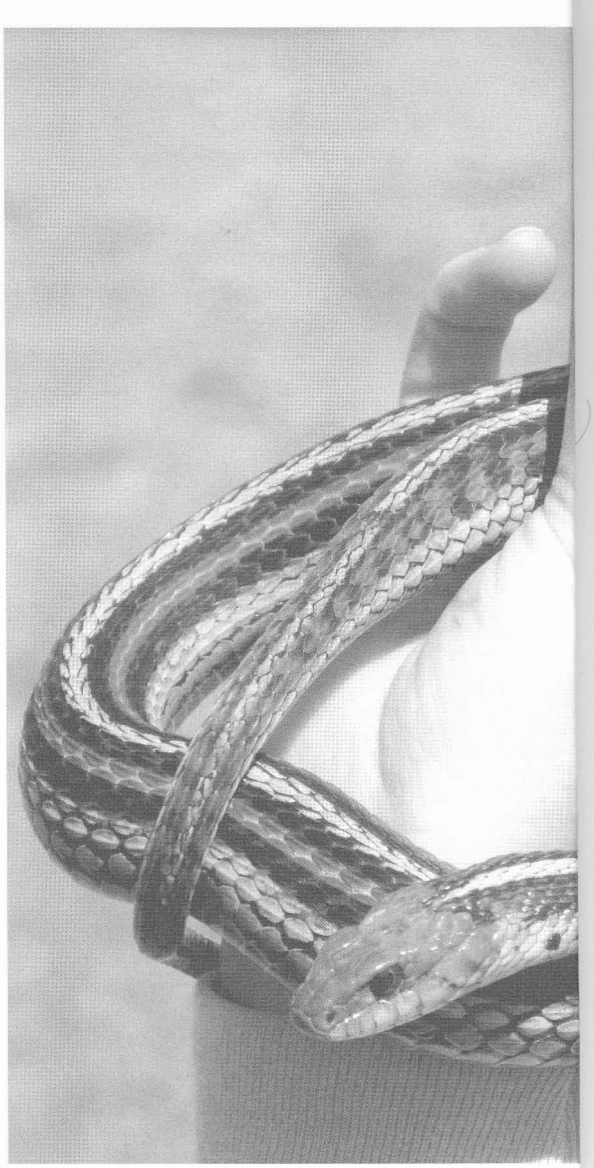
name is actually a misnomer, since its range is limited to San Mateo County.) Beginning in the 1940s and into the 1960s, however, when "sag ponds" along Skyline Boulevard, formed by movement of the San Andreas Fault, were drained to make way for people, these animals were squeezed out. Today they are left only in small pockets near San Francisco Airport and around Crystal Springs Reservoir, and locally in coastal wetlands including Pescadero Marsh, Año Nuevo State Reserve, and Mori Point in Pacifica.

Although there's not much critical habitat left to protect, the good news is that what little remains is getting active help. At Mori Point, the newest unit of Golden Gate National Recreation Area, the nonprofit Golden Gate National Parks Conservancy (GGNPC) has been working hard to give the San Francisco garter snake a leg-up (so to speak). Last year, the park and the conservancy kicked off a habitat restoration and trail improvement project that is intended in large part to help the beautiful reptile.

All for the Snakes

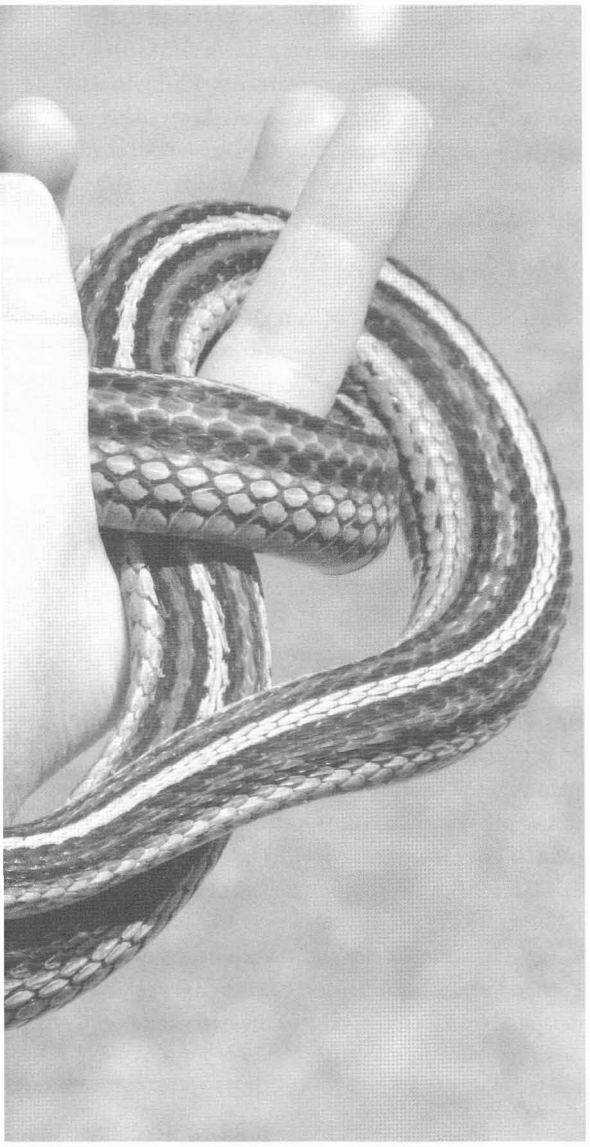
In early March, on a beautiful clear day, I visited Mori Point, guided by Sue Gardner, program director of GGNPC's Site Stewardship Program. The 110-acre park, on a headland whose fate had been in limbo for decades, finally joined the GGNRA in 2002, after purchase by the Trust for Public Land with help from the Pacifica Land Trust, Coastal Conservancy, and local community members. The purchased parcel is bordered on the north by the San Francisco City–owned Sharp Park Golf Course—once saltwater marsh—and on the east by a small housing development. From this low-lying area the property rises to a prominent blufftop, where Sue and I enjoyed a breathtaking view up the coast to Mt. Tamalpais and, faint in the distance, Point Reyes. Below us, at the bottom of a new set of 198 timber steps, a recreation path—part of the Coastal Trail—stretched atop a seawall toward Pacifica Pier. And downslope to our right was a mid-elevation area of gentle incline—the "heart" of Mori Point and prime San Francisco garter snake habitat.

This heartland is marked now by three freshwater ponds, all constructed by the GGNPC as refuges for the red-legged frog within the past year in the first phase of a two-phase restoration project. Totaling more than 1,200 square feet in surface area, they were designed with the help of a hydrologist to ensure that they will hold water for six months—a requirement of the frog's breeding cycle. The frogs have already discovered the ponds



and have been depositing clusters of gelatinous eggs in them and in nearby Laguna Salada, a natural pond adjacent to the seawall. The chunky little polliwogs will then, hopefully, become foraging fare for the snake. (The snake also eats western tree frog young, but it prefers the larger—and perhaps tastier—red-legged tadpoles.)

In a sense, the seawall created the snake and frog habitat here, because its construction changed what had been saltwater wetlands to freshwater marsh. As housing was built inland, the snakes moved shoreward and came to rely on the marsh landward of the seawall. When the GGNPC built the three ponds in 2007, it expanded this habitat. The lower ponds are fed by the surrounding watershed and tied in with groundwater. The southernmost "perch" pond, finished last October, is fed only by rainfall and runoff and has a clay bottom to prevent percolation of its precious liquid.



EILEEN ECKLUND

San Francisco Zoo employee Jessie Bushell Wiley holds a San Francisco garter snake at Mori Point.

The restoration project has been long in the planning. One of the first tasks was to undertake a census of the snake. This was done four years ago, with traplines set by biologists. Only seven individuals were found, said Sue, "but they were male and female, and there was age stratification"—an excellent demographic, promising reproductive potential. Two years ago 13 snakes were counted in a second census. "So all we can say for sure," Sue noted, "is that the population is increasing. But that's what we want to see."

After this crucial groundwork was completed, the restoration project was launched in July 2007. The first phase focused on controlling invasive nonnative plant species, particularly French broom and pampas grass; removing debris left over from prior land uses; erasing informal trails and beginning construction of a streamlined trail system; and building the three ponds.

Before brush clearing, grading, and digging of the ponds could begin, a team of biomonitors made sure the snake wasn't in danger. "When the weather warms up," Sue explained, "the snake likes to take refuge in underground burrows. So the biomonitors went in front looking for gopher holes and excavated gently, by hand, each one to make sure there were no snakes in them. When we thought we had everything excavated, we put snake-exclusion fencing around the area so they couldn't get back in, with a little exit hole in case any were missed—and we left that up until the ponds were finished."

Not Just Natural History

The day before my visit saw the start of Phase II—brush cutting, in preparation for extensive trail building (including the linkage of the Coastal Trail from north to south)—and Sue was eager to see what had been done. Although the trail work is under way, she explained, "we're on the cusp of bird nesting season, so we need to cut things low now." Mori Point, with its confluence of wetland, seashore, coastal scrub, and coastal terrace prairie habitats, is also a birder's paradise.

As we walked, Sue described the cultural history of the area, which she said is "almost as exciting as the natural history." The point was first settled in the late 1800s by Stefano Mori, who started out grazing cattle and horses and raising brussels sprouts, cabbage, and artichokes. Facilities to feed and house the ranch hands eventually developed into the income-earning Mori Point Inn, a welcome roadhouse for travelers between San Francisco and Half Moon Bay. In the 1920s, Sue said, local culture "got a little more colorful, when the inn became something of a bordello" and Prohibition sent the then tavernkeeper, Stefano's son Jack, into a brief career as bootlegger, running Canadian scotch from smugglers' ships off the point. That all ended in 1923, when Jack was arrested and 24,000 cases of whiskey were confiscated. (The timber steps that connect the bluff and the seawall are called "Bootlegger's Trail" in honor of this short-lived era.) The roadhouse was revived in 1932 as a restaurant, hotel, and dancehall and remained in use until 1965, when it was condemned and, soon thereafter, burned to the ground.

Other uses of the area have included limestone, rock, and sand quarrying, a cement operation, and motorcycle riding. The former presence of humanity means that "you never know what you're going to find when you take scrub out,"

Below: One of several informal trails along the bluffs south of Mori Point

Bottom: Mori Point

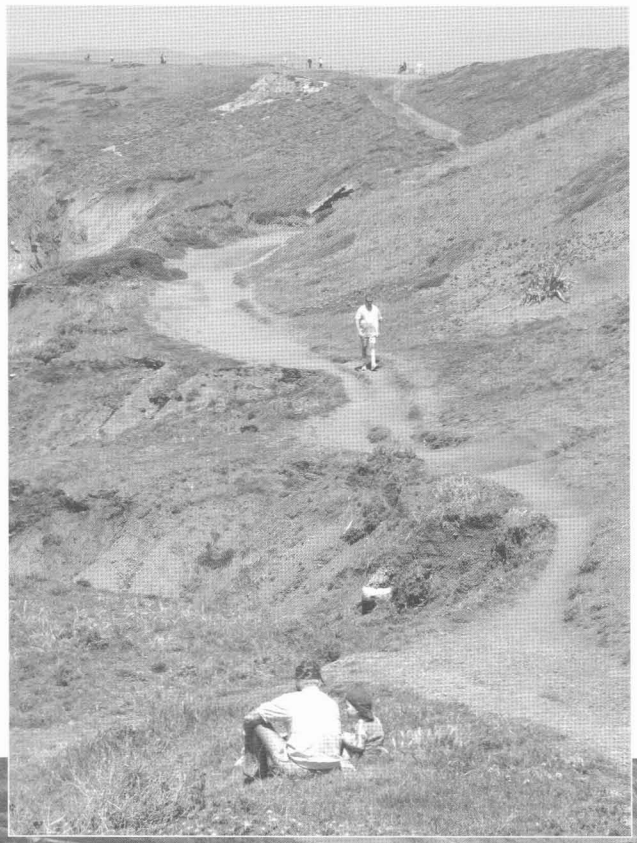
Opposite top: San Francisco garter snake *(Thamnophis sirtalis tetrataenia)*

Opposite middle: A restoration crew gets ready to plant at one of the ponds.

Opposite bottom: California red-legged frog *(Rana draytonii)*

Sue said. In Phase I, bathtubs, a shopping cart, tires, and vehicle axles were removed. "When we started digging our ponds, we also found diesel fuel"—a nasty surprise that required expensive cleanup. Here and there, small mounds of old asphalt still dot the ground—remnants, probably, of the cement operation.

Near Laguna Salada, on City of San Francisco land, dozens of car tires lie heaped in a large oval—perhaps the remains of an old corral. "The problem with the tires," said Sue, "besides that they'll be expensive to get rid of, is that they hold water—which is prime habitat for mosquitoes, of course, but also for frogs." Although the frogs eat the mosquitoes, they don't do it fast enough. Recognizing this dilemma, the Mosquito Abatement District helped with the design of the ponds. They will also treat the ponds with Bt *(Bacillus thuringiensis,* a natural, selective pesticide), Sue said, "which deals specifically with the larvae of the mosquito. All these things are tricky."



As we made our way along the old road to the south pond, Sue pointed out a hawk rising into the air, a long serpentine creature writhing in its talons. "Put that down!" she yelled. Most likely, it wasn't a rare San Francisco garter snake but the common coast garter snake, which also inhabits the area. That's what we hoped, anyway.

Working Together

Sue relies on a small staff, but she couldn't have accomplished anywhere near as much without a large and diverse group of volunteers, ranging from small schoolchildren to local neighbors. "In areas like this where you have such sensitive species," said Sue, "historically the emphasis, in terms of protection, has been to fence them off and keep people out. But we really believe that the *only* way to protect these areas is to engage people in stewardship."

Fortunately, the local community has leapt enthusiastically to work, participating in cleanups, salvaging native wetland plants from construction areas, removing nonnative plants and planting new natives in their place, and collecting native plant seeds to support future restoration efforts. They also assisted with the installation of 1,300 feet of protective fencing along sensitive habitat areas.

Eighty-five to 90 percent of volunteer support comes from schoolchildren. Programs are designed by a GGNPC education staff member

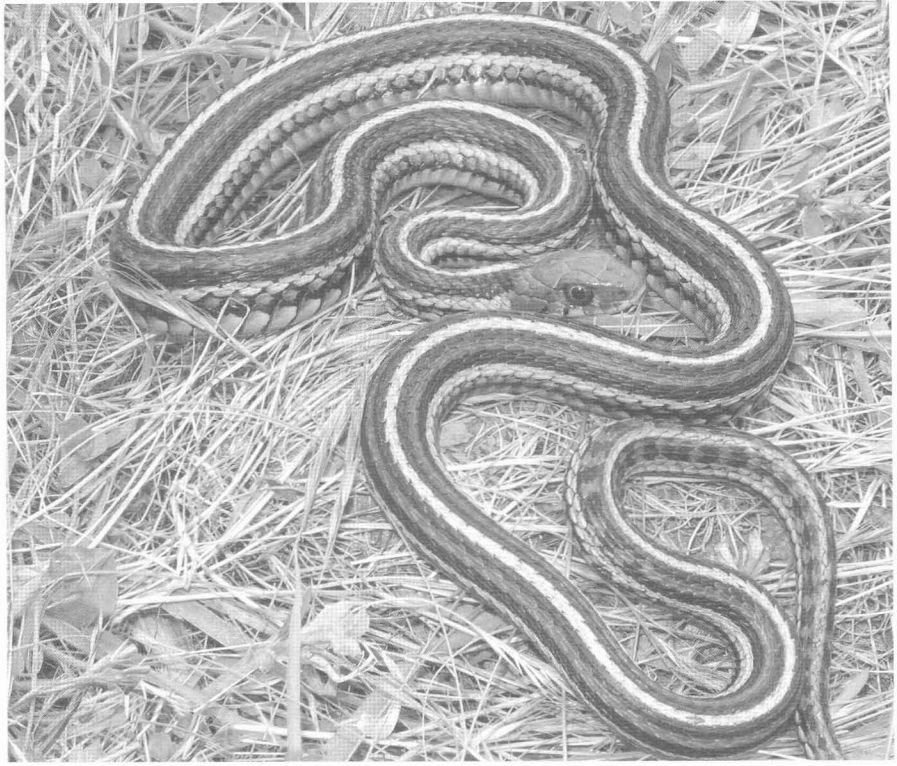
and an ecology/science staff member, working together "to make sure that what's done will actually help the area." Teachers give input as well, "so we can tie in with what's going on in the classroom." Outreach staff and interns conduct three to four programs a week with local schools, and Sue has maintained partnerships with Oceana High School and City College of San Francisco that go back 14 years. "At City College," Sue said, "students taking biology often are taking it in a vacuum because the school is so urban." Here, with an hour-long lesson on such subjects as island biogeography and how species become endangered, and two hours of field work—removing invasive species, say, or planting natives—they can connect with the land and natural processes.

At Oceana High School, students must do 100 hours of community service. There, Sue helped establish a small native plant nursery, which students maintain; then every Wednesday there's a work day, when they come out to plant—"so they get to see the whole cycle." Altogether they've grown about 6,000 plants, and a local nursery donated another 10,000, "so we've been planting frantically"—as myriad red flags stuck in the ground confirm.

Even small children get hands-on experience at Mori Point. "Believe it or not," said Sue, in invasive plant eradication efforts "we try to save the ice plant"—but only until a young school group comes along. Then children who can't do much more get an important job all their own: pulling it out. They also assist in the once- or twice-a-month cleanup of a culvert outflow area—a trash magnet—at one entrance to the park. As Sue observed, "It's a little disheartening to see a frog—and this is the threatened red-legged frog—sitting *on* a piece of trash." Here, the kids use grabbers to pick up trash. "It's a really tangible thing to do. They almost always get to see the frogs, and then there's the garbage. It's kind of instant gratification."

As Sue and I leave the park by this entrance, we peer into the shallow water near the culvert. Yes, there are a couple of pieces of trash. But there, nestled up against a stick, is the pointed head of a frog. We look a little harder and spot the hindquarters and legs of another one. The sight *is* gratifying. ■

Anne Canright's last article for Coast & Ocean *was "Ants!" in the Winter 2007–08 issue.*



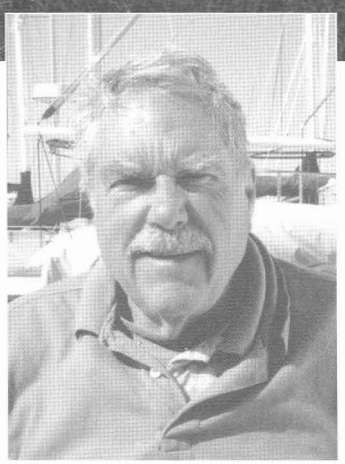
OPPOSITE TOP: EILEEN ECKLUND; OPPOSITE BOTTOM: CALIFORNIA COASTAL RECORDS PROJECT; TOP: JEREMIAH EASTER; MIDDLE: EILEEN ECKLUND; BOTTOM: JOYCE GROSS

THE DELTA AS WILDERNESS

"All that wildlife needs—in abundance"

An interview with Ronn Patterson

Captain Ronn Patterson



RASA GUSTAITIS

RONN PATTERSON'S DELPHINUS *had just passed the latest rigorous U.S. Coast Guard inspection, and he was free to relax a bit in the cozy cabin. This year's season of Delta tours was over, most of the migrating birds had already flown north to their breeding grounds, and soon Ronn too would be heading that way. Each year for the past 27 years he has spent summers in Alaska, leading natural history trips along the southeastern coast. Around October, as the vast flocks fly south, he and his crew return to the Bay Area, ready to lead trips on San Francisco Bay, up the Petaluma River and Napa River, to Suisun Marsh and, most especially, into the Sacramento–San Joaquin Delta.*

To go out into the Delta on the Delphinus *with Captain Patterson is to enter a strange watery world unimagined until one has been there. I did that in February, along with most of the staff of the Coastal Conservancy, on a day of blasting winds*

ABOVE: CINDY MARTIN; LEFT RASA GUSTAITIS

and clear skies, when cormorants were roosting in snaggly trees on the levees and huge flocks of Canada geese, sandhill cranes, and other waterfowl were fattening up in the sunken and flooded farmlands.

Throughout the eight-hour trip, Patterson talked and pointed things out as he steered the trawler-style yacht through a labyrinth of channels bordered by rustling reeds. He was a fount of knowledge, which he delivered with passionate eloquence. At the end I was left wanting to know more about him, so we made an appointment and met aboard the boat on April 3.

Coast & Ocean: **You've been leading these trips for 27 years. That's a long time. Do you ever get bored?**

Ronn Patterson: I never get bored. There's always more to discover. A place gets richer and richer, the more you discover it.

You have an enviable way of life, seems to me. How did you start out?

I had already been doing it, at the University of California Extension at Berkeley. I started the natural environmental studies program there in 1963 and also the photography program. I retired in 1976. (He's 68 now.)

So you come from an academic background?

From the time I was a kid, I felt I had always been a biologist. I was always running around exploring things. My parents always lived on the edge of some part of town that had a wild area beside it—in the Midwest, in Texas. We lived on the edge of Chicago, on the edge of Wolf Lake,

Opposite: Cormorants perch on tree snags, with a wind farm in the distance.

Below: Geese fly over sandhill cranes, with the Sierra Nevada visible in the distance.

Bottom: Vast flocks of migrating snow geese and other waterfowl rest and feed in flooded Delta fields.

TOP: MATT REHART; BOTTOM: ABE DOHERTY

Top: River water

Above: Many abandoned boats decay along the levees.

on the Indiana–Illinois border. This is also the southern edge of Lake Michigan, which had been a huge swamp and marsh. I found a rotting boat there, and with help from a friend with tools, I rebuilt it so I could get into the marsh and lake. From the moment of pushing off from shore, I have loved boats.

When I was in college I worked on ore freighters on the Great Lakes, carrying iron ore to steel mills in Illinois, Indiana, and Ohio. Pretty messy business, but it got me an opportunity to be on boats.

You went to college where?

The University of Chicago, and that was such a broad educational experience, and to me such an overwhelming experience, that the only focus I maintained was the one I always had, which was an interest in biology. I took a lot of courses in different fields and could have graduated in several, but when it was time to graduate I had to pick one, so I picked biopsychology. I came to Berkeley partly to study with Peter Marler [who was researching animal communications, particularly birdsong]. But he went off to a hugely wonderful job at Rockefeller University in New York. With him gone and myself just getting started, I wasn't sure what to do next. There was the ocean though. I went into marine biology and spent a couple of summers at the Bodega Marine Laboratory, and I loved it.

At some point I realized I had been spending half of a year on boats one way or the other, in South America, Mexico, Alaska, Hawaii, and California. So in 1981 I got this boat. It was built 53 years ago, with a tried and true design that's several hundred years old. It had been a workboat in the Seattle area, then a private yacht. [It can comfortably carry 30 passengers.] I spent a year getting it Coast Guard–certified for passenger-for-hire, and this is what I've been doing ever since.

So when you say retired, you mean you left teaching at U.C. and started your own floating classroom?

I tell my friends I retired so I could work eight days a week doing what I like to do, which is a combination of natural history and cultural history. I have exciting people from all over the world, though mostly Americans, as my guests, and about half are returning. One couple has been for 22 years, two trips per year. You ask do I get tired of it? Well, they don't get tired of it. We operate without an itinerary. We agree where we're going to meet and where we're going to end, and let it all happen.

On the website of his enterprise, Dolphin Charters, Patterson describes himself as "a naturalist by profession, a marine biologist by training, a student of whales by practice, a professional photographer by habit, a teacher by inclination, and a writer by requirement."

He has created for himself something that most people only dream of: a way to make a living doing what he loves. Yet of course it's not all as simple as it might appear. Besides navigating channels, he has to navigate through bureaucracy. His preference for traveling without itinerary, for instance, doesn't necessarily fit well with the rule books of

PHOTOS THIS PAGE: ABE DOHERTY

agencies whose job is to protect wilderness environments. In Alaska his trips go only to national wilderness areas established by Act of Congress.

I had three or four e-mails from the U.S. Forest Service recently about our wilderness permit for the incredible Tongass National Forest—truly a national treasure. There's a limited number they give out. It's for ten years and I'm on my third one. You have to specify how many guests [he can take eight, plus four crew] and how many days you'll have on land, and you can only go over by five percent or under by five percent.

Why? Why so precise?

I don't know. In one sense, it's easy to do on a spreadsheet—in an office! But it isn't easy when you have guests who want to go to places of maximum opportunity, to see where salmon are abundant, where bears are most likely to be on a river flat eating sedge, where we know there are eagles nesting or glaciers calving at a particular time.

Icebergs collapsing.

In Endicott Arm the Dawes Glacier has retreated two miles since 1984. In Glacier Bay—another of our favorite places to explore—the Muir Glacier is now grounded.

Alaska and the Delta. The contrast is pretty great.

The clear connection between Alaska and California is the salmon. Maybe peregrine falcons, too. We lost a lot of our locals and their niches were filled by migrants from the north who came down for the winter and ended up staying.

The Delta is the heart of California, it's where the water is, where what I consider the very best wildlife habitat is.

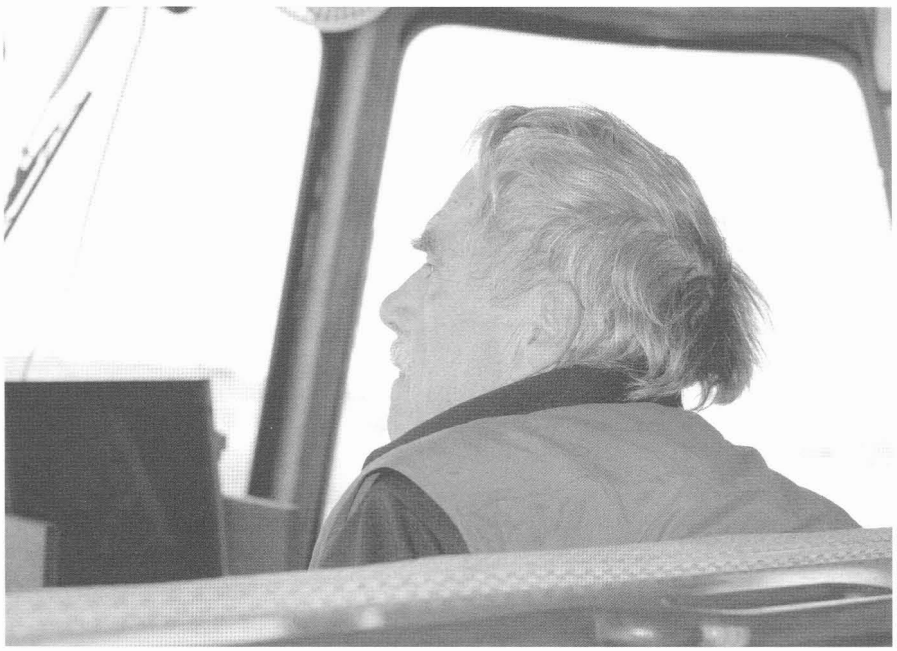
How so? Why is it the very best? The Delta is full of plumbing, it's crossed by power lines and pipes, it's pumped and drained and farmed and developed.

The Delta has everything that wildlife needs—in abundance. It has water, food, shelter, and it's all contiguous, all together. It is a mosaic of habitats: rivers and streams, marshes and seasonally flooded hardwood forests (or swamps), streamside forests and shrubbery, and most importantly, intertidal freshwater sloughs.

Forty percent of California drains into the Delta. Each of those waterways, each of those rivers, streams, and creeks, is a wildlife corridor. Some are the blue highways, some are interstates, the equivalent of I-5, because the animals move along those corridors, either in the water or in the shelter belt of the streamside woods, or a little of both if they're amphibians. Some are moving through the trees, like squirrels and birds. So those animals can move from the Sierra to the Central Valley in the winter and back in the summer.

Below: An American white pelican *(Pelecanus erythrorhynchos)* in flight

Bottom: Ronn Patterson provides running commentary from behind the wheel of the *Delphinus* on a tour of the Delta.



TOP: ABE DOHERTY; BOTTOM: CINDY MARTIN

Among the varied dwellings along Delta channels are those long abandoned.

CINDY MARTIN

Formerly these waterways were all the home of salmon. Salmon is where it all comes together. They breed in the fresh water, go out into the ocean, they bring the nutrients of the ocean back to the land, feeding animals and trees and shrubs. In Alaska, as much as 80 percent of nitrogen in the trees many yards from the stream is brought there by the salmon. If we look in California at the Napa Valley, many of the nutrients left over are left there by dead and dying salmon. But we're losing, we're losing the connection.

The Consumnes is the largest undammed river in California. The others are all dammed and managed—or mismanaged! The Shasta Dam blocks nearly 80 percent of salmon spawning areas; the Friant Dam near Fresno takes 100 percent of the San Joaquin's water, leaving 65 miles of dry riverbed below. A wild river is not easy to live with because rivers by their very nature change course, and they flood. So the rivers are managed, and they're cutting off overflows. When a river floods over its banks, fish can get to weeds and seeds and insects. The more they eat, the faster they grow, and the faster they grow, the better their chance of survival.

Yes. But go back a bit. When you say the Delta is the best habitat in California, what are you comparing?

It all comes together there, all based around water. The Delta includes brackish water, fresh, and salt. We have intertidal marshes—fresh water is being forced up into dead-end sloughs with the tides, then draining out. Two highs, two lows every day, pumping water in and out, much like arteries and veins. The Delta is truly California's heart.

So if you want to experience the rich abundance of California, this is where you'd come, to the Delta?

You'd come to the Delta.

And to truly experience it you have to go out on the water?

I think so. I felt that as a kid. You gotta get out there. You have to be on the water to experience the essence of our planet—the water planet. And water is life; life is water.

Please talk a bit about what you see when on your trips.

A great horned owl pair—I don't know if it's the same individuals or their offspring—have been in the same place for 24 years. Beaver, river otters. They have territories, home addresses. By coming out regularly, you anticipate: Is so and so home today? To me it's amazing that they're there almost all the time.

A lot of different people, too, living below sea level on Bethel Island. Many ethnicities. There's the Shima Tract—Shima was known as the potato king of the Delta. That was in the 1920s and '30s, during the time Asians couldn't own lands.

After that trip with you, I was thinking that everyone who has anything to do with decisions about the Delta needs to come out on the water.

In that first year, when I was working on the boat and it wasn't ready and I was dying to go out on the water, I took several trips bicycling around some of the islands around Walnut Grove and felt like I was on top of the curve, I really knew the area. But when I got there with the boat, it was a totally different place. I knew nothing about this place, and it was a big shock to me. The experience on the water is totally different. It's a different time frame, a different mind frame—a drifting, floating state of mind, as well as of water. It's easy to feel lost. I think that's what people experience.

The land disappears.

It comes in second. The islands define that space, putting edges on it, not necessarily making sense of it but making it like a labyrinth. They do what clouds do to the sky. A clear sky is not nearly as dramatic as when you have those puffballs up there.

In the Delta everything is connected with water. We're 70 percent water. Life is water. This is a place to acknowledge our dependence on water. We get a lot of southern California people who start talking about our water, their water. What I try to get across is it's *our* water. L.A. is tremendously ahead of the curve in using local water, while the State of California just keeps pumping out groundwater. There are solutions, and L.A. is on to some of them.

The Delta, with its flows and counterflows, is a place that allows us to go to other places in the mind and another sense of time than we normally

MATT GERHART

Sun sparkles on water among Delta tules

experience—to go outside our boundaries. So it's refreshing to get out there without any intent and purpose, to drift and discover.

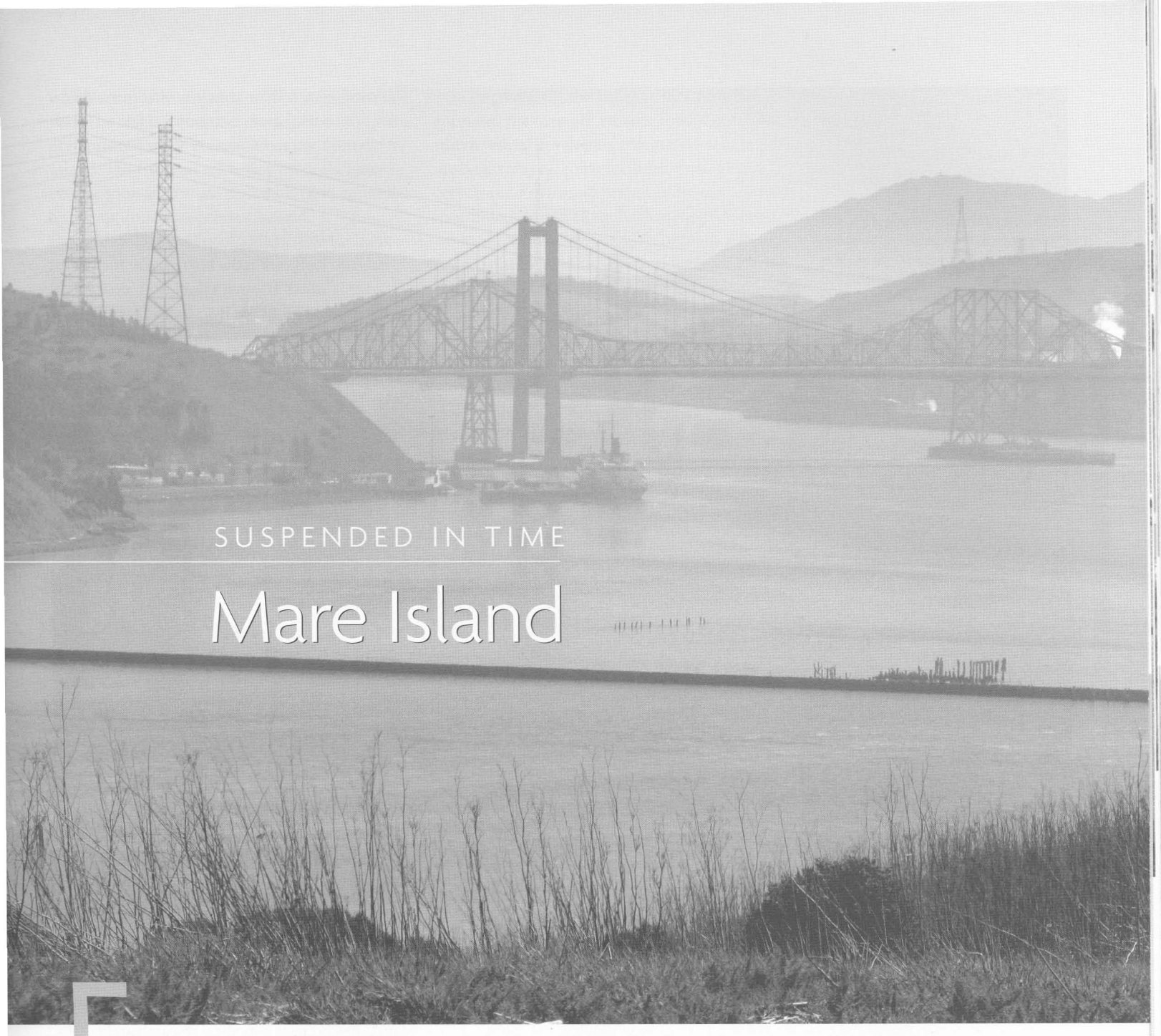
Teilhard de Chardin said: "We are the universe observing itself." We need to go to places beyond what we imagine to experience the fullness and richness of the universe. For me it all starts with water. Around the water molecule evolves life. It all starts with a drop.

On May 22, as swans and snow geese were nesting on frozen tundra, Captain Ronn Patterson set out for the north. ■

Left: Windmills, tules, cormorants

Below: Birds perch on pilings at the West Antioch Marina.

PHOTOS THIS PAGE: ABE DOHERTY



SUSPENDED IN TIME

Mare Island

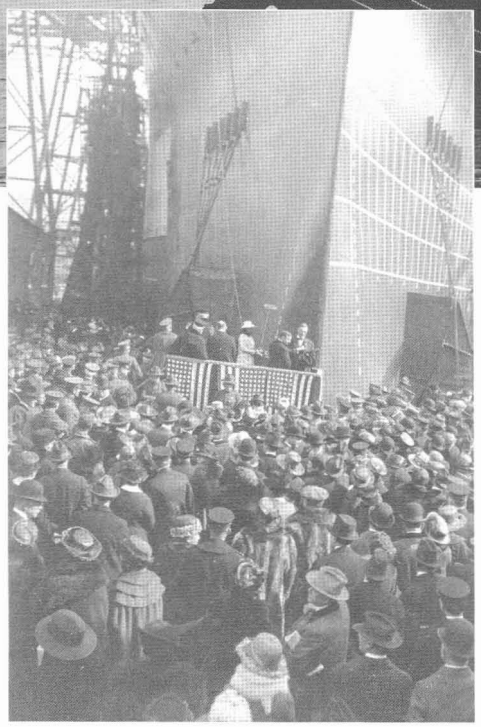
MARK SIMBORG

FEW PEOPLE KNOW MUCH about Mare Island even though it's only 35 miles from San Francisco, was once the largest military shipyard on the West Coast, and is officially a National Historic Landmark. A grand long-range vision is in the works for this 5,600-acre land spit—for Mare Island is actually not an island, it's a peninsula jutting out into San Pablo Bay at the mouth of the Napa River. If that vision materializes—and that is a big "if"—Mare Island will become a vibrant part of the city of Vallejo, with a lively waterfront and residential communities linked by parks and trails. It will also be a magnet for visitors interested in nature and history. With some 500 historic buildings, great views of bay waters, and 3,500 acres of tidal wetlands rich with wildlife, this is an extraordinary place.

Although it has the potential of becoming a great place to live, work, and visit, right now the decomissioned naval shipyard lies in an odd state of inbetween-ness, stalled in transition from its storied past to a potentially rich future. Today Mare Island is a strange collage of huge derelict structures, a beautifully maintained golf course (the oldest west of the Mississippi), handsome historic buildings, and new subdivisions with manicured lawns. This spring, ospreys were nesting on drydock cranes, and great blue herons had

EILEEN ECKLUND

Carquinez Bridge seen from a hilltop at the southern end of Mare Island, in the area slated to become a regional park



Top: The former passenger/cargo ship *Del Orleans*, later *Artship*, is now docked at Mare Island.

Above: USS *California* leaving the ways at Mare Island, November 20, 1919. Mrs. Randolph Zane, the daughter of Governor Sterns, was sponsor at the christening.

established "condos"—several nests on top of each other—on some stadium light poles. But few people were to be seen.

The Navy bought what is now the Mare Island peninsula in 1854. The first ship was constructed here in 1859, a paddle-wheel gunboat built of white oak from Petaluma. One of the last, built in 1966, was the nuclear submarine *Mariano Guadalupe Vallejo.* At the height of the shipyard's productivity during World War II, more than 46,000 people worked here, servicing hundreds of vessels.

The closing of the base in 1996 launched the current chapter of Mare Island's history. The Navy transferred most of the land to the City of Vallejo, which signed over fee title to 657 acres in the island's core to Lennar Mare Island LLC, a Florida-based corporation the City chose as master developer.

For this parcel the City approved a reuse plan that provides for historic and natural resource protection and restoration, construction of 1,400 new homes, an 83-acre Town Center with businesses to serve the new residents, and for infrastructure and recreational amenities, including parks and trails. The remaining developable land, about 200 acres on the northern side of the island, may become a medical research and education complex. The City has been negotiating with Touro University, a chiropractic educational institution based in New York, which would build a campus that would include a cancer research center. Touro already has facilities on Mare Island.

Twelve years after the base closure, however, the City's redevelopment effort has hit a number of snags. Hazardous waste cleanup operations, paid for by the Navy but carried out by the City, are way behind schedule, and an optimistic estimate is for completion by 2013. Gil Hollingsworth, Mare Island conversion program manager for the City, said he hopes that cleanup of 3,000 acres on the western side of the island,

TOP: MARK SIMBORG; BOTTOM: COURTESY BANCROFT LIBRARY, UC BERKELEY; OPPOSITE: EILEEN ECKLUND

which are mostly wetlands, will be completed this year. The rest is a question mark, as the full extent of hazardous waste pollution has not been determined. The City can sell or lease parcels, however, as soon as they are cleaned up and approved by the appropriate agencies, he said.

On May 23, the City of Vallejo filed for bankrupcy, but when asked what the effect on Mare Island would be, Hollingsworth said: "None whatsoever" because "all the money generated on Mare Island from leases, etc.," goes into a separate account and is spent on Mare Island. The original intent of that arrangement was to protect taxpayers from having to pay for improvements on the island, he explained.

The housing-market slump has hit hard, however. No new homes have been built for a year, Hollingsworth said. Of 1,400 called for in the City's redevelopment plan, only 230 have been completed thus far, according to Lennar spokesman Jason Keadjian. All but three have been sold, Hollingsworth said in mid-May, but "a lot are available for resale."

In August 2007, the Vallejo City Council approved the map of Lennar's Town Center site, where several developers are interested in building banks, dry cleaning facilities, or small grocery stores. Environmental cleanup is incomplete, however, so that's on hold. Meanwhile, the new subdivisions feel a bit like ghost towns, and some of the first residents are getting restless waiting for services, and more neighbors.

Where Do You Buy Milk?

Tim Christie, 30, lives on a quiet street lined with impeccably landscaped Spanish- and Colonial-style homes, most of them empty. "Just about the only things you hear at night are the frogs," Christie said. "It's nice, it puts you to sleep. If there was at least one convenience store on Mare Island, I'd probably never leave, except to go to work."

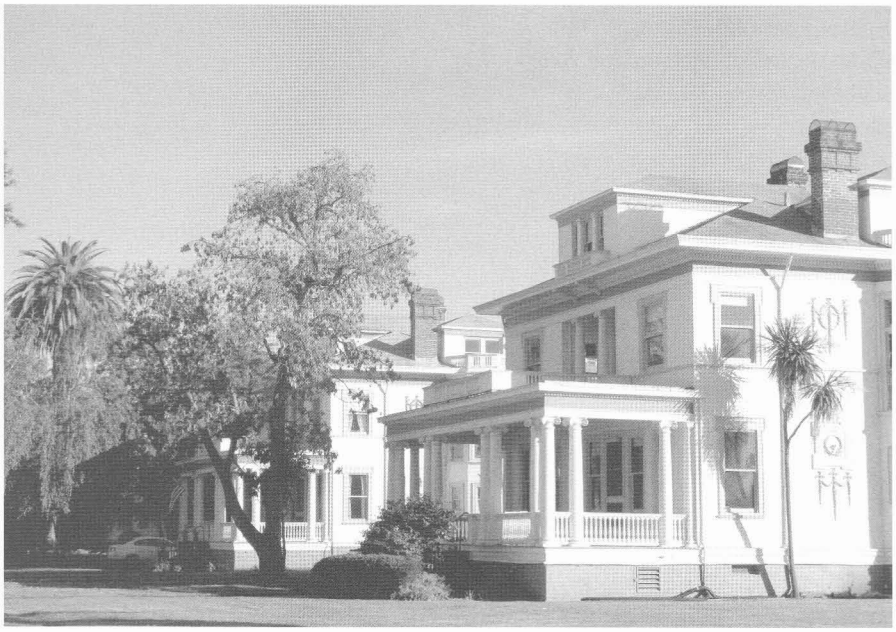
His satisfaction is not shared by some of his neighbors. "We hate it

The photographer took the bottom photo not realizing until she zoomed in for the top photo that an osprey had built its nest on top of a crane not far from Captains' Row. See the bird perched on a rung below the nest in the closeup.

here," said a woman who did not want her name used, pulling her little daughter in a wagon along Captains' Row, a tree-shaded street lined with mansions that once housed top Navy brass. She said she moved to Mare Island with her husband and child two and a half years ago, attracted by its affordability and also by the City's redevelopment plan. Now they have put their house on the market. "We feel isolated out here," she said. "It [a planned retail center] would be great, but they're saying it won't be done until 2010, so wait that long for a grocery store? I don't think so."

Below: Captains' Row

Bottom: A quiet street in one of Mare Island's new residential developments



The nearest large grocery store is on the other side of the Napa River, nearly three miles away. None of the services one expects in a community exist here. There is no coffee shop, no place to buy ice, or diapers, or a beer on Mare Island.

Fiona Varley, 47, bought a new 2,600-square-foot home in 2006. "Why did I move out here? I'd seen something on the TV about it and I thought, 'That looks interesting,'" she said. "Both my parents were in the Navy, so coming on to an ex-naval base was very comforting.... This is, in the long term, a very good investment, but like everybody, in the short term we're all having a heart attack."

Lennar saw the glass as half full. "We have now more than 230 homeowners on the island after years of nobody living on the island," spokesman Jason Keadjian said in May. Work has continued on other aspects of the reuse plan: cleanup, demolition, and infrastructure improvements. On June 8, Lennar Mare Island LLC declared bankruptcy.

Converting a military base to new civilian uses is a contentious and time-consuming process, and Mare Island is no exception. The City's original master plan has been revised several times in response to comments from citizens, residents, the developer, and various groups and organizations. Most recently it was amended to protect certain buildings after historic preservation organizations threatened to sue the City and Lennar to keep them from being demolished.

Certainly part of the problem is that Mare Island is not easily accessible. There are two ways to get here: either by taking Highway 80 and then Route 29, or via Highway 37 from Marin County, across miles of wetlands at the top of San Pablo Bay.

Off 37 there's a sneaky little exit—easy to miss, even if you're paying attention—that takes you to the northern gate of the shipyard. From here you enter a wasteland of railroad tracks and industrial buildings that look like they haven't been used in decades. Signs of the $120-million cleanup are everywhere. Tarp-covered mounds of contaminated dirt loom along the main roads—not exactly an invitation to move in. Ditches with contaminated water are cordoned off by orange tape, and the former hazardous waste landfill is covered with black plastic and surrounded by a deep moat and tracts of dirt.

Many of the most important historic buildings stand within an area that has been designated the

TOP: EILEEN ECKLUND; BOTTOM: MARK SIMBORG

EILEEN ECKLUND

Building 235 was built in 1918, designed by architect C. A. Carlson. It was used for offices and an annex to the printing plant. Newer buildings stand behind it.

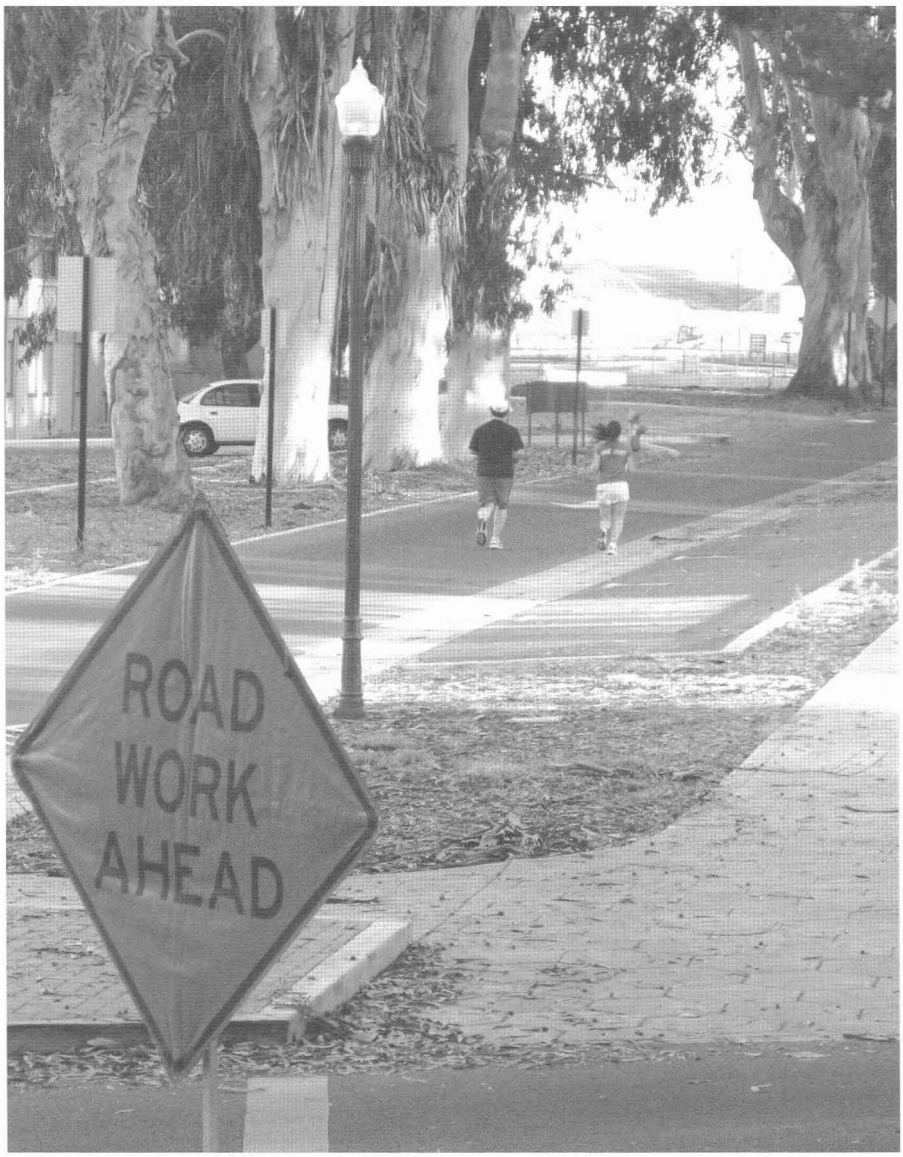
"Historic Core." It includes Captains' Row; the oldest Navy arsenal; Drydock Number 1, beautifully sculpted of granite from the Sierra foothills; and St. Peter's Chapel, built in 1901, with 29 stained glass windows designed by Louis Comfort Tiffany, 16 of them signed. Following the destruction of the chapel at Annapolis by fire, this is now the oldest naval chapel in the nation. These buildings pose a challenge, as there are stringent rules for converting them to other uses.

At the southern tip of the island is a beautiful hilltop slated to become a 215-acre regional park. It is to include a 150-year-old cemetery—the oldest naval cemetery on the West Coast—and offers sweeping views that take in Mt. Diablo, Mt. Tamalpais, and the Carquinez Bridge. A vast expanse of green and brown wetlands stretches out west and north. Currently, these proposed parklands are only open by guided tour and for special events; the Navy has not yet assured the City that it's free of unexploded munitions.

Road Work Ahead

Little by little, the future is being coaxed into sight. Most vacant buildings on Mare Island are now slated for either demolition or reuse. About 2,000 people work on the island, including those on cleanup operations. The U.S. Forest Service's Pacific Regional headquarters is here, as is a field station for the U.S. Geological Survey. About 36 businesses have set up shop on the island. The only retail operation, however, is a taco truck. On Mare Island Strait, 12 artists have studios in a cavernous concrete building.

Myrna Hayes, co-chair of the Restoration Advisory Board for 14 years, meets monthly with representatives of the Navy, City, federal



and state agencies, and Lennar to talk about about the environmental cleanup and other issues. Not only Mare Island but the entire city of Vallejo is in transition, as she sees it. In the past its economy was based on serving Navy personnel, she said, but now it is moving into the entrepreneurial mode. Because the City is in such dire financial straits at present, "whatever happens at Mare Island will come from the people, not exclusively from government." She would like to see a Mare Island Trust established, something like the Presidio Trust in San Francisco, or a partnership such as that between the National Park Service and the nonprofit Golden Gate National Parks Conservancy, which raised the funds and led the way in the transformation of Crissy Field and some other areas in San Francisco's Presidio.

Meanwhile, Hayes and others are working to put Mare Island's natural and historic heritage on Bay Area residents' mental map. The annual Flyway Festival, which Hayes co-founded in 1996, brings thousands in for guided wildlife tours for three days in winter. Arc Ecology offers monthly outings, to watch birds, view the moon, paint the landscape, learn about history. The Sierra Club and Audubon Society also offer hikes. Next August 8 and 9, during the annual Mare Faire, the Port Chicago tragedy will be commemorated.

On July 17, 1944, 320 Navy men, 202 of them African-American, were killed in a series of giant ammunition explosions at nearby Port Chicago. Afterwards, while their surviving white officers were given leave to recover from the trauma, 258 African-American sailors at the segregated naval base were ordered to resume loading bombs and ammunition aboard ships. They refused to be ferried over to Mare Island for that purpose and were arrested in Vallejo, according to Jim Kern, curator and executive director of Vallejo Naval and Historical Museum. Fifty were tried by court martial and found guilty of mutiny; 208 were discharged for bad conduct.

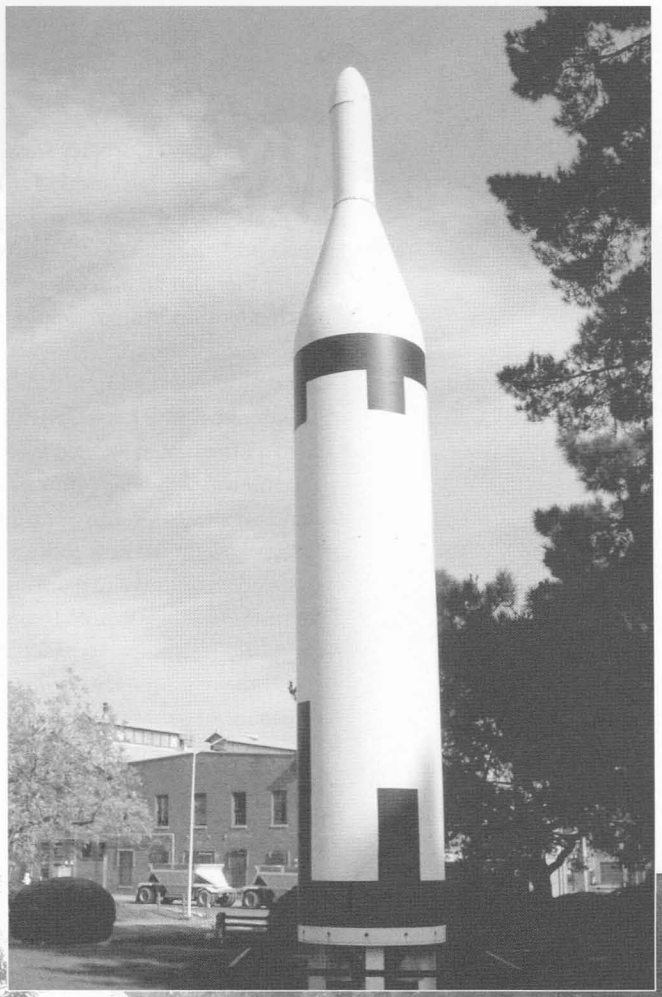
That story is part of the shipyard's history, along with many that are less disturbing to remember. In the future, visitors will be able to hear many of them when they come to Mare Island. They might also learn that Miwok-Costanoan people were here for at least 2,000 years before the first Europeans saw the place, and that current inhabitants include a population of the endangered saltmarsh harvest mouse, which lives in pickleweed along the shore.

TOP: MARK SIMBORG; BOTTOM: EILEEN ECKLUND

"My own personal dream," Hayes said, "is of year-round daily public access to nature and heritage sites on Mare Island, of the regional park linked to trails and interpretive centers, of nature and heritage tourism that benefits not only the tourists but also the City and the region."

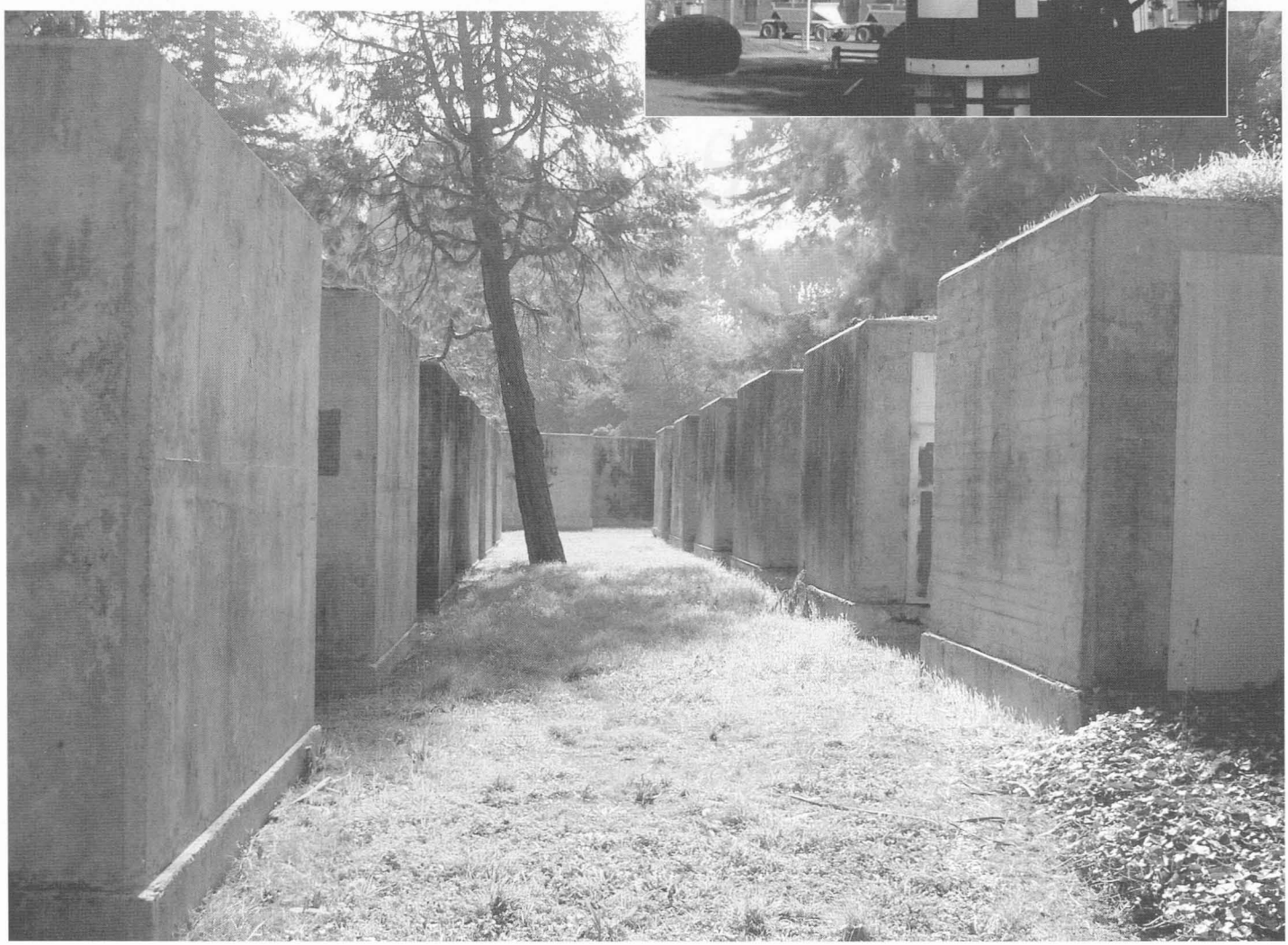
Current human residents will have to wait for that dream—or even a community—to materialize here. The City's and its master developer's bankruptcies are big new bumps on the road ahead. Nevertheless, Mare Island has the potential to make that wait worthwhile. ■

Mark Simborg, a freelance writer, lives in San Francisco.



Opposite top: Workmen spread impermeable multi-layered cover over a former hazardous waste landfill.

Alden Park features old missiles and rockets (right) and World War Two air raid shelters (below).



PHOTOS THIS PAGE: MARK SIMBORG

Looking for the Lighthouse

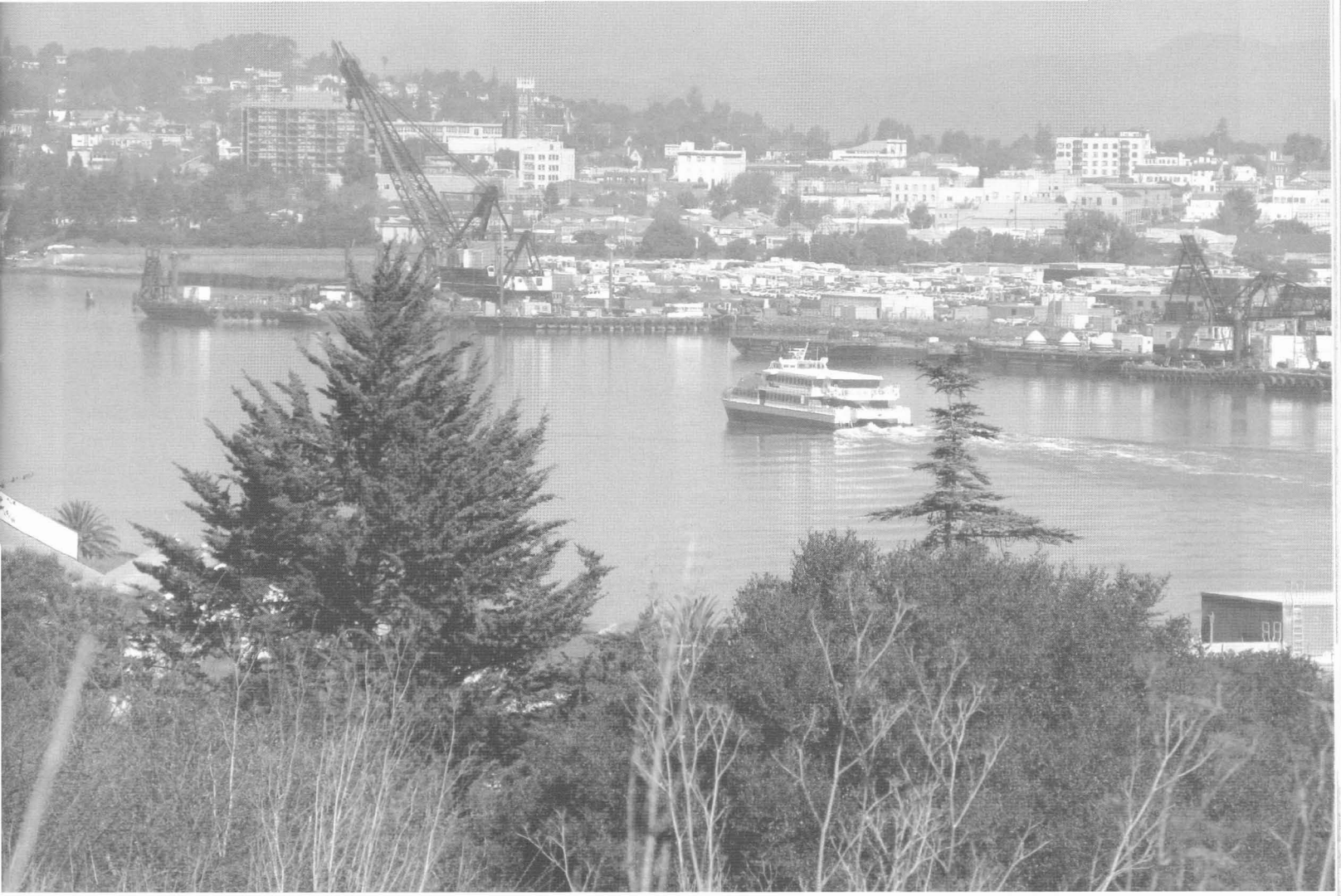
EILEEN ECKLUND

When Su Corbaley was growing up, her father, Len, used to tell stories about the old Mare Island Lighthouse and their ancestor Kate McDougal, who was lightkeeper there for 36 of its 44 years. Su didn't pay much attention; stories about old times had a way of going in one ear and out the other, as they do for most children. As she got older, though, she found herself wishing she had listened a little better, learned a little more.

That's why I'm here with Len and Su on Mare Island on a warm, sunny morning in early spring: Su wants to hear more about those old days, and so do I. We're scouting the area around where the lighthouse used to be, according to old photos and maps. Its exact location had been something of a mystery until fall 2007, when a consultant to the Mare Island Regional Park Task Force found evidence that pointed to this spot, partway up a bluff to the west of the Navy's old munitions depot.

This part of Mare Island is slated to become a 215-acre regional park, but for now it is still off-limits to the public except for guided outings because the Navy has not yet completed environmental cleanup, and the City of Vallejo has not adopted a management plan for the park. Our guide today is Myrna Hayes, volunteer North Bay project manager for Arc Ecology, who brings groups out here at least once a month; she also cofounded Mare Island's annual Flyway Festival. With us is Bob Palmer, who works for the Navy's caretaker site office and is escorting us through the part of the property that the Navy still owns, which includes the purported lighthouse site. We're watching Myrna climb an overgrown hillside in search of some sign of the old lighthouse buildings. Len's not going up there with his bum knee, and Su seems skeptical. I can't blame her—the slope is steep and crumbly, and looks like it's positively oozing poison oak. But I've got my camera, and I figure the scram-

U.S. COAST GUARD HISTORIAN'S OFFICE



ble will be worth it if there's something interesting to shoot up there. There isn't. If this is indeed the site, to the untrained eye there is nothing left to indicate it.

The Navy built the lighthouse in 1873 on the southern end of the island, near where the Napa River enters Carquinez Strait, to keep ships from running aground. Kate McDougal came to her position in 1881, propelled by a tragedy. In March of that year, her husband, Commander Charles McDougal, inspector of the Navy's 12th Lighthouse District, drowned off Cape Mendocino while delivering supplies to the lighthouse crew. The gold to pay the men was strapped to his body, and when his dinghy capsized, "he went down like a fishing weight," Len says. Left with four children—three girls and a boy, ages five to 14—and only a small stipend from the Navy, Kate needed a job. The keeper of the Mare Island light had recently resigned, so the Navy offered her the position. "There were no survivor benefits in those days," he says, "but she was taken care of by the Navy family."

Kate stayed at her post until 1917, Len says (other sources have her leaving at various times); nine days after she left, the nearby ammunition depot exploded, destroying numerous buildings and gutting the lighthouse, a Victorian confection festooned with gingerbread. The remains of the building were razed in the 1930s.

Len first heard about the Mare Island light and its keeper from his grandmother, Elizabeth Coffee, who was Kate McDougal's niece. Born in San Francisco in 1883, Elizabeth often visited the lighthouse as a child during summer and holiday breaks, when she would hop aboard the Navy tug that brought supplies from San Francisco. Sometimes she stayed with her aunt and cousins for weeks at a time, and sometimes for the whole summer.

Life at the lighthouse must have been quite an adventure for young Elizabeth, who explored the island with her cousins and helped to tend the beacon and the gardens. For the rest of her life she loved to tell stories about the times she spent there. "She said the old lighthouse building was full of nooks and crannies where you could hide—curl up in a corner with the sun shining on your back and a good book to read," Len says. Not everything was so cozy, though: Elizabeth also

Opposite: The Mare Island Lighthouse, built by the Navy in 1873, was gutted by fire in 1917, and the remains were razed in the 1930s. It resembled the East Brother Lighthouse, off Point San Pablo, just north of the Richmond–San Rafael Bridge.

Above: A ferry heads up Mare Island Strait toward the Vallejo terminal.

EILEEN ECKLUND

Top: Myrna Hayes and Su and Len Corbaley inspect one of the maps found by Bob Palmer.

Above: Len and Su Corbaley

remembered that the island had an impressive number of rattlesnakes—so many that the gardener kept a hoe handy to chop off their heads.

The next stop on our tour this morning is a spot along a dirt road above where we think the lighthouse was, partway up the hill that comprises much of the southern end of Mare Island. We get out of our cars and peer downhill, locating the grove of eucalyptus that Myrna and I had scrambled up to. There's nothing else to be seen, lighthouse-wise, but in any case our eyes are drawn to the water—Carquinez Strait, sparkling in the morning sun. A ferry glides silently toward Vallejo; the waves in its wake slap the shore below us. To our left the Carquinez Bridge spans the strait between Benicia and Crockett.

Having escorted us safely off Navy land, Bob peels off from the group, and we continue to the summit. A sculpture called the Spirit Ship, erected here in 1996 in tribute to the island's naval shipyard workers, stands in stark outline against the green turf and blue water. Through the slight haze, we can see for miles in all directions—Mt. Tamalpais to the west, looming above San Pablo Bay; to the east, Carquinez Bridge and beyond it Suisun Bay; Mt. Diablo to the south. Below the bluffs on the southwestern shore of the island, grass growing on former dredge ponds glows a brilliant green. It's easy to see why this area was chosen to become a park—it's lovely, and peaceful.

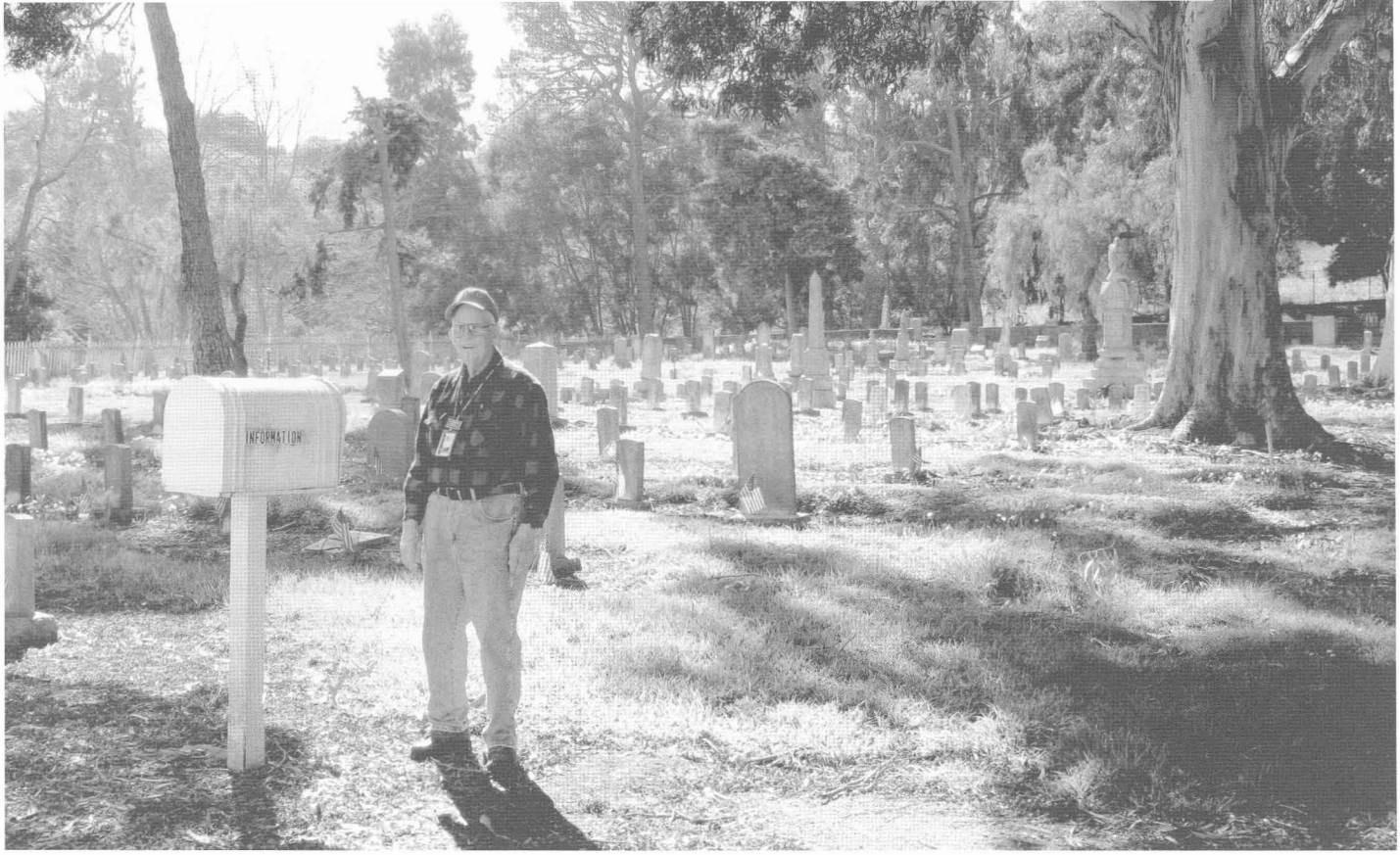
In the 1880s this was a remote and isolated place, and Kate and her family must have been lonely sometimes, though they had a horse and buggy for visiting. Their friends at the Navy Yard looked out for them: at Christmastime in 1881 some officers put up poles and ran a telephone line out to the lighthouse. The family had regular help, too: a Chinese-American cook provided most of the meals, and an Irishman named Bonny helped with the heavy maintenance and took care of the horses and two cows, Chummy and Buttercup. Daughter Caroline had a mastiff dog named Makado for company.

For the most part, Kate educated the children herself, including preparing her son to enter the Naval Academy. (Later he joined the Marines, eventually rising to the rank of brigadier general.) Kate's daughters were older than Elizabeth, who remembered spying on one of them "sparking" with her fiance in the lighthouse. All three girls were married in the lighthouse, and all three married military men. The eldest, also named Kate, returned to the lighthouse with her own daughter in 1898 when her husband left to serve in the Spanish-American War, and stayed until 1916, with her husband joining them between his many assignments. After the elder Kate retired, she went to live with Caroline, who was by then married to the medical officer at Mare Island Naval Shipyard, until her death in 1932, at the age of 90.

As we head back down the hill, Bob is waiting for us by the road with a surprise. He pulls two maps from his truck: one, dated 1911, has the lighthouse clearly marked, while one from 1930 shows buildings at the same site but does not name them. Len and Myrna are both excited; the maps are further proof that the lighthouse was located at the site pinpointed by the consultant. They're also surprised that they have never seen these maps before, since they have been looking high and low for every bit of evidence they can find. "Nobody asked me," Bob shrugs. They had been in old public works vaults all the while.

Our last stop is the old Navy cemetery to visit the graves of Kate and Charles McDougal and their daughter Kate and her husband. Len says that when he was here years ago, the cemetery was so overgrown with weeds that he stopped at the police station to complain. When he told the officers he'd just been looking for a gravesite, one of them exclaimed, "That place is loaded with

PHOTOS THIS PAGE: EILEEN ECKLUND



rattlesnakes!" Today it looks (mostly) tidy, shaded by towering eucalyptus, with here and there a palm tree. Flowers have been placed by some of the grave markers. We spend a moment at a lovely monument to the sailors from the USS *Boston* who died in 1892 in an explosion near the ammunition depot while preparing shells for the ship. Kate's daughter Betsy, who was nearby with the horse and buggy, helped ferry the wounded to the hospital and was later commended by the Secretary of the Navy for her bravery.

Len retired from the Navy in 1972 and began seriously researching his family history in 1974, after his grandmother died. "I never got around to sitting her down and grilling her, which I regret," he says. He began collecting snippets of information from notes she had written—including those on photos and in the margins of books—then progressed to searching through military and other historical records, even visiting the National Archives in Washington, D.C. A few years ago, Su, a project manager at the Coastal Conservancy, gave him family tree–maker software for Christmas, which gave his efforts a real boost. Two books, *Women Who Kept the Lights,* by Mary Louise Clifford and J. Candace Clifford, and *Guardians of the Golden Gate,* by Ralph Shanks and Lisa Woo Shanks, have also helped him find information about Kate and her family.

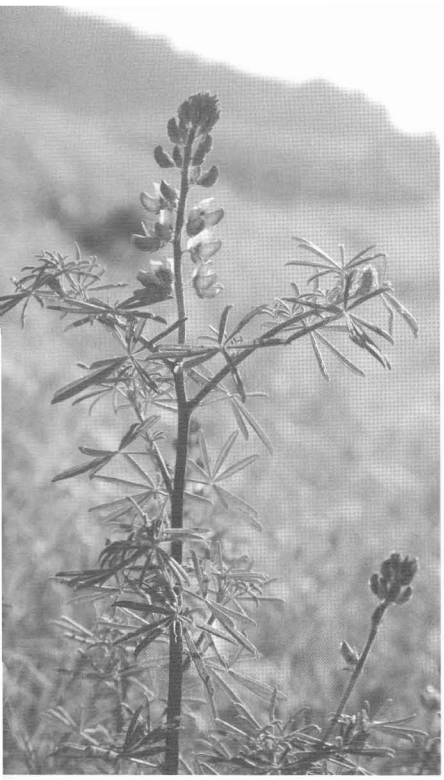
As we're leaving, I ask him when he first began to take an interest in his grandmother's old stories. "Way too late," he says, shaking his head. "She used to go on and on and on. . . . You don't pay any attention to what grandmother's trying to tell you." ■

For information on outings and events at the proposed regional park or elsewhere on Mare Island, go to www.sfbayflywayfestival.com or call (707) 649-9464.

Top: Len Corbaley visits the old naval cemetery—the oldest on the West Coast.

Above: The Mare Island Lighthouse and pier seen from the hill above

TOP: EILEEN ECKLUND; BOTTOM: U.S. COAST GUARD HISTORIAN'S OFFICE



ONE DAY IN LATE APRIL, I decided to go for a walk in the park. Not just any park, of course. The open space that grabbed my attention is the 4,350-acre Palo Corona Regional Park, created in 2004 south of Carmel, with an entrance right on Highway One.

However, my visit couldn't be spontaneous: I had to apply, online, for a permit at least 24 hours in advance—a requirement necessitated by limited parking along the shoulder. So I hit the Enter key and hoped that the day I had selected would be a beautiful sunshiny one, and that the summer fog would hold off just a little while longer. I really wanted to enjoy the view from Inspiration Point.

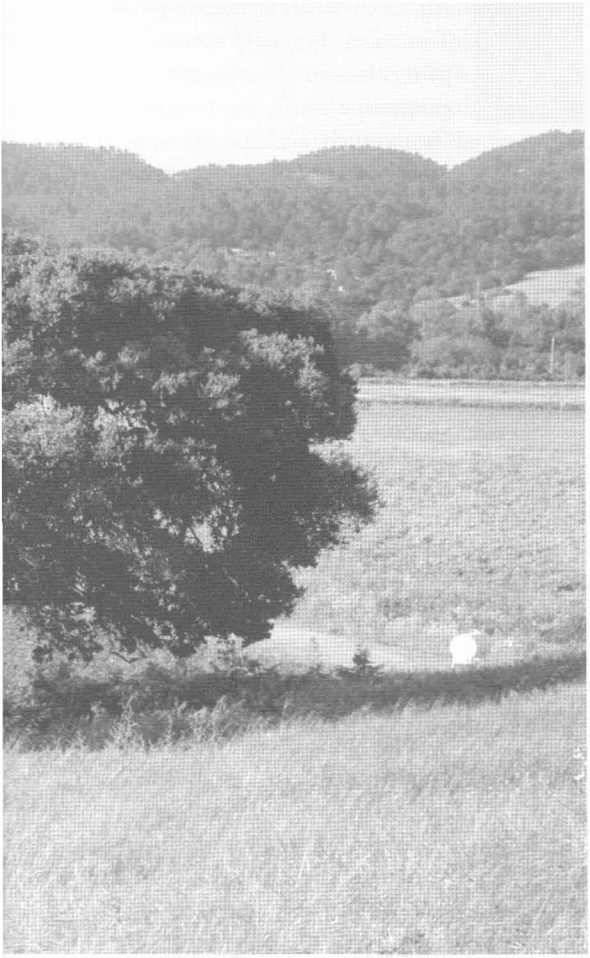
As it turned out, the afternoon was bright, but windy. I almost bailed. But then I spied my Windstopper jacket crumpled on the floor of the back seat, and decided to brave the breeze. Once I unlocked the tall wooden gate (the combination comes with the permit) and passed through to the other side, I felt I had stepped into another world: not only did the wind vanish completely, but the colors—of tall grass and flowers (orange poppies, purple lupine) and even the weathered wood of derelict cattle pens—became more vivid. And there was birdsong everywhere. Of redwing blackbirds in particular. Individual males dotted the landscape; perched atop bending thistle stalks, they fluffed up their brilliant orange-red epaulets and twirrrrrred their invitation of love to all the females within hearing. Every so often they would take to the air in hot pursuit, yelling *me me me me!* If I were a redwing gal, I would have caved in an instant. These guys were spectacular.

A WALK AT PALO CORONA

STORY AND PHOTOGRAPHS BY ANNE CANRIGHT

As is Palo Corona itself, or what little of it is presently open to visitors: approximately two miles along an old ranch road, with an elevation gain of 600 feet. The trail started out flat as I passed some farmworker cottages and strawberry fields on the left (not part of the park), then a barn (now offices and storage) and the cattle pens. A half dozen virile bulls—safely behind barbed wire—regarded me from a lush field of grass. I tried to take a picture of one standing next to the fence, but when his eyes got wide and he started snorting, I realized maybe barbed wire wasn't such good protection from a half-ton vessel of testosterone. I backed off. He resumed his munching of grass. Peace, man.

Soon the road curved up a steep incline, affording gorgeous views of the Carmel coast—including a bit of Point Lobos—before it flattened out again in a gentle upland valley.



Inspiration Point, accessible by a short spur trail, is the high point, and the views are indeed exquisite. Pines add their shade to that of oaks here. Another half-mile brought me to Animas Pond, home of the threatened red-legged frog. To think of it as a pond, though, I had to use my imagination a little: only a couple of feet deep, it is well populated by all manner of wetland reeds and ferns.

And that's the end of the road, as a locked gate informed me in no uncertain terms.

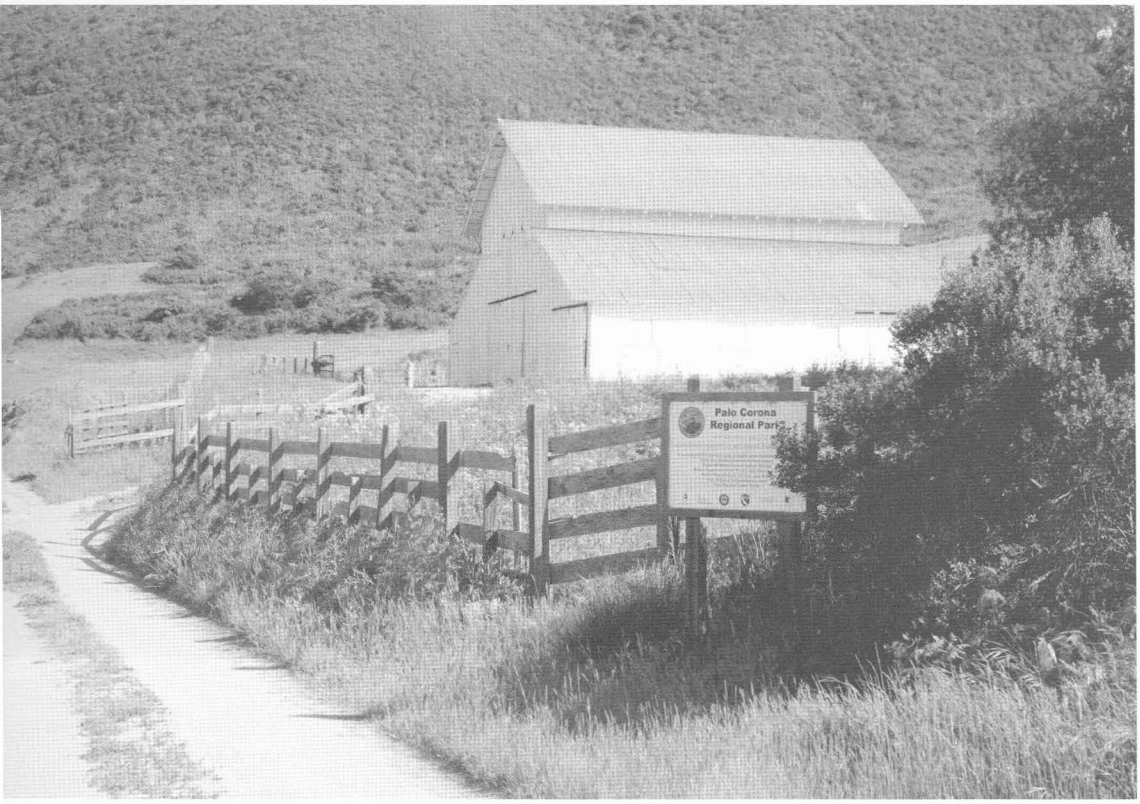
Palo Corona is a beautiful place, but that isn't its only value. It's the newest member of the Monterey Peninsula Regional Park District (MPRPD), and constitutes half of the 9,898-acre Palo Corona Ranch purchase made in 2002 for $37 million by the Nature Conservancy, Big Sur Land Trust, Monterey County, the Regional Park District, Wildlife Conservation Board, and Coastal Conservancy. It was one of the premier initiatives funded by Proposition 40, passed that year. Two years later, when the lands were transferred to the Regional Park District and California Department of Fish and Game (DFG), they became the crucial missing piece completing a valuable—some would say invaluable—jigsaw puzzle. With the addition of that land, 14 protected properties—belonging to State Parks, DFG, the Land Trust, the U.S. Forest Service, and Monterey County—were united to form one huge wildlife corridor extending 70 miles from Carmel to the Hearst Ranch in San Luis Obispo County. As Bill Leahy, executive director of the Land Trust commented, "If you started out at the Carmel River and started walking south, you could go 70 miles and cross over only one paved road, Nacimiento-Ferguson."

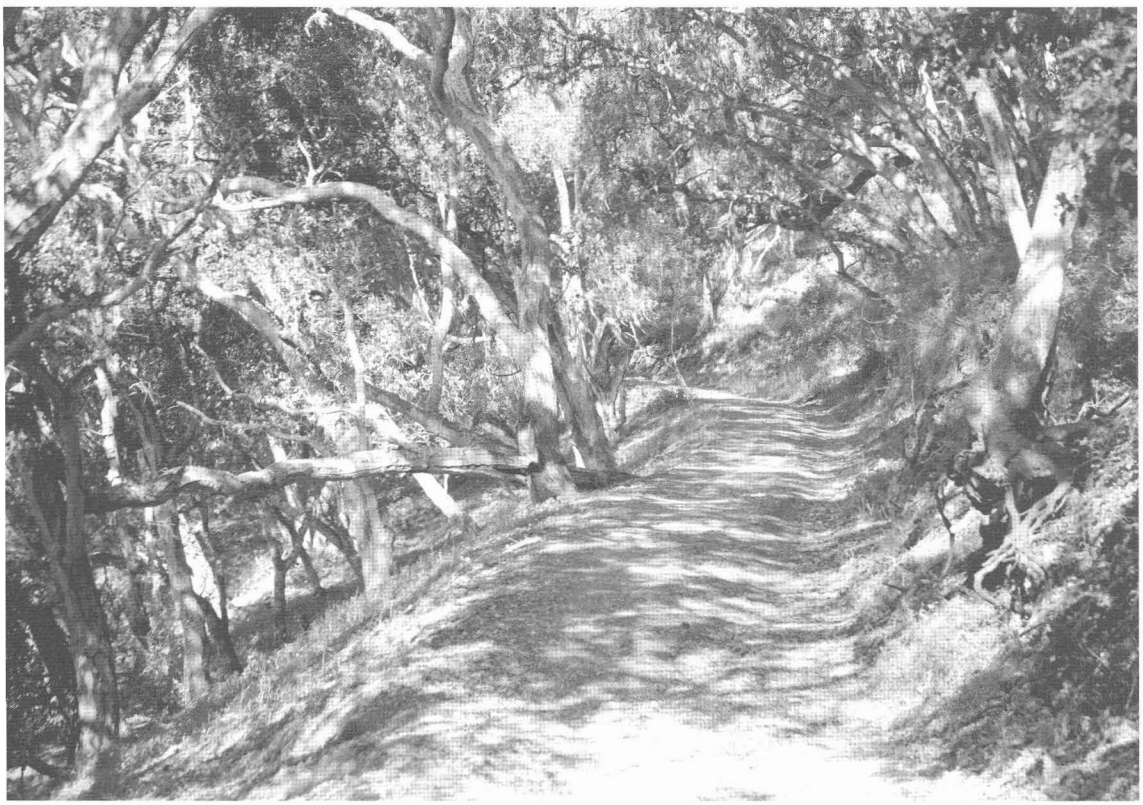
Palo Corona Regional Park alone, which stretches seven miles north to south and rises to over 3,400 feet in elevation, is home to the endangered red-legged frog and Smith's blue butterfly, and the threatened tiger salamander and steelhead trout. Deer, mountain lions, bobcats, golden eagles, and California condors range over the park, and unusual birds such as mountain quail and horned larks have been seen as well. Rare black bear, peregrine falcon, and spotted owl have been documented on adjoining lands.

The park also includes the headwaters of 13 watersheds. And it has a couple thousand acres of native bunchgrasses, with associated wildflowers—which might not sound like much, but consider that the next largest bunchgrass acreage in the state is only about 400, followed by 86. This bounty of bunchgrass stems from the

Opposite top: Lupine

Opposite bottom: Oaks and organic strawberry fields with black plastic for weed control





Top: This old barn is now used for vehicle storage and an office.

Above: A shady path in Palo Corona Park

rough topography in the backcountry, which makes grazing difficult.

That said, grazing is still allowed—even encouraged—in Palo Corona Park. Researchers now think that carefully managed cattle grazing may actually help the native buckwheat that the Smith's blue butterfly needs to survive. Studies are ongoing.

Other issues being studied here are fire management, trail construction, and road grading to reduce sedimentation. Parking, too. When and if the parking situation is improved, the permit process will disappear—and spontaneity can reign.

When I reached the locked gate at the end of the currently open stretch of road, I wanted to go on. Two miles of so many seemed . . . paltry! I wanted to escape the exotic grasses and gentle slopes of the "front ranch" and find out what the more rugged backcountry had to offer. I wanted to see a condor or a horned lark or a mountain lion (preferably at some remove).

Plans are for the park to be opened up more—certainly to hikers, and probably to mountain bikers and equestrians also, given the distances to be covered. The next park south is Garrapata State Park, and people already do enter from there, illegally. The DFG's Joshua Creek Ecological Reserve, rugged and difficult to access, is downcoast as well. The recent purchase has enlarged that holding, and plans are to make it more accessible to the public

For now, though, it's worth logging on to www.mprpd.org and getting a permit for the two-mile stroll that provides a glimpse of the future—and the past. Of our ranching heritage, but also of our continuing stewardship of this precious land—and simply of the beauty of the central coast, untouched by development. ■

Down by the Riverside

When you think of rivers, you probably don't think of urban southern California. Nevertheless, rivers played the same role in southern California that they play everywhere else. Their banks were the sites of original settlement, Native American and later Spanish. When most of southern California was rural, they supplied water for irrigation. The first European-built irrigation system in California was constructed by Franciscan friars along the San Diego River. Although not very navigable, southern California rivers were transportation corridors, and quite a few modern-day freeways follow their courses.

Starting in the 1930s and continuing into the 1970s, southern California systematically turned its back on its rivers and streams, encasing them in concrete, burying them in culverts, straightening their winding paths, and allowing development right up to their banks. This started to change in the 1980s, when many cities realized that the best chance of injecting nature into their urban environments lay in restoring their rivers.

The Santa Ana River rises in the mountains of the Cleveland National Forest in San Bernardino County, and flows through three counties to meet the ocean in Huntington Beach. Along the way it passes through suburbs and towns, under freeways and over dams, past golf courses and parks. The three counties through which the river flows—San Bernardino, Riverside, and Orange—are home to close to 20 percent of California's population.

While the last ten miles or so of the River are encased in concrete, most of its 70-plus-mile length is soft bottom, restrained by levees that are set farther back as you go upstream. Citizens in San Bernardino, Riverside, and Orange Counties seized the opportunity presented to them in 2005, when the Santa Ana Watershed Project Authority helped create the Santa Ana River Trail and Parkway Partnership, dedicated to the creation of a riverside trail and parkway. When complete, this will be a continuous corridor for non-motorized transportation, about 100 miles long. It will link towns along the way to the Coastal Trail and the ocean. Just over 60 miles of the Parkway already exist.

In March, the Conservancy's South Coast manager, Mary Small, and I biked 65 miles from the city of Riverside to Huntington Beach to get a feel for the existing trail's condition, its gaps, its usage on a weekday, and its amenities. The entire route ran next to the river save for about a 19-mile gap that had to be navigated on city streets through Norco and Corona. Biking the trail was rather like a train ride—we passed a lot of backyards, aggregate mines, sewage treatment plants, and the like. But there were also long stretches of parkland, coastal sage scrub, and quite a bit of wildlife: rabbits, snakes, hawks, waterfowl (even a cinnamon teal!), shorebirds, and of course, people. There were lycra-clad cyclists training for races, equestrians from Norco (a town given over entirely to horses), people out for a stroll, and urban bike commuters. In the middle of the day in the middle of the week, the trail was quite well used; I imagined it would be busy on a weekend.

Although much remains to be done to complete the Santa Ana River Trail (and the Coastal Conservancy has $45,000,000 in Proposition 84 bonds to do this job), a great deal has been accomplished. The secret to success there is a very well-organized community. All the counties and cities along the route are involved in planning, with construction and maintenance carried out by county park departments. The county supervisors and city councilors are all parties to an agreement that spells out how to conduct the project, and supervisors and mayors give a great deal of their time to work on committees. The alliance has hired a staff consultant, and the Wildlands Conservancy, a private nonprofit conservation organization, provides a great deal of support as well. When completed in the next five or six years, the Santa Ana River Trail will be one of the premier recreation trails in California and a great example of many communities coming together to reclaim part of their natural heritage.

I will clearly need to conduct annual inspections to make sure the project stays on track!

Sam Schuchat is the executive officer of the Coastal Conservancy.

MARY SMALL

COASTAL CONSERVANCY NEWS

At its April 24 meeting at Dana Point in Orange County, the Conservancy approved projects designed to extend the Santa Clara River Parkway, improve water quality in the Malibu Creek watershed, explore new approaches to water conservation in watersheds throughout the state, install trail improvements, and accomplish a variety of other conservation and public access goals.

SANTA CLARA RIVER PARKWAY

The 100-mile-long Santa Clara River is southern California's largest river and one of the last in the region to survive in a relatively natural state. It flows from National Forest lands on the northern slope of the San Gabriel Mountains in Los Angeles County through Ventura County and into the ocean at McGrath State Beach, halfway between the cities of Ventura and Oxnard. Most of the main river corridor is privately owned and not protected.

In 2000, after discussions with landowners and with support of adjoining cities, state and local political representatives, and environmental groups, the Conservancy proposed the creation of the Santa Clara River Parkway, a continuous estuarine and riverine corridor along the lower 23 miles of the river, from the Sespe Creek confluence to the estuary. Land would be acquired and managed to allow for habitat restoration, public enjoyment, environmental education, and flood protection. The river's natural processes are to be restored as much as possible to prevent continued flooding and damage to habitat, farmland, and public facilities. A continuous public riverside trail is envisioned, linked to adjacent public lands.

In 2001, the Lesislature appropriated $9.2 million to the Coastal Conservancy for the parkway. Since then the Conservancy has been working in partnership with the Nature Conservancy and Friends of the Santa Clara River to purchase the needed properties from willing sellers. Thus far, 17 properties comprising 2,700 acres have been acquired, protecting 12 miles of river. In April, the Conservancy approved funding to the Nature Conservancy for two more acquisitions, comprising a total of 228 acres along 1.1 miles of the river. Of the $5.25 million approved to the Nature Conservancy for these purchases, $4.5 million are Conservancy funds, and $750,000 come from the U.S. Fish and Wildlife Service. Conservancy consultants have advised that the removal of levees along these and nearby properties would lower flood elevations by several feet. Reconnecting the lower river to its floodplain will also reverse the manmade process of incision and streambed degradation that is impeding the revival of endangered species that depend on the estuary.

SOUTH COAST WILDERNESS

The Conservancy approved $175,000 in Proposition 12 funds to the City of Laguna Beach for the acquisition of a 10.38-acre ridgetop parcel near the Laguna Coast Wilderness Park and the Aliso and Wood Canyons Wilderness Park. The property features a ridgetop trail with views of the ocean, the wilderness, and coastal urban communities, and contains high-value coastal sage scrub habitat.

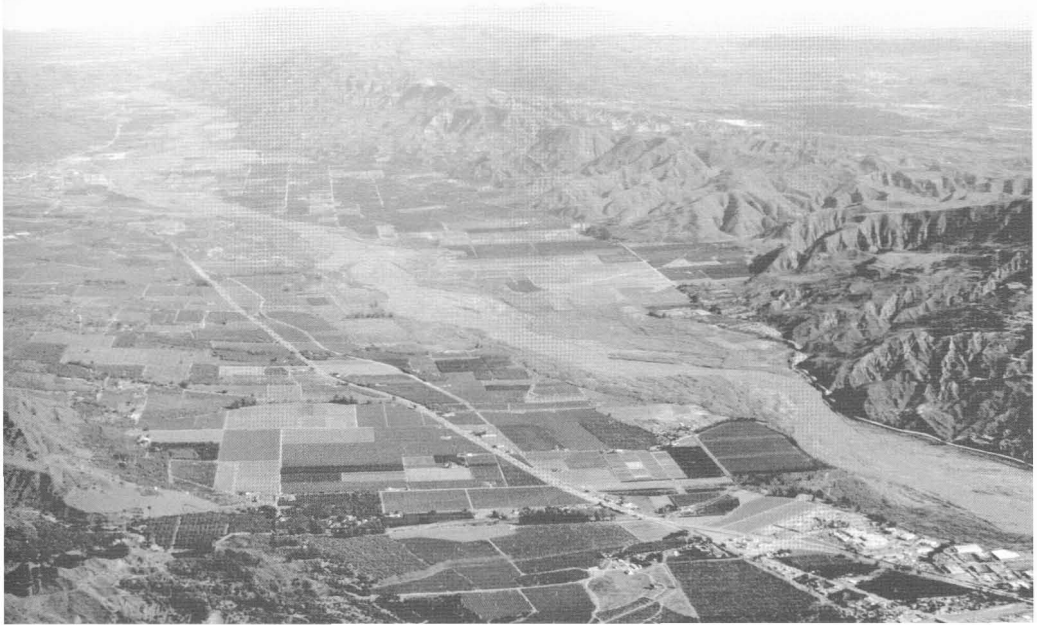
To help with expenses associated with future acquisitions and with restoration of trails on recently acquired properties, the agency approved up to $120,000 to the Laguna Canyon Foundation.

SANTA MONICA BAY PROJECTS

The Conservancy approved up to $2,840,275 for 11 projects in the Santa Monica Bay Watershed, to implement the Santa Monica Bay Restoration Plan approved by the Conservancy in 2001. The projects are meant to improve coastal water quality, habitat, and public access, in keeping with the Santa Monica Bay Restoration Plan.

The funds are to be disbursed as follows:

- A total of $600,000 to the Santa Monica Bay Restoration Foundation, to prepare a historical ecology study for the Ballona Creek watershed, develop a water budget for the Ballona Creek watershed, and to prepare final designs for parts of the Ballona Greenway Plan, including landscape guidelines for a plant palette;
- A total of $350,000 to the State Parks Department to provide the matching



The Santa Clara River Valley, looking east from the estuary

KEVIN MCATEE/COASTAL CONSERVANCY PHOTO

A view of Mindego Hill, in the Santa Cruz Mountains near La Honda

ROBERT BUELTEMAN

funds needed by the U.S. Army Corps of Engineers to complete its evaluation of the various alternatives for removal of Rindge Dam on Malibu Creek; and to enable State Parks to identify suitable habitat before attempting to reestablish the California red-legged frog in the Santa Monica Mountains;

- Up to $200,000 to the Los Angeles Conservation Corps for restoring beach bluff habitat at Dockweiler State Beach, north and south of the new youth development center.
- Up to $322,143 to Community Conservancy International for the second phase of the Green Solution Project, which is working to identify sites suitable for conversion of impermeable urban land to permeable surfaces;
- Up to $100,000 to Santa Monica Baykeeper to continue restoration at Stone Canyon Creek, on the campus of the University of California, Los Angeles;
- Up to $1 million to the City of Los Angeles to implement stormwater best management practices in the Ballona Creek watershed;
- A total of $268,132 to the Palos Verdes Peninsula Land Conservancy for habitat restoration and access improvements on the bluffs at Point Vicente, and in McCarrell's Canyon.

Funding for these projects is provided by Proposition 12, the 2000 bond act, which earmarked $25 million to the Coastal Conservancy for restoration of Santa Monica Bay in accordance with the goals and priorities of the Bay Plan.

SANTA CRUZ MOUNTAIN LANDS

Miles of ranch roads and hiking trails will be opened to the public on a spectacular 1,047-acre property on the western flank of Skyline Ridge in the Santa Cruz Mountains near La Honda. The property, known as Mindego Hill, ranges from 800 to 2,100 feet in elevation and is surrounded by 33,000 acres of protected open space. Hilly grasslands, evergreen forests, two lakes, and four miles of creek support abundant plants and wildlife. From the ridges, hikers will be able to enjoy ocean views.

In October 2007, the Peninsula Open Space Trust (POST) bought Mindego Hill from the True family, which had owned it for 54 years. POST's intention was to transfer the land to public ownership. In April, the Conservancy approved $7.5 million to the Midpeninsula Regional Open Space District to buy the property from POST. The District must remove or clean up a landfill left on the property before it can be opened to the public. The land has been used for cattle grazing since 1859, and will continue to be managed for grazing as well as recreation. It adjoins the Russian Ridge Open Space Preserve.

LARGE NAPA COUNTY RANCH PURCHASE FOR THE PUBLIC

The 1,000-acre Duff Ranch, 1.5 miles northeast of Calistoga, in Napa County, lies between Robert Louis Stevenson State Park and Wildlake Ranch. The Land Trust of Napa County owns Wildlake Ranch and has sought to purchase Duff Ranch as well, to protect the headwaters of two tributaries of the Napa River, the rich mosaic of habitats on the land, and to provide public access. To make the $3.7-million purchase possible, the Conservancy approved $1 million to the Land Trust. Also contributing are the Resources Legacy Fund, Marin Community Fund, Wayne Grey Wilson Foundations, and the Land Trust.

State Parks is interested in adding the Duff and Wildlake ranches to Robert Louis Stevenson State Park, but does not now have the funds to do so. The Conservancy approved an additional $250,000 to the Land Trust to develop an interim management plan for Duff Ranch, Wildlake Ranch, Robert Louis Stevenson State Park, and other public and private lands in the vicinity.

RIDGE TRAIL WILL GROW

The Sonoma County Agricultural Preservation and Open Space District will build 4.25 new miles of Bay Area Ridge Trail along the north slope of Sonoma Mountain with the help of $575,000 approved by the Conservancy, plus $300,000 of its own funds, and $238,853 from State Parks. This funding will also allow the District to build a half-mile spur trail to the Bennett Valley overlook, undertake access-road improvements, develop a parking area and trailhead, and construct three new bridges and 12 creek crossings.

WORK ON A SONOMA SALMON STREAM

With $290,000 in funding approved by the Conservancy, the Occidental Arts and Ecology Center will improve summer stream flows in the Salmon Creek watershed in southwestern Sonoma County for the benefit of juvenile salmon as well as humans who depend on the creek for water. The funding will enable the Ecology Center to analyze water supply and demand in the watershed, design conservation strategies, hold conservation workshops, and create demonstration programs tailored for small coastal communities; also to complete design and permitting for four large

Top: The Klamath River Estuary

Above: Ryan Connolly, age four, doesn't like the stinky polluted water in "Channel B," which empties into Tomales Bay at Chicken Ranch Beach. It was dug by a neighboring landowner for flood control. The Conservancy granted $109,000 to the Tomales Bay Watershed Council in January to develop a restoration plan to improve water quality and habitat in Third Valley Creek and reduce beach erosion, partly caused by Channel B.

woody-debris structures in the creek's estuary, just north of Bodega Bay, to provide spawning and rearing habitat for coho salmon.

KLAMATH ESTUARY PLAN

The Yurok Tribe will plan to improve public access to the Klamath Estuary with the help of $100,000 approved by the Conservancy. The Tribe will identify possible locations for the California Coastal Trail, other trails, a river taxi, boat launches, and parking areas. It will evaluate risks from environmental threats including tsunamis, floods, and climate change; and will identify any cultural and ecological constraints and opportunities. The final plan will contain recommendations for public access improvements.

MANAGING WATER FOR BOTH FARMS AND FISH

In an effort to promote local water management that benefits both agriculture and anadromous fish, the Conservancy approved $600,000 to the nonprofit Trout Unlimited (TU) to explore conservation options along some key coastal streams. TU will prepare a feasibility report, which will include conceptual designs for off-stream storage facilities along streams where the benefits of instream flows are endangered by inadequate water management. During dry months, farmers would use the stored water instead of withdrawing water from streams when flows are low and fish are most in need of adequate water. In approving the funding, the Conservancy invited TU to return with a proposal for further assistance as opportunities for projects and partners become available.

PARADISE BEACH ACQUISITION

The area around Point Sal, in the northwestern part of Santa Barbara County, is exceptional in several ways: the diversity and abundance of its plant and animal life, including species found in both central and southern California; its unique geology, from ancient dune soils to some of the oldest exposed rocks along the Central Coast; an unusually large number of historically significant sites; and its relatively untouched condition. It is remote, beautiful, and mostly inaccessible, and 11 federal- or

TOP: ARNIE NOVA/YTP. BOTTOM: NEYSA KING

state-listed threatened or endangered species live there.

Now 143 acres just north of Point Sal will be acquired by the Land Conservancy of San Luis Obispo County with the help of $1,270,000 approved by the Conservancy in January, to be preserved and eventually opened to the public. The Nature Conservancy will contribute an estimated $900,000 toward the purchase price of $2,150,000 plus closing costs. The Land Conservancy will transfer the property to the County of Santa Barbara, which owns several adjacent parcels.

The land, owned by the Gragnani family since the 1970s, includes nearly a half-mile of Paradise Beach, a 1.5-mile swath of white-sand beach along Point Sal's western shore that is mostly privately owned; the Gragnani's portion includes several tidepools and a haul-out area heavily used by marine mammals. Behind the beach are steep bluffs with freshwater seeps, where willows grow; behind the bluffs, coastal dune scrub vegetation extends inland, giving way to maritime chaparral and coastal sage scrub. A regional management plan envisions the inland portion of the property as a wildlife corridor connecting significant habitat areas. There are several old dirt roads and trails, including the Paradise Trail, which leads to the beach, but no permanent structures. The Gragnanis used the property only for camping and occasional hunting.

In 1989, the Santa Barbara County Board of Supervisors appointed the Land Trust for Santa Barbara County to acquire land in the region between Point Sal and Mussel Point, just north of Vandenberg Air Force Base. Working with government agencies and conservation groups, the Land Trust developed a management plan that designated 800 acres as the Point Sal Reserve Management Area. The reserve area includes small parcels of land owned by the California Department of Parks and Recreation and the U.S. Bureau of Land Management, as well as five privately owned parcels, including the Gragnani's. Currently, a coalition called the Dunes Collaborative coordinates management of all the public lands within the reserve, as well as the larger Nipomo-Guadalupe Dunes Complex to the north. Public access to Point Sal has been difficult since the main road washed out several years ago, but the County is committed to providing access in the long-term and is currently negotiating with Vandenberg Air Force Base about a route to the State Beach in the southern portion of the Point.

BLAIR RANCH PURCHASE

One of the fastest-growing regions in the San Francisco Bay Area lies south of San Jose near Gilroy. Agricultural lands in and around the rural Coyote Valley are under intense development pressure: the City of San Jose has annexed a portion of these lands and developed a master plan for 25,000 new homes and 50,000 jobs.

To provide more green breathing space for the expanding human population in this region, and to maintain continuous habitat for plants and wildlife, the Santa Clara County Open Space Authority will buy 865 acres of the Blair Ranch, which is less than 10 miles from Coyote Valley, and add it to Rancho Cañada del Oro Open Space Preserve. It will do so with the help of $4,340,000 approved by the Conservancy in January. Of the total, $2 million is a no-interest bridge loan, to be repaid within three years. Others contributing to the total $8,654,000 acquisition cost are the Moore Foundation and Santa Clara County Parks and Recreation Department. Peninsula Open Space Trust played a key role in bringing the project to the Conservancy's attention and pulling together the various funding groups. The Blair family, who grazed cattle on the ranch for more than 20 years, will keep 126 acres, including the family residence.

Blair Ranch lies along the southeast edge of 3,017-acre Rancho Cañada del Oro Open Space Preserve, which shares a portion of its northeast border with 3,476-acre Calero County Park. The acquisition "helps make the wildlife connection between the Santa Cruz Mountains and the Diablo Range," said Patrick Congdon, the Open Space Authority's general manager. Other preserves in the region include Uvas Canyon County Park, Almaden Quicksilver County Park, and Sierra Azul Open Space Reserve. The Open Space Authority will develop a public access plan for the ranch, including hiking trails that will eventually connect to some of these parks.

Blair Ranch is situated at the head of the Uvas-Llagas Creek watershed, which drains directly into the Pajaro River. It has rolling hills, broad grass pastures, seasonal creeks, and oak woodlands with black oak, blue oak, valley oak, and coast live oak. It also has beds of rare Morgan Hill poppy jasper, as well as numerous serpentine outcroppings that support rare species such as the bay checkerspot butterfly. Coyotes, grey foxes, mountain lions, bobcats, big brown bats, and dusky-footed woodrats roam on the property, and 49 species of birds have been recorded, including white-tailed kites and western meadowlarks.

ROBERT HILL

Paradise Beach, northern Santa Barbara County

COMMUNIST ANTS?

Editor:

I'm not sure how coasts and oceans relate to ants, but there's no doubt that they would be entitled to embrace the entire planet in one way or another. In any event, I was especially enamored of the article dealing with the tiny creatures which have become fixtures in many dwellings in southern California at this time. In fact, their disturbance of the domestic tranquility of some households assumes enormous proportions in some instances. The vengeance exacted by some housewives against them often involves great expenditures of time and money. I might note that some day, when crops all fail, we may look to them, as some of our ancestors did, as a source of protein, so that our rash treatment of them produces mixed feelings.

Also, ant season makes me wonder seriously about some items which the scientific establishment seems to have overlooked—among others, the fact that since they have been on the planet for millions of years, their conduct may reflect a wealth of experience. It may be that they have chips in brains smaller than anything produced in Silicon Valley. Certainly, evolution has given them a form of government which has a remarkable resemblance to communism. As with coasts and oceans, the study of ants in greater depth could result in some really big-time findings.

Harry Rockey
Laguna Hills

WHAT'S IN A NAME?

Editor:

As I was reading your beautiful and interesting Winter issue, I read John Cloud's book review about "Maps of a Changing State" *(Historical Atlas of California with Original Maps)* by Derek Hayes.

The author claims that after the name New Spain, California was named after a heroine from an obscure novel of the 16th century. I find it amazing that he chooses to romanticize and complicate what is clearly evident. Hernán Cortés named the region for its climate: *calida fornax* (derived directly from the Latin) which means hot furnace. Please refer to: New Mexico State University, "Field Ecology of Baja": http://biology-web.nmsu.edu/nish/biology550/index.html.

Spanish conquistadors did not derive place names from fiction. Usually, they named them for some outstanding characteristic, like Colorado (red) for the river's color, Arizona (arid zone), Montana (mountain), and so on. The conquistadors were trying to give simple, meaningful names to the places they discovered.

This reminds me of a bronze plaque in Key Biscayne, Florida, that says the name Biscayne comes from some Indian word. Biscayne is the name of an important province in Spain (Vizcaya). By the way, Florida means "full of flowers" or "in bloom."

Mercedes Benet
Carlsbad

John Cloud replies:

Alas, nothing is clearly evident about the name "California." Ms. Benet says Cortés named the place "*calida fornax* (derived directly from the Latin) which means hot furnace," yet her reference website also lists another version: "[t]he second version states the second group of Europeans who tamed the land, the Jesuits, called it *cala,* little boy, and *fornix,* vault or arch, presumably after the arch rock found near Cabo San Luca."

No one will ever know for certain what the origin of the name California is, but here's the gist of the Spanish fantasy novel version:

In 1510, Garci Rodríguez de Montalvo wrote a novel called *Las sergas de Esplandián* which described an island, east of mainland Asia, named California, inhabited by black women who lived without any men (except those captured and used, briefly, for breeding), and ruled by a queen named Califia. There is some evidence that de Montalvo didn't originate the concept, and that there were widespread legends about such an island.

Cortés invaded Mexico in 1519. He didn't explore what we now call Baja California until about 1536, but, in 1524, in his fourth "*carta de relacion*" to the King of Spain, he passed on the story from his lieutenant who had conquered the Mexican city-state of Colima:

"And in the same manner I was brought a story from the men of the province of Cihuatlán, which reinforced completely that there is an island populated by women, without a single male, and at certain times men come from the mainland, who are granted access by the women . . . and if they give birth to women [sic], they keep them; and if men, they throw them out of their company; and that this island is ten days journey from this province; and that many of them have gone there and have seen it.

They tell me also that it is very rich in pearls and gold; I will prepare myself to know the truth and tell it at length to your majesty."

The key to much is that if one approaches Baja California from the south, one must travel some distance up the Sea of Cortés, as it is now called, to realize the landmass is a peninsula, and not an island.

Cortés reached the bottom of the peninsula in 1535–36, but there is no evidence that he ever used the name "California" in describing it. In 1540, Hernando de Alarcón was sent by Cortés' enemy the Viceroy Mendoza, to verify Cortés' many claims of conquest and exploration. It was he who first used the name "California" to refer to the place.

WOW! OWLS!

Editor:

I love the photo taken of the owls in Muir Woods, (Vol. 23. No. 4, p. 20). This is just the kind of magic that takes place in the woods if you find yourself feeling something, looking up and Wow! There are the owls looking right at you.

Jo Ann Driscoll
Oakland

SNAKE TALE

Anne Canright

This is a very short story, because it was a very short snake—about nine inches long. However, it *was* a rattlesnake. Short because it was but a pup.

I was out at Pinnacles, rock climbing with a couple of friends. I sat down to enjoy some shade and get a good view of our leader. Settled my butt and leaned back on my left hand. Something—I have no idea what—prompted me to look down. There, *one inch away* from my left wrist (I do not exaggerate), was an absolutely gorgeous little rattler, all curled up. Gorgeous because it was creamy white with clear brown markings, like a freshly shed snake—though I imagine this one had yet to shed its skin for the first time. He flicked his little black tongue at me, but otherwise didn't budge. I shrieked (just a little bit: I'm not a shrieker) and jumped up—of course. And then—of course—we had to take pictures of it. It finally decided it had had enough of lenses stuck in its face, unfurled and slid over the rock, then jumped onto the next ledge—where it curled up again, under some leaves. There it stayed for the rest of our time there.

Coastal Conservancy

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