SIERRA Palouse News

Newsletter of the Sierra Club Palouse Group Serving SE Washington and Central Idaho

Spring 2021

Snake River Salmon and Steelhead Revisited by Rich Alldredge

The struggle to save endangered Snake River populations of salmon and steelhead continues despite decades of studies and the investment of hundreds of millions of dollars. I want to use the perspective of the 4 H's to look at the situation for salmonids now. As many of you may know, the 4 H's stand for the intertwined dimensions of Habitat, Harvest, Hatcheries, and Hydro. Each of these areas represent part of the problem and part of the solution in the struggle to save the salmon.

Habitat: Human caused degradation of salmon habitat in streams, small rivers, and even the main stream of the Snake River, is commonly cited as a cause for decline in salmon populations. Activities such as mining, grazing, logging, agriculture, and urbanization have drastically altered the natural landscape. Habitat restoration projects totaling 100s of millions of dollars per year are funded by conservation organizations, state and federal governments, and private organizations have made measurable improvements in habitats that do enhance salmon survival rates and abundance.

Harvest: In the past, unlimited harvest rates for wild salmon and steelhead caused catastrophic declines in many populations. Now tribal, sport, and commercial harvests are highly regulated to limit impact on endangered stocks. The tension created by having more demand than availability of fish is due, in part, to past mistakes in fishery management.

Hatcheries: The hypothesis that hatchery production could save endangered wild species of salmon and steelhead from extinction has not been supported by evidence. Hatchery fish can replace wild fish that have been extirpated, but there are problems when hatchery fish are used to supplement existing wild fish populations. Hatchery fish can compete with wild fish for habitat, food, shelter, and reproduction. There is evidence of genetic dilution of wild stock by hatchery fish that reduces fitness of wild fish. When hatchery fish return from the ocean, they tend to stray into non-natal tributaries more often than naturally produced fish, so they interfere with success of non-target populations. *(See Salmon and Steelhead, pg 2)*



Yes. The Hwy 95 Thorn Creek to Moscow Re-alignment is Still in Limbo: by Al Poplawsky

The Palouse Group of the Sierra Club has been a member of the Paradise Ridge Defense Coalition (PRDC) since the early 2000s. The main goal of PRDC has been to achieve an environmentally responsible route for this highway project. For over twenty years the Idaho Transportation Department (ITD) has pushed forward a route (E2) which climbs high on the shoulder of Paradise Ridge and threatens some of the last vestiges of the Palouse Prairie Ecosystem, while PRDC has continuously advocated for a re-alignment that more closely follows the current highway footprint (C3). In its initial lawsuit, PRDC forced ITD to conduct an Environmental Impact Statement (EIS) for the project, which then took about ten years to develop. PRDC subsequently sued over the environmentally-damaging, selected EIS alternative (E2) and narrowly lost in court. The final legal step for ITD has been to obtain a clean water permit from the U.S. Corps of Engineering (USACE). This permit is required before dredged or fill material may be discharged into waters of the United States. Although the permit is usually obtained during the EIS process, it was not in this case, and ITD has now spent several years working on it. Part of the problem is that as clearly shown in the EIS, E2 is the "most" environmentally damaging alternative considered, whereas USACE regulations require granting of the permit only to the "least" environmentally damaging alternative. Thus ITD has been working hard to change its analysis of wetlands along the routes to make E2 look less, and C3 more environmentally damaging. The PRDC is more than ready to respond to such mischief in court if needed. As always - stay tuned.

Chair's Corner

by Al Poplawsky

Well the pendulum has swung back to the left in a big way, and over the next few years there should be ample opportunity at the federal level to make significant gains for the environment. Several of the articles in this issue are on topics that stand to benefit from these political changes. Rich Alldredge details all the approaches that have been tried over the years to save Snake River salmon runs and concludes that the only remaining likely solution to try is removal of the four Lower Snake River dams. I talk about our efforts in 2020 to get Moscow committed to 100% clean, renewable energy as a local way to approach greenhouse gas pollution. Finally we hear about Idaho Transportation Department's latest Hwy 95 re-route shenanigans.

We are very lucky to have some excellent, new candidates running for our ExComm this year, so DON'T FORGET TO VOTE AND SEND IN YOUR BALLOT!

Salmon and Steelhead (Continued from Page 1)

Also, when hatchery fish are harvested, some endangered wild fish are also caught and, even if immediately released, suffer harm in the process.

Hydro: Efforts to reduce the impact of the Snake River Hydro system on salmon and steelhead include transporting juvenile fish downstream in trucks and barges, guiding juvenile fish away from turbines and into bypass systems, and spilling increased amounts of water at times to aid migrating fish on their journey to the ocean. Transporting fish would seem to be logical because the mortality due to migrating in river and encountering four Snake River



dams as well as four as four Columbia River dams could be eliminated. Recent estimates indicate approximately 52% survival for fish migrating in river and over 95% survival for fish transported by barge. However, barged fish suffer increased mortality in the estuary and ocean compared to in-river fish, so they do not survive to adult stage any better than in-river fish. Complex and expensive modifications to dams to increase survival of downstream migrating fish have had some success, but with each of the dams contributing to mortality, the overall survival is not sufficient to avoid extinction of endangered salmonids. Recent tests have been conducted to determine whether increasing spill at dams would aid juveniles in migrating downstream due to more water bypassing turbines and to increased river flow. A concern with this strategy is that increased spill raises the incidence of Gas Bubble Disease (GBD) which can be fatal to fish. Results from the increased spill strategy are being investigated. One other recent study should be mentioned. The study (Welch, Fish and Fisheries, Vol 22, Iss 1, pp 194-211) noted that other populations of salmonids from rivers without dams in the Pacific Northwest are also in decline, so the authors conclude that dams may not be one of the main problems for salmonid survival. The overall implication is that other sources of mortality are causing salmonid population declines. These results are under critical review the region for study design, analysis methods, and conclusions. I would like to point out that the study looked at populations of salmon such as from coastal streams in Oregon and Washington and the Frazier River in British Columbia that may be different enough from Snake River populations to negate the effectiveness of the comparison.

When we reflect on regional activities to improve Habitat, Harvest, Hatchery, and Hydro related impacts on productivity and abundance of salmon, it is obvious that none of these efforts have been adequate thus far. It may be time to remove the four lower Snake River dams, as stated by Joseph Oatman, Deputy Program Manager and Harvest Manager for the Nez Perce Tribe's Deptof Fisheries Resource Management: "It is one of the very few actions left to try that will provide major, positive improvement for these fish" (Moscow-Pullman Daily News, Tuesday January 5, 2021).

BREAKING: IDAHO REPRESENTATIVE PROPOSES PLAN TO SAVE OUR SALMON

US Rep Mike Simpson (R-Idaho) has released a proposal to restore abundant salmon and steelhead to our region that also strengthens our Northwest communities. See Simpson's website for more info at https://simpson.house.gov and stay tuned for updates! III commitment to 100% clean energy!

Moscow RF100 Gaining Momentum!

by Al Poplawsky

Sierra Club's RF100 is a program to help cities, other municipalities and states to commit to and achieve 100% clean, renewable energy. A switch to 100 percent clean energy will eliminate our global warming emissions while at the same time save billions of dollars in health costs caused by dirty fuel combustion and stimulate our economy. Nationwide, almost one third of the population lives in communities that have already committed to 100% clean energy, and in Idaho, Boise and several other cities have also made the commitment.

In Moscow, things are moving forward. The Palouse Group has over 200 signatures on the petition (https:// addup.sierraclub.org/campaigns/ready-for-100-cleanenergy-in-moscow-idaho) urging the Moscow city council to commit to 100% clean energy for our community. We are also working with the Moscow High School Environmental Club on a campaign to get local business names on an RF100 sign-on letter of support. High school students have sent letters to over 50 local businesses and are working on follow-up calls. They also have a Moscow RF100 sticker for businesses who sign to put on their doors or sales counters. This should generate even more interest.

In addition, we are participating in the City of Moscow Climate Action Working Group which was formed in response to our RF100 presentation to the city Sustainable Environment Commission. The CAWG has recently completed a local effects analysis with help from two regional climate scientists. The analysis has been sent to the Mayor and city council members along with a letter explaining the proposed activities of the CAWG, one of which is advocating for a 100% clean energy commitment from the city. The CAWG is also planning a public meeting on its activities for early in 2021.



We also have developed a resolution to commit to the powering of Moscow with 100% clean energy by 2045. This resolution currently has the support of the CAWG and the Moscow Sustainable Environment Commission, and the next step is to have it approved by the city council.

Finally, we are currently conducting two on two meetings with city counselors to make a short presentation on RF100 and gather their input on the resolution.

Covid-19 has slowed but not halted our progress. Hopefully 2021 will be the year that Moscow makes the

Executive Committee Election, Palouse Group of the Sierra Club

All Sierra Club members in the Palouse Group are eligible to vote in this election and run for a position on the Executive Committee. Please return your ballot within 30 days of receiving the newsletter.

Rich Alldredge : I have been a member of the Sierra Club for over 40 years. I have served on PGSC ExComm on and off for many years as my work and family life

allowed. Now that I am retired from my position as Professor of Statistics at WSU I have more time to devote to hiking, backpacking, and XC skiing, as well as conservation issues. I am particularly interested in scientific issues surrounding salmon restoration efforts. I would like to continue to serve on the ExComm of the PGSC.



Michael Jennings: I was appointed to fill a vacant position on the Executive Committee of Palouse Group of the Sierra Club a few years ago. I accepted the



appointment because over my years as an ecologist and biogeographer it was inevitable that I would become a climate scientist focusing on bioclimate and the effects of climate change on ecosystems, landscapes, and species including Homo sapiens. A couple of examples of my work are "Climate change and ecosystem composition

across large landscapes" in Landscape Ecology, and "Climate Disruption: Are We Beyond the Worst Case Scenario?" in Global Policy. Knowing what I know as a scientist, I am compelled to contribute to the important work of the Palouse Group of the Sierra Club in doing what needs to be done to achieve a sustainable planet.

Note: Each member of a joint membership may vote,

Lynne Nelson: I am a veterinarian of 30 years that specializes in cardiovascular diseases. I have been with WSU for 20 years. Besides teaching brilliant vet students, I study heart issues in animals, especially wildlife/ bears.

As an example, I have identified that hibernating bears can modify the way the heart chambers contract to save energy. Bears have the flexibility to alter the contractions, as they need to transition from one season to another which may provide some adaptability to their rapidly changing environment. Much of my energy recently has been devoted to Asiatic



black bears in China, investigating the high prevalence of a (considered rare) heart condition in these bears. This problem appears to be strongly linked to their prior life on bile farms. I work with a non-profit group based in China that strives to protect these endangered animals and raise public awareness regarding the health and welfare concerns caused by bear bile industry. I love working on 'big picture' problems in our world that needs strong advocates. I am an ardent backpacker and wilderness defender. I would love to team up with the Palouse Group board to work on big issues that we are facing.



Palouse Group Sierra Club

each using one of the two columns. Please tear off ballot and mail within 30 days to:	POB 9932 Moscow, ID 83843.		
For Executive Committee (vote for up to three):	Voter 1	Voter 2	
Lynne Nelson			
Michael Jennings			
Rich Alldredge			



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