Segment 14: The otter returns

An unusual calm blanketed the sea, barely rocking the low, gray rowboat as it slipped quietly into the small cove on the Big Sur coast. Four friends fished, talking only in quiet whispers, jostling their lures through the clear water below, thoughts attuned to the fish they would catch and to the silent partnership of fishing. At the mouth of a cove the morning mists parted for a fraction of a moment, and a few rounded bumps appeared. Bull kelp floating on the slick surface?

"No," John Pfeiffer told his guests. He lived along the rough Big Sur coast, and he knew the ocean and the hills. "Not kelp. And not seals."

Twisting around in the boat, Hans Ewoldsen clearly saw three pairs of eyes and three sets of bristled white whiskers staring back. "They don't look like seals," he agreed.

"They're sea otters," Pfeiffer told him quietly, "and they're extinct. Don't tell anyone."

The mania of the Roaring '20s still gripped much of the United States in 1929, but the brittle intensity of that era did not penetrate the steep grottos and cliff-hung coves of the California coast. The boat with the four friends drifted away from the curious heads of the small sea creatures. Pfeiffer looked back as the fog rose up to shroud them, like a curtain being closed.

"Stay hidden," his gaze said. "It's not your time yet."

Otters in Shangi-La

Glittering in the sun, rough fingers of rock reach out into the cold waters of the Big Sur coast. They catch and channel the waves between them, concentrating the surge into combers that crash onto creamy beaches nestled between dark stone walls. It was a difficult place for a Depression-era workforce to raise bridges across five canyons and extend U.S. Route 1 along the California coast. Earlier builders had given up and sent the highway inland from Big Sur, to emerge back at the ocean miles farther south. The detour had been dictated by old engineering limits: The canyons of the open coast are deep, steep, and wide. Until the 1930s, this stretch of the coast was lonely and isolated. It was a tiny Shangri-La for a surprising survivor.

The new coastal road opened in 1937. In the early spring of 1938, Mr. and Mrs. H. G. Sharp repaired their little telescope and, turning it toward the mouth of Bixby Creek, made a startling discovery. Down below in the ocean canyons, they saw a small group of furry floaters, quieter than sea lions and smaller than seals, rafting in the waves and lolling among the healthy kelp forests. Without realizing the significance of their find, or that others had kept the secret for decades, the Sharps rediscovered the "extinct" southern sea otter.

The last heyday of the sea otter in central California had occurred in the 1800s, when hundreds of thousands of animals gave up their pelts to the voracious fur trade. A treaty in 1911 prohibited the trade of sea otter pelts while allowing Alaskan natives to

continue traditional use. For Californians, the treaty closed the barn door long after the horse was gone: Few otters had been seen south of Alaska for 50 years. The southern population, once so large that it had spurred wild speculation by explorers and missionaries, had disappeared by the early twentieth century. Although reports of one or two animals occasionally surfaced, the otter was one more tiny victim of unrelenting commerce.

The Sharps estimated the sea otter population at several hundred, a number that Hopkins marine biology professor Rolf Bolin found "beyond belief." So on March 25, 1938, Bolin hurried south to Big Sur to see for himself. Despite the hundred-foot cliffs, he clambered down to the beach and encountered two otter sentinels: "They approached to within about 60 yards and stood upright in the water, eyeing me." In Bolin's understated words, the otter's reappearance "excited much local comment."

Munching on sea urchins and abalone, the sea otters displayed a stunning nonchalance at having narrowly escaped extinction. Local citizens were not so laissez-faire and demanded that Fish and Game officials assign a warden to guard the population from harm. Although they couldn't prevent a reported attack by a pod of killer whales, the otters were soon protected from human hunting, and their population numbers began to grow.

The otters were a genie, now let out of their bottle, and they would revolutionize Monterey Bay.

Endless Appetites

Otters eat a lot. Almost alone among marine mammals in cold water, sea otters are not layered with thick blubber. Without this insulation, they rely on two things to stay warm: their luxuriously thick fur and a voracious appetite. An otter has a metabolic rate about three times higher than that of a similarly sized dog and will consume about one quarter to one third of its body mass each day, or 15 to 20 pounds for a 60-pound animal. Not eating for a day drops their weight about 10 pounds. Losing 25 pounds will kill them. So otters need food—plenty of it—all the time.

A variety of marine shellfish can provide this bounty, from sea urchins and abalone to crabs, octopus, and snails. Long-term otter watchers have found that many individuals specialize on certain kinds of prey, some refusing all but abalone meals, some searching diligently for scarce sea urchins, with others being dedicated to dining on abundant but small turban snails.

No matter what they eat, otters try to never miss a meal, and a dense population can quickly affect the life of a kelp forest. Rolf Bolin used a healthy part of his published article about the rediscovery of the otters to catalogue their diets and eating habits: "Resting on its back and holding the food with its front paws, it proceeds in leisurely fashion to nibble or gnaw at it." Although later researchers covered this ground in great detail, Bolin's description provides the first account of the way sea otters interact with their environment. Before the twentieth century, otters were a source of fur. They hid out while the science of ecology grew. They reappeared when field biologists were just beginning to document the precise ways in which organisms could dramatically affect the species around them.

Foragers and Bandits

Unlike their Alaska cousins, California sea otters regularly use tools. After a dive, they pop back to the surface carrying a tidbit snail or a frantic crab, also bringing along a handy stone. Lying on their backs with the hapless shellfish on their furry chests, they bash the shell with the stone until their meal cracks open. They scoop out the innards, drop the refuse, stone and all, then dive back down to snatch another snack. They also use tools to eat abalone, creatures that are all foot, hanging onto the rocks for dear life. Human divers need a crowbar or a stout diving knife to pull an abalone from its rock home. How does an otter do it? Ernie Porter, a local diver in Monterey, reported seeing the simple answer. Otters first find a grapefruit-sized stone. Then they find an abalone and pound it until the shell fractures, allowing them to easily pull the animal off the rock. Earl Ebert catalogued the condition of the shells of abalone brought to the surface by otters, and 80 percent had been broken.

Foraging takes up about half of an otter's day, usually the early mornings, later afternoons, and night. But during breaks, sea otters loll indolently among the waves and kelp fronds, famously rafting on their backs with their webbed back feet thrust out of the water. They raft in groups, grooming one another, quarreling, or caring for pups. Some serve as nervous sentries, floating vertically with their round heads bobbing up and down, their white whiskers framing a stern, blunt snout, their jet black eyes staring, unblinking, at any possible threat.

With curious, innovative brains, otters often come to explore a new sight in their world. Encountering a discarded glass bottle on the seafloor, an otter might well decide to pick it up to test its value. Using a bottle as an anvil to crack shellfish became a fad among California otters in the 1970s. Sucking octopus out of discarded soda cans also proved popular.

Otter societies are flamboyant and passionate, based on prolonged grooming sessions to tease out kinks in thick fur, and centered on largely same-sex groups of rafting animals. Young males form foraging parties to explore the edges of their territories. These gangs can be the vanguard colonists along new stretches of coast and can move into a new kelp neighborhood overnight to start pounding down the local shellfish. The rest of the population fills in behind. Through these forays, sea otters slowly left the strict confines of Big Sur and mile by mile moved up the central California coast.

By 1947, while Ed Ricketts brooded over sardine populations from his cramped lab on the doomed Cannery Row, the recovering otter population had bounded north to Yankee Point, south of Carmel. By then, 500 or so sea otters rolled and dove along the California coast, and the population looked to be expanding rapidly.