

THE MONTANA CONSERVATIONIST

News from Montana's Conservation Districts

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Divers find no evidence of invasive mussels in Tiber Reservoir

Flathead Beacon: HELENA — U.S. Fish and Wildlife Services scuba divers searched for three days but did not find any indication of adult aquatic invasive mussels on the face of Tiber Dam in north-central Montana.

The divers were brought in this week because a juvenile mussel was found in a water sample taken from Tiber Reservoir near Chester last fall. That and a suspect sample taken from Canyon Ferry Reservoir near Townsend led Montana to increase its efforts to prevent the possible spread of the shellfish that can clog water pipes and displace native species.

Montana PBS reports wildlife officer Deb Goeb found a rusty pipe under water at Tiber Reservoir that was free of mussels, which she took to be a good sign.

State officials will continue to test water, educate boaters and inspect boats at the two reservoirs as well as watercraft coming into the state.

[READ MORE](#)

Mammoth bones uncovered at Montana ranch

USA Today: GREAT FALLS, Mont. — Lee Randall had unearthed animal bones on his property before, but nothing this big.

Last weekend, Randall announced he and a crew of paleontologists had excavated a Columbian mammoth, estimated between 20,000 and 10,000 years old, from the banks of the Powder River meandering through his ranch near Broadus. Experts hope the remains can help tell the story of how the ancient creatures lived and died.

After finding the tusks and skull largely intact, with the animal's molars captured in the process of revolving a new set, Randall said he was awestruck.

"The tusks' size was six or seven feet, by far not the biggest ones," he said. "But even being seven feet, they were just colossal."

Eastern Montana is a hotbed, or deathbed, for fossils and artifacts. The region has produced several different dinosaur remains, including the most complete juvenile tyrannosaurus ever found. The Carter County Museum about 70 miles away was the first facility in Montana to display dinosaurs and exhibits a nearly complete duckbill dinosaur and a full triceratops skull. The museum also carries exhibits from more recent history, like a Native American artifact exhibit, a veterans room and a two-headed calf.

[READ MORE](#)



Hamilton Envirothon team places in top ten at national competition

Ravalli Republic: The Hamilton High School Envirothon team competed at the North American Envirothon Competition in Maryland, July 27 – Aug. 2.

The Bronc team placed ninth in oral competition.

"We had a fabulous week learning about agriculture, the Civil War and the Chesapeake Bay," said Marie Antonioli, advisor. "The kids had four grueling days of field trips, lectures, tests, more field trips, preparation and competition, but we all managed to have a ton of fun as well."

Envirothon is a competitive, problem-solving, natural resource event for high school students who study soils, aquatics, forestry, wildlife, plus a new environmental issue each year.

HHS team members Hadley Gideon (senior), Alleah Jordan (senior), Olivia Schmit (junior), Colleen May (junior) and Shelby Cruse (sophomore) with coaches Tom Schmit and Antonioli, represented Montana at the Envirothon Competition with 54

state and provincial championship teams all focusing on soil and water conservation.

"Our team made Montana proud," Antonioli said.

Dan Kimzey said Schmit and Antonioli have brought science education to a new level through coaching Envirothon and Science Olympiad, and promoting science through the HHS Science Club.

"They've harnessed the power of some of the greatest science and conservation minds in Montana to work with our students to prepare for science events such as the International Envirothon Competition," Kimzey said. "The fact that our students were in the top ten in oral presentation in an international science competition is a testament to not only the exceptional science education these competitors are receiving in the Hamilton school district, but it is also a result of high-quality of coaching and the quality of the scientists who volunteer to mentor these kids."

[READ MORE](#)



Artificial light deters nocturnal pollinators, study suggests

NPR: Think of plant pollination and you probably think of bees, summer flowers and bright sunshine.

But nocturnal insects such as beetles and flies also play a key role in the process. A new study sheds light on a previously unknown problem for these lesser-known pollinators, namely artificial lighting.

Scientists working in Switzerland [carried out an experiment](#) in which they placed mobile streetlamps over plots of [cabbage thistle](#).

Using night-vision goggles, they counted the visits of pollinating species to these experimental plots and compared them with plots left dark. What they found was that the lighted plots, compared with the dark ones, received far fewer visits from nocturnal pollinators (62 percent fewer) and that significantly fewer species were making the visits (29 percent fewer). Details of the study are in the latest issue of *Nature*, which writes:

"Illuminated thistles produced significantly fewer developed fruits than those in darkness. Plants covered in pollinator-proof bags, meanwhile, yielded the same relative number of fruits under artificial light and in the dark."

[READ MORE](#)

MSU Researchers, Ennis hatchery construct wetlands to treat wastewater

Bozeman Chronicle: On a June day when snow lingered on the peaks of the Madison Range, Jack Wallis personified Montana State University's Trout U moniker not with a fly rod in hand but with an 8-foot section of PVC pipe fitted with a wide vacuum nozzle.

As hefty rainbow trout lazed in the long, concrete-sided pools inside the Ennis National Fish Hatchery, Wallis steadily worked the apparatus through the water with the concentration of casting a dry fly, using the vacuum to suck up a sludge of fish food and excrement that had collected near a grate.

"I was pretty excited when I got to work on this project," said Wallis, an angler who visits Montana's alpine lakes when he's not earning his master's degree at MSU in environmental engineering.

From the vacuum pipe, the sludge-filled water traveled through pumps, valves and tanks that directed the flow to the most important part of the system: a wetland constructed to treat the effluent. In the artificial wetland's beds of sand and gravel, underlain by drainage pipe and a liner, the roots of plants host microbes that feast on the fish sludge and purify the water.

"We're using the same microbial processes as in wastewater treatment plants," Wallis said. "It's just in the form of a wetland instead of a mechanical system."

Wallis is part of a team of researchers in MSU's College of Engineering that has partnered with the U.S. Fish and Wildlife Service, which operates the Ennis hatchery, to study the use of what are called treatment wetlands, which are relatively rare in the U.S. [READ MORE](#)

In a drought? Here's money to help

Ag Update: A large swath of livestock producers across Eastern MT and the Western Dakotas are going through one of the worst droughts on record in 2017. The financial cost of the drought on ranchers in this area continues to increase, as we go day after day with little or no precipitation. The good news is there is some financial assistance that may be available to affected producers through the Farm Service Agency.

The Livestock Forage Disaster Program (LFP) provides compensation to eligible livestock producers who have suffered grazing losses on land that is native or improved pasture ground. As of August 1st, ranchers in 17 Montana counties, 31 North

Dakota counties and 27 South Dakota counties may be eligible for assistance.

Thanks to the North Dakota State University Extension Service producers across the region can now estimate what amount of aid they may be eligible for. NDSU extension has put together a quick and easy to use Excel program that will provide an approximation of payments. This is an extremely valuable tool for both producers and agricultural lenders trying to find solutions to lighten the stress the drought has put on operations.

To access the spreadsheet please click on the following link: [2017 LFP Calculator](#)

[READ MORE](#)

State launches website to track harmful algae blooms

Bozeman Daily Chronicle: Montana environmental and health officials launched a new website where members of the public can report what they believe to be harmful algae blooms.

The Montana Department of Environmental Quality and the Montana Department of Public Health and Human Services announced the new [website](#) and a tip line in a press release on Monday. People will be able to upload photos of a bloom and give GPS coordinates for exactly where it was.

The agencies want to educate the public and they want their help in tracking and identifying

harmful blooms.

"We want to get better with communicating with the public," said Myla Kelly, a water quality specialist with the DEQ.

Harmful algae blooms refer to blue-green algae, which produces certain toxins that can be harmful to people and animals. They turn the water into something like pea soup, and the algae is usually suspended in the water column.

Animals have been killed by the blooms in the past, but the state's press release said there have been no humans killed by harmful algae.

[READ MORE](#)

Neighbors help neighbors after Lodgepole fire

Ag Update: JORDAN, Mont. — Load after load of hay bales stacked on trailers and hauled by semis or other trucks wind down Highway 200 headed into Jordan, Montana, and beyond.

On the side of one load of hay bales carried on the trailer of a small truck, someone has inked the words, "Jordan bound."

Pickups pass by honking — everyone seems to understand the meaning of the simple words.

These trucks are bringing hay into the eastern region every day donated by ranchers from not only western Montana, but from other states — Wyoming, Ohio, Kansas, Minnesota and Texas.

The hay is earmarked for ranchers who desperately need the feed from losses incurred from a major drought and a huge wildfire.

Thousands of acres of grassland and pasture — some 270,300 acres or more — were burned in the recent Lodgepole Complex fires that started on July 19.

At the time it was listed as the No. 1 fire priority in the nation.

But even before the blaze engulfed these prairie lands, a record drought had dried up much of the grass. The drought turned pastures brown when in a normal year, they would have been green and nutritious.

Ranchers did not have enough hay to put up many hay bales in 2017. [READ MORE](#)

Grants

223, etc. Grant Deadlines

Deadlines for 223, mini-education, and district development grants from DNRC for FY 2017 are as follows: **July 29**, 2016; **October 14**, 2016; **January 14**, 2017; and **April 26**, 2017. [Grant Info](#)

DNRC RRGL Program

The Renewable Resource Grant and Loan program will be accepting planning grant applications July 1st through September 1st, 2017 through www.fundingmt.org. The program information can be found on the [DNRC website](#)

Water Quality Mini Grants Now Open

SWCDM is seeking applications for mini-grants of up to \$3,000 to fund local education and outreach efforts addressing nonpoint source pollution and water quality issues. A total amount of approximately \$10,500 is available for grant funding this cycle. Due September 29. [More Info](#)

Events

Wetland Council Meeting

The Montana Wetland Council will be hosting their semi-annual meeting in Helena on September 14th at 9:00 am. [More Info](#)

Jim Gerrish Sustainable Grazing Workshop

Ranchers Stewardship Alliance is hosting a sustainable grazing workshop at the matador Ranch, featuring Jim Gerrish. September 19. [More Info](#)

Montana Range Tour

The 2017 Tour will take place in Petroleum and Fergus County areas, where we will focus on large landscape projects, conservation easements, new technology for monitoring water and cattle, grazing management, and soil health. September 6-7, Lewistown. [More Info & Registration](#)

Stockmanship for Improved Grazing Management Workshops

Lake, Missoula, Bitterroot, Deer Lodge, & Granite Conservation Districts have teamed up to host a series of workshops featuring Curt Pate. Ronan 9/18, Victor 9/19, Deer Lodge 9/20. [More Info](#)

Have something you'd like to see in TMC? Submissions are due every other Friday at 5:00 (visit our website for a calendar), and should be sent to tmc@macdnet.org.

SAVE THE DATE Area Meetings

The 2017 MACD Area Meetings will be on the following Dates: Sept 18th - East Glacier (3) | Sept 20th - Culbertson (1) | Sept 21st - Ekalaka (2) | Sept 22nd - Harlowton (4) | Sept 26th - Missoula (5) | Sept 27th - Butte (6) [More Info](#)

Jobs, etc

Fuels Reduction Manager, Lower Musselshell CD

LMCD is looking for a fuel reduction project administrator with knowledge of forestry, fuel reduction for defensible space, fuels and fire behavior. Part time, Flexible hours. \$15-\$20/hour DOE plus mileage. Contact donna.pedrazzi@mt.nacdnet.net or 323-2103 ext. 101.

SAVE THE DATE

for the

Montana Association of Conservation Districts Annual Convention

Bozeman, November 14-16

Holiday Inn

Reserve your room at a discounted rate now by calling (406)587-4561 and mentioning MACD room block.

Coming Up:

August

21 Greater Gallatin
Watershed Council
Drought Forum, Four
Corners

24 CMR Community Working
Group Meeting, Jordan

28 MACD Executive
Committee Meeting

September

6-7 Montana Range Tour,
Lewistown

11 MACD Board Conference
Call

12 Soil Health Series Webinar

14 Montana Wetland Council
Meeting

18-20 Musselshell Watershed
Tour, Harlowton

18 Curt Pate workshop,
Ronan

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

Cooperation and trust help to fight weeds in Sweet Grass County

By John Grassy, Montana DNRC:

Knapweed and leafy spurge, two of Montana's most aggressive and persistent noxious weeds, first arrived in Sweet Grass County in the 1940s. A half-century later, across the broken foothills of the Absaroka Mountains south and east of Big Timber, both species were well-established. Ranchers Leo and Lois Cremer grew up in the area and were certainly acquainted with knapweed and leafy spurge. But it wasn't until they acquired a tract of neighboring rangeland that they had to confront the full scope of the problem.

"It was overwhelming," Leo says. "There hadn't been any weed management. In some areas leafy spurge and knapweed were the dominant species. We stood there staring at it wondering what the heck we were going to do."

Stacey Barta in 2004 was the Sweet Grass County noxious weed coordinator. She wanted to take on the area's weed problem, too. But in order to do it right, she knew the fight would have to continue for a long time – at least long enough to outlast the 8- to 10-year seed supply of knapweed. Nor would it succeed without broad participation from area landowners. A single mature knapweed plant will produce 18,000 to 24,000 seeds per year. If two neighboring landowners are actively controlling weeds and two others nearby are not, a lot of time, effort and money can be wasted.

Barta saw an opportunity in 2004 when she learned the Natural Resources Conservation Service (NRCS) had a special initiative to fund long-term weed management on a watershed scale. She sat down with Chuck Roloff, district conservationist for NRCS in Big Timber, and Joe Fidel, then the NRCS Bozeman-area resource conservationist, to learn what she would need to submit in a grant application.

The first requirement may have been the most challenging. It was Barta's job to contact every landowner in the watershed, explain the opportunity at hand, and the potential costs and benefits.

"I spent a lot of time going to houses, having coffee, and teasing out what each landowner might be willing to do," says Barta. "I stressed the negative environmental impacts of invasive species on their operation and the environment. With proper weed control they would end up with more forage on the ground for their cows and better habitat for wildlife."

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