

INTERNATIONAL MOUNTAIN SECTION JULY 2021 NEWSLETTER

PRESIDENT'S REPORT SUMMER SALUTATIONS & PLAN FOR FALL MEETING/TOUR

Hello from Livingston, Montana! I am certain all of our members are enjoying their summers activities and slowly but surely return to “normalcy”. It always seems there’s not enough time in the day to accomplish all the days work and tasks, similarly not enough summer to get in all those planned camping trips and outdoor recreational activities.

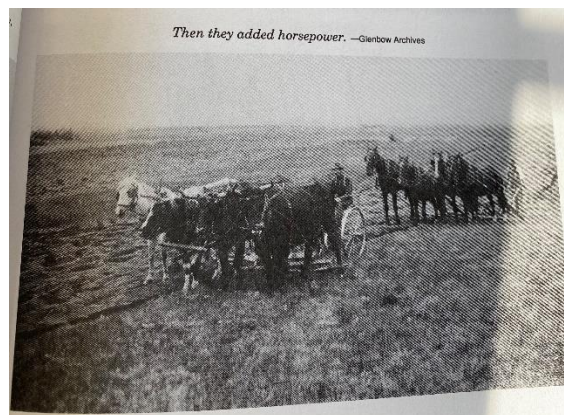


As rangeland managers, this is our busy season. All the field work in such a short window. We work hard until the work is done. And that is what I appreciate about our like niche of folks; hard workers. It comes with sacrifice but is well worth the sense of accomplishment.

More tangible when I'm in the thick of an old-timer book, riveting notions of how people worked 100 years ago strikes a cord with me, hard hard assiduous work without the use of heavy equipment and power tools. The kind of work that builds such perseverance and resiliency of character. At my own little farm, I do a lot of work by hand. Shoveling manure into a wheelbarrow, all to just unload it elsewhere and rake it in by hand. A bobcat would be nice. A light harrow or better yet a manure spreader with a tractor to pull it would make things real easy. Oh, but a post pounder would probably

be my most desired advancement! What would I do with all the time equipment would grant me? Would I feel the same sense of immeasurable accomplishment with a task moving without the dripping sweat and tears? Would the time allow me to cover more ground and mass produce? Most definitely. For now, I choose the work that originates long ago, each stoke powered by keen intention. One shovel at a time, one day at a time.

The book *The Range* by Sherm Ewing (Former IMS President) brings these hard working people, ranchers, farmers and range managers to the forefront of our existence. The backbone of like beliefs and culture that resonates with us. A suggested read for any of you that have yet to pick this one up! 🐾 Allison



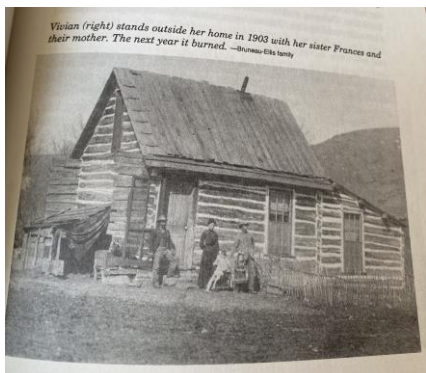
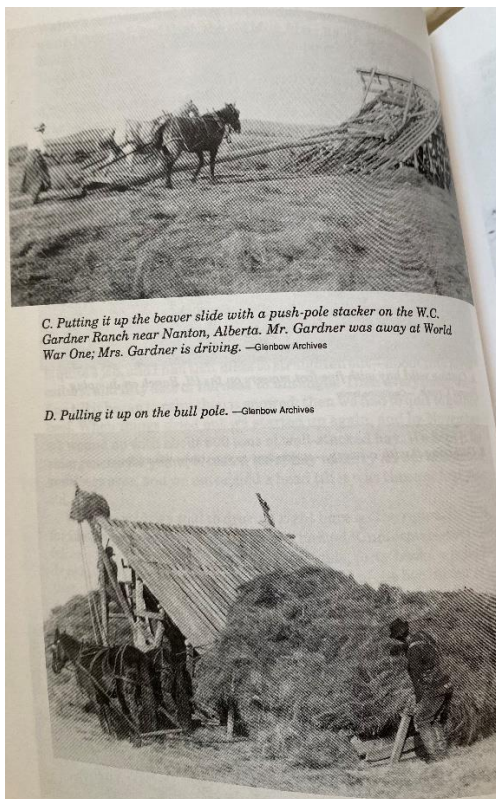
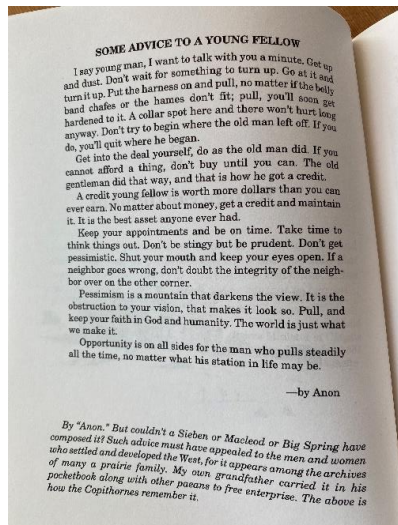
“THE SUMMER OF 1911 WAS ONE OF THE DRIEST I CAN REMEMBER, ALMOST AS DRY AS 1988-- AND WITH 900 CATTLE TO LOOK AFTER, WE HAD TO LOOK OUTSIDE THE RANCH FOR GRASS” ---THE RANGE

Severely Dry Weather Affecting Forage Quality in Montana

The very dry May and June in Montana has caused forage across the state to dry out prematurely resulting in lower forage quality in pastures according to Nutrition Balance Analyzer (NUTBAL) manure analysis. This has the potential to aggravate issues May and June calving herds have with cow breed-up. Bulls for these later calving herds are being turned out in July and August after cows and calves have been grazing drought-affected vegetation that is measuring below 7% protein for over a month. The cow's rumen doesn't function optimally unless diet quality is above 7% protein. This may delay estrus in cows and cause poor breed-up numbers at pregnancy checks this fall and to make matters worse there appears to be no relief to the drought in the near future. Ranchers will need to adjust grazing plans to allow cows to selectively graze the highest quality (greenest) vegetation they have left in an effort to boost estrus activity as breeding season begins.



The drought has also caused cows to search for alternative, greener sources of forage that is higher quality than the dried out grass. That has resulted in some issues with poisonous plants that don't often cause deaths in cows. South of Havre, where greasewood (*Sarcobatus vermiculatus*) makes up a large component of some native pastures and the impact of the dry weather is very severe there are reports of cows dying from eating greasewood.



Cows can normally graze greasewood in small amounts and typically do, especially in the fall of the year. However, if cows are using greasewood as a replacement for daily forage and it is eaten at the rate of 3-4 pounds a day, it can be toxic. So, it will pay to be observant of animal feeding behavior as the drought continues and to plan grazing so that animals have plenty of the best feed available that remains.

Thanks for the submission Rick Caquelin



PLANT PROFILE

– A carnivorous prairie wetland plant, Greater bladderwort (*Utricularia vulgaris*)

On a hot summer day in early July, half the fun of doing field work sometimes, are those moments when you find something unexpected. As Anabel Dombro, M.Sc. student supervised by Dr. Edward Bork, and I were driving around the University of Alberta Roy Berg Kinsella Research station on a mission to collect some plants for a cattle feeding research trial, we happened to drive past a prairie slough covered in small, bright yellow snapdragon-like flowers. We skidded to a halt and pulled over to get a better look...which required slogging into the muddy slough. Greater Bladderwort (or *Utricularia vulgaris*, aka *U. macrorhiza*) is a common wetland plant that is native to North America, but which leads a fascinating and unusual life.

As the name suggests, this plant has many small bladders located in and around its submerged feathery stems and

leaves which keep it afloat in still water. It doesn't anchor itself to the bottom of the pond with roots which also allows it to float freely. However, the surprising part is that the tiny bladders are key to how the plant feeds. The tiny balloon-like bladders actively remove water from within these sacs creating a partial vacuum inside. The bladders have a trapdoor on one end and when prey come into close contact with the hair-like trigger nearby, the trapdoor rapidly opens, sucking the unsuspecting prey inside!

What exactly serves as prey to this species? It digests whatever will fit into the bladder and whatever happens to be in the water including water fleas (aka *Daphnia* spp. or 'Sea monkeys' if you were one of those kids who ordered them from the advertisements on the back of comic books), mosquito larvae, amoebae, paramecium, aquatic worms, other small insects, plants, algae, and microorganisms. It turns out, they are more omnivorous than carnivorous, feeding on a wide range of plants and animals.

Does anything eat Bladderwort? It provides forage for wetland species including waterfowl, muskrats, moose, but is also a source of nectar for pollinators, such as bees and flies. The submerged leaves can create a habitat for frogs and larger aquatic insects that use it to hide from predators or as a spot to lay their eggs...even if they are in danger of becoming a plant's lunch!



Anabel Dombro holding a bladderwort, which we used to key out later.



L: Bladderwort in bloom on an alarmingly dry prairie pothole at Kinsella Ranch. Rain would be welcome!

R: Greater bladderwort flowers rising out of a prairie slough.

For some beautiful photos and a botanical description, please visit one of my favourite plant websites:
https://www.saskwildflower.ca/nat_Utricularia-vulgaris.html

And for interesting information about the Bladderwort microbiome (and a short video clip of the plant feeding!):
<https://www.indefenseofplants.com/blog/2018/1/12/the-bladderwort-microbiome-revealed>

Thanks for the submission Lisa Raatz!



Society for Range Management – Student Competitions at the Virtual Annual Meeting

Since mid-March 2020, many Universities across North America had classes rapidly converted to online learning because of the Covid-19 pandemic. This posed an extraordinary challenge for students learning plant identification in their range classes. At the University of Alberta, all range classes in the 2020-2021 terms were conducted online where plant identification was taught using photos of plant mounts, plant herbarium websites and phone apps, textbooks, and online live-stream video of herbarium mounts.



The annual SRM meeting also turned into an online event as borders closed and gatherings were restricted. The SRM Virtual Annual Meeting: *New Frontiers* was held Feb 15-18, 2021. It was a brand new experience for everyone! A total of 15 university teams from Canada, U.S.A, and Mexico participated where approximately 70 students wrote the online live-stream Plant Identification exam held by Dr. Barry Irving and 77 students wrote the online Undergraduate Range Management Exam (URME) compiled by Dr. Justin Derner and Jessica Crowder. In spite of having no group trip to entice students to commit much personal time and effort preparing for these exams, students still chose to participate on the Range Teams because many of their other extra-curricular activities were cancelled and because they love range!

The plant identification awards were based on categories of achievement (Outstanding, >90%; Superior, 80-90%; and Academic, 70-80%), rather than as the usual team or individual rankings from first through fifth. The URME continued with the first through fifth place rankings. Students within our section not only participated despite the challenging circumstances of the year, but both teams also performed well!

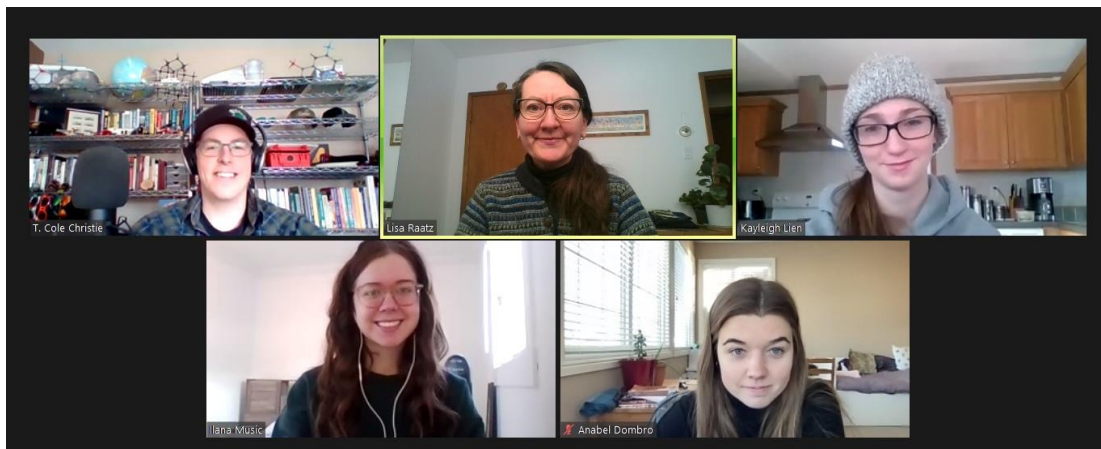
Team awards:

- University of Alberta placed in the Superior Academic Achievement category on Plant Identification and 4th place on the URME
- Montana State University won 2nd place on the URME

Individual awards:

- James Kramer (MSU): 2nd place URME, 2nd place Combined Award (combined high scores on Plant identification and URME exams)
- Haylee Barkley (MSU): 5th place URME
- Anabel Dombro (U of A): Outstanding Academic Achievement on Plant Identification; 4th place URME; 1st place Combined Award
- Kayleigh Lien (U of A): 5th place Combined Award

We extend a hearty Congratulations to the SRM Class of 2020 and all students who participated in the SRM meeting events! We are proud of each of you!



University of Alberta Range Team Zoom group photo before writing the URME! Top row (L-R): T. Cole Christie, Lisa Raatz (coach), and Kayleigh Lien; Bottom row (L-R); Ilana Music and Anabel Dombro.



Unlike at the in-person awards, it was an honour this year for many coaches to introduce their own teams! Montana State University Range Team is led by coaches, Merrita Fraker-Marble and Dr. Craig Carr.



Thanks Lisa Raatz for the recap!

The International Year of Rangelands and Pastoralists Update

International year of rangelands and pastoralists (IYRP) has been a 10-year effort that is coming to an end in September, and has now passed 3 of the 4 tests. The sequence is (and these are all United Nations subgroups): Passed by the Committee on Agriculture in October of 2020, passed by the Food and Agriculture Organization Council in March, 2021, and passed by the FAO Conference in June, 2021. It now moves to the floor of the United Nations General Assembly (UNGA) in September of 2021, where it will either be declared for 2026 or denied. A truly global

group of over 500 people in 11 subgroups has been working at a fevered pace to gather the votes necessary to insure it will pass at the UNGA. The UNGA is more of a consensus type vote than a formal vote. Thus, the goal is to have countries either vote yes, or else abstain. We have a North American Support Group that has advocated to the Governments of Canada, United States, and Mexico to support the IYRP initiative. So far things look good for North America. Canada has signaled strong support and Mexico has signaled they will support the IYRP. The United States has a standing tradition of not supporting International Year designations because they usually get asked at some point to provide significant funding. So far, we have stuck with the mantra that each country will be responsible for IYRP activities within their own borders. We believe the US will likely abstain in the eventual vote based on past history. But there is a strong team of folks from the US that are advocating hard (SRM is also a strong supporter) and may just turn the US to the positive, and if they do, it will be a first.

So, we are winding down to the finish line for the International Year of Rangelands and Pastoralists, 2026. I personally believe it will easily pass the United Nations General Assembly and be declared for 2026.

Thanks for the update, Barry Irving 

SAVE THE DATE : ANNUAL FALL MEETING

OCTOBER 1ST AND 2ND, 2021

MALTA, MONTANA

Please make note of atypical dates. This will be a 2 day event including but not limited to our annual business meeting, workshop, field tours and social events!

HOPE TO SEE YOU THERE!

And of Course, “Mules for Good Measure” -Allison 

