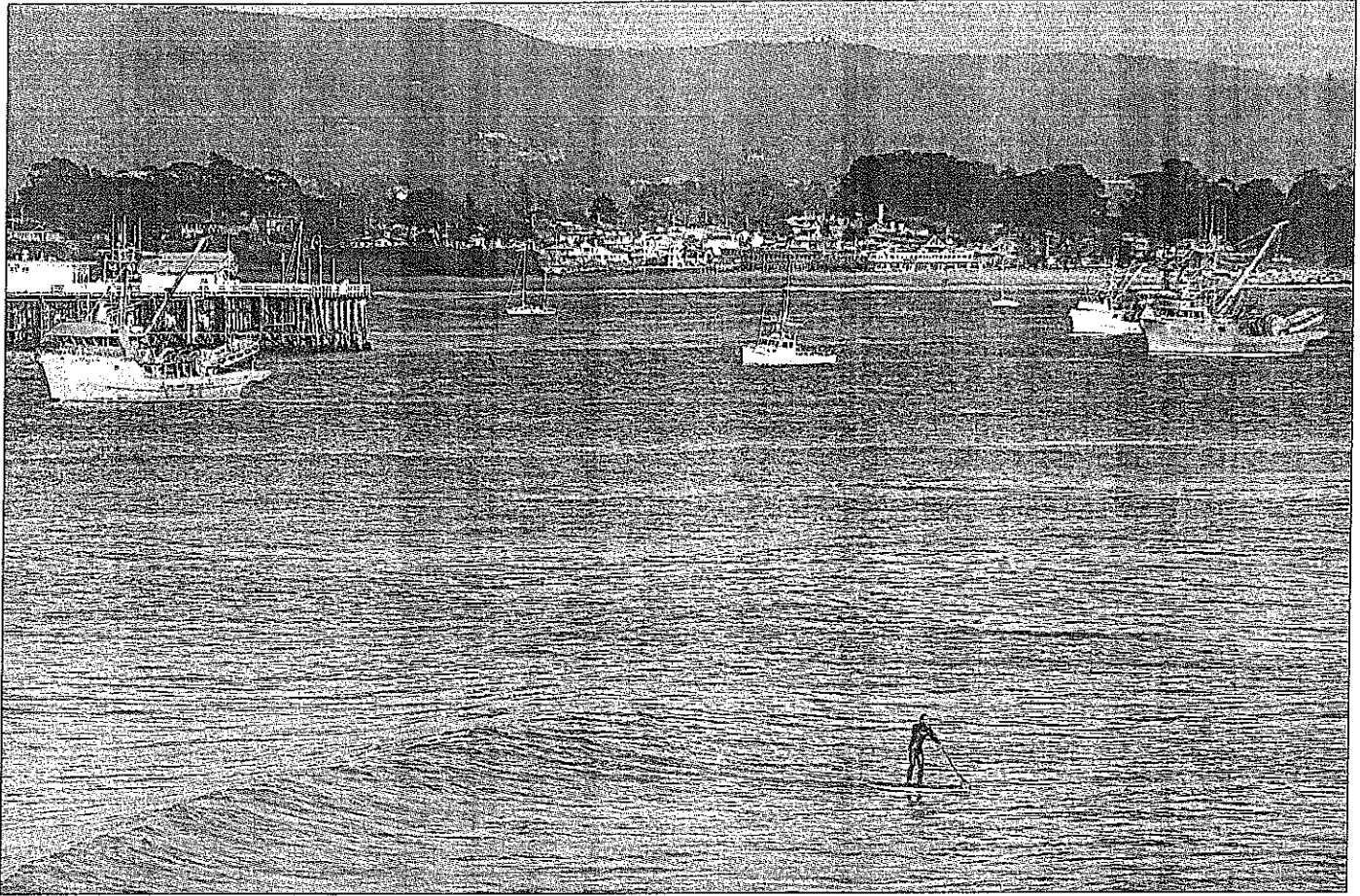


# EL NIÑO PUSHES CALIFORNIA CALAMARI LANDINGS DOWN



SHMUEL THALER — SANTA CRUZ SENTINEL

A stand-up paddler strokes past squid boats anchored off of the Santa Cruz Municipal Wharf.

## Market squid may be less plentiful or eluding fishermen

By Emily Benson

ebenson@santacruzsentinel.com  
@erbenson1 on Twitter

**SANTA CRUZ** » After several years of bounty, California's commercial landings of market squid — the species better known to hungry diners as calamari — are down by about two-thirds compared to this time last year.

The squid are responding to this year's El Niño conditions, scientists say, but whether their numbers are declining or they're

simply eluding fishermen is unknown, according to California Department of Fish and Wildlife environmental scientist Laura Ryley.

Commercial fishermen brought in about 114,000 tons of market squid last year, generating more than \$72 million. That was about 30 percent of California's commercial fishing income for the year, according to the California Department of Fish and Game. Fishermen landed about 107,000 tons by the end of October last year, compared to only about 34,000 tons by the end of October this year.

"When we look for squid during or shortly after El Niño events, we find less of them,"

said Louis Zeidberg, a professor at Cal State Monterey Bay.

El Niño conditions are caused by higher than average surface water temperatures in the Pacific Ocean, according to the National Oceanic and Atmospheric Administration. Those higher temperatures may be altering the briny buffet of krill and other small crustaceans that market squid eat, Zeidberg said.

"The simplest conclusion is that what these guys like to eat gets scarcer during El Niño years, and what is there is crap-pier," Zeidberg said. "They're most likely starving to death."

Fishermen typically catch market squid when they congre-

gate in shallow, near-shore areas to spawn. Some squid may be seeking out cooler, deeper water and evading fishermen in the process, said Ryley.

"We've had anecdotal reports from fisherman that they've gone deeper," Ryley said. "They're deeper than their fishing gear can reach."

But if market squid deposit their eggs in water that's too cold, the eggs might take longer than the typical two-week period to develop, said Stanford University biology professor William Gilly.

"Just because the eggs are out of danger doesn't mean they're not in another kind of

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stress," Gilly said. If eggs take more time to develop, hatchlings may emerge during the wrong season, and the next generation's life cycle may be thrown out of whack.

Another theory is that market squid move off shore, Ryley said, or they may not be as successful at spawning during El Niño years. There may be a combination of factors at play, Zeidberg said,

with some squid starving and the survivors swimming to deeper water.

The decline in market squid landings this year did not catch fishermen by surprise, said Diane Pleschner-Steele, executive director of the California Wetfish Producers Association.

"They know when El Niño comes they're not going to see squid," Pleschner-Steele said. "We're resilient, as long as the regulators allow enough flexibility for us to go from one fishery to another."