

January, 2022



The Mountain Meadow

A quarterly publication from the
Sublette County Conservation District



Photo by Jess Artz

The snow has finally showed up in Sublette county!

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SCCD is hiring 2 positions in the New Year! Head over to our website
for job descriptions and application details.

<https://www.sublettecd.com/employment-opportunities>

*"By working with local people who understand local problems,
the best conservation measures can be accomplished."*

From the District Manager's Chair

What's going on at the District

Michael Henn, District Manager



Happy New Year! 2022 is starting off well; Mother Nature is currently dumping snow in the mountains which means water in the summer! The last 3 months at SCCD have been productive and bountiful. We were able to conduct field work right up to Christmas which hasn't happened in recent memory.

Sublette County Conservation District had an excellent showing at our state convention this year. We walked home with 1st Place award for the Annual Plan and Honorable Mention for the Annual Report. Traci won the John Deere Gator Raffle, and I won the Gun Raffle. I received the Wyoming Conservation District Employee Association Area V Outstanding Employee Award.



The **BEST** award received was the Wyoming Association of Conservation Districts renamed the Outstanding Supervisor Award to the **"Darrell Walker Outstanding Supervisor Award"** and gave it to Darrell. Darrell has been a Board Supervisor for 48 years in Sublette County. The best thing was that several members of his family were able to surprise him at the banquet!

SCCD is looking forward to a productive year helping put conservation on the ground in Sublette County. If you have any questions about our programs, equipment checkout, or educational opportunities feel free to stop in or give us a call.



What We've Been up to

The Aerator made it to Sublette County

SCCD staff recently traveled to Texas to pick up the newest addition to the toolbox for landowners and land managers in Sublette County. The District received a grant to purchase a twelve foot wide tandem drum RanchWorx rangeland aerator (www.ranchworx.com). This aerator can be used in pasture, hay meadow, and rangeland situations. The aerator has two twenty-inch drums with eight-inch blades that cut into the soil and help improve water infiltration. If you are interested in this piece of equipment, call us so we can help develop a plan for implementing this on your property. This tool will be available on a first come first serve basis to landowners and land managers starting this spring.



Planning for Conservation Conversations!

Conservation Conversations are back in 2022! This series, covers a variety of natural resource topics that affect community members in Sublette County. Last year all talks were done virtually and posted for viewing at a later time. This year we are planning to offer in person presentations again. Recorded versions will also be posted to our website as well as the BOCES website for viewing at a later time. The first session titled "Collaboration to Restoration in Sublette County, WY" will be presented at the BOCES building on February 23rd from 12:00-12:45pm. Other presentation topics will be announced as they are developed. Keep your eyes on our website and Facebook for more info as we get dates and other specifics nailed down in the coming month.



NRCS Update

Jennifer Hayward, District Conservationist

Canada Thistle – it's everywhere isn't it? Well it does like to inhabit disturbed sites and then once established, due to it's extensive root system, becomes fairly endemic to an area. I have heard opinions that it is a native due to it's prevalence, but I assure you, it's not. It is a noxious weed so there are regulations in place that it should be controlled, and many people do however, it still seems to be an issue. So how can we view this differently and perhaps turn this pest into a forage resource?

Sheep and cattle prefer to graze this plant when it is young before spines develop. Livestock will graze Canada thistle when the plants are nutritious at certain times of the year. At certain times, these plants have crude protein, total digestible nutrients, and invitro dry matter digestibility concentrations similar to alfalfa and other common forages.

Research from Alberta compared three grazing systems for Canada thistle control and their results are summarized here. Researchers found that season long grazing where livestock are turned out and not rotated or managed resulted in increased Canada thistle populations and reduced overall forage yield. Conversely, high intensity - low frequency grazing reduced Canada thistle shoot density, biomass, and flowering and resulted in greater weed suppression. Two 'intense' defoliations of Canada thistle during the growing season for 2 to 3 years in succession dramatically reduced the Canada thistle population, and the plants that remained stayed vegetative (did not flower) and had higher forage quality.

- Canada thistle has the potential to invade anywhere there is exposed soil.
- Mature cows will forage on Canada thistle buds in mid-June and may consume a great deal of the plant at certain times and for about 7 days between about June 10 and July 1. However, the exact timing of this period of more intensive use is not always predictable in this three-week period.
- Cows will teach calves to forage on thistle and other plants.
- Yearling cattle will learn to utilize Canada thistle if given the opportunity.
- The key to Canada thistle control with livestock is to first stop the grazing practices that promote thistle expansion (season long grazing, heavy impacts to soils). The second step is to concentrate animals for high intensity-short duration grazing during bud stage before thistle plants flower.

NRCS Update Cont..

Grazing is most effective when repeated during the season and for multiple seasons to prevent seed production and to deplete root reserves. Plants are smaller and weaker in successive years after repeated grazing.

Dr. Fred Provenza and his colleagues at Utah State University summarized over their research over the past three decades on how animals choose what to eat. What they learned is:

1. Young animals learn from their mothers what to eat. They will add foods they see herd mates eating, but we will always be able to trace their primary food preferences back to what mother ate. It follows, then, that cows usually don't eat weeds because Mom didn't eat them and herd mates don't eat them.
2. Animals also choose foods based on "palatability." When there just isn't enough of what Mom ate to make a meal, animals will sample new foods. They choose whether to keep on eating that food based on feedback from nutrients and toxins in the food.

Kathy Voth, who has spent considerable time in training cattle to eat weeds, has found a method and reports that training young animals in a competition setting yields the best results. She trains them with tubs of new and exciting tastes for 4 days with tubs. Competition for the treats is important. Then on day 5, she mixes some of the treats with the target weed.

While this might be an investment of a few days of time for your replacement heifers, it may pay dividends in the long run by utilizing a forage source that you may have in a pasture that normally isn't utilized. In addition, you are incorporating a biological pest control practice which integrates your weed management with other methods rather than just straight chemical means. Plus, this method may keep the population in such a state that you can reduce your need to use chemicals for control. This may save money, time and introduces a readily available higher crude protein source than grass.

References for deeper dive/Sources: Teach Cows to Eat Weeds – procedure developed by Kathy Voth – manager of the online resource "OnPasture"; Behave.net – Utah State University Extension; <https://www.livestockforlandscapes.com/cowmanagers.htm>; University of Idaho; South Dakota Extension; Penn State and NRCS

When in Doubt, Plan for Drought

Shari Meeks, Range Program Manager



When in doubt ,
plan for drought.
Why, you ask?
Because drought is
inevitable; pre-
drought actions
shape the choices
available to you in
a drought year;
you can respond

early and effectively; and most of all, drought can creep up on you. For these reasons it is important to manage well in the normal and above average years, so the vegetation can respond better in those drought years. The management choices you make today will impact nature's response to stressors, such as drought. Not only will a plan benefit your ranch economically, but it will be better for both ecological health and your own health!

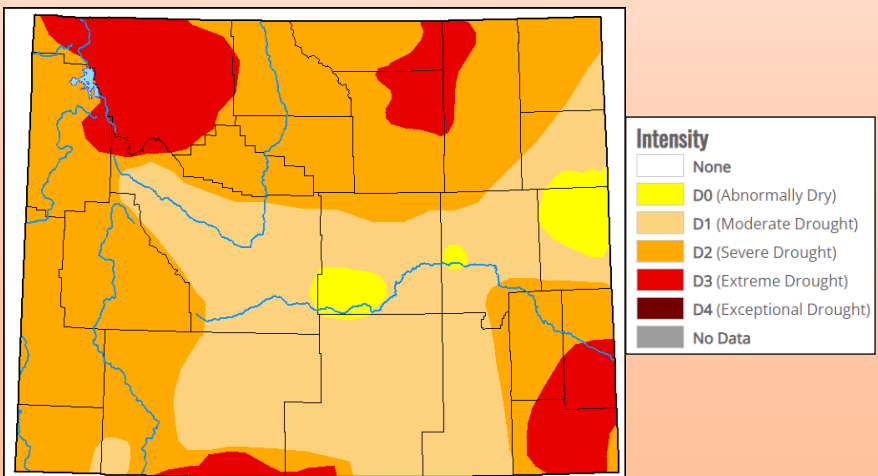
Where do I start? The Wyoming Department of Agriculture partnered with Right Risk Management to put on a Drought Contingency Plan Webinar in 2014. These presentations are available to you to go through at your own pace. This is a great introduction to drought in Wyoming and how to prepare for drought. https://rightrisk.org/presentations/2014_05_06_DroughtRisk/default.shtml

How do I know if drought is predicted? Great question. There are many resources available to you where long-term outlooks can help you prepare for the future. Wyoming's Drought Website has monthly webinars to explain the conditions and other great resources for you to make wise decisions about the upcoming grazing season (<https://drought.wyo.gov/>) .

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How can I create a plan? Well, you can learn about drought and what it does to affect natural resources. In doing so, you can then create a plan that makes sense for the sustainability of your operation and the resources available to you. The best, most comprehensive plan I have found to help walk you through this is Managing Drought Risk on the Ranch: A Planning Guide for Great Plains Ranchers published by the University of Nebraska Lincoln (<https://drought.unl.edu/archive/Documents/RanchPlan/ranch-plan-handbook-to-print-9.14.pdf>). A Nebraska publication?! You've got to be kidding me! We live in western Wyoming! I know, I know. But I wouldn't share a resource where the principles and conceptual understanding are not the same here in Sublette County.

Our desire here at SCCD is to look out for the rangeland resources that sustain our economies in Sublette County. To plan for drought is a win-win for everyone, whether you own horses, sheep or cattle. If you are interested to know more, please don't hesitate to give us a call us at SCCD. We'd be happy to help you prepare for drought and make a plan so your operation is sustainable and the resources we love are healthy for generations!



12/28/2021 Drought Map- <https://droughtmonitor.unl.edu/CurrentMap/>

Winter Wildlife Adaptations

Melanie Purcell, Wildlife & Habitat Program Manager

You may have been wondering if or when we might get some precipitation again... but the snow is finally here! As is the cold of wintertime! Humans deal with winter in various ways by building fires, bundling up in sweaters and under blankets, sipping on warm beverages. On the other hand, wildlife across the globe have become accustomed to winter conditions in countless ways.

Mule deer and pronghorn have migrated to the southern parts of their ranges and changed their diets to suit conditions by browsing primarily on shrubs. Congregating wildlife during winter can also facilitate group advantages, like giving greater protection to herds from predators and utilizing the heat of each other. Moose have evolved to be long-legged, thick-bodied animals, which enables them to move through deep snow. Their thick, hollow hair is fatter at the tip than at the base creating an insulation layer that helps to keep them warm.

Black bears have developed a highly efficient system that allows them to hibernate for months while retaining most of their muscle mass – by recycling their urea. In five months of inactivity, a bear loses about 25% of its strength on average (a person would lose about 60% in three to four months of not moving!). By recycling their pee, bears are putting nitrogen back into their blood, then guts, and then liver where amino acids are made, which then re-synthesizes skeletal muscle. It also provides a healing mechanism to help bears recover from any injuries they might have incurred before hibernation, which keeps them from losing body fluids and avoid infections.



Pronghorn herd— Photo by Melanie Purcell

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White-tailed prairie dogs are traditional hibernators in that they go into a deep hibernation and disappear underground in the fall, not coming back up until spring. They only wake up every 15-20 days to stretch and go to the bathroom, and then go back to sleep. Black-tailed prairie dogs, however, can choose when to hibernate or not, and often face most of the winter head on! Black-tailed prairie dogs only turn on their hibernating genes when they are cold and starving. Even when they choose to go into hibernation, they re-emerge every couple of weeks to check on conditions – and if there's food, they stay back up.

Arctic foxes have evolved with foot pads that have a counter-current vascular heat exchange system to keep their body core temperature from falling and polyunsaturated fats that protects them from frostbite. The examples of wild-life acclimatizing to winter conditions goes on and on, wood frogs that freeze, snowshoe hares turn white to camouflage with the snow, pygmy rabbits will live in burrows and under the snow much of the winter. Many wildlife species share or have evolved with similar adaptations to survive the winter, and many utilize several strategies. Even plants have evolved to cope with winter conditions such as the deciduous trees, like cottonwoods, losing its leaves and going into dormancy or conifers, like spruce trees, with branches that slope out and downward allowing snow to fall off.

The world is a fascinating place... but as for me... I'm good with sitting next to the fire and enjoying a nice hot cup of cocoa when it's too cold to get outside.



SCCD Game camera photo: Mule Deer Buck



January 4, 2022

Pinedale- As many Wyoming residents are finding out, private feeding of wild-life can cause serious problems. Each year there are many examples of how a well-meaning gesture to “help” wildlife can actually lead to their demise.

Big game animals, such as deer and moose will readily eat hay, but the micro-organisms in their stomachs that aid in digestion are adapted to breakdown vegetation the animal naturally consumes during winter months, primarily woody plants. This means it takes a lot longer to digest hay, which is not normally available to them during the winter. That’s why these animals can often starve to death despite having a stomach full of hay, bird seed, fruit, grain or pellets.

Disease is another consideration. Artificial feeding of wildlife generally concentrates the animals in a small area. These conditions are ripe for diseases and parasites to be readily spread from one animal to the next and throughout a whole herd. If the animals do not die on their own, Wyoming Game and Fish field personnel are often called to respond to sick animals that have to be put down anyway.

Feeding by private citizens often takes place in developed areas, which generally draws the animals into conflict situations. The animals are continually crossing roads where they are hit by vehicles or chased, and sometimes killed, by homeowners’ dogs. Just being in close proximity to humans generally elevates the stress on these animals.

On the other hand, if an animal becomes habituated to human contact, it may lead to human injury. People and often children, are fooled into thinking an animal is tame and may try to approach it. These animals are still wild and may unexpectedly strike out in self-defense or defense of its young.

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There are other reasons why feeding wildlife can be detrimental to both wildlife and humans. One of the most visible is severe damage to ornamental trees and shrubs, which can go well beyond the property where feeding occurs. Often, despite being fed, these animals still have the innate requirement to browse on woody plants. It doesn't take long for several deer or moose to strip the bark or break the branches off aspen trees or other shrubs, even killing mature trees in some cases.

Wild animals are generally very habitual. Once fed, they will often return the following year with their offspring and others and will soon overwhelm the hobby feeder. In addition, they may also lure in predators such as coyotes, mountain lions or domestic dogs, which are often attracted to large groups of prey animals.

Livestock operators are also urged to fence or make sure their alfalfa hay is unavailable to deer, elk, moose or other ungulates. This is for all the reasons previously stated and the fact that once animals start gaining access to feed there is likely to be additional property damage.

Wyoming residents are fortunate to live in such close proximity to wildlife, but along with that comes the responsibility of learning how to properly coexist with them. Part of this responsibility includes resisting the urge to "help" wildlife through the winter by feeding them. For more information on how to properly live with wildlife you may contact the Wyoming Game and Fish Department office at 1-800-452-9107 or 307-367-4353 in Pinedale and 1-800-423-4113 or 307-733-2321 in Jackson.

~WGFD~

Deer, Elk & Moose... Oh My!

Traci Berg, Administrative Coordinator



With winter finally arriving the migration of ungulates has begun in full swing. This time of year is tough on our wildlife. Its harder to find food, its cold and there are a lot of vehicles to maneuver around. Sublette County holds part of the largest migration corridor in Wyo-

ming. This means that we are going to have the highest number of ungulates traveling from summer to winter ranges. Sublette County has done an amazing job at putting in crossings and fencing that helps reduce wildlife fatalities but none of these are fool proof. Wildlife still end up on the wrong side of the high fence and then become more likely to cause a vehicular collision.

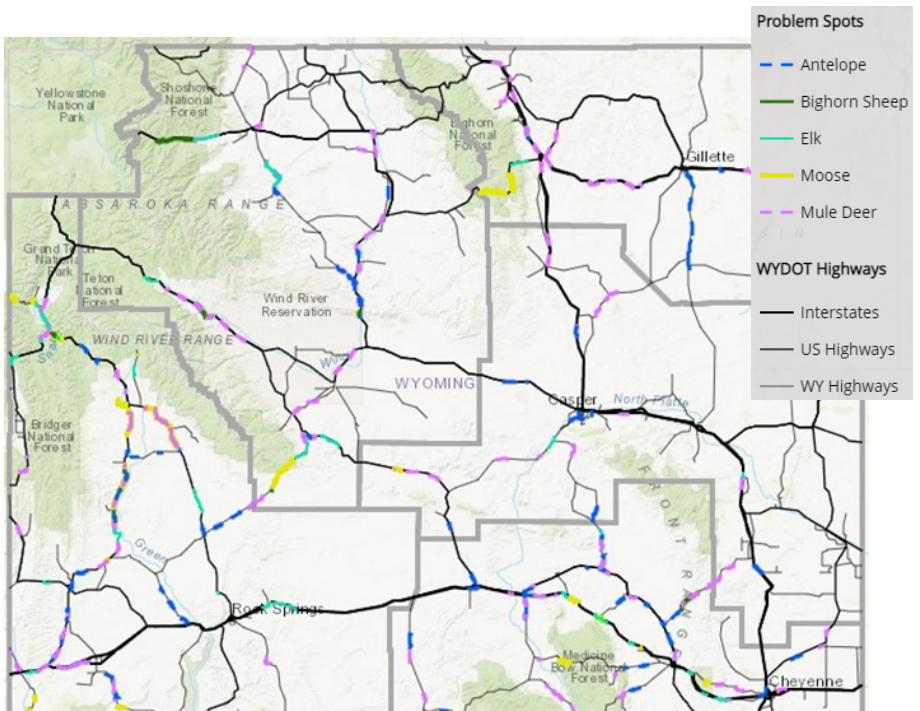
According to WYDOT's Report on Traffic Crashes, in 2020 there were a total of 2,598 collisions with wildlife in the state of Wyoming. 2,154 of these were deer, 122 elk, 38 moose, 250 pronghorn and the remaining 34 were other animals. (https://www.dot.state.wy.us/files/live/sites/wydot/files/shared/Highway_Safety/Crash%20Data/Publications/Report%20on%20Traffic%20Crashes/Report%20on%20Traffic%20Crashes%202020.pdf)

There are many factors that contribute to these accidents, including weather and lighting. While some accidents can't be avoided, many can be by increasing your awareness. This time of year, it is imperative to focus on the roads while driving. Wyoming Game and Fish provides these 8 tips to help prevent wildlife collisions. (<https://wgfd.wyo.gov/wildlife-in-wyoming/migration/wildlife-crossing>)

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1. Be aware and reduce speeds.
2. Use high beams at night.
3. Scan the whole road frequently.
4. Watch for eyeshine from wildlife.
5. Ask passengers to watch for wildlife.
6. Know salt attracts wildlife to the road.
7. Give crossing wildlife space to cross, don't use your vehicle to herd them.
8. Look at maps of potential areas wildlife is likely to be present (see below).

Wyoming is a place people travel to for feeling wide open spaces and viewing our diverse wildlife. Please give wildlife a break, slow down and stay alert.



Benthic Macroinvertebrates

A Mini World Beneath the Surface

Jess Artz, Range Specialist/Education & Outreach Coordinator

What are Benthic Macroinvertebrates?

Benthic = live at the bottom of the waterbody

Macro = large enough to see with the naked eye

Invertebrate = no backbone

Benthic macroinvertebrates = “Bugs” that live at the bottom of streams, lakes and rivers.

Benthic Macroinvertebrates are an important food source to many creatures living in our streams and rivers in Sublette County. Some are considered to be **indicator species** and in conjunction with other parameters, can be used to indicate if a river or stream is higher in pollutants. In rivers and streams, macroinvertebrates live attached to rocks and plants where there is fast-flowing water. They are good indicators of water quality because they do not move around and are easy to collect. The moving water gives them food and oxygen. If the water is polluted, there is less food and oxygen for the aquatic macroinvertebrates. If the water has **pollutant-intolerant macroinvertebrate species** in it, it is a good indication that the water is clean and of high quality. If there are mostly **pollutant tolerant macroinvertebrates** in the water, there is a chance that the water has a higher amount of pollution and only those types of species can survive.



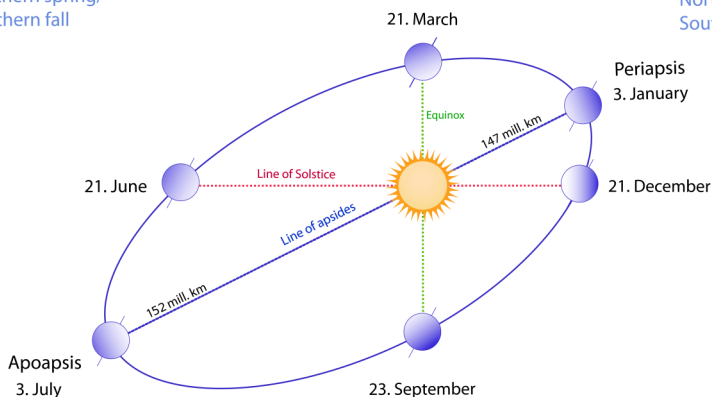
Check out the video to learn more about Macroinvertebrate collection at SCCD and how it is used to better understand water quality throughout Sublette County!

Kid's Corner

Happy Perihelion! On January 5, 2022, Earth's orbit was at our closest point to the Sun for the entire year! <https://science.nasa.gov/perihelion-aphelion>

Northern spring/
Southern fall

Northern winter/
Southern summer



Northern summer/
Southern winter

Credit: <http://bit.ly/1pQn7wy>

Northern fall/
Southern spring

Astronomy Wordsearch

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ASTEROID	MOON	PLASMA
AURORA	NEBULA	PULSAR
BLACK HOLE	NOVA	QUASAR
BLUESHIFT	OORT CLOUD	REDSHIFT
COMET	ORBIT	SATELLITE
CONSTELLATION	PARALLAX	STAR
ECLIPSE	PARSEC	TELESCOPE
GALAXY	PERIGEE	ZENITH
LIGHT YEAR	PERIHELION	ZODIAC

Who Are We?

Sublette County Conservation District Board of Supervisors

Coke Landers-Chairman
Darrell Walker-Vice Chairman
Dave Pape-Sec/Treasurer
Meghann Smith
Milford Lockwood

Sublette County Conservation District Staff

Michael Henn, District Manager
Traci Berg, Administrative Coordinator
Melanie Purcell, Wildlife & Habitat Program Manager
Shari Meeks, Range Program Manager
Jessica Artz, Range Specialist/ Education & Outreach Coordinator
Kristy Smith, Natural Resource Technician

Partners: USDA / NRCS Staff

Jennifer Hayward, District Conservationist
Shirleena King, Administrative Assistant
Karen Clause, Multi-County Range Management Specialist
Dillon Gray, Autumn Boxum, Taylor Kepley, Jenna Platt- Soil Survey Team

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