THE SACRAMENTO BEE
CALIFORNIA FORUM

JUNE 30, 2016 3:00 PM

Longtime observer wants fishing ban; scientists want years of research

Little is known about Smith River watershed in northwestern California

91-year-old's 'citizen science' approach is at odds with scientists

Ted Souza's seat-of-the-pants approach causes scientists conniptions

91-year-old Ted Souza is the kind of advocate whose seat-of-the-pants approach to natural resource protection causes scientists conniptions. Smith River Alliance

BY JANE BRAXTON LITTLE

jblittle@dyerpress.com

Ted Souza has been fishing the Smith River for 66 years. He caught his first steelhead in February 1950 and has been watching the fishery closely ever since.

It's not doing well, said Souza, 91, and he brings decades of observations to prove it. Souza believes the Smith River watershed in the northwestern corner of California is doing so poorly that he has publicly called for a three-year ban on fishing.

Souza is the kind of advocate whose seat-of-the-pants approach to natural resource protection causes scientists conniptions. His focus is single-minded: fish. His monitoring techniques are simplistic: watch the river. His strategic plan is elementary: save salmon.

For scientists, Souza's approach is hokum. What's needed to save Smith River salmon is not a ban on fishing but well-documented information about the abundance and distribution of the species. It should be gathered over years and throughout the 460-square-mile watershed in carefully planned projects that use techniques free of bias. It should aim to protect the entire habitat, not just a single species, said Grant Werschkull, executive director of the Smith River Alliance.

Surprisingly little is known about this watershed and its wildlife. It is California's last free-flowing river that drains directly into the Pacific Ocean. All of the Smith's tributaries are intact and they enjoy most of their historical vegetation.

Among the few recent Smith River research projects is a five-year study published in December that monitored adult populations of coho and other salmon species in specific spawning grounds. A separate two-year monitoring project used sonar imaging to count adult Chinook salmon near the mouth of the Smith.

Neither is enough to conclude that the fishery is in so much trouble it warrants a fishing ban, said Justin Garwood, an environmental scientist with the California Department of Fish and Wildlife: "Five years is a blink in time. We need much more data."

And they need more money. Because it is relatively healthy, the Smith River has been overlooked. Funding has been directed at fisheries in obvious and far more difficulty, Werschkull said.

For Souza, lobbying for money to conduct scientific studies is exasperating. He can cite scores of Fish and Wildlife reports documenting the increasingly dire state of California's salmon fishery, "and they do nothing about it."

This push-pull struggle to save the Smith River is a cockeyed version of a process taking place around the world. Called citizen science, on-the-ground observers are collecting data and reporting it to scientists, who use it to expand the scope of their work.

Engaging nonscientists in the scientific process holds the potential to solve problems and to fundamentally change the relationships between science and society, says Rick Bonney, an editor of one of several new journals focused on the field also known as crowd science, civic and networked science. It achieved a milestone in 2014 when "citizen science" was included in the Oxford English Dictionary.

Souza is a cantankerous old-school version of this rapidly growing approach. He relies on what he has seen and the observations he has on calendars and in notebooks. He mocks the recent projects monitoring salmon on the Smith River: "Counting fish is like counting money. It means you don't have any."

His in-your-face response to the scientific efforts to protect the watershed aggravates most scientists, but it has its merits, Werschkull said. "Ted asks the tough, embarrassing questions. He makes people squirm."

For all his gadfly audacity, Souza may be making his own iconic contribution to the science that protects the Smith River salmon. He has attracted media attention to salmon by calling for a halt to fishing. That could attract the funding so urgently needed for the additional monitoring. And that, ironically, could confirm the need for some sort of action – like a fishing ban.

Jane Braxton Little, a freelance writer, covers science, natural resources and rural Northern California from Plumas County.