Half of Columbia River sockeye salmon dying due to hot water

July 27 2015, byKeith Ridler

More than a quarter million sockeye salmon returning from the ocean to spawn are either dead or dying in the Columbia River and its tributaries due to warming water temperatures.

Federal and state fisheries biologists say the warm water is lethal for the cold-water species and is wiping out at least half of this year's return of 500,000 fish.

"We had a really big migration of sockeye," said Ritchie Graves of the National Oceanic and Atmospheric Administration. "The thing that really hurts is we're going to lose a majority of those fish."

He said up to 80 percent of the population could ultimately perish.

Elsewhere in the region, state fisheries biologists in Oregon say more than 100 spring chinook died earlier this month in the Middle Fork of the John Day River when water temperatures hit the mid-70s. Oregon and Washington state have both enacted sport fishing closures due to warm water, and sturgeon fishing in the Columbia River upstream of Bonneville Dam has been halted after some of the large, bottom dwelling fish started turning up dead.

Efforts by management teams to cool flows below 70 degrees by releasing cold water from selected reservoirs are continuing in an attempt to prevent similar fish kills among chinook salmon and steelhead, which migrate later in the summer from the Pacific Ocean.

The fish become stressed at temperatures above 68 degrees and stop migrating at 74 degrees. Much of the basin is at or over 70 degrees due to a combination that experts attribute to drought and record heat in June.

"The tributaries are running hot," Graves said. "A lot of those are in the 76-degree range."

In Idaho, an emergency declaration earlier this month allowed state fisheries managers to capture endangered Snake River sockeye destined for central Idaho and take them to a hatchery to recover in cooler water. Of the 4,000 fish that passed Bonneville Dam on the Columbia River, less than a fourth made it to Ice Harbor Dam on the Snake River. An average year is 70 percent.

"Right now it's grim for adult sockeye," said Russ Kiefer of the Idaho Department of Fish and Game. He said sockeye will often pull into tributary rivers in search of cooler water, but aren't finding much relief.

"They're running out of energy reserves, and we're getting a lot of reports of fish dead and dying," he said.

Thirteen species of salmon and steelhead are listed as endangered or threatened in the Columbia River basin.

Don Campton of the U.S. Fish and Wildlife Service said fish congregating in confined areas trying to find cool water makes them a target for pathogens.

"When temperatures get warm, it does stress the fish out and they become susceptible to disease," he said.

Graves said that this year's flow in the Columbia River is among the

lowest in the last 60 years. But he said the system has experienced similar low flows without the lethal water temperatures. He said the difference this year has been prolonged hot temperatures, sometimes more than 100 degrees, in the interior part of the basin.

"The flow is abnormally low, but on top of that we've had superhot temperatures for a really long time," he said.