

The Dipnetter

June 2016

News of the River from the
Columbia River Inter-Tribal
Fish Commission

Addressing Climate Change



Increasingly erratic weather systems are changing the harvest time frame for First Foods harvests and making salmon runs unpredictable. Photo courtesy NASA.

Many tribal elders have been sharing how they have noticed the change in harvest times of our traditional First Foods (water, salmon, Pacific lamprey, wild game, roots and berries) from when they were younger. Roots are coming on earlier and earlier, and as a result tend to be smaller. Productive berry fields are shifting to higher and higher elevations. And salmon runs occur at very different times than they had in their memories. All these shifts point to the very real and very troubling fact of climate change. While naysayers argue that nothing is happening, the people who are out on the river, in the berry fields, and the root digging grounds tell of these changes having witnessed them firsthand.

While climate change affects all the First Foods, CRITFC's work obviously focuses on how it will affect fish and the watersheds in which they live. And to be frank, the picture is not very good. For a species dependent upon cold, fast moving water, the changes that climate change bring will be a disaster. As the region warms, winter snows instead fall as rain and what snow does fall melts earlier. This results in the water traveling through the system during the winter, leaving much less during the hot summer months. The increased winter flows scour the

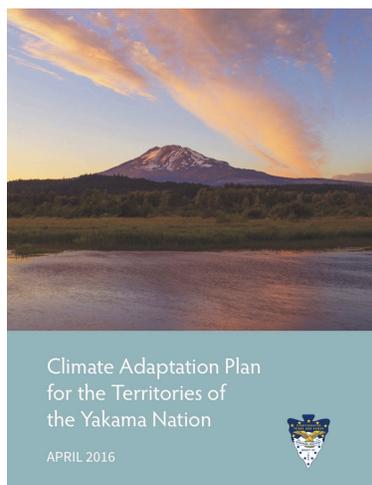
riverbeds, disturb nests, and cause physical damage to both salmon eggs and juveniles, while the lower summer flows increase water temperatures further and reduces the overall habitat available to salmon. In the winter, salmon eggs are hatching too early, and in the summer, stream flow and salmon migration patterns are shifting earlier and earlier. The warmer summers will place an increased demand on the hydrosystem to power more air conditioning, which would mean decreased spill to aid salmon smolt

migration. These effects are compounded by ocean acidification due to increased carbon emissions in the atmosphere. The years of collaboration, hard work, and millions of dollars spent on restoring salmon populations could all be undone by an ecosystem rendered inhospitable by climate change.

Last month, the Yakama Nation released its Climate Adaptation Plan. The introduction states:

"Climate change is real and, unfortunately, the effects appear to be in motion. We are witnessing changes in the seasons. Our

roots and berries must be gathered sooner, and salmon returns are less predictable. Our people notice less snow in the mountains now, and there is less cool water during the summer when it was once



abundant. The changes we see may not bode well for our future. Over the years to come, we may lose natural resources that are important to our culture and our heritage. Some of these losses may be irreversible.”

Global climate change is a direct threat not only to ecosystems but the human cultures built on them. Climate change will affect everyone, but the tribes will feel a particular sting, as the very foundation of our cultures is based on respect for and wise use of the natural resources the Creator has given us. While we seek ways to influence national and international responses to reverse climate change, as individuals and communities, our task will be to try to understand what to expect in an altered environment and how to prepare for it in a way that perpetuates our culture.

A fundamental teaching from the native peoples of this continent were to make decisions with the seventh generation in mind. Another was that it is humanity’s duty to be the voice for the earth and everything on it. Climate change happened because people didn’t abide by these two teachings. The native peoples of the Americas have taught the world many things, but it is imperative that it learns these two teachings in order to stop harming the earth and its climate and to provide the will to carry out the difficult task of undoing the damage that has already been caused.

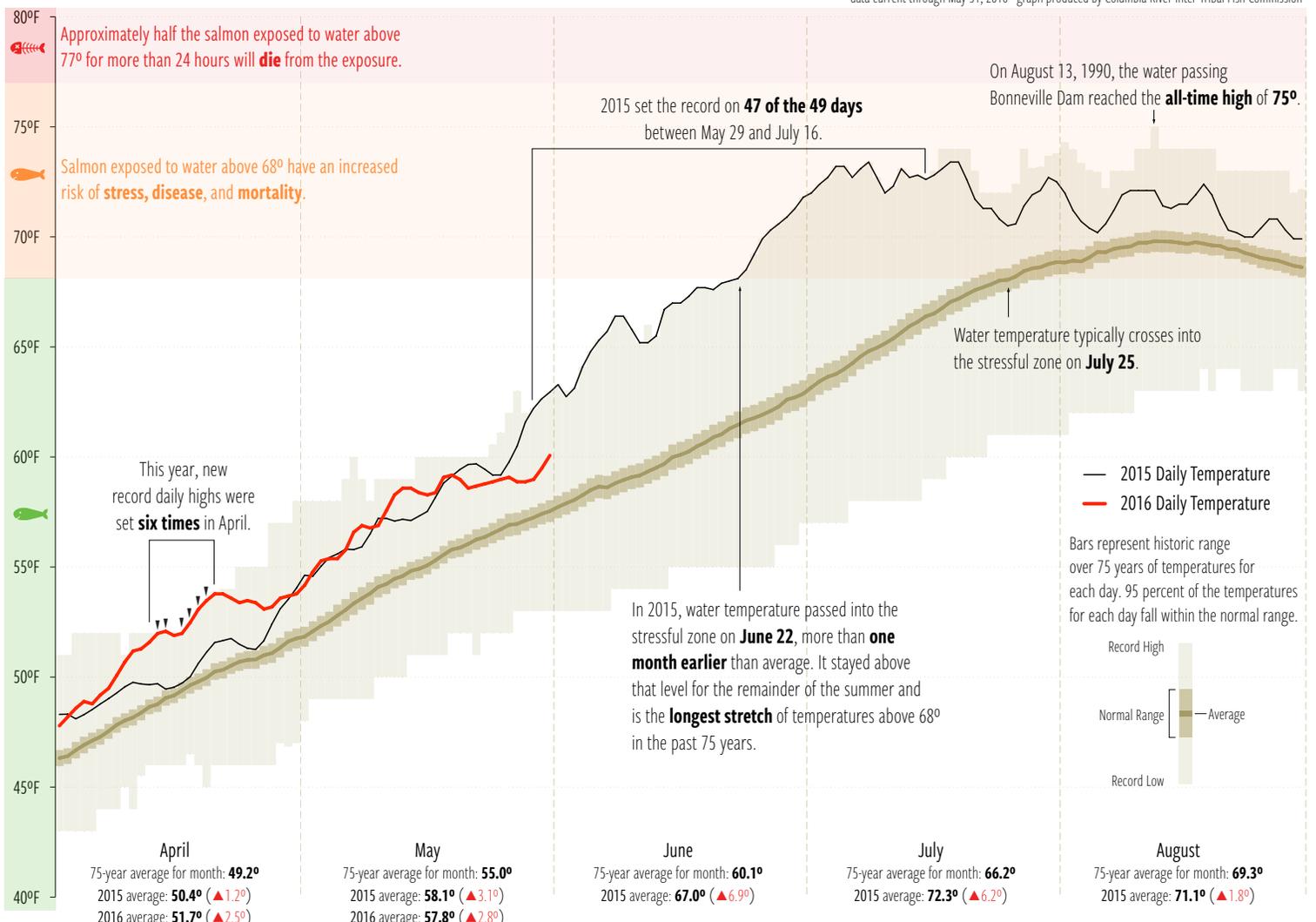
Learn more about this issue and how the tribes are trying to prepare for the effects of climate change on the rivers and fish of the Columbia River basin at www.critfc.org/climate. 🏹

One effect of climate change is winter precipitation falls as rain rather than snow. Normally, this snow would melt over the course of the summer, providing water and cooling down the river system. Higher river temperatures are becoming the new normal, which is dangerous for salmon and other fish species that require cold water. Below is a temperature graph for April through August at Bonneville Dam. Last year saw nearly 50 daily records broken for river temperature, and this year is unfortunately following a similar trajectory as last year.

Water Temperature Passing Bonneville Dam from April through August

uses data from **1940 through 2016**

data current through May 31, 2016 · graph produced by Columbia River Inter-Tribal Fish Commission



Spring Fishery Update

by Stuart Ellis, CRITFC Harvest Specialist

The spring season is ongoing. For fisheries, the spring management period ends on June 15. Those who look at dam counts online will notice that the Corps of Engineers uses its historical spring counting period, which ended on May 31. This can seem confusing, but we simply include the first 15 days of counts in June for fishery management purposes. The pre-season forecast of upriver spring chinook was 188,800 at the river mouth. The actual run has come in pretty close. We currently expect the spring chinook run size to be 184,000 at the mouth. This run size will be updated a couple more times, so it could change slightly. The amount of fish available for the tribes to catch is based on the actual river mouth run size.

The tribes authorized Zone 6 commercial platform and hook and line fisheries. Three tribes set a commercial gillnet fishery from May 25-27. Any additional gillnet fishing in the spring will depend on how the first opening did and if there are enough fish left to catch while keeping the Zone 6 platform fishery open.

The pre-season forecast for summer chinook is 93,300, which is large. The sockeye forecast is 101,600, which is well below the run sizes in the past few years. The sockeye harvest rate is limited to 7 percent, though, because of the status of the Snake River sockeye. There still should be good opportunities for commercial fishing in the summer season though. 🏹

CRITFC Fish Counts Webpage Improved for Mobile Devices

The CRITFC website was updated this month to improve how the daily fish counts are displayed on smartphones and tablets. The new design features larger numbers that will be easier to read and navigate for fishers out on the river. The counts page is www.critfc.org/counts. Bookmark this page for quick and easy access.

If you have any suggestions on how to improve this system, or other information that would be useful, please contact Jeremy FiveCrows, CRITFC webmaster at croj@critfc.org.

Data from all Columbia and Snake dams with fish passage are available. Bonneville Dam is the default Use the dropdown menu to select a different dam.

Graph shows current chinook run. It displays the 10-year average (light blue area), last year's daily count (blue line), and this year's count (orange line).

Beneath each species, the current total is shown, along with a comparison with the 10-year average total for the same day.

Tap on any species to see the previous four counts.



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Warm Springs



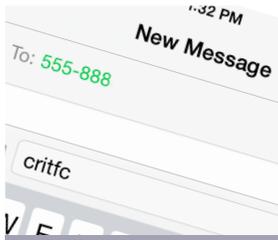
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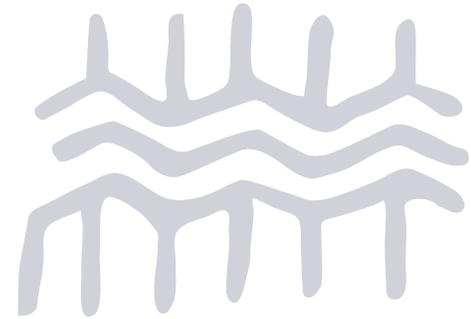
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*Yakama • Warm Springs
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Cascade Locks Water Issue

A controversial proposal to transfer public water rights in Cascade Locks, Oregon has been met with strong opposition from the Warm Springs and Umatilla tribes as well as the public. The rights to water from Oxbow Springs are currently held by the Oregon Department of Fish and Wildlife for its Oxbow Fish Hatchery, where it is used to benefit the rearing of salmon that support Columbia River fisheries and recovery efforts throughout the basin. Under the proposal, a portion of the water rights would be permanently transferred from ODFW to the City of Cascade Locks, which hopes to sell the water to Nestlé Water, a commercial business hoping to bottle 100 million gallons of the water annually.

The Warm Springs Tribe expressed their concerns to Oregon Governor Kate Brown, stating, "Water quantity and quality and hatchery operations are of paramount importance to ongoing treaty-based rights..." The letter also reiterated the importance of evaluating water use for all its beneficial uses—including fishery and natural resource management purposes—and not to just focus on its economic value.

Warm Springs Tribal Council Chairman E. Austin Greene, Jr. stated, "These factors are not only reasonable to evaluate, but

of critical importance for ODFW's proposed water transfer, particularly in the context of climate change and the potential for changing hydrographs and more frequent droughts and dry years."

In addition to the tribal opposition, a broad coalition of public groups have also been working to prevent selling the Oxbow Springs water since Nestlé began seeking to bottle water there seven years ago. Most recently the issue was presented to voters in Hood River County, where a measure to ban large water bottling operations in the county passed with 68 percent of the vote.

Despite the passage of the ballot measure, which supporters had hoped would effectively block Nestlé's plan, proposal backers are now looking for ways to circumvent the county ban. The water rights transfer that is currently proposed was structured using a method that avoids any public interest review, including any tribal review or input. This ignores tribal co-management authorities that all four Columbia River treaty fishing tribes in the area.

At CRITFC's May meeting, the Commissioners directed CRITFC staff to conduct research in support of the member tribes' efforts in this matter. The direction reflects the tribal priority of protecting tribal treaty rights as well as the public interest now, and importantly, for future generations. 