

Ohio Black Bear Monitoring Report

November 2023

Black bears (*Ursus americanus*) were extirpated from Ohio by 1850 due to habitat loss and overharvest. However, records indicate they began to occasionally occur in the state again as early as the 1930s. Sightings became more common in the late 1900s as growing black bear populations in Pennsylvania and West Virginia expanded westward.

In 1993 the Division of Wildlife began systematically tracking black bear observations across the state. Division of Wildlife staff confirm reports when enough evidence is available to verify the presence of a bear.

Because black bears currently occur at low densities in Ohio, it can be difficult to estimate the size of the black bear population using traditional survey techniques. By monitoring trends in black bear observations, we can gain insight into the status and distribution of black bears in Ohio and monitor changes that occur over time. This report presents summary information on black bear sighting reports received by the Division of Wildlife.

Statewide Sightings

In recent years, the Division of Wildlife received two to three more confirmed black bear sighting reports per year than it did when sighting data were first collected in the 1990s (Figure 1). The increasing trend in sightings appeared to slow in the 2010s, with sighting numbers fluctuating from year to year, but generally not increasing overall. In 2022 the number of sightings reported to the Division of Wildlife increased markedly in comparison to previous years, but it is not yet clear if this indicates the beginning of an increasing trend, or an outlier.

On average, over the past 10 years the Division of Wildlife has received 167 (95% CI: 72 - 262) black bear sighting reports per year. In 2019, 176 sightings were reported in 41 counties. Sightings decreased in 2020 to 154 sightings in 38 counties. In 2021 sightings were similar to the previous year with 159 sightings in 46 counties (Table 1). Sightings were the highest on record in 2022 with 285 sightings in 52 counties.

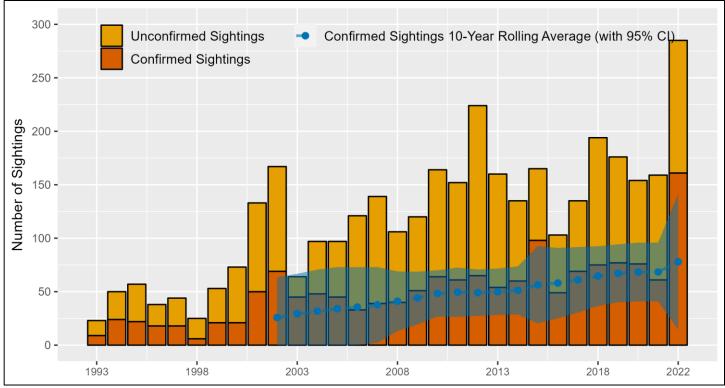


Figure 1. Black bear sightings in Ohio from 1993 to 2022.

Confirmed Sightings

Sightings are confirmed based on the presence of physical evidence such as photos, tracks, or damage caused by the bear, multiple reports from the same area, or an observation of a bear made by a wildlife professional. Black bear sightings have been confirmed in 55 of the 88 Ohio counties since 1993 (Figure 3). The Division of Wildlife confirmed 77 black bear sightings in 2019, 76 in 2020, and 61 in 2021. In 2022, 161 black bear sightings were confirmed, making the largest number of total sightings, largest number of confirmed sightings and the largest number of counties with sightings reported in a single year.

Sightings were confirmed in nearly every month of the last four years (Figure 2). Sightings throughout the past four years have followed the same monthly trends that have been observed since the Division of Wildlife began tracking sightings. Sightings increased during the spring months, peaked in late May through early July, then slowly decreased throughout the fall. The peak in sightings around June coincides with black bear mating season and the timing of dispersal for juvenile males.

Most confirmed bear sightings were verified based on photos or videos obtained from a trail camera, or eyewitness (Table 2). In 2019-2022, 22 bear sightings were confirmed based on the presence of deceased bears. Eighteen of those bears were road-killed animals, and four died from unknown causes.

Confirmation Method	2019	2020	2021	2022
Trail/Security Camera	42	37	25	98
Eyewitness Photo or Video	18	15	15	31
Multiple Reports	8	7	11	14
Deceased Bear	2	8	6	6
Evidence of Damage	4	5	0	6
Scat or Tracks	2	3	3	3
Observed by Expert	1	1	1	3

Table 2. Source of verification for confirmed black bearsightings in Ohio from 2019-2022.

Distribution of Sightings

Since 1993, 80% to 98% of confirmed sightings each year were in eastern Ohio (Division of Wildlife Districts Three and Four). This region is near growing black bear populations in Pennsylvania and West Virginia, and large areas of forest in this region provide suitable bear habitat that have the potential to support reproducing populations of black bears. In particular, northeast Ohio counties bordering Pennsylvania (Ashtabula, Trumbull, and Mahoning counties) have consistently documented active bears. Bears are also observed moving through southeast (e.g. Hocking, Vinton, and Athens counties) and southern Ohio (e.g. Adams, Scioto, Lawrence, and Gallia counties) most years. Sightings in central and western Ohio are much less common, but do occasionally occur.

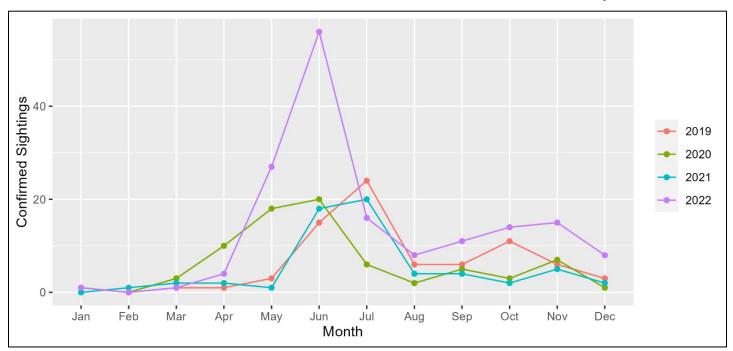


Figure 2. Confirmed black bear sightings in Ohio by month in 2019-2022.

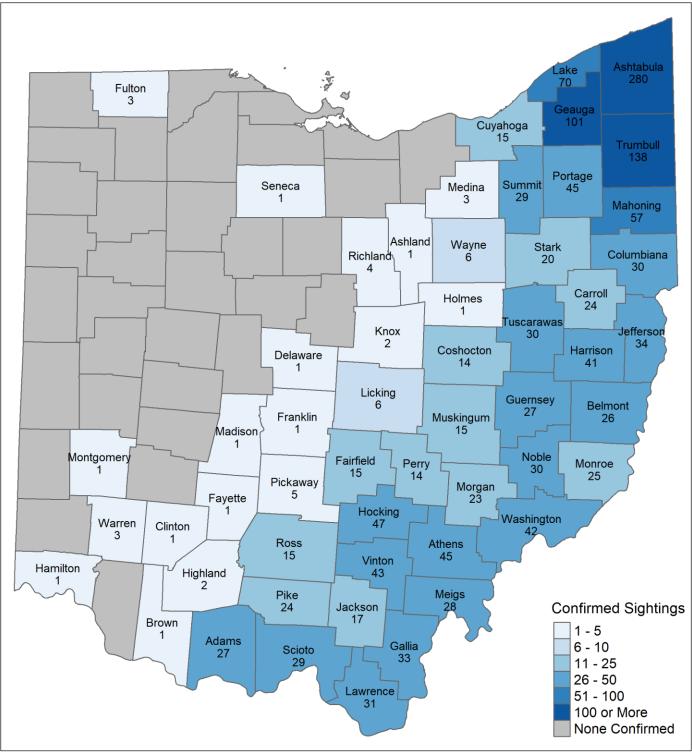


Figure 3. Confirmed black bear sightings in Ohio by county, 1993-2022.

Human – Bear Conflict

As bear populations expand, the presence of desirable food sources near human establishment can lead to human-bear conflict situations. In these situations, the Division of Wildlife strives to work with the residents and local law enforcement to ensure the safest possible outcome for both the public and the bear.

From 2019 to 2022 there were a total of 90 out of 375 confirmed sighting reports received by the Division of Wildlife, for which the person reporting indicated that the bear caused some sort of damage. Damage reports included bears eating from or destroying bird feeders (26; 29%), deer feeders or food plots (26; 29%), beehives (18; 20%), and trash cans or dumpsters (9, 10%). The remaining 11 confirmed reports (12%) were miscellaneous nuisance complaints, including animals that came close to homes though no specific damage to property was noted.

Many black bear conflict situations can be avoided by removing potential food sources that serve as an attractant. This can include taking in bird feeders when a bear is active in the area, securing garbage indoors until the morning of pickup, and not leaving pet food outdoors. Using tie-down straps to secure beehives and installing electric fencing around the hives can be useful in reducing the risk of bear damage. When bears are present in an area, the Division of Wildlife can provide education and resources to help landowners discourage nuisance behavior. If a bear is causing damage in your area, please reach out to your county <u>Wildlife Officer</u> or <u>Division of Wildlife district office</u> for assistance.

Evidence of Resident Black Bears

An important piece of information we can gain from sightings reports is confirmation of the presence of reproducing female black bears. When establishing their own home range, subadult male black bears typically disperse longer distances than subadult females. However, male bears will usually not establish a permanent home range in an area unless a female bear is present. By monitoring the presence of reproducing females, we can determine where in the state we are most likely to find resident bears.

As Ohio's black bear population is becoming reestablished through the dispersal of bears from nearby states, we expect that most bears in the state are dispersing or transient males. These animals likely do not stay in the state long. Often, we can see this in the sightings data, as a bear will be seen in an area only once. Or multiple sightings in different areas of the same region may show up in quick succession effectively showing us a potential route of travel for a dispersing bear.

However, in recent years, we have noted consistent evidence of reproducing female bears in the northeast corner of the state (Figure 4). Records of a sow with cubs were confirmed in Ashtabula County in 2016, then each year from 2018-2022. In each of these cases reports were confirmed through photo evidence. Adult female bears show strong home range fidelity, meaning once they establish a range, they tend to stay there. Based on the distance between sightings, and average home range size for black bears, it is possible that there were at least 2-3 different resident females in Ashtabula county during those years. Sows with cubs have also been recorded over the past four years in Trumbull, Mahoning, and Jefferson counties.

When a dead bear is found in the state, the Division of Wildlife collects information on the age and sex of the bear. Reports of 69 dead bears have been confirmed in the state since 1993. Forty-nine of those were confirmed to be males, while only 4 were confirmed to be females (the sex was not known or recorded for the remainder). Furthermore, size measurements and age estimates (when available) show the large majority of recovered dead black bears in the state were less than 3 years old, supporting the assertion that most bears in the state are young dispersing males. However, the four confirmed dead female bears in the state include a 6-year-old female hit by a car in Ashtabula county in 2019, and a 2-year-old female hit in Ashtabula county in 2021, again suggesting presence of a small resident population in northeast Ohio.

Black bears are capable of moving long distances, and movement patterns may change in response to food availability, changes in habitat, or interference by humans. We may see periodic fluctuations in the number of sightings reported each year due to changes impacting the population in neighboring states, such as fluctuations in mast production or hunting pressure. In addition, many factors can impact the likelihood that we receive a report when a bear is an area. For example, we may be more likely to receive reports of a bear in a suburban environment than in a rural area. Or, in areas where bears have become a regular occurrence, people may become less likely to report sightings, unless there is a conflict occurring. For all of these reasons, year-to-year fluctuations in the number of sightings collected should be interpreted with caution. However, the recent evidence of reproduction occurring in the state is a positive indicator for the future of the Ohio black bear population.

Continued monitoring of black bear sightings is recommend for tracking this recovering population. We thank the members of the public who reported bear sightings as well as the Division of Wildlife personnel who were involved in investigating observations. Black bear sightings can be reported online <u>here</u>.

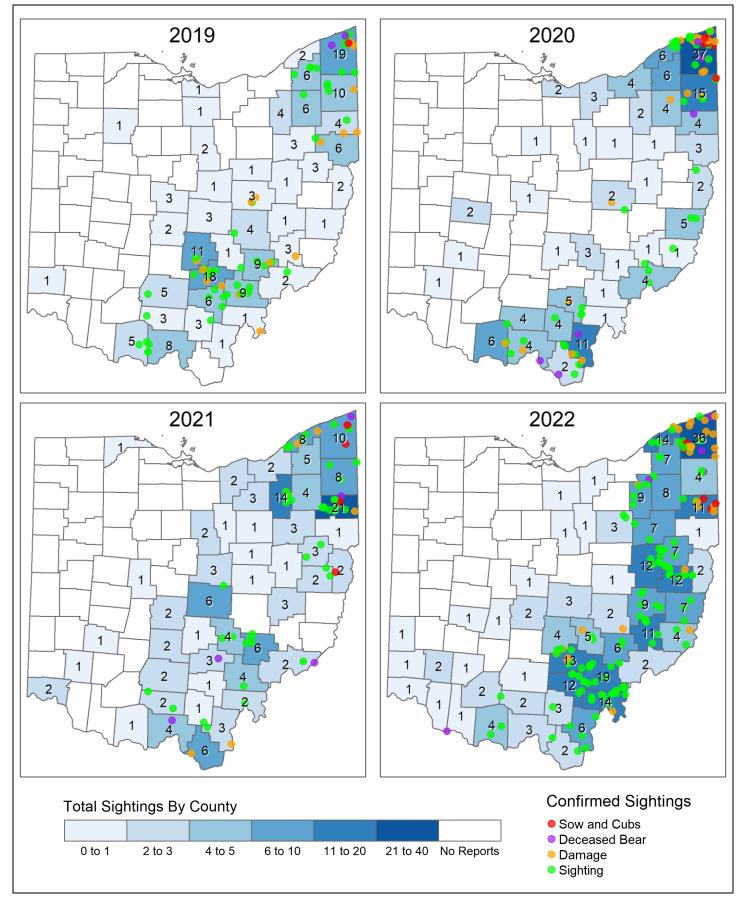


Figure 4. Confirmed black bear sightings and total reported black bear sightings by county in Ohio from 2019-2022.

		2019		2020		2021	2022		All Years (1993-2022)	
County	Total	Confirmed	Total	Confirmed	Total	Confirmed	Total	Confirmed	Total	Confirmed
Adams	5	2	6	3	1		4	2	58	27
Ashland			1		1		1		14	1
Ashtabula	19	11	37	30	10	6	36	27	603	280
Athens	9	7	1		4	1	19	10	106	45
Belmont	1		5	2			7	3	75	26
Brown							1	1	6	1
Butler	1						1		2	
Carroll	3				3	2	7	5	67	24
Champaign			2						3	
Clark							1		1	
Clermont							1		2	
Clinton							1		2	1
Columbiana	6	3	3		1		1		79	30
Coshocton	3	3	2	2	1		1		29	14
Crawford			1						3	
Cuyahoga			4		2				43	15
Delaware	3		1	1			1		9	1
Erie	1		2						7	
Fairfield	11	5	1		1		4	3	36	15
Fayette									1	1
Franklin	2				2		2		9	1
Fulton									6	3
Gallia	1	1	11	7	3	2	6	4	58	33
Geauga	6	4	6		5		7	3	244	101
Greene			1		1				2	
Guernsey	1				3		9	6	51	27
Hamilton					2		1		4	1
Hancock	1								3	
Hardin									1	
Harrison					2	2	12	9	70	41
Highland							2		12	2
Hocking	18	10			3	1	13	8	100	47
Holmes	1				1				8	1
Huron	1						1		5	
Jackson	3	2	4	1	1	1	3	1	48	17
Jefferson	2		2	1	2	1	2	2	80	34
Knox	1				3	1			11	2
Lake	2		6	6	8	6	14	8	130	70
Lawrence			2	2	6	1	2	2	63	31
Licking	3				6		3		28	6
Lorain			3		2		1		7	
Lucas					1				3	
Madison							1		3	1

		2019		2020	2021		2022		All Years (1993- 2022)	
County	Total		Total		Total	Confirmed	Total		Total	Confirmed
Mahoning	4	3	4	1	21	14	11	9	121	57
Medina					3				19	3
Meigs	1	1	1		2	1	14	10	54	28
Monroe			1	1			4	3	46	25
Montgomery									1	1
Morgan	9	5	1		6	4	6	3	58	23
Morrow									1	
Muskingum	4	1					2	1	40	15
Noble	3	1	1	1			11	7	50	30
Ottawa									1	
Perry	1	1	3		4	2	5	3	54	14
Pickaway					2				12	5
Pike	3	1	4		2	2	2	1	51	24
Portage	6	1	4	1	4		8	3	171	45
Preble							1		1	
Richland	2				2		1		27	4
Ross	5	1			2		1		53	15
Scioto	8	3	4	4	4	1	3		69	29
Seneca									3	1
Stark	3		1		3		7	2	63	20
Summit	4		2		14	8	9	6	76	29
Trumbull	10	5	15	7	8	3	4	3	282	138
Tuscarawas	1		1		1		12	6	88	30
Union					1				1	
Vinton	6	5	5	4	1		12	8	75	43
Warren			1		1		2		8	3
Washington	2	1	4	2	2	2	2		82	42
Wayne			1		1		3	2	12	6
Wood									2	
All Counties	176	77	154	76	159	61	285	161	3613	1529