



MATTERS OF OPINION



Terry Steinwand Director

In the course of a year, I travel often across the state and the country for work and pleasure, meeting a lot of people, seeing old friends and making new ones.

While some people might consider traveling a "perk" of the job, it's not always so. There are hours waiting in airports, or scrambling with just a few minutes to catch a flight. And getting much work done on a plane is next to impossible as there is little room to spread documents around.

However, there is an upside to traveling, at least within the state of North Dakota, as I'm often afforded the chance to think and reflect on what has occurred and what the future might possibly hold.

In the last month, I've spent quite a bit of time driving to and from meetings in North Dakota and beyond. Given the quick transition from winter to the briefest of springs, and what now promises to be summer, it amazes me how quickly the North Dakota landscape transforms from the brownest of brown to a lush green.

My rural roots always seem to emerge on these journeys. While I seldom have time to take a back road to get to the next meeting location, there are times I'm afforded that luxury. I've always enjoyed driving roads less traveled and seeing the rural lifestyle that's still on the North Dakota landscape. Young calves running and jumping while testing their newfound balance; observing a Canada goose pair with young goslings swimming alongside; seeing a group of mallard males chasing after a hen in flight.

When there is time, I stop for a short break and step outside the vehicle to listen to the birds sing. Even as bad as my hearing is getting, I can still hear pheasant roosters crowing, the melody of Western meadowlarks, which always brings back some great memories and invokes hope for the future.

This issue of *North Dakota OUTDOORS* is dedicated to North Dakota's Species of Conservation Priority. This group of animals, there are 112 of them, could just as easily be called "species that make North Dakota what it is." These animals have made this list because biologists have noted their decline over time, or we simply don't have enough information to get a solid grip on their status. Even so, they still help define North Dakota and represent an important part of our history.

It's important, as the landscape across North Dakota changes, to do what we can to make sure the animals, whether it's those on the special species list or not, remain a vital part of our heritage.

North Dakota is a great state and provides us with many wonderful opportunities. So whatever the season, take advantage and get out and enjoy the great North Dakota outdoors.

Terry Steinward

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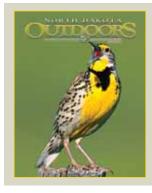
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Front Cover

The Western meadowlark, North Dakota's state bird, has experienced population declines over its entire range in the past few decades. Photo by Kelly Krabbenhoft, West Fargo.



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NORTH DAKOTA SPECIES OF CONSERVATION PRIORITY 2014 LIST UPDATE

By Steve Dyke Species Profiles By Sandra Johnson and Patrick T. Isakson f this issue of *North Dakota OUTDOORS* looks a little familiar, you have a good memory because it's tailored after the July 2004 magazine.

In that publication the North Dakota Game and Fish Department introduced readers to the State Wildlife Grant program, the state's list of Species of Conservation Priority, and the need to develop a comprehensive State Wildlife Action Plan to guide biologists in the management of nongame and rare or declining species.

The Department subsequently accomplished that milestone by having its plan approved in October 2005.

While those efforts served Game and Fish well for the past 10 years or more, the Department has a requirement to review and update the plan. Federal regulations for SWG require states to conduct periodic SWAP reviews not to exceed 10 years. The Department's 10-year deadline for doing that is October 2015.

Because of the size and scope of the state's SWAP, this process is not done easily in a few weeks or months. For that reason, wildlife managers started the revision process about one year ago by working with conservation partners and the general public in updating various portions of the plan. This effort is ongoing and will culminate with the creation of a new and updated SWAP in 2015.

Major Accomplishments

In the 10 or more years that SWG has been in existence in North Dakota, nearly 60 individual projects with 26 partners were initiated. While the projects were fairly wide ranging, they generally fall into one of two categories: 1) survey/ research and/or 2) habitat improvement.

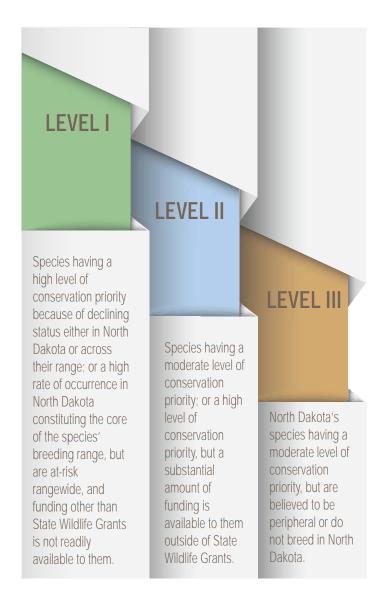
With limited funding resources and an overabundance of things to do, Game and Fish strives to balance the amount of survey and research projects, while still contributing substantial efforts to improve fish and wildlife habitat.

A total of 39 research projects were conducted on dozens of different species, providing much needed information on their presence or absence in certain geographic areas, relative abundance, habitat needs and a variety of other life history traits. Several additional species occurrences were documented in North Dakota as a result of these studies, including the American marten, Merriam's shrew, and deertoe and fragile papershell mussels.

For habitat related efforts, SWG has partnered on about a dozen projects, including ventures to restore, enhance or maintain grassland, woodland and wetland habitat. To date, these efforts have resulted in 13,000 acres restored; 22,000 acres enhanced; and 82,000 acres protected.

Updated Species List

As a part of the SWAP revision process, Game and Fish Department biologists conducted a review of North Dakota's Species of Conservation Priority list. Wildlife managers started the revision process about one year ago by working with conservation partners and the general public in updating various portions of the plan.



Using the old list as a starting point, Department personnel determined which species to keep and which to add. Based on feedback, a draft list was assembled and provided to more than 60 agencies, nongovernmental organizations or individuals with expert knowledge of fish and wildlife populations in North Dakota. Recommendations and suggestions from this group provided the primary basis for many of the changes made to the current list.

North Dakota now has 112 species as compared to 100 on the original list. To get there, 17 new species were added while five were dropped from the old list. Perhaps the most important distinction of the new list is the inclusion of two insects, the Dakota skipper and powesheik skipperling.

Consider for a moment that by some estimates North Dakota is home to 700-900 species of birds, fish, mammals, reptiles and amphibians. Keeping tabs on that many species under the SWG program is challenging.

Yet, when you include insects – there are more than 1 million species identified worldwide, with many more awaiting discovery – the task certainly becomes uniquely challenging.

Even so, the agency is about to begin the second 10-year cycle of SWG in North Dakota. Assuming the Department's State Wildlife Action Plan is approved sometime in 2015, the list of species on the following pages will comprise the Species of Conservation Priority list.

Readers may wish to keep this edition of *North Dakota OUTDOORS* as a future reference. With help from the SWG program, hopefully the listed species will remain a part of the North Dakota landscape forever and not just reminder of what once was.

STEVE DYKE is the Game and Fish Department's conservation supervisor.

Summary of Changes

The number of Species of Conservation Priority in North Dakota increased from 100 in 2004 to 112 in 2014. The current list contains:

- 46 birds
- 22 fish
- 21 mammals
- 10 mussels
- 9 reptiles
- 2 amphibians
- 2 insects
-

Subtractions

Animals removed from the list include:

- Redhead
- Sedge wren
- Redbelly snake
- Gray wolf
- Flathead catfish

Additions

Animals added in 2014 to North Dakota's Species of Conservation Priority list include:

- Lesser scaup
- American kestrel
- Western meadowlark
- Spiny softshell
- Townsend's big-eared bat
- Big brown bat
- Little brown bat
- Northern myotis
- American marten
- Merriam's shrew
- Gray fox
- Burbot
- Fragile papershell
- Deertoe
- Creeper
- Dakota skipper
- Poweshiek skipperling

LEVEL I



Species having a high level of conservation priority because of declining status either in North Dakota or across their range; or a high rate of occurrence in North Dakota constituting the core of the species' breeding range, but are at-risk rangewide, and funding other than State Wildlife Grants is not readily available to them.

HORNED GREBE

One of six grebe species in North Dakota. A small, duck-like bird, with a straight black bill and white tip, black head, with puffy, yellow ear tufts extending from red eyes to back of the head. A reddish neck and gray back adorn this bird.

Habitat and range: East of the Missouri River, particularly the Turtle Mountains. Uses a variety of wetlands and lakes, nesting on a bed of floating vegetation on open water.

Why: Horned grebes were once more common in North Dakota, found nearly everywhere on prairie wetlands. Wetland draining has negatively affected this species.

AMERICAN BITTERN

An odd-looking, 2-foot-tall bird with nicknames such as "sky-gazer" because, if startled, it stands motionless with its beak pointing upward, and "water belcher" for its *glug-glug* call.

Habitat and range: Primarily east of Missouri River. Bitterns are secretive, hiding in wetland cattails and bulrushes. Nests of dead reeds or cattails are built a few inches above water among cattails. Birds will also nest in uplands.

Why: Loss and destruction of wetlands and prairie habitat is negatively affecting this species.

SWAINSON'S HAWK

A large hawk, similar in size to common red-tailed hawk, with a wingspan of 50 inches. Although quite variable in plumage color, most sport a white face and dark brown "bib." **Habitat and range**: Statewide. The 3- to 4-foot-wide nests built in lone prairie trees are conspicuous.

Why: Concern may lie with its wintering habitat – grasslands of Argentina – rather than its breeding range. Another worry is humans who kill them because of fear the birds are preying on too many game animals, rather than their favorite meal of ground squirrels and insects.

FERRUGINOUS HAWK

The largest hawk in North Dakota varies in coloration from almost completely white, with a trace of reddish-brown, to nearly all dark brown. Population size and productivity closely linked to its primary prey of ground squirrels, prairie dogs and jackrabbits.

Habitat and range: Statewide, but appear concentrated in the Missouri Coteau. Birds prefer predominantly native grasslands and shrubland habitat. Often nest on the ground on rocky hillsides.

Why: Population declining due to destruction and alteration of breeding and wintering habitats.

GREATER SAGE GROUSE

The largest grouse species, males weigh in at more than 6 pounds, with a wingspan of 38 inches. Habitat and range: Limited to extreme southwestern North Dakota, particularly where there is sagebrush to feed on during winter, and to provide nesting cover in spring.

Why: Its range has shrunk substantially in North Dakota. Once occurred east of the Little Missouri River, now believed vanished from there. This species is declining nationwide due to loss of sagebrush habitat and other human-produced factors.

YELLOW RAIL

An extremely shy, 7-inch-long marsh bird that sports a short tail and stubby yellow bill. Rarely seen as it runs through marsh vegetation to escape, rather than flying.

Habitat and range: East of Missouri River. Prefer fens, or groundwater-fed wetlands, that support diverse plant and animal life. Birds lay 8-10 eggs under a canopy of grasses.

Why: The rail is of particular concern because its preferred fen habitat is sensitive and easily converted to cropland. If a fen is destroyed, it takes 10,000 years to form again naturally.



Horned grebe



Swainson's hawk



Sage grouse







Marbled godwit



Black tern



LONG-BILLED CURLEW

The largest shorebird in North America, measuring 26 inches from tail to tip of its long, down-curved, 8-inch bill. Overall, a buffy color, but striking pink-cinnamon underwings visible in flight.

Habitat and range: West of Missouri River, most likely limited to extreme southwest counties. Nest in shortgrass prairie or grazed mixed-grass prairie.

Why: Curlews numbered much higher during the 1800s, and were more widely distributed. Population is declining nationwide from loss of shortgrass breeding habitat and other factors on wintering grounds in western Mexico.

MARBLED GODWIT

The largest godwit in North America. It is buff-brown, with barring underneath, sports a long, up-turned, flesh-colored bill with a dark tip, and orangish underwings distinctive in flight. Cries *godWHIT*, *godWHIT* and will fly to meet intruders if threatened.

Habitat and range: Statewide, with high densities in Missouri Coteau. Uses a variety of wetlands, streams or lakes. Nests generally on native prairie, often heavily grazed.

Why: Although fairly common in North Dakota, historically it was even more so. Loss and destruction of prairie breeding habitat, along with diminishing wintering grounds, negatively affect this species.

WILSON'S PHALAROPE

Small shorebird for which sex roles are reversed. Females are brightly colored, with a brown-red and gray back, black streak from eyes down to a light cinnamon neck, and a white throat and belly. Males are light gray and white.

Habitat and range: Statewide. Most often seen feeding in shallow wetlands or mudflats, sometimes spinning to churn up food. Nest in grass on the margins of wetlands where the male tends the nest.

Why: Winters as far south as the southernmost tip of South America, phalaropes face many challenges during long migrations. In addition, loss of breeding habitat is a concern.

FRANKLIN'S GULL

The most distinguishing characteristics are its black head and large white spots on black tips of wings. One of only two gull species that breed in North America and winter in South America.

Habitat and range: East of Missouri River, with high densities around Devils Lake area. Colonial nesters that build nests of dead marsh plants, which float on water or attach to reeds. These gulls are often seen following tractors working fields, eating easy meals of worms and insects forced to the surface. Why: Franklin's gull is a "responsibility" species as North Dakota hosts perhaps one of the largest breed-ing colonies in the world. Nearly 25,000 nesting pairs have been counted at Lake Alice National Wildlife Refuge.

BLACK TERN

Compared to gulls, terns are smaller and much more graceful in air. Black terns are nearly all black, except for gray wings and white undertail.

Habitat and range: East of Missouri River. Use a variety of wetlands with emergent vegetation. Semicolonial nesters that also use floating nests. Commonly seen hovering over water and then diving to catch small fish or insects.

Why: Tern population is linked to and highly sensitive to water availability. Loss of wetlands negatively affects this species, especially during dry years.

BLACK-BILLED CUCKOO

Truly a unique species as it is not closely related to any other birds. A slender, long-tailed bird, with a brown upperside and off-white underneath. A bold, red orbital eye ring is obvious in adults. **Habitat and range**: Statewide, particularly the Turtle Mountains and along the Sheyenne River. An inconspicuous bird that moves quickly through woodlands, thickets, prairie shrubs, shelterbelts and wooded areas of towns. Favorite food is caterpillars.

Why: Cuckoos across the country have been declining for years. Downward trend continues due to loss and degradation of riparian habitats.

RED-HEADED WOODPECKER

A flashy red head and neck give this woodpecker its name. Black upper back and tail, and white on rear of wings and upper rump.

Habitat and range: Statewide, but primarily along the Missouri, Little Missouri and Red rivers. Found in natural stands of mature deciduous trees along river bottoms, shelterbelts, wooded areas of towns, farmsteads and sometimes over prairie. Nest in snags.

Why: Historic literature indicates this species was once more common than today. Populations have always fluctuated, but numbers have declined due to loss of habitat and development along rivers.

SPRAGUE'S PIPIT

A slender, light brown, sparrow-like bird that wears a "necklace" of fine streaks, and is more likely to be heard than seen. Features an undulating flight when flushed. Males have a territorial flight display that can last three hours.

Habitat and range: Statewide, except Red River Valley. An extremely secretive bird that prefers extensive tracts of ungrazed or lightly grazed prairie.

Why: Declining due to loss and degradation of prairie habitat. It also has a restricted breeding range in North America, limited primarily to Montana, North Dakota and central Canada, making this a "responsibility" species. Currently a candidate species under the Endangered Species Act.

GRASSHOPPER SPARROW

Short-tailed and flat-headed, this sparrow is yellowish, with an unstreaked breast. Of note is a yellow spot between the eyes and bill. Named because of its grasshopper-like *tik tuk tikeeeeeeeez* call.

Habitat and range: Statewide. A characteristic prairie sparrow that uses idle or lightly-grazed mixed-grass prairie, meadows and hayfields. Nests on ground.

Why: Loss, destruction, or degradation of prairie habitat is negatively affecting this species.

BAIRD'S SPARROW

Distinguishing characteristics include a narrow band of fine, dark streaks along with dark spots on neck. Its song is a musical *zip-zip-zr-r-r*.

Habitat and range: Statewide, less common in the Red River Valley. Native mixed-grass prairie is preferred by this ground-nesting bird.

Why: Declining due to loss and degradation of prairie habitat. It also has a restricted breeding range in North America, limited primarily to Montana, North Dakota and central Canada, making this a "responsibility" species.

NELSON'S SPARROW

Sports a bright yellow face and throat, finely-streaked breast, gray nape and crown, and pronounced white belly. Its song is similar to Le Conte's sparrow, but softer and airier *pl-teshhhhhh-ush*. **Habitat and range**: East of Missouri River. Preferred habitat is fens, but also uses shallow marsh zones of wetlands and lakes.

Why: Loss of wetlands through draining, filling or other destruction and degradation is biggest threat.

LARK BUNTING

At first glance, appears to be a blackbird. Males are all black, except for broad patches of white on wings and tips of tail. Females are gray-brown, with messy dark streaks on the breast.

Habitat and range: Statewide, but less common in the Red River Valley. Sagebrush or sage prairie is preferred by this species. Secondary use is mixed-grass prairie interspersed with shrubs such as wolfberry and western rose.

Why: Loss, destruction or degradation of prairie habitat is negatively affecting this species.

CHESTNUT-COLLARED LONGSPUR

As its name implies, this bird has a chestnut collar. Males have a black belly, creamy yellow throat, and black and white on top of head. Females are a duller brown. Sports a conspicuous black triangle on a white tail. **Habitat and range**: Statewide, rare in Red River Valley. Preferred habitat is grazed or hayed mixed-grass prairie, as well as shortgrass prairie.



Red-headed woodpecker



Chestnut-collared longspur





Plains spadefoot



Smooth green snake



Plains hog-nosed snake



Why: Sheer abundance of this species in presettlement times was astonishing. Although still fairly common in North Dakota, loss of native prairie habitat continues to reduce once great numbers.

CANADIAN TOAD

This medium-sized, nocturnal toad of about 2-3 inches varies in color from green to brownishred. Brown or red warts present on back, which also features a light line running down the middle. Also known as Dakota toad.

Habitat and range: East of Missouri River. A rather aquatic toad that frequents margins of lakes, ponds and a variety of wetlands.

Why: North Dakota comprises the southern portion of its limited range. Vulnerable in the United States, although secure in Canada.

PLAINS SPADEFOOT

A toad with smooth grayish or brown skin, and a distinctive cat-like eye. It puffs up when threatened, to look bigger and tougher, but also to make it look harder to swallow.

Habitat and range: Western two-thirds of the state. Inhabits dry grasslands, with sandy or loose soil in which it burrows up to 2 feet. Emerges during summer evenings after a heavy rain to breed in shallow pools.

Why: A vulnerable species in most of its northern range where open grasslands are at risk of destruction and degradation.

SMOOTH GREEN SNAKE

Colored bright green with a white belly, this well-camouflaged, 12- to 22-inch snake blends perfectly in green grass.

Habitat and range: Statewide, except for extreme southwestern North Dakota. Primarily inhabits grasslands, particularly upland hills. One of only a handful of snakes that is entirely insectivorous, feeding on grasshoppers, crickets and caterpillars.

Why: Little is known about this reclusive snake. Habitat destruction, along with threats to its prey from pesticides, makes it vulnerable.

PLAINS HOG-NOSED SNAKE

Sometimes confused with rattlesnakes, the hog-nosed is tan to yellowish-gray, with dark blotches, and an upturned nose for shoveling into loose soil. If threatened, it may fake death by flipping on its back, letting its forked tongue hang loose. If turned on its stomach, it will again flip onto its back.

Habitat and range: Statewide, except for northwestern North Dakota. Typically found in sandy or gravelly habitats, often by rivers.

Why: In North Dakota, faces threats to its habitat, as well as threats from humans who misidentify them as rattlesnakes and kill them out of fear.

BLACK-TAILED PRAIRIE DOG

North Dakota's largest ground squirrel has a tan coat, with a black-tipped tail. With front feet designed for burrowing, prairie dogs live in towns comprised of a system of tunnels.

Habitat and range: Exclusively west of Missouri River. Prefer short grass of grazed rangeland in southwestern North Dakota.

Why: Once prolific on the prairie, their numbers have been reduced throughout much of their range in North Dakota. An important species to the plains, providing burrows for shelter, and serve as food for many other species.

STURGEON CHUB

Member of minnow family and grows to 3 inches. Green-brown above, with large brown spots. Snout extends beyond upper lip. Similar to sicklefin chub, except fins are straight edged.

Habitat and range: Most commonly found in Little Missouri River, but present in Missouri River and tributaries. Found mostly in large turbid rivers, with sand or gravel bottoms.

Why: Native to North Dakota, but now appears in low numbers. Suitable habitat lost to dams, and channelization threatens this species.

SICKLEFIN CHUB

Member of minnow family and grows to 4 inches. Light green to brown on back, with many brown and silver spots. Large, sharp sickle-shaped fins. Caudal fin is black, with a white edge. Long barbels in corners of mouth.

Habitat and range: Recorded in Little Missouri and Yellowstone rivers. Prefers larger, turbid rivers with gravel or sand bottoms.

Why: Probably North Dakota's rarest fish. A federal candidate species. Loss of free-flowing river sections due to dams and channelization are the greatest threats to this species.

PEARL DACE

Member of minnow family and grows up to 6 inches. Dark olive on top, with darker stripe along back. Silver sides, with a combination of red, yellow and white on belly. May have black and brown specks on sides.

Habitat and range: Recorded in both Missouri and Red River systems. Typically found in pools. Avoids swifter main currents.

Why: Rare to North Dakota. Little is known of its status in the state.

BLUE SUCKER

Long, slender fish up to 3 feet long. Blue-black on top, growing lighter closer to belly. Fin on back starts in the middle and extends nearly to tail. Relatively small head for body size.

Habitat and range: Found in Missouri and parts of Yellowstone rivers. Prefers swift current of large, turbid rivers in areas with rocky or gravel bottoms.

Why: Rare in North Dakota. Its main threat is habitat lost due to damming and channelization of Missouri River System.

CREEK HEELSPLITTER

Relatively thin, flattened and elongated 3-inch shell. Yellow with green rays extending from back along top. Larger shells darker.

Habitat and range: Found in sandy bottom headwaters of Pembina, Forest, Wintering and Sheyenne rivers. Why: Changes in land practices in and around rivers have contributed to its decline.

PINK PAPERSHELL

Shell is typically thin and flattened. Up to 4-inch shell is tan or olive green, and pink inside. Habitat and range: Found in sandy bottom areas of Bois de Sioux River.

Why: Changes in land practices in and around rivers have contributed to its decline. One record in North Dakota.

TOWNSEND'S BIG-EARED BAT

One of North Dakota's rarest and unique bats was first documented in the state within the last five years. Its most striking characteristic is its enormous ears.

Habitat and range: Found in the extreme western counties of North Dakota. It prefers cliff habitat of the badlands and uses trees and water in the area to focus its feeding. Since there are few records it is still unclear the extent of its range.

Why: Listed as a species of concern in surrounding western states, also a U.S. Forest Service sensitive species. Little is known about its habits in North Dakota.

BIG BROWN BAT

One of North Dakota's largest bats. It feeds mostly on small beetles, many of which are considered agricultural pests.

Habitat and range: Found throughout North Dakota. It is as likely to be seen in urban areas as in rural habitats. Not known to hibernate in the state.

Why: Although common in North Dakota, it is threatened in the eastern parts of its range by a fungal disease known as white-nose syndrome. The disease has killed millions of bats in the eastern and southern United States.



Pearl dace



Creek heelsplitter



Pink papershell

LEVEL

LITTLE BROWN BAT

North Dakota's most common bat and is most often seen at dusk near water or trees feeding on insects. Mosquitoes are its main food source.

Habitat and range: Found throughout North Dakota. It is as likely to be seen in urban areas as in rural habitats. Not known to hibernate in the state.

Why: Although common in North Dakota, it is threatened in the eastern parts of its range by a fungal disease know as white-nose syndrome. The disease has killed millions of bats in the eastern and southern United States.

NORTHERN MYOTIS

A rare bat in North Dakota, generally found around wooded areas in summer feeding on insects. Habitat and range: Little is known about this bat's distribution in North Dakota. There are only a handful of records from recent surveys. Seems to be on the western edge of its range in North Dakota. Why: Currently being considered for listing under the Endangered Species Act. It is one of the most severely influenced species by a fungal disease known as white-nose syndrome. The disease has killed millions of bats in the eastern and southern United States.



LEVEL II

Species having a moderate level of conservation priority; or a high level of conservation priority, but a substantial amount of funding is available to them outside of State Wildlife Grants.

AMERICAN WHITE PELICAN

The larger of two pelican species in North America, boasting a 9- to 10-foot wingspan and measuring 6 feet from bill to tail. Flocks often seen flying in a spiral pattern.

Habitat and range: Statewide, but primarily Missouri Coteau and drift prairie. Chase Lake National Wildlife Refuge hosts North America's largest nesting colony.

Why: Pelicans are a "responsibility" species as North Dakota is home to a large colony. Pelicans in adjacent states are declining, or vulnerable, and North Dakota may be the last stronghold for the entire population.

NORTHERN PINTAIL

Perhaps the most elegant of duck species, the pintail is long and slender throughout. Its long, pointed tail distinguishes it from most ducks.

Habitat and range: Primarily east of Missouri River, less in the west. Use shallow wetlands to feed on plant matter and invertebrates such as aquatic insects. Nest in short grassland away from water.

Why: Long-term waterfowl surveys show a steep decline throughout its range. The decline is staggering for this duck that largely breeds in our state.

CANVASBACK

A large diving duck characterized by a long, pointed, black bill on a sloping, dark red head, accented by a red eye. Females are a drabber brown. Named for the weaving pattern of gray and white on its back and sides, resembling canvas fabric.

Habitat and range: Primarily east of Missouri River, with a few in the west. Found in semi-permanent wetlands and other deep waters, especially where sago pondweed is present. Nest over water in dense stands of vegetation.

Why: A low abundance duck that shows a slow downward trend.

LESSER SCAUP

A medium-sized diving duck, mostly black and white, with a hint of purple and green iridescence on the head. The striking blue bill gives the bird its nickname "bluebill."

Habitat and range: Primarily east of the Missouri River. Found in semi-permanent wetlands and lakes, feeds on aquatic insects and freshwater shrimp. Nest in grassland near water, especially on islands, and over water.

Why: Added to the revised list because of population declines beginning in the early 1980s, and has not



American white pelican



Lesser scaup

EVEL

NORTHERN HARRIER

A medium-sized hawk identified by a white rump on both the pale gray male and slightly larger brown female. Sometimes referred to as marsh hawk for its habit of flying low over marshes and prairie looking for small mammals and birds.

Habitat and range: Statewide, but primarily Missouri Coteau and drift prairie. Nest in upland grass, usually near water.

Why: Harriers are fairly common in North Dakota, but populations are unstable due to loss of grassland and wetland habitat.

GOLDEN EAGLE

Slightly smaller than the bald eagle, this bird has feathered legs, brown eyes, black beak, and a smaller head, which turns golden as an adult. Bald eagles like water, golden eagles prefer open prairies. **Habitat and range**: West of Missouri River, particularly the badlands. Most nests built on cliffs overlooking grasslands, others constructed in trees. Nest of sticks and other vegetation may be 8-10 feet across and 3-4 feet deep.

Why: Status of golden eagles in North Dakota is unknown. Birds are sensitive to nest disturbance.

BALD EAGLE

Easily identified by white head and tail on a dark brown body when birds reach adulthood at 4-5 years. Juveniles are all brown or with scattered white patches.

Habitat and range: Since about 2000, the number of nest sites in the state has increased almost tenfold, with confirmed reports in nearly three-quarters of the counties. Natural and planted stands of cottonwoods have been vital to their success. Bald eagles are still commonly spotted along the Missouri River in winter, but it is not uncommon to see them anywhere, including large groups during spring and fall migration.

Why: Although removed from the Endangered Species List in 2007, bald eagle monitoring must continue to ensure their incredible recovery does not regress.

AMERICAN KESTREL

The smallest falcon in North America, but also one of the most colorful, with males sporting blue-gray wings and crown, and rufous-red back and tail. Both male and female have black "mustaches."

Habitat and range: Statewide, in areas of short vegetation and brushy edges. Nest in cavities such as old woodpecker holes or tree snags. Will also use artificial nest boxes and readily perch on telephone wires.

Why: Added to the revised list because of continent-wide population declines, but the exact cause of its decline is unknown.

PRAIRIE FALCON

Similar in size and shape to peregrine falcon. Prairie falcon is brown, sports a thin "mustache" and a white breast speckled with brown spots.

Habitat and range: West of Missouri River, predominantly the badlands. A falcon characteristic of wide expanses of native prairie and cropland, intermixed with streams and isolated buttes.

Why: This falcon population is of concern due to loss or destruction of breeding habitat in southwestern North Dakota. Historical reports indicate prairie falcons were once more numerous, nesting on nearly every high butte.

SHARP-TAILED GROUSE

As its name implies, a narrow, pointed tail sets this grouse apart from all others. Every spring males gather on dancing grounds, or leks, where they entice females with captivating dance moves and cooing from inflated purple air sacs.

Habitat and range: Statewide and present year-round. Found on prairies that may contain scattered patches of small trees or shrubs such as buffaloberry.

Why: North Dakota comprises a significant portion of this bird's breeding range. Although still common in the state, it has declined since presettlement.



Golden eagle



LEVEL



Greater prairie chicken

GREATER PRAIRIE CHICKEN

A short, rounded tail and a completely barred body. Also gather on leks in spring, but the males flaunt large yellow-orange air sacs and long feathers on side of throat. **Habitat and range**: Two populations, one in the southeast around Sheyenne National Grasslands and another in Grand Forks County, although scattered sightings occur. Prefer native tallgrass prairie, but will use a variety of other grasslands.

Why: Apparently did not occur in North Dakota prior to the 1870s. Following settlers, populations boomed from around 1880 to 1930. Rare since, the prairie chicken is making a comeback, although not entirely recovered.

PIPING PLOVER

White belly and a narrow, black breast band adorn this small shorebird. When agitated, whistles a soft *peep peep peep*.

Habitat and range: Missouri Coteau and drift prairie, also along Missouri River. Prefer barren, sandy or gravelly beaches and sandbars, or alkaline wetlands to lay a clutch of four eggs in scratched-out, shallow depressions.

Why: Listed as a federally threatened species in 1985. Alteration of natural stream flows of Missouri River negatively affect plover habitat. Also vulnerable to pesticides, accidental trampling and predators.

AMERICAN AVOCET

An unmistakable shorebird, featuring a bold body of black and white, orange head and neck, a long, thin, up-curved bill, and long, pale blue legs. Often seen sweeping its bill from side-to-side through water or mud in search of crustaceans.

Habitat and range: Statewide, with densities high in central North Dakota. Found on ponds or lakes with exposed, sparsely vegetated shorelines where they nest in the open near water.

Why: North Dakota provides important shorebird habitat for many species, including the avocet, which is showing a slow decline.

WILLET

Although a rather dull gray when standing, its striking black and white wings are obvious in flight. At 15 inches long, it's a relatively large shorebird. Particularly gregarious during breeding season, willets can be very vocal, bellowing a piercing *pill-willewillet* if threatened.

Habitat and range: Statewide, with heavy densities in Missouri Coteau and drift prairie. Use a variety of wetland types and nest in uplands, preferably native prairies away from water.

Why: Loss, destruction, or degradation of both wetland and prairie habitat is negatively affecting this species.

UPLAND SANDPIPER

A medium-sized shorebird, with a short, yellow bill, long yellow legs, small head, long slender neck, and a long tail. Commonly seen standing on wooden fence posts bordering pastures.

Habitat and range: Statewide. Although classified as a shorebird, is almost always found in dry mixed-grass prairie.

Why: Upland sandpipers prefer native prairie, which is at risk because of conversion, destruction and degradation.

LEAST TERN

Most unique on this small tern is a bright yellow bill with a black tip. Yellow legs and a white forehead also accent this gray and white bird.

Habitat and range: Missouri River. Lay 2-3 eggs in scratched-out shallow bowls on sparsely vegetated sandbars. Feed on small fish by diving into water.

Why: Listed as a federally endangered species in 1985. Alteration of natural Missouri River stream flows has degraded sandbar habitat and altered tern prey base.

SHORT-EARED OWL

A medium-sized owl, yellowish-brown, with a spotted upper side and subtle ear tufts. Flight is distinctly moth-like.

Habitat and range: Statewide. An owl easily seen because it's active during the day, cruising over prairie,



EVEL

marshes and fields in search of small mammals. Nest on the ground in prairies, hayfields or even stubble fields.

Why: Short-eared owl population is cyclic, dependent on prey populations. Reduction of open prairie breeding habitat will negatively affect the population.

BURROWING OWL

A small ground-dwelling owl, with long legs, spotted, dark brown and buffy breast, white throat below a relatively flat head, and large yellow eyes.

Habitat and range: West of Missouri River, but occasionally east of the river in badger holes. Once occurred nearly statewide. Depend greatly on ground squirrels or prairie dogs as they nest in unused burrows dug by the mammals. Prefer shortgrass prairie or grazed mixed-grass prairie so predators can be easily seen. Why: Decline in ground squirrel population east of Missouri River has reduced the number of burrows for owls to inhabit, severely constricting its range.

LOGGERHEAD SHRIKE

The smaller of the two shrike species, and the only one to breed in North Dakota. A gray body, black wings, with a white wing patch, black eye mask and white throat adorn this robin-sized bird.

Habitat and range: Statewide, particularly western North Dakota and badlands. Prefers open country, with thickets of small trees, shrubs and shelterbelts adjacent to cropland, native prairie and roads. It impales its prey of insects, small birds, snakes and mammals on barbed wire or thorny branches.

Why: Declining throughout the nation, but the reason is unclear. Many are killed by vehicles as birds pluck insects from roads.

DICKCISSEL

Similar in shape and size to a house sparrow. Sport a longer bill, yellow breast, yellow around eyes and rufous shoulders. Males have a distinct black "V" below a white throat.

Habitat and range: Statewide, more common in southern half of state. Characteristic of alfalfa, sweet clover and other brushy grasslands.

Why: Threats appear in wintering habitat in South America, particularly Venezuela. More than 1 million birds may congregate on agricultural fields, making easy targets for poisoning. Important that North Dakota continues to produce a strong breeding population because of large losses on wintering grounds.

LE CONTE'S SPARROW

One of the smallest sparrows, it is pale, yellow-brown, with fine streaks along the breast and sides, white stripe on crown, and a small bill. Song is a soft, hissing *tik a t-sshhhhhhhh-t*.

Habitat and range: Statewide, highest density in Missouri Coteau and drift prairie. Preferred habitat is fens, but also wet meadows and marshes of sedge grasses.

Why: Loss of wetlands through draining, filling, or other destruction and degradation is biggest threat.

BOBOLINK

Unique in that it has a black belly and a white back and rump. Most birds have dark backs and light bellies. A yellow nape accents this striking bird. Females are yellow-buff overall. Song is a bubbling *bob-o-link bob-o-link*.

Habitat and range: Statewide, densities highest east of Missouri River. Use a variety of grasslands including tallgrass prairie, hay land and retired cropland.

Why: Loss, destruction, or degradation of prairie habitat negatively affects this species.

WESTERN MEADOWLARK

Bright yellow chest with a black "V" are distinctive characteristics of this blackbird family member. Its melodious song is a welcome sound as one of the first signs of spring in North Dakota. Habitat and range: Still found statewide, but much reduced in the eastern third of the state compared to historical records. Can be seen almost anywhere, except woodlands. Grassland is crucial for breeding. Why: Added to the revised list because of population declines and range contraction. Although still quite common in North Dakota, continued loss of grassland will mean continuing population declines.



Loggerhead shrike



Dickcissel





Snapping turtle



Short-horned lizard



Swift fox

SNAPPING TURTLE

North Dakota's largest turtle species, it can reach 30 inches in length and weigh more than 60 pounds. Brown or gray overall, but its shell may be green from algae. Aggressively snaps its beak-like mouth if agitated, as its name implies.

Habitat and range: Statewide. Prefer warm water in lakes or rivers, with plenty of aquatic vegetation and muddy bottoms.

Why: Little is known about this rather common, long-lived species that rarely leaves the water except to lay eggs.

SHORT-HORNED LIZARD

A 3- to 4-inch lizard, with numerous horns and spikes on its relatively flat, grayish body. Squirts blood from the corners of its eyes into a predator's mouth when threatened, leaving an unappeal-

ing taste.

Habitat and range: Western edge of North Dakota. Prefer semiarid, shortgrass prairie in rough terrain where females give birth to live young.

Why: An imperiled or vulnerable species in surrounding states that was once listed as a federal candidate species.

PYGMY SHREW

Only 4 inches long, with nearly a third of that being tail, the pygmy shrew is North Dakota's smallest mammal. It has a reddish-brown to gray coat, with a lighter underside. Unlike many small mammals, shrews are active year-round.

Habitat and range: Red River Valley and along northern tier of drift prairie. Appear to prefer forested areas, pygmy shrews are tolerant and can be found in many habitats.

Why: While little is known about this tiny mammal, its population is considered vulnerable in North Dakota.

RICHARDSON'S GROUND SQUIRREL

Medium-sized ground squirrel that is also known as the flickertail. Coat is typically brown, with black and cinnamon mixed in. Live in colonies in a burrow system containing nesting and food storage chambers.

Habitat and range: East of Missouri River. Prefer open grasslands, cultivated fields and pastures. Why: Conversion of native grassland for agriculture and development is the greatest concern to North Dakota's state mammal.

AMERICAN MARTEN

A medium-sized member of the weasel family, roughly the size of a mink. Lives in forested areas and preys mainly on small mammals.

Habitat and range: American martens are arboreal, meaning they spend most of their lives in trees. Although there have been a number of reports over the years, it has only recently been confirmed a marten population inhabits the Turtle Mountains.

Why: The newly discovered population occupies only a small area in North Dakota. Much information is needed to understand how they should be managed.

SWIFT FOX

Smallest member of the canine family, sports a yellowish-tan coat, with some gray along the back. Underside is white. Distinctly large ears for body size, and a long, bushy, black-tipped tail.

Habitat and range: Believed to be extirpated from North Dakota, however, an active den was recently confirmed in the state. Once found throughout the state, it prefers shortgrass or mixed-grass prairie tracts. Why: Populations initially reduced by over-trapping and poisoning to control predators, but now the greatest threat is loss of large tracts of prairie habitat.

RIVER OTTER

Large member of the weasel family, growing up to 4 feet in length. Fur is usually dark brown on back, with a lighter belly and throat. A very good swimmer that features a long, muscular tail. **Habitat and range**: Found in the Red River and a number of its northern tributaries. Prefers rivers and streams near wooded areas, using logs and stumps for dens.

EVEL

Why: Loss of riparian habitat along rivers is the greatest threat. Otters are also sensitive to pollution and will leave a system if it becomes too dirty.

BLACK-FOOTED FERRET

Named for black fur on its legs, this mink-sized member of the weasel family is most distinguishable by the black "mask" covering its eyes.

Habitat and range: No longer present in North Dakota, but once lived exclusively in prairie dog towns. Used prairie dogs for food and abandoned burrows as shelter.

Why: Large prairie dog towns ferrets need to survive were lost as prairie dog populations were controlled. Listed as a federally endangered species, it was last reported in North Dakota in early 1950s, until a recent sighting in Sioux County.

DAKOTA SKIPPER

A small butterfly found on the prairies of North Dakota. Its adult life is short-lived as it has to reproduce and lay eggs before dying three weeks later.

Habitat and range: Requires high quality native prairie to survive. Once found in southeastern North Dakota, there is some concern that it may be extirpated from the state.

Why: Loss of native mixed and tallgrass prairie is the number one cause for its decline. Proposed as a threatened species under the Endangered Species Act.

POWESHIEK SKIPPERLING

A small prairie butterfly that measures only about 1 inch long. It has a dark brown body and wings, with an orange head and lighter underside.

Habitat and range: Requires high quality native prairie to survive. It is known to occur at a handful of sites throughout the state.

Why: Loss of native mixed and tallgrass prairie is the main reason for its decline. It has been proposed as an endangered species under the Endangered Species Act.

BURBOT

Also called ling, the burbot is most recognized by its eel-like body and single barbel on the bottom of its mouth. Its long slender body is well adapted to life in a river.

Habitat and range: Prefers larger rivers and deep lake habitat. In North Dakota, it is found in the Missouri River and Red River drainages.

Why: Biologists believe that burbot populations are a cause for concern and more information is needed.

PADDLEFISH

North Dakota's largest fish can reach 7 feet in length and weigh more than 100 pounds. Has smooth skin, with no scales and a large paddle-shaped snout over a large, toothless mouth, and small black eyes.

Habitat and range: Missouri and Yellowstone rivers.

Why: Loss of suitable breeding habitat due to damming of Missouri River System.

PALLID STURGEON

One of North Dakota's largest fish, growing to 6 feet in length. Light

gray in color, with a lighter underside. Small black eyes set on a large shovel-shaped head. Four barbels on underside of head, with the two inner barbels shorter than the outer. Top of body is covered in large scales called scutes.

Habitat and range: Missouri River and parts of Yellowstone River. Prefers fast current areas with firm sand or gravel bottom.

Why: Listed as a federally endangered species. Its main threat is loss of habitat due to damming and channelization of Missouri River System.

SILVER CHUB

Member of minnow family that is olive on top and bright, silver-white on sides. Slender, compressed body up to 9 inches in length. Fins are darker in color, with a white edge. Large eyes on upper half of head.

Black-footed fere







Pallid sturgeon



Habitat and range: Found in Red River and tributaries. Usually found in deeper pools and sandy backwaters in large rivers.

Why: Rare to North Dakota. Little is known on its status or habits in North Dakota rivers.



Northern redbelly dace

NORTHERN REDBELLY DACE

Small member of the minnow family, with dark on top and two black lines that run along its side. The upper line is thin and breaks into spots at tail, while lower line continues the length of fish. Belly is red, white, yellow or a combination of the three.

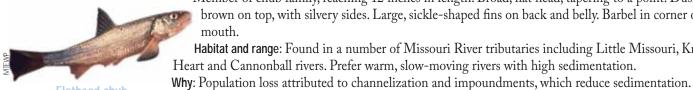
Habitat and range: Found in tributaries of Missouri River including Heart, Knife and Cannonball rivers. Populations in Rush and Sheyenne rivers in eastern North Dakota have declined. Prefer slower stretches of rivers, with

clear water and some vegetation.

Why: Loss of suitable habitat due to land practices around rivers and streams is a concern.

FLATHEAD CHUB

mouth.



Flathead chub

TROUT-PERCH

Only member of this family that lives in North Dakota. Light yellow body, with rows of dusky brown spots along its back, and white spots on underside of head. Also has a small, fleshy fin on its back near tail. Habitat and range: Red River and tributaries, and recorded in Souris River. Found in deep pools in rivers or streams, usually in sandy bottom sections.

Member of chub family, reaching 12 inches in length. Broad, flat head, tapering to a point. Dusky brown on top, with silvery sides. Large, sickle-shaped fins on back and belly. Barbel in corner of

Habitat and range: Found in a number of Missouri River tributaries including Little Missouri, Knife,

Why: Imperiled in much of its northern range because of loss of suitable habitat.

THREERIDGE

Shell up to 4 inches across, usually yellow-green or brownish. Three distinct ridges run from the hinge to edge of shell.

Habitat and range: Red and Sheyenne rivers. Can be found in areas with mud, sand or gravel bottoms. Why: Land practices in and around rivers have disturbed mussel beds. This mussel is of commercial value, but is protected from harvest in North Dakota.

WABASH PIGTOE

Triangular-shaped shell is a light yellowish-brown. Outside of shell feels as if it's covered in a rough clothlike material. Shell up to $2 \frac{1}{2}$ inches across.

Habitat and range: Red River, and occurs in greatest numbers in Sheyenne River. Found in beds of gravel, sand or mud.

Why: Changes in land practices in and around rivers have contributed to its decline.

BLACK SANDSHELL

Shell elongated and typically flattened. Up to 4 1/2 inches across at its greatest width. Shell is smooth, shiny and generally dark.

Habitat and range: Red and lower Sheyenne rivers in riffles or areas of swift current, with a gravel or sand bottom.

Why: Changes in land practices in and around rivers have contributed to its decline.

PINK HEELSPLITTER

Dark green to dark brown shell, typically rectangular, and up to 4 inches in diameter. Edge near hinge extends from shell resembling a wing.

Habitat and range: Found in mud or gravel bottoms in Red and Sheyenne rivers. Why: Changes in land practices in and around rivers have contributed to its decline.



Threeridge





By Ron Wilson

State Bird, Grassland Icon Population Declining

The Western meadowlark is as familiar to North Dakotans as the wind.

Tabbed by lawmakers as the state bird in 1947, the Western meadowlark is easily distinguished from other prairie songbirds by its bright yellow chest and black V-shaped band. Another identifier, one you can diagnose with your eyes closed, is the bird's cheerful, flute-like melody that is often heralded from atop fence posts by males in spring and summer.

Regrettably, this established symbol of North Dakota's wide open prairie landscape isn't nearly as common as it once was.

"While the Western meadowlark is still found statewide, its numbers are certainly not what they once were according to historical records in the eastern third of the state," said Sandra Johnson, North Dakota Game and Fish Department conservation biologist. "There just isn't much grass in that part of the state. Take away the grass and you lose birds."

Johnson said the Western meadowlark's standing in North Dakota is traced through the North American Breeding Bird Survey. The BBS is a long-term, international avian monitoring program initiated in 1966 to track the status and trends of North American bird populations.

While the number of meadowlarks observed or heard during the annual BBS has declined across the state, the biggest drop since the 1960s is seen in the Red River Valley and drift prairie.

"Once you leave the Red River Valley heading west, you really don't start to see an abundance of Western meadowlarks until you hit the Missouri Coteau where we still have grass," Johnson said.

While the Western meadowlark remains common from Canada to Mexico, even though it has experienced declines over its entire range, its status in North Dakota is uncertain.

"If we continue to lose more and more grass in North Dakota, then we are going to see fewer and fewer meadowlarks," Johnson said.

The Western meadowlark was recently added to the state's revised list of Species of Conservation Priority under the Department's State Wildlife Grant program.

While a number of the 100-plus animals that make up this list are familiar to people who live here, none, however, are arguably as iconic as the Western meadowlark.

RONWILSON is editor of North Dakota OUTDOORS.



LEVEL III

North Dakota's species having a moderate level of conservation priority, but are believed to be peripheral or do not breed in North Dakota.

WHOOPING CRANE

The tallest bird in North America at 5 feet, with a wingspan of more than 7 feet, is all white except for black wing tips, black legs, red crown and cheeks. Sometimes confused with the white pelican, and often travels with sandhill cranes.

Habitat and range: Although not common, these birds nested in North Dakota at one time. Today, there are only about 300 birds that migrate through the Central Flyway, and most use North Dakota's large wetlands and adjacent uplands as spring and fall migration habitat.

Why: Listed in 1970 as a federally endangered species. North Dakota provides crucial stopover habitat for migrating birds.

PEREGRINE FALCON

Portrait of speed, this falcon will dive for prey at 200 miles per hour, blurring its distinguishing black "mustache" into the adult's gray body.

Habitat and range: In 1800s and early 1900s, nested west of Missouri River on sides of tall buttes, but apparently never in great numbers. May nest in artificial boxes at the top of tall structures.

Why: Removed in 1999 from endangered species list after 29 years, but monitoring continues.

BREWER'S SPARROW

A gray-brown sparrow, unstreaked breast, white eye ring and a small bill. Habitat and range: Documented only in extreme southwestern North Dakota. Use dense sagebrush within stands of shortgrass prairie. Nests are built in sagebrush or small shrubs off the ground.

Why: Have declined nationwide because of loss and fragmentation of sagebrush habitat. North Dakota is on the edge of the sparrow's range, but is important to its survival.

MCCOWN'S LONGSPUR

Male is gray, with a white neck, crescent-shaped black patch on chest and rufous shoulders. Females are light brown, with a white throat. Sports a conspicuous, inverted black "T" on a white tail.

Habitat and range: West of Missouri River. Prefer arid, shortgrass prairie or heavily grazed mixed-grass prairie.

Why: Population dramatically reduced in North Dakota and no longer occurs in some states. Once were found breeding in most of western North Dakota. Only known breeding location today is in one section of state school land in Bowman County.

SMOOTH SOFTSHELL

This "leatherback" sports a smooth, flat, leathery-like shell. Females reach 14 inches in length and males only 7 inches. Strong swimmers that sun themselves near shore, but quickly swim away if disturbed. **Habitat and range**: Only records are in the lower Missouri River System south of Bismarck. Will lay 4-33 hard-shelled eggs on sandbars.

Why: Distribution and abundance is unclear. Rumors circulate of fisherman catching leathery turtles in other Missouri River reaches. Unnatural stream flows of Missouri River may negatively affect this species.

SPINY SOFTSHELL

Closely resembles its relative the smooth softshell, but a row of fleshy spines along the front edge of shell distinguishes it. A secretive species that basks on sandbars or along the shoreline.

Habitat and range: Found along the Missouri River south of Garrison Dam where it has ample access to sandbar habitat for nesting.



Whooping Crane



Peregrine falcon



EVEL

Why: Found in recent surveys in small portion of available habitat in North Dakota. Habitat altered from the impoundment of the Missouri River may have affected its range.

FALSE MAP TURTLE

A small, brown-shelled turtle, with conspicuous knobs in the middle of its shell. A yellow spot is found behind the eye. Females may reach 10 inches and males only 5.

Habitat and range: Only records are from lower Missouri River System south of Bismarck. Do not travel far from permanent rivers and streams. Will bask on anything above water, and often nest on sandbars.

Why: Distribution and abundance is unclear, partly because it flees into water long before it can be detected. Unnatural Missouri River flows may negatively affect this species.

NORTHERN PRAIRIE SKINK

Light gray-brown, with several dark bands extending the length of its body. Males have reddish-orange on sides of head during breeding season, and juveniles have a blue tail.

Habitat and range: Red River Valley. Use sandy areas, such as sand dunes in grasslands, where they feed on grasshoppers, beetles, crickets or spiders.

Why: Distribution and abundance is unclear. Threats include destruction and degradation of grassland habitat.

SAGEBRUSH LIZARD

A 4- to 6-inch, pale-brown lizard, with four longitudinal rows of dark brown spots. Most noticeable are elongated blue patches on each side of its belly.

Habitat and range: Western edge of North Dakota. Sagebrush habitat is a favorite, but also like rocky areas near water.

Why: An imperiled or vulnerable species in surrounding states that was once listed as a federal candidate species. Destruction and degradation of sagebrush habitat is ongoing.

MERRIAM'S SHREW

This insect-eating, small mammal is adept at living in the arid West. It preys mainly on spiders, beetles and crickets.

Habitat and range: An arid grassland species found in the western U.S. It has been recorded in just a few locations on the western edge of North Dakota.

Why: The Merriam's shrew is considered rare in North Dakota. It may be at the extreme eastern edge of its range in the state. More information is needed to understand its place on the North Dakota landscape.

GRAY FOX

This medium-sized fox has grizzled gray fur, with a light-colored neck and underside. It is generally smaller than the more common red fox.

Habitat and range: Found mostly in brushy or wooded habitat, generally along riparian areas. In North Dakota, it is an uncommon species with most reports from the eastern side of the state.

Why: A relative newcomer to the state, this species was recently petitioned for listing under the Endangered Species Act. North Dakota appears to be the northwestern edge of its range.

ARCTIC SHREW

Distinguishable from other shrews by its tricolored coat. Its back is black, sides brown and belly gray. Tail is also distinctly colored, with a brown top and a paler underside.

Habitat and range: Found along northern third of state and extending down into Red River Valley. Prefer moist, grassy openings in forested areas.

Why: Little is known of its habits and needs. Appears vulnerable in surrounding states, but may be secure in its primary range in Canada.

WESTERN SMALL-FOOTED MYOTIS

North Dakota's smallest bat, measuring 4 inches from nose to tail. The hair covering its body is a pale yellowishbrown, with contrasting black ear and wing membranes. A black band, or "mask," of hair runs across both eyes. **Habitat and range**: Found only in extreme western North Dakota. Roost alone or in small groups in rock crevices and under tree bark. Typically found in areas with conifer trees.

Why: Once listed as a federal candidate species, little is known about this bat in North Dakota. Loss of roosting and hibernation areas appear to be its greatest threats.

Sagebrush lizard



FINESCALE DACE

Grows to 4 inches in length, featuring a white-silver belly. Gray along top of body, with olive sides

above a gold stripe that runs length of body. Entire body speckled in black. Habitat and range: Population reduced to Tongue River, a small tributary of Red River. Found in pools and slow moving water.

Why: Rare to North Dakota. Loss of suitable habitat is the greatest concern.

Finescale dace

KONRAD SCHMIDI

LONG-EARED MYOTIS

Roughly the size of a small sparrow, its fur can range from dark brown to pale yellow. Its most striking feature is large, hairless, black ears that extend well above its head.

Habitat and range: Western North Dakota where it roosts in rock crevices, under railroad bridges, in buildings and under tree bark.

Why: Once listed as a federal candidate species, little is known of its status in North Dakota. Loss of roosting and hibernation areas appear to be its greatest threats.

LONG-LEGGED MYOTIS

A large western bat, with a wingspan of 10-12 inches. Has short, rounded ears, and dark brown fur that extends along the underside of its wings.

Habitat and range: Western North Dakota where it roosts in trees, rock crevices and cracks along stream banks. Often seen catching insects over open water.

Why: Once listed as a federal candidate species, little is known of its status in North Dakota. Loss of roosting and hibernation areas appear to be its greatest threats.



Chestnut Lamprey

CHESTNUT LAMPREY

Featuring an eel-like body up to 15 inches long. Tan on top, with a white belly and no scales, and one continuous fin on back and belly. Mouth is suction cup-like, with teeth in a circular pattern. May be found attached to another fish.

Habitat and range: Red River and possibly some tributaries in small numbers.

Why: Few records in North Dakota. Probably not common in Red River, may be only a migrant.

PLAINS POCKET MOUSE

Highly nocturnal, medium-sized mouse, with large back feet. Its tail, roughly the same

length as its body, features a pale black stripe on top. Its fur is a buff gray on top, with a lighter underside. A distinct light patch is visible behind each ear.

Habitat and range: Southeastern North Dakota in areas with exposed sand dunes or sandy soils covered with grass. Can also be found feeding in crop fields.

Why: Only a few pockets of habitat exist for this species in the state. Loss of remaining habitat is the greatest concern.

HISPID POCKET MOUSE

A medium-sized mouse, with large back feet, and tail roughly the same length as its body. The fur on its back is a mix of black and tan, with an orange stripe separating it from a white belly.

Habitat and range: Southern North Dakota west of Missouri River in short and mixed-grass prairie areas where it feeds on seeds.

Why: Loss of prairie habitat is the greatest concern.

SAGEBRUSH VOLE

This rodent has a gray bushy coat, small rounded ears and a short tail. Unlike other voles, it is usually found living in small colonies consisting of shallow burrows.

Habitat and range: Far western North Dakota where it prefers dry areas made up of grass mixed with sagebrush or rabbitbrush.

Why: Relatively rare in North Dakota. Its habitat occurs in a limited range within the state.

EASTERN SPOTTED SKUNK

About the size of a small house cat, it is distinguishable from the more common striped skunk by six white spots running the length of its back and a small white spot between the eyes. The tail of this nocturnal and secretive animal is black with a white tip.

EVEL II

Habitat and range: Southeastern North Dakota. Inhabit riparian woodlands and more vegetated areas such as along fences. Dens in dark, dry spots found in existing mammal burrows, under buildings or fallen trees.Why: Rare in North Dakota, its range covers only a small portion of the state. Little is known of its status here, but thought to be in decline in other states.

SILVER LAMPREY

Featuring an eel-like body up to 15 inches long, with gray-brown on back and lighter yellow underneath. One continuous, yellowish fin on back and belly. Disc-shaped mouth, with teeth in a circular pattern. May be found attached to other fish.

Habitat and range: Records confine it to mainstem of Red River. Young possibly found in slack water of smaller tributaries.

Why: Few records in North Dakota. Considered rare in Red River.

LARGESCALE STONEROLLER

Member of minnow family, growing to 8 inches. Body arched in area just behind head. Complete lateral line. Breeding males have small bumps along top of head and back called tubercles. Black bands present on orange dorsal and anal fins.

Habitat and range: Records show a presence in Forest River in northeastern North Dakota. Found in pools and riffles of small, clear streams, with gravel or rubble bottoms.

Why: Rare to North Dakota. Little is known of its status.

HORNYHEAD CHUB

Member of minnow family, growing up to 10 inches. Olive on top that becomes lighter down the body, with an iridescent stripe along back. Belly is pale yellow. Bright red spot behind eye on males, brassy on females. Males have many small bumps or tubercles on head.

Habitat and range: Documented in Forest River in northeastern North Dakota in what is believed to be the only population in the state. Found in pools and slow runs of clear, small rivers.

Why: Little is known of its status. Water quality degradation is a concern in much of its habitat.

PUGNOSE SHINER

Small shiner, only 2 inches in length. Olive on top, with a thin black line that runs along upper back. Sides and belly silvery, with a black outline around edge of scales. Mouth is sharply upturned.

Habitat and range: Documented in both Sheyenne and Forest rivers. Possibly present in other Red River tributaries. Prefers clear water, usually with vegetation.

Why: Unclear whether it still occurs in the state. Sensitivity to increased sedimentation is the likely cause of its decline.

BLACKNOSE SHINER

Body shape thin, and grows to 3 1/2 inches. Black lateral line running entire length of body, with crescents within. Olive to straw colored on top, with lighter sides and belly.

Habitat and range: Historically found in tributaries of Red River, but now found only in a few pools in Sheyenne River system. Prefers pools with vegetation.

Why: Reduced greatly in range due to land changes that resulted in habitat loss and degradation.

CARMINE SHINER

Slender body, with a sharply pointed head. Grows up to 3 1/2 inches. Dark on top, with a black streak on top of a silver stripe. Body a bluish sheen. Faint red spot at base of dorsal fin. Breeding males have bright red heads. **Habitat and range**: Found in Sheyenne River, and has also been collected in Heart River. Found in pools with some current or more swiftly flowing stretches adjacent to pools.

Why: Decline associated with loss of suitable habitat due to land practices.

LOGPERCH

A darter family member that grows up to 7 inches in length, has a yellow back, with brown stripes alternating long and short along the back. It also sports two separated fins along its back.

Habitat and range: Red River. Usually found in gravel/rocky areas, but can be located in most habitat types. Why: North Dakota is on the western edge of its range. An American Fisheries Society species of concern, the logperch has been recorded only a few times in the state.



Silver Lamprey



Hornyhead chub



Pugnose Shiner



Mapleleaf

Yellow bullhead

RIVER DARTER

Grows to 3 inches in length, and is olive in color, with a blunt snout. Two separate fins along the back, with the first having a small black spot at the front and large black dot at the back edge. Habitat and range: Red River. Usually in riffles or swift current areas with a rock bottom. Why: Appears to occur in low numbers in North Dakota and is declining nationwide.

MAPLELEAF

Squarish shell up to 3 inches in diameter. Yellow-green in smaller shells to brown in larger shells. Surface of shell usually covered with small wart-like bumps.

Habitat and range: Red River and possibly the Sheyenne River. Can be found in sand/mud or gravel bot-toms.

Why: Changes in land practices around rivers have contributed to its decline. This mussel is of commercial value, but is protected from harvest in North Dakota.

FRAGILE PAPERSHELL

A freshwater mussel native to rivers and streams in the Midwest. An average-sized mussel, measuring up to 6 inches at its widest point.

Habitat and range: Found in streams and rivers with mud or gravel bottoms. Currently known to occur only in the James River.

Why: A recent study of mussels in North Dakota found this species for the first time while surveying the James River. May be on the edge of its range, but will need more research.

YELLOW BULLHEAD

Skin is brown on top, increasing in yellow toward belly. Has a sharp spine in its back and side fins. Distinguishable from other bullhead species by color of barbels around mouth. Barbels are white or yellow as opposed to black in other bullhead species.

Habitat and range: Recorded in Red and Sheyenne rivers, and possibly present in other tributaries of Red River. Prefers backwater or slow-moving sections of rivers with soft bottoms.

Why: Rare to the state. North Dakota considered on the western edge of its range.

DEERTOE

North Dakota's smallest mussel at only 2 inches in width. Its triangular shape loosely resembles a deer's hoof.

Habitat and range: Found in streams and rivers with mud or gravel bottoms. Currently known to occur only in the James River.

Why: A recent study of mussels in North Dakota found this species for the first time while surveying the James River. May be on the edge of its range, but will need more research.

CREEPER

Oval in shape, with a greenish-brown to black shell. Found in a number of tributaries of the Red River. Habitat and range: Found most commonly in small streams, but occasionally in larger rivers. In North Dakota it is found in the Forest, Park and Sheyenne rivers.

Why: Although they are on the edge of their range in North Dakota, a recent survey of mussels seems to show a statewide decline. More investigation is necessary to determine its status.

SANDRA JOHNSON and **PATRICKT. ISAKSON** are Game and Fish Department conservation biologists.

EVEL II

BUFFALOBERRY PATCH

By Greg Freeman, Department News Editor



Spring Mule Deer Survey Complete

The Game and Fish Department's annual spring mule deer survey in April showed that western North Dakota's mule deer population increased 19 percent from last year.

Bruce Stillings, Department big game supervisor, said the increase is a result of less severe winters the past couple years, no harvest of antlerless deer in 2012 and 2013, and improved fawn production. The 2014 index is only 7 percent below the long-term average.

"Mule deer numbers are headed in the right direction, but in order to maintain further population growth we need to maintain a conservative management approach, with no antlerless mule deer harvest again in 2014," Stillings said.

Biologists counted 1,944 mule deer in 306 square miles during this year's survey. Overall, mule deer density in the badlands was 6.3 deer per square mile, up from 5.3 deer in 2013, and slightly below the long-term average of 6.8 deer per square mile.

Biologists have completed aerial surveys of the same 24 study areas since the 1950s.

SAGE GROUSE COUNTS REMAIN LOW

The number of male sage grouse observed on strutting grounds in spring remains well below management objectives. Therefore, the sage grouse hunting season will remain closed in 2014.

Aaron Robinson, Game and Fish Department upland game bird biologist, said biologists counted a record low 31 males on six active strutting grounds in April. Last year, the count was 50 males on 11 active leks in the southwest.

"South Dakota and eastern Montana witnessed a similar decline this year," Robinson said. "The last time we saw such a drastic decline in the region was because of West Nile virus in 2007-08. We may have had another outbreak in the region, but at this point it is only speculation."

Sage grouse are a long-lived species with low reproductive output, which makes population recovery slow. Currently, Robinson said, natural reproduction cannot keep up with natural mortality. The potential for a successful nesting season is good this year due to abundant residual grass cover brought about by last summer's rainfall. "We have learned from recent research in North Dakota that sage grouse rely heavily on residual grass cover for concealment during nesting season," Robinson said. "Without grass cover, mortality of females on nests increases and the probability that the nest will be depredated also increases. The outlook for a favorable hatch this year is optimistic for the limited number of birds we have in the state." Sage grouse management in North Dakota follows a specific plan developed by a diverse

group of participants. With the threats facing the species and the decline in population, Game and Fish Department biologists do not foresee a hunting season in the near future.

Sage grouse are North Dakota's largest native upland game bird. They are found in extreme southwestern North Dakota, primarily in Bowman and Slope counties.

LEGAL LIVE BAITFISH REMINDER

There are a number of reasons why fishing in North Dakota has been good in recent years, including the cooperative efforts of anglers and bait vendors to ensure that those wetting a line are using legal and clean bait.

Fathead minnows, sticklebacks and creek chubs are the only legal live baitfish species anglers can use in most North Dakota waters. The exceptions are the Red and Bois de Sioux rivers where white suckers can be used, and 23 state waters where it is illegal to use any live baitfish.

According to Greg Power, North Dakota Game and Fish Department fisheries chief, legal bait regulations have become more restrictive in the last 25 years in an effort to eliminate bait-bucket transfer of unwanted fish species into state waters. Through the 1990s, the Game and Fish Department routinely chemically renovated numerous lakes annually due to introduction of various unwanted species, including



bullheads, suckers and/or carp.

These undesirable species were a result of anglers simply discarding bait. It is illegal to release baitfish into any North Dakota waters.

For the past couple of decades, the Department has worked with the wholesale and retail bait industry to help ensure that anglers are buying clean and legal minnows at their local bait shops.

While today's bait is much cleaner than 20 years ago, Power said it remains the angler's responsibility to possess only legal live baitfish when fishing in North Dakota.

For specific regulations regarding bait use and all other fishing regulations, refer to the 2014-16 North Dakota Fishing Guide.



Boat Ramp Reminders

Boaters are reminded to exercise patience and plan accordingly when heading to a lake or river this summer.

The North Dakota Game and Fish Department receives a number of complaints every year about overly aggressive behavior at boat ramps. A few simple reminders will help ensure a fluent transition when launching and loading a boat.

Launching:

- Don't pull onto the ramp until your boat is ready to launch.
- Prepare for launching in the parking area. Remove covers, load equipment, remove tie downs, attach lines and put in drain plug before backing onto the ramp.
- When ready, pull into line to launch. Wait your turn. Be courteous.

- It takes at least two people to efficiently and courteously launch a boat: one to handle the boat and one to take care of the tow vehicle. Loading:
- Don't block the loading area with your boat until your tow vehicle is ready to load. Wait until you are clear of the launch area to unload gear.
- As soon as your trailer is in the water, load and secure your boat to the trailer.
- Remove boat and trailer from the water as quickly as possible.
- Get clear of the ramp. Pull into the parking area to finish securing your boat and unload gear.

NEHRING NAMED TO GAME AND FISH ADVISORY BOARD

Governor Jack Dalrymple has appointed David Nehring of Bismarck to the North Dakota Game and Fish Department's advisory board. Nehring, an avid hunter and angler, replaces Frank Kartch, Bismarck, in District 7.

The governor appoints eight Game and Fish Department advisors, each representing a multi-county section of the state, to serve as a liaison between the Department and public.

Four members of the advisory board must be farmers or ranchers and four must be hunters/anglers. Appointments are for a term of four years. No member can serve longer than two terms.

Advisory board members host two public meetings, held each spring and fall, to provide citizens with an opportunity to discuss fish and wildlife issues and ask questions of their district advisors and agency personnel.

SHOOTING RANGE CLOSED FOR RENOVATION

The MacLean shooting range, located 15 miles southeast of Bismarck, is closed this summer for reconstruction and expansion.

Improvements will include a shotgun range, handgun range, and a 100- and 200-yard rifle range. Construction is scheduled for June, July and August, with the range slated to open late summer.

Two alternate public ranges are Schmidt Bottoms and Wilton Mine Wildlife Management Area.

Schmidt Bottoms, located 13.4 miles south of Mandan on ND Highway 1806, was already reconstructed with a shotgun range, handgun range, and a 100- and 200-yard rifle range.

Wilton Mine Wildlife Management Area is approximately 2 miles east of Wilton.

ANGLERS REMINDED OF NONGAME FISH REGULATIONS

Anglers and others taking carp and other nongame fish need a license, and hook-and-line, archery equipment and spears are the only legal methods of take. Snagging nongame fish is illegal.

In addition, Robert Timian, Department enforcement chief, said anglers must properly dispose of the fish. "Leaving dead fish on the shoreline or in the water is considered a littering violation," he said.

Game wardens and other law enforcement officers have the authority to cite persons for this violation, Timian said, with the minimum penalty a \$100 littering violation and the maximum a Class B misdemeanor which can bring up to a \$1,000 fine and possible loss of fishing and hunting privileges. Other regulations include:

- Legal archery equipment is any bow to which an arrow is attached by a line and equipped with a harpoon style point or wire-barbed point.
- Legal spear equipment is any manually powered shaft with barbed points. The spear head shall not exceed 12 inches in width.
- Use of night vision equipment or electronically enhanced light-gathering optics, including all lights used for locating and shooting at fish, is legal.

For more information, including open areas, refer to the 2014-16 North Dakota Fishing Guide.

back cast

By Ron Wilson

omeone once said that change is inevitable, except from a vending machine.

This maxim, aside from the vending machine bit, certainly holds true concerning North Dakota's outdoors in the last 10 years. Much has come to pass from 2004 until now.

For one, the Game and Fish Department's list of Species of Conservation Priority has been updated (see pages 5-22), and change is apparent. While five species were dropped from the decade-old list of 100 species, 17 were added, bringing the total to 112.

The reason 17 new species were added to the Species of Conservation Priority list varies, but altered or a loss of habitat is a common theme throughout the entire roll call of animals. The loss of wildlife habitat, and its negative influences on native (ducks and deer) and nonnative species (ring-necked pheasants) alike, is something Game and Fish Department officials have been heralding for years.

"Habitat is the foundation for healthy wildlife populations and we're losing it," said Randy Kreil, Department wildlife division chief, in the November 2013 issue of *North Dakota OUTDOORS*.

The landscape in North Dakota is changing, Kreil continued, and as the agency responsible for managing the state's game and nongame species, there are certainly some concerns.

In 2004, there were about 3.4 million Conservation Reserve Program acres in the state, but it's been a downhill slide since, as there are roughly just 1.6 million CRP acres in North Dakota today, with a projection of 1.4 million acres after September 30, assuming no new acres are enrolled. Coupled with an accelerated conversion of native grasslands to cropland, draining of wetland resources, and the loss of miles and miles of shelterbelts, the conviction that North Dakota's wildlife habitat base is under tremendous pressure is unmistakable.

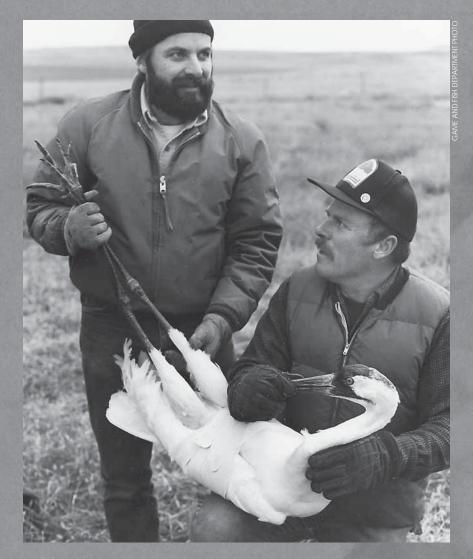
When quality cover disappears, not only do hunters have fewer places to pursue wild game, but animal populations decline as places to nest, hide and ride out weather extremes are at a premium.

We're witnessing that today to a large degree with North Dakota's deer population. Tough winters, fading habitat base and other factors have significantly reduced deer numbers across the landscape. For the 2014 season, the Game and Fish Department has made available just 48,000 licenses, down from a 1980s-like total of 59,500 in 2013.

In comparison, with more quality habitat on the landscape and a milder string of winters, the Department made available more than 145,000 deer licenses for a six-season stretch beginning in 2004.

While it's only a guess how the landscape will look 10 years from now, wildlife officials feel certain that the future of wildlife populations and hunting opportunities in North Dakota hang in the balance today. The remedy to the current situation, they believe as strongly, falls on the collective shoulders of a wide range of Game and Fish Department personnel, political leaders conservationists, landowners and hunters and anglers to stem the tide of habitat loss.

RONWILSON is editor of North Dakota OUTDOORS.



A Look Back

The migration of this black and white photo from the front cover of *North Dakota OUTDOORS* to the back took nearly three decades.

The image features Mike Johnson (standing), North Dakota Game and Fish Department waterfowl biologist, crane expert, Rod Drewien from Idaho, and an injured adult whooping crane captured November 2, 1984, southwest of Linton.

At the time, there were roughly only 100 whooping cranes existing in the wild, about a quarter of today's total. Back then, like today, it wasn't unheard of to hear reports of cranes in the state, as North Dakota's large wetlands and adjacent uplands provided spring and fall migration habitat.

"The bird had an injured wing and we had to capture it because there was a winter storm moving in," Johnson said. "So, the Fish and Wildlife Service brought in their experts."

Drewien and Wendy Brown were summoned to direct the rescue operation. Both at the time were working on a program to reestablish nesting whooping cranes at Grays Lake National Wildlife Refuge in southeastern Idaho.

The mission to safely corral an injured whooping crane was the first and, thus far, only time such an operation has transpired on North Dakota soil.

"When it was all said and done, there were about 20-30 people in attendance to watch us capture the bird," Johnson said.

With aid of a helicopter, Johnson said they eventually cornered the crane. "I was the young guy, 33 at the time, so I bailed out of the helicopter and caught the bird. You had to be

By Ron Wilson

careful because a crane can take an eye out with its big, sharp bill."

A special crate was constructed by the Game and Fish Department personnel to ship the injured crane by air to the Smithsonian National Zoological Park in Washington, D.C. It was there that X-rays revealed the bird had suffered a severe compound fracture to the tip of one of its wings.

Whooping cranes nearly vanished in the mid-20th century. While scientists could account for just 16 cranes in 1941, the birds have since stepped away from near extinction.

Cranes once nested in North Dakota, but today they just stop here to refuel and rest during spring and fall migrations through the Central Flyway.

RON WILSON is editor of North Dakota OUTDOORS.