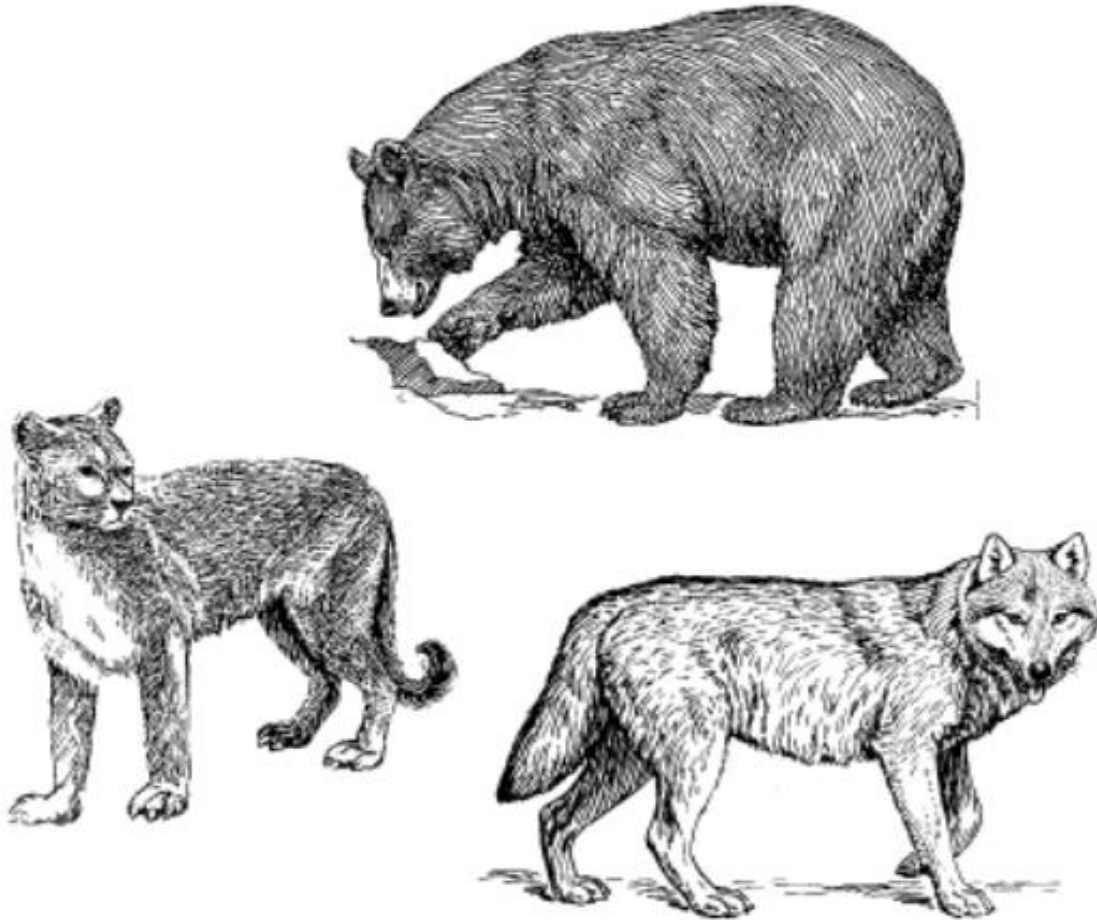


Status of Large Carnivores in Iowa 2022-23



IOWA DEPARTMENT OF NATURAL RESOURCES
LEADING IOWANS IN CARING FOR OUR NATURAL RESOURCES

502 E. NINTH STREET, DES MOINES, IA 50319
WWW.IOWADNR.GOV

KAYLA LYON, DIRECTOR

Table of Contents

Mountain Lion/Cougar Status in Iowa 2001-2023	1
Confirmed Mountain Lions in Iowa	1
Safety Issues	2
Figures	3
Tables.....	4
Black Bear Status in Iowa (2001-Present)	6
Recent Five-Year Summary.....	6
Figures	7
Tables.....	8
Gray Wolf (Timber Wolf) Status in Iowa (2001-2023)	9
Population Status of Gray Wolves	9
Gray Wolf Status in Iowa	9
Recent Five-Year Summary.....	10
Figures	11
Tables.....	12

Mountain Lion/Cougar Status in Iowa 2001-2023

The mountain lion/cougar (or puma, panther, and various other names) is the largest of the three wildcats historically documented in Iowa. The lynx and the bobcat are the other two. The mountain lion/cougar probably occurred throughout most of the state originally, but nowhere in great numbers. The lynx has been extirpated and the bobcat is established in Iowa again after nearly being extirpated. The last historical record of a mountain lion/cougar in Iowa was one that was shot in 1867 in Appanoose County near the town of Cincinnati, Iowa.

Since the mid-1990s, the DNR has received several reports of large “cat” like sightings which at the time led some to believe that a few “free ranging” mountain lions/cougars may again be occurring in some portions of the state. These “free ranging” mountain lions/cougars were either escapees, or released animals, privately owned, (grandfathered in before July 1, 2007 legislation to curtail the ownership of certain “dangerous wild animals”) or DNA testing has shown they were fully wild animals dispersing from the western states of South Dakota, Nebraska, and Wyoming. Since, then wild, free-roaming mt lions have been confirmed in Iowa. Other states in the Midwest (Missouri, Minnesota, Wisconsin, and Illinois) have also reported increased sightings during the past 15 years however, the number of dispersing mountain lions/cougars fluctuates annually.

Confirmed Mountain Lions in Iowa

Figure 7.1 is a map showing mountain lion sightings reported to the DNR that were confirmed or highly probable confirmations (1995-2022). Tracks and/or sightings reported to us throughout the year are documented as confirmed, highly probable or unconfirmed after investigating the evidence. A majority of the mountain lions dispersing into Iowa are males. However, in 2017 two of the confirmed mountain lions were females. These were the first females documented in Iowa since the 1800s. Both were shot and killed, one by a gun deer hunter (Plymouth Co) and one by DNR staff (Iowa Co) due to human safety concerns. The Plymouth Co female was wearing a GPS neck collar used for research from Nebraska GF&P. The Iowa Co female had DNA that matched cats in Wyoming. This past fall and winter (2022-23) was particularly active for mountain lions in Iowa. Our records indicate there were possibly 12 separate mountain lions confirmed in Iowa based on staff reports and tangible evidence from the public by the end of the calendar year 2022. Of particular note, a large adult male (165-170 lbs) was shot by a raccoon hunter at night in Webster County. Tooth age data revealed it was 4 years old. In January 2023, an adult female mountain lion was shot at night by coyote hunters predator calling in Johnson County. Due to trail camera photos voluntarily shared with us from citizens, we were able to loosely monitor the locations/range of both of these cats for close to a year in Iowa before they were shot.

Table 7.1 shows the number of confirmed mountain lions in Iowa by year. The following methods have been used to confirm the presence of mountain lions in Iowa to date: roadkills, shot and killed, verified photos, verified tracks, and sightings (Table 7.1). It is important to note that an average of 1 to 3 sightings per week are reported to us in the Clear Lake office from locations all over the state. This does not count all of the reports other DNR staff receive in their regions throughout the state as well. Over 2,000 mountain lion sightings have been reported since 2010. However, strong evidence in the form of legitimate tracks, photos, video or other evidence is necessary before we can officially place them on our map as “confirmed”.

It is very likely that we have the occasional mountain lion wandering through or staying in our state for a period of time, however we have not documented a self-sustaining breeding population of mountain lions in Iowa at this time. **THE IOWA DNR HAS NOT ‘STOCKED’ OR INTRODUCED MOUNTAIN LIONS INTO THE STATE, NOR IS THERE ANY CONSIDERATION OF DOING SO.**

Due to the popularity of deer hunting that takes place in Iowa, one would expect to get more reports of mountain lions during the deer harvest seasons. Overall however, the 150,000+ deer hunters seldom report a sighting of a mountain lion during their hunting activities

DNA testing is used to determine the origin of mountain lions that are killed in Iowa whenever possible. The origins of the 7 dead mountain lions have been completed and results indicate that they are of North American origin, except one that was of unknown origin. Results from the DNA testing have shown strong indications these cats often match the DNA common to established populations from the Black Hills region of South Dakota and parts of Nebraska and recently,

Wyoming. There are some indications the only legal source of captive mountain lions/cougars should be of South American origin, although more study is necessary before that theory can be substantiated or discounted. From this, we know that mountain lion dispersal into Iowa is typically a west to east direction.

Currently the mountain lion has no legal status in the Iowa Code, thus they are not given any sort of protection by Iowa Law. Although the DNR does not advocate the indiscriminate killing of mountain lions, the few mountain lions that do wander into Iowa are often shot. The DNR requested that the 2002 legislative session consider legislation to designate the mountain lion and the black bear as furbearers, thus allowing the DNR to properly manage these species, should their numbers increase. The DNR also requested that indiscriminate killing of these animals not be allowed unless they are about to cause damage or injury to property or persons. The legislation did not pass. The Iowa DNR made additional requests in 2006, 2007, and 2008. Afterward, the Governor's office ordered the DNR to stop pursuing mountain lion/cougar and black bear furbearer status in the Iowa Code. Grassroots (citizen-level) legislation would be the best course of action to give both species legal furbearer status in the Iowa Code.

Depredation: This past year, we had some cases of livestock damage/depredation but only one case showed indications it was by a mountain lion. In almost all other cases, it was from dogs, coyotes, or self-inflicted injuries on fences or gates around the stock pens or pastures. We also had a few unconfirmed reports of deer kills by mountain lions. Whenever possible, DNR staff made an effort to examine the evidence left at the scene before trying to say for sure what the predator might have been. Most depredation cases in Iowa are from canines (dogs or coyotes). It is possible for a mountain lion to attack/depredate livestock, however it is not usually the culprit. Mountain lion research in western states shows that white-tailed deer, mule deer, and other wild mammals are the preferred prey. Even so, predators are generally opportunists and if hungry they may take what is readily available.

Credible mountain lion sightings, photos, videos, and tracks are important to the Iowa DNR. Two excellent websites to help with mountain lion track identification are <http://www.bear-racker.com/cougar.html> and <http://www.geocities.com/Yosemite/9152/cougar.html>. It is important to remember that all cat tracks are round in shape; with 4 toes and a heel pad that has 3 posterior lobes and a less than prominent M shape on the forepart of the heel pad (Figure 7.2). Adult mountain lion/cougar tracks are 4 inches or larger in diameter, whereas bobcat tracks are closer to the 2 ½ to 3 inch range in diameter. All cats have retractable claws, thus the tracks they leave often show no claw marks except in unusual circumstances. When possible, good plaster casts or cell phone photos of suspected tracks will aid greatly in their identification. We will continue to monitor and map reliable sightings.

Safety Issues

The good news is that lions generally avoid humans. People are more apt to be killed by a dog or struck by lightning than attacked by a mountain lion/cougar. Some safety do's and don'ts can be found at the Mountain Lion Foundation website, www.mountainlion.org. Also the National Park Service is a source of Mountain lion/cougar information: [Mountain Lion Safety \(U.S. National Park Service\) \(nps.gov\)](http://www.nps.gov/mountainlion)

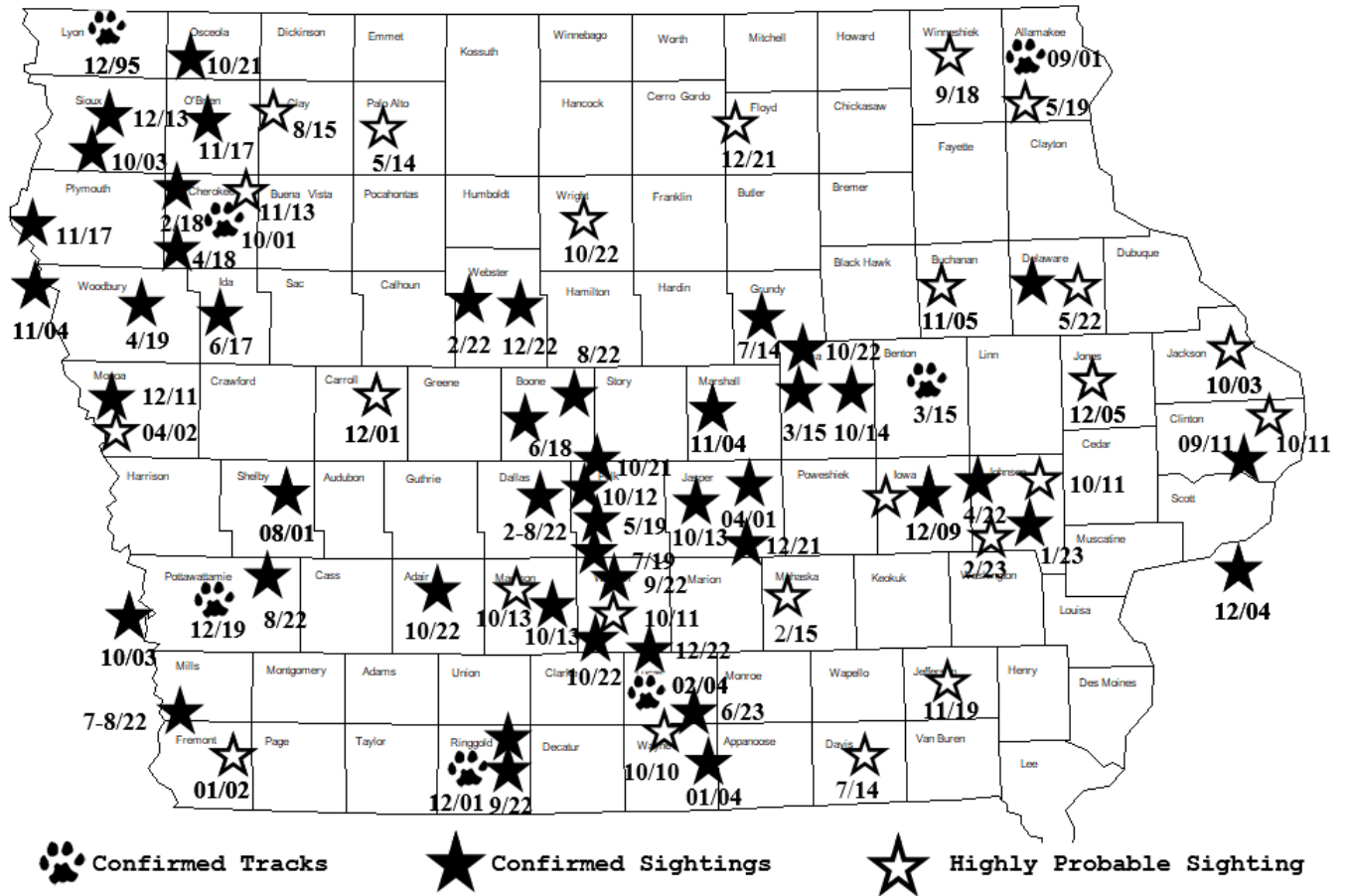
Here are some suggestions on what to do in the remote chance you have a mountain lion/cougar encounter:

- (1) Spread your jacket, coat or shirt above you head attempt to look larger.
- (2) Hold your ground, wave, shout and don't run, as running stimulates the predator reflex (just like dogs) to pursue anything that runs away.
- (3) Maintain eye contact if you sight a lion. Lions prefer to attack from ambush and count on the element of surprise
- (4) If small children are present, or if there are several people in your group, gather everyone very close together. Mountain lions are not predators of large groups.

Over the past 100 years, no injuries to humans have occurred from mountain lions in Iowa.

Additional information about mountain lions can be found on the Iowa DNR's website at: <http://www.iowadnr.gov/Conservation/Iowas-Wildlife/Occasional-Wildlife-Visitors>.

Mountain Lion Reports 1995-2023



7-31-2023

Figure 7.1 Confirmed locations of mountain lion reports in Iowa. Numerous additional sightings have been reported, but are not mapped if they were not confirmed or highly probable.

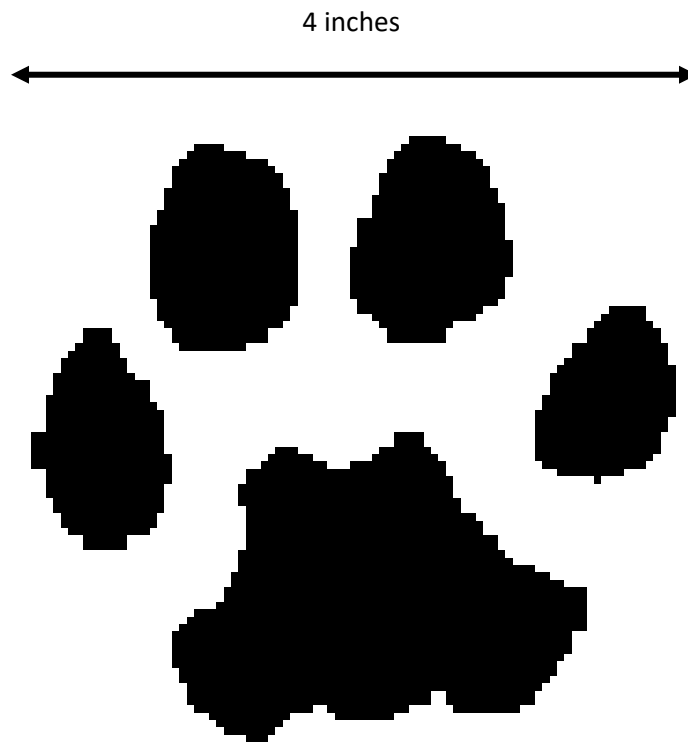


Figure 7.2 Typical Mountain Lion track

Tables

Table 7.1 Confirmed and highly probable sightings of Mountain Lions in Iowa by year, 2001-2023.

Year	Sightings
2001	5
2003	2
2004	5
2009	1
2011	1
2012	1
2013	2
2014	2
2015	1
2016	0
2017	4
2018	3
2019	6
2020	0
2021	2
2022	12
2023	3
Total	50

Table 7.2 Method of confirmation for Mountain Lions in Iowa, 2001-2023

Confirmation Method	No. of Mountain Lions
Sightings	9
Tracks	9
Pictures	17
Shot	7
Roadkills/Collision	3
Found Dead/Snare	1
Video(s)	4
Total	40

Black Bear Status in Iowa (2001-Present)

Black bears were one of the most recognizable and noticeable mammals encountered by Europeans as they settled North America. As settlers moved west, they generally killed any bears they encountered. Thus, black bear numbers declined rapidly in many areas and disappeared from much of their former range. Most present-day Iowans probably associate black bears with some of our large national parks and do not realize they once occurred in Iowa. When the settlers reached Iowa, they found them widespread throughout the state but higher numbers occurred where there were more woodlands. Bears were killed because they would damage crops, harass and kill livestock, and because they were valuable both as food and for their hides. Several black bear stories of the exploits of early-day “Davy Crocketts” in Iowa have been recorded in journals and diaries.

There are pre-1900 records of black bears from 48 Iowa counties, two-thirds of them from counties in the eastern half of Iowa. The last recorded historical bear sighting in the 1800s was one killed near Spirit Lake in 1876. Although a Fish Commission had been established in 1873 nothing really happened in terms of Game/Wildlife legislation until after the last black bear had disappeared. Thus, they are not recognized as a designated wildlife species in the Iowa Code. In the 1960s, black bear reports began to occur in the state. Several of these reports were from captive bears that were either turned loose or were escapees. During the 1990s through the present, we began to field more reports of what appeared to be wild free ranging black bears in the state (Table 7.2). Currently, the nearest established wild populations of black bears are in Wisconsin, Minnesota, and central/southern Missouri. These populations are expanding their range towards Iowa from both the north and south. Figure 7.3 shows the confirmed locations by county of the most recent sightings of bears in Iowa - including 2022 and so far in 2023. Many of these confirmed reports are occurring in northeast/eastern Iowa.

Recent Five-Year Summary

In 2019, there were four confirmed bears reported in Iowa. Two separate bears in Winneshiek County, one of which was again north of Decorah. We believe this bear is a resident. The second bear was approximately 6 miles east of Decorah. One bear was again reported in Fayette County and could be a resident, the fourth bear was reported in Delaware County.

In 2020, there were at least five confirmed bears in Iowa. Two were in Dubuque County, one in Chickasaw County, one in Winneshiek County, and one in Allamakee County. One of the bears in Dubuque County entered our state from Illinois after traveling south from Wisconsin. This bear was often visible during daylight hours while traveling in a general south to southwest direction, crossed major roadways and eventually travelled east back to Illinois. During this time a large social media following developed - even naming the bear ‘Bruno’. This bear was eventually darted near St. Louis, and moved to a national forest in Missouri in early July. This bear eventually travelled further south to northern Louisiana. During the summer of 2021, it was unfortunately hit by a vehicle and severely injured. Eventually staff with the Louisiana Dept. of Wildlife had to euthanize it.

In 2021, there were at least three confirmed black bears in Iowa. One of these bears has been sighted repeatedly in Dubuque County, but has not been a human safety threat. The other two sightings occurred in Mitchell County and Kossuth County. None of these bears have been killed, and at this time and at least one of those is known to reside in Iowa (Dubuque County).

In 2022, there were 3 confirmed bears in Iowa (Table 7.2). During 2022, the Iowa DNR joined BearWise, an organization developed by state-level bear biologists to deliver standard, consistent, and science-based messaging to citizens on how to ‘live with bears’ in today’s modern landscape. Pro-active outreach and education about bears is very important to share with Iowa citizens to help reduce fear, conflicts, and nuisance issues with black bears.

So far in 2023, there have been 2 confirmed black bears in Iowa. One of those is the bear near Dubuque. He continues to reside north of town. Monitoring reports from the Dubuque County Conservation Board and various local citizens indicates this bear has resided in that area for at least four years. A second bear was reported in Dyersville one evening (surveillance video) in June, but hasn’t been seen since.

Black bear sightings are usually more reliable than mountain lion/cougar sightings because they are very distinct in

appearance and do not necessarily flee when sighted. Also bear tracks are very distinct, and they are not readily mistaken for other animals. Black bears, like mountain lions/cougars, have no legal status in Iowa. That means they aren't protected. Grassroots (citizen-level) legislation would be the best course of action to give both species legal furbearer status in the Iowa Code. The Governor's office has discouraged the DNR from pursuing legal status of the black bear and mountain lion/cougar because of bio-political conflicts between agriculture and these two wildlife species. A lot of emotion is generated when one of these bears are killed in Iowa. Where possible, we should discourage the indiscriminant killing of black bears unless there are concerns for human, pets, or livestock safety. Bears are omnivores, primarily vegetarians, foraging on seeds, fruits, berries and other plant material but they will feed upon animals as well. Human tolerance will be the deciding factor as to whether black bears would ever re-establish a breeding population again in Iowa. If they do, their numbers would likely remain quite small.

Figures

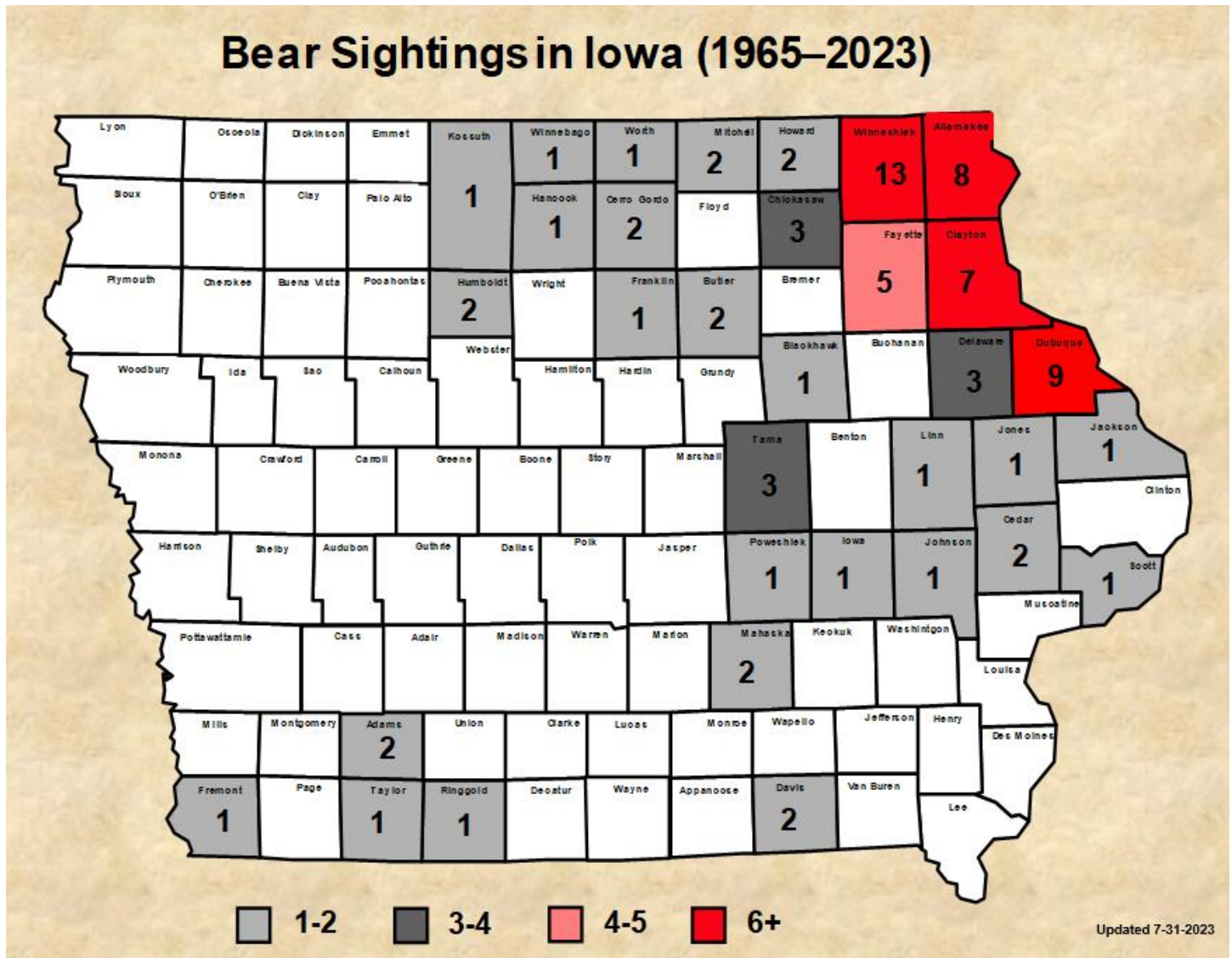


Figure 7.3 Confirmed locations of Black Bears in Iowa 1965-2023. (1876 Last Historical Sighting, Dickinson County)

Tables

Table 7.2 The number of confirmed black bears in Iowa by year 2002-2023.

Year	Sightings
2002	5
2003	0
2004	0
2005	1
2006	0
2007	0
2008	5
2009	1
2010	3
2011	1
2012	1
2013	0
2014	3
2015	4
2016	3
2017	5
2018	2
2019	4
2020	5
2021	3
2022	3
2023	2
Total	51

Gray Wolf (Timber Wolf) Status in Iowa (2001-2023)

Two large wolf-like mammals were frequently encountered by early settlers in Iowa. While Iowa was still part of the Louisiana Territory, in the early 1800s the very first piece of wildlife legislation was that to encourage killing wolves. Much of the legislation centered on bounties. There are no known specimens preserved in museums from the state. Historians usually did not distinguish between the gray (timber) wolf, *Canis lupus* and the coyote, *Canis latrans* often called the “prairie wolf.” Both species were greatly persecuted and until very recently, only the coyote remains and thrives in the state.

Two different subspecies of gray wolf occurred in Iowa. The Great Plains wolf (a name that causes considerable confusion because the coyote which was often given a similar name, the prairie wolf), was found over the western two-thirds of the state. The Great Plains Wolf followed the bison herds, feeding on the stragglers from the herd as well as other prey (Dinsmore, 1994). The other subspecies was the gray (timber) wolf found primarily in eastern Iowa, especially in the wooded northeastern corner of the state. Gray wolves were likely extirpated by the late 1800s. Bowles (1971) regards the last valid wolf record to be from Butler County in the winter of 1884-85. A timber wolf taken in Shelby County in 1925 appeared to be wild, but it also could have escaped from captivity before being shot. Gray wolves often fed on the domestic animals that settlers brought to Iowa, and there are numerous reports of them killing chickens, pigs, calves, and sheep in Iowa. Gray wolves were fully protected in all the 48 states in August of 1974 under the Endangered Species Act (ESA) of 1973.

Population Status of Gray Wolves

In 1978, the Great Lakes population of wolves were reclassified (down-listed) from endangered to threatened under the Endangered Species Act (ESA) for Minnesota, Wisconsin, and Michigan. The US Department of Interior’s Fish and Wildlife Service administers the ESA. The Fish and Wildlife Service is working to allow more state rights’ management of gray wolves and other resident species. Taking the gray wolf off the endangered/threatened list has continued to generate considerable controversy between agency wildlife professionals, Native Americans beliefs, hunters, trappers, and animal rights’ activists. Public review and input of this effort continues. Both Minnesota and Wisconsin were allowed to move forward with their first modern day wolf harvest season that took place in the Fall/Winter 2012. On Feb 20, 2015 the Great Lakes Gray Wolf population was again put back on the Endangered Species List due to a court order. Since then, attempts to appeal the decision along with continued debates within Minnesota and Wisconsin continue. On October 29, 2020 gray wolves were removed from the Endangered Species List in the U.S. which meant they’re no longer federally protected. However the cycle of listing and then de-listing gray wolves under the Endangered Species Act (ESA) for protection will continue. A court decision on February 10, 2022 reversed the rule to delist the gray wolf in U.S. Gray wolves are once again listed as ‘Threatened’ under the ESA, in most areas of the U.S.

Gray Wolf Status in Iowa

It is possible that we may continue to have a roving wolf move into or through our state on rare occasion, but it’s important to understand that we don’t have a breeding population at this time. Time will tell whether or not a breeding population of gray wolves will become established in Iowa. Because gray wolves, at a distance can be readily mistaken for coyotes or in some cases dogs, many reports will likely be cases of mistaken identity. Modern day coyote hunters should take extra care to identify their target before shooting because it’s now possible (although the chances are small), that it could be a gray wolf.

Unlike the mountain lion and the black bear, the gray (timber) wolf is designated as a furbearer with state protected status under the Iowa Code. Gray wolves likely have protection status in Iowa because they were not clearly separated from the coyote in early bounty legislation, while Mountain Lions and Black Bear had basically been extirpated by the late 1880s before any wildlife legislation occurred. Thus, wolves are listed as a furbearer under Iowa code and are protected by state law. We currently have a ‘continuous closed season’ but a gray wolf can be killed if it is causing livestock damage.

Beginning in the mid-1990s, a few wolves were appearing in west-central Wisconsin and southeast Minnesota which is approximately 75 miles from the Iowa border. It’s very likely major river corridors, especially the Mississippi River, in this tri-state region (MN, WI, IA) serve as travel corridors for wolves. Because the Driftless region is relatively rugged there is some habitat available that is conducive to wolves. It’s not likely wolves will visit Iowa often, nor in high numbers,

however it is entirely likely for the occasional wolf to come down into Iowa from Minnesota or Wisconsin. Currently, the most confirmed sightings in Iowa have occurred in northeast, and eastern Iowa (Figure 7.4).

In October of 2000, a radio collared wolf from Michigan was shot and killed near Kirksville, Missouri. This animal traveled over 600 miles (straight line from where it was radio collared to where it was killed) and could have actually moved through a portion of Iowa before being killed in Missouri. Kirksville is located about 50 miles south of Bloomfield, IA.

Wolves are very mobile animals and as they extend their range southward more may likely frequent Iowa. The distribution of gray wolves in Wisconsin and Minnesota's is being actively documented (Figure 7.5). Indications from both states, especially Wisconsin, are of some trends in wolves colonizing in a southward direction in recent years.

Recent Five-Year Summary

2019

In 2019, there was one confirmed adult female wolf that was trapped and killed in Scott County. DNA testing showed it was a true, wild gray wolf. In addition, we continue to have an occasional wolf-dog hybrid sighted, killed, or reported in various areas of the state.

2020

In 2020, a large male wolf was caught in a foothold trap in Scott County in November and released unharmed. A small amount of hair and blood was gathered from the trap and the DNA tested which showed it was a true gray wolf matching wolf DNA from the Great Lakes Region. This animal was later shot in Benton County in February after a livestock owner believed it was harassing his cattle.

2021

For 2021, there was only one confirmed wolf in Iowa.

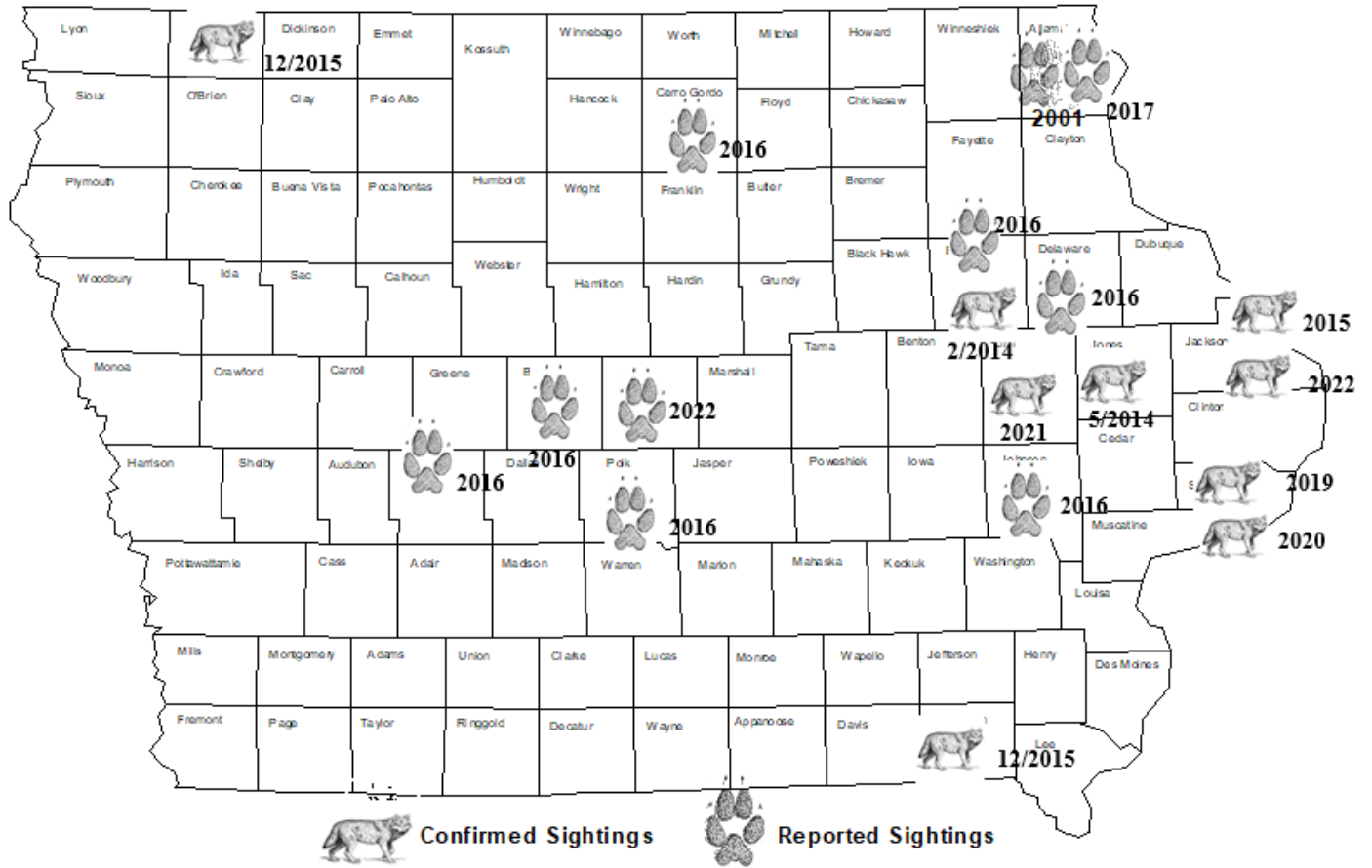
2022

Early in 2022, a large canine was shot in Jackson Co by a coyote hunter. DNA testing confirmed it was a wild wolf that matched with the Great Lakes population. That animal is in DNR custody. During the Fall of 2022, there were 3 large canines shot and killed in Iowa. One in Story County, one in Guthrie County, and one in Hamilton County. The DNA test results confirmed the canine shot in Story County was a gray wolf, the canine shot in Guthrie County was a high content wolf/dog hybrid, and the canine shot in Hamilton County was a domestic dog.

2023

So far in 2023, there have been three separate reported large canines sighted in Iowa but there weren't any photos or video of these animals to confirm their identity (Table 7.3).

Figures



Gray (Timber) Wolf Status In Iowa

7-31-2023

Figure 7.4 Gray (Timber) Wolf Sightings in Iowa (7/31/23)

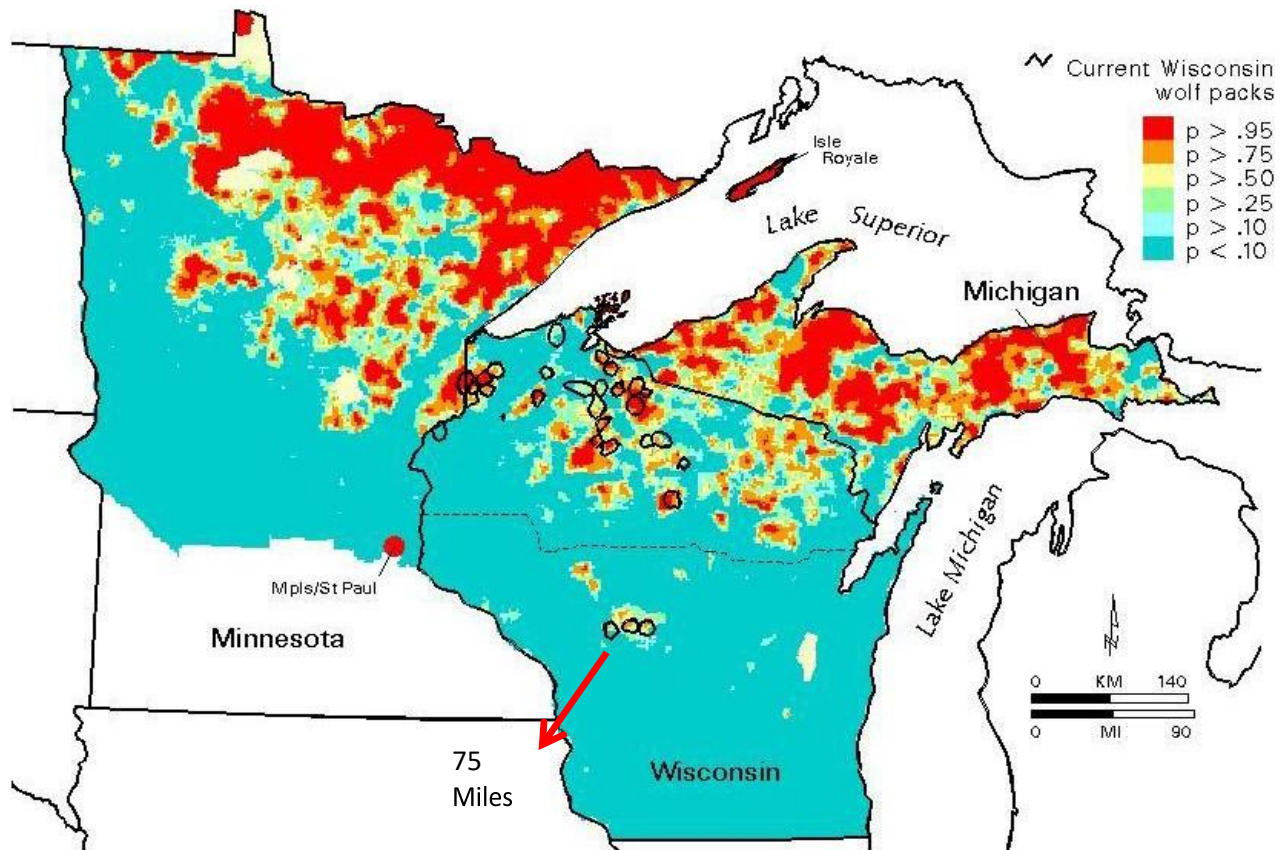


Figure 7.5 Favorable Gray Wolf habitat and pack locations in the Northern Great Lakes Region
 Source: Mladenoff et al. and WI DNR

Tables

Table 7.3 Public reports of wolf sightings in Iowa by year (2012 - 2023).

Year	Confirmed Wolf Sightings	Unconfirmed Wolf Sightings
2012	0	2
2013	0	1
2014	2	4
2015	3	1
2016	0	4
2017	0	5
2018	0	4
2019	1	0
2020	1	0
2021	1	0
2022	0	3
2023	0	3
Total	9	27

A few unconfirmed wolves were also reported for the years (1938-2009). Wolf sightings began being documented better in 2012 as shown in the table above.