on a blind run to extinction?

Female population dwindles

By JOHN ROBINSON Sentinel staff writer

SANTA CRUZ — The proud runs of silver salmon that once flooded local streams may be gone forever, as the fish move a step closer to extinction.

Almost no native silver, or coho, salmon returned to spawn in local streams this winter despite the rains, leading experts to wonder if the strain can be saved.

"It looks real dismal right now," said Jack Harrell, a member of the Monterey Bay Salmon and Trout Project. "We should have had a big return. It should have been bet-

His comments came at a meeting of the county Fish and Game Commission Thursday night.

Only one native female salmon was recovered by hatchery workers to provide stock for future generations. If more fish don't return next year there may not be enough native fish to ensure their survival. Harrell said.

"There's one more year, one more chance for the fish," Harrell said.

Waddell and Scott creeks are the southernmost run of the coho salmon. Over millions of years, the fish has mutated into individual genetic species suited for each stream. The Santa Cruz County coho was particularly suited for the small local streams, but over the past 30 years has declined.

Experts blame lower water flows because of pumping from the streams, and a destruction of the gravel spawning beds from development.

This was a critical year for the fish. Tens of thousands werereleased from the Big Creek hatchery three years ago. They should have returned by the hundreds to local streams this year.

In Scott Creek, 15 salmon returned. None were females.

In Waddell Creek, 31 salmon, two of them females, were known

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to have returned. But shortly after they spawned, a series of storms flooded the creek and may have washed away the eggs, Harrell said

Only one female salmon was caught by hatchery workers in the San Lorenzo River. That fish, a Scott Creek fish raised in the hatchery and released in the San Lorenzo River, the lone survivor from which workers stripped eggs to produce future generations.

The female produced 1,000 eggs. None of the hatched fish will be released into the ocean. The native fish are now so rare, Harrell said, that any fry hatched will be raised in tanks at the Monterey Bay Aquarium or research laboratories in Carmel.

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"To release them would be death," Harrell said.

It has been a bitter winter for workers trying to save the fish.

The winter began with months of blue skies, warm winds and no rain.

For the sixth year in a row, streams like Scotts and Waddell

creeks backed up in their lagoons, lacking the muscle to push through the sand bars that blocked them from the ocean.

But by mid-February, more than 14 inches of rain fell in the Scotts Creek watershed in one month. Salmon and steelhead began returning, in some cases to high mountain streams where they hadn't been seen in 50 years. The return was deceptive, however.

"We already knew that something was wrong," Harrell said.
"The numbers just weren't there."
Harrell said he believes the fish

Harrell said he believes the fish are falling prey to sea lions and seals, whose populations have been growing steadily since the species' federal protection in 1972.

"The problem is definitely in the ocean," Harrell said. "We thought there might be a disease problem so we vaccinated the fish, but nothing we did made any difference."

Santa Cruz is not alone in its salmon troubles. The population for all species has plummeted from California to Washington.

The problem is so severe that regulatory agencies later this

month will consider a complete closure of all commercial and sport salmon fishing.

The causes for the dwindling runs of coho and Chinook salmon are due to a number of factors, one of which is the decline of the streams and waters which lead to the salmon spawning grounds.

Five years of drought, coupled with large amounts of water being diverted to agriculture have caused a major decline in salmon runs on the Sacramento, Trinity and Klamath river systems, federal regulatory officials say. Those rivers produce most of the king salmon caught from Monterey Bay to Southern Oregon.

Another factor has been an overestimation of the salmon population, which led to overfishing in U.S. waters, according to recent studies, and heavy takes by Asian fishing fleets.

But Harrell said the problem is marine mammal predation.

In Scott Creek up to 75 percent of salmon and steelhead had wounds or scars from sea lions or seals, Harrell said.