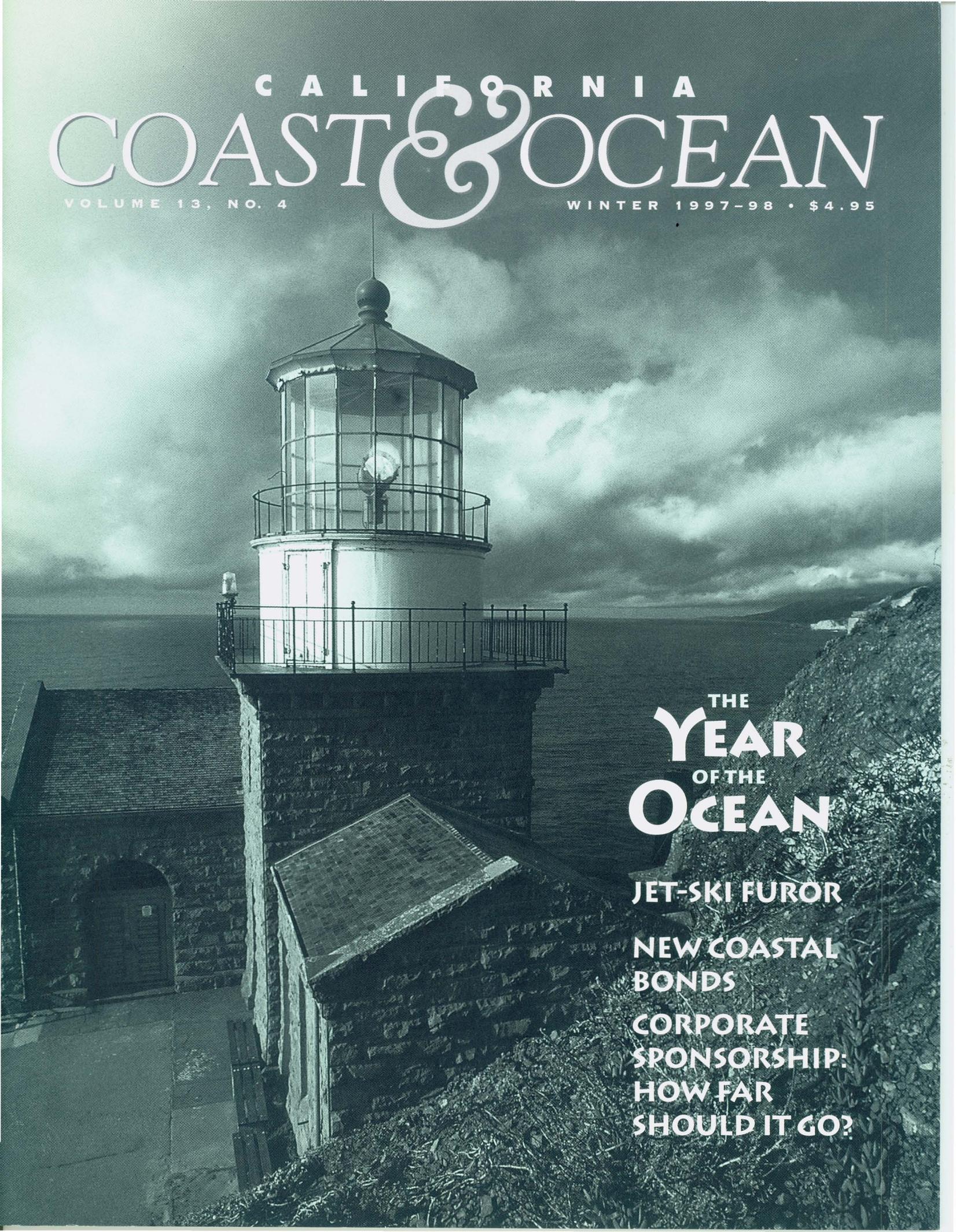


# CALIFORNIA COAST & OCEAN

VOLUME 13, NO. 4

WINTER 1997-98 • \$4.95



## THE YEAR OF THE OCEAN

JET-SKI FUROR

NEW COASTAL  
BONDS

CORPORATE  
SPONSORSHIP:  
HOW FAR  
SHOULD IT GO?



# Coastal Conservancy

**The Coastal Conservancy** has appointed William R. Ahern as its new executive officer. Ahern directed the California Coastal Commission's Division of Energy and Ocean Resources from 1977 to 1981, then worked with the California Public Utilities Commission, the California Department of Insurance, and the Consumers Union. He has a doctorate in public policy from Harvard University's Kennedy School of Government, and was a fellow in marine policy and ocean management at the Woods Hole Oceanographic Institution in the early 1970s. He lives in Piedmont.

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KIP EVANS

**Cover:** Point Sur Lighthouse. Three-hour tours are offered Saturday and Sunday, guided by State Parks volunteers. Be sure to call first for information: (408) 625-4419. Photographer Kip Evans (above) is also a diver, scuba instructor, and education coordinator for the Monterey Bay National Marine Sanctuary's Water Quality Protection Program.

The Coastal Conservancy is a state agency that works with the people of California to preserve, improve, and restore public access and natural resources along the coast and around San Francisco Bay. It is funded primarily by bonds authorized by California voters.

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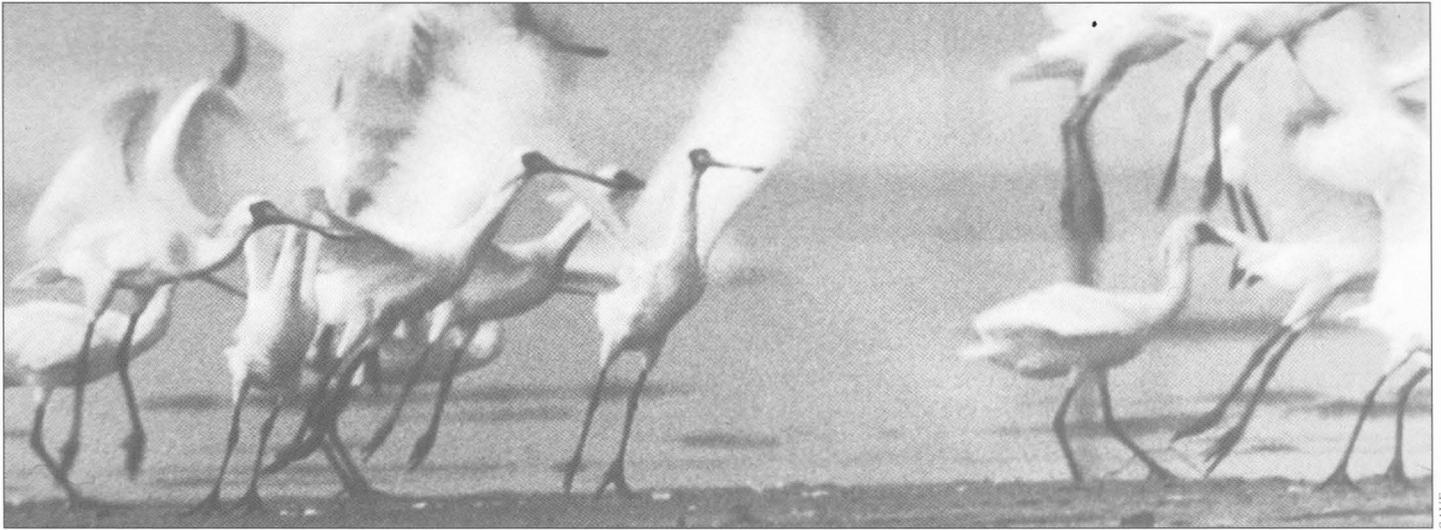
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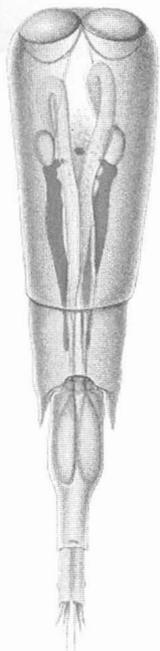
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DAVID PRITCHETT

# THE YEAR OF THE OCEAN



# T

HE SUNLIT WORLD WE INHABIT is only a thin fragment of the Earth's living space. Beneath the marine waters that cover more than 70 percent of the planet's surface is a vast realm alive with creatures we know little or nothing about. The United Nations has declared 1998 the International Year of the Ocean (OCEAN98), and throughout the world events are being planned to raise awareness of the seas, which are only beginning to be explored yet are being exploited at an accelerating rate. We'd better hurry.

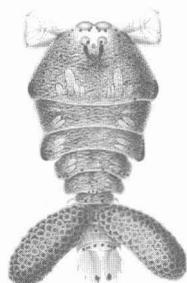
"The diversity of life in the ocean is being dramatically altered by the rapidly increasing and potentially irreversible effects of activities associated with human population expansion," especially along coasts, warned a 1995 report by the National Research Council. Among major agents contributing to the damage are overfishing, exploitation of other marine organisms, chemical pollution, and destruction of coastal wetlands.

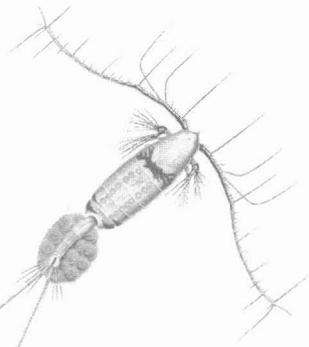
Even more alarming is the news that deep ocean mining may soon begin in the South Pacific at volcanic springs that teem with creatures that may hold clues to our origins and to the beginning of life on Earth. These

creatures were discovered only two decades ago.

The rock towers that stand beside these volcanic vents are rich depositories of gold, silver, copper, and other elements that bring high prices on world markets. In November, 1997, the *New York Times* reported that the government of Papua New Guinea had granted title to almost 2,000 square miles of its territorial waters to a mining firm.

The deep ocean frontier has been opened with the use of technology developed for military purposes and released for civilian use after the end of the Cold War. Profit-making enterprises are way ahead of scientists in what they can afford to spend, so they can move faster.





"I'm not against mining," comments marine biologist and deep sea explorer Sylvia Earle, former chief scientist for the National Oceanic and Atmospheric Administration (NOAA), "but I am opposed to blind use of our assets. We have to know what they are so that we can decide whether we want to give them up. The answer may be yes. But there are other things to be mined as well; knowledge of the sea is priceless."

Even the fundamental patterns of ocean processes are still a mystery. Almost nothing is known about the living communities of the deep ocean floor, where no life was believed to exist until recently. These creatures depend not on sunlight but on microorganisms that process the chemical brew that pulses up from the earth's molten core.

A recent SeaWeb Poll showed that an overwhelming number of people favor ocean exploration over space exploration. Yet far fewer of our national resources have been allocated to learning more about the sea. OCEAN98 is an opportunity to discover the living ocean before it's too late.

For starters, there is the OCEAN98 web site ([www.ocean98.org](http://www.ocean98.org)), produced in the Netherlands and packed with easy-access information and enticing invitations. There's the NOAA Year of the Ocean web site ([www.noaa.nedi.gov/yoto98](http://www.noaa.nedi.gov/yoto98)),

in an earlier stage of construction. There's the invitation from NOAA to contact Matt Stout or Greg Hernandez at NOAA Public Affairs in Washington, DC by phone: (202) 482-6090; or by e-mail: [webmaster@ocean.nos.noaa.gov](mailto:webmaster@ocean.nos.noaa.gov).

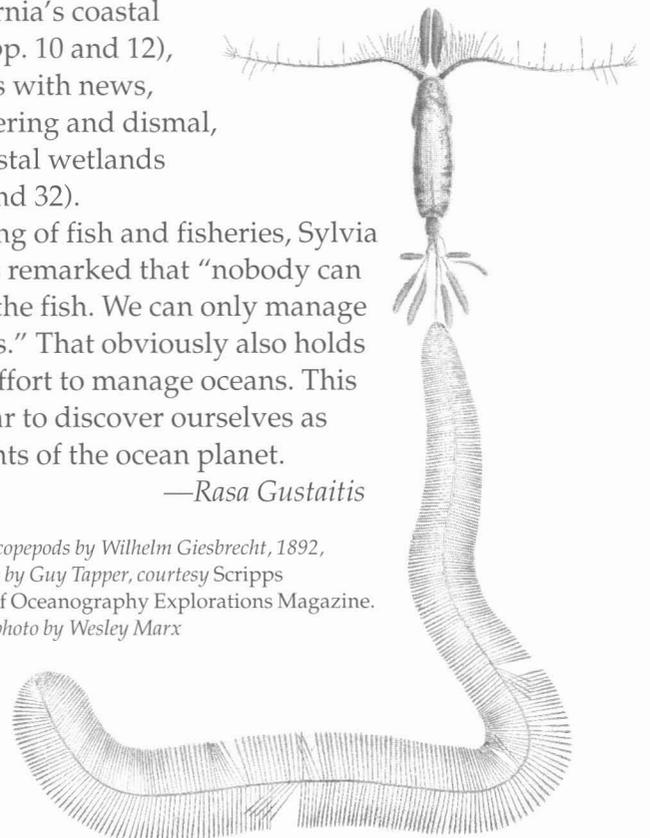
To get a feel for the deep ocean frontier—and be enthralled—ask your library or bookstore for *The Universe Below*, by William Broad, science writer for the *New York Times*. This book could provide material for several James Bond movies.

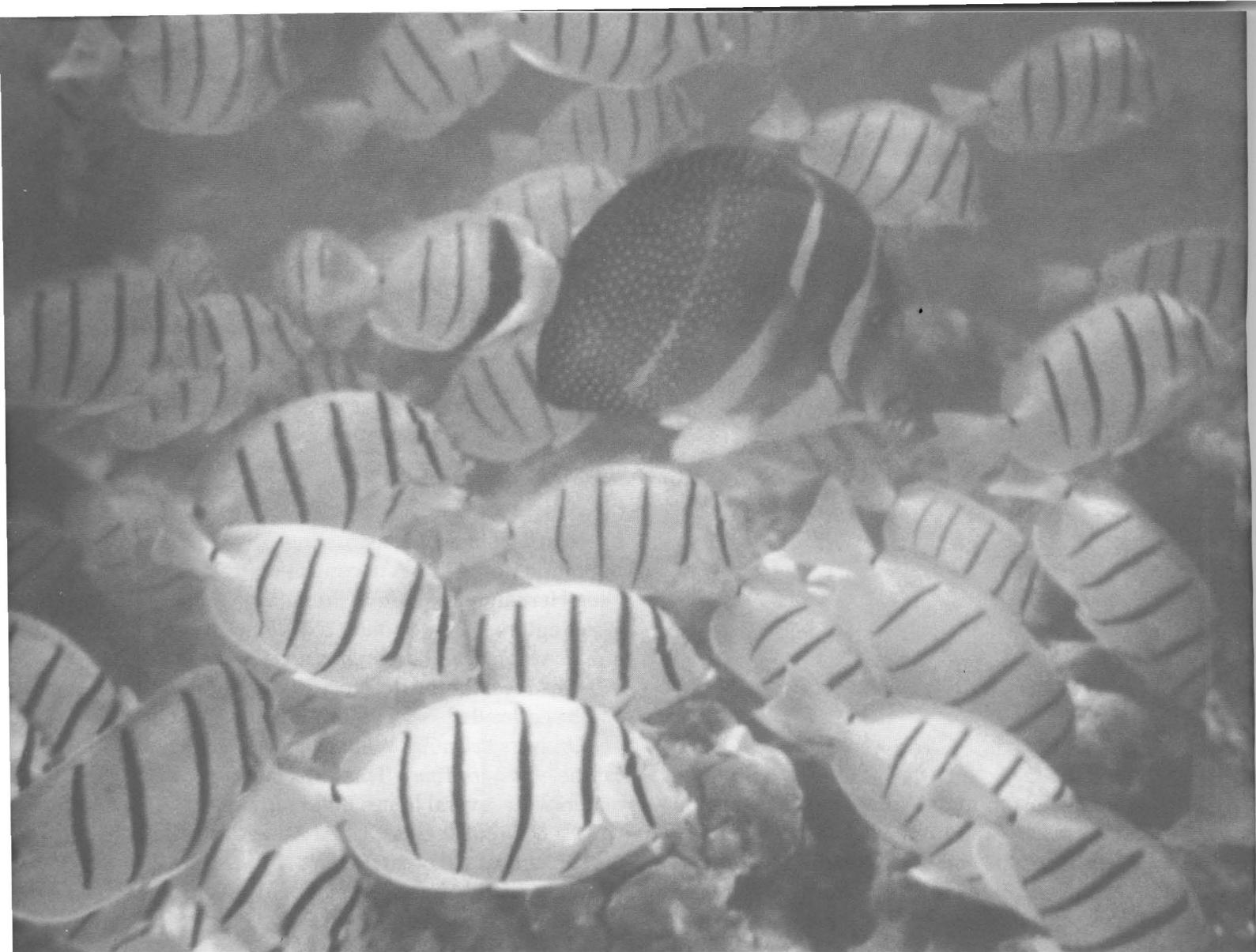
*Coast & Ocean* begins OCEAN98 with a look at the probable future of ocean fishing, and with two stories about conflicts between recreational and wildlife use in California's coastal waters (pp. 10 and 12), as well as with news, both cheering and dismal, from coastal wetlands (pp. 29 and 32).

Speaking of fish and fisheries, Sylvia Earle has remarked that "nobody can manage the fish. We can only manage ourselves." That obviously also holds for any effort to manage oceans. This is the year to discover ourselves as inhabitants of the ocean planet.

—Rasa Gustaitis

*Drawings of copepods by Wilhelm Giesbrecht, 1892, image editing by Guy Tapper, courtesy Scripps Institution of Oceanography Explorations Magazine. Surgeonfish photo by Wesley Marx*





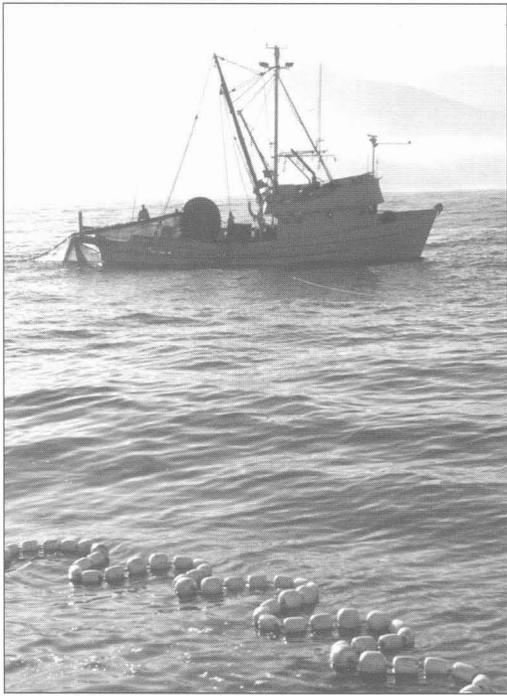
WESLEY MARX

# Who's Watching over the Global Fish Market?

WESLEY MARX



**I**N THE 99 RANCH MARKET IN IRVINE, shoppers browse through a virtual mini-aquarium. Catfish, crabs, rockfish, and lobster stare back from live tanks. The eyes of a grouper glint on a bed of sparkling ice where fillets of red snapper, halibut, and salmon also tantalize. On shelves, stacked columns of canned fish provide the price-conscious with another universe of food fish that promise high protein and high-fashion slimness. Over 100 species of fish from around the world have been collected here to satisfy even the most demanding palates.



excess capacity in fishing fleets, and prevent loss of critical habitats.

We can't agree with our neighbors on how to make sure we maintain important stocks. Even within our own national boundaries, and in state waters, we don't know enough about what is happening to our fish, and when we find out, we can't always do what's necessary. Consequently, some of those gorgeous fish at the 99 Ranch Market—or any other well-stocked seafood section—could all too soon become scarce in the oceans where they are now being captured.

So what is the future for fish and fishing in the world's oceans? Clearly it's grim if current levels and methods of exploitation continue. With their own coastal fisheries depleted, the United States, European countries, and Japan now compete to import food fish from developing nations, where fisheries are even more poorly managed. According to the United Nations' Food and Agricultural Organization (FAO), 11 of the 15 main marine fishing grounds are seriously depleted. As a result, fishermen must expend more effort to hunt down fewer fish.

If there is any good news, it's the growing awareness in the United States that fishery management needs to be reformed and that depleted stocks need to be restored. But translating this awareness

Behind this abundance lies a tragic dichotomy. The food fish industry has evolved into a global economic powerhouse, able to deliver virtually every edible marine species to markets around the world. There is, however, no global fisheries management, or even sensible regional management. No global norms exist to prevent overfishing, reduce the wasteful "bycatch" of unwanted fish, reduce costly

**Opposite: Surgeonfish in a Hawaiian coral reef**

**Top: Fishing for squid in Morro Bay**

**Below: Surgeonfish in a fish market**



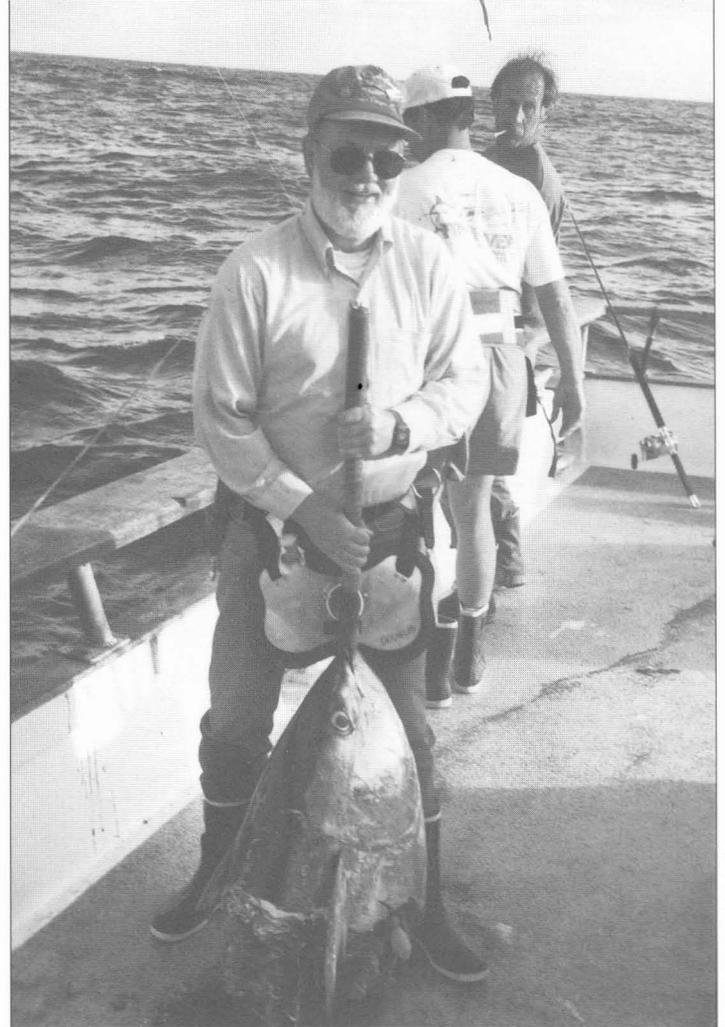
As the global hunt for fish intensifies, so does the competition between humans and marine predators. This angler "shared" his tuna with an alert shark.

into effective remedial action is proving difficult.

In 1996, Congress passed the Sustainable Fisheries Act, which requires that the National Marine Fisheries Service (NMFS) and eight regional federal fishery management councils incorporate conservation measures into the 39 existing fishery management plans. The act requires that steps be taken to reduce bycatch, identify essential fish habitat, prevent overfishing, and rebuild depleted stocks within ten years. The plans are supposed to be updated by October 1998.

While enlarging the responsibilities of NMFS, however, Congress has diminished the agency's ability to do its work. To meet federal budget mandates, NMFS must reduce its work force from 2,800 employees in 1992 to 2,200 by 1999, even while the agency shoulders new and wider responsibilities. Current work is endangered as well. The vessels used for the field surveys of abundance and distribution of fish stocks are now operating beyond their 30-year projected life span, but Congress has so far refused to fund construction of new ships with updated capabilities.

The nonprofit National Fish and Wildlife Foundation, which has been evaluating the



PHOTOS BY WESLEY MARX

NMFS budget annually since 1990, has found that field surveys need to be more frequent if overfishing is to be detected. But NMFS cannot afford more frequent surveys.

As for protecting fish habitat, NMFS has the authority only to recommend protection to other agencies. Such agencies are not even required to respond, unless an endangered or threatened species is involved. In a June 1997 report, the Fish and Wildlife Foundation found that "without new resources" NMFS "is unlikely to stem the loss of marine habitats and subsequent population declines of marine fish stocks." The more habitat lost, the stricter the quotas must become for those fishermen who remain.

To help slow down the race to fish out the oceans, NMFS and the regional councils have been implementing programs to reduce the number of fishing vessels. Under Individual Transferable Quotas (ITQs, sometimes referred to as Individual Fishing Quotas), fishermen are issued a share in the total annual harvest. If they do not choose to fish themselves, they can lease or sell their shares to other fishermen. NMFS sets the allowable take on the basis of its assessments. This system has been

## Opah



fish provides four types of tasty cuts: the back, the belly, the cheeks, and the breast. Seafood managers don grass skirts and aloha shirts to help promote salmon-colored opah steaks at \$12 a pound. Little is known of the opah's life history and relative abundance.

**T**HE OPAH, or moonfish, has an oval-shaped silvery body with crimson fins. Until the 1980s, when tuna fishermen off Hawaii noticed it in their longlines, they dismissed it as "bycatch." Today, 60,000 pounds of opah a year are air-freighted from Hawaii to gourmet markets in California and upscale eateries on the eastern seaboard.

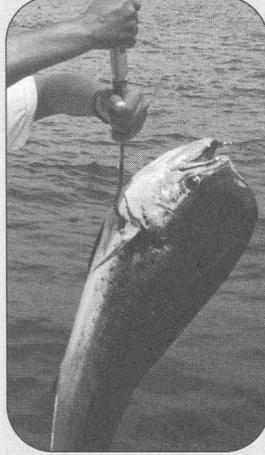
With its large rounded profile, this

applied to the Atlantic surf clam fishery, the South Atlantic wreckfish fishery, and the Pacific halibut and sablefish fisheries. In each case fleet size has dropped, catch per effort has gone up, the fishing season has been extended, and the quality of the catch has improved.

However, NMFS and the regional councils cannot extend this promising management tool to other fisheries. Congress has placed a moratorium on new ITQ programs until the year 2000 to allow the National Research Council to study the impact of ITQs on markets and fishermen. Congress acted in response to some fishing groups' fear that shares might be bought up by large corporations, which would then dominate markets and set prices. When the North Pacific Fishery Management Council proposed an ITQ system for the Alaskan pollock fishery, smaller fishermen claimed that Tyson Foods, which owns a fleet of Alaskan trawlers, would gobble up the shares. Instead of placing limits on how many shares any one entity can acquire, Congress opted for a flat-out ITQ ban. NMFS lost another potential tool to meet the ambitious mandates of the Sustainable Fisheries Act.

Thus, management efforts by federal agencies continue to be spotty, while more and more fisheries are depleted. Some 40 percent of U.S. marine fish stocks are now overfished. Things are no better at the state level. California and other states manage many coastal fish, but the globalization of the fishing industry has strained their efforts beyond capacity. A case in point is

## Mahi Mahi



Mexico also want to partake in the harvest. While fishermen, sport and commercial, lobby political officials, scientists are trying to learn just how abundant this wide-ranging species is. Because of its migratory nature, the mahi mahi will require trans-boundary management. During this El Niño year, mahi mahi have appeared in California's coastal waters, to the delight of local anglers and boat operators.

MANY U.S. MAINLANDERS first tasted the full-flavored mahi mahi while on a Hawaiian vacation. Today this iridescent fish with the big forehead is often featured as a generic catch of the day, competing with orange roughy on menus across the continent. Mahi mahi, also called dorado or dolphinfish, are caught by longlines, nets, and trolling. Because they congregate near kelp paddies and driftwood, commercial fishermen deploy artificial structures (fish aggregating devices or FADs) to attract them for capture. The U.S. hunt for this fish extends from Puerto Rico (107,000 pounds in 1996) to Guam (77,000 pounds).

Mahi mahi is also popular with sport fishermen. Competing with commercial longliners, anglers catch up to a million a year along the South Atlantic seaboard. Mexico allows sport fishing only, in deference to coastal communities that depend on visits by anglers from the United States. But commercial fishermen in

squid, now the biggest catch in California both in volume and in value.

As the squid catch diminished in Asia and Europe, squid landings in California jumped by 26 percent between 1994 and 1996 from 61,000 tons to 77,000 tons. The squid fleet almost quadrupled in that time, from 40 boats to 150, including vessels that have come from Washington, Oregon, and Alaska. California fishermen worry that what happened with the sardine (see *Coast & Ocean*, Spring 1992) may now happen with squid, and want to limit entry to the fishery. The California State Legislature

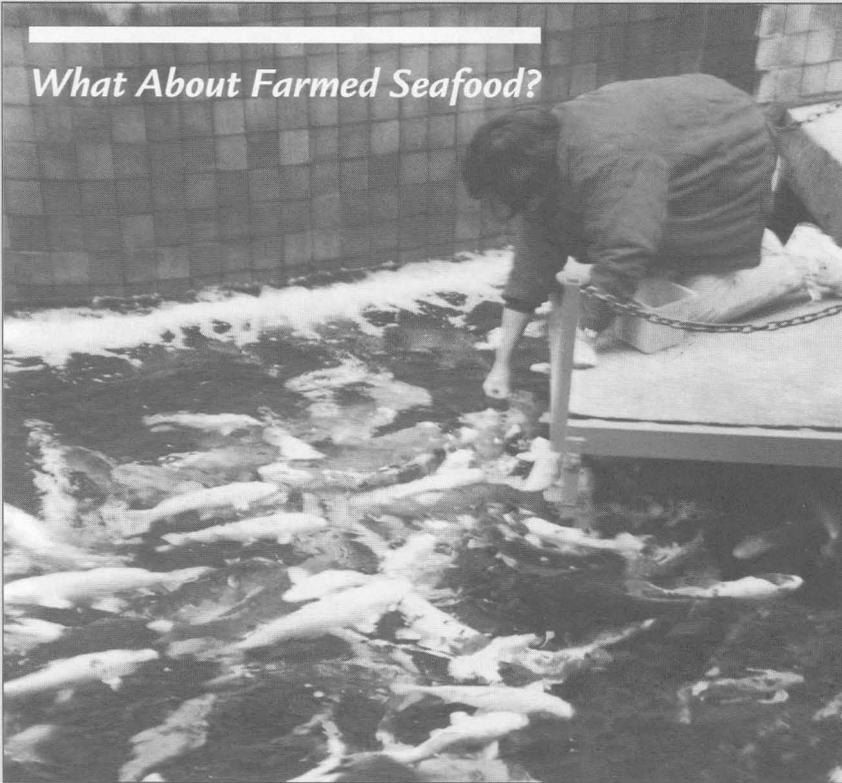
this year failed to agree on the number of vessels to be allowed, though it did approve a \$2,500 annual squid permit fee to help fund assessment of squid stocks. At present, this fishery is almost totally unregulated—no quota or catch limit has been set.

As with other fisheries, it makes sense to manage squid on a bioregional level, across jurisdictional lines. Squid stocks, as well as recovering sardine stocks, extend into Washington and Oregon. The California Department of Fish and Game has asked the Pacific Fishery Management Council to adopt a

## Orange Roughy

UNTIL THE 1980s, when it was recruited as a replacement for declining flounder, the orange roughy was called the slimehead. It seemed abundant in deep water off New Zealand. Arriving in the markets of the northern hemisphere, it quickly became a seafood hit, valued for its mild white flesh. Wal-Mart and other big discount operators promoted it, and exports to this hemisphere soared. Meanwhile, scientists learned that this deepsea predator can live up to 100 years and does not mature sexually until age 25. By the time New Zealand adopted strict catch limits, 80 percent of the roughy population had been destroyed. Large factory trawlers now exploit another virgin roughy stock, in the southeast Atlantic Ocean. As a result, roughy is still abundant in the frozen food lockers of Wal-Mart stores, at least for the time being.

## What About Farmed Seafood?



PHOTOS BY WESLEY MARX

**C**AN AQUACULTURE FILL THE GAP between supply and demand of seafood? In the last decade, farm seafood production has doubled, with 60 percent of the worldwide total now coming from China, which ranks first among fishing nations overall.

Ironically, aquaculture often grows at the expense of the wild fisheries. Shrimp farmers in China, Thailand, Ecuador, and Indonesia clear away mangrove forests, wetlands, and other key fish habitats to build shrimp ponds. Nearly one-half of Thailand's mangrove forests have been destroyed to make way for ponds. Wastewater discharges from these ponds, which include fecal matter, feed pellets, and chemicals, pollute coastal waters. As the ponds become too contaminated for further use, farmers clear more mangrove forests for more shrimp ponds (as happens with slash-and-burn agriculture in other forests).

To feed their captive brood a high-protein diet, shrimp and salmon farmers rely on fishmeal made from sardine, anchovy, menhaden, and other small schooling fish stocks. It takes four to five tons of fish to make one ton of fishmeal. China is the main importer of fishmeal from Peru and Chile, the two leading fishmeal producers. Since world fishmeal production has leveled off in recent years, fish farmers now compete with poultry and swine producers for these supplies. The future of aquaculture could be seriously constrained by a fishmeal shortage.

The pressure to harvest small pelagic fish creates an environmental problem as well, for they serve as forage for wild fish, such as tuna and salmon, and for marine mammals and seabirds. The more sardines and anchovies are exploited to feed aquacultured shrimp in China and farmed salmon in Maine, the fewer remain to sustain the marine ecosystem.

With such drawbacks, aquaculture cannot be expected to fill the growing gap between global food fish supply and demand. It is therefore essential to manage wild stocks in a sustainable manner and to rebuild depleted wild populations.

—WM

federal fishery management plan for these stocks. The Council is willing to adopt such a plan, which would include a cap on the number of vessels allowed. NMFS, however, already struggling with limited resources for assessments, declined to do this in 1996.

Sardines, the state's second-largest catch, also range north into Canada and south into Mexico. Mexico's sardine harvest is roughly equal to the current California harvest. A cooperative transboundary management accord would help to deter overfishing. But Mexico and the United States can't even agree to sit down and negotiate the issue, while the U.S.—Canada situation has grown downright ugly. The two nations are at loggerheads on renewing a cooperative Pacific Salmon Treaty. Canadian fishermen claim that Alaskan fishermen are intercepting too many sock-eye salmon that spawn in Canadian watersheds. Last summer, Canadian fishermen protested the diplomatic stalemate by temporarily blockading an Alaskan ferry with 300 passengers at Prince Rupert, B.C. Meanwhile, another transboundary stock, lingcod, is being overfished, and a proposal for a U.S.—Canada management plan waits in the wings. More than 100 countries are now involved in fishing disputes, according to the FAO.

If even friendly nations cannot reach agreement on such issues, what hope is there for global management? The UN is now trying its hand in fishery politics. In 1996, a UN-sponsored fishery conference approved a Treaty on Straddling Stocks and Highly Migratory Stocks. If ratified by 30 nations, this treaty would commit these nations to jointly manage transboundary stocks, including tuna, billfish, and sharks, which range into the high seas beyond the 200-mile limit of coastal states. So far, 13 nations, including the United States, have ratified the treaty.

In the meantime, the race to hunt down lucrative transoceanic fish intensifies. With Atlantic bluefin tuna and swordfish in decline, long-range fishing fleets are stepping up harvests of these and other species throughout the Pacific Ocean. The State Department is undertaking a diplomatic initiative to get nations on the Pacific Rim to agree to a series of regional councils to manage this unrelenting harvest. The Inter-American Tropical Tuna Commission (see *Coast & Ocean*,

Autumn 1997) is trying to accomplish this in the eastern Pacific. Japan, which has indicated its willingness to cooperate in such regional efforts, is still hedging its bets. On the one hand, it helps to fund commercial bluefin ranching in Australia, Mexico, Morocco, and Croatia; bluefin caught in the wild are placed in pens and fattened for the lucrative sashimi market. One fattened fish can fetch \$80,000 in Tokoyo fish markets. On the other hand, Japan continues to harvest juvenile bluefin tuna in its coastal waters, contrary to a basic management precept that fish should not be taken before they mature and reproduce.

AS FISHING INTENSIFIES WORLDWIDE, so do its impacts on a growing number of other marine users. The sport fishing industry is concerned about commercial fishing pressures on popular game species, such as tuna and rockfish. Birding groups and ecotourism operators are concerned about the harvesting of squid and other forage fish that sustain seabirds and marine mammals. Coastal regions that depend on tourism are concerned about fishing, both commercial and recreational, that depletes coral reefs and other scenic underwater attractions.

As a result of these concerns, more political constituencies realize they have a stake in fishery management. The Marine Fish Conservation Network, a broad-based coalition of 100 environmental, scientific, and fishing groups, actively lobbied for the Sustainable Fisheries Act. It is now monitoring how NMFS and the regional councils comply with the Act's conservation provisions. Because current stock assessments may not detect overfishing early on, more attention is being paid to other management alternatives.

Under the precautionary approach, if information on a stock's relative abundance is inadequate, conservative harvest limits are adopted. The burden of proof thus shifts to those who would prefer less conservative limits. This approach has been used by South Africa and the Falkland Islands to manage the squid fishery in the South Atlantic ocean. There is more interest in setting aside harvest refugia (no-fishing zones) to help replenish stocks. (See "The Case for 'No-Take' Marine Reserves" in the Summer 1996 issue of *Coast & Ocean*.) The National Research Council is also studying

an ecosystem approach that would go beyond single-species management and recognize the importance of critical food chain relationships, such as that between forage fish and top predators. In October 1997 the California Department of Fish and Game announced a plan to adopt an ecosystem approach to the state's living marine resources.

What can an individual citizen do to help bring an end to reckless fishery practices? One avenue for consumer action may soon be available. The World Wildlife Fund is working with Unilever, a large British-Dutch food conglomerate, to develop a certification system that would identify fish products that are being harvested on a sustainable basis. Unilever supplies one-fifth of the U.S. and European market for frozen fish. Perhaps such a system could eventually evolve into a mandatory system in which the community of nations holds each country accountable for its fishery practices, from habitat protection to bycatch. The priceless fecundity of our watery planet deserves no less. We have learned all too well how to catch, cook, and consume fish in all sizes and forms. Now we must learn how to sustain the system that produces this remarkable bounty. ■

*Wesley Marx is a frequent contributor to Coast & Ocean, and has written several books on the ocean. He served on a National Research Council panel on marine monitoring.*

## Chilean Sea Bass

THE PATAGONIAN toothfish, inhabitant of oceanic trenches off Chile and Argentina, has the same firm full-flavored flesh that makes white seabass so popular. As seabass stocks began to be depleted, the toothfish—renamed "Chilean sea bass"—appeared in seafood markets throughout the United States and in Europe. Argentina recently declared a large no-take fishing zone to help protect this species. Meanwhile, the California Department of Fish and Game, with volunteer help from sport fishermen, is now attempting to revive the white seabass population by raising and releasing hatchery-spawned juveniles.

## Wahoo



THIS SPLENDID speedster, member of the mackerel family, can race through blue tropical waters at up to 40 miles per hour. It can grow to six feet in length and a weight of 180 pounds. Its teeth are razor sharp; its white, flaky flesh can be grilled, baked, or smoked to seafood perfection. Wahoo are caught by trolling, and also show up as bycatch in purse seines. Like tuna and mahi mahi, they are highly migratory and will require transboundary management. Also like mahi mahi, they are popular as sport fish. Scientists have learned little thus far about their populations.

# Harbor Seals and Clammers *Share an Ocean Sanctuary*



MARIA BROWN

**S**PRING WILL SOON ARRIVE AT TOMALES BAY, and harbor seals will begin to give birth. They will congregate at low tide on Seal and Clam Islands, and the “maa” calls of pups will be heard over the wind and waves. At the same time, hundreds of people will arrive on these very same tidal islands to dig for clams.

Seal and Clam Islands have been popular with clammers for more than a century, particularly during extremely low tides that occur in spring. Some families have been clamming here for decades. Most arrive on the *Clam Clipper*, a barge from nearby Lawson’s Landing, a camping, boating, and fishing resort, to search for gapers, geoducks, and other clams until the tide covers the islands again. On a good low-tide weekend over 1,200 clammers have been counted in just a four-hour period on these islands—where harbor seals are trying to care for their newborn pups.

Tranquillity is essential to the seals. The

pups, born weighing about 20 pounds, must double their birthweight in four to six weeks; after that they start to fish and forage independently. It’s important that the pups and their mothers not be disturbed. If humans, dogs, or boats come too close, harbor seals flush en masse into the water. Disturbances may cause pups to be separated from their mothers and, in the long term, reproductive success can fall and the haul-out site may be abandoned.

Studies have shown that harbor seals at Seal and Clam Islands have been disturbed more than seals at any of the four major haul-out sites in the Point Reyes area,

LESLIE GRELLA



primarily by clam diggers and fishermen, but also by boaters and dogs. The reproductive rates of these seals have been lower and pup mortality has been higher than at other sites where the human presence is less pervasive.

The Gulf of the Farallones National Marine Sanctuary, which is mandated to protect its natural resources, considered the problem and addressed it. In Spring 1996, in partnership with the nonprofit Farallones Marine Sanctuary Association, the Sanctuary started a volunteer program called SEALS (Sanctuary, Education, Awareness, and Long-term Stewardship). This program has proved so successful that it is now a model for resolving inter-species conflicts elsewhere, particularly access conflicts between humans and marine mammals.

On low-tide weekends from February to June, trained volunteers arrive on the islands—often before dawn—aboard the *Clam Clipper* or a skiff provided by Lawson's Landing, which has been cooperating with the program. They set up orange cones and flags at a distance of some 300 feet from the seals—a distance that has been found generally adequate to prevent disturbance of these harbor seals while allowing clambers to use and enjoy the islands.

The volunteers count the seals before the first clambers come and then every 30 minutes until the islands are about to be submerged again. They explain the cone and flag barriers and offer leaflets to all in English, Chinese, and Spanish. Many of the clambers are families from the Central Valley, and many are Asian-American.

The volunteers invite clambers to look through spotting scopes and to examine marine mammal artifacts. Each has completed a 32-hour training program and has learned about stewardship, education techniques, the cultural and natural history of Tomales Bay, and about marine mammals and clamming. Each carries a cell phone in case there is a need to report trouble. (No problems have occurred to date.)

In its two years of operation, the SEALS program has significantly improved life for the harbor seals on the two islands. The number of pups, which had dropped from 80 to 45 between 1991 and 1995, rose to 131 in 1997, reports Sarah Allen of the Point Reyes National Seashore, who has studied seals at Point Reyes for more than 20 years. "I've wanted a program like this for a long time and am thrilled with its

effectiveness," she says. Mary Ellen King, a researcher associated with the Audubon Canyon Ranch who has been monitoring the seals since 1991, has observed that "more seals were using larger areas for hauling out" in 1997.

"It was real smooth last year," said Nancy Vogler, a fifth-generation owner of Lawson's Landing. "We used to have problems with people running up and trying to scare the seals just because they were there. Now most know they shouldn't. We've still got clamming, and we've still got seals."

"I believe the program works because instead of setting up signs and having uniformed officers, you have people talking to people," says volunteer Caroline Bolthouse, of Mill Valley. "When people understand why we're there we have no conflict at all. This is a wonderful example of how diverse people can work together."

Volunteers report a sense of deep satisfaction from observing the seals and looking after their interests. "I feel like I'm joining a very joyous and friendly family," says Gordon Bennett, of Muir Beach. "It's sheer pleasure to watch them. I also like the interaction with the people. They're busy clamming but interested when you talk with them."

The Sanctuary and the Association are committed to continuing this stewardship program, and have expanded it. SEALS volunteers now also monitor human activity and possible seal disturbance in Bolinas Lagoon. They are coordinating with the Point Reyes National Seashore, the California Department of Fish and Game, and others. The success of SEALS has inspired a similar program at Fitzgerald Marine Reserve in San Mateo County.

The Sanctuary and the Association also have a highly successful Beach Watch program, which is now in its fifth year. Trained volunteers sign up to visit a particular beach every four weeks for a year, and report the presence of oil, other pollution, and live and dead organisms. Over 80 percent of these volunteers extend their one-year commitment. When 25 Beach Watch spots opened up recently, 600 people called to volunteer. The success of the SEALS program is one more example of the willingness of citizens to serve as stewards of their coast. ■

*Leslie Grella is a naturalist and the volunteer coordinator for the Gulf of the Farallones National Marine Sanctuary and the Farallones Marine Sanctuary Association.*

CALIFORNIA DEPARTMENT OF FISH AND GAME



AMIE HALL



**Opposite: Volunteers give clambers a look at seals through a spotting scope.**  
**Top: Tomales Bay**  
**Above: Harbor Seal**

For more information, contact Leslie Grella at the Gulf of the Farallones National Marine Sanctuary, Fort Mason, Building 201, San Francisco, CA 94123; (415) 561-6622. The next training program for SEALS will be held in February.



*Tons of Fun, Waves of Trouble*

# The Jet Ski Furor

JUDITH COBURN



COURTESY YAMAHA MOTOR CORPORATION, U.S.A.

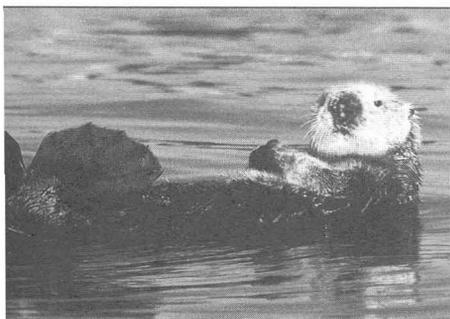
**T**HE SIX-MILE HIKE OUT TO TOMALES POINT affords a commanding view—the boundless Pacific to the west, Tomales Bay to the east—of how Earth’s movements carved out the Point Reyes Peninsula. Hawks soar above meadows where tule elk graze just as they did when the Miwoks roamed these ridges.

But now an all too modern sound, an angry buzzing, often whines above the roaring surf. Binoculars can pick out a jet ski jumping the waves just outside Tomales Bay.

This isn’t Lake Tahoe, where scores of thrillcraft (commonly referred to as personal watercraft—PWCs—or by the brand name “Jet Ski”) buzz swimmers, wildlife, and fishermen on summer days. Here only a few machines, privately owned, ply the surf on weekends near the mouth of the

bay. No rental operations have been established yet, and if west Marin residents have their way, none ever will be.

Local citizens recently launched a preemptive strike, calling for a ban on personal watercraft in the Gulf of the Farallones National Marine Sanctuary. The 948-square-mile sanctuary includes the Point Reyes National Seashore, Tomales Bay, Bolinas Lagoon, and a 30-mile stretch of coastline from Muir Beach to Stinson Beach to



KIP EVANS

Bodega Head, extending offshore to the Farallon Islands. The sanctuary, a UNESCO biosphere reserve, is home to a rich diversity of coastal and marine wildlife, including 23 species of threatened or endangered birds, fish, and mammals.

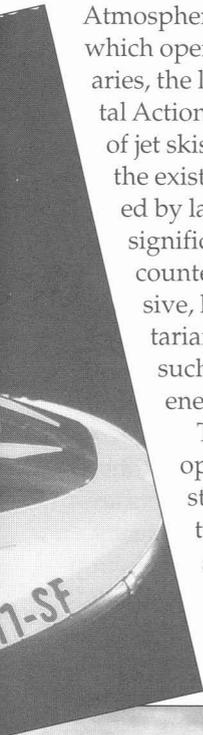
In a petition to the National Oceanic and Atmospheric Administration (NOAA), which operates the national marine sanctuaries, the local 1,200-member Environmental Action Committee argues that "the use of jet skis is completely incompatible with the existence of a marine sanctuary created by law to protect 'areas of biological significance.' It seems foolhardy and counterproductive to allow loud, obtrusive, high-speed vehicles, with no utilitarian value, into water that harbors such an abundance of rare, threatened, and endangered wildlife."

The campaign in west Marin opens yet another front in the struggle between those who turn to the wilderness to find silence and serenity, like hikers and kayakers, and those, like snowmobilers, off-road vehicle drivers, and PWC riders, who

want wide open space to test themselves and their machines.

## Conflict and Compromise

**I**N SCORES OF COMMUNITIES around the country from Hawaii to Vermont, people who live near lakes, rivers, or surf have lobbied for limits on personal watercraft because of concerns about wildlife, personal safety, water quality, and especially natural quiet. Some states have passed or are considering laws that establish age limits, speed and usage limits, and mandatory driver education. The Blue Water Network, organized by San Francisco's Earth Island Institute, has asked Interior Secretary Bruce Babbitt to ban jet skis in all national parks. The Monterey Bay National Marine Sanctuary and the Tahoe Regional Planning Agency have adopted restrictions. The \$1.2 billion personal watercraft industry has challenged such regulations in courts, with mixed results. In September 1996 it persuaded the Washington State Supreme Court to overturn a county ban in the San Juan Islands, but a ban in the Monterey Bay National Marine Sanctuary was upheld.



BLUE WATERS KAYAKING

**"June 8, 1996 . . .  
I witnessed  
a jet skier  
frighten a seal  
off of a rock  
outcropping  
approximately  
50 yards  
from shore.  
Later . . .  
I observed the  
same jet skier  
operating at  
excessive speeds  
in the 'no-ride  
zone' in  
front of the  
'village' at  
Dillon Beach."**

More than a million personal watercraft are now in use on U.S. waters, mostly on freshwater lakes, but also in coastal bays and nearshore waters. Most are built for one or two people who stand or sit on the machine; some newer models hold three people. Their ability to move noisily at high speed, come close to shore, and turn on a dime is a big part of their appeal, and also a major cause of complaints against them.

"They're very unpopular among everyone except those who are riding them," says John Robinson, spokesman for the Monterey Bay National Marine Sanctuary. "I've taken one out while doing a story for a newspaper, and I must say, it was a ton of fun. The number-one complaint is noise. Two jet skis can tear up the water for miles and really disrupt the tranquillity of a beach."

What pushed the sanctuary to act on the problem, however, was not noise but "verified reports of people running down marine mammals," Robinson says, adding that one person was prosecuted for aiming his craft at a sea otter in a kelp bed and running it over.

The Monterey sanctuary banned PWCs, was sued by the industry, prevailed in court, but then sought a compromise. It now permits these thrillcraft in four areas, each about a mile square and about a mile offshore, extending oceanward from the four harbors in the sanctuary. These restrictions apply to PWCs built for one or two persons and capable of moving at over 15 knots per hour (17.25 miles per hour). Some can go as fast as 52 kph (60 mph).

Scott Kathey, enforcement officer for the Monterey sanctuary, says users don't like the legal zones because they are far from shore and lack good surf. Robinson observes, "Some people adhere to the rules, some do not. We don't know if it's a lack of education or if they are just ignoring the rules."

## **Trouble at Tahoe**

**T**HE GROWING POPULARITY of jet skiing has also caused a furor on Lake Tahoe. In 1995, PWCs were involved in accidents that caused six deaths and some 100 injuries on the lake, according to the California Department of Boating and Waterways. Fewer ospreys have been nesting successfully, and "in more heavily used shoreline areas we see birds going inland," says Coleen Shade, associate plan-

ner and biologist at the Tahoe Regional Planning Agency.

The most troubling issue, however, is water quality. The lake is one of only three state-designated outstanding natural resource waters in the west (the others are Mono Lake and Crater Lake in Oregon), and therefore has special protection under the federal Clean Water Act. The Environmental Protection Agency permits no degradation. Yet the two-stroke carbureted engines used in PWCs and some other craft dump 25 percent of their fuel unburned into the water.

In June 1997, the Tahoe Regional Planning Agency banned two-stroke engines as of June 1999. The National Marine Manufacturing Association (NMMA) and other groups filed suit in the U.S. District Court in Sacramento on October 30, challenging the agency's authority and the engine ban. John Donaldson, spokesman for the Personal Watercraft Industry Association, an arm of the NMMA, said manufacturers are preparing to meet new EPA fuel-efficiency standards, due to go into effect in 1999, which require graduated fleetwide reductions in emissions. The association also advocates mandatory education and a minimum age limit of 16 for operators of all motorized watercraft.

## **Preemptive Strategy**

**O**N TOMALES BAY, A PUBLIC meeting about the proposed ban drew a standing-room-only crowd of local residents to the Point Reyes National Seashore headquarters in Olema on September 25, 1997. Speakers complained that PWCs disrupt wildlife, pollute the ocean and bay, and disturb the peace.

Dillon Beach homeowner Tom Thornley showed blown-up photographs of riders jumping the waves close to shore and read excerpts of logs he's been keeping: "June 8, 1996. While fishing in the rocks between Dillon Beach and the Estero Americano, I witnessed a jet skier frighten a seal off of a rock outcropping approximately 50 yards from shore. Later that same day, I observed the same jet skier operating at excessive speeds in the 'no-ride zone' in front of the 'village' at Dillon Beach."

Supporting the Environmental Action Committee's petition for a ban were civic and scientific groups ranging from the Marine Mammal Center to the Inverness

Yacht Club to the Point Reyes Bird Observatory. Several naturalists pointed out that harbor seals, great blue herons, and great egrets mate and nest near the mouth of Tomales Bay close to the privately owned Lawson's Landing, where thrillcraft are launched.

John Kelly, resident biologist at the Audubon Canyon Ranch, told the gathering that the U.S. Fish and Wildlife Service bans personal watercraft in three refuges in Florida, the Key Deer, Great White Heron, and Key West National Wildlife Refuges. Kelly said that biologists around the country are beginning to study PWCs and have observed anecdotally that they are more disturbing to wildlife than boats. The lack of long-term studies documenting such observations did not disturb officials of the Monterey Bay sanctuary, which adopted restrictions largely on the basis of "overwhelming anecdotal evidence and public reaction," according to Scott Kathey.

Other speakers at the Olema meeting quoted from the California Boating Accident Report of 1996, published by the Department of Boating and Waterways, which found that while personal watercraft constituted only 16 percent of registered vessels, they were responsible for 45 percent of all accidents, 55 percent of all injuries, 14 percent of all fatalities, and 23 percent of all property damage. Donaldson contends that these figures are misleading because they do not calculate accidents per hour of use. He says that personal watercraft are in use five times as much as other boats.

No retailer or manufacturer was present at the Olema meeting. In a later interview Donaldson said: "The idea that a few jet skis pollute the Farallones is absurd. Why aren't they yelling about all the radioactive waste that's been dumped in the ocean there? [For 24 years, ending in 1970, federal agencies and private industry dropped steel drums containing radioactive wastes into waters near the Farallones.] And why are personal watercraft singled out? Some boats have two-stroke engines and disturb wildlife, too."

The only opponent of the proposed ban to speak at the Olema meeting was Jeff Akers, who works for Lawson's Landing and is a member of the Surfriders, a PWC club. He contended that most users are responsible, follow the rules he hands them before they launch, and abide by state laws



JIM HILDINGER

PWC rider on Lake Tahoe

that require they stay 200 feet from swimmers or from shore in navigable waters. He said he warns anyone who breaks the rules, and has banned three repeat offenders from launching at Lawson's Landing.

West Marin residents expect success, in part because they acted early. "We didn't wait until jet skiing was established here, until people had an economic stake," says Mark Dowie, president of the Environmental Action Committee. "We're alarmed by the Yellowstone [National Park] experience, where some 20 years ago it was determined there were too few snowmobiles to worry about. Today rental outlets surround Yellowstone and on peak days last winter over 1,500 snowmobiles entered the park."

Ed Ueber, manager of the Gulf of the Farallones National Marine Sanctuary, says he expects to issue a draft rule in February, and another round of public comment will follow before final policy is set. Whatever the outcome, controversies about fast and noisy watercraft—both PWCs and other high-speed boats—are sure to continue along the coast as more and more people crowd the nearshore with a growing variety of motorized waterborne toys. ■

*Judith Coburn is a writer who lives in west Marin and has written for many national magazines, including the Los Angeles Times Sunday Magazine.*

## SIGNIFICANT NEW FUNDS FOR THE COAST PROPOSED

# Governor Wilson's Conservation Bond Act

NEAL FISHMAN



AS MAYOR OF SAN DIEGO, A MEMBER of the California Assembly, and a U.S. senator, Governor Pete Wilson was known as a supporter of spending for environmental programs. Few remember that in 1988 he signed the ballot argument in favor of Proposition 70, then the largest resource protection bond act in California's history, or that in 1970 he proposed some of the first coastal protection legislation. In recent years, however, many of us who work the state legislature were beginning to despair that the state's increasing fiscal constraints and other concerns including crime, prisons, and schools had induced the governor to turn a permanently blind eye to his once-favored issues of land, water, and wildlife preservation. Happily, it seems that we were wrong.

On January 9, in his final year as governor, Wilson released a budget proposal that includes a major conservation initiative: an \$800 million bond measure for coastal protection, parks, and wildlife. Of the total amount, \$100 million would go to the Coastal Conservancy for purchase of scenic and open-space lands, expansion of public access to the shore, and preservation of coastal biodiversity. The coast would also benefit from other allocations, including \$310 million to the State Parks Department for construction and restoration of coastal recreation facilities, \$3.8 million to the Department of Fish and Game and the Department of Boating and Waterways for enhancement of reef fisheries and nearshore ecosystem management, and \$1.8 million to the State Water Resources Control Board for improvement of coastal water quality.

"Through strong coastal protection initiatives," Wilson said, "we have developed a balance between natural resource protection and sound management, which will allow future generations of Californians to enjoy the marvel of our coastline and ocean."

Also included in the governor's bond proposal is money for Lake Tahoe, the Headwaters Forest in Humboldt County, and inland

state park facilities and wildlife habitat.

In addition to this proposal to California's voters, the governor has taken a second major step. His budget message for fiscal year 1998-99 contains a proposed allocation of over \$20 million to the Coastal Conservancy that, when added to nearly \$16 million approved by the legislature last year, would bring critical funds for state, local government, and nonprofit land trust projects to protect coastal resources, expand public access, support coast-related industries, and preserve scenic and historical values.

If this seems like good news, the better news is that people in the know are optimistic that the governor's proposals or similar ones will actually pass this year. The governor's plans are consistent with several bills introduced last year by legislators. AB 1000 by Assemblyman Fred Keeley would place a \$600 million coastal bond on the ballot. SB 2 by Senator Mike Thompson would place a \$495 million comprehensive park, wildlife, and coastal bond on the ballot, with many similarities to the governor's proposal. SB 312 and AB 254 by Senator Jim Costa and Assemblyman Mike Machado would place flood control bonds on the ballot, to include an unspecified amount of

money for coastal rivers and streams. This money would be spent on habitat-friendly, innovative approaches. All of these have bipartisan support.

Governor Wilson has also proposed a \$1.3 billion water management bond act, which would include funding for water recycling and conservation, safe drinking water, water pollution control, flood control, and other programs. Coastal rivers and urban streams would be included within a flood control portion of this new proposal. While the details were not available at this writing, it is assumed that part of this money will support innovative approaches to flood control, ones that rely on biotechnical engineering and easement acquisitions to widen stream corridors, as opposed to concrete channels. This makes it possible to protect and expand wildlife habitat while safeguarding communities and agricultural areas from flooding. The Coastal Conservancy has pioneered such approaches to flood control along the coast.

The governor has said he hopes to see his bond measure on the June ballot. This will require fast action: two-thirds of both houses of the legislature would have to approve the measure, and the governor would have to sign it, by mid-February. If that deadline is not met, the next opportunity would come in November.

**T**HE NEW SPENDING PROPOSALS seem to be directly related to the state economy's recovery from the recession. During the early 1990s, funding for the Coastal Conservancy and other resource agencies was way down. Conservancy funds fell to only \$4 million a year in both the 1993-94 and 1994-95 fiscal years. This is contrasted with yearly averages of about \$20 million in the mid-1980s. Now, as the economy has begun to bloom, the Wilson administration and the legislature have beefed up spending for the coast and natural resources in the current and proposed fiscal-year budgets. The new proposals are the culmination of this renewed focus on the environment and quality of life. If approved by the legislature, these proposals will have significant positive impacts on the public enjoyment of the coast and protection of its resources.

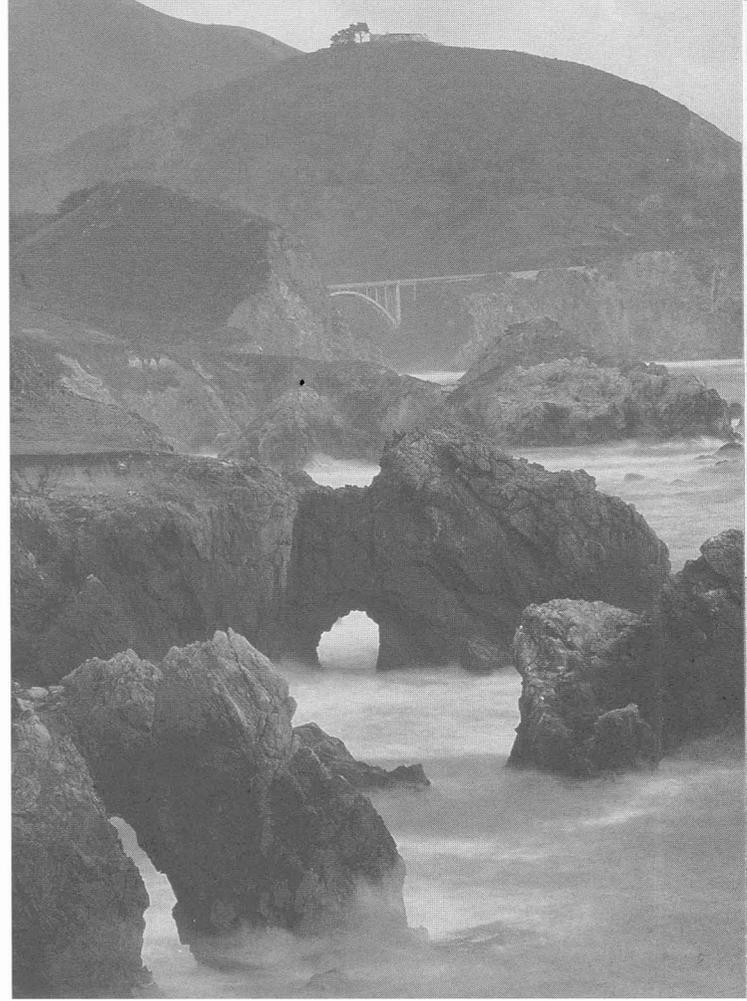
The legislative proposals, especially AB 1000, were bolstered by a legislative report, *State of the Coast and Ocean 1998*, released on January 6 by Assembly Speaker Cruz M.

Bustamante, which found that the state has a backlog of coastal infrastructure and habitat protection projects requiring \$1.4 billion in capital financing. This report was the result of a series of hearings by the Assembly budget subcommittee, which reviews, among others, the budgets of natural resource and park agencies. Assemblyman Keeley is the chair of that committee. Using testimony of various coastal interest groups and state agencies, as well as capital outlay needs projections on file with the Department of Finance, Keeley's staff prepared the needs assessment, which focuses on three key areas: marine ecosystems and the precipitous decline of the state's most valuable fisheries, increases in polluted runoff, and threats to the scenic values of the coast.

Although the details of the proposals were still unavailable at press time, it appears that the governor's and the legislature's bonds are similar in many respects, though they do emphasize different aspects of the state's critical environmental and recreational needs. We expect a lively debate in the months to come. In any event, it does appear that the legislature and the governor have made forward-looking proposals, and this bodes well for a final product that will have major impacts on the state's resource infrastructure.

All in all, it looks to be one of the most interesting and rewarding years for the coast in more than a decade. It seems that the governor may only have been hibernating the past few years, waiting for a change in the financial climate. It does seem like an early spring here. ■

*Neal Fishman is the Coastal Conservancy's legislative coordinator.*



KIP EVANS



CHARLOTTE ROSBURG

# **Power Walk** *Along a Powerful Coast*

ANNE CANRIGHT

**T**

HREE YEARS AGO THE BIG SUR International Marathon introduced a 21.2-mile "power walk," and this year on a beautiful Sunday in April I gave it a crack. Although the course is only five miles shorter than that of the marathon, somehow the notion of walking rather than running gave me courage. After all, I walk from my car to the grocery store all the time.

The power walk is noncompetitive: there are no winners, only satisfied—and tired—finishers. The lure of the Big Sur Marathon, even for most runners, isn't the idea of "winning," it's the glory of the Big Sur coast in all its variety: from sheer cliffs and high-arched bridges over ribbons of river, to redwood-filled valleys and grassy green hills. The western, seaward lane of Highway 1 was to be ours, all ours, for one glorious morning.

Noncompetitive does not, of course, mean languid. When they say *power walk*, they mean it. The walk begins at 6:45 a.m., and everyone must be off the course by 12:30 p.m. That's five hours and 45 minutes, a pace of about four miles an hour—good and brisk. There are also walks of seven or ten miles, but I was determined to do the long one.

I began preparing a couple of months beforehand, by taking long weekend "training" hikes with my power walk partners, Hetty and Chris, in the hills of the former Fort Ord, now Bureau of Land Management (BLM) lands, west of Salinas. It was early spring, and lupine was blooming in carpets of purple-blue tinged with fuchsia and white. The weeks wore on; our walks grew longer. New flowers burst forth: magenta tufts of owl's clover, pristine white globe lilies, and, toward our final days of training, bright yellow stars of coast pretty face and the pink fare-thee-well of clarkia. The green, green grass of these inland hills began slowly to fade to gold, and a Basque shepherd moved in from Nevada with his flock of bleating sheep to crop the grass back to the roots.

As we explored the various dirt and paved roads of the BLM lands, we also encountered marvelous creatures. On our first walk Hetty spied a bobcat loitering in the shade of some oak trees. On our fourth or fifth walk I was halted midstep beside a pond, still brimming from the winter rains, by the sound of bullfrogs—unfathomably like lowing (or maybe farting) cows. We spotted several as we tiptoed along, their eyes bulging above the water's surface. They were watching us too, no doubt—waiting until we'd passed to resume their springtime song. Lizards, a few snakes, black-shouldered kites, kestrels poised on fence posts: the local wildlife went about its business as we went about ours—which was to get our lazy winter muscles into some semblance of shape.

The marathon course starts just south of Pfeiffer-Big Sur State Park; we power walkers would launch ourselves from Andrew Molera State Park, five miles to the north and head northward to the near side of Carmel. At the start of the walk, we had to decide what to wear. That, of course, meant guessing what the weather would be. Unfortunately, not only were the three of us standing in a relatively sheltered spot, which threw us off, but we optimistically assumed conditions would be as they had been the day before—balmy, calm, cloudless, warm, pretty much idyllic. We therefore abandoned our long-sleeved shirts and sweat pants. Big mistake.

As we rounded the first bend, we met our real adversary: *wind*. For the next eight miles we would be battered by gusts up to 45 miles per hour. And it was *cold*. Our hands, then our forearms, lost all sensation and solidified into barely controllable

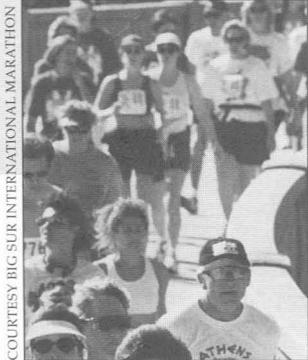
Music is an important part of the Big Sur Marathon.



PHOTOS COURTESY BIG SUR INTERNATIONAL MARATHON

## A Run for Your Money

The 13th annual Big Sur International Marathon (BSIM) will be held on April 26, 1998. In addition to the 26.2-mile run, there will be a five-kilometer run and three walking events of seven, 10, and 21 (Power Walk) miles. It will also be possible to run the Marathon as a relay, with up to five runners. Entries are limited to 3,000 for the Marathon, 200 for the Power Walk, and 1,500 for the other walks. Early registration is advised. Fifty percent of the profits (\$80,000 this year) goes to benefit Big Sur organizations such as the library and the volunteer fire department; the remainder is distributed to Monterey County social services. Groups that volunteer to help with the event (from 1,600 to 1,800 volunteers assist each year) get special consideration for funding. For information on entry, fees, volunteering, lodging, transportation, and other logistics, call the BSIM office at (408) 625-6226. Early in 1998, up-to-date information will be available on the BSIM web site: [www.bsिम.org/Main.html](http://www.bsिम.org/Main.html).



COURTESY BIG SUR INTERNATIONAL MARATHON

Ten-mile walkers on Bixby Bridge

rigidity. We learned to accept cups of water and Gatorade from the marathon volunteers with *both* hands—just in case. As we rounded the bend leading down to the Little Sur River Bridge, we were blasted by wind-blown sand and, when I tried to jog through the gusts, I was lifted into the air and blown sideways.

The people we passed waiting to start the seven- and ten-mile walks were huddled behind miniature roadside dunes and portable toilets, trying to avoid the wind. I pitied them more than I pitied myself—and miraculously, my arms felt a little warmer. Compassion can do wonders.

The climb from the Little Sur River toward Hurricane Point, a 460-foot, two-mile ascent, helped invigorate our circulation. A third of the way up, looking over my shoulder, I spotted the lead marathoners running past “Sandblast Point” and angling downward. A flock of eight or twelve bodies that could have been a pack of cheetahs or gazelles, they were *fast*. I didn’t stop to watch as they glided over the Little Sur bridge—Hetty-of-the-long-legs was trudging steadfastly upward—but I did trot backwards for a bit. When the runners passed, I surely did admire those strong, muscular legs, and I marveled at their speed. Later I learned that the winner had the second slowest time in the marathon’s twelve-year history, thanks, no doubt, to that wind. Yet the mere idea of running 26.2 miles in two hours, 27 minutes, and 51 seconds boggles my mind. That’s almost twice as fast as I walked the 21.2-mile course. And I was *moving*, thank you very much.

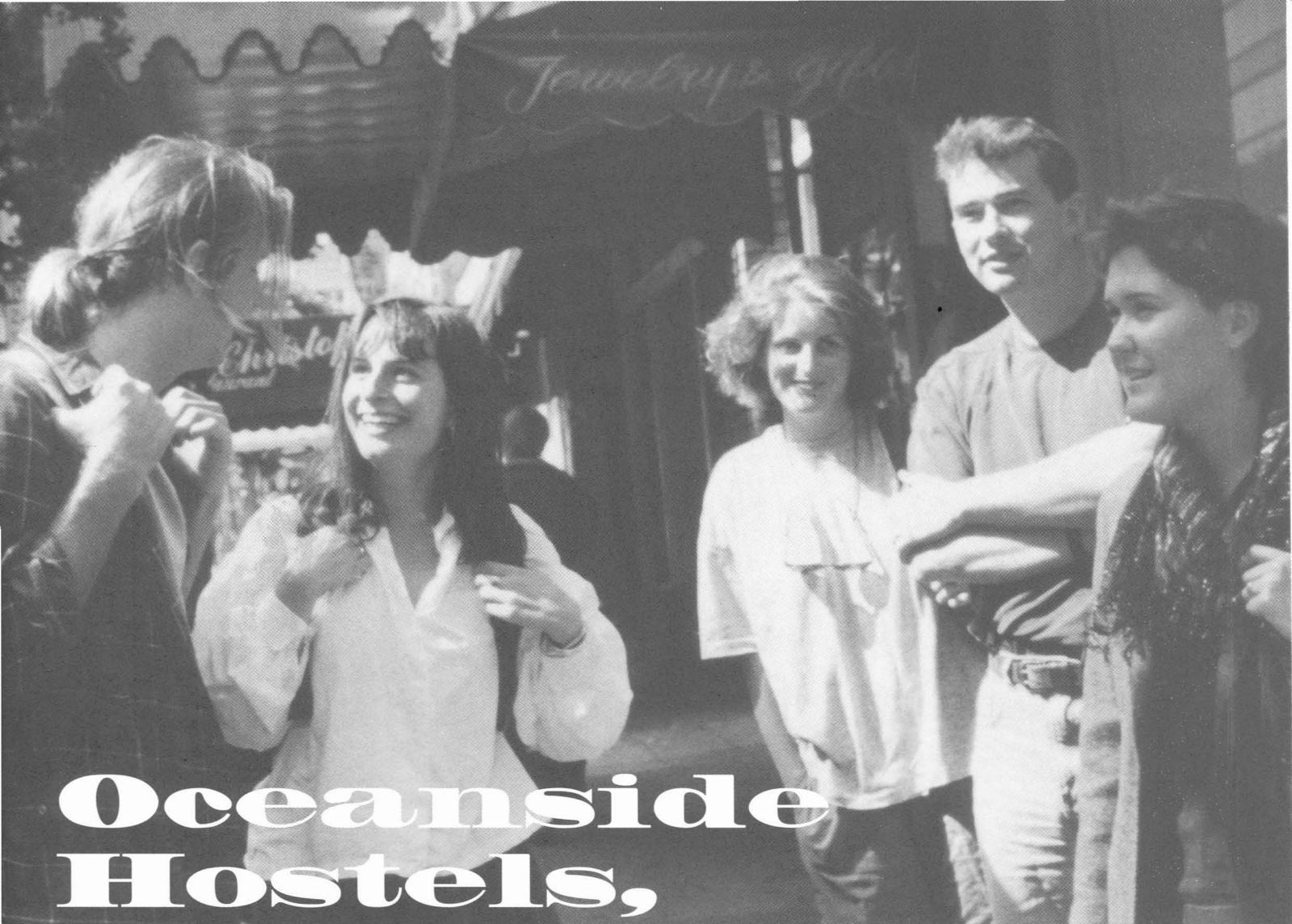
At about the 12-mile mark the three of us briefly discussed the various “new muscles” we were discovering. An aching hip was mentioned, and the happy notion of foot massage came up—though I quickly changed the subject to allergies, and the fact that in reflexology the toes of the left (or is it right?) foot are excellent pressure points for relieving sinus problems. After that, we managed to avoid any mention of our bodies below the waist.

After Hurricane Point and a downward slope, the course was more sheltered, and the sun came out and warmed us. Glances down and out rewarded us with views of roiling blue-green seas and wave-swept rocks and cliffs, crystal clear in the brightening air. The sun warmed us. The mile markers seemed closer together. Chunks of banana and orange were pressed into our appreciative hands. Bright Indian paintbrush caught our eyes, and the pastels of wild radish soothed our finish line-focused minds. We began to appreciate the musical groups that were stationed along the way: a school chamber ensemble at Hurricane Point (barely audible, but bowing away valiantly), Jonathon Lee stroking the keys of a grand piano at Bixby Bridge, a small brass choir, a bagpipe band, a chorus singing spirituals and Renaissance motets. Talk about eclectic.

I managed to complete the course in just under five hours: fourteen-minute miles. That may not be worth a medal of gold, but the terracotta medallions they handed out at the finish line seemed well-earned. The finish itself was a bit of a let-down, as we merged into a coagulated clot of sweaty bodies and wended our way through a tent of freebies. What stays in my mind are those glances over my shoulder toward the mesmerizing shore: the clarity of the air, the crisp hues of the morning, the feeling of communal exertion. And we had the pleasure of experiencing the springtime-green Big Sur coast at a slower-than-usual pace as Highway 1 rolled down across rivers, up past sheer mountainsides, and along grassy coastal plains.

Would I do it again? Well, I’ve already started thinking about next year’s marathon—the 26.2-mile one. Those runners get all the glory. ■

*Anne Canright can often be found sauntering along the trails and beaches of Monterey County, binoculars and field guides at the ready.*



BARBARA WEIN

# Oceanside Hostels,

## *and More to Come*

BILL O'BRIEN

**L**OOKING FOR A ROOM WITH A view? One at an historic lighthouse, perhaps, with the Pacific Ocean crashing on the rocky bluffs below your window? Or maybe you'd prefer blufftop lodgings in a coastal city, with a view of ships gliding through the mist?

How much are you ready to pay? One hundred dollars? Two hundred? A hefty contribution to your favorite political party? Nope. How about \$16? That's how much it costs to stay in one of the 25 hostels run in California by American Youth Hostels, Inc., including the Montara Lighthouse Hostel, the San Francisco International Hos-

tel, and 15 others along the coast. At the International Hostel the \$16 fee even includes breakfast.

Youth hostels have a long tradition in many European countries. They provide a clean, safe bed and an easy meeting ground for young people traveling by train, bicycle, and even on foot. They are places where you can find good conversations and pick up travel tips. Most visitors come with their own sleeping bags and food to cook in a common kitchen.

In North America the first hostels opened in the 1930s; there are now 225 in the United States and Canada affiliated with AYH, welcoming people of all ages. Few Americans, however, are familiar with hosteling or know of the hostels' existence in this country.

*Most people staying in hostels have no fixed itinerary. They hear about a hostel that's really good, so they go there.*

—Kelly, Australian, who's been traveling around the country for three months

**Above: Travelers in front of the San Francisco Downtown Hostel**



KEN BUTLER

*I always stay in hostels because you get to meet a lot of people. I cycled up here (to the Golden Gate Hostel at Fort Barry) from San Francisco. It was great. Tomorrow I'm going on to Point Reyes . . . .*

—Kathy, 35, a chemist from Vancouver, B.C., Canada

## “A Growing Movement”

**T**HERE'S A SIGN next to the steps at the Montara Lighthouse Hostel with arrows pointing wildly in every direction: “Nepal 7699 miles; Tahiti 4446; Rio 6641; Cairo 7585.” Are they places visitors come from, or destinations they dream about? Probably both, says manager Rich Lilley. More than 11,000 travelers stayed the night at the lighthouse during the past year, more than half of them coming from abroad.

Lilley, who has managed the hostel at this old U.S. Coast Guard station since it was created in 1980, takes me on a tour. Trim pastel-colored buildings, each with several rooms, cluster around a well-kept lawn. Guests can cook in one of the kitchens or lounge in the spacious common room in the main building. In the evening they can watch the light, now operated automatically, casting its beam across the restless waters.

Lilley points out the room that once housed giant steam whistles that boomed in warning on foggy days, and describes the hiking and bike trails that lead to the nearby Fitzgerald Marine Sanctuary. In summer, he says, it's well-nigh impossible to find a bunk here, especially on the week-

ends. In winter, the slow travel season, the place is used for seminars, retreats, community meetings, and even yoga classes.

Barbara Wein, executive director of the Golden Gate Council of AYH, which oversees hostels from San Mateo County to the Oregon border, said hostels in and near cities operate at near capacity year round, while more remote ones are relatively quiet during the rainy months.

The Montara Hostel is part of a larger vision: a string of hostels—more than three dozen—along the state's coast, each no more than 40 miles from the next so that bicyclists could travel from one to another in a single day. In 1976, the state legislature passed AB 400, which instructed the director of Parks and Recreation to submit a plan for hostel construction. “Given safer routes and more suitable accommodations more people would choose such travel means to reach and enjoy scenic areas and recreation facilities,” the bill stated. In 1978, State Parks issued a report stating that “hostels can be an important asset to the trails system” and identifying 37 potential hostel sites in state parks along the coast. “The long-range goal . . . is to provide facilities in conjunction with all major recreation

Above: San Francisco International Hostel at Fort Mason has views of the Golden Gate Bridge.



Left: Point Montara Lighthouse Hostel  
Bottom: Guests relax outside Golden Gate Hostel.

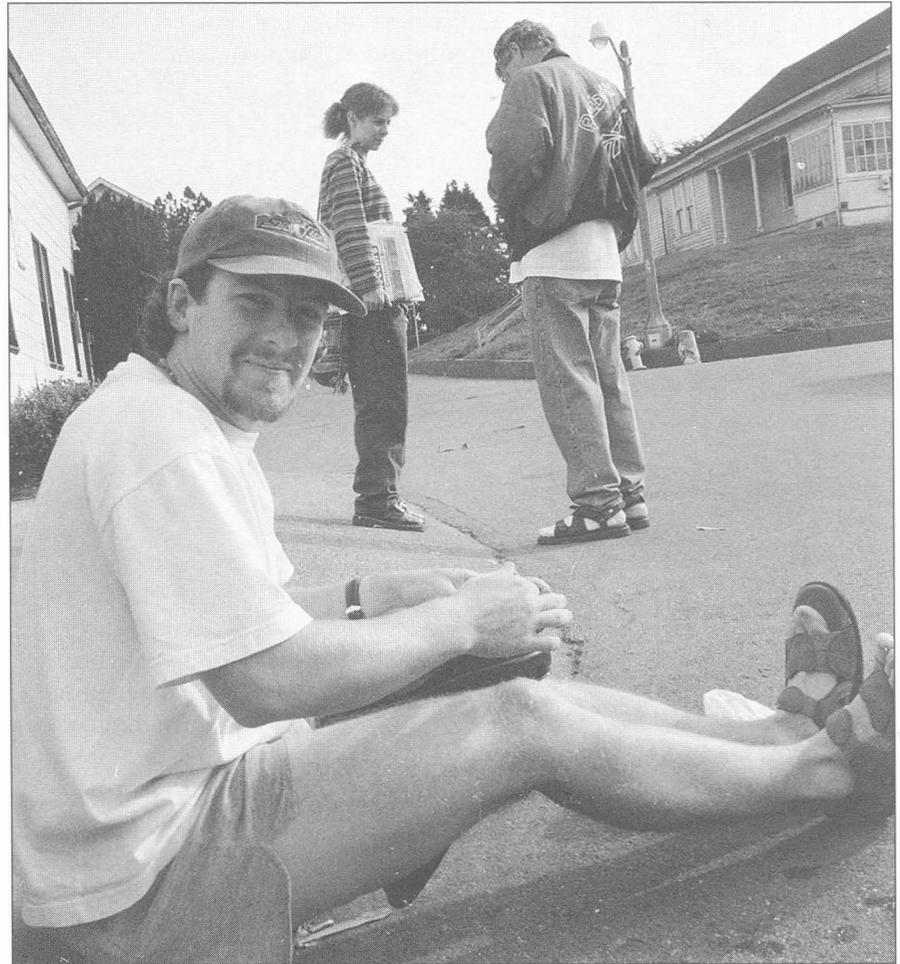
corridors throughout the state," the report stated. That year's State Parks budget provided \$1.9 million for capital outlays for hostels. Two years later, two new lighthouse hostels opened: Pigeon Point, and, 25 miles north, the Montara hostel.

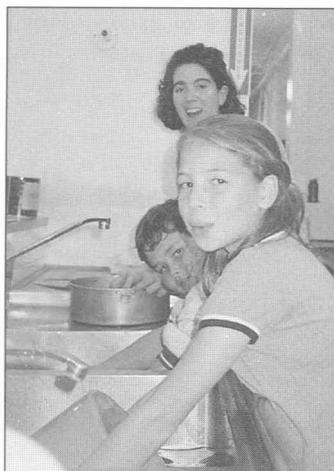
The Coastal Conservancy advanced the vision as part of its program to provide maximum feasible access to the coast. The Conservancy funded hostel projects and worked with others to find additional sites, especially in historic buildings that could be refurbished for this use. Among these are the Redwood-DeMarin House, an old Del Norte County farmhouse; the Carmelita Cottages in Santa Cruz; a Civil War-era barracks, later used by the Army as a dispensary, at Fort Mason, which now houses the San Francisco International Hostel; and the original City Hall of Santa Monica, built around the turn of the century, which later housed a silent movie studio. The Carmelita Cottages Hostel recently won the Governor's Historic Preservation Award.

Today there are 17 hostels along the California coast, and a few more are in the works. The pace of progress toward the 1978 vision has slowed considerably with the shrinkage of public agency budgets and mounting pressures to generate revenue from park facilities. In addition, permit requirements for retrofitting old buildings have grown more stringent, raising costs, Barbara Wein says. Nevertheless, she adds, "I see this as a growing movement, particularly along the coast."

Both AYH and the Coastal Conservancy, working with others, have found some opportunities to move forward. In Sacra-

mento, an 1885 Victorian house, the Llewellyn Williams Mansion, was moved and restored at a cost of \$2.5 million and opened in April 1997 as the Sacramento International Hostel. Two hostels are being planned on Monterey Bay, and Wein says, "We are now looking at a historic ship, the *Wapama*, in Sausalito."





Above: Washing dishes at the Point Reyes Hostel

Below: Sacramento International Hostel

*If I stay at a hostel I get good information, and it's cheap.*

—Yuki, from Japan, studying in Canada for a year



BARBARA WEIN

## Steps Toward a Vision

**S**O BIG ARE THE GAPS in the envisioned string of coastal hostels, however, that it's barely a string yet. A bicyclist heading south from Redwood National Park would have to pedal 300 miles before reaching the hostel at Point Reyes. She would find five hostels between there and Santa Cruz, then just one—in San Luis Obispo—before reaching Santa Monica. Continuing south she would find eight more, including one recently opened in an old hotel in San Diego's Gaslight District.

In Monterey, where a typical hotel room costs upward of \$100, Peter Cambras, a member of AYH's Central Coast Council's board of directors, has been working for more than a decade to find the right building for a hostel. The first one selected was a once-elegant, now boarded-up, Victorian home known as the Parmelee Mansion. But snags have developed with the city's planning code, and after objections from historic preservationists who wanted the mansion's interior restored to "museum quality" standards, according to Cambras, the project's future is uncertain. Meanwhile, another opportunity has materialized.

The local carpenters' union, which was going to donate the labor to renovate the Parmelee Mansion, decided to move out of its headquarters building, just a couple of blocks from Cannery Row. The union offered the building to AYH, which jumped to accept and is now raising the money needed to turn it into a hostel, perhaps by next spring, Cambras says. Meanwhile, work on the Parmelee Mansion project

continues. Because the need for hostel space on Monterey Bay is so great, AYH is also applying to take over several buildings in Fort Ord.

## Spreading the Word

**C**AMBRAS SAID OPPOSITION to hostels sometimes comes from local residents who confuse them with homeless shelters. AYH then must carefully explain that the guests are visitors to the city, not street people, and that the hostels are run under strict rules, with curfews and prohibition of alcohol. Experience in Santa Cruz and elsewhere has shown that once the hostel is open, it can become a community asset, providing meeting space for neighborhood groups, classes, or school groups on outings.

Most guests are single travelers aged 18 to 25, but the percentage of senior citizens, couples, and families has grown steadily, AYH has found. The latter folks tend to prefer private rooms to the traditional dorm-style accommodations, so some hostels are remodeling to meet that demand. The San Francisco International Hostel is taking over seven more buildings at Fort Mason while in San Diego the Gaslight Hostel, which has room for 112 guests, will soon open a second floor to accommodate another 80.

AYH is getting the word out to a broader range of travelers about the San Diego hostel, which is just a few blocks from the city's convention center. The local AYH council is working with tourism officials to attract people who want to come for conferences and other events at the center but may be held back by hotel prices.

The concept of the hostel has changed over time, but the basic purpose remains the same: to provide simple, inexpensive lodgings and a meeting place for travelers with a low budget. "People want to travel in a way that expands their horizons," says Sterns. "The biggest obstacle [for us] is finding the financial resources for developing new hostels. There is no question that prime locations exist. With a bond act, we could move forward." Senators Mike Thompson of Napa Valley and Fred Keeley of Monterey Bay are sponsoring bond measures that could provide funds for hostels. ■

*Bill O'Brien, a freelance writer, lives in Berkeley.*

# Corporate Sponsorship: How Far Should It Go?

RASA GUSTAITIS

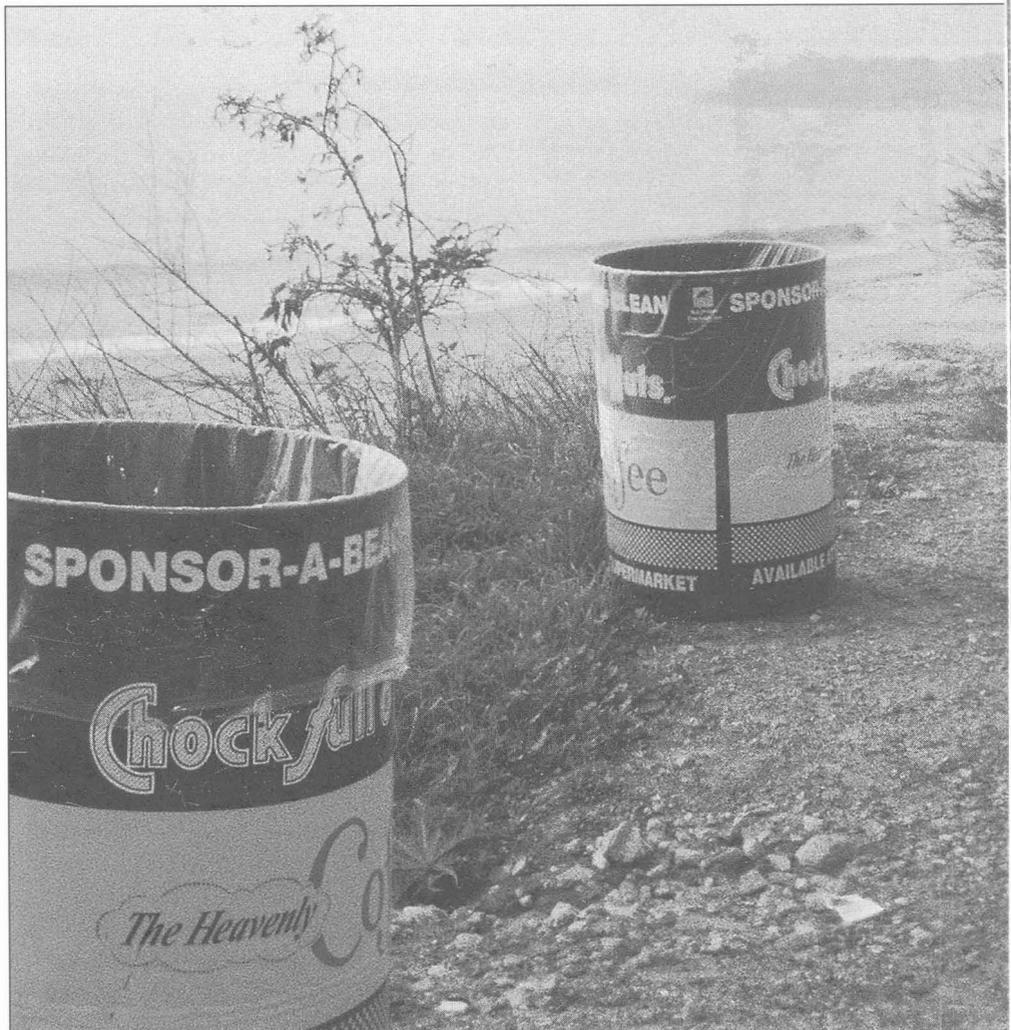
**I**T WAS THE SEVENTH TIME the issue had come before the Coastal Commission, and this time it was to be resolved. Were sunshelters and kiosks decked with advertisements the size of movie posters to be permitted on Los Angeles County beaches?

The question had been considered and reconsidered. Commission staff had worked with the permit applicant, the Los Angeles County Department of Beaches and Harbors, to craft a proposal that would meet the Coastal Act requirement that "scenic and visual qualities" of the coast be protected, and had finally recommended approval.

If the Commission agreed, 22 tile-roofed sunshelters, much like city bus shelters, and 23 four-sided, six-foot-high "beach information directories," would stand along the County's 31 miles of beaches between San Pedro and Malibu. Each structure, built and maintained by corporate sponsors, would display four-by-six-foot ads on two panels. Ads would be sold by the sponsor for \$1,320. The County would get 40 percent of the revenue plus an annual fee and use the income to operate the beaches and expand a program that brings needy children to the shore.

The permit hearing was a bit after-the-fact: The County had all 22 of the sunshelters up and in use by 1994. Then it received notice from the Commission that its failure to obtain a permit violated the Coastal Act.

Citizens stepped forward to speak passionately for and against. Beth Skiba, 79, of Redondo Beach, said: "My daughter is a cancer survivor. We walk daily. Sunshelters have added to our pleasure." Dr. Brent Weinberger, of Torrance, said he had



MARC BEYELER

stopped at a shelter to repair his bike chain, and had seen women with baby carriages stop at them to change diapers. Lt. Mike Cunningham of the County Fire Department, spokesman for the lifeguards, said the shelters functioned as landmarks to direct paramedics, and that they served a "public safety function." County Supervisor Yvonne Brathwaite Burke spoke of the children who would benefit from the revenues to be generated.



TONY BARNARD

## “Where Do You Stop?”

**T**HE DISCUSSION THAT preceded the Coastal Commission’s vote raised issues that now trouble many other public agencies that manage natural resources, as well as public media, libraries, hospitals, and schools. All face pressures to generate revenues or meet some of their costs by tapping new sources. With “public/private partnerships” more and more popular, the word “marketing” has crept into discussions among public servants, and the line between government and the private sector has blurred. Some who are watching this trend are asking: Is this a healthy way for those charged with stewardship of public resources to go? How far is too far?

With its decision to reject the sunshelters and kiosks, the Coastal Commission drew a line in the sand. “There are a lot of ways to generate revenue,” said Commissioner Penny Allen. “I’m not sure selling the asset is a way to do that . . . You start selling the beach, where do you stop? . . . At some point you’re not going to have a beach worth going to anymore.”

“Our beaches and forests are among the last refuges from the commercial world,” said Commission chairman Rusty Areias. Commissioner David Potter reflected: “As transit commissioner in Monterey County I agreed to ads on bus shelters, and now I wish I hadn’t. Now we’re being barraged by large ads on the buses.”

“Commercialism creeps up slowly but it creeps up relentlessly,” Mike Clark, executive director of the Greater Yellowstone Coalition, and Michael L. Fischer, president of the Yosemite Restoration Trust, wrote in a 1996 article arguing against a proposal to permit corporate sponsorship in national parks.

The Public Broadcasting System is a case in point. When it began to accept “corporate underwriting” it merely mentioned the name of the sponsor, but gradually the mentions became more elaborate, growing into “enhanced underwriting” that differs from advertising chiefly by its less frequent appearance.

Surveys show that most citizens cherish their parks as part of their heritage and want them preserved. But legislatures and taxpayers have lately been loath to provide necessary funds. The National Park Service has a maintenance backlog estimated at \$4 billion; State Parks has one of \$458 million.

To many others, however, these shelters and kiosks were primarily billboards. Jude McGee, of Santa Monica, expressed the prevailing sentiment: “We need the beaches as a refuge from advertising. On sunny days when the beach is full it’s flying in the sky and trucks go by whose sole purpose is to pull billboards behind them. Isn’t there one place you can look, one natural place for our eyes to give us rest from this ubiquitous advertising?”

Among letters the Commission had received was one from Assemblywoman Debra Bowen, of Torrance/Marina del Rey, pointing out that “Los Angeles’s beaches are a major economic resource, drawing tourists from around the world who pour millions of dollars into local businesses each year. People don’t go to the beaches to soak up more advertising or to be bombarded by billboards.”

Ads and corporate logos already speckle these beaches, which attract 60 million visitors a year. They’re on some 6,000 trash barrels, on benches and volleyball nets, on lifeguard towers and trucks. The County has actively marketed its beaches since the mid-1980s, generating more than \$1,269,000 in cash and savings in 1996-97 alone, with sunshelter ads accounting for \$200,000 of the total. (Most of the County’s marketing program is beyond Commission jurisdiction, because it has not required any permanent structures to be built.)

In the end the Commission rejected the sunshelters and kiosks by a resounding 10-2 vote and gave the County 120 days to remove what was already up. All are now gone, according to Dusty Brogan, head of the L.A. Beaches and Harbors marketing program.

Rangers are overwhelmed as crowds of visitors grow and the infrastructure deteriorates. Some counties, after repeated tax cuts and voter rejection of revenue measures, are hard put to provide basic services such as police and fire protection, much less keep up with park needs.

As a way out of this morass, government agencies have been looking more and more to private sources, especially corporations, to whom they can offer acknowledgment in exchange for financial support. San Francisco's Candlestick Park is now 3Com Park; San Diego State University has agreed to sell the name of its new multi-purpose indoor arena to Cox Communications; the new San Francisco Main Library has rooms named for Chevron and other contributors; the Washington Monument is to be restored with funds from a consortium that includes Target Stores.

## What's "Appropriate"?

**T**HE LEGISLATURE OPENED the door to corporate sponsorship of California state parks in 1994. It granted authority to the parks director to accept private, corporate, or business funds for the maintenance of any state park and authorized him to erect "an appropriate sign in recognition of the sponsorship." With Don Murphy as its director, the State Parks Department has been highly selective in pursuing entrepreneurial opportunities. It has chosen corporate partners who will be satisfied with minimal visible acknowledgment, such as having their names listed on a plaque in a visitors center along with donors of Pennies for Flowers and other contributors.

To make sure that the need for financial support does not override dedication to its mission, the department last July published *Donor & Sponsorship Recognition Guidelines*, designed to help superintendents. "People don't want parks commercialized," said Vic Maris, assistant deputy director of the Office of Revenue Generation. "They come to parks because parks are sanctuaries. We're going very slow and being very careful about what we leave as a legacy."

Murphy resigned in late 1997. A successor could have different standards. At one time, trash cans in state parks were decorated with ads for Coppertone suntan lotion. They disappeared after William Penn Mott became parks director in 1967.

Public opinion can be a potent force on

This picture of an LA Beach is composed of cutout cards describing sponsors and advertising opportunities.



60 million consumers...

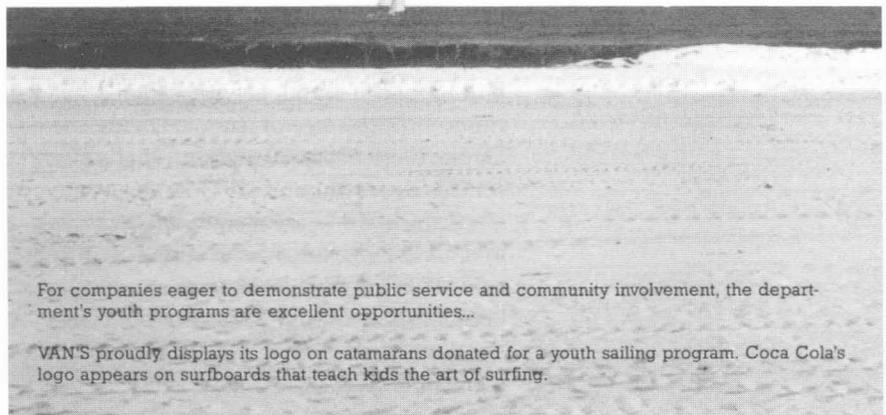
This successful competitor in LA's tough radio market displays its distinctive logo and public service message on 3,500 glistening barrels. Ask any beachgoer the station number for KTWV...



NISSAN, official truck of the County beaches, capitalizes on the lean, tan image of LA's beachgoers...

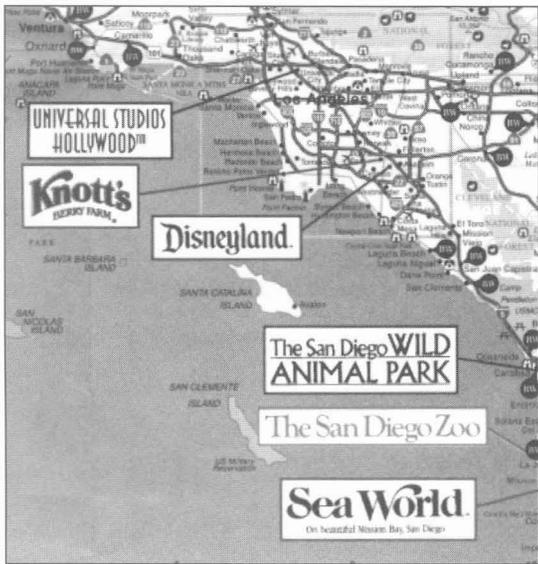


The lifeguard tower serves as a guidepost, a meeting place, and a source of information for time and weather. Sponsors have their logos seen on clocks, thermometers, public information signs, and tideboards and keep beachgoers informed at the same time...



For companies eager to demonstrate public service and community involvement, the department's youth programs are excellent opportunities...

VAN'S proudly displays its logo on catamarans donated for a youth sailing program. Coca Cola's logo appears on surfboards that teach kids the art of surfing.



California's Official State Map, published by the Division of Tourism of the California Trade and Commerce Agency, displays logos and locations of corporate sponsors who covered printing costs. The division has no publications budget.

this issue. When a bill to permit corporate sponsorship of national parks was introduced in Congress in 1996, it was greeted with outrage. "We believe that this proposal, patterned in many ways after the sponsorship program for the Olympics, will lead to commercialization of America's unique and magnificent National Park System," the leaders of 21 conservation organizations declared.

Opponents of that bill, which was dropped and

has not been reintroduced, pointed out that there are other ways to raise money for parks. "One obvious source is the concessionaires—those companies that are allowed to operate hotels, restaurants, gift shops and other visitor services within the parks," noted Joshua S. Reichert, director of the environment program of the Pew Charitable Trusts. "Many concessions are highly profitable, yet pay very low fees."

Corporations can support national and state parks and many wildlife areas through nonprofit organizations such as the Golden Gate National Park Association, the State Parks Foundation, and many others. Nearly every protected piece of public land now has an associated nonprofit organization, which can take care that no conflicts of interest arise between donors and public agencies, and that private and corporate support is acknowledged tastefully, discreetly, and without eroding the resource.

The Los Angeles County Department of Beaches and Harbors is not alone in marketing California recreational resources to advertisers. The Department of Fish and Game has a contract with the Dodge Corporation, now in its third year, by which Dodge prints its hunting and fishing regulations, seven booklets with a total of 3.5 million copies, free of charge, saving the Department \$300,000 a year. "That's a lot for this department," said Joan Prince, of the Conservation Education Office at Fish and Game. In exchange, Dodge has prime ad space on four pages of the regulations booklets, a two-page spread in the front of the department's magazine, *Outdoor California*, banners at hatcheries, posters displaying the company's name, and the right to

have a truck present at important events, such as seasonal openings.

"We gave away the whole store," lamented Bob Garrison, interpretive services coordinator. "Everybody is now trying to raise money, but we need to realize that what we provide has a very high value."

The deal also caused headaches to staff and required unanticipated expenditures. When staff tried to bring a Dodge truck to the Sacramento State Fair, the fair said no: it had a deal with Ford. So the Dodge truck went to a Los Angeles event instead, and the department had to pay for staff "just to babysit it" full-time, said Garrison.

"We're learning as we go," said Prince. "The advertising game is different from everything we've ever experienced. Some of the people in it are 'the meanest, nastiest people we've ever run into. . . . There are no experts on this in state government, and there never will be because those people expect to be wined and dined, and we can't do that.'" The department had to go through three separate private sector intermediaries, and each took 15 percent of what Dodge paid. "We're learning as we go," Prince said. "Talk to us in three years."

Do citizens want their public agencies to get into the "advertising game"? If the current trend continues, parks and beaches may cease to offer relief from the visual sales pitches that surround us, especially in urban environments. Some coastal communities, including Santa Monica and Manhattan Beach, have adopted Local Coastal Plans that exclude advertisements on beaches, but others admire Los Angeles County's successful marketing program and are seeking to emulate it. Dusty Brogan, at L.A. Beaches and Harbors, is working with Orange County and some local jurisdictions toward a joint powers agreement that would enable them to develop an effective marketing approach. "These [ad sales] were done to support sinking budgets," Brogan said. "But if done right, they can be more attractive than anything government can do." She said people enjoy and respond to "The Simpsons'" advice on a trash barrel ad: "Put it in the can, man."

The most direct way to support parks and beaches is by providing public funds for them. This year citizens will have opportunities to do that by supporting appropriations and bond acts proposed by legislators and the governor. (See p. 16) ■

**MOM ALWAYS SAID, "PUT IT  
BACK THE WAY YOU FOUND IT"**

# *The Story of a Salt Marsh Restoration Project*

KAITILIN GAFFNEY



**T**HE MASSIVE CONSTRUCTION project under way on the upcoast end of Carpinteria State Beach may have worried some vacationers last summer. Bulldozers were pushing dirt, digging trenches, loading up dump trucks. Was another housing development or shopping plaza in the works? Not at all. This time the earthmovers were working for the shorebirds, fish, crabs, mussels, clams, mice, and other wetland creatures.

At freeway speed, you get about a five-second glimpse of the Carpinteria Salt Marsh as you travel on Highway 101 along the Santa Barbara County coast. That's just enough time to notice a sizeable open space tucked in among the houses and industrial buildings beside the railroad tracks west of the City of Carpinteria. You may not realize that this is an especially important kind of open space—a coastal wetland.

Most schoolchildren are aware by now that wetlands are valuable, as are adults who follow the news. Wetlands filter pollu-

tants. They soak up flood waters and serve as buffers against the fury of storm-driven waves. They have been compared to rainforests in terms of the variety and abundance of life they support. They are threatened.

In southern California, all but 10 percent of the once vast coastal wetlands have been destroyed, and every remnant is now precious. The 230-acre Carpinteria Salt Marsh, also known as El Estero de la Carpinteria and Sandyland Cove, provides habitat to a wide range of species, from tiny microbes



DAVID HUBBARD; ABOVE: WAYNE FERREN

**Top: A new channel has been cleared in the Ash Avenue wetland.**

**Above: An excavator works on the project.**



The 230-acre Carpinteria Salt Marsh will grow by 15 acres. The Ash Avenue wetland is indicated by arrows.

Construction on the Carpinteria Salt Marsh Enhancement Project for the Ash Avenue Wetland Area is expected to be completed in July 1998. The project will include an interpretive center near the intersection of Sandyland Road and Ash Avenue, a teaching amphitheater, and trails around the restored area. For more information, contact Bob Nisbet, Public Works Director, City of Carpinteria, (805) 684-5405, ext. 402.

to endangered plants to native California oysters to snowy plovers, in a region where humans have preempted most of their former habitat. Downtown Carpinteria itself stands on former marshland.

About 200 years ago, the Carpinteria Salt Marsh was double its present size. Half of the former expanse has been drained and filled. There had been plans to fill the remaining 230 acres also, or to dredge them for a marina, but fortunately our understanding of wetlands grew and policies changed before the marsh was entirely destroyed. In 1977 the University of California purchased 120 acres for inclusion in its Natural Reserve System. Over the years, additional acreage has come under the control of entities with preservation goals. Thanks to efforts by local citizens, public officials, and others, and to tougher regulatory restrictions on development, these wetlands have survived in a relatively natural state.

I am truly familiar with only one small part of the Carpinteria Salt Marsh: the 15 acres that make up its eastern edge, known as the Ash Avenue Wetland Area. About half of this area has continued to function as a wetland. The other half became an example of what you get when you add nearly 24,000 cubic yards of dirt to five acres of coastal salt marsh: an open field overgrown with weeds.



Now comes the heartening part of this story. This year the Coastal Conservancy, the City of Carpinteria, and the Land Trust for Santa Barbara County began a project awkwardly named the Carpinteria Salt Marsh Enhancement Project Phase I, Ash Avenue Wetland Area. They have dug out the soil suffocating the wetland and are busy restoring natural grades and excavating channels to again allow the tides to inundate and flush the area daily. Native wetland species will be planted for the benefit of invertebrates, fish, and wildlife. In short, the restoration project will attempt to give back a small piece of what has been taken from the marsh over the past several decades.

This restoration is a testament to society's growing recognition of the value of wetlands. The project would not have occurred without the tireless efforts of dozens of concerned citizens and dedicated organizations. It depends on the support of myriad public and private funding sources: local, regional, state, and federal. Whether this

project will succeed will not be known for 15 years or more.

My mother used to admonish: "Put it back the way you found it." That's not always possible when you've pulled apart something nature created over hundreds of thousands of years, and it certainly is not easy.

The cost of the Ash Avenue restoration project to date is \$3.8 million, of which \$2.3 million went to acquire six parcels of land from 17 different owners, while \$1.5 million went to fund construction. This project has required at least seven different permits from local, state, and federal agencies. By the time it is finished, it will have complied with local, city, county, regional, state, and federal requirements ranging from archeological studies to soil toxicity tests. More than 23,000 cubic yards of fill will have been removed and thousands of native plants will have been planted. The project will have been the subject of countless meetings, telephone calls, memoranda, faxes, letters, and e-mail messages.

For several weeks I was a part of this process. Hired to help the City of Carpinteria get through its permitting requirements, I filled out forms in triplicate, drafted memos, copied reports, and waded through mind-numbing regulations. I talked to staff at Santa Barbara County, the State Office of Historic Preservation, the Army Corps of Engineers, even the California Department of Transportation's Metrication Program, which oversees the conversion of design measurements to the metric system. I was amazed at the intricacy of the processes required to perform such an uncontroversial and innocuous project, and I was, at times, frustrated by seemingly duplicative layers of bureaucracy.

Despite all that, working on the marsh restoration project was a great experience. I was inspired by seeing how many intelligent, committed, caring individuals were willing to work diligently to protect their environment and how many agencies and organizations have been established with this same mission. Working on the marsh project was also sobering. I saw firsthand what a tremendous amount of effort—literally years of work and millions of dollars—is required to meet the deceptively simple goal of environmental restoration: to return an area to what it once was.

Aldo Leopold has said that the first step of successful tinkering is to save all the

## Many Worked Together



DAVID PRITCHETT

**M**ANY PEOPLE WORKED for years to bring life back to the Ash Avenue area of the Carpinteria Salt Marsh. Special credit is due to the Coastal Conservancy; the Carpinteria City Council; State Senator Jack O'Connell; State Assemblyman Brooks Firestone; First District Supervisor Naomi Schwartz; Bob Nisbet, Carpinteria Public Works Director; Wayne R. Ferren Jr., Carpinteria Salt Marsh Reserve manager (University of California Natural Reserve System); David Anderson, Land Trust for Santa Barbara County; and Nancy Alexander, Sandyland Protective Association. Credit is also due to the Santa Barbara County Flood Control District, Carpinteria Valley Association, and the Sandyland Cove Homeowners Association.

The Coastal Conservancy played an especially important role. The agency started to work with the City of Carpinteria in 1987. The following year, a Conservancy grant started the formal planning process. Since then, the Conservancy has contributed almost \$1 million toward buying the marsh—six parcels with 17 different landowners—and has committed about \$400,000 for restoration.

**It certainly  
is not easy . . .  
when you've  
pulled apart  
something nature  
created over  
hundreds of  
thousands  
of years . . .**

pieces. After a couple of months of working on a coastal salt marsh restoration project, I would suggest that when dealing with wetlands, it's best not to tinker in the first place. ■

*Kaitilin Gaffney, a graduate of the Environmental Studies Program of the University of California, Santa Barbara, and of Boalt Hall School of Law, is currently a Fulbright Fellow in Wellington, New Zealand, studying fisheries management.*



SAVE

# *Dim Future for Spoonbills*

MARCIA MCNALLY

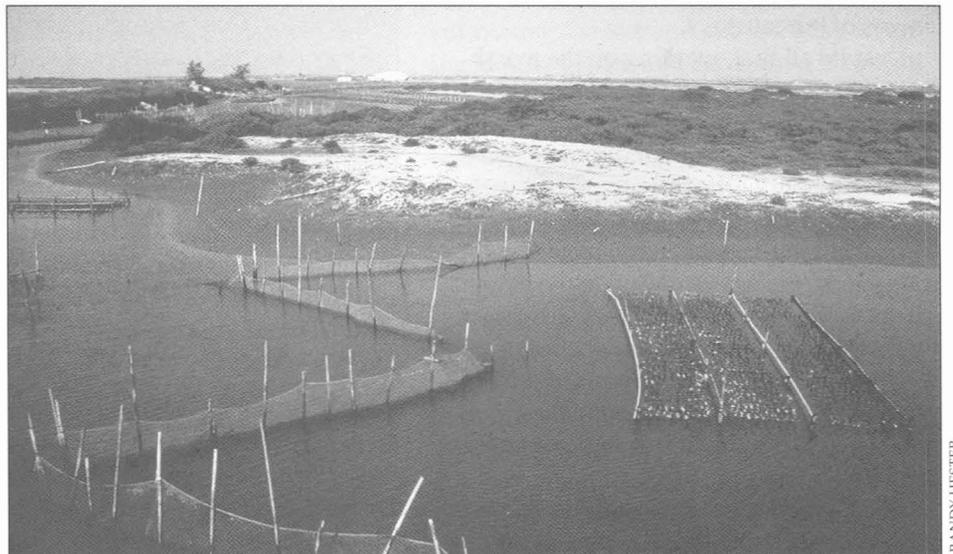
**O**NE OF THE rarest birds in the world, the black-faced spoonbill, spends winters in the coastal wetlands of the Tseng-wen River in Taiwan.

Although more than half of the remaining 550 birds winter in this area, the Taiwanese national government is poised to approve plans for a petrochemical complex and related development that would destroy one-third of the spoonbills' habitat and likely send this bird into an extinction vortex.

Over the past year faculty and students from the University of California Berkeley College of Environmental Design (UCB) and the National Taiwan University Building and Planning Research Foundation (NTU) have been

working with fishermen and a local legislator, Su Huann-Chi, to raise awareness among the Taiwanese people of the serious projected impacts. Organized as SAVE (Spoonbill Action

Voluntary Echo), this group is in the midst of an international campaign to bring attention to the issue in hopes that public pressure will grow enough to convince the Taiwanese government



RANDY HESTER



southern Taiwan.

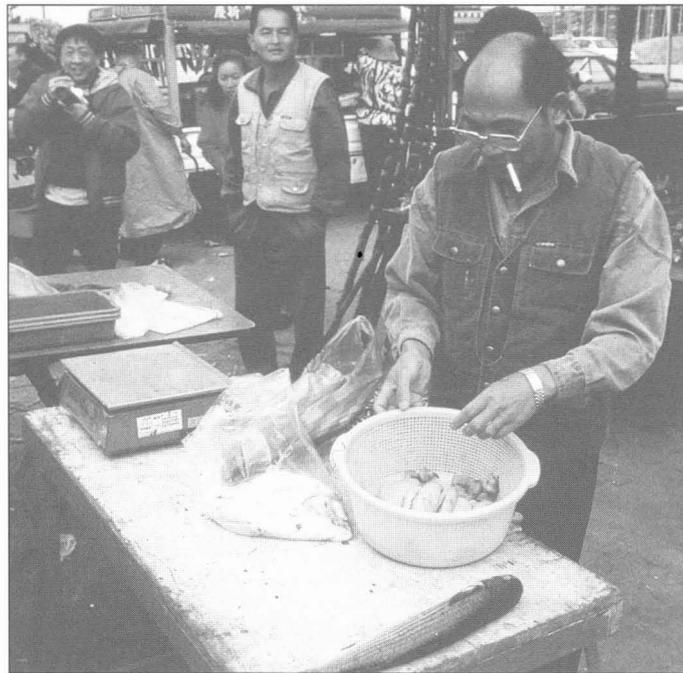
Increased water salinity, temperature, and pollution would significantly damage the Chi-gu fishery, which currently generates NT\$4.6 billion (National Taiwan dollars) annually and employs 16,000 people. Although the complex is advertised as a way to stimulate long-term investment in Tainan County, the need for another industrial complex in Taiwan has been called into question.

With a vacancy rate of 40 percent in existing industrial parks, the actual profitability and true beneficiaries of the Bin-nan project are unclear.

The last hurdle the Bin-nan project's developer, the Tuntex Consortium, faces is approval of the environmental impact statement, which is expected after Taiwan's December national elections. Approval would be in violation of the biodiversity protection principle of Agenda 21, the Rio Earth Summit's blueprint for sustainable development, to which Taiwan is committed.

It appears that the public stir SAVE has caused in Taiwan is contributing to the awakening of an environmental consciousness in a country with a poor environmental record. Student creativity has been a major factor. In October, UCB students staged the "Last Great Spoonbill Migration" environmental art show. More than 100 handmade spoonbills were displayed on a UC campus lawn. These birds were then shipped to Taipei where they were greeted by NTU students, supportive scientists, schoolchildren, and a flock of news reporters. The Taiwan students were also able to convince a local rock star to produce a CD featuring "Song of the Spoonbill" to popularize the efforts.

SAVE has also begun to attract the attention and support of other well-known environmental warriors. In



**Opposite: Black-faced spoonbills take flight. Bottom: Chi-gu Lagoon; Top left: Sculptures at University of California, Berkeley; Above: Chi-gu fishermen**

that it should deny the project.

If built, the 7,000-acre Bin-nan industrial complex will be located in Chi-gu Lagoon, which is the center of the 35-kilometer habitat radius required by the spoonbill. The complex would include an oil refinery, a naphtha cracker, a steel mill, and an industrial port. The project is strongly supported by Taiwan's president, Lee Tung-Hui.

Other serious environmental impacts are anticipated. It is projected that the petrochemical plant and steel mill will use approximately 121 million cubic meters of water per year, twice the capacity of existing reservoirs in the region and equal to that used by all industry in the nine-county San Francisco Bay Area. In order to service the industrial complex, a dam would be built which would flood two aboriginal villages upstream and reduce ground-water recharge of several rivers in

September David Brower agreed to chair SAVE. Brower, who was president of the Sierra Club for many years, then founded Friends of the Earth and the Earth Island Institute, has an international reputation for stopping the construction of dams. Students at NTU are now working on designs for a nature center in Chi-gu, and the UCB group is raising money among U.S.-based Taiwanese as the first piece of a long-term strategy to encourage alternative economic development.

*Coast & Ocean* readers are encouraged to join SAVE in this David-and-Goliath battle. For more information contact: Matthew Smeltzer, SAVE Coordinator, University of California, Berkeley, Department of Landscape Architecture and Environmental Planning, 202 Wurster Hall, Berkeley, CA 94720; phone: (510) 528-8283; FAX (510) 549-9431; e-mail: msmeltze@ced.berkeley.edu. Up-to-date information may be obtained from SAVE's website: [www4.ced.berkeley.edu:8004/student\\_org/save](http://www4.ced.berkeley.edu:8004/student_org/save). ■

*Marcia McNally, a Berkeley-based planner and long-time urban farmer, recently bought a bike and has reduced her vehicle miles traveled (VMT) by 75%.*



# California Drawbridges

**W**HEN I WAS A CHILD, two experiences of waiting held a particular excitement for me: the spectacle of a train clattering by at a crossing guarded by lowered gates, flashing red lights, and clanging bells, and—even more thrilling, and far rarer—the awesome sight of a colossal bridge being raised or swiveled to allow a ship to pass. These grand encounters with the wonders of engineering are now mostly consigned

to memory, much to the relief of those who were more annoyed than stirred by them.

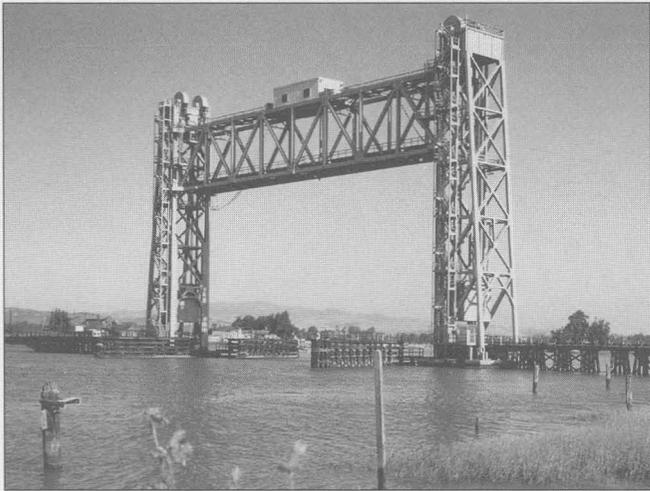
Drawbridges are the sort of engineering feat that many of us overlook unless they happen to intrude on our awareness by disrupting travel. They serve their purpose without drawing much attention.

Until several years after the Gold Rush, the main means of crossing many of California's rivers was the Indian canoe. Commerce between the coast



This double-leaf bascule bridge opened in 1939, replacing a much-troubled swing span across the Oakland Estuary at High Street. It is still tended 24 hours a day.

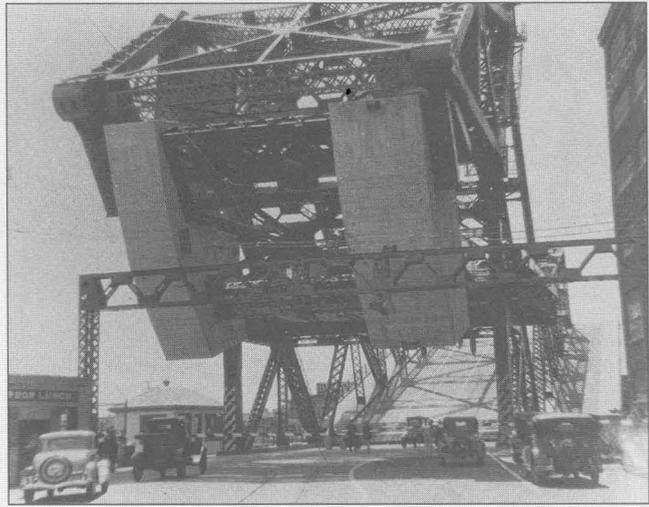
BERNARD C. WINN



BERNARD C. WINN

The new Southern Pacific Brazos Bridge over the Napa River, completed in 1979, is maintained with its vertical-lift span open except when trains cross. In 1983 two locomotives rolled into the river while the span was open, just as in 1959, when three locomotives and a caboose rolled off the old Brazos swing bridge

San Francisco's Third Street Bridge, seen here shortly after its opening in 1933, is one of the world's largest single-leaf bascule bridges. Here the 2550-ton leaf is partly open. In 1990 it was renamed the Francis "Lefty" O'Doul Bridge in honor of the former major leaguer and manager of the San Francisco Seals baseball team. The bridge is still in operation.



SAN FRANCISCO DEPARTMENT OF PUBLIC WORKS

and many inland settlements depended on boat traffic along the state's vast web of navigable waterways, especially around San Francisco Bay and its tributaries. Many of the early bridges were built with movable spans to allow boats to pass. Eventually California had as many as 250 drawbridges of various types.

The history of these drawbridges, as compiled by Bernard Winn in *California Drawbridges (1853-1995)*, is intricately entwined with the trajectory of the state's rapid growth. The opening of a new bridge was often the key to a town's economic success, and a cause for celebration. The Southern Pacific Railroad's Dumbarton Bridge, the first bridge to cross San Francisco Bay (in 1910), "did wonders for the City of Newark," says Winn. "The opening celebration included a grand ball; a championship baseball game; a free-for-all fight and other festivities." The weekend "drained every keg of steam beer in the township," said a newspaper report. The dedication of Sacramento's Tower Bridge in 1935 was announced by the release of a thousand carrier pigeons bearing the news to other cities.

Drawbridges are machines as well as spans. Each type—whether vertical lift, swing (rotating), bascule (one-end lift), pontoon, or retractable—has its own set of problems and advantages. An

intriguing undercurrent of their history is a litany of disasters. Tales abound of drunken bridgetenders failing to warn drivers of open bridges, crosswinds driving ships into pilings, and locomotives rolling into rivers.

In the last 30 years, few of the 70 or so remaining movable bridges have ever been opened for water traffic.

Today's children may never experience the awe of watching a huge steel span rise to allow a ship to pass. ■ —HMH

*Photos and information from California Drawbridges (1853-1995), by Bernard C. Winn. Incline Press, San Francisco, CA, 1995. 178 pp., with black and white photographs, \$16.95 (paper).*



PHOTOGRAPHER UNKNOWN, COURTESY BERNARD C. WINN

The original Fruitvale Bridge in Oakland was nicknamed "The Broken Bridge" even before it opened in 1902. It was plagued by structural and mechanical problems; auto, train, and ship (even submarine) accidents; and political and legal disputes throughout its 70-year existence.



# New Windows into Santa Monica's Past

CYNNI MURPHY

**C**OASTLINE IS A magic word. By choosing it as your keyword for searching the Image Archives of the Santa Monica Public Library, you open a window to the past. Or try "Gold Coast," "bluffs," "palisades," or another of the local coastal terms. Each keyword creates a timeline of digitized photographs on the screen, showing the evolution of the Santa Monica Bay landscape between the Palos Verdes Peninsula and the Santa Monica Mountains in Malibu from the nineteenth century to the present.

The development of the City of Santa Monica and its environs has been well documented by photographers since the 1880s, for personal and esthetic as well as commercial and historical purposes. Many early photos were sold as souvenirs and mementos, and have been donated to the Archives from private collections; others were commissioned by the City as documentation of the region's development.

Comparison of these photographs can provide a sense of the impacts of rapid development on the natural setting, as well as

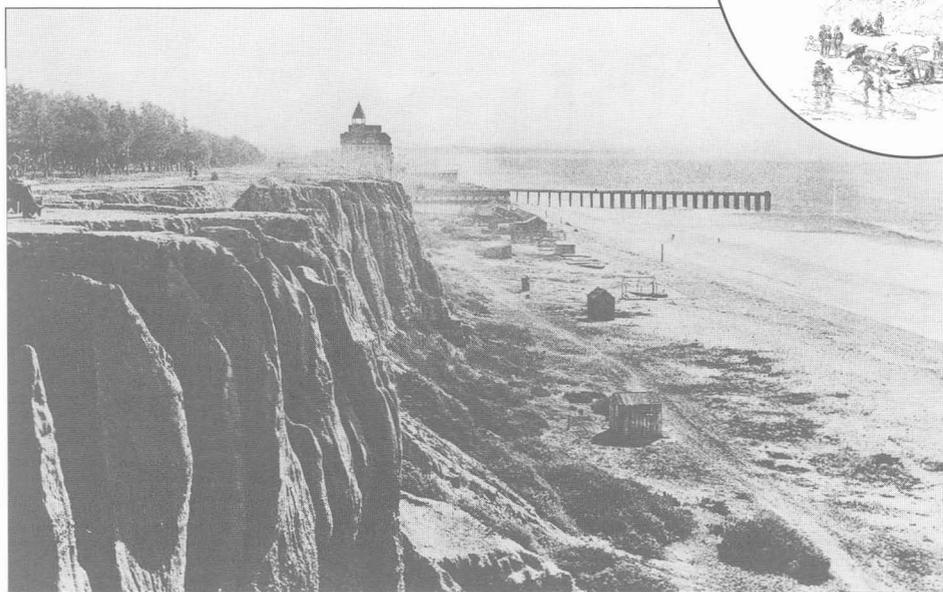
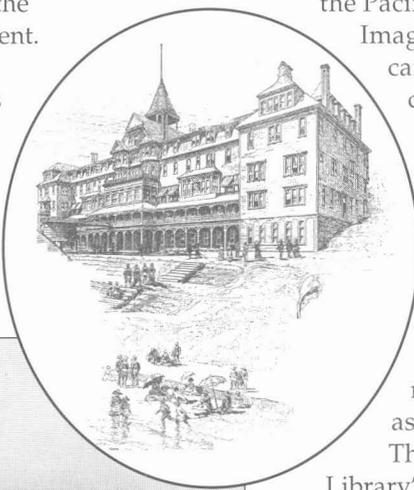
insights that may assist with conservation of coastal resources. The Image Archives database may be searched by keyword, date, photographer, or collection, yielding new perspectives as the images are juxtaposed in different ways. You can follow the erosion of the bluffs from decade to decade or observe the construction and widening of the coast road until it becomes the Pacific Coast Highway.

Images of early visitors who came from Los Angeles to camp in Santa Monica Canyon give way to resort hotels and salt-water plunges (most of them now gone). Piers erected in hope of major port activity were left to decay; others have been restored for recreation as amusement parks.

The Santa Monica Public Library's collection is available for viewing during library hours, Monday through Thursday, 10 a.m. to 9 p.m.; Friday and Saturday, 10 a.m. to 5:30 p.m.; and Sunday, 1 p.m. to 5 p.m. The Library is at 1343 Sixth Street in Santa Monica; (310) 458-8631. Photographic reprints are available from copy negatives; ink-jet prints may be made from the digitized images in the database.

Here is a sampling of the library's photographs showing changes over time. ■

*Cynni Murphy is the Image Archives Librarian of the Santa Monica Public Library.*



Palisades and beach looking south to the Arcadia Hotel, 1880s

Inset: The Arcadia Hotel, from *Picturesque California*, edited by John Muir, 1894



C. C. PIERCE (SANTA MONICA PUBLIC LIBRARY ARCHIVES C55)

Coastline looking south to the Santa Monica Pier, 1908



ADELBERT BARTLETT (SMPLA C153)

By 1935, the Pacific Coast Highway has replaced the coast road, and the mansions of the Gold Coast have taken over much of the beach.



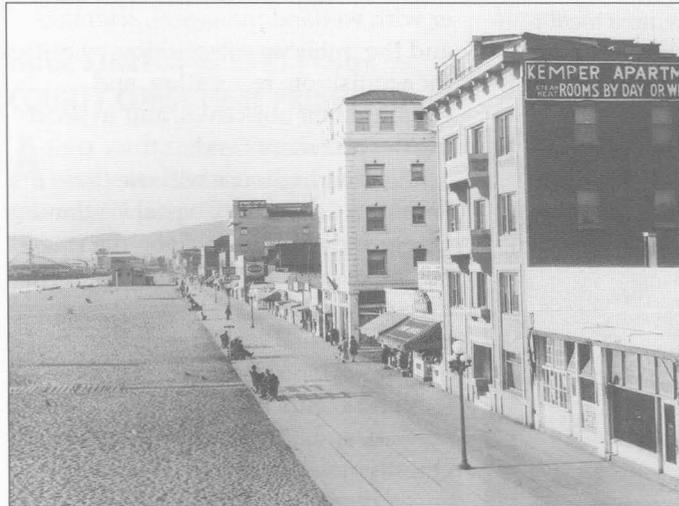
C. C. PIERCE (SMPLA C54)

C. C. Pierce, one of the earliest photographers of the region, captured this view of the coastline from the palisades, looking north, in 1908.



C. C. PIERCE (SMPLA G13)

A similar view by Pierce of the mouth of Santa Monica Canyon and the shoreline, looking north, 1921



K. STRICKEADEN (SMPLA C202)

Looking north along Ocean Front Walk, 1929. The amusement park in the background is also seen in the 1997 photo. Note the absence of palms.



CYNNI MURPHY

View is toward the north past Shuttlers Beach Hotel, 1997. The beach has widened. In 1948, vast amounts of sand were moved by slurry from the dunes south of Marina del Rey to Los Angeles County beaches.

## LAND ON BISHOP PEAK TO BE ACQUIRED

**A** CHAIN OF 13 VOLCANIC PEAKS known as the Morros runs northwest for 12 miles from the City of San Luis Obispo to the City of Morro Bay. The County of San Luis Obispo, the City of San Luis Obispo, and the City of Morro Bay have jointly resolved to preserve this unique landscape feature. Together with landowners, members of the business community, environmental groups, and resource agencies, they have formed the Morros Advisory Committee, a forum for developing a plan to advance their common goal.

The Coastal Conservancy boosted these efforts in December by approving up to \$350,000 to enable the City of San Luis Obispo to acquire 108 acres at the summit of Bishop Peak, one of the Morros, adding this property to 242 acres of the peak already in public ownership. The acquisition will cost \$875,000. The Conservancy's funds will be pooled with \$400,000 from the City of San Luis Obispo, \$100,000 from the State Department of Parks and Recreation, and \$45,000 from the Sierra Club.

Bishop Peak is directly north of San Luis Obispo and is heavily used by hikers and bicyclists. It is a key element in the city's greenbelt plan. New trails are planned to link the publicly owned property with San Luis Obispo, Morro Bay, and with the coast.

The prominence of Bishop Peak within the local landscape and its popular trails with spectacular coastal views have drawn hundreds of supporters to this acquisition project. The Sierra Club has led the effort to raise funds from private sources. Local residents have written many letters and signed petitions to public agencies.

## WANT TO OWN A PATH TO THE BEACH? FIND OUT HOW YOU CAN

**T**WO NEW BOOKLETS ARE NOW available to help land trusts and other nonprofit land managers open new pathways to and along the California coast. *Happy Trails to You: How to Accept and Manage Offers to Dedicate Access Easements* and *Limitations on Liability for Nonprofit Land Managers* were published in December 1997 by the Coastal Conservancy and the Coastal Commission with funding from the National Oceanic and Atmospheric Administration.

*Happy Trails* details how a nonprofit organization or public agency can acquire and manage an Offer to Dedicate (OTD) easement. Hundreds of OTDs are waiting to be accepted and opened to the public. This booklet is a step-by-step guide through the process of turning OTDs into actual accessways. It also explains what a local nonprofit group or agency may stand to gain by taking on such a project.

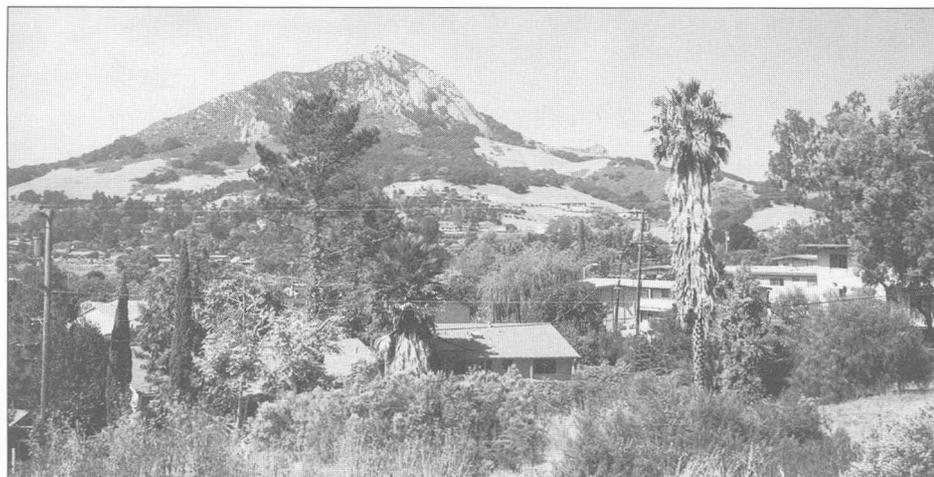
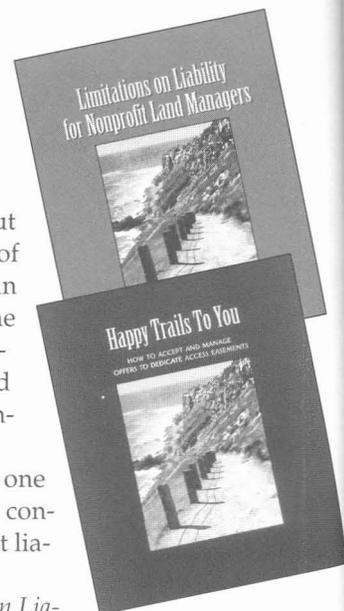
If you're interested but don't know of a land trust in your area, the Coastal Conservancy and Coastal Commission can help you set one up. If you're concerned about liability risks, *Limitations on Liability* will probably set your mind at ease by explaining immunities that will apply to your organization.

To request a copy, contact Brenda Buxton at the Coastal Conservancy, 1330 Broadway, 11th Floor, Oakland, CA 94612; (510) 286-0753.

## SOUTHERN CALIFORNIA WETLAND PLANNING INITIATIVES

**T**O ACCELERATE THE PACE and effectiveness of coastal wetland restoration, state and federal agencies with wetland responsibilities are joining forces through the Southern California Wetlands Clearinghouse, which is soon to be established by formal agreement. The goal is to work together with wetland managers, scientists, and the public in establishing priorities for acquisition, restoration, and enhancement objectives, and in securing the necessary funds.

The Clearinghouse will use the Southern California Coastal Wetlands Inventory, now available on the Internet, as its principal planning tool. This inventory describes 41 coastal wetlands between Point Conception and the Mexican border and contains historical and current maps, descriptive profiles, and annotated bibliographies. Questions the inventory may help to answer include: Where are coastal wetlands today, and who owns them? What kinds of plant and animal communities do they support? What is the use of adjacent lands and associated



Bishop Peak seen from Highway 1 near San Luis Obispo

NEIL HAVLIK

watersheds? What is the source and quality of the water? What has been done to protect the wetlands? Where are the data gaps? The Inventory can be accessed through the web sites of either the Conservancy:

[www.coastalconservancy.ca.gov](http://www.coastalconservancy.ca.gov); or the Resources Agency: [www.ceres.ca.gov](http://www.ceres.ca.gov).

The Clearinghouse consists of a governing board of top agency administrators, chaired by the Secretary of Resources, and is staffed by the Coastal Conservancy. Members include the Resources Agency; Coastal Commission; Coastal Conservancy; Department of Fish and Game; California Environmental Protection Agency; State Lands Commission; the Regional Water Quality Control Boards of the Central Coast, Los Angeles, Santa Ana, and San Diego; U.S. Army Corps of Engineers; Environmental Protection Agency; U.S. Fish and Wildlife Service; and National Marine Fisheries Service.

Citizens and organizations with interests in southern California wetlands (in Santa Barbara, Ventura, Los Angeles, Orange, and San Diego Counties) are invited to participate in the planning process. Contact Joan Hartmann, public outreach coordinator for the Clearinghouse, 150 South Muirfield Road, Los Angeles, CA 90004; phone: (213) 938-5530; FAX: (213) 954-9907; e-mail: [jrhartmann@aol.com](mailto:jrhartmann@aol.com).

## HUGE STRETCH OF SANTA CRUZ COUNTY COAST TO BE PRESERVED

**A**LSO IN DECEMBER, the Conservancy authorized up to \$1 million toward the acquisition of the second-largest privately owned oceanfront parcel between San Francisco and the Mexican border for conservation, recreation, and agricultural use.

The funds will go toward the acquisition of the Coast Dairies and Land Co., Inc., owner of over 7,000 acres of coastal land five miles north of the City of Santa Cruz. The firm will be acquired by the Save-the-Redwoods League or the Trust for Public Land (TPL). Interests in the lands currently owned by the corporation will be dis-



These shoreline bluffs are part of the Coast Dairies property.

posed of to appropriate public or non-profit entities to manage primarily for public access and resource protection.

The property owner has agreed to sell its stock to the the League or TPL for substantially less than the appraised value of the property. A successful private fundraising campaign has raised all but \$5.6 million. It is expected that the League will transfer the option to TPL, which will take the lead in preparing a management and disposition plan for the property.

The Coast Dairies property is larger than any private coastal landholding south of San Francisco except the Hearst Ranch. It stretches along five miles of shoreline, surrounds the town of Davenport, and contains five beaches, coastal bluffs, marine terraces, coniferous forests, oak woodlands, open meadows, five major creeks bordered by extensive riparian woodlands, and 750 acres of irrigated cropland. The property is being used in part for growing crops and grazing. RMC Lonestar Cement Co. operates a shale quarry on leased land.

Once the corporation is acquired, a planning team of representatives from the Nature Conservancy, the Save-the-Redwoods League, the Trust for Public Land, and the Land Trust of Santa Cruz County will create an advisory committee composed of representatives from the Coastal Conservancy

and other local, state, and federal agencies and universities to help produce a disposition and management plan. This plan will identify future trail alignments, areas to remain in agricultural production and other revenue-producing uses, and areas requiring restoration and enhancement. It is expected that the process will take about a year, and that several more years will be needed to carry out the property dispositions.

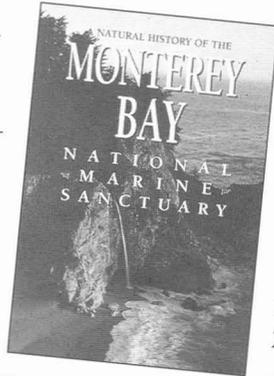
## WHAT WORKS FOR WATERSHEDS

**M**ORE THAN 100 WATERSHED coordinators and their supporters helped the Environmental Protection Agency's Office of Wetlands, Oceans, and Watersheds to produce *Top 10 Watershed Lessons Learned*, published in October 1997. This 59-page booklet, designed for "watershed practitioners and those who support them," summarizes key lessons learned on watersheds across the country and offers capsule case studies, contacts and resources. The Coastal Conservancy appears twice in Lesson 10, "Build on Small Successes," as Carol Arnold describes the Coastal Conservancy's watershed work on Morro Bay, and Reed Holderman tells what went wrong in the Santa Ynez Watershed. To order a free copy call (800) 490-9198. You can also visit the EPA's web site at [www.epa.gov/owow/lessons](http://www.epa.gov/owow/lessons).

*A Natural History of the Monterey Bay National Marine Sanctuary.*

Monterey Bay Aquarium Foundation in cooperation with NOAA, Monterey, CA, 1997. 260 pp., \$19.95 (paper).

FOR FOURTEEN years, the Monterey Bay Aquarium, co-publisher of *A Natural History of the Monterey Bay National Marine Sanctuary*, has been expanding people's appreciation of the ocean through its display of marine habitats and animals. This natural history volume goes farther still, providing facts, pictures, diagrams, and stories about the watery world that lies off our western doorstep. The book would be a valuable addition to the library of anyone who loves central California's shores.



The book comprises 11 chapters. The first three present "big-picture" information: on the Monterey Bay National Marine Sanctuary, established in 1992; on oceanography, including local weather, currents, and El Niño; and on geology—coastal geomorphology, for example, and the origins of submarine canyons. The heart of the book is the final eight chapters, which are devoted to "Sanctuary habitats." Beginning inland, with the wetlands, we stop briefly at the dunes and beaches; explore the rocky shores, where sea and land meet; then fan out into the less accessible world of reefs and pilings, kelp forests, the sandy seafloor, open waters, and, finally, the deep sea.

Each chapter treats a variety of topics. "Beaches and Dunes," for example, describes the "creep" of the California shoreline; how beaches and sand dunes are formed; some of the life forms that can be found at the beach (including predators and shorebirds, as well as sand-dwelling invertebrates) and in the dunes (here plants and dune recovery are featured). Each chapter

ends with a list of plants and animals common to the habitat, with both common and scientific names provided.

Although the printing quality of illustrations is mediocre at best, their varied subject matter to some extent makes up for this shortfall. A thorough glossary and reading list provide additional resources.

—Anne Canright

*The Science of Conservation Planning: Habitat Conservation Under the Endangered Species Act*, by Reed F. Noss, Michael A. O'Connell, and Dennis Murphy. Island Press, Washington DC, 1997. 246 pp., \$40 (cloth), \$25 (paper).

IT SEEMS IMPOSSIBLE that science would be overlooked in conservation planning, but all too often that is precisely what happens. In California, a "hotspot" where economic development clashes head on with an abundance of endemic species, conservation plans—tools that protect habitat and allow the incidental take of endangered species on private lands—are often driven by political and financial concerns, rather than solid scientific facts.

Conservation plans developed without solid scientific foundation generate mistrust, delays, and controversy. Environmentalists claim conservation plans eviscerate the Endangered Species Act. Developers will participate, but only with the protection of a "no surprises" policy that allows a one-time, up-front payment, even though these (often experimental) projects are planned in a natural world characterized by chaotic, unpredictable events. Regulators, who operate with minimal budgets and uncertain political backing, lack adequate information to guide the planning process effectively.

Baseline scientific studies could show which habitat areas are critical for the long-term survival of target species, guide how those

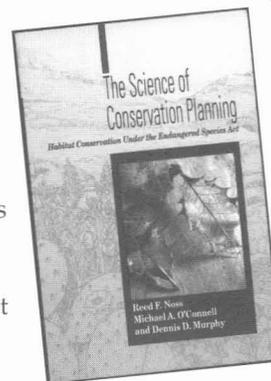
habitats should be managed, and provide the information needed to calculate project costs accurately. Scientific monitoring could determine the plan's successes and shortcomings, and guide future efforts.

Early conservation planning efforts, such as the Habitat Conservation Plan for the mission blue butterfly at San Bruno Mountain, on the San Francisco peninsula, focused on specific development projects and their effect on, at most, a few endangered species. But more recent efforts seek to protect many species over vast areas. The Natural Communities Conservation Plan attempts to protect 37 species in 200,000 acres on the central California coast.

Noss, O'Connell, and Murphy make compelling arguments for creating conservation plans with strong scientific underpinnings. Although many of their guidelines seem obvious, the simple framework presented can be a useful tool for all who embark on these difficult planning processes. The authors present the principles of conservation planning, provide a short history of these efforts in the United States (focusing on California and Florida), highlight the main criticisms, and provide clear guidelines for future planning efforts. They provide a no-holds-barred assessment of the process, acknowledging the real-life problems of species protection and reserve design in an era of severe budgetary constraints and scarce available and affordable natural areas. Their plea for defensible, science-based standards for conservation plans must be heeded or the species and habitats that make

California so attractive to us all, environmentalists and developers alike, will be forever lost. It will take full integration of science in the conservation planning process to succeed.

Elizabeth Riddle is associate director of the University of California Natural Reserve System.





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## **Jazz Plays the Ocean**

I always thought the ivories  
Had something to do with the whales  
Which had something to do with scrimshaw.  
With the wind blowing hard, the surf  
A clatter of agates & clams &  
Under foot & in the gut  
All the way from the moon  
Strings being pulled.  
Fingers & deep-bodied currents  
I keep thinking  
Cutting the bone.

*—Jerry Martien*

***The Rocks Along the Coast***  
Westhaven 1984



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