



The Natural Laboratory Podcast Transcript: Monitoring Our Endangered Coho Salmon

Introduction

Ben Atencio: So, an adult coho is about 60 to 75 centimeters in length, which is...about like that big. And, um, they're bright red on the sides and the males have, um, a really hooked snout that's kind of like that. Whereas the females are, kind of like that. Whereas the females are, kind of, like, you know, normal fish mouths. And, um, they swim into the creeks in the winter

and spawn. The female lays the eggs, the eggs hatch into fry, and then they grow into juveniles, and then they grow into smolts, which swim out of the rivers into the oceans. And they live in the ocean for about two years. And then, they come back as adults and spawn. And it keeps going and going. So, it's, like, a three-year lifecycle.

Monitoring

Mike Reichmuth: We monitor coho, really, to get the status and trend of the species.

They usually spawn up near the headwaters of the stream. And then, continue to use the rest of the stream during their life, all the way 'til they, uh, get to the estuary, and out to the ocean. So, by monitoring them over their entire lifecycle, we're able to really get the, uh, health of the entire ecosystem of the stream.

Currently, we have, um, three main creeks that we monitor. Uh, we monitor Redwood Creek in the south. Uh, we also monitor Pine Gulch Creek, which is in the Bolinas area. And then, our most northern

creek that we monitor is Olema Creek, uh, which is a part of Point Reyes National Seashore. These three creeks are...are some of the most southern populations, especially if you look along the Pacific Coast. Only Santa Cruz is south of us.

In general, we have, uh, our monitoring encompasses three main life stages. Uh, one is we monitor the adults when they come back to spawn. Their ability, really, to, uh, overcome obstacles and get to their spawning habitat, uh, is pretty amazing.

In the springtime, we monitor the smolt life stage. This is the time when the fish are going out to the ocean.

(over)

Counting Smolts

Ben Atencio: When you get to the site, we have, um, the fyke net, which leads into the pipe, which leads into the box, and we check the box to see if there's any fish, clear out all the debris and all the fish. And then, um, we count the fish. We, uh, measure 'em to millimeters and weigh 'em to the hundredth of a gram. And, so, yeah, we just go from trap to trap, uh, counting the fish.

It, kind of, seems like for the smolts, at least, every fish, kind of, has its own personality. Like, some fish will be, like, kinda, really squirmy and really fighty, and then, other fish will just be really, like, relaxed and, like, you can just handle them just fine.

Current Status and the Future

Mike Reichmuth: And then, we monitor the...the, uh, fish when they're in the summertime, when they're considered juveniles, uh, rearing in the creek. And, uh, during this life stage, this gives us an idea of what the success was, uh, in terms of their ability to survive the spring and also, uh, feed and grow.

Currently, our monitoring is showing that the population is decreasing. In the last, uh, few years, uh, we've noticed a large decline. Um, even before that decline, they were only at about five percent of what their historic levels were. So, really, what we're trying to do is figure out: why is it decreasing. And then figure out: how do we...how do we save these...these fish, uh, from, uh, from no longer being in these creeks?

We have activities such as damming; uh, infrastructure such as buildings, roads; um, water withdrawals; fishing; um, and agriculture are some of the main threats, though, we've had in the past. Currently, we still have some of those.

Hopefully, through, uh, some of the park's most recent efforts of restoring some of the key areas of the creek that the coho, um. . .we know the coho will utilize, uh, we'll be able to, uh, increase the population and restore this popu. . .these populations back to their historic levels.