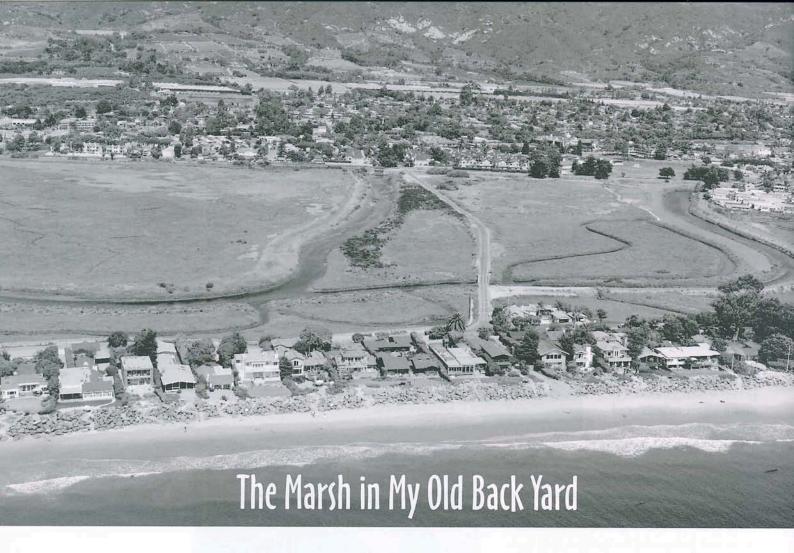
> Night Lights and Birds Blue Energy



AWN ON THE CARPINTERIA MARSH

was a salty calm. Long shadows slowly

retreated beneath a thin layer of dewy

As the morning sun warmed the wetland on

mist across a palette of purple, red, green, and

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a full tide, gadwalls, ruddy ducks, widgeons, and blue- and green-winged teal emerged from the dense pickleweed. White-crowned sparrows filled their beaks with seeds rummaged from saltbushes, and a lone osprey made several

swooping passes overhead.

yellow pickleweed.

I walked out to the most recent addition to the reserve, the bridge connecting the City of Carpinteria's Salt Marsh Nature Park to the adjacent South Marsh. Where Franklin Creek empties into a channel swollen with the incoming tide, it was crowded with Northern pintails, buffleheads, and pied grebes. Several stoic great blue herons and snowy egrets stood frozen along the steep banks, as a variety of fish breached just out of reach of their sword-like beaks.

Later in the day, after the tide receded, the slick mudflats, dotted with cone-shaped California horn snail shells, glistened a milk-chocolate

brown in the baking sun as whimbrels, longbilled curlews, and marbled godwits tiptoed in the murky shallows. All of this wildlife diversity was thriving in one of California's last remaining coastal estuaries.

Living and Watching

From 1975 to 2000, I was fortunate enough to grow up and live on the marsh in Sandyland Cove, in one of 40 homes built in a row between the ocean and the South Marsh. The marsh was literally 20 steps out the back door, the ocean about the same distance out the front door, with a great surf spot nearby. No need for an alarm clock: waves constantly crashing on the beach and the long, dry rattle of the belted kingfisher were guaranteed wake-up calls each morning.

A love for nature evolved during those early years, but I had no idea how a marsh works. That didn't come until much later-1998, to be exact. That's when the 15 acres along Ash Avenue, east of the University of California reserve and a stone's throw west of our house, received a massive facelift. What had become a wasteland of tangled weeds, dirt, and trash was

Above: Carpinteria Salt Marsh; the author grew up in the house just beyond the far right of the photo.

Opposite top: A new footbridge being installed; it provides public access to part of the South Marsh next to a gated community.

Opposite bottom: American coots (Fulica americana) at sunset

restored to something like its true self, a functioning salt marsh. When the restoration project began, the only obvious signs of wetland life were occasional herons and egrets foraging for rodents and snakes. During the next three years, huge amounts of fill were excavated and hauled away, sinuous tidal channels were built, invasive alien plants were removed, and natives were planted. During most of my years on the marsh I hadn't been aware of what had been happening to it. From the perspective of my doorstep it looked vast. But it had been shrunk to about half the size it was 200 years ago, much of it filled in to construct tract homes and businesses, which happened along most of the California coast. Only ten percent of the historic southern California wetlands remain.

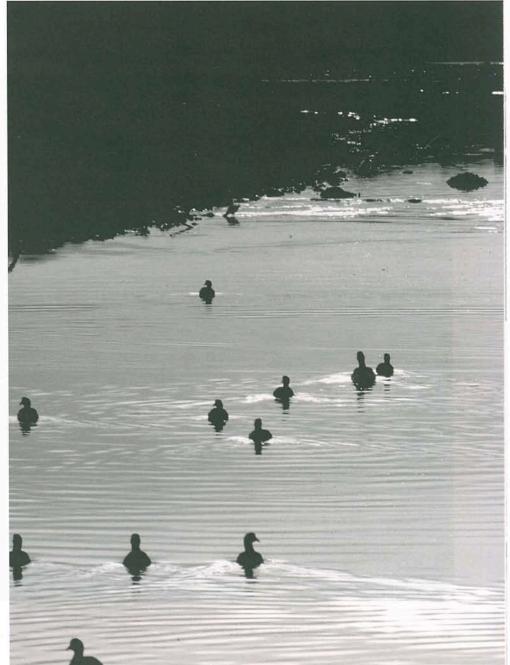
In the 1970s, the last remaining portions of the marsh to the west of our house were targeted for a marina, and a condominium complex was planned for the scruffy 15-acre area along Ash Avenue.

"That's where it was headed," said Michael Feeney, executive director for the nonprofit Land Trust for Santa Barbara County. "It would've been all over."

Instead, local people and several agencies and organizations joined forces to save this remnant slice of wetland habitat, and then continued to collaborate to reclaim more of the historic Carpinteria Marsh. The main partners in these efforts were the City of Carpinteria, the California Coastal Conservancy, the Land Trust, and the University of California's Natural Reserve System, but many others joined in. There had been a shift in perception in the early 1970s about the value of wetlands, leading to legislation, including the California Coastal Act, to protect them.

The City of Carpinteria bought the threatened 15 acres along Ash Avenue with the help of the Coastal Conservancy to create the Salt Marsh Nature Park. The Sandyland Cove Homeowners Association donated the adjacent 120 acres to the U.C. Reserve System to protect them from potential development. About half of the 95 to 100 acres in private ownership are protected by conservation easements and managed by the U.C. Reserve System. Altogether, 230 acres of wetlands are now protected. Restoration work continues. Few people who whiz by on Highway 101 see much more than a large green space bordered by houses and industry. Not many know the story of this rescued coastal wetland within Carpinteria's beachside community.





## Return of the Natives

Seven years after restoration work was completed at the Carpinteria Salt Marsh Nature



Park, willows, California poppies, wild roses, saltbush, pickleweed, and other native flora grow in the upland areas. In the tidal channels live mussels, snails, clams, and a variety of fish species. The mouth of the estuary at the county beach in Carpinteria is a nursery for halibut. More than 200 bird species have been recorded across the wetland and in the upland habitat.

"From Point Conception to San Diego," said

U.C. Reserve Manager Andrew Brooks, "it's one of the healthier marshes in southern California."

As a result, the role of U.C.'s Carpinteria Salt Marsh Reserve has expanded beyond its traditional function as a research site for graduate students. "It's now serving as a reference and study site for all aspects affecting watersheds, offshore kelp beds, and anything else surrounding the marsh," said Brooks. It attracts multicampus, multi-agency research groups funded by the Environmental Protection Agency, the National Science Foundation, the National Institutes of Health, the National Oceanic and Atmospheric Administration, and others. Studies are undertaken not only in the reserve but throughout the protected marshland.

Brooks said I wasn't imagining the diversity of avian species. "There's more food, the water quality is good, and the overall health of the marsh is allowing birds to be supported," he said.



## Opening the Flood Gates

After the nature park was completed, the Coastal Conservancy, the Land Trust, and the Santa Barbara Flood Control District went to work on another section of the marsh—34 acres south of the access road and bridge to Sandyland Cove, known as Basin 1 and South Marsh, in the U.C. reserve. Feeney said all the old construction rubble, rocks, fence posts, and other debris were removed, and public access paths were installed. "It's exciting to see you can actually get it done

when you figure we started this project in 2002," he said. "The key all along has been the Coastal Conservancy, all the restoration. They've been the lead horse."

As in the nature park project, improving the health and longevity of the marsh was at the forefront. A slew of projects was finished, including the restoration of historic tidal circulation channels that benefit breeding habitat for fish and invertebrates, such as the California oyster. Existing channels were deepened and new ones were created to help reduce silt and the algae growing on the mudflats. New cobble beds were created to encourage shellfish colonization. More nonnative flora was removed, such as ice plant, castor bean, myoporum, and mustard, and 18,000 native wetland and upland plants were planted, including two rare wetland species, salt marsh bird's beak and salt marsh goldfields, which provide vital habitat for the endangered Belding's savannah sparrow and a variety of other birds. The finishing touches were the new footbridge crossing the Franklin Creek channel and the 1,200-foot interpretive path at the north end of Basin 1, at the southeast end of the marsh.

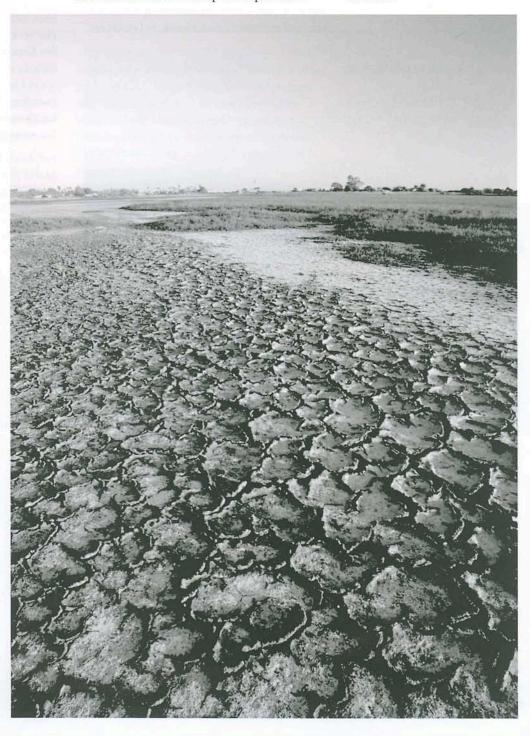
"It's been the community interest and support, and it was the persistent efforts of everyone, from the people who live around it, biologists, researchers, birdwatchers, and resource agencies," explained Feeney. "There's been a huge increase in awareness of the importance of the salt marsh and the willingness of people to make it a priority to protect it." "One's never finished when it comes to restoration," said Janet Diehl, project manager for the Coastal Conservancy. "Sedimentation is a big issue, particularly on [UC's] portion. It's natural sediment from the foothills constrained at the mouth of the marsh."

Next, the Land Trust and Coastal Conservancy have their sights set on restoring what is known as Basin 3, located on the western region of the U.C. reserve and some protected marshland in private ownership. "The conservation easements are kind of a step in the process of

Opposite top: A white-crowned sparrow (Zonotrichia leucophrys) feeds on a saltbush.

Opposite bottom: Birdwatching from Carpinteria Salt Marsh Nature Park

Below: A dried-up mud flat in the U.C. reserve



integrating all the management and restoration efforts," said Feeney. "Through the easements, not only are they agreeing to not disturb the marsh, they're agreeing to allow us to take the lead in management and restoration."

For the past eight years I have been living on the mountain side of the marsh, passing it daily on my way to work, lifeguarding on the city beach, and at my favorite surf spot where the mouth of the marsh spills into the ocean. After ten years of restoration, all the improvements to the marsh are evident in the growing biodiversity across the swath of channels, upland habitats, and expanse of pickleweed. As I stood on

the banks of a tidal channel snaking its way toward the ocean on this particular day, tranquility was interrupted by a common merganser coming up for air during a fishing expedition. Its breach startled a flock of American coots, a blur of black feathers heading toward the western fringe of the marsh. Perhaps it was the lone gray fox peering over the pickleweed that started the tumult. Be that as it may, for me this was another cherished moment in the cycle of life within the Carpinteria Marsh.

Chuck Graham, a freelance writer and photographer, has been living in Carpinteria for 33 years. His work has appeared in Wildlife Conservation, Sea Kayaker, Forest Magazine, and elsewhere. He's the editor of DEEP magazine, a surfing and ocean lifestyle publication. When he's not lifeguarding on Carpinteria City Beach, he leads kayak tours at Channel Islands National Park. See www.chuckgrahamphoto.com.

For docent-led trips in the Carpinteria Salt Marsh Nature Park, call (805) 684-8077. For the U. C. Reserve System call (805) 893-4127 or see http://nrs.ucop.edu.



Left: Reflections in a pool in the U.C. reserve

