

Biologist: Impact of climate change is growing

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Yurok Tribe of California Senior Fisheries Biologist Keith Parker paused for a moment, collecting his thoughts on what's going on, not only in his world, but the world around him, as he focused his thoughts on the topic of climate change and the climate crisis.

As a scientist, the Yurok tribal member is a member of the Klamath River Technical and Trinity River Hatchery Technical Teams. He has conducted numerous fisheries biology, hydrology, and river ecology research projects in Alaska, Washington, Idaho and California and was recently named the 2023 Professional of the Year for technical excellence by the American Indian Science Engineering Society National Conference (AISES).

As a Northern California tribal member, Parker has family in the Karuk, Hupa and Tolowa communities and remembers the teachings of the elders about the connection to the earth and its inhabitants.

His is a message one of past ties to present lives and the dangers surrounding destructive habits people have taken for granted.

"I talk to people here and they don't even realize all of the problems that are happening locally. The fire and the drought is all directly linked to climate change," said Parker, who just collaborated in a New York Times article (Oct. 25) with scientists helping to address climate change. A separate article appeared in a New York Times Sunday Magazine (Oct. 29) had 50,000 likes in the first few hours.

“The fire shut this entire county down. We were completely disabled. These are all by-products - salmon, dying oceans, the Snake River Complex Fire. It’s like going to the doctor, these are the symptoms. This is the earth saying, ‘I’m getting sicker and sicker.’ ”

His emphasis is that people need to work together to help solve the problems and not run away from symptoms. He hopes the exposure in the New York Times will raise the awareness and start thinking about solutions.

“It might not happen in my lifetime, but maybe in my kids’ lifetime. We can’t just keep extracting and extracting,” said Parker, who is a lecturer at Cal Poly Humboldt and UC-San Diego SCRIPPS Institution of Oceanography.

“People don’t understand it is all connected. The salmon come up the river to spawn. The predators catch the fish and drag them on shore to feed. The Redwood trees are salmon fed. We’ve taken core samples that have ocean nutrients. How in the world would there be ocean nutrients 1,000 miles inland if it wasn’t in the bodies of those fish?”

Parker attributes this break in the cycle that is contributing to wildfires, flooding in some areas, droughts in others along with other natural dilemmas.

“There’s other ecosystem services that salmon provide. We’re feeling the effects now with all these huge fires,” he continued. “I see a lot of the fires account for the lack of salmon delivery.

“When a 40-50 pound salmon spawns and dies, think of all the nutrients that gets absorbed into the ground. It’s been going on for millions of years, leading to these massive trees.”

As a scientist, Parker is a National Science Foundation Graduate Research Fellow and a Robert & Patricia Switzer Foundation Fellow.

He is active in the Corvallis Research Lab, the Klamath River Technical and Trinity River Hatchery Technical Teams and on the CSU Presidents’ Native American Advisory Committee.

But he also remembers a time when his grandfather showed him the ways of the people that have been passed down from generation to generation.

His grandfather led protests of federal bans on tribal fishing rights, ironically, for water he is now responsible for, co-stewarding the Klamath River’s 44 miles through the Yurok reservation.

Not only is the earth connected, he is connected with through past ties to present lives, Parker explained.

“It’s not by accident, but by nature’s design, that these large, massive trees are right here by Mill Creek where salmon come every year,” he explained. “The trees have a symbolic relationship with the salmon. In return, these trees provide shade to the creek, bank stability with roots in the ground to prevent eroding.

“Our people have observed the Klamath River and the Smith River for thousands of years. Having that background in modern genetic analysis, using modern scientific tools, make a really powerful combination to

help solve a lot of the problems that we have.”

He is quick to point out nature has been around for a long, long time. But the billions of inhabitants are grinding away and the cycle observed for thousands of years.

“We really have to try and wrap our mind around that creatures, including humans, have lived together for generations,” Parker said. “We’ve lived through ice ages. We’ve lived through volcanoes, massive earthquakes, tsunamis and yet we persist.

“So, I’m optimistic that we’ll find a way around climate change and drought.”