

THE MONTANA CONSERVATIONIST

News from Montana's Conservation Districts

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MACD 2018 Scholarship Winners

MACD recently announced the winners of our 2018 scholarships. Each year, we award two \$500 scholarships to students studying or planning to study natural resource issues. Applicants must have a minimum GPA of 3.0, be Montana residents, and attend a Montana post-secondary institution.

This year's winners are Mara Lorch and Christian Bloch.

Mara is a senior at Flathead High School and is planning to study Biological Sciences (Ecology) and/or Environmental Studies at MSU.

Christian Bloch, from Sunburst, is the valedictorian of his class at North Toole County High School. His interest in science and natural resources started when blowing alkali created whiteout conditions and a teacher was killed. The following December, he and his classmates were challenged to investigate and develop a solution to remediate the problem of the blowing alkali. They ended up working with a variety of partnering organizations on solutions, and received \$10,000 for further research and a trip to the White House Science Fair to present their work, earning \$140,000 in technology for their school. Christian will be studying general studies at MSU.

Congratulations to both scholarship winners!



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NACD Applauds Conservation Measures in Omnibus Bill

March 23: WASHINGTON, D.C.
– Today, Congress passed and President Donald Trump signed into law a Fiscal Year (FY) 2018 omnibus appropriations package that will improve conservation delivery across the United States.

“NACD is encouraged by the strong support for conservation programs in the omnibus,” NACD President Brent Van Dyke said. “These provisions provide both the staff and financial assistance essential to conservationists, and we hope to see similar funding in FY 2019 appropriations this fall.”

The omnibus includes strong funding levels for Conservation Operations at \$874 million, including conservation technical assistance, and maintains full funding levels for farm

bill conservation programs. Additionally, the System for Award Management (SAM) and Data Universal Numbering System (DUNS) requirements to participate in conservation programs were eliminated.

“NACD has supported eliminating these requirements for years,” NACD CEO Jeremy Peters said. “Removing the burdensome task of SAM/DUNS reporting allows landowners and operators to prioritize conservation program participation without hindrance.”

The omnibus maintains funding for the Environmental Protection Agency (EPA)’s 319 grants and provides continued financial support for the Watershed Operations and Watershed Rehabilitation programs. The

package also includes \$335 million for the USDA Forest Service State and Private Forestry programs, which is an increase from FY 2017’s levels, with \$28 million dedicated to urban forestry efforts.

“From rural to urban lands, conservation matters on every acre,” Peters said. “These increases in programmatic funding, as well as the permanent wildfire funding fix laid out in the bill, enable natural disaster mitigation on a variety of landscapes.”

“Federal support for these programs is a significant win for landowners nationwide,” said Van Dyke. “There is still work to be done, but these funding levels provide conservationists with increased resources to deliver the best technical assistance possible.”

Montana Delegation Praises Forest Management Changes in Omnibus Bill

March 22 *Montana Public Radio:* Today the U.S. House passed the \$1.3 trillion omnibus spending bill with strong bipartisan support. It funds the federal government through September. The bill now heads to the Senate where NPR says it is also likely to pass with bipartisan support.

Wednesday, Montana’s Republican Senator Steve Daines said there’s good news for the Treasure State in the spending bill.

“We secured some very important forest management reforms.”

Daines points to eliminating what

he calls “NEPA paperwork” on national forest projects of 3,000 acres or less aimed at reducing hazardous fuels. NEPA is the National Environmental Policy Act. Critics like the Center for Biological Diversity say exempting 3,000 acre parcels from that law is bad for forests and wildlife.

The spending bill also removes requirements to review some federal lands for critical Canada lynx habitat.

Daines praised the spending bill for ending so-called “fire borrowing” - that’s raiding the U.S. Forest Service budget to pay for wildfire suppression instead of paying for

fires like other natural disasters.

“It allows the Forest Service to use more of its funds on timber management, forest management and recreation programs, rather than fire suppression,” Daines said.

Democratic Senator Jon Tester agreed that the Forest Service needs relief from wildfire suppression costs.

“These costs drain resources that are needed to build and maintain trails, do research, and yes, cut a few trees,” Tester said.

[READ MORE](#)



Left: Crop showing symptoms of aluminum toxicity in a low pH soil

Soil Acidity is Causing Crop Failure in some Montana Fields: Is yours next?

By Clain Jones, MSU Extension Soil Fertility Specialist/Assoc. Professor of Nutrient Management

Farmers in several Montana counties are experiencing nearly complete yield loss in portions of their fields due to soil acidity (low pH). Standard top 6-inch soil pH testing may not definitively identify soil acidity problems. Most fields with low pH problem areas also have larger areas with higher pH that buffer the pH value when soil samples submitted to labs are mixed from 6-8 subsamples per field. Also, the lowest pH is generally in the top 2 to 3 inches, not the top 6 inches, further masking the issue. MSU soil scientists have now identified fields in 15 Montana counties with soil pH levels below 5.5, some as low as 3.8. Because many Montana soils have pH levels greater than 7.0, soil acidification received little attention until recently when yield-limiting acidity was identified in Chouteau County.

At pH levels below 5.0, naturally-

occurring soil metals (like aluminum and manganese), become more soluble and can stunt root and shoot growth. Young plants in acidic areas are often yellow with club or "witch's broom" roots (see photos). Substantial yield losses occur at pH levels below 4.5. The most sensitive cereal crops appear to be barley and durum, followed by spring wheat.

The major cause of acidification appears to be ammonium fertilizers, including urea, applied in excess of crop uptake. No-till concentrates the acidity near the surface where fertilizer is applied.

Acidity problems usually start in low lying areas of a field (where yield has historically been high), and acidity symptoms spread outward. To identify if you have an acidification problem, look at

your top 6-inch soil test. If the pH is consistently above 7.5, it's unlikely you have a problem. If it is below 6.0, you likely have areas with pH below 5 and have yield-limiting soil acidity.

On fields where standard soil test pH levels in the top 6 inches are below 7.5, scout for yellow seedlings and club roots. To verify that those symptoms are caused by low pH, analyze just the top 2 inches for pH, either with a field pH stick, pH probe, or lab analysis. Soil in the zone at the edge of poor growth areas should also be sampled to determine if the pH is close to toxic on the margins, but do not yet exhibit symptoms. The potential is there for problem areas to grow in size. Areas where pH is 5 to 6 should be managed differently to prevent further acidification.

For additional information on this emerging issue, go to <http://landresources.montana.edu/soilfertility> and click on Soil Scoops where you will find two documents on soil acidification, or click on Presentations. Please contact Clain Jones, MSU Extension Soil Fertility Specialist (clainj@montana.edu, 994-6076) or MT Salinity Control Association (406-278-3071) if you have any questions.



Right: Durum Wheat Aluminum toxic root

New study shows it pays to treat cheatgrass

From Sagegrouse Initiative: An economics study from the USDA Natural Resources Conservation Service shows that the earlier ranchers treat cheatgrass, the greater their financial reward.

There's no cheating cheatgrass.

This invasive annual weed is difficult to eradicate because of its short lifecycle and high seed production. Throw wildfire into the mix and it's even more of a nuisance, because cheatgrass can become more dominant and expand after a fire.

Cheatgrass, and other invasive annuals like medushead and ventenata, out-competes other native forbs and grasses. If left unmanaged, it can reduce forage

production for cattle and create a fire-prone monoculture of weeds.

If you own or operate rangeland in sagebrush country, chances are you've seen cheatgrass on your property. But does it make financial sense to treat it?

A new economic report and infographic from the Natural Resources Conservation Service in Oregon helps ranchers and land managers answer that question.

The 2017 report, titled Economics of Annual Grass Control in Eastern Oregon, examined economic gains and losses when treating low, moderate and high levels of annual grass infestation.

[READ MORE](#)

How Pokemon inspired a citizen science project to monitor tiny streams

From KUNC: In parched states like Colorado, Utah, Wyoming, Montana and Idaho, water is a big issue, especially with growing populations that constantly need more and more. But there's a big question: How do we accurately forecast the amount of water that will be available any given year? It's not easy. But some Colorado scientists think they're onto a possible solution -- inspired by Pokemon.

Before we get to Pokemon, let's start with the problem. And to understand the problem, we have to start on the side of a canyon road outside Fort Collins, Colorado. Hydrologists Stephanie Kampf and Kira Puntenney-Desmond, both with Colorado State University, pull over to take a look at a stream that trickles under the road through a small tube.

"This one's fascinating," says Puntenney-Desmond, pointing to a stream that, from afar, doesn't look like much at all. "It's always worth getting out of the car because if you listen really quietly, you can hear the stream flowing."

And with that, she was bolting out of the car and across the street.

Puntenney-Desmond practically squeals with excitement. "It's no longer frozen! The water is actively flowing," she says.

[READ MORE](#)

RIPARIAN GRAZING WORKSHOPS

FEATURING SANDY WYMAN

Sandy is a retired BLM Riparian & Rangeland Management Specialist, National Riparian Service Team 2002-2018 and NRCS for 15 years. She has worked throughout the west providing coaching and training in conflict management, facilitation, riparian assessment, restoration, monitoring, and adaptive grazing management.

Learn how to effectively manage riparian grazing areas. Workshops will include a morning session with speakers, catered lunch, and a field tour in the afternoon.

\$15 pre-registration / \$20 at the door

Hosted by SWCDM, MRDC, and DNRC Rangeland Resources Committee

➤ Visit www.swcdm.org for more information and to register. ⬅

JUNE 26 THOMPSON FALLS

JUNE 27 HELENA

JUNE 28 DEER LODGE

Grants

223, etc. Grant Deadlines

The next 223, mini-education, and district development grants from DNRC deadline for FY 2018 is: **April 25, 2018.** [Grant Info](#)

Groundwater Investigation Program

The Ground-Water Steering Committee is currently accepting nominations for Ground-Water Investigation Program (GWIP) projects to be initiated during 2019. This is for watershed, communities and conservation districts to put forth a proposal for an existing or potential ground water issue, for quality and/or quantity. Nomination packages due April 16. [More Info](#)

Ranching For Rivers Program Applications

SWCDM is seeking applications for Ranching for Rivers – a cost-share program to help rancher with riparian pasture fencing projects. In partnership with the Missouri River Conservation District Council, SWCDM will offer up to 50% cost-share to landowners throughout the state to voluntarily construct fences and/or other infrastructure (crossings, water gaps, offsite water, etc.) that enable them to better manage the riparian resources on their land. Applications accepted on rolling basis, closes **June 15.** [More Info](#)

Candidate Conservation Agreement with Assurances for grassland birds

The Nature Conservancy has partnered with the U.S. Fish and Wildlife Service on a voluntary program that contributes toward the conservation of greater sage-grouse and four declining grassland songbird species. The goal of the CCAA is to maintain and enhance habitats for these birds, while providing assurances to ranchers against potential future land use restrictions. [More Info.](#)

Events, etc

Broadwater Small Acreage Management

Saturday, April 21st, Townsend. Topics include soil science, wildfire mitigation, noxious weeds and sprayer calibration. We are also included a field trip in the afternoon of local properties looking at grazing management, weed control, riparian health and fencing. The cost is \$20 per individual and \$35 per couple which includes lunch, materials and tour transportation. An RSVP is requested by April 16th to guarantee your lunch. Email allison.kosto@montana.edu for more info.

Montana Storm Water Conference

Join us, **May 1-3**, 2018, in Bozeman, MT, for the 2018 Montana Storm Water Conference. This is a time to gather, share, learn and collaborate on storm water and water quality issues with your local, regional and national colleagues [More Info](#)

Montana Range Forum

Please join us for the 2018 Range Forum. This event has a great line up of topics relevant to Montana rangelands. Topics include Elk and ranching in Montana, Fire and Drought, and information on new mediation program from Montana Department of Agriculture. **May 9 & 10.** [More Info](#)

Wetland Rendezvous

The purpose of this gathering is to spend some quality time in the field exploring springs and wetlands with other wetland scientists and learn about new and innovative ways to inventory, monitor, and assess these ecosystems. Hosted by Montana Wetland Council. Lincoln, MT, **June 26-28.** [More Info](#)

Montana Natural Resources Youth Camp

The 32nd annual Montana Natural Resources Youth Camp will be held July 15-20. Students aged 14-18 will spend a week in rustic cabins at Lubrecht Experimental Forest east of Missoula, learning about our natural resources & their management, and make lasting friendships. Camp cost is \$300. Application & deposit of \$150 due **June 15.** www.mnryc.com for more info.

2018 River Rendezvous

Please join us on **July 11th and 12th** for the 2018 River Rendezvous hosted by the Cascade Conservation District and the Missouri River Conservation Districts Council. Contact Rachel Frost 406-454-0056, or Tenlee Atchison 406.727.3603 x125 for more information.

Coming Up

April

- 7 Country Living Workshop, Ronan
- 9 MACD Board Conference Call
- 21 Madison & Ruby Valley District Banquet
- Broadwater Small Acreage Management Institute
- 23-24 Envirothon
- 23 MACD Executive Committee Conference Call
- 28 Fly Fishing Film Tour, Thompson Falls

May

- 1-3 Montana Stormwater Conference, Bozeman
- 9-10 Montana Range Forum, Billings
- 14 MACD Board Conference Call
- 28 MACD Executive Committee Conference Call

Have an event to share?
Visit macdnet.org/calendar to add your event to our list!

Opportunities, continued...

Summer Internship Opportunity The Montana Rangeland Resource Program is excited to announce a unique opportunity for two students for the summer of 2018. The successful applicants will have the opportunity to spend two weeks at each of the six host/mentor's ranch operations. This internship is designed to offer beginning agriculturalists, natural resource and range specialists the real-world and hands-on experience implementing the educational tools already gained to a ranching operation. This paid internship will last for three months during the 2018 summer where interns will work and learn from mentoring ranchers from across the state of Montana. A stipend of \$1,600 will be given at the end of each month with room and board supplied by the mentoring ranch. Contact Stacey Barta for more info: sbarta@mt.gov

Landowners urged to plan ahead, for stream modification project permits

By Bob Flescher, Stream Permitting Coordinator, Montana Department of Natural Resources

With this year's high potential for spring flooding, the Montana Department of Natural Resources and Conservation (DNRC) is encouraging residents who live on or near a river or stream to familiarize themselves with the stream-permitting process, including the types of permits they may need before starting a stream project.

Stream-modification projects undertaken as an immediate response to flooding require an Emergency Form 275. Landowners must contact their local Conservation District within 15 days of taking the emergency action and submit the completed Emergency Form. This permit is not required before any project activity begins.

To qualify as an emergency action, Montana law states the project must be the result of an *"unforeseen event or combination of circumstances that calls for immediate action to safeguard life, including human or animal, or property, including growing crops, without giving time for the deliberate exercise of judgment or discretion ..."*

The 310 permit is needed for any non-emergency streambed or streambank modification project. The 310 Joint Application can take up to 60 days to complete; landowners planning a project for spring should contact their local Conservation District well in advance of the planned starting date to get the permitting process started.

For routine projects undertaken every year, such as cleaning out an irrigation diversion, landowners can apply for a Maintenance Permit through their local Conservation District. These permits are good for up to ten years.