

DELTA IN DECLINE: PART 4

Delta fish crash remains a mystery

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The giant bucket rises from two stories beneath the concrete floor.

Like a huge colander, water spills from its sides to reveal hundreds of silvery, flopping shapes in an inky bath. Most are on their sides or upside down. Many are bleeding.

These are the fish -- more than 3,000 of them -- collected during the past 24 hours near the largest water pumps in the state.

Like the 15 million other fish "salvaged" here each year as part of the state system to deliver trillions of gallons of water to Southern California, these small striped bass, shad and other species were diverted through a system of screens and pipes to a pair of warehouse-like buildings on a windy plain below Altamont Pass.

In one of the buildings at the John E. Skinner Delta Fish Protective Facility, operators Doug Nolan and Mike Ford identify the fish by species, count them and drop them into a holding tank before moving them to a separate oxygenated tank on the back of a truck and hauling them back to the Delta.

"Most people think the water just flows down there. They don't realize all the work we have to do," said Nolan.

For decades, anglers and environmentalists worried about Delta fisheries have suspected that an enormous toll was being exacted by the state-owned pumps here and smaller federal pumps down the road.

Millions of fish probably don't survive the ordeal of being salvaged, they contend, and innumerable eggs, fish larvae and food sources too small to be captured by the screens are destroyed at the pumps.

So when scientists early this year confirmed that Delta fish populations had dramatically declined, they looked again at the pumps with suspicion.

"I think the problem is they pump so much water out of the Delta, they pump all the food out with it," said Joe Horn, a bass fisherman who has plied Delta waters for 50 years.

But scientists cautioned that the pumps were only one of a number of possibilities to explain the recent ecological crash.

Invasive species of clams, weeds and fish are markedly changing the Delta in unpredictable ways, and little is known about pesticides and other toxic compounds in the Delta.

Still, the pumps remain as suspects, because they could be either taking a greater toll on fish populations -- especially in the winter months -- or contributing to changes in the aquatic habitat.

And pumping has been relatively high in recent years. In 2000, the year the CalFed program was signed, the annual state and federal water deliveries from the south Delta topped 6 million acre-feet for the first time. Deliveries have topped that threshold three times since then.

The precipitous drop among the Delta's open-water fish populations began about 2002.

Last year, the Delta smelt and young-of-the-year striped bass populations hit record lows and do not appear to be improving this year. (Biologists say adult striped bass are faring better but cannot explain why.)

The primary index used to measure Delta smelt populations, for example, fell to 74 last year; during the 1990s that number ranged from a low of 102 to a high of 1,078.

For young-of-the-year striped bass, the index last year was 53 even though it has in most years been above 1,000. In 1967, the first year for which the index was calculated, the figure was more than 20,000.

Since the cause of the problem is unknown, it is unclear whether CalFed could have prevented it. However, the fish crash "raised questions about the effectiveness and prudence of some CalFed activities," according to a recent performance review by the state Department of Finance.

Other fish that had healthy populations in recent years have been hit just as hard by whatever is hammering the Delta.

Just ask Gene Buchholz, owner of the Hook, Line and Sinker bait-and-tackle shops in Oakley and Bethel Island.

"The threadfin shad have literally disappeared," he said.

This is the time of year he normally stocks up on the bait. In a typical fall and winter, Buchholz freezes 300 to 400 pounds a year to sell the following summer.

He has a standing order from one dealer for 30 to 40 pounds of threadfin shad every Friday.

"I haven't gotten any shad from him in three weeks," Buchholz said. "There is a definite problem. ... I can't get shad. They're gone."

The crisis in the Delta stands in contrast to the increasing number of salmon that are passing through the Delta. Salmon populations in spawn areas like the Sacramento River, Butte Creek, Clear Creek and other Northern California streams have increased substantially in recent years.

But success in salmon populations, which are less dependent on the Delta than the open-water species now in decline, has been overshadowed by the widespread fish crash.

Although confirmation of the three-year decline in the Delta occurred in January, it was not until a May 1 story in the Times that it received widespread attention. Since then, lawmakers have held hearings and \$1.7 million was dedicated to intensify scientific study of the problem.

The study's initial focus was on the pumps, invasive species and toxics, including pesticides in runoff. Last month, scientists set out two leading theories that will be further investigated next year.

Some critics have complained that CalFed's science program should have done more to address the fish crash earlier.

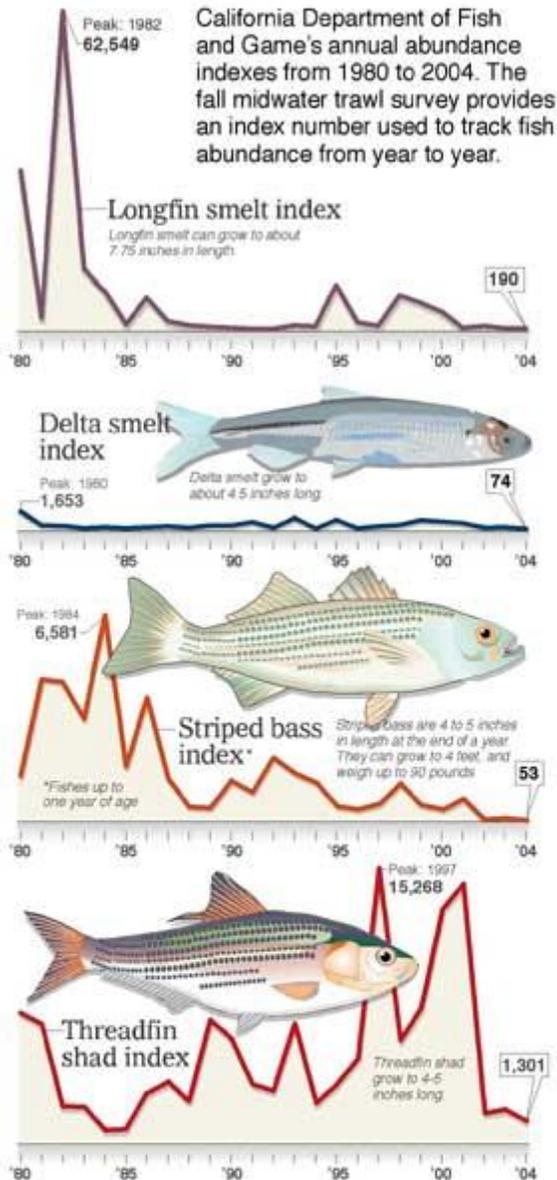
"It was advertised as something that would catch these problems at their early stages and move that information to decision-makers so they could solve problems before they became crises," said Steve Hall, executive director of the Association of California Water Agencies.

But the science program developed into a program that emphasized broad research efforts at the expense of more targeted scientific endeavors to help guide policymakers.

Greg Gartrell, an assistant general manager at the Contra Costa Water District, said that was one of the big problems with CalFed: money was spent on studies without a lot of thought given to how those studies would help make things better.

"You got nice things, but not the right things," he said.

Evidence of a crash



Possible culprits

- Massive pumps** at Byron and Tracy move Delta water to the Central Valley and Southern California. In 2003-04, Delta pumping increased to near-record highs. Only in 2000 was more water pumped out.

- Pesticides** from throughout the Central Valley drain into the Delta, and herbicides are sprayed directly into the Delta to kill weedy plants.

- Invasive, non-native species** of animals are reducing the amount of food available for the fish, contributing to the crash.



Sources: Calif. Dept. of Fish and Game;
 Calif. Department of Water Resources

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