

Human Factor : Pikeminnow in the Eel River

HOW DID THEY GET HERE?

They were introduced into the Eel River during the late 1970's (Brown et al 1987), presumably **as the result of a bait bucket dump into Lake Pillsbury**. Mature Pikeminnow unfortunately prey on young salmonids in the Eel River system and are considered a major factor in salmonid decline.





Pikeminnow, which can reach a size of 4½ feet, feed on smaller fish and eggs. The Eel River is prime spawning ground for several threatened species of salmon, and the Humboldt researchers, along with others, believe the invasive pikeminnow is impacting those populations. Pikeminnow also consume juvenile steelhead.



SALMON EGGS

By Eel River Restoration Project

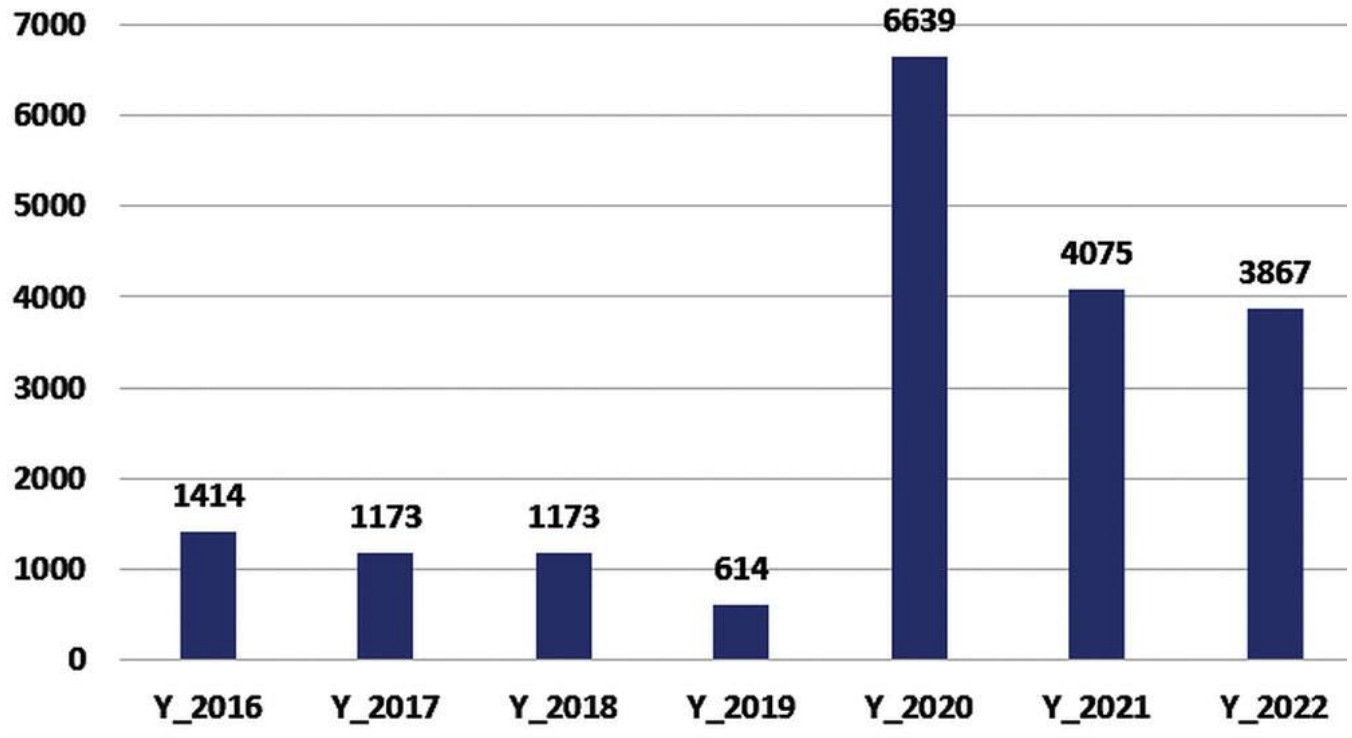
The seventh annual Eel River Recovery Project pikeminnow survey of a key reach of the South Fork Eel River took place on June 28th and 29th. Once again, the University of California, Berkeley, dive team proved strategic partners. Post-doctoral researcher Phil Georgakakos led a dive team that included undergraduates Michael Schweiker, Stella Stein, and Pat Higgins.



The two-day survey extends from the Hermitage at the mouth of Rattlesnake Creek to Standish Hickey State Park. The mid-point of the survey is Cedar Creek at the Gomde Monastery. Where the first day's dive ends, the second leg of the survey starts. Divers form a line as they swim through runs and pools and count as a team. Only pikeminnow over four inches in length are counted, with fish of different sizes recorded: 4–8", 8–12", 12–16", and greater than 16 inches. The larger the fish, the more likely that it predated upon juvenile native fish, including salmon and steelhead.

HERE ARE THE RESULTS OF THE PAST SEVEN YEARS

Pikeminnow Totals - SF Eel Index Reach 2016-2022



Pikeminnow over 4" long in SF Eel index reach from 2016 to 2022.

How do you remove these invasive pike minnows?

The state of Oregon has a good program paying fisherman to catch pike minnow. In California there have been Fish Derby with cash prizes. For some reason this was discontinued in California.

Although ERRP was turned down for a California Department of Fish and Wildlife permit to remove adult pikeminnow using trained spear fishermen, the Department is planning to allow removal using a weir to catch them when they migrate seasonally. The Wiyot Tribe, their consultants Stillwater Sciences, and UCB are partners in removal efforts that are slated to take place in spring 2023.



Rafael Cuevas Uribe and Andre Buchheister, professors of Fisheries Biology at Cal Poly Humboldt, were recently awarded a \$150,000 grant from CalTrout, a non-profit conservation group, to help eliminate the invasive species from the Eel River. They will be developing a genetic formula to produce more males.

Cuevas Uribe and Buchheister won't be dropping YY males into the Eel River anytime soon. The grant money will allow them to first study the method and develop the YY males in a lab on campus, with a population of about 200 fish. They say it will take some time to develop a population model to examine how effectively this approach could eradicate the invasive pikeminnow. If the models are successful, they plan to eventually introduce the modified fish into the river environment.