

Local salmon disappearing

Native species' survival uncertain

By JOHN ROBINSON
Sentinel staff writer

SANTA CRUZ — In January after an early run of native salmon was captured for breeding, hatchery workers hoped that the fragile local species would return in strength.

That optimism has faded.

Over the past three months, no more native salmon have been found, leaving biologists with an ever-dwindling supply of fish for breeding and to restock streams.

The salmon population in local streams, and along the entire West Coast has been plummeting, because of drought, habitat destruction, disease and marine mammal predation.

Steelhead runs were also at a historic seasonal low despite the return of heavy winter rains.

"We were hoping more (salmon) were coming in, but they didn't materialize," said Dave Streig, a biologist with the Monterey Bay Salmon and Trout Project. "They all came in the first slug."

By early January, 27 female salmon had been captured by project workers in the San Lorenzo River and Scott Creek, along with a smaller number of males. It was the best salmon return since the beginning of the drought in 1986.

The salmon have yielded about 20,000 young fish, now being incubated at the project hatchery in Swanton. Despite the prospect of releasing thousands of yearling fish to sea, biologists are concerned about a lack of genetic diversity.

For the past decade, the survival of the local species has been because of work at the hatchery on Big Creek. With minimal numbers of fish returning, the fish are increasingly inbred.

Inbred fish tend to be less hardy, more susceptible to disease and have lower survival rates, according to scientists.

"It severely compromises the genetic integrity of the fish and that's where we run into real serious problems," said Dave Hope, a county Planning Department employee who monitors stream and fish conditions. "It would have been a lot easier to salvage 10 years ago, but now the costs go up and the likelihood of success goes down."

Exactly how many salmon returned this winter is unknown, as some avoid the hatchery traps and spawn in the wild. Unlike pre-drought years, no wild spawning pairs were seen, leading biologists to believe few returned other than those captured.

"It's hard to tell because a lot of traps didn't hold during the rains, but the carcasses aren't showing up," Hope said. "Certainly it's not a tremendous number of fish. ... The wild production is almost zero."

Next year will be even worse, according to Streig, as the returning fish would be offspring of

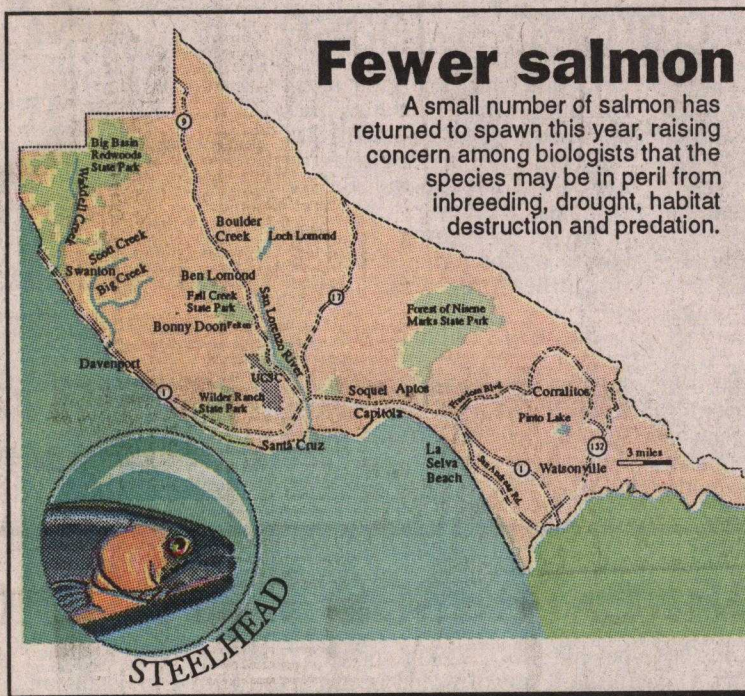
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Bill Lovejoy/Sentinel file

Richard Morgan readies a commercially caught salmon for weighing at the Small Craft Harbor last May.



Chris Carothers/Sentinel

Sea lions targeted in salmon losses

Culling program sought

By KATHERINE EDWARDS
Sentinel staff writer

SANTA CRUZ — Sea lions who have acquired a taste for salmon — and a knack for frustrating local fisherman — are on the hook with the county Fish and Game Commission.

The commission has invited fishermen and others to tell their fish stories — or how their catch ended up in the bellies of sea lions — to bolster a fledgling campaign to have the animal removed from protection under the National Marine Mammal Protection Act.

"We have this population that is out of control and they're homing in on stock that is threatened and there's nothing we can do about it," Commissioner Dennis Murphy said Monday.

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Salmon

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spawning pairs in 1990, a year when most streams never breached the coastal sandbars, and some, such as Scott Creek, all but dried up.

Salmon typically have a three-year life span, returning to spawn and die in the streams where they were conceived.

"This should have been the best year," Streig said. "It will be real poor the next two years."

Of the salmon captured this year, 80 percent had teeth marks from sea lions or seals, which prey on the fish as they school off stream mouths and in lagoons before rushing upstream.

All the fish were infected with a bacterial kidney disease that some biologists now think is a major cause of death once the fish reach the ocean.

To protect against it, all of the hatchery fish were inoculated against the bacteria. Whether that will succeed remains to be seen.

The plight of the local salmon is so extreme that it may be declared an endangered species by the state.

The county Fish and Game Commission petitioned the state in January to declare the local salmon endangered. A 90-day review period for the petition has just ended.

The state now can declare the fish unsuitable for such status, a candidate species, or declare it endangered under emergency measures.

According to Hope, the petition is getting a good reception by state officials, due to detailed doc-

umentation provided by biologists recording the dwindling numbers of local salmon.

"They feel very positive about it at this point," Hope said. "We have the data and they are very concerned about losing the southern end of the species."

Santa Cruz County marks the southernmost edge of the native coho salmon run. Only the San Lorenzo River, Scott and Waddell creeks still have native fish returning. Some salmon can be found as far south as the Big Sur River, but those are of mixed hatchery stock.

Some of the lowest steelhead runs in history also were recorded in local streams this year. Steelhead are an ocean-going trout that spawn in fresh water.

According to Hope, steelhead in the San Lorenzo River this year were probably numbered in the low thousands, if that many.

In the late 1960s, about 25,000 steelhead ran the river each winter. By the 1980s, that number fell into the low thousands, Hope said, and this year was the worst.

Hope and others had hoped that the return of the rain would mean more steelhead.

"I'm shocked more fish didn't come back," Hope said. "In the upper San Lorenzo there were stable gravel spawning beds, but the fish just weren't there to utilize them."

Many people consider salmon and steelhead indicator species that reflect the quality of local streams and water. Once the native strains become extinct, it is almost impossible to restock the streams with fish that will survive over time.

Sea lions

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In a flier that was distributed Friday, the commission cites a California sea lion population estimated at 140,000 last year, up from 10,000 in 1972, when the act went into effect.

With that increase, and the increase in other marine mammals such as the Harbor seal, the flier says, "It is doubtful if all these mammals warrant continued protection" under the act.

Additionally, it notes that "certain rogue mammals have a definite preference for steelhead and salmon, which is not considered their natural food." Locally, anchovies, whiting and squid make up most of the animals' diet.

With the act up for review this year, the commission is asking for personal accounts of the sea lions' effect on local catches.

The hope, Murphy said, is that fishermen will lobby state and federal agencies for some kind of culling program to help keep the population in check.

"There's only so many animals that can stay within a range without becoming a problem," he said. This year, Murphy attributes three-fourths of the salmon run lost in San Lorenzo River and Scott Creek to marine mammal predation.

"It's ridiculous to spend all this time and effort to restore streams, and then protect animals that are in a surplus population," he said.

Local sport fishing captains, who have been grappling with the problem for years, agree that their competition with sea lions has gotten worse.

Many people consider salmon and steelhead indicator species that reflect the quality of local streams and water.

"The other day, all seven fish hooked they took," said Emo Pieracci, who sails for Shamrock Charters. "... We were lucky we got four or five heads," he added, chuckling.

Pieracci said he's tried everything from killing the engines to painting the boat a different color to fool the animals.

This season, he said, fishermen have started keeping track of the fish lost to sea lions to get some sense of the damage done, he said.

"It's not getting better, it gets worse every year," he said. Weekend anglers who charter the boats "get kind of disgusted, they get a nice fish and all, they get ready to scoop it then there goes the sea lion."

Tim Zoliniak, who runs Santa Cruz Sportfishing, said he's lost 15 to 25 fish to sea lions in the past week and a half. On Saturday, one animal nabbed a salmon as it was being hauled into a net.

But, he added, "There's no need to kill them. There's got to be another alternative for dealing with the problem ones. They've just adapted to steelhead going up river, and salmon being hooked

on lines."

Krista Hanni, a biologist with the Marine Mammal Center in Sausalito, said El Nino weather patterns are partly to blame for the appearance of a larger sea lion population last year. Changing water temperatures drove yearling sea lions from Southern California up to Monterey Bay, probably looking for food, she said.

As a result, a large number of small animals were shot, she said. Under the protection act, only commercial fisherman with permits are allowed to shoot sea lions, and only as a last resort if the animals are substantially damaging their gear or their catch.

She said the perception that sea lions are taking more salmon may be skewed by the high number of sport fishermen in concentrated areas at peak times.

Removing the animal's protection and returning to culling, she said, would require eliminating a "large percentage" of the sea lion population to show even a minor increase in fish stock.

"Then the question becomes," she said, "what would you be gaining? Would it be enough?"