

A student researcher observes grunion on the beach in Malibu.



KAREN MARTIN / GRUNION.ORG

Grunion Run

By Cameron Walker

Pacific Beach, during a golden spring afternoon, fills with people strolling along the boardwalk and the sand. Older couples walk the San Diego-area community boardwalk with visors shading their faces, while surfers stretch into their wet suits. A blonde woman walks a tiny dog, and a young man jokes with his friend in Portuguese. A teenage girl rolls by on a skateboard while licking an ice cream cone. A boy drags ropes of kelp along the beach.

At night, there's a crowd of a different type. At least that's what I hope. I've come to see grunion—silvery fish the length of a hand that swim onshore to spawn after sunset.

Grunion, found on the Pacific shores of Central and Southern California and Northern Baja, may appear on sandy beaches anytime between February and September. The peak months of April and May are closed to grunion fishing—during the rest of the year, you can catch the fish, but only with your bare hands. Springtime brings not only the grunion's strongest Southern California runs, but also volunteers known as Grunion Greeters, who monitor the fish to learn more about them.

Melissa Studer, Grunion Greeters'

project director, picks me up from the hotel around 10 P.M. I'm eager to go to the beach to witness this unique spectacle of nature.

We start our vigil at the dark end of the beach—away from the beachfront lights—that I walked in the afternoon. The surfers and strollers have disappeared; the only sounds are those of waves and wind. Studer says that this is one of the draws of grunion greeting—seeing a different side of the beach, one where sand sharks swim into shallow water and shorebirds flicker like ghosts overhead.

The first thing we're looking for is a "scout," Studer says, a male grunion that comes ashore alone to check out the conditions. Farther down the beach, a few tiny circles of light form constellations in min-

ature; maybe they're the flashlights of other volunteers, maybe people out to see grunion on their own.

For many, grunion spotting has the reputation of a snipe hunt—a search for something that doesn't exist. Growing up in Southern California, Cynthia Vazquez thought these springtime runs were too weird to be true, and the few times she did go to the beach to watch grunion, all she saw was sand. "I started to think it was an urban legend," says Vazquez, who is now a Grunion Greeter.

Other people have never even heard of them. On my way to Pacific Beach this afternoon, the cabdriver and I started talking about the fish I'd come to see. He asked me to repeat the name several times, then spell it for him so he'd remember, but I wondered if the word would vanish from his memory as soon as he reset his meter.

The more we talked, though, the more I realized he was not just trying to make conversation—he was really intrigued. He started to tell me about the turtles he saw when he was a boy in Africa. Then we talked about turtles in Central America, which always return to the same beach to lay their eggs, then swim thousands of miles in the open sea before coming back again. The taxi driver recounted how scientists are tracking the turtles with satellite tags, and I thought that maybe he'd remember the grunion after all.

Even for those who have seen a grunion run, these fish remain an enigma. Little is known about their three- or four-year lifespan beyond what happens on and around the beach. Grunion follow each month's highest tides around the times of

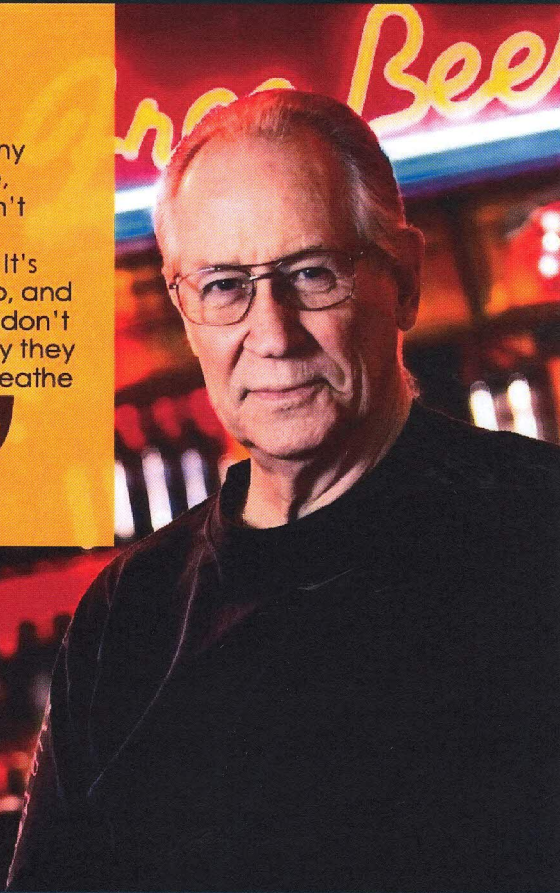


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the new and full moons, catching a ride into shore just after the day's highest tide, which in spring along the West Coast always comes at night. The waves wash the fish high on the beach, where the female digs a hole in the sand with her tail and deposits her eggs. As she's digging, a male wraps himself around her and deposits milt that will fertilize the eggs.

The eggs, between 1,000 and 3,000 of them in each deposit, lie in orange clusters under the sand, incubating just a few inches below the surface. The egg sacs are flexible, usually surviving the overhead foot traffic of beach walkers and shell collectors. After about 10 days of incubating, grunion need an environmental trigger—high tides—to cause them to hatch. During the next round of high tides, the embryos wash back to sea and hatch within minutes. If the waves don't cooperate, hatching can wait for another two weeks.

Even though the eggs can survive for weeks out of water, they're not invincible. The Grunion Greeter project was launched because of concern that beach-grooming practices might be harming the species. "The poor little guys, the places that they use for their eggs are public places," says Karen Martin, a biology professor at Pepperdine University.

Martin, Grunion Greeters' executive director, led the scientific portion of a 2002 pilot program that brought in volunteers to help with the initial count. Pepperdine researchers are working with several organizations—including aquariums, wildlife agencies and environmental groups—to conduct the first long-term population study of grunion, with the help of an extensive network of volunteers.

No science background is required—anyone 18 or older can become an official Greeter.

Instead of individually counting what could be hundreds of wriggling fish, Greeters use a measurement called the Walker scale, which focuses on the strength of a run.

Volunteers receive a laminated sheet that helps them determine run strength just by looking at the beach—a W-0 on the Walker scale means a few scouts at most,

with no spawning. The scale goes up to W-5, which means fish are carpeting the beach—so thick that you can't walk through them without stepping on one—and forming "a silver lining along the surf," according to the data-collection sheet.

During the project's early years, the reports of volunteer monitors helped make it "pretty clear that grooming over the eggs is a bad thing," Martin says. Now, many places in Southern California keep their beach grooming above the intertidal zone where the grunion deposit their eggs. The same is true north of San Francisco where volunteers discovered a new extension of the run in Tomales Bay.

IN PACIFIC BEACH, WE'VE BEEN out for half an hour, and the only sign of life we see—other than the flashlights down the beach—is a lone night heron swooping in and coming to stand near the water's edge. Studer tells me that the chances of a grunion run building around your feet are much higher if you're quiet and still, and if you don't wave your flashlight beam across the sand.

Then another night heron comes in. Both stand there, looking out at the dark waves. The first fish we see is in the mouth of a night heron, its tail flipping as the bird swallows it.

Scouts come onto the beach, one or two at a time. A man shouts: "They're here!" Then, after a few minutes, more and more fish appear with each incoming wave.

As I watch, the females bury themselves much deeper than I had imagined. Sometimes, all I can see is a tiny head swaying back and forth in the sand, looking like a little thumb.

Behind us, the waning moon eases in and out of clouds. Studer calls this only a moderate run, maybe a W-2—as she'll report it on the project Website tomorrow. By midnight, when we leave, a thin strand of shining fish seems to outline the waves as the fish spread along the beach.

ONE NIGHT A FEW WEEKS LATER, I visit the beach near Santa Barbara's Stearns Wharf with three other Grunion Greeters—graduate students at UC Santa Barbara's

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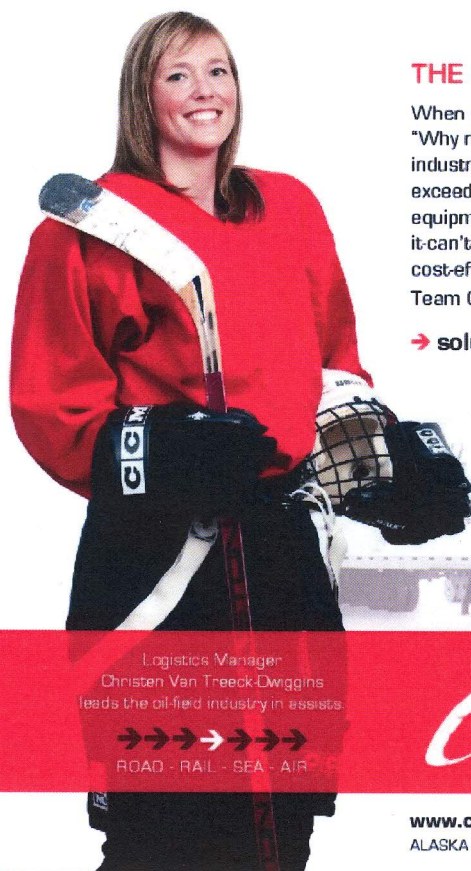
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Donald Bren School of Environmental Science & Management who were intrigued by the fish.

My husband, after hearing about my first grunion-run experience, planned to come along. Then he told a few people in an evening race he was competing in. When we get to the beach at 10:30, there's a small crowd; as the night goes on without a visit from the grunion, people settle themselves in the sand and tell jokes, making this ordinary Wednesday night feel like an impromptu party.

At 11:15, a single night heron shows up, which raises my hopes.

If grunion have spawned here recently, their progeny may be swimming in the dark waters just offshore. Grunion larvae spend about 40 days near shore after they hatch, feeding on plankton; the juvenile grunion may then travel on to harbors or brackish bays. They'll be ready to spawn within a year.

But tonight, no scouts appear. The night heron takes off into the darkness, and soon the rest of us depart, as well.

Grunion runs reportedly have been a gathering event for centuries. The Kumeyaay tribe, living in what are now San Diego County and Baja California, feasted on the beach to celebrate the arrival of the grunion. These days, volunteers bring along kids, friends and visitors when they go out to greet the grunions.

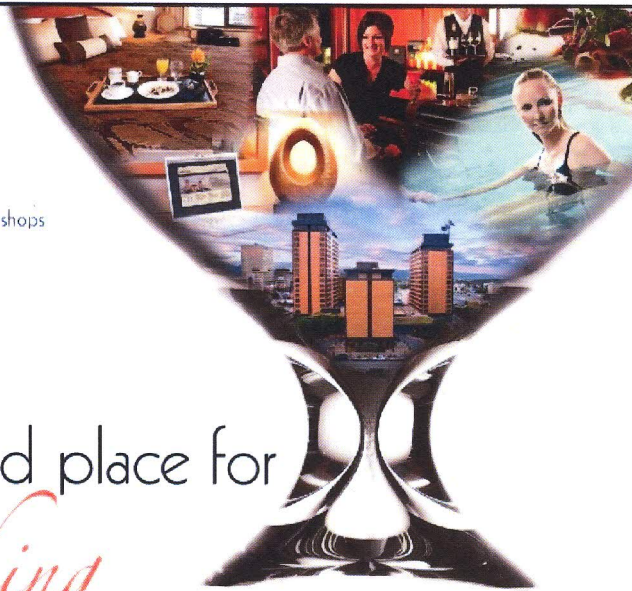
Cynthia Vazquez found the Grunion Greeters program online a few years ago and thought it would be a fun thing to do with her 5-year-old daughter. They saw their first run together in La Jolla—there were just a handful of grunion, but it was enough to intrigue them.

"Once you see a run, it's addicting," Vazquez says.

In addition to rating the runs, volunteers are gathering information that may be used in the future to monitor beach health. Martin, for instance, has looked into how increased shore or beach salinity—which might occur with the operation of proposed desalination plants in thirsty Southern California—might affect grunion.

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changes once grunion-hunting season begins, so on the balmy evening before the summer solstice, my husband and I walk with another couple down to a nearby beach and find kids everywhere. The moon, which was full a few nights before, shines a pale orange light from where it hovers on the horizon. At first, we don't see anything but the wide glade the moonlight paints on the water and the lights of the oil derricks in the distance. Then, a night heron swoops in. Soon, a few grunion scouts start to flip their way up onto the beach.

Kids start screaming and swarm the water's edge. The run builds quickly, and fish flop across our feet as we stand in the wash of the waves. A dog runs through the waves, scooping up fish in its mouth and then dropping them back on the sand. Cub Scouts catch grunion after grunion in their hands and plunk them into buckets. One of our friends stops one of the boys from pulling out a female as she's laying her eggs, encouraging him to wait until the fish has finished.

One of the Scout leaders says they're going to fry the grunion tonight for the scouts to eat.

On the walk home, our first-time-grunion-spotter friends have already become advocates, talking about how they'll explain to their kids about the grunion's amazing beach display, and let their kids experience catching a grunion in their hands and then releasing it on an outgoing wave.

The grunion don't grab everyone—people either fall in love with grunion watching or chalk it up as a one-night beach adventure. I remember the cabdriver looking in his rearview mirror and grinning at me after I told him about the grunion at Pacific Beach.

"It's a miracle!" he said. I imagine that if I see him again, it will be on a beach; his pants will be rolled up to his calves; he'll be holding a flashlight in one hand; and in front of him, wave after wave of fish will flicker in the moonlight. ▲

Cameron Walker is a freelance writer living on California's Central Coast.

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