

Ocean Currents - Positively Ocean Episode - Positively Ocean Episode: Coho Salmon making record returns to Lagunitas Creek

Produced by Liz Fox
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- Liz Fox:* Hi. This is Positively Ocean where we celebrate the ocean and look at what's working well. I am Liz Fox. There's something fishy in the Lagunitas Creek these days and it's fish, lots of them. Salmon. Specifically, coho salmon. That's big news because they've been on the brink of extinction, and this year's healthy run could mean that local restoration efforts will continue to bear, well, salmon. Eric Ettlinger, the Aquatic Ecologist at the Marin Municipal Water District, and his team counted 320 redds, or mounted pebble nests, that female salmon build for their eggs. Assuming there's a male and a female pair for each redd, Ettlinger estimates that's about 740 salmon returned to spawn this year. That's up from the long-term yearly average of about 500 salmon. More importantly, it shows that the population is on the rebound after a bottleneck here in 2008 when only about 52 fish came back to spawn. That year, scarce ocean food sources threatened the already low number of coho salmon that had survived the big storm as hatchlings three years earlier. Since salmon have a three-year life cycle, a healthy habitat for young salmon is especially critical, and coho are particularly vulnerable to habitat degradation because they've evolved to spend more of their lifetimes than other species of salmon in the slow-moving rivers and streams of coastal redwood forests. More time in freshwater means more exposure to habitat loss, drought, and land-based pollutants. So the canary in the coal mine in this story is really a fish in the backyard. Here's Ettlinger.
- Eric Ettlinger:* These big, bright, red fish that every year swim up from the ocean into people's backyard teach us about the connection between the ocean and freshwater, the health of our streams, about water quantity and water quality, about changes that are happening to the ocean food web.
- Liz Fox:* Because coho are so sensitive to changes in the terrestrial environment, development anywhere in the watershed can impact them. Again, here's Ettlinger.
- Eric Ettlinger:* Whenever there is new development, there's more pavement. When it rains, the water doesn't soak in, so we get these very flashy streams and the creeks flow very fast and they cause erosion. And the people who live adjacent to creeks have to protect their banks with rock, and that just means that the creek goes even faster because it's not being slowed down by vegetation, and the habitat for fish is being eliminated.
- Liz Fox:* Raging streams coupled with a loss of floodplains to development including vineyards means that young coho salmon along the Lagunitas have floundered for years. But that began to change when the Marin Municipal Water District planned to expand a reservoir in the 1980s. The district reached out to watershed stakeholders to ensure aquatic habitat protection as required by law. Since then, the resulting Lagunitas Creek Technical Advisory Committee, a group of federal, state, and local nonprofit agencies, proved their staying power with their shared

vision, cooperation, and public support. In one project, the Salmon Protection And Watershed Network, or SPAWN, partnered with the National Park Service which removed a ghost town on its property in 2016. Last summer, SPAWN completed its work on the first phase of the project to remove dirt and reshape the terrain to reopen Lagunitas Creek's access to floodplains. Preston Brown, Director of watershed conservation of SPAWN, can see the projects paying off. Here's Brown.

Preston Brown: Are we creating the habitat that we'd prefer, which the answer is yes, we are seeing it functioning the way we want it. And then second, are we actually seeing fish use it? And the answer is yes. So we know that it's creating a habitat that we intend and it is providing habitat for fish that we can actually see, and count, and measure.

Liz Fox: This year's successful coho run in the Lagunitas Creek can't be directly attributed to that project. But the new access to floodplains will provide a safe and healthy habitat for juvenile fish that hatch from this year's strong run. And while the endangered coho salmon aren't out of the woods completely, hundreds of people have worked throughout the decade to make these woods more hospitable. That's an example of folks doing right by the ocean. Until next time, I'll be searching for all things Positively Ocean. For Ocean Currents and KWMR radio, this is Liz Fox reporting from Berkeley, California.

(Music)