Delta smelt population on the rise, survey finds

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The imperiled fish that has been at the center of California's water wars may be at its highest numbers in a decade, judging by the results of a recent survey.

Every month in the fall, state biologists tow nets in the Sacramento-San Joaquin River Delta, sampling for the threatened delta smelt to estimate the native fish's population. The September catch this year, though still small by historic standards, was the biggest since 2001, when the numbers of smelt and other delta fish started to plunge to dangerously low levels, triggering cutbacks to water customers in the Central Valley and Southern California.

Biologists attribute the uptick to a variety of factors, many tied to the surge of water that a wet winter and spring sent into the delta. Abundant flows in the smelt's only home meant more food, less competition from an invasive clam and less chance of run-ins with the huge delta pumps that export water south.

With three more months of sampling left, it's too early to say if the smelt count signifies a rebound for the species. "We'll see," said Roger Patterson, assistant general manager of the Metropolitan Water District of Southern California, which has been hurt by pumping curbs imposed to protect the smelt and migrating salmon.

Doug Obegi, an attorney with the Natural Resources Defense Council, called the September numbers "very, very encouraging."

"I think it does show that the species is not past the brink, and when we add water, the estuary does recover and the species does recover," Obegi said. He added: "It's politically easier to do that in a wet year."

Most smelt live for only a year. The fall trawls sample fish born in the spring that will spawn next year, so they are vital to the population.

The catch is used to calculate an abundance index. Last month's index was 50, compared with six in September 2010. The year before that, the September index was one, the lowest in four decades of collections.

Randall Baxter, a senior biologist with the state Department of Fish and Game, said no single factor could explain the jump.

Last winter, he said, adult smelt didn't congregate near the pumps, because of high flows from the San Joaquin River into the south delta and because "the fish just chose different locations to spawn in."

He also speculated that the large volume of water flowing into the delta diluted ammonia released from a Sacramento-area sewage treatment plant, boosting production of algae and organisms at the base of the delta's food chain.

The strong flows carried fish and larvae into Suisun Bay, which provides some of the best smelt habitat remaining in the much altered ecosystem. And they likely hindered the feeding and reproduction of an invasive clam that competes with smelt for food.

Baxter was hopeful that September's good news will last. "Because the water conditions have persisted, there is a good chance that we'll continue to see similar numbers of delta smelt through time this fall."

The year isn't just looking good for delta smelt. The numbers of several

other delta species, including longfin smelt and striped bass, are also up.