

DELTA NEWS JUNE 6, 2016 4:24 PM

Critical index finds smelt nearly extinct in Sacramento Delta

HIGHLIGHTS

Scientists estimate a mere 13,000 Delta smelt

'Nothing between them and extinction,' scientist says

Delta smelt a growing political flashpoint



Delta smelt kept alive in hatcheries like these fish photographed last year at the UC Davis Fish

Conservation and Culture Lab in Byron may be all that's left of the species. Fishery officials say Delta smelt this year plummeted perilously close to extinction. **Randy Pench** - rpench@sacbee.com

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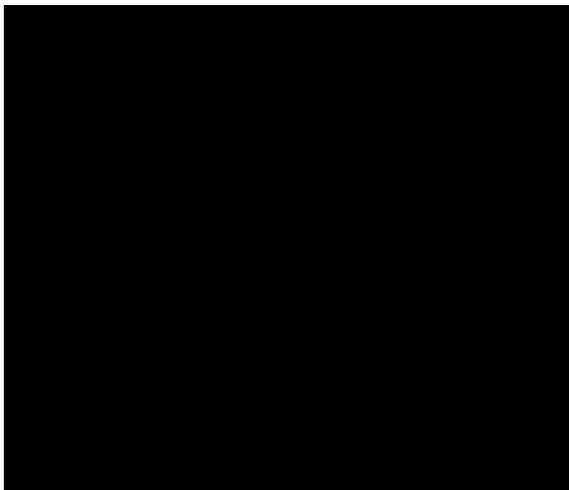
Delta smelt have hovered close to extinction for years, but biologists say they've never seen anything like this spring.

"There's nothing between them and extinction, as far as I can tell," said Peter Moyle, a UC Davis biologist who has studied smelt and other Sacramento-San Joaquin Delta fish species for nearly four decades.

Last week, the state Department of Fish and Wildlife released the results of spring trawling surveys that track adult Delta smelt. The surveys found just handfuls of fish across the huge area where they are known to spawn. The low catches were a marked drop from even the record low numbers of Delta smelt tallied in 2015's trawls.

Steve Martarano, a spokesman for the U.S. Fish and Wildlife Service, said the index is used in part to help biologists estimate the entire population of the fish in the Delta.

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Since the surveys began in 2002, the highest the Delta smelt population has ever been is about 600,000. Last year, the federal government estimated there were around 112,000. This year, biologists say there are likely just 13,000 fish, Martarano said.

“That’s alarmingly small for a fish that only lives for a year in a body of water as large as the Bay Delta,” he said.

Moyle said he remembers when he first started doing fish research in the Delta nearly four decades ago, and the smelt were among the most numerous fish species, numbering in the millions. He said that the low numbers now mean any sudden change to the smelt’s habitat – such as a sudden shift in water quality from a small pesticide spill – could kill off the entire population.

“It’s the indication that we’ve totally failed in our ability to manage Delta smelt to keep them from extinction,” Moyle said.

The Delta smelt, widely viewed as a bellwether species indicative of the estuary’s overall health, are an ongoing flashpoint in California’s water wars. In recent weeks, the fish has also taken on symbolic importance in the national political debate.

Each year, in response to stormwater entering the estuary, Delta smelt migrate up from the salty Suisun Bay to spawn in the estuary’s fresh water.

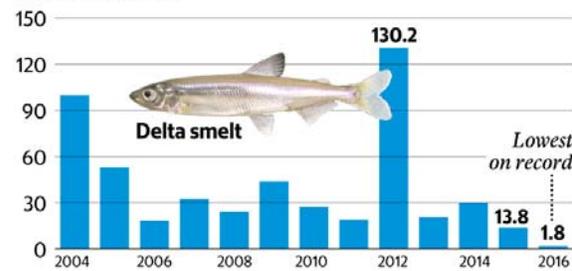
But the heavy storms that trigger these migrations are also when water agencies reliant on two giant pumping stations at the south end of the Delta say the pumps ought to be cranked on. The pumps deliver Sacramento Valley water to 19 million Southern Californians and 3 million of acres of farmland in the San Joaquin Valley.

This winter and spring brought high flows after four years of extreme drought, but regulators said they had no choice but to operate the pumps extra carefully because smelt were doing so poorly. Federal agencies are responsible for safeguarding Delta fish protected by the Endangered Species Act. Court rulings empower the agencies to govern Delta water flows, which often translate into pumping limits to keep fish from being harmed.

Delta smelt abundance

Scientists use trawl nets to survey smelt populations at many Delta locations. They report the results as an index of the number of fish relative to the volume of water sampled.

Spring adult index



Sources: California Department of Fish and Wildlife

The Sacramento Bee

When revved up, the pumps literally cause the Old and Middle rivers – sections of the San Joaquin River – to flow backwards. These “reverse flows” can confuse migrating fish and push them toward predators. Fish also can die as they follow the currents into pump intakes, despite the presence of screens designed to save them.

Officials with the fishery agencies say their decisions are grounded in fish counts, hydrological flows and other factors, but many of the water agencies that depend on the Delta pumps say the restrictions are based on faulty science and harming the economy.

This spring, Sen. Dianne Feinstein, D-Calif., and congressional Republicans pressured President Barack Obama to increase pumping. Some Republican presidential candidates also reacted scornfully to the pumping restrictions that they say led to water being wasted as it rushed out to the Pacific Ocean.

Speaking at a rally in late May in Fresno, Donald Trump said farmers were being needlessly harmed “to protect a certain kind of three-inch fish.”

“You have a water problem that is so insane,” Trump said to cheering crowds at a rally that drew thousands. “It is so ridiculous where they’re taking the water and shoving it out to sea.”

Before dropping out of the Republican presidential race, Sen. Ted Cruz of Texas also mocked environmental protections for the Delta smelt, saying “three-inch fish go great with cheese and crackers.”

Mike Wade, executive director of the California Farm Water Coalition, said the continued decline in Delta smelt numbers shows it’s pointless to curtail pumping without addressing other issues such as Delta water quality and habitat.

“Those things are the things that need to happen, besides continuing to reduce water supply deliveries to water users,” Wade said. “We’ve faced this for a decade, but what’s it gotten us? It hasn’t gotten us any more Delta smelt.”

Environmentalists counter that the declines are caused because people continue to take too much water out of the Delta ecosystem. In April, a group of environmentalists sued state and federal regulators alleging that in order to deliver more water to farms and cities,

regulators repeatedly relaxed Delta water-quality standards in the drought, to the detriment of wild fish.

“Even the standards that have been kept in place have been violated repeatedly,” said Kate Poole, an attorney at the Natural Resources Defense Council. “We’re just not providing these fish with better conditions.”

Should the species go extinct in the wild, there are two small captive populations of Delta smelt at hatcheries. One below the state’s Delta pumping plant is run by UC Davis. The other is at a U.S. Fish and Wildlife Service hatchery below Shasta Dam.

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Grant Klokeid 5 hours ago

Time to put a few of this minnows in a fish tank, capture their DNA, and let evolution proceed. Let the strong survive.

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Mike Wade 16 hours ago

It's clear that continuing to cut water supplies for 4,000 farmers and 25 million Californians will not improve the situation for the smelt—just as it has not improved the situation for decades. Instead of repeating the same ineffective action, we should turn our attention to projects like the one just approved by the Delta Stewardship Council's Habitat Restoration Plan, which will restore another 420 acres of tidal marshland in the Delta. Let's focus on this as well as efforts to improve water quality in the region, instead of repeating the same actions and expecting a different result.

Mike Wade
California Farm Water Coalition

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Robert Evans

17 hours ago

Is there a difference between "delta" smelt and any other smelt from any other body of water elsewhere in the country?

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Coner Estlic

17 hours ago

I wonder if the smelt go extinct if the battle over the delta water will go away. Somehow I doubt it. It never was about the smelt.

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John Giordano

17 hours ago

I thought I smelt something!

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