

SHINE

A PUBLICATION FOR FRIENDS OF CABRILLO MARINE AQUARIUM



**Cabrillo
 Marine
 Aquarium**

A facility of the City of Los Angeles Department of Recreation and Parks with support from Friends of CMA



BEACH ECOLOGY COALITION

Balancing Human Recreation with Wildlife Conservation

Few realize that their favorite sandy beach is a complex coastal ecosystem, as well as a beloved playground. Sandy beaches are home to unique plants and animals, intricate food webs and vital ecological functions.

People appreciate the restorative power of beaches, as do seabirds, sea turtles and marine mammals. Human children love beaches and so do animal babies. Beaches are nursery areas for seals and sea lion pups, and for shorebird nests. One marine fish, our famous California Grunion, relies on beaches for spectacular midnight spawning runs, burying eggs on sandy shores.

Protecting natural resources on the coast of urban areas is challenging. Beaches are at the interface between water and land, affected by impacts from both sides. Structures such as houses and seawalls prevent natural replenishment from the back of beaches, while sea level rise and erosion from waves narrow beaches further. This coastal squeeze reduces the amount of beach available for people and living natural resources.

In southern California, sandy beaches along 70% of our coastline attract millions of visitors every year. Surprisingly, even though beaches are the most extensive coastal feature, their management is not consistent. There is no certification program or set curriculum to prepare managers and maintenance workers to care for ecosystem features and protect natural resources in sandy beach ecosystems, as there is, for example, for lifeguard training and protection of human recreation.

Fortunately, a unique organization has come together to improve management practices

for sandy beaches, based on shared experience and scientific expertise. Formed in 2004 with 14 members, the Beach Ecology Coalition now has hundreds of participants and global recognition. To share information and best practices, the Beach Ecology Coalition holds two meetings each year.

The Beach Ecology Coalition uses its meetings to share specific examples of management actions that support wildlife on our urban beaches. These include presentations, demonstrations of equipment or natural features and roundtable discussions. In addition, Best Management Practices are developed as templates for organizations seeking to benefit from the



Meeting at Cabrillo Marine Aquarium

experiences of others facing similar situations. The charismatic California grunion played a key role in the formation of the Beach Ecology Coalition. Fifteen years ago, a San Diego citizen sounded an alarm about the potential harmful effects of beach raking. She observed a tractor raking up kelp from a beach. Looking

closer, she saw that the tracks behind the vehicle glistened with California grunion eggs, brought to the
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BEACH ECOLOGY COALITION



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surface by the action of the tides. She alerted the media, and the community passionately supported protecting grunion nests from this disturbance.

The City of San Diego called for scientific study of beach grooming practices and a look at the status of the grunion on city beaches. This led to the formation of the Grunion Greeters, a group of citizen scientists that observes and reports the strength of local grunion runs. One outcome of that study was to recommend changes to beach raking protocols. San Diego's City Council accepted the recommendation, and the beach maintenance team adjusted their efforts during grunion season.

The city's beach manager at the time, Dennis Simmons, saw both the importance and the simplicity of this protocol to conserve this endemic species of fish. He believed other coastal managers could benefit from sharing this kind of information. He reached out to beach managers in neighboring areas to form a new organization, one that would encourage ecologically sensitive beach maintenance based on sound science and practical experience. The first meeting was held at Pepperdine University in Malibu.

Over the years participation increased, and the organization was incorporated as an educational non-profit in 2007. Currently hundreds of people are involved in the Beach Ecology Coalition: beach managers, lifeguards, scientists, equipment operators, coastal engineers, surfers and staffers from environmental organizations and resource management agencies such as Surfrider Foundation, Heal The Bay, the California Coastal Commission, California State Parks, California Department of Fish and Wildlife and public aquariums. There is no other organization like it in the world. This is the only opportunity that professionals with such diverse beach experience can come together from across California in a collaborative setting.

It turns out that altering beach raking practice by leaving kelp wrack on shore has many additional benefits besides protecting vulnerable grunion eggs. Wrack supports a food web of invertebrates that are in turn consumed by shorebirds. It traps sand, helping to retain the natural slope of the beach. Over time, nutrients return to the ocean and recycle into new kelp plants. Now, some beach managers have altered their raking practices to leave the wrack line year-round. In the past, caring for the beach amounted only to picking up trash and promoting human safety. Now and in the future, caring for the beach involves protecting much-needed habitat for native plants and animals that have nowhere else to go. The Beach Ecology Coalition works with beach managers and others to conserve our beautiful sandy beaches so that they can be enjoyed for their ecological treasures and recreational pleasures for generations to come.