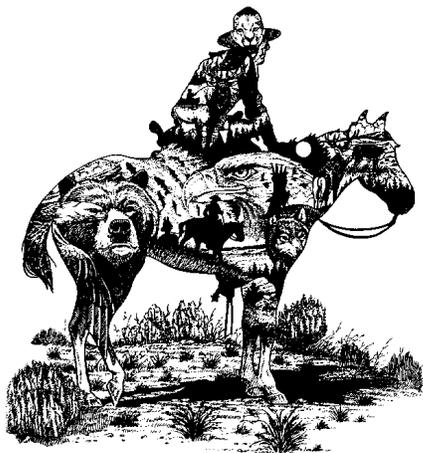


Society for Range Management Pacific Northwest Section

Properly functioning ecosystems provide for long-term sustainability of watersheds, plants, animals and people
Volume 65, Number 3 November 2014



President's Message

Pete Schreder, Lakeview, Oregon

NEWSLETTER

It is an honor to move into the role of president of the Society for Range Management, PNW Section. I appreciate the hard work and dedication that **Richard Fleenor** has provided as he worked his way through the ranks. Richard, we appreciate all you have done for our section; I look forward to your wisdom as you move to Past President. I am humbled to see the names of the past presidents of our Section, and realize what an honor and responsibility this position is. Special thanks to two outgoing directors, **Julie Conley** and **Maura Laverty**; we appreciate your service and look forward to your continued involvement. Because of a shift in our vice presidency, I was fast-tracked from 2nd vice president to vice president and now to president, leaving two positions to be filled. Welcome to **Tim Deboodt**, our new vice-president and **Sandra Wyman**, our 2nd vice-president. It will be an honor working with these two individuals throughout the year. Welcome our two new directors, **Sonja Leverkus** and **Jamie McCormack**. We appreciate your willingness to serve on our board of directors.

I could not attend the annual meeting in Kamloops, BC, but I appreciate Richard providing this meeting overview. "Thanks to the SRM members who organized the 2014 Kamloops meeting: **David Borth, Wendy Gardner, Vic Wright, Rae Haddow, Alf Bawtree, Bob France, Wendy Hayes, and Laila Salm**. We were treated to an exceptional Thursday and a truly remarkable Friday. We learned all about salmon, their life cycles and

mating habits; evidently they're determined to have sex even if it kills them. Lee Hesketh showed how agencies, local conservation groups, companies, and individuals come together to rehabilitate large stretches of riparian and stream habitat by utilizing the Riparian Interface Stewardship Program. Lee has made a tremendous impact using the program. We learned that grassland hydrology is a bit more complicated than you thought. We heard about cooperative efforts of managing community watersheds. When it comes to protecting water you'd be surprised which groups see eye to eye. Our Friday field trip took us to see the largest salmon spawning run in years. Thousands of bright red sockeye salmon filled the Adams River from shore to shore. It was truly a sight to see. Someone remarked, 'This should be on everyone's bucket list.' I definitely agree."



I participated in the Board of Directors meeting via conference call; here's a quick recap of key points. 1. Membership is a concern; we are always looking for ways to attract new members. Thanks to Richard for setting up a booth to share SRM information at the recent Ecological Society meeting in Oregon. We welcome your ideas and efforts to help attract interest in SRM.

Continued on page 2 . . .

PNW SRM's 2014 Autumn Workshop & Annual Meeting

Sedges to Salmon: Hydrological Science behind BC Rangelands

PNW 2014 Awards

by John Buckhouse, PNW Awards Chair, Emeritus Professor of Rangeland Watershed Management at OSU.
He continues to lead field workshops and teaches "off the cuff".

Trail Boss Award to Bob France! In SRM since 1981, Bob has served as Director & President of PNW, and Co-Chair of the 2006 International Meeting in



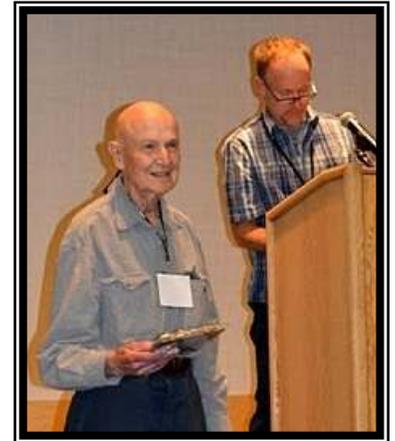
Vancouver, BC. While working in the BC Ministry of Agriculture, he provided services in rangelands, grain, forage and livestock. With the BC Cattlemen's Association, Bob was the Provincial Operations Manager. Being honest in all things of natural resources, he has educated everyone, from school kids to multiple generation landowners. Bob believes in what he is doing, cares about the important things, and always has reasons to smile. He and his family are avid outdoors people, all within a natural resource/ rangeland backdrop.

Exemplary Service Award to Wendy Gardner!

She does it all. Wendy conducts research and teaches at Thompson Rivers University. She is wife, mother and athlete. As an active member of the PNW SRM, she has organized field workshops, symposia and tours, and currently serves as director. She inspires her students to be the best they can be and she has both graduate and undergrad students who have made lasting marks - for the better - on BC grasslands. Wendy is a tireless worker for land improvement, and the sort of teacher each of us wish we had had when we were in school!



The Jim Brunner, "In for the Long Haul" Award to Bob Leonard! Bob joined SRM in 1951, and has been active ever since; he served as budget director and craftsman for award plaques "forever"! He rarely misses a PNW technical tour or meeting. Bob worked for USFS and BLM until his first retirement in 1982. Next he worked with Noxious Weed Control until his second retirement, then for Nature Conservancy until his final "retirement" in 1995. As a longtime member of the Experimental Aircraft Association, he has piloted experimental aircraft and gliders, and is currently helping build another experimental aircraft. And, Bob is in a Master Theater group! Bob Leonard is indeed in for the long haul!



Award photos taken by Bob Gillaspay

President's Message *Continued*....

2. Richard and I are drafting a letter to the Parent Society in response to concerns raised about the review and submittal process for publishing in the *Journal of Rangeland Ecology and Management*. 3. Thanks to **Jay Kerby** who is leading the charge for your **2015 PNW Summer Workshop** in Burns, OR, June 15-17. Plans are evolving, but with the new and emerging research by the local Agriculture Research Service and OSU Extension, the focus will be on **sage grouse, fire, and habitat restoration**.

The **68th SRM Meeting, Training & Trade Show** in Sacramento is coming fast. I hope you can attend, and I look forward to visiting with you all. Thank you for this opportunity to serve as your section president as we all look forward to an exciting year. **Sincerely, Pete**

Salmon 101

by Laila Salm, P.A.G.; Range officer for Ministry of Forests, Lands and Natural Resource Operations, Kamloops, BC.

"One thing I do for fun is run or hike in hills and grasslands."

The SRM conference opened with a high-energy presentation by Brian Heise, professor at Thompson Rivers University (TRU). His passionate speech led us through the life cycle of salmon in the PNW, with emphasis on sockeye salmon. In BC, the salmon industry is an important economic driver, and 137 wildlife species rely on salmon for their diet. These

fish are cold water reliant, and depend on healthy streams to complete their life cycle.

Sockeye spend 2-3 years in the ocean before returning to

spawn in their natal (home) spawning beds. Migrating salmon change morphologically once they reach fresh water, and do not feed. They enter the fresh water, and up to 90 days later, after expending incredible energy to navigate our rivers and streams, reach their spawning beds. The health of the water is paramount to their survival - too warm and the salmon will not make it to their destination. Fish burn up their fat reserves if they are stressed with warm water, which may result in death or an increase in parasite load. Water must be cool and clear, with sufficient dissolved oxygen. Oxygen is critical for survival of eggs, right through to the fry stage. Fine sediment deposits in gravel or other habitat, depletes available oxygen. Increased organic matter, resulting from pollution, will also deplete oxygen. Water velocity must be maintained to wash away waste, especially on spawning grounds. PH is an important factor in the health of the salmon population. Coarse woody debris and cover along stream banks allow shading, gives protection from predators, and provides resting areas. Gravel on spawning beds must be the correct



Sockeye Salmon taken by Mike Borman

particle size to allow the females to lay their eggs. Salmon must have access to their river and streams; low water and dams impede return to their home streams.

How does this relate to range management?

Good grazing practices result in healthy riparian areas, with good cover along the banks as well as the uplands. This helps stop nutrient flow into the streams, and manages silt deposits. Bank erosion should be kept to a minimum to prevent silt deposits. Rotational grazing and fenced riparian pastures protect important fish bearing streams. Irrigation practices need to protect water levels in streams and protect salmon being taken into the intakes or ditches. Other industries such as logging, can impact salmon habitat if trees are removed too close to the stream, culverts are impassable or silt isn't managed well.

Brian told us about spawning behaviour, with females digging several nests (redd), and guarding them from other females. Dominant males drive off other males. It was interesting to look for this behaviour on our tour of the Adams River sockeye run the next day.

Salmon Management from a First Nations Perspective

by Mike Dedels, Range Agrologist, Kamloops, BC.

"I bike in the summer and snowboard in the winter. If you come to Sun Peaks, I am a Sun Guide every Saturday morning and can show you around!"

Mike Lebourdais, Chief of the Whispering Pines Indian Band, told how his grandfather said, *"There is no right or wrong in nature, only balance."* The oral history of the Sepwepemc includes how the ice dam west of today's Kamloops Lake broke about 12,000 years ago, causing waters to flow west to the Fraser River, instead of south down the Columbia. Prior to WWI, when the Hell's Gate slide stopped fish movement up the Fraser River, the spring salmon fishery was the major one for the Sepwepemc.

Mike shared great fish stories. Dried salmon was the main winter food for most Sepwepemc people, and is still very important. They use a variety of nets to catch both Spring and

Continued on next page . . .

Salmon Management *Continued*....

Sockeye Salmon, usually along the Fraser River. Natural cues to start fishing (before their friends from Llytton called on the phone) were when the flying ants started flying for spring salmon and when grasshoppers were clicking for Sockeye. Some runs, including the Early Stuart, had too much fat to wind dry, so would need smoking. They used dried Sockeye or cooked it in soups or stews.

First Nations know that uplands are important to fisheries. They have concerns about logging causing siltation in some areas. They also look at controlling Sagebrush, as bunchgrass hold the soil better. In older times, they would move beavers (sqlew) to manage the water to keep nature in balance. Thanks to Mike Lebourdais for an entertaining talk. Learn more at www.shuswapnation.org

Salmon River Project - BC Example of Habitat Management

*by Gene Fults, Vancouver, WA, Rangeland Management Specialist USDA-NRCS-WNTSC.
"For fun, I try to figure out cryptoquip puzzles."*

Sean Bennett, spoke of the partnership evolving between Agriculture and Fisheries & Oceans and the 15 full time employees who do 30-40 projects per year. \$500K to \$1.3 million per year are accounted as funds come. Significant fish production is in Shuswap, Adams and Quesnel lakes. Community involvement requires talking to both sides. Enhancement activities included construction of spawning channels. An operational change from beef to dairy resulted in fenced streams (some reasons are more obvious than others). Riparian fences, 31 km, have been constructed. Maintenance of "Fenegan" intake screens and operation of long, long ditches brings focus to fish number loss management. No cost information was given on the temporary culvert to take water around an elevated fish-blocking culvert while an in-stream series of rock weirs to flood the outlet was built by heavy equipment. (I am sure the hydrology study and replacement engineering has changed in costs.) The Rancher inspired concept of simple wood structures installed inside of a large culvert was an

interesting opportunity. Beavers changed the appearance of a mature restoration planting of Pacific Willow from tree to shrub habitat. (It is just what beavers do . . .) Geologic bank erosion and in-stream trampling are two scales of impact on fish habitat. Reactions include gravel addition and gravel bed silting which may benefit or plug important habitat.

Salmon Based Restoration Projects

by Tom Brannon, Malaga, WA., retired from WSU but never sitting still. "For 'fun' I work on our family tree farm in Ohio - and I'm happy to be doing it."

Rancher Lee Hesketh spoke about the what, why, how and who of salmon based restoration projects. Lee reminded us that with land ownership also comes stewardship responsibility. His main focus is with the Farmland-Riparian Interface Stewardship Program. It focuses on selling people on the idea of change in how they do things. Landowner buy-in is essential to the success of any stewardship project. Lee defines success of a project as the ability of the landowner to manage the project in the long term.

Lee cited several projects such as bank stabilization, bank re-vegetation, in-stream debris, off-stream water development, and fencing to establish both riparian exclusions and riparian pasture. He emphasized that projects must be cost effective. The landowner often can do part of the work. This also aids landowner buy-in. Outside partners make the project cost effective. Lee spoke briefly about the Salmon Safe Certified Farm program which promotes connections between the urban population with the landowner's stewardship efforts.

Grassland Hydrology 101

by Grace Ray, Carson City, NV and Corvallis. "I am an OSU Graduate Student. For fun, I like to go running with my dog!"

Grassland Hydrology 101 was a great introduction to hydrological issues in BC. Tom Pypker told of major issues that grasslands surrounding Kamloops are experiencing. He presented evidence showing a decrease in the size and number of perennial ponds that serve as important water sources for livestock production. Aerial photos quantified both the amount of loss and the rate of loss. Climate conditions were studied from 1950 to present

Continued on next page . . .

and support an increase in temperature, which corresponds with the loss in total pond surface area. Temperature increase also correlates to a decrease in annual snowpack and the change in timing of spring snowmelt. The gradual increase in temperature is increasing potential evaporation rates off the ponds and exceeding the yearly inflow of water. Tom suggested that this evaporation effect may be more significant when discussing these ponds because many ponds are separated from groundwater sources, since they are typically lined with impermeable clay layers. Other potential causes for the reduction in ponds were presented, and the culprits were all too familiar: climate change, land use change, and woody plant encroachment . . . all of which remind me of problems close to my home on Oregon rangelands. Sagebrush is encroaching on BC's native grasslands, and has the potential to utilize water sources in excess while decreasing the *albedo effect, which is speeding up the timing of snowmelt. Urban infrastructure has resulted in more impermeable surfaces that further decrease infiltration rates and subsurface ground-water movement, which these ponds so heavily rely on. This interesting research is an example of many of the problems that are apparent on, not only Canadian rangelands, but also on rangelands close to home. To me, Grassland Hydrology 101 drove home the importance of understanding the wealth of research that is taking place outside of our localized areas; we can always benefit from outside experiences.

*ed. note: *Word for today, **albedo**: look it up in Webster's or your smart phone, depending on your age. Or you could call John Buckhouse for a full explanation; it is one of his favorite field-trip topics.*

Community Watersheds in the Okanagan/BMPs/Research

by Nick Vora, La Grande, OR., works for the USDA-NRCS. "I spend most of my free time with the local fire department and Search & Rescue Teams."

It is my pleasure to recap Rob Dinwoodie's resenation at my first SRM meeting in BC. After a full morning of presentations and a hearty lunch in our stomachs, Rob (a self-described entertainer at heart) woke us all back up with an animated recitation of Wallace McRae's poem "Reincarnation" before heading into the topic of rangeland management and community watersheds (CWS's) in the Okanagan Valley.

Rob, an experienced Rangeland Agrologist with the BC Ministry of Forests (aka "The Ministry of Everything") described the challenges and best management practices (BMP's) that have been developed from managing approximately 59 community watersheds for grazing use while maintaining water quality for municipal and agricultural use. Some of the best management practices implemented in these areas include both investing in infrastructure improvements as well as livestock management practices. Structural improvements have included fencing that extends to the low-water line to protect outflow areas or create riparian pastures/exclusion areas, placing large woody debris to restrict channel access, and installing off-stream water developments. For management practices, Rob explained the value and use of stubble-height monitoring in sensitive areas, record keeping, contingency plans, and the use of the key area concept to maximize monitoring efficiency and effectiveness. Rob closed his presentation with summary of some ongoing and upcoming research related to CWS's, including *Cryptosporidium* persistence and the effectiveness of the BMP's they have implemented.

Calendar of Events

January 30-Feb. 7, 2015

68th SRM Technical Training, Annual Meeting & Tradeshow, Sacramento, CA

June 15-17, 2015

PNW SRM Section Summer Workshop, Burns, OR

Fall 2015

PNW SRM Section Annual Meet. & Workshop, Hanford/Yakima River, WA

January 29 - Feb. 5, 2016

69th SRM Technical Training, Annual Meeting & Tradeshow, Texas

Autumn Workshop & Annual Meeting

Continued from previous page

On the Road to see the Sockeye

by Alf Bawtree, retired from the Ministries of Agriculture and of Forests. "I restore old cars into beautiful old cars."ed. note: some of us have seen them and they ARE beautiful. Wow!!



At 8:00 a.m. Friday morning, October 17, 49 people boarded a bus at Thompson Rivers University, Kamloops, for a 1-hour trip east. While traveling, **Rick Tucker, Range Ecologist** with the BC Forest Service helped us see everything, starting with the Ice Age, then moving into ecological zones, various plant systems and the wildlife. Before we knew it, our ride was over and there we were looking for sockeye salmon in Adams River which flows into Shuswap Lake, eventually into the Fraser River, then on to the Pacific Ocean. The life history of sockeye salmon is highly predictable. A large run (3 or 4 million fish) was predicted for this year. Every year they come to spawn in the rivers and creeks flowing into Shuswap Lake. These are all 4-year old fish. They have lived in the ocean the past 2 years where they have grown to about 2 1/2 kilograms or 5 1/2 pounds.

Our crowd was turned loose to follow the various trails through the forest to find the Adams River. We found it and saw a great number of salmon. All the fish die after spawning, and we got close-up views of those that had recently died. Some salmon were seen spawning in their personal

square metre of river bottom. Others were in dense schools waiting their turn to spawn very close to the spot where they were born. All will be dead by the end of the month.

As the morning wore on, we were treated to a light rain. This reminded us that we were in a Douglas fir forest, with annual precipitation approximately double that of Kamloops. All 49 people returned to the bus and back to their cars at TRU by exactly 1:00 p.m.

SRM Friendships Grow in Kamloops

by Maureen Malenstyn (Wendy's Mum), Delta, BC. "I do accounting and farming for work; for fun I am a 'social' golfer, with emphasis on 'social' However, my game is improving somewhat!"

From the warm "Hi's" at The Noble Pig restaurant to the sad "Bye's" at the TRU parking lot, with all the speakers and events in between, one can feel the warm friendships that have developed in the PNW section of the SRM. As Lynne said, it feels like a group of friends getting together, not just a group of professionals for a symposium. I really enjoy all aspects of these meetings, and I hope we can continue this for many years. Of course, I'm still sure that Canada has the "STRONGER BEER"!

So, Just What Is PNW SRM??

SRM provides amazing technical training for all land managers (private or public) and all teachers of land management. The "Sedges to Salmon" articles are proof of that. But SRM is even more. If you follow up on Maureen's mention of "warm friendships", you find an amazing "family" of friends. The PNW core members are from BC, WA, OR, but our "borders" extend to Alaska, Idaho, Montana and beyond. Friendships are made, and they hang together. Example? In Kamloops, **Rob Dinwoodie, Vernon, BC** asked about **Fred Hall, Portland, OR**, and remarked, *The few SRM events that I attended with Fred Hall have always been memorable as he described with certainty what 'is, was and should be'...* Thanks to **Rob**, we caught up with Fred who retired from USFS several years ago. Fred sounds good, but he's not up to attending SRM with us.

Fred Hall Continued.....

So, to get around that, **Tim Ross, Cranbrook, BC**, (range consultant AND singer songwriter) writes, *"I've sent some CD's - the ones with 'Another Summer Tour' and 'Setting the Woods on Fire' Hopefully that'll have Fred raising his fist and hollerin' - the way we like him best. "Thanks Rob and Tim; you've brightened all our days.*

More Member News...

Wildfires hit the PNW hard in 2014. In **Washington**, the Carlton Complex was the largest fire in state history. Total acreage was about 256,108, over 100,000 on private land. It burned from Pateros to Winthrop to Malott. More than 300 homes and around 1000 + head of cattle were lost. Over 500 miles of fence and millions of board feet of timber were also lost. It impacted at least two of our members. **Sarah Troutman-Zahn's** family lost all their out-buildings and cracked windows damaged their home. **Celeste Acord** writes: *My husband is on the local fire district and was on the fires. We had little contact in the first days. So, what else do you do when all the chores are done on a Wednesday evening in July? Enjoy a nice evening, sipping beer and wine with other volunteer firefighter wives! Then the call comes. One of the fires blew up and was coming through the canyon toward the ranch, and my father and brother-in-law were nowhere to be found. This started a long, sleepless 2 weeks of fire that burned at great intensities. Followed by another 2 weeks of thunderstorms creating further devastating mud, debris flows and floods; all of which seemed to blur together. Emergency services throughout the County were stretched so thin that many were tasked to do what small community members know how - help their neighbors. Whether in fighting fires, evacuations, taking folks in, providing supplies and generators, moving animals and clean-up from fire*

and floods - the list of impromptu duties were endless and still are. Endless, just like people's stories that surface after an event of such magnitude. The wildest ride I have ever been on!

WHAT ABOUT RANGELANDS WHEN WILDFIRES RAGE?

Doug Warnock, Touchet River Valley, WA, writes for the *Capital Press*. In September, Doug featured **Tip Hudson, WSU Extension Rangeland Specialist**. Tip has prepared a guide to help ranchers assess fire damage and make plans for rangeland recovery. Tip says, *"Recovery is the return to a diverse, vigorous actively producing plant community."*

To learn more, **call Tip in Ellensburg, 509-962-7507**. His straight-forward bulletin guides you to see what was, to ask questions and plan the steps forward. It is good useful information.

PNW Section Officers

President	Pete Schreder, OR	541-947-6054 peter.schreder@oregonstate.edu
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Newsletter	Lynne Breese, OR	541-447-6762 jlbreese@crestviewcable.com
	Brooke Gray, OR	541-477-0151

Newsletter Team Changes: After 14 years as the PNW newsletter editor genius, **Teal Purrington** has "retired". Teal was and is amazing- Thank you! Stepping up is **Brooke Gray**, who did publicity layouts for Spokane 2012. Also, **Matthew Braun** who brought BC ideas to your letter, moved on to Osler, Saskatchewan. Matthew joined the team at Spokane 2012. Who from BC who will join us?

Feedback on Allen Press
& SRM membership

Renewals, member roster, meeting registrations,
... How does this work for you? Can you easily
access information? Do you receive clear &
timely messages? Our Parent Society Board
wants to smooth the process.

If you have questions or ideas
please contact

Pat Shaver: plshaver@gmail.com

**PNW's strength is in its Chapters —
Contact yours today!**

British Columbia

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Volunteers???

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