

The incredible journey: Salmon return after 200-mile upstream struggle

By Claudia Reed, Staff Writer

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Sex may be a good thing, but is it worth traveling more than 200 challenging miles, engaging in combat, and dying when its over?

Ask the Chinook (King) salmon who began showing up in Willits Creek in Brooktrails a week ago, eager to spawn and die.

According to marine biologist Scott Harris, the Chinook began their journey by forcing their way from the Pacific Ocean into the out-rushing Eel River near Eureka. After fighting the current for some 200 miles, they wriggled from the river into the outflowing creeks to struggle the remaining distance, bending over if necessary, to keep their noses under water.

"They were all over the place," said Brooktrails General Manager Mike Chapman, "more fish than I've ever seen in the five years I've been here!"

Far from resting after the journey, the males, in fierce competition for females, attacked one another, biting, thumping their tails against the surface of the creek, and leaping into the air.

"I've seen a big fish nose another fish completely out of the stream," Harris said.

The winner, however, doesn't always impress the female:

"I've seen where a big guy goes off after a little guy and she goes off with someone else."

The peaceful male wins not only the female, but a longer life, as well.

Fish in combat tire themselves out and shorten their lives, Harris said. A single male with single female would last two weeks longer.

Two weeks is a long time for a species with a three-year life expectancy. Spawning, which is followed shortly by death, generally takes place in three year cycles for the same population and its offspring.

"The fish that show up next year will be a completely different population," Harris said.

All of the returning fish, however, have a similar internal calendar, appearing in Brooktrails as early as Halloween or as late as mid-January.

It depends on the flow, Harris said, but the center of the spawning time is basically Christmas. It's usually only a couple of weeks.

Because of the short season for reproduction, it's crucial that sufficient water is available to move the fish when they feel the urge.

"What's helped," Harris said, "is Brooktrails is following closely what their water permit requires on bypass flows. And that's huge. That' huge."

Bypass flows are the amounts of water released into the creek, rather than retained in the reservoir, after the first rains of the season.

Another big boost to the fish population was the 1998 dismantling of Summer Lake, which had been created each year by damming Willits Creek. In 2001, the Brooktrails Community Services District authorized a major creek restoration project in the former lake area with the help of Ruth Goodfield of the Eel River Watershed Improvement Group, Joelle Geppart of the Regional Water Quality Control Board, a \$24,200 grant from the U.S. Fish and Wildlife Service and a \$24,296 grant from the Department of Fish and Game.

"They built 10 horseshoe ponds for spawning," Chapman said.

Restoration work also included installing digger logs designed to pivot in the current and deepen the channel; and planting willows to strengthen and redefine the creek banks and cool the water,

Allowing the creek to flow further cooled the water, discouraging competing species not native to the area, Harris said. Among the species that have since moved on are bullfrogs who eat endangered foothill yellow legged frogs, green sunfish and bass who eat little salmonids, and bluegills who eat smaller fish and compete with salmon and trout for available food.

Although the Chinook run through Brooktrails was impressive, Harris said the general level of Chinook return to this part of California was mediocre, much better than the years before salmon habitat protection was enacted, but not as good as it could be.

In all probability, salmon populations will never return to the levels reached before the arrival of non-native peoples on this continent. Early European explorers of Americas West Coast described creeks that appeared to be boiling with returning salmon.

The next big event for Willits Creek, Harris said, will be the arrival of steelhead (rainbow trout), who are expected in January. The steelhead, however, have a much shorter and less spectacular spawning ritual. They are also better camouflaged than Chinook, he said, a characteristic that hides them from both food hungry bears and photo hungry humans.

Coho salmon may or may not join the dance. Harris said a population of Coho showed up in the Outlet Creek watershed in 2001 after being absent for up to 20 years:

"They probably missed the south fork of the Eel. Now we have two or three possible brood years showing up here."

The mechanism that compels salmon, trout and other fish species to return to the place where they were born in order to reproduce remains a mystery.

HABITAT RESTORATION PROJECT	
PK	7429
Project Title	Willits Creek Salmonid Spawning Habitat Restoration
Lead Agency	Brooktrails Community Services District
Start Date	01/01/2001
End Date	
Ongoing?	Yes
Purpose	Decrease erosion/stream sedimentation; Improve spawning habitat; Improve stream flow; Increase pools; Increase riparian wildlife habitat; Increase shading; Increase stream bank stabilization/protection
Abstract	Restore portions of 5,765 foot section of Willits Creek by installing gravel beds, six vortex weirs, significant bank stabilizing, and riparian vegetation; beginning at the former Summer Lake Dam and extending to the Lake Emily spillway.
Project Type	On-The-Ground Restoration
Participant Info	Brooktrails Community Services District [Lead Agency-Cooperator-Funder (in kind = \$48,069)] Brooktrails Community Services District [Land Owner] Department of Fish and Wildlife [Cooperator-Funder (cash = \$24,296)] State Water Resources Control Board [Cooperator-Funder (cash = \$108,547)]
Contact Info	Kimberly Karcher California Department of Fish and Wildlife ----- phone: (916) 327-8849 email: kkarcher@dfg.ca.gov Robin Carlson California Department of Fish and Wildlife ----- phone: (323) 934-3934 email: rcarlson@dfg.ca.gov
Counties	Mendocino
Latitude	39.4376
Longitude	-123.3846
Size	5,765 foot
Location Info	Willits Creek
Habitats	Riverine
Resource Issues	Fisheries-Freshwater Stream Bank Protection
Species	Oncorhynchus tshawytscha (Chinook Salmon) Oncorhynchus mykiss (Steelhead Trout)