

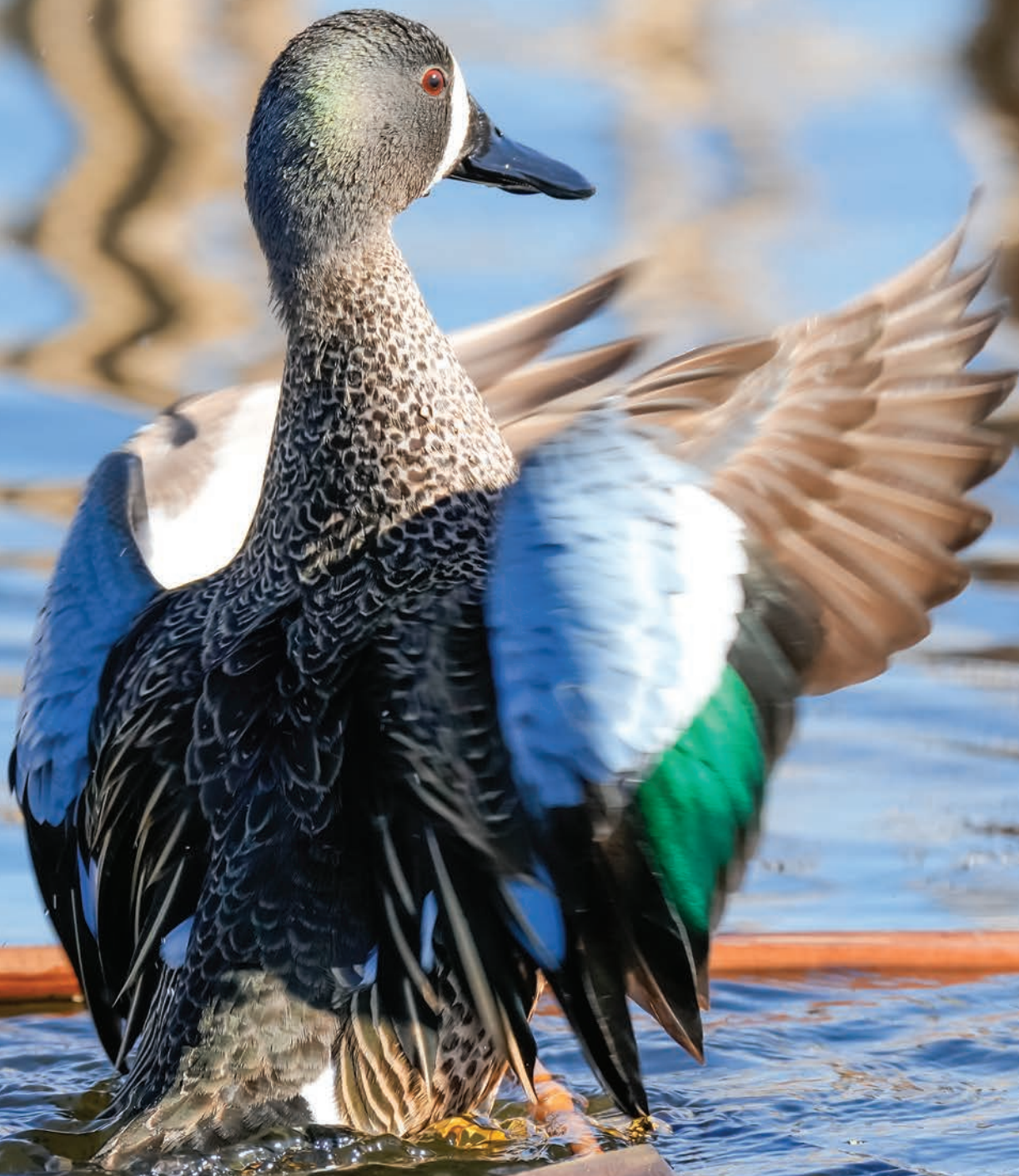
# NORTH DAKOTA OUTDOORS

PUBLISHED BY THE NORTH DAKOTA



GAME AND FISH DEPARTMENT

\$2.00 June 2025



NORTH  
Dakota  
Be Legendary.

Game and Fish



DEPARTMENT DIRECTORY

Governor Kelly Armstrong

ADMINISTRATIVE DIVISION

Game and Fish Director: Jeb Williams  
Deputy Director: Scott Peterson  
Chief, Administrative Services: Brian Hosek  
Federal Aid Manager: Corey Wentland  
Administrative Staff Officer: Justin Mattson  
Administrative Assistant: Lynn Timm  
Building Maint. Supervisor: Brandon Diehl  
Administrative Officer: Melissa Long, Alan Peterson  
Accounting Manager: Angie Morrison  
Accountants: Kelly Wike, Ashley Hillerson  
Business Manager: Alison Kammer  
Technical Operations Lead: Alan Reile  
Data Scientist: Shane Wegner  
Licensing Manager: Randy Meissner  
Assistants: Amanda Anstrom, Tracy Price, Tana Bentz, Tanya Mikkelsen, Elizabeth Klein  
Administrative Assistant – Dickinson: Stephanie Richardson  
Administrative Assistant – Devils Lake: Lisa Tofte  
Administrative Assistant – Jamestown: Tonya Kukowski  
Administrative Assistant – Riverdale: Mattea Bierman  
Administrative Assistant – Williston: Stephanie Wellman

CONSERVATION AND COMMUNICATIONS DIVISION

Division Chief: Bruce Kreft, Bismarck  
Communications Supervisor: Greg Freeman, Bismarck  
Editor: *North Dakota OUTDOORS*: Ron Wilson, Bismarck  
Marketing Coordinator: Cayla Bendel, Bismarck  
Digital Media Editor: Lara Anderson, Bismarck  
Video Project Supervisor: Mike Anderson, Bismarck  
Photographer/Videographer: Ashley Peterson, Bismarck  
Marketing Specialist: Jackie Ressler, Bismarck  
Information Specialist: Dawn Jochim, Bismarck  
Graphic Artist: Kristi Fast, Bismarck  
Education Supervisor: Marty Egeland, Bismarck  
Education Coordinator: Jeff Long, Bismarck  
Hunter Education Coordinator: Brian Schaffer, Bismarck  
Outreach Biologists: Doug Leier, West Fargo; Greg Gullickson, Minot; Jim Job, Grand Forks  
Conservation Supervisor: Patrick Isakson, Bismarck  
Conservation Biologists: Sandra Johnson, Elisha Mueller, John Schumacher, Aaron Larsen, Greg Schonert, Bismarck  
Administrative Assistant: Amber Schroeter, Bismarck

ENFORCEMENT DIVISION

Division Chief: Scott Winkelman, Bismarck  
Investigative Supervisor: Jim Burud, Kenmare  
Investigator: Blake Riewer, Grand Forks  
Operations Supervisor: Jackie Lundstrom, Bismarck  
Warden Pilot: Mike Linden, Bismarck  
Region No. 1 Warden Supvr: Michael Sedlacek, Jamestown  
District Wardens: Corey Erck, Bismarck; Andrew Dahlgren, Minnor; Erik Schmidt, Linton; Greg Hastings, Jamestown; Noah Raitz, LaMoure; Gavin Herbert, Steele; Nick Tschepen, Fargo  
Region No. 2 Warden Supvr: Paul Freeman, Devils Lake  
District Wardens: Jonathan Tofteland, Bottineau; Jonathan Peterson, Devils Lake; James Myhre, New Rockford; Alan Howard, Cando; Drew Johnson, Finley; Sam Feldmann, Rugby;  
Gage Muench, Grand Forks; Dale Skalicky, Langdon  
Region No. 3 Warden Supvr: Joe Lucas, Riverdale  
District Wardens: Michael Raasakka, Stanley; Shawn Sperling, Minot; Keenan Snyder, Williston, Josh Hedstrom, Tioga; Riley Gerding, Kenmare; Clayton Edstrom, Turtle Lake  
Region No. 4 Warden Supvr: Dan Hoenke, Dickinson  
District Wardens: Kylor Johnston, Hazen; Zachary Biberdorf, Bowman; Courtney Sprenger, Elgin; Zane Manhart, Gola; Jerad Blum, Mandan; Zachary Schuchard, Richardton  
Administrative Assistant: Lori Kensington, Bismarck

WILDLIFE DIVISION

Division Chief: Casey Anderson, Bismarck  
Assistant Division Chief: Bill Haase, Bismarck  
Game Mgt. Section Leader: Stephanie Tucker, Bismarck  
Pilot: Jeff Faught, Bismarck  
Upland Game Mgt. Supvr: Jesse Kolar, Dickinson  
Upland Game Mgt. Biologist: Rodney Gross, Bismarck  
Migratory Game Bird Mgt. Supvr: Mike Szymanski, Bismarck  
Migratory Game Bird Biologist: John Palarski, Bismarck  
Big Game Mgt. Supvr: Bruce Stillings, Dickinson  
Big Game Mgt. Biologists: Brett Wiedmann, Dickinson; Jason Smith, Jamestown; Ben Matykiewicz, Bismarck  
Survey Coordinator: Chad Parent, Bismarck  
Wildlife Veterinarian: Dr. Charlie Bahnson, Bismarck  
Wildlife Health Biologist: Mason Ryckman, Bismarck  
Game Management Biological Technician: Ryan Herigstad, Bismarck  
Wildlife Resource Management Section Leader: Kent Luttschwager, Williston  
Wildlife Resource Mgt. Supvrs: Brian Prince, Devils Lake; Brian Kietzman, Jamestown; Dan Halstead, Riverdale; Blake Schaam, Lonetree; Levi Jacobson, Bismarck; Judd Jasmer, Dickinson  
Wildlife Resource Mgt. Biologists: Randy Littlefield, Lonetree; Rodd Compson, Jamestown; Todd Buckley, Williston; Jake Oster, Riverdale; Jens Johnson, Bismarck; Andrew Ahrens, Devils Lake  
Wildlife Biological Technicians: Tom Crutchfield, Jim Houston, Bismarck; Dan Morman, Robert Miller, Riverdale; Jason Rowell, Jamestown; Scott Olson, Devils Lake; Zach Eustice, Williston; Colton Soiseth, Quentin Corcoran, Lonetree  
Private Land Section Leader: Kevin Kading, Bismarck  
Habitat Manager: Nathan Harling, Bismarck  
Private Land Field Operation Supvrs: Curtis Francis, East Region, Andrew Dinges, West Region, Bismarck  
Private Land Biologists: Zach Johnson, Colin Penner, Bismarck; Jaden Honeyman, Ben Reith, Dickinson; Ryan Huber, Riverdale; Renae Schultz, Jeff Williams, Jamestown; Terry Oswald, Jr., Harvey; Erica Sevigny, Williston; Brandon Ramsey, Matthew Parvey, Devils Lake  
Procurement Officer: Dale Repnow, Bismarck

FISHERIES DIVISION

Division Chief: Greg Power, Bismarck  
Fisheries Mgt. Section Leader: Scott Gangl, Bismarck  
Fisheries Supvrs: Russ Kinzler, Dave Fryda, Riverdale; Paul Bailey, Bismarck; Brandon Kratz, Jamestown; Aaron Slominski, Williston; Bryan Sea, Devils Lake  
Fisheries Biologists: Todd Caspers, Devils Lake; Mike Johnson, Jamestown; Jeff Merchant, Dickinson; Zach Kjos, Riverdale  
Fisheries Biological Technicians: Phil Miller, Devils Lake; Justen Barstad, Bismarck; Brian Frohlich, Riverdale; Lucas Rott, Jamestown; Ethan Krebs, Williston  
Production/Development Section Supvr: Jerry Weigel, Bismarck  
Aquatic Nuisance Species Coordinator: Benjamin Holen, Jamestown  
Aquatic Nuisance Species Biologists: Mason Hammer, Kyle Oxley, Jamestown  
Fisheries Development Supvr: Bob Frohlich, Bismarck  
Fisheries Dev. Proj. Mgr: Wesley Erdle, Bismarck  
Fisheries Development Specialist: Kyle Hoge, Jacob Heyer, Joe Fladeland, Bismarck  
Administrative Assistant: Janice Vetter, Bismarck

ADVISORY BOARD

District 1 .....Beau Wisness, Keene  
District 2 .....Travis Leier, Velva  
District 3 .....Edward Dosch, Devils Lake  
District 4 .....Karissa Daws, Michigan  
District 5 .....Doug Madsen, Harwood  
District 6 .....Cody Sand, Ashley  
District 7 .....Jody Sommer, Mandan  
District 8 .....Rob Brooks, Rhome



NORTH  
**Dakota** | Game and Fish  
Be Legendary.



Contributing photographers for this issue: Lara Anderson, Mike Anderson, Sandra Johnson, Jesse Kolar, Ashley Peterson and Ty Stockton.

Official publication of the North Dakota Game and Fish Department (ISSN 0029-2761)

100 N. Bismarck Expressway, Bismarck, ND 58501-5095

Website: [gf.nd.gov](http://gf.nd.gov) • Email: [ndgf@nd.gov](mailto:ndgf@nd.gov)

• Information 701-328-6300 • Licensing 701-328-6335

• Administration 701-328-6305

• *North Dakota Outdoors* Subscriptions 701-328-6363

• Hunter Education 701-328-6615

• The TTY/TTD (Relay ND) number for the hearing or speech impaired is 800-366-6888

Periodical Postage Paid at  
Bismarck, ND 58501  
and additional entry offices.  
Printed in the United States

**POSTMASTER:** Send address  
changes to:  
*North Dakota OUTDOORS*  
100 North Bismarck Expressway  
Bismarck, ND 58501-5095

Report All Poachers (RAP) 701-328-9921

In cooperation with North Dakota Wildlife Federation and North Dakota State Radio.





Jacob Heyer (left) and Kyle Hoge, Game and Fish Department fisheries development specialists, anchor a new fishing pier at Coal Lake in McLean County earlier in spring.

# NORTH DAKOTA OUTDOORS

PUBLISHED BY THE NORTH DAKOTA GAME AND FISH DEPARTMENT

*The mission of the North Dakota Game and Fish Department is to protect, conserve and enhance fish and wildlife populations and their habitats for sustained public consumptive and nonconsumptive use.*

• **Editor:** Ron Wilson • **Graphic Designer:** Kristi Fast • **Circulation Manager:** Dawn Jochim

JUNE 2025 • NUMBER 9 • VOLUME LXXXVII

## CONTENTS

- 2** | A Break From Mothering
- 8** | Answers About Elk
- 12** | Marked Fish, Multiple Waters
- 16** | A Different View
- 20** | Buffaloberry Patch
- 25** | Back Cast

*North Dakota OUTDOORS* is published 10 times a year, monthly except for the months of April and September. Subscription rates are \$10 for one year or \$20 for three years. Group rates of \$7 a year are available to organizations presenting 25 or more subscriptions. Remittance should be by check or money order payable to the North Dakota Game and Fish Department. Indicate if subscription is new or renewal. The numbers on the upper right corner of the mailing label indicate the date of the last issue a subscriber will receive unless the subscription is renewed.

Permission to reprint materials appearing in *North Dakota OUTDOORS* must be obtained from the author, artist or photographer. We encourage contributions; contact the editor for writer and photography guidelines prior to submission.

The NDGFD receives Federal financial assistance from the US Fish and Wildlife Service and the US Coast Guard. In accordance with Title VI of the Civil Rights Act of 1964, Section 504 of the Rehabilitation Act of 1973, Title II of the Americans with Disabilities Act of 1990, the Age Discrimination Act of 1975, and Title IX of the Education Amendments of 1972, the NDGFD joins the US Department of the Interior and its Bureaus and the US Department of Homeland Security in prohibiting discrimination on the basis of race, color, national origin, age, disability, sex (in education programs or activities) and also religion. If you believe you have been discriminated against in any program, activity, or facility as described above, or you desire further information, please write to: ND Game and Fish Department, Attn: Chief of Administrative Services, 100 N. Bismarck Expressway, Bismarck, ND 58501-5095 or to: Office of Civil Rights, Department of the Interior, 1849 C Street, NW, Washington, DC 20240.



### Front Cover

*Blue-winged teal on a North Dakota wetland.*

PHOTO BY ASHLEY PETERSON.



A photograph of a herd of bighorn sheep in a dry, grassy field. The sheep are brown with white rumps and curved horns. They are scattered across the field, some standing and some grazing. The background shows rolling hills and mountains under a blue sky. The title "A Break From MOTHERING" is overlaid on the image in a large, bold, serif font. The word "A Break From" is in a smaller font size and italicized, while "MOTHERING" is in a much larger, bold font. The text is enclosed in a white rectangular border.

# *A Break From* **MOTHERING**

By Ron Wilson





**S**ometimes bighorn sheep gotta take a break. While adult rams and ewes counted during the North Dakota Game and Fish Department's last survey were near record numbers, lambs recruited into the population declined 21% compared to the year before.

After two-plus decades of studying bighorn sheep in western North Dakota on some of the state's ruggedest terrain, Brett Wiedmann, Department big game management biologist, isn't losing any sleep over the dip in lamb recruitment.

You could argue that predation and drought maybe played roles in the lamb decline, but based on his years of experience, Wiedmann believes some ewes simply took a year off from mothering.

"I noticed this by observing bighorns that, let's say, you have a group of 15 ewes, and they'll have three years of recruiting a lot of lambs. Then on year four, I'll count them, and zero, no lambs," he said. "So, the immediate reaction is disease. Do they have disease in the population where these lambs have died of pneumonia? But then the following year lambs are back. Because the ewes invest a lot of energy into recruiting lambs, nursing those lambs, being dedicated to their young, some years a decline in lambs can just be attributed to taking the year off, putting on body weight, feeding rather than raising another lamb."

A healthy ewe is key to raising a healthy and hardy lamb that needs to be up to the task of navigating the difficulties of the badlands almost immediately.





Game and Fish Department personnel inspect the Grassy Butte bighorn sheep release site in western North Dakota in 1956.

"Bighorn sheep are completely unique compared to deer, elk and moose in that when a bighorn ewe gives birth, that lamb needs to be up following its mother at heel within about four days," Wiedmann said. "Bighorns do not hide their young like deer where they hide in the grass, and then the female wanders off. Bighorn lambs join nursery groups of adults at about 4- to 7-days-old. They're tiny, about 10-11 pounds. So, they're exposed to predators right away. And that's why, again, the bigger, the more athletic, the stronger the lamb, the higher its odds of survival."

Since the reintroduction of bighorn sheep in the badlands by the Game and Fish Department nearly 70 years ago, and certainly since the last native bighorn was killed at Magpie Creek in 1905, these animals are doing way better than OK today.

Even so, while bighorns are at record numbers and continuing to grow, there have been some hurdles along the way, namely a pneumonia outbreak in 2014 that killed 15-20% of the population and still lingers in some populations today.

"The Game and Fish was ahead of their time reintroducing bighorn sheep in 1956. However, I think if they had to do it again, the bighorn sheep they reintroduced probably weren't the

best source for North Dakota," Wiedmann said. "The bighorn sheep from British Columbia were a little smaller, a little better adapted to more of a mild climate than what we have here. So, we really struggled for about 40 years managing bighorn sheep, because it was kind of like jamming a square peg into a round hole ... they just didn't quite fit here."

Things changed when Montana Fish, Wildlife and Parks offered North Dakota bighorns in 2006 and 2007 from the Missouri River Breaks in Montana.

"Those animals from Montana just absolutely took off. These Montana bighorn sheep are big bodied, which as a biologist is what I like to see," Wiedmann said. "But what corresponds with these big-bodied animals are also big horns. We're harvesting tremendous rams in North Dakota right now. So, I'd say it's a heyday of bighorn sheep in North Dakota since their reintroduction in 1956."

Before the introduction of bighorns from Montana, the square peg for the square hole, Wiedmann thought western North Dakota's bighorn population would simply continue to stagger along.

"I tell you what, there was a year I was doing the survey, and I called some representatives of the Wild Sheep Foundation because things



just weren't looking good," Wiedmann said. "We had such low recruitment of lambs. We had a lot of populations where we had three ewes left and I told them it was impossible to get the populations to grow. We just struggled. If you factor out the introduction of the Montana bighorns, we'd probably be somewhere around 75 bighorn sheep today.

"I see these big Montana sheep when it's 35 below and the wind is blowing 30-40 miles per hour, and they are laying on top of a butte chewing their cud. I mean, they're impervious to weather," he added. "They also do well with heat. They can eat the real dry, desiccated forage that we have in the badlands right now. They actually do pretty well on that ... they are just such a tough animal. Pneumonia is about the only thing that can really set back a population of wild sheep."

Not only are bighorn sheep in the badlands tough, they are also long-lived. The oldest ram that Wiedmann has documented was 16.5 years old.

"He actually had three legs. He was missing a hind leg and every fall he would show up. I couldn't believe it," he said. "We knew the age because he was collared as a yearling."

The oldest ewe, also collared as a yearling so there was no mistaking her age, was 22.5 years old.

"If a hunter harvests a 5-year-old mule deer buck or a whitetail buck, that's going to

be a tremendous buck," Wiedmann said. "A 5-year-old ram is a teenager. He's just entering maturity. The prime for a bighorn ram is really 8 to 10 years old, making them much longer-lived than deer."

Two-plus decades ago when Wiedmann was hired, there was little known and so much to learn about the bighorns living in the badlands. Biologists didn't know where the bighorn sheep were hanging out. They didn't know their recruitment or survival rates. They didn't know home ranges. With the advancement in technology and a lot of hiking the rugged badland's terrain, there's little for the bighorn sheep to hide from biologists today while observing from a safe distance.

"A big challenge was just identifying where we had bighorn sheep. We now have GPS collars on every single subgroup of bighorn sheep in the badlands. So basically, when I do my survey, at 6 a.m. I get all those locations on my phone," he said. "Now,





our counts are very accurate. We are capable of locating and counting every single, little subgroup of bighorn sheep in the badlands."

Currently, about 480 bighorns make up the populations managed by the Game and Fish Department, National Park Service and the Three Affiliated Tribes Fish and Wildlife Division, just shy of the benchmark of 500 bighorns in the state.

Yet, there's room in western North Dakota for more. Wiedmann said that while the goal is about 750 bighorns for the available habitat in the badlands, wildlife managers are cautious about introducing more animals into the population because the strain of *Mycoplasma* that hit bighorns in 2014 still lingers.

To feel confident resuming translocations of bighorn sheep, Wiedmann said wildlife managers look at three factors: adult survival of more than 90% for rams and ewes for three consecutive years; three consecutive years of at least 25% lamb recruitment, which is an indicator the population does not have virulent strains of *Mycoplasma*; and three consecutive years without any clinical signs of pneumonia.

"Unfortunately, I'm still seeing lambs coughing during my summer count, which is indicative of pneumonia," he said. "That doesn't mean it's fatal to those lambs as most of them recover because the strain is less virulent than some others. But you don't want to bring in healthy bighorns and have them contract *Mycoplasma* from our resident bighorn sheep and start dying."

---

*RON WILSON is editor of North Dakota OUTDOORS.*



---

## Out of Harms Way

Construction of a wildlife crossing completed in summer 2021 to safely usher bighorn sheep and other big game animals from one side of U.S. Highway 85 to the other in western North Dakota is working maybe better than expected.

In fall 2021, Game and Fish Department trail cameras photographed bighorns for the first time using the underpass located just south of the Long X bridge near the North Unit of Theodore Roosevelt National Park.

Once the project was completed, it was only a guess on how well it would work, said Brett Wiedmann, Department big game management biologist, because bighorn sheep are hesitant to enter tunnels where they naturally fear being ambushed by predators.

"We were a little bit nervous that they wouldn't want to go into the crossing. But it far exceeded our expectations. We've had hundreds of crossings of bighorn sheep through the underpass and thousands of mule deer crossing as well," he said. "We have not had a single bighorn sheep killed on that stretch of highway since the project was completed. Not only has it saved a lot of mule deer, a lot of bighorn sheep, but it's also a safety factor for the public where we've prevented a lot of collisions coming down a real steep hill. It has just worked phenomenally well."

Wiedmann said the Long X herd is the second largest population of bighorns in badlands.

"There's currently 75 bighorn sheep in the herd," he said. "When you take away all those mortalities due to vehicle strikes ... they're really taking off now."

---





***ON THE ROAD OR THE WATER,  
YOU'RE HEADED NOWHERE FAST***



**WHILE  
IMPAIRED.**



**OPERATION  
DRY WATER**



**YOUR BOATING  
DOLLARS AT WORK**



Produced under grant from the Sport Fish Restoration and  
Boating Trust Fund, administered by the U.S. Coast Guard.



**OPERATIONDRYWATER.ORG**

NO OUTDOORS. NO DRINKING.



# Answers about



Findings from a five-year elk study in western North Dakota will help guide wildlife officials in the management of this once-in-a-lifetime species that continues to thrive in the rugged up and down of the badlands.

Starting in 2019, the North Dakota Game and Fish Department, in cooperation with the University of Montana, captured and fit 149 elk — mostly cows and some yearling and subadult bulls — with GPS collars to get an inside look into elk distribution and movements, resource selection and to identify a population monitoring technique to assess annual abundance.

Bruce Stillings, Department big game supervisor in Dickinson, said elk dynamics





BY RON WILSON

in the badlands changed considerably more than a decade ago after about 900 animals were culled from the South Unit of Theodore Roosevelt National Park.

"Once elk were hunted inside the park, a lot of elk dispersed both north and south of the park, and that's when we started seeing small herds start to establish," Stillings said. "Once we saw that these animals were going to be a long-term component in the western badlands, we knew there were things we needed to know, such as movements, home ranges, resource selection, what type of habitats they were using and survival rates. Plus, we needed to develop a population monitoring program."

Dan Morina, Phd. student with the Uni-

versity of Montana, had plenty to work with when analyzing the nearly 1.1 million elk locations provided by the GPS units over the course of the study.

"Including the elk in the park, we determined that we have nine discrete herds in western North Dakota that overlap very, very little," Stillings said. "That's key for management purposes because we can define those areas when we have issues with too many elk within a particular herd. We can do targeted harvest approaches with private landowners to address those areas where they might be exceeding land-owner tolerance."

According to the study where the GPS units provided locations to researchers



every two hours, the average home range of a cow elk is about 50 square miles, which is about a township and a half in size. A bull elk's home range is about 70 square miles, or roughly two townships.

"On just an average day, elk are moving between 2 and 3 miles. So, it's really good information on movements and home range," Stillings said. "Our elk are non-migratory. They're using much of the same seasonal range year-round with a lot of overlap. While we say that they're non-migratory, we did identify some noteworthy dispersal movements from young bulls."

Some of these bulls dispersed permanently to eastern Montana. The most notable movement was a young bull that zigged and zagged his way about 550 miles, crossing Lake Sakakawea multiple times, before continuing south to new, permanent digs where a small elk herd was already established in the Slim Buttes area near Reva, S.D. The young bull's walkabout took 122 days.

Based on other literature concerning resource selection, Stillings said going into the study they knew that elk want to be away from disturbance and that's exactly what they found

with elk in the badlands.

"On average, they prefer to be at least a third of a mile out to about 1.6 miles away from an improved or unimproved road. And they also prefer to be about 1.6 miles from an active oil well, or a well that's currently actively being drilled," he said. "Again, this is based on about 1.1 million collared elk locations, so it's really solid information."

While elk don't need agriculture crops to survive in western North Dakota, Stillings said it is the most nutritious forage on the landscape and the animals at times utilize what's been planted.

"We found that elk selected for private land and woody draws every season throughout the calendar year. But they did select agricultural lands during the summer months, during the growing period," Stillings said. "When you provide a really high-quality forage, they're certainly going to select for it. And then that ties into why we have an early antlerless season to address some of those issues in late summer."

Elk are doing well in the badlands and their numbers have been increasing for the last 10 years.

"We've been working closely on this issue and increasing licenses as the population has



On just an average day, elk are moving between 2 and 3 miles.



grown. And we've started to see that with increased antlerless licenses that population growth has started to slow and now is stabilizing," Stillings said.

Once-in-a-lifetime elk hunters play a significant role in managing a population of big animals that aren't often preyed upon in the badlands.

"The main mortality with elk in western North Dakota was hunter harvest related. Out of the 27 mortalities that we documented, 24 were related to hunting — 22 legal harvests and two wounding losses," he said. "So, hunter harvest is critically important for managing elk numbers in the western part of the state."

The last portion of the project was to determine a population monitoring program, which included the development of a statistical population reconstruction model. The model took into account, among other things, harvest information, hunter effort and age of the animals harvested. Combined with the survival rates of the collared study elk, the model produces a strong population estimate.

"The second part of the population monitoring program was the development of an aerial survey. We found that elk are grouping up in winter ... you have your large cow groups, and the bulls are pulled into some large bachelor groups, so, based on the telemetry information, we were able to define those core wintering areas and develop transects that would be flown after the hunting season," Stillings said. "Essentially, we're getting a quality count for each one of our elk herds in the western part of the state. And that information from the aerial survey is very, very similar to what the model is producing."

The criteria most important for flying the survey are clear skies and light winds. If the conditions are favorable, Stillings said, elk shine like navigation beacons on those late January or early February days when the sun is shining.

Morina added how significant it is that the population model and the aerial survey provided the same insight into western North Dakota's elk population.

"I was talking to Bruce the other day about how close the estimates are from that statistical population model to what he is actually seeing on the ground when he's doing the aerial counts," Morina said. "To have those models marry up so well and for that information to be used to help make decisions on how many tags to give out or how many elk they have in the area is important for managing elk in the badlands now and in the future."

---

*RON WILSON is editor of North Dakota OUTDOORS.*







# MARKED FISH, MULTIPLE WATERS

BY RON  
WILSON



---

**A** walleye tagging study was started in spring on Devils Lake to gain a deeper understanding of how anglers are utilizing the state's most sought-after species.

It's been nearly 20 years since the North Dakota Game and Fish Department initiated a study using marked walleyes on this popular fishery.

Todd Caspers, Department fisheries biologist in Devils Lake, said the aim of the new three-year study is to tag at least 1,000 walleyes each year throughout the lake's reach.

"The purpose of this study is to estimate the exploitation rate on our walleye, or basically the percentage of the fish that anglers are going to harvest each year," Caspers said.

While the three-year study at Devils Lake is the state's longest-running look into a walleye fishery, Department fisheries biologists from around North Dakota earlier in spring initiated one-year walleye tagging studies on six other waters: Lake Addie, Griggs County; Mosher WPA, Barnes County; Horsehead Lake, Kidder County; Davis WPA, Sheridan County; Heart Butte Dam, Grant County; and the Missouri River System from Garrison Dam to Oahe Dam. The latter study is a team effort between the Game and Fish Department and South Dakota Game, Fish and Parks.

"One reason that we conceptualize this multi-lake, multi-year study is to gather information from a wide variety of populations," said Scott Gangl, Department fisheries management section leader. "So, putting it all together gives us a bigger picture to say whether our statewide regulations are serving our fisheries well over a broader scale than just looking at exploitation on a single lake."





Caspers said the walleye fitted with metal jaw tags in Devils Lake ranged from 13 to 30-plus inches, or those fish anglers are interested in harvesting for the table or maybe for hanging on the wall.

"We're running this study on Devils Lake longer than the other fisheries because one year the fishing might be really good and exploitation might be a little higher, and vice versa if it's a slower year for walleye fishing and exploitation would likely be lower," Caspers said. "So, in the three years we'll see that kind of average out to get a better picture of what our exploitation rate is."

The waters picked for the tagging studies are well-developed walleye fisheries, lakes anglers are likely to target and, in return, report their catches of tagged fish.

"They don't necessarily have to be lakes that we expect fishing to be really good this year because we want to see the spectrum of exploitation. We want to see the spectrum of fishing quality out there," Gangl said. "Some of them could be really good, some of them could be a little bit slower and the tag returns will come in a little bit slower."

What's certain is that the study waters hold plenty of walleyes.

"We have a good variety of size structures out there ... some of the lakes we're tagging fish are chockfull of eater-sized fish, the 15- to 20-inch walleyes that anglers like to keep," Gangl said. "And then some of them are maybe top heavy, dominated by bigger fish because

people haven't exploited them very heavily. So, we're getting a little bit of really cool information on the sizes that anglers prefer to harvest."

Preliminary findings from other Department tagging studies have shown, Gangl said, the sizes of fish that anglers desire and selectively harvest.

"We see higher release rates on the larger fish, or we see more of the smaller fish being released," he said. "Most of the fish that we're tagging are going to be 13 inches and longer, so they're kind of right at that breaking point where people are going to start harvesting. We don't have tagged fish that are really small, but we did tag everything above that, so we'll get a lot of those larger fish that are in the systems too."

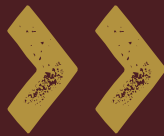
Ignoring fish size for a second, Gangl said the goal for the one-year study lakes was to tag a minimum of 500 walleyes.

"We've done some background analysis to say that 500 is the number of fish we need to get good statistical confidence in our data. The numbers could go up from there," he said. "In spring when biologists are tagging fish is a busy time, but if they're catching a lot of fish they'll oftentimes tag more. Once they reach that 500 threshold, everything else on top of that is just going to improve our statistical power."

When it comes time to report the study fish, fisheries managers want anglers to treat the tagged walleyes just as they would treat any other fish they might have caught. So, if it's a fish an angler was planning on harvesting,



**TODD CASPERS, GAME AND FISH DEPARTMENT FISHERIES BIOLOGIST, WATCHES AS JONATHON SIMAK, FISHERIES SEASONAL PERSONNEL, RELEASES A TAGGED WALLEYE BACK INTO DEVILS LAKE. THE WALLEYES FITTED WITH JAW TAGS IN THE THREE-YEAR STUDY ON DEVILS LAKE RANGED FROM 13 TO 30-PLUS INCHES.**



go ahead and harvest that fish. If it's a fish an angler was planning on releasing, go ahead and release that fish. Just record the tag number and leave the tag on the fish.

Anglers can report any tagged fish they encounter by logging into their North Dakota Game and Fish Department account or use the "tagged fish reporting" feature on the Department's website at [gf.nd.gov](http://gf.nd.gov).

Like last year, a number of fish in the study lakes have been fitted with metal reward tags.

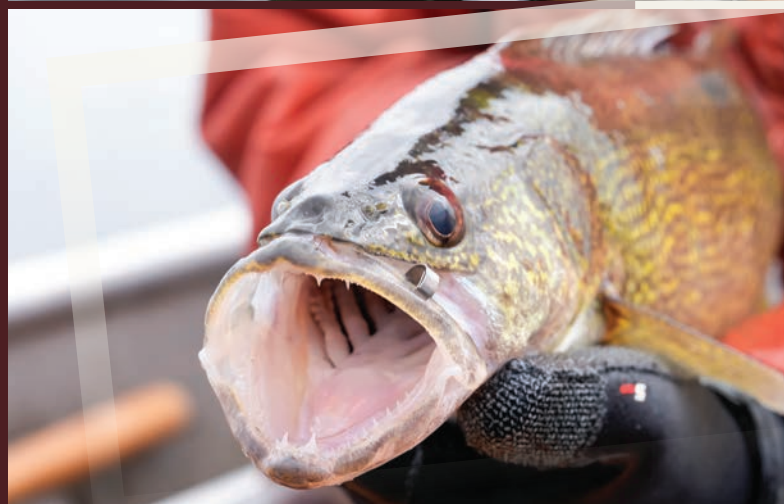
"We assume that the reward is big enough that anglers are going to 100% turn it in, because not every tag that gets caught is reported to us," Gangl said. "We need to have some idea of what that reporting rate is so that we can use the bigger data set to meet our needs. That's just part of the study process."

Gangl said anglers who catch a fish with a reward tag can present the tag in person at a Game and Fish Department office or simply provide a photograph of the tag on the online reporting site.

While surrounding states have seen lower reporting rates from their anglers, Gangl said, that's not been the case in North Dakota.

"I have to give a shout out to our anglers because they have always been really good about reporting tags ... they've always taken an active role in these studies and we've long had really good reporting rates," Gangl said.

RON WILSON is editor of North Dakota OUTDOORS.







Jeff Faught, Department pilot, flies over the Missouri River during the Game and Fish Department's long-running midwinter waterfowl survey.





BY RON WILSON

**B**ig game in North Dakota were surveyed from the air for the first time nearly 85 years ago, and that process of getting an aerial count on mule deer, white-tailed deer, pronghorn and other large mammals remains a vital management tool decades later.

The North Dakota Game and Fish Department's aerial approach doesn't end with helping to manage the state's natural resources either but extends to safeguarding the recreating public and enforcing game and fish laws.

"With a small number of game wardens in North Dakota, having a warden pilot available, having eyes in the sky, is a huge benefit in protecting our resources in the state," said Scott Winkelman, enforcement division chief, in reference to Mike Linden, Department game warden pilot. "The plane and the pilot are also extremely beneficial in search and rescue operations and in other law enforcement matters."

While Linden, who worked in law enforcement in Colorado for 31 years and has been flying longer than that, must spend some of his time on the ground enforcing game and fish laws, he leans hardest to his time in the air if given a choice.

"During hunting season, for example, I fly a lot to assist wardens on the ground by identifying the location of hunters across the landscape," Linden said. "It's helpful to them because from the air I can see so much more, a lot wider area than somebody on the ground might see from any single vantage point."





Mike Linden, Department game warden pilot, worked in law enforcement in Colorado for 31 years and has been flying for about 40 years.

"One of the things that I'll see because of my vantage point is off-trail use, ATVs traveling off-trail during the deer season," he added. "Another thing that I see at night is folks shining or spotlighting, which is something a game warden on the ground wouldn't see unless they were in the right place at the right time."

Jeff Faught has been flying for the Department's wildlife division for nearly a quarter century. From whitetail deer surveys in winter to the pronghorn survey in western North Dakota in summer, Faught is the one behind the controls, with a biologist buckled in behind him.

"Our aerial wildlife surveys are essential to the Game and Fish Department's survey program," said Bill Haase, Department assistant wildlife division chief. "Oftentimes, it's the only effective way to survey these species."

"During the spring and fall mule deer surveys, for instance, we have survey study areas... most of them have been done since the 1950s and we fly the same patterns every year," Faught said. "The biologist gets in with me early in the morning while the deer are out, and we fly every square inch of these areas, mostly around in circles, up and down the drainages, and we count what we see. In the spring, we count total numbers. In the fall, we count bucks, does and fawns."

Faught flies an American Champion Scout, a 2019 model built in Wisconsin, that's built for off

airport, slow flight operations. The tandem seating, the biologist behind the pilot as mentioned before, allows Faught and his passenger to both see out the left and right sides of the plane.

"Being able to do an aerial survey gives you a perspective of what's happening on the ground that you just cannot get from the ground," Faught said. "For instance, doing the deer surveys from the ground is nearly impossible. From what I understand, in the early 1950s, Game and Fish personnel did it by horseback, and I can't imagine how difficult that would have been to even get real numbers, much less having to deal with the physical part of doing the job."

While Linden has the room in his airplane, he generally flies without an observer on board, but he keeps in touch with those on the ground through the plane's radio.

"Flying is something I've always enjoyed doing, and if you like the outdoors and like visiting remote areas and some of the beautiful parts of North Dakota that I think a lot of people don't know about, what more could I ask for?" Linden said. "I wouldn't say it's really all that dangerous. In North Dakota, there are a million places to land, but at night, that worries me a little bit especially if you're out west over the badlands and you lose an engine, you have very limited options. And those options, if you don't see them, you don't know they're there."



**“EVERY DAY IS A NEW DAY, AND YOU  
HAVE NO IDEA WHAT YOU’RE GOING TO  
BE ENCOUNTERING NEXT.”**

Faught is also essential in helping researchers track collared animals — from wild turkeys in the river drainages in central North Dakota to elk in the badlands — to learn, among other things, the comings, goings and habitat use of the marked critters.

“The antennas on the plane are for tracking those animals with transmitters,” Faught said. “There’s a left antenna and a right antenna, so when I dial in that frequency, I can listen and when I hear it, then I can switch to separate left from right and locate exactly where that animal is at.”

Faught calls the aircraft his office. It’s where he’s most comfortable.

“And I got the best view in the Department from my office. The perspective from my office is pretty incredible to see what’s going on and I’ve seen some pretty interesting things,” he said. “People think that this is a cushy job and it’s just all fun, but any career job has challenges. Aviation is something I’ve always enjoyed and loved to do, so I’m dedicated to it ... is very important to me.”

Whether he’s flying a creel survey for the Department’s fisheries division over the Missouri River System or directing game wardens on the ground to suspicious goings on, Linden believes he has a dream job.

“I think you can talk to just about any of the law enforcement folks and they’ll tell you the variety, the not knowing what the day will bring next, is one of the things they like about the job,” he said. “Every day is a new day, and you have no idea what you’re going to be encountering next.”

---

*RON WILSON is editor of North Dakota OUTDOORS.*



**Jeff Faught (top) gets ready to pull his plane from the airport hangar in Bismarck. Once in the air (below) he flies over the Missouri River south of town.**







# BUFFALOBERRY PATCH

## 2024 Upland Game Seasons Summarized

North Dakota's 2024 pheasant and sharp-tailed grouse harvests were up, while gray partridge was similar to 2023, according to the state Game and Fish Department.

RJ Gross, Department upland game management biologist, said the overall harvest was likely a result of more hunters, more trips and more birds in the population.

"The winter of 2023-24 was mild, and no die-offs were reported. In 2024, we observed an increase in pheasant crows heard during our spring crowing counts and sharptails during spring lek surveys," Gross said. "Although chick production was decreased by the wet and cold nesting season, the increase in adult density added more broods to the population."

Last year, 55,401 pheasant hunters (up 3%) harvested 357,018 roosters (up 12%), compared to 53,819 hunters and 319,287 roosters in 2023. Counties with the highest percentage of pheasants taken were Hettinger, Divide, Burleigh, Williams and McLean.

A total of 21,660 grouse hunters (up 1%) harvested 73,010 sharp-tailed grouse (up 8%), compared to 21,512 hunters and 67,710 sharptails in 2023. Counties with the highest percentage of sharptails taken were Divide, Hettinger, Williams, Morton and Bowman.

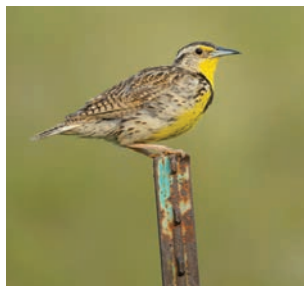
Last year, 21,887 hunters (up 8%) harvested 67,465 gray partridge. In 2023, 20,313 hunters harvested 67,481 partridge. Counties with the highest percentage of gray partridge taken were Stark, McLean, Hettinger, Williams and Divide.



## SWAP Comment Period

The North Dakota Game and Fish Department encourages public comment on the revision of its 2015 State Wildlife Action Plan.

The SWAP is North Dakota's guiding document for the conservation and restoration of at-risk species and their habitats, with a focus on preventing species from becoming endangered. It identifies species of greatest conservation need, including fish, wildlife and invertebrates.



The plan is revised every 10 years and represents a unified effort involving various stakeholders aimed at creating and implementing conservation strategies to ensure the long-term protection and sustainability of the state's fish and wildlife.

The SWAP is a collaborative effort by Game and Fish staff, species experts, partner conservation groups, and state, federal and local agencies from North Dakota. A draft of the plan is available on the Department's website, [gf.nd.gov](http://gf.nd.gov), and public comments are accepted through June 30, 2025.

## Leave Baby Animals Alone, Watch for Deer

The North Dakota Game and Fish Department offers a simple message to the well-intentioned who want to rescue what appear to be orphaned baby animals this time of year: don't touch them. Whether it is a young fawn, duckling, cottontail rabbit or a songbird, it is better to leave them alone.

Often, young animals are not abandoned or deserted, and the mother is probably nearby. Young wildlife are purposely secluded by adults to protect them from predators.

Anytime a young wild animal has human contact, its chances of survival decreases significantly. It's illegal to take wild animals home, and captive animals later returned to the wild will struggle to survive without possessing learned survival skills.

The only time a baby animal should be picked up is if it is in an unnatural situation, such as a young songbird found on a doorstep. In that case, the young bird can be moved to the closest suitable habitat.

Citizens should also steer clear of adult wildlife, such as deer or moose that might wander into urban areas. Crowding stresses animals and can lead to a potentially dangerous situation.

In addition, motorists are reminded to watch for deer along roadways. During the next several weeks young animals are dispersing from home ranges, and with deer more active during this time, the potential for car deer collisions increases.

## Fur Harvester Ed Classes

The North Dakota Cooperative Fur Harvester Education Program is holding classes Aug. 5, 7, and 9 at the North Dakota Game and Fish Department in Bismarck





and Oct. 2, 3, and 4 at the Velva Wildlife Club in Velva.

Fur harvester education classes are 16 hours in length, free, voluntary, and cover topics associated with trapping and fur hunting. Much of the instruction includes hands-on experience with traps and equipment commonly used for harvesting furbearers and properly caring for the pelts.

Successful completion of this training provides certification recognized by other states where mandatory trapper education training is required. Participants can enroll for either of these classes on the Game and Fish Department website at [gf.nd.gov/education/fur-harvester](http://gf.nd.gov/education/fur-harvester).

The North Dakota Cooperative Fur Harvester Education Program is also hosting a training seminar on using cable devices in North Dakota Oct. 11 from 9 a.m. to 4 p.m. at the Velva Wildlife Club.

The seminar is free and available to anyone who would like information and experience using cable devices. All aspects of cable device construction, care, use, ethics, responsibility and legal requirements are covered. Much of the instruction includes hands-on field application and set construction. Preregistration is required by contacting Rick Tischaefer at 701-460-1055.

## NASP State Tournament Results

Archers from Mt. Pleasant Public School (grades 9-12), St. Johns Academy (grades 7-8) and Lisbon Public School (grades 4-6) took team honors in the bull's-eye competition at the 2025 National Archery in the Schools Program state tournament in Minot.



The top teams in the 3-D competition were North Sargent School (grades 9-12), St. Johns Academy (grades 7-8) and Ellendale Public School (grades 4-6).

The overall winners were Danica Onchuck, Hankinson, in the female division and the male winner was Layton Jacobson, New Rockford. In addition, Jacobson was later crowned national champion at the NASP national event in Utah in the male high school division.

The overall varsity winners in Minot were Logan Larson, Lidgerwood, in the male division and Teegan Bohnenstingl, Lidgerwood, in the female division.

### Winners by competition at the state tournament were:

**Bull's-eye elementary school** – Cyrus Mann, Jamestown, and Natalie Thompson, Hope-Page.

**Bull's-eye middle school** – Jesse Wessels, Kensal, and McKenna Lipetzky, Jamestown.

**Bull's-eye high school** – Layton Jacobson, New Rockford, and Danica Onchuck, Hankinson.

**3-D elementary school** – Cyrus Mann, Jamestown, and Paisley Henning, Ellendale.

**3-D middle school** – Ethan Krapp, Jamestown, and Presley Thompson, Lisbon.

**3-D high school** – Layton Jacobson, New Rockford, and Aubry Joule, Mt. Pleasant.

The top five scholarship winners in the female division were Danica Onchuck, Hankinson; McKenna Lipetzky, Jamestown; Brekka Kuss, Carrington; Presley Thompson, Lisbon; and Teegan Bohnenstingl, Lidgerwood.

The top five scholarship winners in the male division were Layton Jacobson, New Rockford; Samuel Thompson, Hope-Page; Logan Larson, Lidgerwood; Isiah Wertz, Oakes; and Eli Alfstad, New Rockford.



Zach Kjos, North Dakota Game and Fish Department fisheries biologist in Riverdale, loads chinook salmon smolts into a fish transport tank earlier in spring. The fish, 298,666 in total, were later stocked in Lake Sakakawea. The journey for the 4- to 5-inch fish started in October as eggs in the Garrison Dam National Fish Hatchery. In 2024, fisheries biologists stocked nearly 378,000 salmon into the big lake.





North Dakota Game and Fish Department fisheries personnel took the first eggs during the walleye spawn on April 29 at Lake Sakakawea and Devils Lake. The spawning operations were shut down at Devils Lake on May 5 and two days later on Sakakawea. Fisheries crews collected 41.2 million eggs at Sakakawea and 28.3 million at Devils Lake.

# NORTH DAKOTA OUTDOORS

PUBLISHED BY THE NORTH DAKOTA GAME AND FISH DEPARTMENT

## WEEKLY VIDEO NEWS BROADCAST

### BISMARCK

KFYR TV - Saturday 6 p.m.  
KXMB TV - Saturday 6 p.m.  
DMA - Saturday 9 a.m.  
KNDX TV - Friday 9 p.m.  
BEK TV - Sunday 6:30 p.m. (Statewide)

### WILLISTON

KUMV TV - Saturday 6 p.m.  
KXMD TV - Saturday 6 p.m.

### MINOT

KMOT TV - Saturday 6 p.m.  
KXMC TV - Saturday 6 p.m.

### FARGO

KVRR TV - Sunday 9 p.m.  
WDAY TV - Sunday - 7 a.m. (Statewide)

### DICKINSON

KQCD TV - Saturday 5 p.m. (MT)  
KXMA TV - Saturday 5 p.m. (MT)

### GRAND FORKS:

KVRR - Sunday 9 p.m.  
WDAY - Sunday 7 a.m. (Statewide)

## STAFF NOTES

### Conservation Biologist Hired

Greg Schonert was named North Dakota Game and Fish Department conservation biologist in Bismarck.

Schonert worked with the North Dakota Department of Transportation in their environmental section and more recently was a biologist with the U.S. Forest Service.



### Reith Joins PLI Staff

Ben Reith was hired as a North Dakota Game and Fish Department private land initiative biologist in Dickinson.

Reith is from Michigan where he worked for the U.S. Fish and Wildlife Service on a sea lamprey control project before joining the agency. He is also a former member of the U.S. Air Force and has held several wildlife related positions in the western United States.



### Johnson New PLI Biologist

Zachary Johnson was added to the North Dakota Game and Fish Department's private land initiative staff as a biologist in Bismarck.

Before coming to the agency, Johnson worked for North Dakota State University as a research assistant studying invasive grasses. He recently completed his master's of science degree at NDSU, working at the Central Grasslands Research Center, where he studied the timing of cattle grazing for restoring native plant diversity in smooth brome invaded grasslands.



### Kammer Named Business Manager

Alison Kammer was named business manager for the North Dakota Game and Fish Department in Bismarck.

Before joining the agency, Kammer worked for the U.S. Forest Service where she spent the past 15 years as a program manager. Her work focused on managing many grants associated with fisheries, wildlife, and other natural resource initiatives across the country.





# PROTECT THE LAKES YOU LOVE.



**CLEAN  
DRAIN  
DRY**

NORTH  
**Dakota** | Game and Fish  
Be Legendary.



**EVERY SURFACE. EVERY TIME.**



# FISH CHALLENGE



**NORTH DAKOTA  
GAME AND FISH**

*Ready for the Challenge?*

2025 CHALLENGE INCLUDES:  
Coach • Cleanup • Cook • Cast

**SCAN FOR DETAILS**





# BACKCAST

RJW



It's one of those spring mornings on the Northern Plains you don't mind rolling out of bed long before sunrise to stand on the side of a dirt road with your hands in your pockets.

Birds of all shapes and sizes, the majority of which I can't name besides the obvious ones, are greeting the day in a chorus of calls that are lost on me and not intended for me.

Some wade in the shallow, temporary wetlands that are the product of consecutive days of May rains. Some fly overhead, share the shoulder of the dirt road with us at a safe distance, while others perch in the cattails and atop barbed wire.

We're in good company this morning.

Amidst the confusion of calls, we stand here with a purpose, to tally the number of ring-necked roosters heard in the distance as part of the agency's long-running spring pheasant crowing count.

Under the guidance of RJ Gross, Game and Fish Department upland game management biologist, we're driving a 20-mile route, stopping 10 times and listening for 2 minutes at each stop.

Easy enough.

Agency biologists have been running crowing count routes for years from May 1 to June 10 to get a sampled look at the number of roosters in the breeding population. The number of crows heard are just one of the ingredients biologists include in the mix when trying to determine what pheasant hunters can expect come fall. They're not a tell-all, but a first good indicator.

Without even looking at the app on RJ's phone providing wind speeds and whatever other weather conditions he needs to document, it seems like the perfect morning to be listening for the rusty-hinge-like call of North Dakota's most popular upland game bird. While I can imagine a gaudy rooster, with its head tipped back and beak spread, delivering its unmistakable message to notify hens and warn other roosters of its territory, we learn quickly my imagination is better than my hearing.

It's the end of the 2 minutes on our second stop and RJ looks at his clicker and tells me his tally. I don't doubt his announcement but cuss old age and years of not wearing hearing protection and reveal that he heard 47 more crows than I did.

And on it goes.

The only consolation as we roll from stop to stop is that I'm seeing what everyone else is seeing from the moving vehicle — deer in the distance, a pair of sharp-tailed grouse on the wing, ubiquitous Canada geese seemingly occupying every wetland and pheasants graveling along the roadside and in fields still showing last year's stubble.

While these are things I can confirm because I can see them, RJ jokes that my days as a crowing count counter are numbered, if not already over.

---

*RON WILSON is editor of North Dakota OUTDOORS.*





North Dakota Outdoors Magazine  
North Dakota Game and Fish Department  
100 N. Bismarck Expressway  
Bismarck, ND 58501

To renew your subscription or change  
your address, call 701-328-6300 or  
go to [gf.nd.gov/buy-apply](http://gf.nd.gov/buy-apply).



*Hundreds of northern pike, netted during spawning operations in spring, were later released into Cottonwood Park Pond in Bismarck. This community fishery attracts a lot of attention from anglers once the word gets out that pike have been stocked.*

PHOTO BY ASHLEY PETERSON.

connect with us  
[gf.nd.gov/connect](http://gf.nd.gov/connect)



YouTube

