

NORTH DAKOTA OUTDOORS

PUBLISHED BY THE NORTH DAKOTA

GAME AND FISH DEPARTMENT

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MATTERS OF OPINION



Terry Steinwand
Director

It's a busy time of year in North Dakota's outdoors.

By the time this magazine is printed and mailed to subscribers, the echoes of the first shotgun blasts, signaling the state's pheasant opener, will have faded.

I'm hoping that hunters went in to the pheasant season with reasonable expectations, considering bird numbers are down in many areas following a difficult winter, drought and an altered landscape.

Even so, I'm guessing those hunters will be burning a little boot leather, shot some birds and enjoyed their time outdoors.

Of course, North Dakota's waterfowl hunting season is in full swing, has been for a couple weeks or so. Bowhunters, be it those archers sitting in tree stands waiting for a whitetail to wander by, or those stalking bedded mule deer in the badlands, have also been hunting for more than a month.

Based on photos and anecdotal evidence we've received, the elk and moose seasons have also gone well. While there's a lot of time to go yet, that part of the hunting landscape sounds positive.

And let's not discount those people who enjoy the outdoors by simply hiking or camping at this time of year when the temperatures have cooled considerably and the landscape is turning colors.

Like I said, it's a busy time of year in North Dakota's great outdoors.

On the cover of the issue of *North Dakota OUTDOORS*, the flipside of this

page, you'll notice a fall fishing scene from the Missouri River south of Bismarck. This photograph is significant, I believe, because it serves as a reminder of the great fishing North Dakota offers in fall.

With so many hunting opportunities available, I understand the want and need to swap out the fishing rods for shotguns, rifles and bows. Yet, I encourage you to not forget about the wonderful fishing on the Missouri River System, Devils Lake, the state's many prairie walleye lakes, and elsewhere.

Because we are always seemingly in transition here on the Northern Plains, it won't be too long before these open waters are frozen over and we're drilling holes in the ice, while contemplating the open-water fishing that will once again arrive in spring.

I've always said how much of a fan I am of our four seasons in North Dakota and the opportunities each season offers. Yet, if I could alter any, just a bit, I would make certain that fall stuck around just a little longer than it does to afford us the chance to experience all passions and pursuits during what is arguably the best time of year.

Here's wishing that maybe, just maybe, Mother Nature is paying attention.

If she does or doesn't, I still encourage everyone to get outside to remind yourself what is so special about this place and the many opportunities available in North Dakota's great outdoors.

Terry Steinwand

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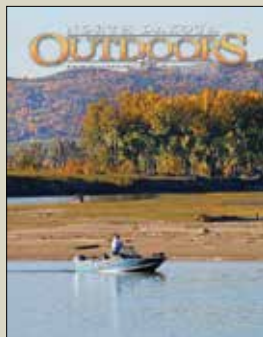
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Front Cover

While hunting takes center stage during a North Dakota fall, many anglers also look forward to this time of year, when the fish are still biting and the scenery is changing. *(Photo by Craig Bihrl, Bismarck.)*



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MANAGING SAKAKAWEA'S **Salmon** POPULATION

MIKE ANDERSON

These young chinook salmon, only partway through development, were raised in Garrison Dam National Fish Hatchery. The photograph was taken November 15, 2016, roughly a month or more after the eggs were taken from female salmon from Lake Sakakawea.



By Ron Wilson

There are 1.5 million reasons fisheries biologists will slowly navigate Lake Sakakawea's shallow waters this month.

That's roughly the number of chinook salmon eggs North Dakota Game and Fish Department fisheries personnel aim to collect to produce hundreds of thousands of smolts that, months later, will be released back into the big lake.

Last fall, for example, biologists spawned 683 mature females and collected nearly 1.8 million eggs. After sharing some with South Dakota Game, Fish and Parks, fisheries biologists here stocked about 430,000 salmon smolts into Sakakawea in 2017.

This circle-of-life management effort has been going on for years for a nonnative fish species that was introduced decades ago.

Russ Kinzler, Department fisheries biologist in Riverdale, said chinook salmon were first stocked in Sakakawea in 1976, just nine years after the reservoir filled in 1967.

"We started stocking chinook salmon in Sakakawea in 1976 to inhabit the deep coldwater habitat that wasn't being utilized by other fish, and to give anglers another species of fish to chase," Kinzler said.

There's some history to how biologists have collected eggs from Sakakawea's salmon population. Likely the best known technique from the public's perspective was a manmade salmon ladder that was introduced in fall 1987.

The ladder was placed in Rodeo Bay at Lake Sakakawea State Park where the salmon, following an ancestral urge, would migrate in fall in search of a stream in which to spawn. Yet, the only running water to be found raced down the ladder.

"Fish entering the large pipe climbed regularly located steps and upon reaching the top were gently washed down the smaller pipe into a holding net ... It was an efficient operation, the culmination of many years of hard work," according to the 1988 April/May issue of *North Dakota OUTDOORS*, describing the first fall the ladder was put to use.

The last time the ladder was used was 2004.

The installation, takedown and the continued monitoring the ladder required each fall was labor intensive. And the number of migrating chinook salmon ascending the apparatus was too unpredictable and didn't justify the effort.

Today, biologists collect the majority of the salmon they need by stunning fish in the shallows on the east end of Sakakawea in Rodeo, Government and Pochant bays.

"The salmon move into the shallows to spawn, but since there aren't any streams for them to spawn naturally, they just cruise along the shoreline in the back of the bays and we collect them with electro-fishing gear," Kinzler said. "After we collect the salmon, they are hauled to

the hatchery where their eggs are taken, hatched and raised over winter."

The recipe for a healthy chinook salmon population in Lake Sakakawea is, when you boil it down, pretty simple – water and rainbow smelt.

Rainbow smelt were stocked in Sakakawea in 1971 to improve the lake's forage base. While small individually – smelt seldom grow longer than 12 inches – the smelt population as a whole is made up of millions of individual fish.

Greg Power, Game and Fish Department fisheries chief, said adult smelt need deep, coldwater habitat during the summer months to survive. For this reason, the Department's standing recommendation to the U.S. Army Corps of Engineers for Sakakawea is a minimum elevation of 1,832 feet above mean sea level.

"We have met that minimum elevation for nearly 10 years, which is a great thing," Power said. "In the years we are below that target elevation in the summer, we can expect high mortality of adult rainbow smelt."

To get adult smelt, you first need a successful spawn. Smelt spawn in the shallow

rocks in the upper half of the reservoir and are susceptible to high winds exposing their eggs and a drop in water levels, leaving eggs high and dry.

"Biologists from Montana, South Dakota and North Dakota have a standing recommendation with the corps to maintain a spring rise at this critical time during the smelt spawn at least once every third year," Power said.

Fortunately, Sakakawea had a nearly two-foot spring rise in 2014 and again in 2016, resulting in banner rainbow smelt year-classes.

"First and foremost, it's all about the water, which then makes it all about the smelt, which then makes it all about chinook salmon," Power said.

It's all about the smelt when it comes to salmon because the latter, aside from the occasional cisco, preys on little else.

"Chinook salmon are a coldwater predator and they rely on coldwater prey, which in Sakakawea is rainbow smelt," Power said. "It's that simple."

While the salmon fishing in Sakakawea has been fairly consistent the last handful of years, Power said it can go south in a

Lake Sakakawea's salmon anglers have found pretty consistent fishing the last few years.



MIKE ANDERSON

big hurry if rainbow smelt reproduction is interrupted by Mother Nature or human influence.

"It's happened before and it will happen again," he said.

Because smelt serve such an important role as forage for salmon and other game fish species, Department fisheries biologists have been tracking their population trends since 1999. The health of the smelt population determines how many salmon will be stocked in spring.

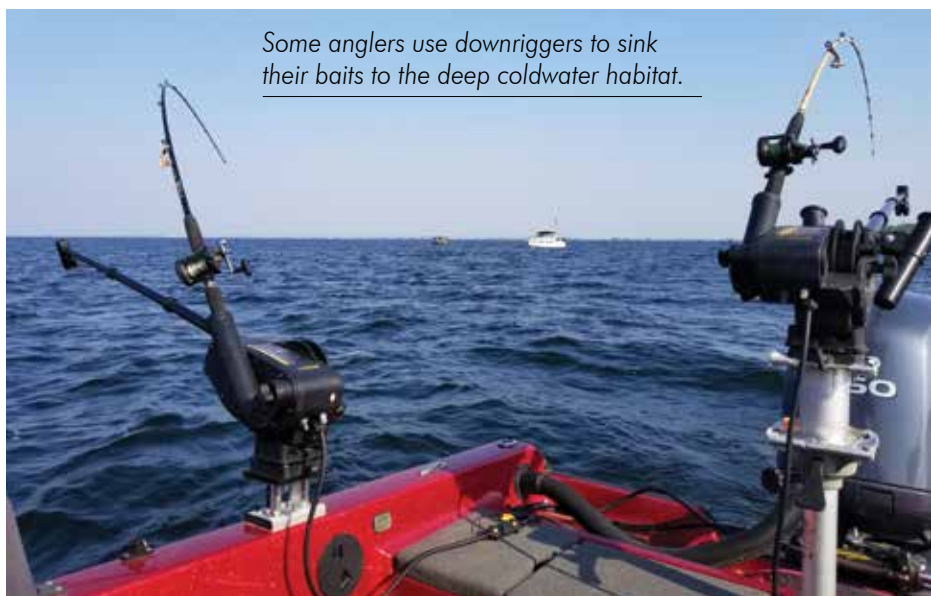
"We look at our hydroacoustic data, which is the method we use to survey the smelt in summer, to determine how many salmon we are going to stock the following year," Kinzler said.

Power said biologists will likely stock roughly the same number of salmon smolts, about 400,000 or so, in 2018 as were released in Sakakawea in 2017.

"When the lake has a lot of water and has a good smelt population like it does now, salmon will be in the 3- to 5-pound range a full year later after we stock them," Kinzler said. "And the 2-year-olds can reach that 8- to 10-pound range."

When salmon get to that size, anglers really start to take interest. Which is pretty much what fisheries managers had in mind when they stocked chinook salmon in Lake Sakakawea for the first time more than 40 years ago.

RON WILSON is editor of *North Dakota OUTDOORS*.



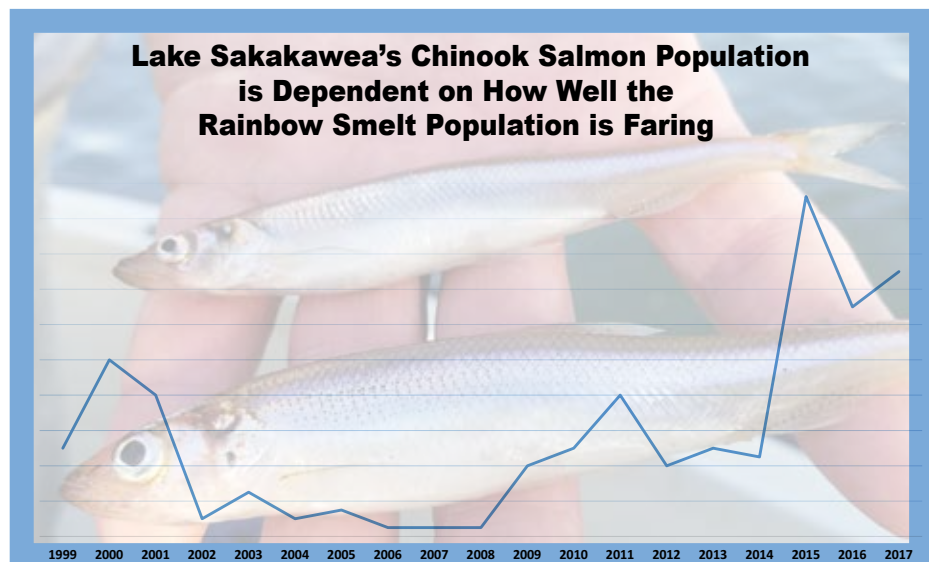
Some anglers use downriggers to sink their baits to the deep coldwater habitat.

MIKE ANDERSON



Jeff Hendrickson, Department fisheries supervisor, with a salmon he caught in mid-August on Lake Sakakawea.

MIKE ANDERSON



The last time the salmon ladder was used was in 2004.

CRAIG BIRRE

PARTNERSHIP TO BENEFIT PRODUCERS, WILDLIFE

By Ron Wilson



New technology in today's ag world provides producers the opportunity to implement conservation practices and improve their bottom line.



MELISSA SHOCKMAN

The North Dakota Game and Fish Department has partnered with Pheasants Forever and four county soil conservation districts to help producers farm more efficiently and profitably by offering conservation practices on less gainful crop acres.

According to a Pheasants Forever news release, the foundation of the precision agriculture planning partnership is built on the technology of AgSolver's Profit Zone Manager software platform, which focuses on the producer's return-on-investment.

Kevin Kading, Game and Fish Department private land section leader, said the program embraces the concept of farming the best and leaving the rest, as it doesn't take prime farmland out of production, while encouraging producers not to fight those problem areas.

"The concept behind precision ag is to farm smarter and more efficiently," Kading said. "Using the software developed by AgSolver, combined with other data, producers are able to identify areas in their operation at a subfield level, down to 3 meters, that are not profitable and result in a negative return-on-investment."

An example of this, Kading said, may be an area in a field that is very saline, or retains water, and generally doesn't produce a crop most years.

"We've all seen areas in fields where the crop doesn't grow, or is much shorter than the rest

The focus of the precision agriculture planning partnership is to provide increased farm income to producers by offering conservation practices on less profitable crop acres.



MELISSA SHOCKMAN

of the field,” he said. “It’s likely these areas are costing the producer money to farm.”

Kading said a Pheasants Forever specialist works directly with producers to explore options for those areas, such as grass plantings, cover crops, CRP, buffers, filter strips and other conservation practices.

“By implementing conservation practices on these negative return-on-investment areas, producers benefit wildlife, improve water quality and improve their overall profit for their operation,” Kading said.

Kading said the Game and Fish Department’s role in the partnership is through cost-share on the conservation practices for landowners.

While the program has some solid footing in other states, it got started in North Dakota in 2016, said Melissa Shockman, Pheasants Forever precision ag and conservation specialist. The four soil conservation districts involved are located in Ransom, LaMoure, Dickey and Sargent counties.

Kading said the program is currently

focused in a part of the state that has a lot of active farming, with some potential for wildlife habitat improvements. The soil conservation districts in these counties are focused on soil health and salinity issues, so, he added, this was a good place to start the project.

“In this part of North Dakota, there has been a lot of land transferring out of CRP and into production,” Kading said. “Some of this land is located in areas that had some good pheasant harvests during our peak pheasant years. This is a chance to put some wildlife habitat back on the ground and hopefully get some rebound in the wildlife populations.”

Shockman said the precision ag program started out with six producers and interest is growing.

“When producers hear of this new thing that can help improve their profit ... it’s definitely getting more interest,” she said.

Cole Young, who farms in the LaMoure area, is one of those producers.

“The profit zone manager program, with the help of Pheasants Forever, helped our

operation quantify just how unprofitable areas we already knew existed, actually were,” Young said. “We hope to use the information we gathered to better manage these areas either through greater variable rate technology, which we have been using, or take these areas out of production and either enroll them into CRP, other set aside programs, or convert them to hay land. Which will improve our overall profitability and likely improve soil health and wildlife habitat.”

Shockman said many of the problem areas that are being converted to habitat more conducive to wildlife range from 5-20 acres. With wildlife habitat at a premium in North Dakota, considering the loss of more than 2 million acres of CRP in the last 10 years, these 5-20 acre areas are a start in providing cover for animals.

“Pheasants Forever has been collaborating with producers for 35 years,” she said. “We are utilizing new technology and the data that is available by putting wildlife habitat on the ground and helping producers to make a better buck.”

Kading, who heads the Game and Fish

Melissa Shockman, Pheasants Forever precision ag and conservation specialist, said the precision ag program started out with six producers, and interest is spreading in southeastern North Dakota.



MELISSA SHOCKMAN

Department's popular Private Land Open To Sportsmen program, said the precision ag program is not tied to PLOTS.

"While this program is not tied to PLOTS, it can be," Kading said of the walk-in access program that turned 20 this year. "Landowners who are willing to provide walk-in access to these 5- to 20-acre pieces of wildlife habitat can be a part of the PLOTS program if they want.

"Our goal is to put conservation back on the highly productive agriculture landscape," he added. "The precision ag program is a good way to get conservation implemented on the agricultural landscape. Plus, it shows that the two – ag and wildlife – can coexist. Hopefully, this program helps producers, Game and Fish and Pheasants Forever reach our goals."

RON WILSON is editor of *North Dakota OUTDOORS*.



Many of the problem areas that are being converted to wildlife habitat range from 5-20 acres.

CRAIG BIRLE

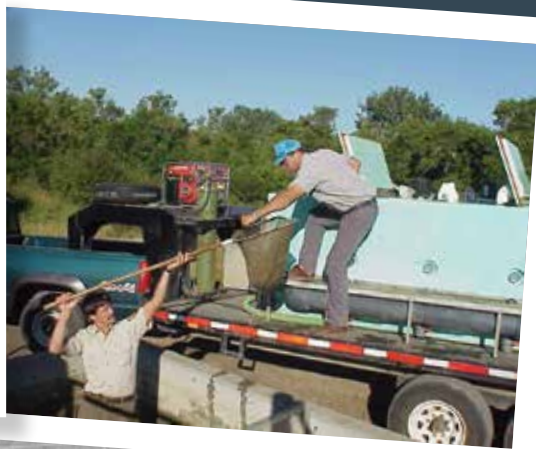
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For more information about the precision agriculture planning partnership, contact Melissa Shockman, Pheasants Forever precision ag and conservation specialist, at 701-709-0963, or email at mshockman@pheasantsforever.org.



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YEARS OF FISH DISTRIBUTION

By Jerry Weigel



NORTH DAKOTA GAME AND FISH DEPARTMENT ARCHIVE PHOTOS

The practice of stocking fish by authorities to create fishing

opportunities in North Dakota is more than a century old. Yet, it wasn't until the early 1960s that the Game and Fish Department established its first fleet of fish distribution units.

The timing coincided with the establishment of Garrison Dam National Fish Hatchery, with an understanding to also help with shipping fish out of the Valley City National Fish Hatchery. The tanks used to haul fish over the road were custom created around what was then called the "California design," which was based on a shallow tank, with a quick exchange circulation system.

The Department had four all-aluminum tanks built by a fabricator in Cooperstown starting in 1962. Each tank, mounted on a 2.5-ton chassis, had three 160-gallon compartment tanks that could transport 1,000 pounds of trout.

From the early 1960s through 1988, on average, 5 million fingerlings of all game fish species were stocked annually in 120 waters around the state. Walleye and pike stockings averaged just under 2 million fingerlings, with around 40,000 pounds of trout and salmon stocked each year.

For the time, the three 160-gallon compartment tank setup was great, but with the 1990s approaching, Game and Fish experimented with installing the existing aluminum tanks on trailers and pulling them with pickups.

It quickly became evident that a 500-mile day with a pickup pulling a trailer was much less demanding than the same trip in a 2.5-ton truck. Plus, it eliminated the work of climbing on and off the bigger vehicle.



Dale Henegar, former fisheries biologist and director for Game and Fish, prepares to pick up a load of fish sometime in the 1960s from Garrison Dam National Fish Hatchery.

About the same time, a large expansion was underway at Garrison Dam National Fish Hatchery in the form of a new trout and salmon production building to address growing chinook salmon and community trout pond fisheries.

In addition, the Department funded the construction of an additional 40 acre-and-a-half cool-water ponds to increase production to adequately address larger systems in the state like Lake Sakakawea and Devils Lake.

Anticipating increased production from an additional 40 hatchery ponds, plus the new trout and salmon building, Game and Fish developed a new fleet of four fiberglass transport tanks to replace the first generation aluminum tanks that were in service for 25 years.

These tanks had two additional 160-gallon compartments, for a total size of 800 gallons, but were still mounted on trailers and pulled by heavy duty pickups. With the modern fiberglass on wood construction, the new tanks could safely transport nearly

one ton of catchable trout or about a half-million walleye fingerlings per trip.

The timing of having these new fish distribution units available was perfect to utilize the additional production and combined output from both federal hatcheries. Several years of increased walleye production was dedicated to Lake Sakakawea, which, at the time, was in the grips of drought and showing little if any natural reproduction.



Loading fish in the Turtle Mountains in the 1960s.



An aerial view of the 40 hatchery ponds at Garrison Dam National Fish Hatchery.

From the first year of production from the 40 new hatchery ponds in 1989 through the early 2000s, 11 million fingerlings of all game fish species, on average, were stocked annually in 185 waters. Of those, an average of 6 million walleye and 2.6 million pike were stocked per year. Trout and salmon distribution grew to more than 55,000 pounds, with a high of 92,000 pounds some years. To transport these fish, four distribution trucks amassed about 70,000 miles during the traditional fish shipping season, which lasted less than three months.

New technologies also increased the number of waters a Game and Fish Department driver could stock, including GPS navigation to help auto-route a driver to the dozen or more lakes stocked daily. Also, real-time oxygen monitoring systems allow for maximum loading, while increasing the quality of stocked fish and greatly improving the potential for stocking success.

With the second generation fiberglass tanks starting to show signs of failure after shipping more than 190 million walleyes fingerlings over more than several hundred thousand miles, a third generation tank was designed and put into service in 2017.

Fish distribution in North Dakota the last 10 years has focused

on the dramatic growth of fishing waters across the state, including about 50 new prairie walleye lakes. The annual output of fish raised at hatcheries and transported across the landscape increased to more than 12 million fingerlings.

The biggest shift, more than 9 million fingerlings per year, is seen in walleyes. Also, the average number of lakes stocked today in North Dakota is 220, which is a record.

While the Department has upgraded

equipment needed to transport fish to all corners of the state and continued its financial investment in hatchery infrastructure, enough can't be said about staff at the two federal fish hatcheries in the state.

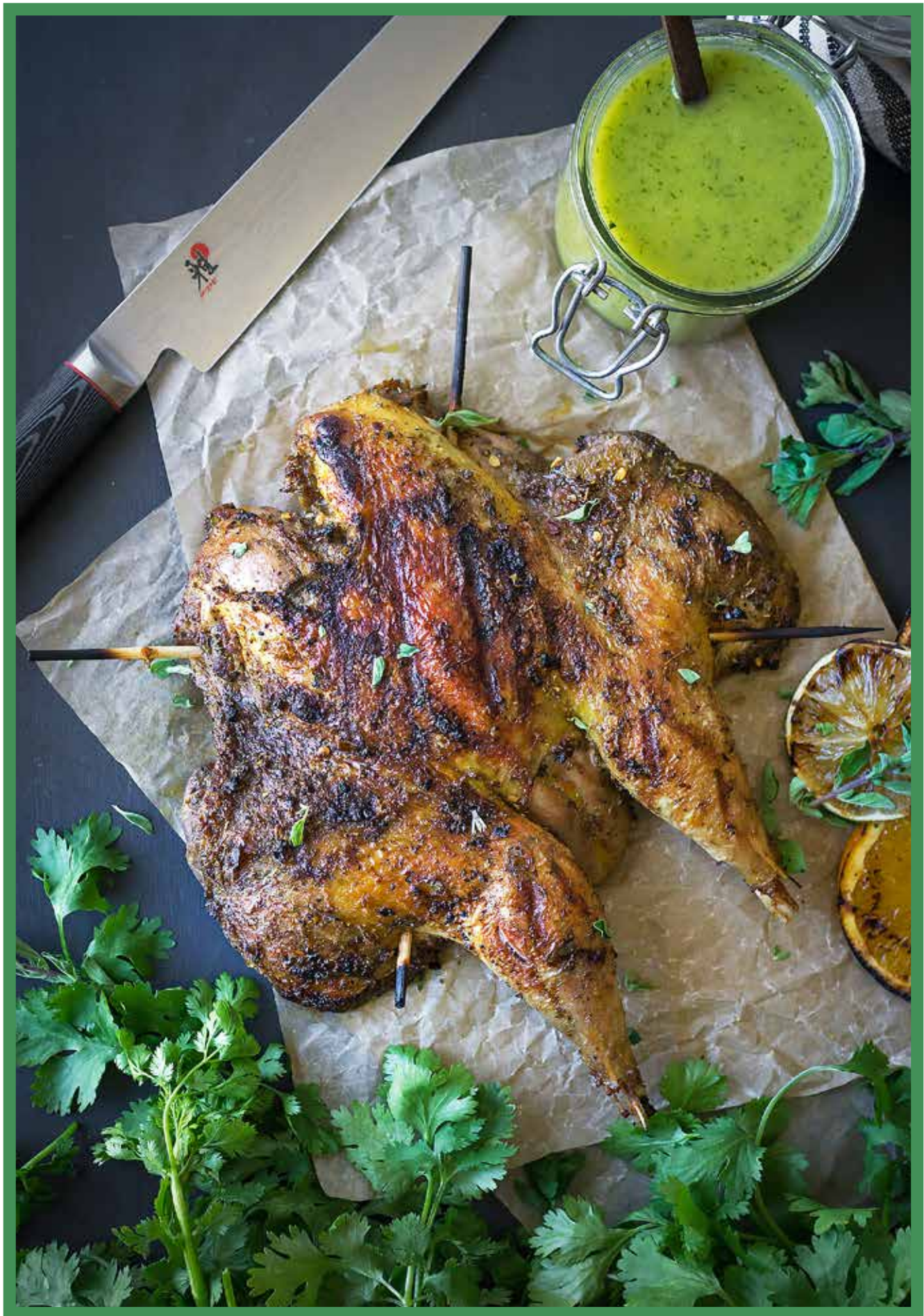
There was a time when producing 8 million walleye fingerlings was a lofty goal, something that had never been done anywhere in the country. This year, both Valley City and Garrison Dam national fish hatcheries, each set records for walleye production. Valley City shipped a record 3 million fingerlings, the most in its 77-year history, while Garrison Dam established a new record of more than 10 million fingerlings, the most in its 54-year history.

With advances over the last decade in biological knowledge and a better understanding of when to stock fish, the annual production demand is driven not by how many fish the hatchery can raise, but rather by what the fishing waters require to achieve management objectives.

JERRY WEIGEL is the Game and Fish Department's fisheries production/development section supervisor.



A look at the Game and Fish Department's third generation (top) and second generation (bottom) fish transportation tanks.



DANIELLE PREWITT



wild + whole

Reimagining Wild Game Cooking With Danielle Prewett

By Alicia Underlee Nelson

the food on wildandwhole.com, a North Dakota-based wild game cooking blog, is a feast for the senses. A perfect summer salad features juicy slices of grilled goose breast and ripe peaches, nectarines and apricots.

Pheasant is featured in fragrant pho, offering a new interpretation of a classic Vietnamese soup.

Venison takes on an international flair in countless variations – savory venison meatballs flavored with Middle Eastern spices, hearty venison chili with chorizo and spicy Thai venison lettuce cups.

These are not your grandmother's wild game recipes.

That's because Danielle Prewett, the website's creator (*and chef, photographer, writer, hunter and outdoorswoman*) doesn't

particularly believe wild game needs its own recipes.

"A lot of people have this notion that wild game is its own separate little food group that gets its own special recipes – your mom and pop's crock pot recipes handed down from the family. And that's *great*. You don't have to get rid of that," said Prewett, as she settled into a chair in the sunny living room of the comfortable Dickinson home she shares with her husband, Travis. "But I like to think of wild game like meat you'd buy from the grocery store. Think of pheasant like chicken. With duck, venison, treat it like red meat – goose too. Once you kind of realize it's just red meat, white meat, you realize that you can make anything you can make with chicken or beef and make it with wild game. You don't need a special recipe."

Sure, she says, wild game doesn't need to cook as long as a steak or chicken, since it's so lean. And Prewett always recommends wet or dry brining wild game, just like you would for a Thanksgiving turkey. "The salt helps to bring out the juices to ensure it retains its moisture," she explained. Prewett's recipes show that, with a few tips and tricks, wild game can be just as versatile and easy to prepare as any other protein.

For hunters and home cooks new to cooking wild game – or those accustomed to pairing it with a trusty can of cream of mushroom soup – this freedom can seem intimidating. Prewett understands that trying something new in the kitchen can be a challenge. She didn't always cook and develop recipes for fun.

"When I was in college I was the worst

cook ever," she said with a laugh. "I was the person burning frozen pizzas. Then I met my husband, and his mom and his family are excellent cooks and I was pretty embarrassed by how terrible I was. They kind of got me into cooking when we were dating."

After finishing college in Lubbock, Texas (where they met) the couple moved to Houston, where Prewett taught cooking classes in a high-end cookware store. "It was like four classes a day for appetizers, main, a side and dessert," Prewett remembered. "And so all that repetition, over and over and over again really sort of set the foundation for how to cook."

Growing up in Wichita Falls, in northern Texas, Prewett loved being outdoors, but didn't hunt much. But her husband was an avid hunter and angler. And that influenced her cooking.

"Living in Houston, we always had venison, always had dove and duck," she said. "That was sort of my first experiment with wild game. I was like, 'This is exotic, this is gourmet, this is *fun*.' And nobody else can get this kind of food unless you hunt it."

A move north gave the couple a chance to hunt more often. "When we moved to North Dakota, we realized there's tons of public land and such a variety of wild game," Prewett said. "Living up here enabled us to sort of embrace a very different lifestyle that you can't get in Houston. Cooking wild game really evolved from this idea of wanting to know where all my food comes from."

Like food writer, Michael Pollan, and chef, hunter and angler, Hank Shaw, Prewett believes in eating healthy, high quality, minimally processed food. Her motto – both for her recipes and for her

Danielle Prewett and her dogs Zissou (left) and Marina.



Alicia Underlee Nelson

life – is simple: Eat wild. Eat whole. Live well. Prewett has steadily adjusted her lifestyle to reflect her passion for hunting for her own food, her respect for the traditional custom of eating the entire animal and her love of healthy, flavorful food and spending time outdoors.

Prewett's website grew out of her own struggle to find flavorful wild game recipes that also worked with her lifestyle. "I searched the internet looking for recipes, and most of what I found were pretty unhealthy," she explained. "So I decided to start cooking wild game the way I like to eat and over the years it has really evolved. I somehow stumbled upon a niche. I never thought in a million years I would ever start a blog, but family and friends put the idea into my head and eventually convinced me."

She started *wildandwhole.com* in July of 2016 and said she was shocked when folks, other than her family and friends, started responding to her posts. But as her work evolves and as the community around the website grows, the project has become a passion. "It has surprisingly become a hobby I really enjoy," Prewett said. "Because I am a creative soul at heart, I find that taking photos of the meals I harvest is a way for me to express a very meaningful way of life. My hope is that it inspires others to eat mindfully, get outside and connect with food in a bigger way."

People appreciate the photos too, as she has more than 3,000 followers on her Ins-

tagram account.

Prewett practices what she preaches. She only cooks meat or fish that she or her husband have hunted or caught themselves. "I believe you are what you eat, *eats*" she said, pausing for emphasis on that last part.

The Prewett household is a busy one during the hunting season. Both partners balance full time jobs

(Travis works in oil

and gas and Danielle is a legal secretary and a certified yoga instructor) with securing enough food to stock their freezers for the year.

So what's Prewett's favorite thing to hunt? "I have to say dove. And everyone is gonna make fun of me for that!" she laughed. "But I love dove hunting. Because one: the weather is still hot. And two: they're really fun. And they're *fast* little boogers and it's a great way to get ready for hunting season and get some target practice." Plus, she added, dove hunting is a tradition in Texas.

The shotgun Prewett uses, a handsome, 1953 Belgian-made Browning 20 gauge – is steeped in tradition as well. It was once her husband's grandfather's. She brings it pheasant hunting, too. "Pheasant hunting really changes when you've got a great pointer to hunt behind," she added.

The Prewetts have two bird dogs. Marina is a golden retriever and a consummate water dog. Zissou is a Duetsch Drahtharr, a German wirehair pointer bred to competitive European standards, and a versatile hunting dog. The Prewetts are working through the complex certification process to breed him.

That means the couple and their dogs spend a lot of time together outdoors. Prewett loves the camaraderie of hunting and being outdoors with family and friends. One particular hunt back in Texas sparked her interest in eating the whole

animal – even the bits that most hunters discard.

“I’m sort of a nose to tail eater,” she explained. “And I found this recipe from Hank Shaw years ago for hearts and livers in Cajun dirty rice. It was opening day of dove season. So I told everybody to save hearts and livers from all the birds. I was half joking, because if you know what a dove looks like, the whole bird is about *this big*” – and here she holds out her hand to indicate that the bird could fit inside her cupped palm – “so each heart is about the size of a kidney bean. It’s *tiny*.”

She might have been joking, but her hunting party wasn’t. They came back with a bag full of hearts and livers. And the resulting meal was a revelation “And since then I’ve always sort of saved the odd bits,” she said. “And if you look in my freezer, you’ll find duck feet, you’ll find carcasses – all sorts of stuff.”

Her husband jokes that he got some odd looks when she asked him to save fish heads to make fish stock, but both say that the extra effort definitely pays off. A great meal starts with processing, Prewett explained. And the couple works together to make that step easier.

“On the days that she doesn’t come hunting with me, I’ll help to make sure I don’t over-burden her and I’ll take the birds and I’ll clean them in the garage,” said Travis. “And I spend a lot of time making sure they’re perfectly clean and I’ll put them on a plate and I’ll bring them in. At that point, I’m exhausted and I just want to take a shower and call it a night, but then she can dry it off and salt it and put it in freezer bags.”

Prewett recommends vacuum-sealed, food saver freezer bags over butcher paper to keep meat looking and tasting fresh. She always sorts, bags and labels every cut of meat separately.

She acknowledges that it does take a little more

time to process meat using her system. But she says it results in better tasting meat and much faster prep times, since she’s not digging in the freezer and guessing about what she’s defrosting, or finishing a hasty processing job when she’s already in cooking mode. Smart game processing also adds to the appeal of a meal.

“We eat with our eyes,” Prewett said. “And that all starts with processing meat. I know some people get lazy, they step on the wings and rip the breast out. Well, when you go to cook it, it’s not going to look pretty. It’s about taking your time, getting the BBs out, getting the feathers out, making it look pretty.”

Many of the recipes Prewett creates and adapts on *wildandwhole.com* can be dairy-free or gluten-free.

“I always say it’s about eating mindfully,” Prewett said, sounding every bit like the yoga instructor she is. “It’s about knowing what your body needs.”

Prewett will have a chance to share that message on a larger stage – literally – when she will be one of the headlining present-

ers for the Wild Game Cooking Stage at the 2018 National Pheasant Fest and Quail Classic hosted by Pheasants Forever, February 16-18 in Sioux Falls, South Dakota.

“We started following her when her recipes first started running in the Outdoor News weekly paper,” said Pheasants Forever’s public relations manager Jared Wiklund. “She really does make some interesting dishes, which we believe our members and followers will connect with at Pheasant Fest ... Danielle will be an excellent addition to the show and we look forward to showcasing her talents as a wild game chef and upland hunter.”

It was a contact that Danielle remembers well. “I was a little surprised because it was the first time they’ve ever reached out to me, and I realized that my blog was actually starting to grow an audience,” Prewett said. “I am obviously very excited. It will be a lot of fun.”

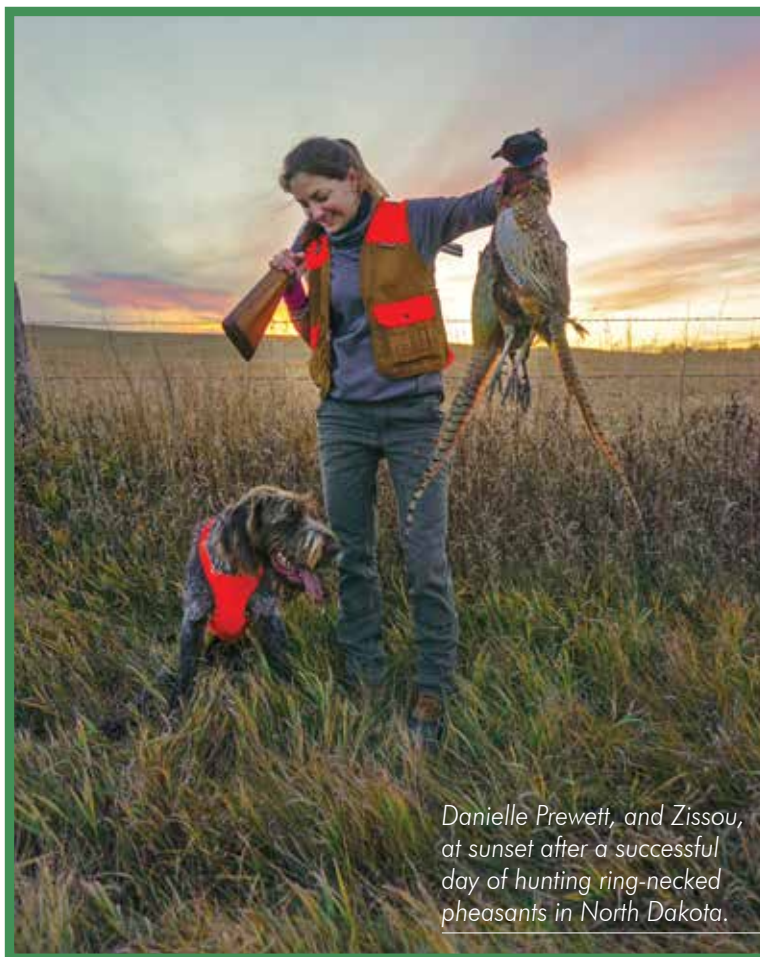
Prewett knows that this event could mark a turning point in her career. But until then, the website is still a hobby, a chance to develop recipes, refine her food styling and photography skills (her favorite part of the process) and share her love of wild, whole, healthy food with the world.

“I’m continuing to just have fun with it and do what I enjoy,” Prewett said. “If I had a goal in life, it would just be to find happiness. I feel like everybody is always striving to find out what that is. But I think we’ve really found that here in North Dakota.

“Everything that we do outside, everything that we cook, just the lifestyle in general has been very meaningful for us. We’re very happy.”

ALICIA UNDERLEE

NELSON, West Fargo, is a freelance writer who also blogs about food, travel and outdoor recreation in North Dakota and beyond at prairiestylefile.com.



Danielle Prewett, and Zissou, at sunset after a successful day of hunting ring-necked pheasants in North Dakota.

DANIELLE PREWETT

Recipe
and Photos by
Danielle Prewett



GRILLED PHEASANT WITH MOJO SAUCE

This grilled, spatchcocked pheasant is probably one of the more satisfying meals I have made with wild game to date. The crispy skin is full of flavor from a homemade dry rub, the meat is tender and juicy, and the citrus-garlic mojo sauce is delicious.

Spatchcocked, aka butterflied, is an easy way to break down a whole bird that you want to be grilled a little quicker and more evenly. Essentially, you just cut along each side of the back bone, remove the spine, and flatten the bird open.

You can serve this with any of your favorite side veggies. I chose a fresh salad with roasted sweet potatoes, chopped mango, and sliced avocado. The mojo sauce is particularly good as a salad dressing.

Visit wildandwhole.com for a more detailed guide, with photos, along with many other wild game dishes.

Serves 4; makes 2 cups of mojo sauce

Ingredients:

- 2 whole pheasants, plucked with skin on
- Duck fat or oil for grilling
- 4 skewers (2 for each bird)

Dry Rub:

- 1 T. salt
- 1 t. black pepper
- 2 t. dried oregano
- 1 t. cumin
- 1 t. red pepper flakes
- 1 t. onion powder
- 1 t. garlic powder
- 1 lime, zested on a microplane

Mojo Sauce:

- ½ C. fresh orange juice
- ¼ C. fresh lime juice
- 1 C. olive oil
- 8 cloves of garlic, smashed
- 1 C. fresh cilantro
- 1 Jalapeno, roughly chopped (with or without seeds)
- Salt and pepper to taste

METHOD

Prepare Dry Rub:

1. Make the dry rub by mixing the listed ingredients in a bowl. The spice mix should be plenty for two whole birds. Save the leftover rub for seasoning side veggies, potatoes, etc.

Spatchcocked Pheasant:

1. Using heavy duty scissors, cut along each side of the spine and remove. Roll the legs out front and flip the bird over so that it faces up. Press down firmly with your hands on the breast plate to it flatten out some.
2. Pat the pheasant as dry as you can with paper towels. Season generously with the dry rub. If you kept the skin on, be sure to rub the spice mix under the skin so it covers the meat, being careful not to tear it.
3. For optimal results, set your birds skin side up on a sheet pan or a container uncovered so that it gets plenty of airflow. Let the pheasants rest and dry out for several hours or overnight in the fridge if possible. The drier the skin is, the crispier it will be once grilled.

Mojo Sauce:

1. Prepare the mojo sauce by combining all of the above listed ingredients in a food processor or blender. Puree until smooth and store in the fridge until ready to use.

Grill:

1. Remove the pheasant from the fridge about an hour before grilling and let it come to room temperature. Rub the birds down with about 2 teaspoons of fat/oil per bird. Use two skewers per bird to help stabilize it by piercing through the top of the breast, and crossing over through the thigh meat (on both sides).
2. Set the grill to medium high heat. Grill the pheasant skin-side down for about 5 minutes or until the skin begins to char. Flip the pheasant and then move it to the side of the grill over indirect heat. Turn the burners down to low, close the lid and let it continue to cook for an additional 25-30 minutes or until the thigh meat registers to 165 degrees.
3. Remove the pheasant from the grill and serve with the mojo sauce.

NOTE: You can also use a skinless pheasant for this recipe and use the mojo sauce as a marinade instead of the dry rub.



BUFFALOBERRY PATCH

By Greg Freeman, Department News Editor



CRAIG BHRLE

Summary of Pheasant Brood Survey

North Dakota's summer roadside pheasant survey indicated total birds and number of broods were down statewide from 2016.

R.J. Gross, North Dakota Game and Fish Department upland game management biologist, said the survey showed total pheasants observed per 100 miles were down 61 percent from last year. In addition, brood observations were down 63 percent, while the average brood size was down 19 percent. The final summary was based on 279 survey runs made along 103 brood routes across North Dakota.

"Brood data suggests very poor production this spring when compared to 2016, which results in fewer young birds added to the fall population," Gross said. "The majority of the state was in extreme drought conditions during critical times for pheasant chicks. This resulted in poor nesting/brood habitat and more than likely a less than ideal insect hatch."

Statistics from southwestern North Dakota indicated total pheasants were down 59 percent and broods observed

down 60 percent from 2016. Observers counted eight broods and 68 birds per 100 survey miles. The average brood size was 4.3.

Results from the southeast showed birds were down 60 percent from last year, and the number of broods down 70 percent. Observers counted two broods and 24 birds per 100 miles. The average brood size was 4.7.

Statistics from the northwest indicated pheasants were down 72 percent from last year, with broods down 76 percent. Observers recorded three broods and 24 birds per 100 miles. Average brood size was 5.2.

The northeast district, generally containing secondary pheasant habitat, with much of it lacking good winter cover, showed one brood and six birds per 100 miles. Average brood size was 3.5. Number of birds observed was down 54 percent, and broods recorded were down 63 percent.

The 2017 regular pheasant season opened October 7 and continues through January 7, 2018.

WHOOPING CRANE MIGRATION

Whooping cranes are migrating and sightings will increase as they make their way into and through North Dakota over the next several weeks. Anyone seeing these birds as they move through the state is asked to report sightings so the birds can be tracked.

Whoopers stand about five feet tall and have a wingspan of about seven feet from tip to tip. They are bright white, with black wing tips, which are visible only when the wings are outspread. In flight they extend their long necks straight forward, while their long, slender legs extend out behind the tail. Whooping cranes typically migrate singly, or in groups of 2-3 birds, and may be associated with sandhill cranes.

Other white birds such as snow geese, swans and egrets are often mistaken for whooping cranes. The most common misidentification is pelicans, because their wingspan is similar and they tuck their pouch in flight, leaving a silhouette similar to a crane when viewed from below.

Anyone sighting whoopers should not disturb them, but record the date, time, location, and the birds' activity. Observers should also look closely for and report colored bands which may occur on one or both legs. Whooping cranes have been marked with colored leg bands to help determine their identity.

Whooping crane sightings should be reported to U.S. Fish and Wildlife Service offices at Lostwood, 701-848-2466, or Long Lake, 701-387-4397, national wildlife refuges; the North Dakota Game and Fish Department in Bismarck, 701-328-6300, or to local game wardens across the state. Reports help biologists locate important whooping crane habitat areas, monitor marked birds, determine survival and population numbers, and identify times and migration routes.



Hunting from Duck Boats Requires Safety

Waterfowlers hunting from boats are encouraged to wear properly-fitted life jackets while on the water.

Hunting jackets with life jackets already built in are light and comfortable to wear. In addition, wearing a life jacket will not only keep the overboard hunter afloat, but also slow the loss of critical body heat caused by exposure to cold water.

Capsizing and falling overboard from small boats are the most common types of fatal boating accidents for hunters.

Eight people have drowned in state waters since 1998 while hunting from a boat, and none were wearing life jackets.



CRAIG BIRLIE

Motorists Warned to Watch for Deer

Motorists are reminded to watch for deer along roadways this time of year because juvenile animals are dispersing from their home ranges.

October through early December is the peak period for deer-vehicle accidents. Motorists are advised to slow down and exercise caution after dark to reduce the likelihood of encounters with deer along roadways. Most deer-vehicle accidents occur primarily at dawn and dusk when deer are most often moving around.

Motorists should be aware of warning signs signaling deer are in the area. When you see one deer cross the road, look for a second or third deer to follow. Also, pay attention on roadways posted with Deer Crossing Area caution signs.

Deer-vehicle accidents are at times unavoidable. If an accident does happen, law enforcement authorities do not have

to be notified if only the vehicle is damaged. However, if the accident involves personal injury or other property damage, then it must be reported.

In addition, a permit is still required to take parts or the whole carcass of a road-killed deer. Permits are free and available from game wardens and local law enforcement offices.

A few precautions can minimize chances of injury or property damage in a deer-vehicle crash.

- Always wear your seat belt.
- Don't swerve or take the ditch to avoid hitting a deer. Try to brake as much as possible and stay on the roadway. Don't lose control of your vehicle or slam into something else to miss the deer. You risk less injury by hitting the deer.
- If you spot deer ahead, slow down immediately and honk your horn.

Youth Waterfowl Trailer Available

The North Dakota Game and Fish Department and Ducks Unlimited co-sponsor a trailer full of waterfowl hunting gear that is available to families with young hunters.

Purchased by the Game and Fish Department's Encouraging Tomorrow's

Hunters grant program, the trailer is designed for families who don't have the appropriate gear for their young hunters to hunt waterfowl. The equipment is donated by Avery Outdoors.

Use of the trailer is free, and it is equipped with goose and duck decoys

for field hunting, and two bags of floating duck decoys and marsh seats for hunting a wetland.

For more information, or to reserve equipment, contact the Ducks Unlimited office in Bismarck at 701-355-3500.

WATERFOWL HUNTERS

Aquatic Nuisance Species can severely degrade
waterfowl habitat and reduce
hunting opportunity.

Follow North Dakota regulations to protect waterfowl hunting for the future.

BEFORE leaving a water area or access:

**DRAIN ALL WATER
REMOVE VEGETATION
PULL DRAIN PLUGS**

ALL EQUIPMENT. EVERY TIME.



**STOP AQUATIC
HITCHHIKERS!**

Be A Good Steward. Clean. Drain. Dry.



For complete regulations visit gf.nd.gov



JOSH KNUITSON

Fall Fish Surveys Provide Insight

North Dakota Game and Fish Department fisheries biologists have completed fall reproduction surveys, which evaluate natural reproduction, stocking success and forage abundance in many waters across the state.

Scott Gangl, Department fisheries management section leader, said that while the final numbers aren't compiled yet, there is some early good news from the survey efforts.

"We are seeing really good numbers of walleye and sauger in Lake Sakakawea, so we think those two had a pretty good year," he said. "Devils Lake is seeing pretty good numbers of walleye, but the Missouri River and Lake Oahe are still really low in the production of anything."

Gangl said the Missouri River flood of 2011 is still influencing this popular fishery.

"We've had some good walleye reproduction in the Missouri River

System downstream of Garrison Dam over the last few years," he said. "It is actually a good thing that we did not have a good walleye year-class again this year because there are a lot of small fish out there and they are going to start competing for limited forage."

Gangl said that while biologists have not seen a lot of forage production in recent years in Lake Oahe, there was some indication of gizzard shad reproduction.

"The gizzard shad numbers are not what they were back in, say, 2008, but we did see quite a few fish down around the state line and we did catch some shad all the way up to Bismarck," he said. "So there are shad in the system right now and they did reproduce, but I don't think the numbers are there yet to provide a lot of forage."

Considering summer drought conditions and other factors, Gangl said the results of the fall reproduction

survey in district lakes scattered across the state vary.

"There are some good ones and some bad ones," he said. "Department fisheries biologists are finding some good stocking success in a few lakes, but in some lakes, it wasn't so good. It is all dependent on the different factors from lake to lake."

From a statewide perspective, Gangl said North Dakota's fisheries are sitting in pretty good shape.

"In our big lakes, Devils Lake has a pretty robust walleye population and Sakakawea is very good right now," he said. "We may have lost some water in the more than 400 district lakes, but in the grand scheme of things, I think we are still riding high with all the adult fish and whatever young fish we had this year. I think we are sitting really well going into winter. We'll just see what Mother Nature gives us in terms of moisture for the coming year."



CRAIG BIRLE

Waterfowl Hunters Reminded of ANS Regulations

Waterfowl hunters are reminded to do their part in preventing the spread of aquatic nuisance species into or within North Dakota.

Waterfowl hunters must remove plants and plant fragments from decoys, strings and anchors; remove plants seeds and plant fragments from waders and other equipment before leaving hunting areas; remove all water from decoys, boats, motors, trailers and other watercraft; and remove all aquatic plants from boats and trailers before leaving a marsh or lake. In addition, hunters are encouraged

to brush their hunting dogs free of mud and seeds.

Cattails and bulrushes may be transported as camouflage on boats. All other aquatic vegetation must be cleaned from boats prior to transportation into or within North Dakota.

In addition, drain plugs on boats must remain pulled when the boat is in transit away from a water body.

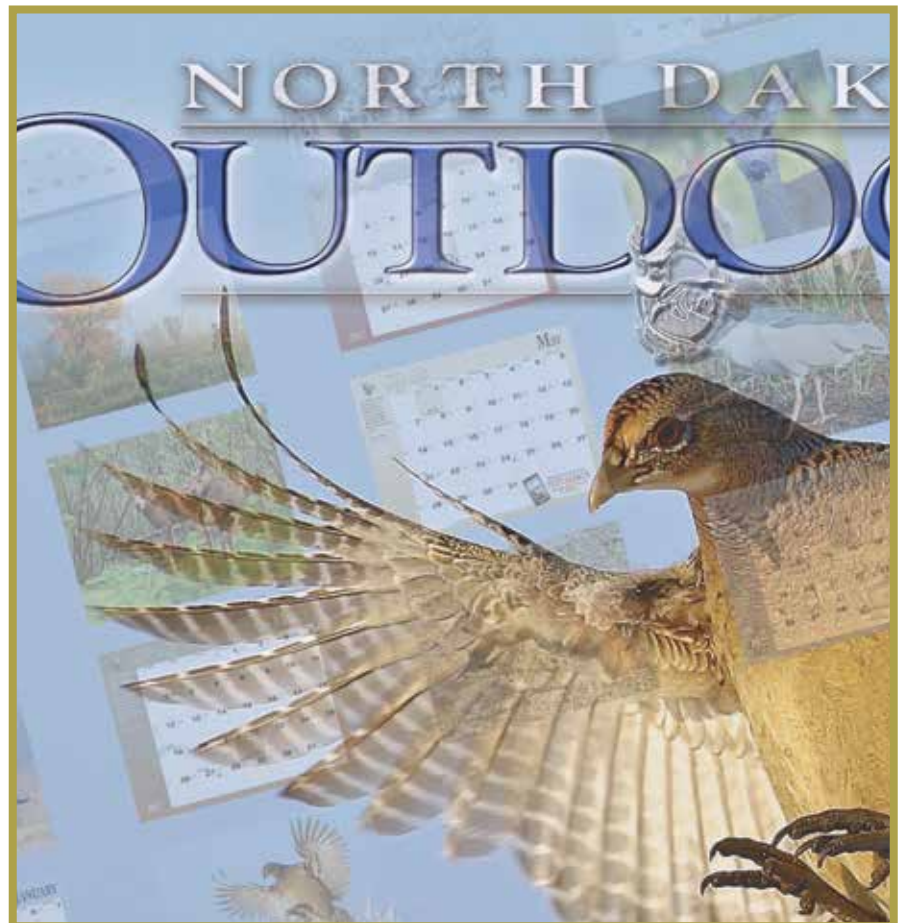
More ANS information, including regulations, is available at the Game and Fish Department website, gf.nd.gov.

Order 2018 *OUTDOORS* Calendars

The North Dakota Game and Fish Department is taking orders for its *North Dakota OUTDOORS* calendar, the source for all hunting season and application dates for 2018. Along with outstanding color photographs of North Dakota wildlife and scenery, it also includes sunrise-sunset times and moon phases.

To order online, visit the Game and Fish website, gf.nd.gov, or send \$3 for each, plus \$1 postage, to: Calendar, North Dakota Game and Fish Department, 100 N. Bismarck Expressway, Bismarck, ND 58501-5095. Be sure to include a three-line return address with your order, or the post office may not deliver our return mailing.

The calendar is the *North Dakota OUTDOORS* magazine's December issue, so current subscribers will automatically receive it in the mail.





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KXMB - Sunday - 10 pm
CATV - Saturday - 9:30 am

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KQCD - Saturday - 5 pm (MT)
KXMA - Sunday - 9 pm (MT)

FARGO

KVRR - Saturday - 9 pm

GRAND FORKS

KVRR - Saturday - 9 pm

MINOT

KMOT - Saturday - 6 pm
KXMC - Sunday - 10 pm

WILLISTON

KUMV - Saturday - 6 pm
KXMD - Sunday - 10 pm
Monday - Noon

MAGAZINE



NORTH DAKOTA GAME AND FISH DEPARTMENT

100 North Bismarck Expressway

Bismarck, ND 58501-5095

701.328.6300

Email: ndgf@nd.gov



back cast



By Ron Wilson

We're sitting in folding camp chairs in an elevated deer blind somewhere in Burleigh County. The tie-down straps that anchor the free-standing structure hum without pause, reminding us that the wind blows on the Northern Plains more often than not.

We've been here before first light. I've hunted this land before and know my way around, but hunting from the hard-sided blind is new to us. Getting in the blind, figuring out the door latch and how to open the windows once inside, was a bit of a thing without the flashlight forgotten between the front seats in the vehicle.

My mistake.

It's the opening weekend of the youth deer gun season. Yesterday, after striking out on a morning sit elsewhere, I got a call from the landowner, offering up his blind that his son shot a doe out of the evening before.

The blind has good karma, I whisper to Jack, as I situate my chair to look south and he slides his closer to a window facing north.

With the sunrise, we begin to get a better look at the landscape. There's acres of corn, sorghum, knee-high CRP and a shallow wetland caged by cattails. Yet, even from our elevated perch, there is a lot we can't see, blocked by hills and folds in the land.

The first animal we spot is familiar, yet it remains unfamiliar for a time, simply because it's seems so out of place. I've bumped porcupines a number of times hunting upland birds on the prairie, but



to see one slowly lumber out of a sorghum field when we're thinking, wishing for whitetails, takes some time to register.

I've read where a porcupine can spend several days in a single tree, eating bark and whatever else it can reach. Maybe that's what is on its mind as it heads in the direction of a single tree row some distance from here. At its current pace, which could be described as lackluster, at best, it should make it there by noon.

Watching the porcupine was cool, but we're over it. Jack started the morning on the edge of his seat, with his rifle leaning nearby, and binoculars glued to his face.

Now, he's slipped farther back into his seat, his left elbow is propped on the armrest and his chin is resting in his palm. A nap, I'm guessing, is in the making. We need to see deer soon.

I've been deer hunting for years and can never get over how deer seemingly show up out of nowhere, no matter how diligently you've been paying attention, and disappear just as quickly.

"Dad! Deer!"

In preparation for this moment, we've gone over, many times, shot placement,

squeezing, not pulling the trigger, and so on. Yet, it hits me that we didn't talk a lick about shooting from a blind 20 feet off the ground at deer crossing in a depression at 60 yards.

No matter.

With the single shot still ringing in my ears, I slap my son on the back, squeeze his shoulder, and congratulate him on his first deer, a whitetail doe.

We close the windows to the blind, shut the door behind us and take turns making our way down the wooden steps to the ground. Now, with a fistful of whitetail in each hand, Jack poses for some photos. I don't have to tell him to smile. He's a happy kid.

Then not so much.

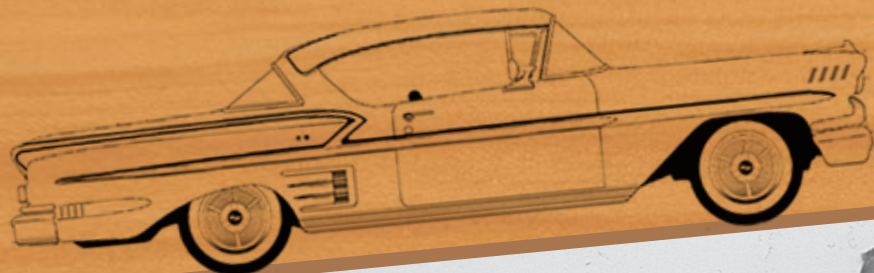
I had my suspicions that he might be allergic to deer. Last season he had a mild reaction while watching me help skin a doe in a friend's garage. Of course, the antihistamine I packed, just in case, is in the vehicle with the flashlight a quarter-mile from here.

Again, my mistake.

With Jack sitting at a distance in the CRP while I try to be quick about field dressing his deer, he sneezes repeatedly and I ask just as often about his breathing.

When I look up, one eye is swollen in sort of a perpetual wink. He wipes his runny nose with the sleeve of his sweatshirt and smiles.

RON WILSON is editor of *North Dakota OUTDOORS*.



A Look Back

By Ron Wilson

There is some debate about the history of the Game and Fish Department's practice of conducting field checks for upland birds and other game.

Biologists, retired and not, say the Department ended the practice sometime in the 1980s or sometime in the 1990s.

What's certain is that they were carried out the opening weekend or the first week of every fall hunting season for years. As the provided black and white photograph indicates, biologists were taking to the field checking pheasants and other game as early as 1959, and likely earlier.

"Field checks are operated in one of two ways; either they are stationary or mobile. A stationary field check is designed to bring hunters to it ... A mobile field check is one where biologists actually go out and seek hunters to check," according to the November 1973 issue of *North Dakota OUTDOORS*. "Both types work effectively in

the collection of pertinent information such as age and sex ratio of the various species and hunter success."

Jerry Kobriger, retired Department upland game management supervisor, said that while the photograph provided was before his starting time with Game and Fish, he said he worked many stationary and mobile check stations for both upland and big game species.

"The upland game people in the Department enjoyed them because we got out into the field and got to talk to the public," Kobriger said. "It was good public relations for the Department."

But like a lot of things, game management practices evolved and field checks were eventually discontinued.

"They just gradually petered out," Kobriger said. "The last couple I was on was for turkeys ... we were collecting blood samples for disease work."

Today, to help in the effort to manage

the state's upland game birds, biologists lean to a degree on feathers collected from harvested birds that are sent in by hunters in wing envelopes.

The upland game wing survey has, like a lot of things, been in practice for decades.

While the field checks are a thing of the past, they once helped in the management of North Dakota's wildlife.

"The data obtained from checking stations during the opening weekend of the pheasant season are only a small, but still important part, of the information acquired annually to keep tabs on our pheasant populations," according to the November 1960 issue of *OUTDOORS*. "A continual effort is being made to learn more about our pheasants so that they can be managed to provide maximum recreation for the sportsman."

RON WILSON is editor of North Dakota *OUTDOORS*.