Wyoming Gray Wolf Monitoring and Management: 2025 Annual Report

Prepared by the Wyoming Game and Fish Department in cooperation with the National Park Service, U.S. Fish and Wildlife Service, USDA-APHIS-Wildlife Services, and Eastern Shoshone and Northern Arapahoe Tribal Fish and Game Department to report the status and management of the gray wolf population in Wyoming from January 1, 2025 through December 31, 2025.

EXECUTIVE SUMMARY

At the end of 2025, the gray wolf (wolf) population in Wyoming remained above minimum recovery criteria, making 2025 the 24th consecutive year Wyoming has exceeded the numerical, distributional, and temporal recovery criteria established for wolves by the U.S. Fish and Wildlife Service. At least 253 wolves in ≥37 packs, including ≥14 breeding pairs, inhabited Wyoming statewide on December 31, 2025. Of the total, there were ≥132 wolves and ≥22 packs, including ≥10 breeding pairs, in the Wolf Trophy Game Management Area (WTGMA), ≥84 wolves and ≥7 packs, including ≥3 breeding pairs, in Yellowstone National Park, ≥9 wolves and ≥3 packs, including ≥0 breeding pairs, in the Wind River Reservation, and ≥28 wolves and ≥5 packs, including ≥1 breeding pair, resided in areas where wolves are designated primarily as predatory animals in Wyoming. A total of 129 wolf mortalities were documented statewide in Wyoming in 2025: 60 in the WTGMA, 65 in areas where wolves are primarily designated as predatory animals, three in Yellowstone National Park (Yellowstone), and one in the Wind River Reservation. Mortality was from human causes = 113 (88% of mortalities), natural causes = 12 (9%), and unknown causes = 4 (3%). Fifty-four wolves were captured and radio-collared for monitoring and research in 2025.

In 2025, the Wyoming Game and Fish Department implemented a wolf hunting season with the biological objective to stabilize the wolf population at around 160 wolves in the WTGMA. A mortality limit of 44 wolves was divided between 13 hunt areas in the WTGMA and one hunt area in the Seasonal WTGMA (Hunt Area 12). Wolf hunting seasons were open from September 15 to December 31, 2025 with the exception of Hunt Area 12 (opened on October 15, 2025). The hunting season for each hunt area closed at the season end date or when the mortality limit was met, whichever occurred first. A total of 31 wolves were taken that applied to the mortality limit during the 2025 wolf hunting season. In addition, the 2024 wolf hunting season extended from January 1 to March 31, 2025 in Hunt Area 13, during which no wolves were taken. Likewise, the Wind River Reservation held wolf hunting seasons in 2025, during which one wolf was harvested.

Wolves were confirmed to have killed or injured 59 head of livestock (33 cattle, 25 sheep, and one miniature horse) and one domestic dog statewide in Wyoming in 2025. Forty-nine wolves were lethally and legally removed by agencies or the public in an effort to reduce livestock losses to wolves (16 in the WTGMA and 33 in predatory animal areas). No conflicts occurred in Yellowstone or the Wind River Reservation.

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COVER PHOTO: 1055F (lower center) and two uncollared members of the Pahaska pack in the North Fork Shoshone River, January 2025. 1055F was collared as a 3-year-old in January 2017 and was Pahaska's breeding female from 2017-2025. Her collar functioned until July 2023 when it ran out of batteries, but she continued to be documented with Pahaska through visual observations over the next two years. The Wyoming Game and Fish Department opted not to recollar 1055F due to her advanced age (nearly 12 years old) in 2024 and 2025, and she disappeared shortly after this photo was taken. With the absence of 1055F, Pahaska did not reproduce in 2025. 1055F's daughter, 5-year-old 1474F (and her probable brothers, 1475M and 1594M) was joined by a new, unrelated male (1362M who dispersed from the Two Ocean pack) in June of 2025 and should ascend to her mother's breeding position. The Pahaska pack currently holds the third longest tenure in the WTGMA at 19 years (following only the Beartooth pack [26 years] and the Pacific Creek pack [21 years]), and this documented successful generational turnover should enable continued persistence of the Pahaska pack into the future.

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BACKGROUND

Beginning in 1995, the U.S. Fish and Wildlife Service reintroduced 41 gray wolves (wolves) into Yellowstone National Park, Wyoming as a nonessential experimental population under the Endangered Species Act with the goal of reestablishing a recovered gray wolf population in the northern Rocky Mountains. The U.S. Fish and Wildlife Service was the federal agency charged with administering, monitoring, and managing the wolf population following reintroduction until wolves reached recovery levels and Endangered Species Act protections could be removed ("delisting"). The wolf population expanded quickly in number and distribution throughout northwest Wyoming. The population met the required recovery criteria by late 2002 and has exceeded the recovery criteria every year since. More information on wolves and the history of the wolf reintroduction program can be found on the U.S. Fish and Wildlife Service website and the Wyoming Game and Fish Department website at the following links:

https://www.fws.gov/species/gray-wolf-canis-lupus

https://wgfd.wyo.gov/wyoming-wildlife/large-carnivore/wolves-wyoming

Endangered Species Act protections were removed for wolves (i.e., "delisting") in Wyoming in September 2012 following the approval of the Wyoming Gray Wolf Management Plan, Wyoming Game and Fish Commission regulations, and Wyoming Statutes by the U.S. Fish and Wildlife Service (Wyoming Game and Fish Commission 2011, U.S. Fish and Wildlife Service 2012). This delisting decision was challenged in U.S. District Court in Washington, D.C., which overturned the delisting and relinquished management authority for wolves in Wyoming back to the U.S. Fish and Wildlife Service in September 2014. The District Court decision was subsequently appealed by the U.S. Fish and Wildlife Service and State of Wyoming in the U.S. Court of Appeals in Washington, D.C., which ruled in favor of the U.S. Fish and Wildlife Service and State and returned management of wolves to the State of Wyoming on April 25, 2017. Since delisting, wolves have been monitored and managed by the National Park Service in Yellowstone National Park and Grand Teton National Park, the Eastern Shoshone and Northern Arapaho Tribal Fish and Game Department in cooperation with the U.S. Fish and Wildlife Service Lander Fish and Wildlife Conservation Office on tribal lands in the Wind River Reservation, the U.S. Fish and Wildlife Service on the National Elk Refuge, and the State of Wyoming in all remaining areas of Wyoming outside these jurisdictions. Each management agency has different laws, regulations, and/or management plans governing wolf management and, accordingly, each jurisdiction has varying wolf management objectives and philosophies. The following is a summary of wolf management direction by agency.

National Park Service

The National Park Service is responsible for monitoring and managing wolves in national parks in Wyoming. The National Park Service's primary wolf management approach is to allow natural processes to occur within the boundaries of national parks with minimal human intervention. More information on National Park Service wolf programs in Wyoming can be found at the following links:

https://www.nps.gov/yell/learn/nature/wolf.htm

https://www.nps.gov/grte/index.htm

Eastern Shoshone and Northern Arapaho Tribal Fish and Game Department

The Eastern Shoshone and Northern Arapaho Tribal Fish and Game Department, in cooperation with the U.S. Fish and Wildlife Service Lander Fish and Wildlife Conservation Office, is responsible for monitoring and management of wolves on tribal lands within the boundary of the Wind River Reservation. The Wind River Reservation Wolf Management Plan designates wolves as a trophy game animal on tribal lands within the Reservation. For more information, see the Wind River Reservation Wolf Management Plan at:

https://fws.gov/media/wind-river-wolf-plan

National Elk Refuge

The National Elk Refuge, managed by the U.S. Fish and Wildlife Service, was established to provide winter habitat and supplemental winter feeding for the Jackson Elk Herd. The U.S. Fish and Wildlife Service is responsible for management of all wildlife species, including wolves, within National Elk Refuge boundaries. More information on the National Elk Refuge can be obtained at:

https://www.fws.gov/refuge/national_elk_refuge/

Wyoming Game and Fish Department

The Wyoming Game and Fish Department's wolf management framework is more complex than the National Park Service's and the Wind River Reservation's and warrants more detailed explanation. As required by State Statute [W.S. 23-1-101(a)(xii)(B)(I) and (II)] and Wyoming Game and Fish Commission Regulation Chapter 21 Gray Wolf Management (Chapter 21), wolves in areas under the State's jurisdiction are managed under the dual classifications of trophy game animal and predatory animal as outlined in the Wyoming Gray Wolf Management Plan and approved by the U.S. Fish and Wildlife Service (Wyoming Game and Fish Commission 2011, U.S. Fish and Wildlife Service 2012). According to the regulatory documents listed above, there are three wolf management zones outside Yellowstone National Park and tribal lands within the Wind River Reservation (this area is referred to as WYO throughout the report), as follows:

1. *Wolf Trophy Game Management Area (WTGMA):* Wolves are designated as trophy game animals year-round within the WTGMA and are actively monitored and managed by the Wyoming Game and Fish Department with the goal of maintaining the state's commitment of ≥100 wolves and ≥10 breeding pairs (a pack with at least one adult male and one adult female wolf that successfully raise at least two pups of the year until December 31) solely within this area. Wolves in the WTGMA are managed similar to other trophy game species (e.g., black bears and mountain lions) and may only be taken by the public when in the act of doing damage to private property, in self-defense, under the authority of a lethal take permit, or by licensed hunters during an open wolf hunting season. Livestock owners who have confirmed livestock damage caused by wolves in the WTGMA may qualify for compensation from the Wyoming Game and Fish Department.

2. *Seasonal WTGMA:* Wolves are designated as trophy game animals in the Seasonal WTGMA from October 15 through the last day of February of the subsequent year and as predatory animals from March 1 to October 14 each year. Wolves may be taken by the public similar to wolves in the WTGMA while they are designated as trophy game animals, or may be taken as predatory animals for the remainder of the year (see below). Livestock owners who have confirmed livestock damage caused by wolves in the Seasonal WTGMA

may qualify for compensation from the Wyoming Game and Fish Department on a year-round basis regardless of the date damage occurred.

3. *Areas when and where wolves are designated as predatory animals:* Wolves are designated year-round as predatory animals in areas outside the WTGMA and also within the Seasonal WTGMA from March 1 to October 14 (see above). Predatory animals are not managed under the jurisdiction of the Wyoming Game and Fish Department and may be taken anytime in any legal manner. Livestock owners who have confirmed wolf depredation on livestock outside the WTGMA/Seasonal WTGMA do not qualify for compensation from the Wyoming Game and Fish Department unless their private land is bisected by the WTMGA or Seasonal WTGMA boundary. However, beginning in 2023, livestock owners who have confirmed wolf depredation on livestock in areas where wolves are designated as predatory animals may qualify for compensation from the Wyoming Department of Agriculture.

The Wyoming Game and Fish Department wolf management objective is to maintain a recovered wolf population in the WTGMA while balancing the need to minimize wolf conflicts with livestock and maintain wild ungulate herds. Wyoming's Gray Wolf Management Plan also seeks to incorporate public hunting opportunity into its wolf population management strategy (Wyoming Game and Fish Commission 2011). Wolves are not actively monitored or managed where designated as predatory animals, including the Seasonal WTGMA. Therefore, data presented in this report will focus primarily on the WTGMA, with data presented for predatory animals if available and/or applicable.

For more information on the wolf management framework in Wyoming, including the Wyoming Gray Wolf Management Plan and wolf management and hunting regulations, please visit the following link:

https://wgfd.wyo.gov/wyoming-wildlife/large-carnivore/wolves-wyoming

Wolf Population Recovery Criteria and Post-Delisting Monitoring

The U.S. Fish and Wildlife Service set specific recovery criteria for wolves in the northern Rocky Mountains that were required to be met prior to delisting. The wolf population in the northern Rocky Mountains must also continue to meet or exceed the U.S. Fish and Wildlife Service's recovery criteria into the foreseeable future post-delisting to ensure the population remains recovered. The U.S. Fish and Wildlife Service required a minimum recovery criteria of ≥300 wolves and ≥30 breeding pairs in the northern Rocky Mountains for three consecutive years. These criteria were developed using input from many wolf experts from around the world.

Additionally, the U.S. Fish and Wildlife Service developed additional recovery criteria that required the states to maintain a 50% safeguard above minimum recovery criteria (i.e., ≥450 wolves and ≥45 breeding pairs in the northern Rocky Mountains) to qualify for delisting and further ensure the population did not drop below minimum recovery goals. The delisting criteria were then subdivided equally among the states of Montana, Idaho, and Wyoming, resulting in a minimum population requirement of ≥150 wolves and ≥15 breeding pairs in each state at the end of the calendar year. Under the terms of the delisting agreement between Wyoming and the U.S. Fish and Wildlife Service, the state of Wyoming committed to maintain wolves at or above the minimum delisting criteria of ≥100 wolves and ≥10 breeding pairs in WYO, with Yellowstone National Park and the Wind River Reservation providing the additional ≥50 wolves and ≥5 breeding pairs necessary to meet the ≥150 wolf and ≥15 breeding pair requirement for the state (U.S. Fish and Wildlife Service 2012).

Under the Endangered Species Act, states are required to manage delisted species in a sustainable manner to ensure the population will remain above the minimum delisting criteria into the foreseeable future. Once delisting occurs, the U.S. Fish and Wildlife Service is required, in cooperation with the states, to monitor the status of delisted species for a minimum of five years. The primary goal of post-delisting monitoring was to provide the U.S. Fish and Wildlife Service with a mechanism for evaluating the status of the population and ensure states are managing the delisted population at or above minimum delisting criteria. The five-year post-delisting monitoring period concluded at the publication of the 2021 annual report in April 2022. However, the agencies in Wyoming charged with wolf monitoring and management responsibility have continued to work cooperatively and have generated this report to provide a consistent and transparent annual presentation of statewide wolf population data.

Reporting Wolf Population Data by Jurisdiction

Generally, states are solely responsible for monitoring and managing delisted species. In Wyoming, however, multiple jurisdictions contain significant portions of the wolf population and/or suitable wolf habitat, primarily Yellowstone National Park and tribal lands on the Wind River Reservation, where the state does not have management authority. This sharing of large portions of the wolf population adds complexity to management in Wyoming and made it difficult to determine which jurisdiction was responsible for what proportion of minimum delisting criteria. Therefore, it was necessary to clarify how many wolves and breeding pairs each jurisdiction would contribute toward minimum delisting criteria (i.e., ≥150 wolves and ≥15 breeding pairs in Wyoming at the end of the calendar year) as follows:

1. The Wyoming Game and Fish Department committed to maintain ≥100 wolves and ≥10 breeding pairs in the WTGMA in northwest Wyoming. While the state does not have management authority over wolves in all areas in the WTGMA such as Grand Teton National Park and the National Elk Refuge, these areas are small and the wolf packs using them are not solely contained within their boundaries. Therefore, wolves in Grand Teton National Park and the National Elk Refuge are included in the WTGMA.

2. Combined, Yellowstone National Park and Wind River Reservation are expected to contribute the remaining ≥50 wolves and ≥5 breeding pairs necessary to meet the total ≥150 wolf and ≥15 breeding pair requirement. Data for these jurisdictions are reported independently in the body of this report.

For purposes of this report, data are presented on the wolf population as a whole in Wyoming and are further summarized by the three primary jurisdictions to allow for proper evaluation of the wolf population both statewide and by individual jurisdiction.

WYOMING GRAY WOLF MONITORING AND MANAGEMENT: 2025 ANNUAL REPORT

WOLF POPULATION MONITORING

SUMMARY OF WOLF POPULATION MONITORING STATEWIDE

At the end of 2025, the gray wolf (wolf) population in Wyoming remained above minimum recovery criteria, making 2025 the 24th consecutive year Wyoming has exceeded the numerical, distributional, and temporal recovery criteria established for wolves by the U.S. Fish and Wildlife Service. At least 253 wolves in ≥37 packs, including ≥14 breeding pairs, inhabited Wyoming statewide on December 31, 2025. Of the total, there were ≥132 wolves and ≥22 packs, including ≥10 breeding pairs, in the Wolf Trophy Game Management Area (WTGMA), ≥84 wolves and ≥7 packs, including ≥3 breeding pairs, in Yellowstone National Park, ≥9 wolves and ≥3 packs, including ≥0 breeding pairs, in the Wind River Reservation, and ≥28 wolves and ≥5 packs, including ≥1 breeding pair, resided in areas where wolves are designated primarily as predatory animals in Wyoming. A total of 129 wolf mortalities were documented statewide in Wyoming in 2025: 60 in the WTGMA, 65 in areas where wolves are primarily designated as predatory animals, three in Yellowstone National Park, and one in the Wind River Reservation. Mortality was from human causes = 113 (88% of mortalities), natural causes = 12 (9%), and unknown causes = 4 (3%). Fifty-four wolves were captured and radio-collared for monitoring and research in 2025.

Wolf Population Monitoring in the WTGMA

Population and Breeding Pair Status

The census of the minimum number of wolves in the Wolf Trophy Game Management Area (WTGMA; see Figure 1) on December 31, 2025 was determined using standard wolf monitoring methods. The number of wolves in individual packs and the number of lone, dispersing wolves were counted during telemetry flights and capture operations, observations by, or confirmed by, qualified agency personnel, or pictures of known packs taken with remote cameras. Only observations obtained by agency personnel from December 2025 through March 2026 were included to ensure they were reflective of the minimum number of wolves present on December 31, 2025. Miscellaneous, mostly solitary, wolves were included in the population census only if the animal was documented as described above and was not a known member of an identified wolf pack. Packs that formed in late 2025 and early 2026 are included in the "miscellaneous" wolf category if they had not established a stable territory. Packs with territories overlapping jurisdictional boundaries (e.g., state, national park, tribal boundaries, etc.) and packs overlapping the WTGMA boundary were assigned to the area which held the majority of their documented locations during 2025. The final minimum population census was the sum of all pack counts and miscellaneous wolves known to be present in the WTGMA on December 31, 2025 (Table 1).

Breeding pair status for packs in the WTGMA was also determined using the same methods since wolves were reintroduced to the northern Rocky Mountains. Denning behavior was confirmed for individual packs using aerial and ground telemetry and ground investigations during spring. Reproductive packs (with pups) were confirmed using observations made during aerial and ground monitoring efforts, investigations of potential den and rendezvous sites, howling surveys, reports confirmed by qualified agency personnel, pictures taken with remote cameras, or a combination of methods. If one adult male and one adult female and ≥2 pups were adequately documented at

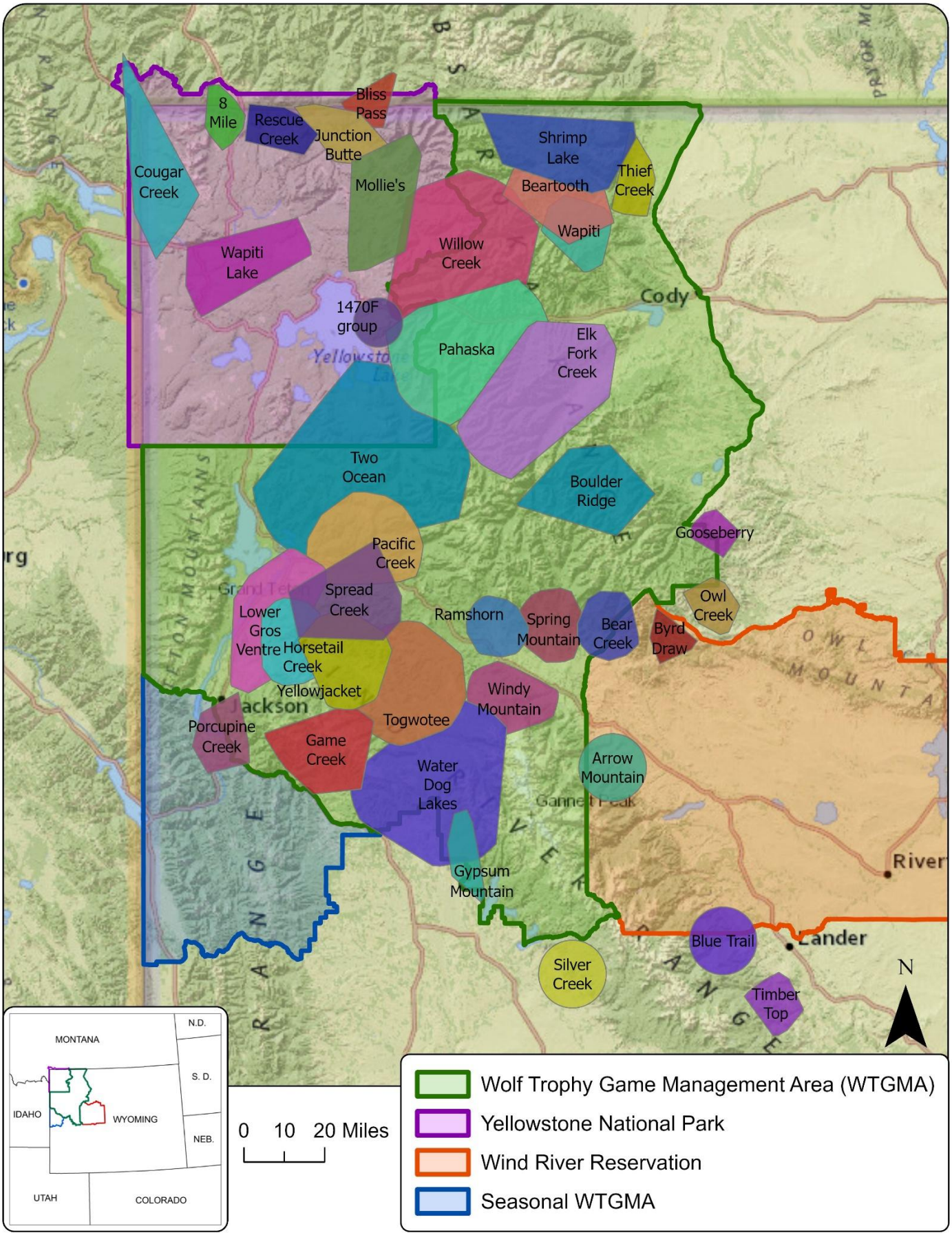


Figure 1. Wolf management areas and home ranges of wolf packs in Wyoming in 2025.

Table 1. Wolf pack size and breeding pair status as of December 31, 2025, and wolf mortality and wolf-livestock conflicts in Wyoming in 2025.

WOLF PACK[1,2]	MINIMUM PACK SIZE	DOCUMENTED MORTALITIES[10]						KNOWN		CONFIRMED CONFLICTS[9,10]			
		NATURAL	HUMAN[3]	UNKN[4]	HUNTING[5]	PRED. ANIMAL[6]	CONTROL[7]	DISPERSED	MISSING[8]	CATTLE	SHEEP	DOGS	OTHER
WOLF TROPHY GAME MANAGEMENT AREA													
Bear Creek[11]	4				2	[2]							
Beartooth	4				2		1			1			
~~Blacktail Butte~~	1		1				2	1	1	1		1	
Boulder Ridge	2							1					
Elk Fork Creek	9				1		4			3			
Game Creek	5			1						3			
Gypsum Mountain[12]	3	1				[1]		1					
Horsetail Creek	2	1			1			2					
~~Lava Mountain~~		2											
Lower Gros Ventre	5	1			1			2					
~~Oxyoke Canyon~~			1				3	2		4			
Pacific Creek	10		1		3		1		1				1
Pahaska[11]	4			2									
Ramshorn	12		1				1			1			
Shrimp Lake[11]	2												
Spread Creek	5				1								
Spring Mountain	5												
Thief Creek	5						3			1			
Togwotee	10				3								
~~Twilight Creek~~					1								
Two Ocean[11]	5							1					
Wapiti	3				1		1			2			
Water Dog Lakes	5	1			1			3		6			
Willow Creek[11]	6				3								
Windy Mountain	5				3					2			
Yellowjacket	11	1			2					2			
Misc. wolves	9	1		1	3					2			
WTGMA TOTAL	**132**	8	4	4	28	-	16	13	2	28	0	1	1

Table 1. (continued)

PREDATORY ANIMAL AREAS													
Seasonal Wolf Trophy Game Management Area													
Porcupine Creek[13]	8			2	1			1	5				
~~Salt River Range~~					4			2	7				
Misc. wolves	4					3							
Year-round Predatory Animal Area													
Timber Top[11]	4				2	16	1		1				
Gooseberry	4				6								
Owl Creek[11]	3				4				8				
~~Pocket Creek~~					1	11		2					
Silver Creek	2												
Misc. wolves	3	1			11	3			4				
PRED. AREAS TOTAL	**28**	1	0	0	2	29	33	1	0	5	25	0	0
WYO Total	**160**	**9**	**4**	**4**	**30**	**29**	**49**	**14**	**2**	**33**	**25**	**1**	**1**
YNP Total	84	3	0	0	0	0	0	11	3	0	0	0	0
WRR Total	9	0	0	0	1	0	0	0	0	0	0	0	0
WYOMING TOTAL	**253**	**12**	**4**	**4**	**31**	**29**	**49**	**25**	**5**	**33**	**25**	**1**	**1**

1 Underlined packs were counted as breeding pairs on December 31, 2025.
2 Strikethough packs were not documented during 2025 and/or did not exist on Dec. 31, 2025 and are not displayed in Figure 1.
3 Excludes wolves killed in control actions and legal hunting.
4 Number of wolves that died of unknown causes.
5 Number of wolves legally taken during the regulated hunting season. Excludes wolves taken illegally that applied to the mortality limit.
6 Number of wolves taken by the public as predatory animals. Wolves killed from packs assigned to the WTGMA are counted in the Predatory animal area total.
7 Number of wolves killed in lethal control actions, including agency-directed control, defense of private property and on lethal take permits.
8 Collared wolves that became missing.
9 Number of conflicts between wolves and livestock/domestic animals confirmed in WYO. "OTHER" = 1 conflict where a miniature horse was killed.
10 Mortalities and Conflicts that occurred in adjacent jurisdictions/management areas are presented in brackets [x] and are not included in respective column totals.
11 Border pack shared with Idaho, Yellowstone National Park or the Wind River Reservation; assigned to WYO.
12 Border pack with the predatory animal area; all wolves assigned to the WTGMA in 2025.
13 Border pack with the WTGMA; assigned to the Seasonal WTGMA in 2025.

the end of the calendar year, they were counted as a known breeding pair. The Wyoming Game and Fish Department will continue using approved methods for monitoring the wolf population while also investigating alternative methods for future wolf monitoring.

As of December 31, 2025, ≥132 wolves in ≥22 packs, including ≥10 breeding pairs, were documented in the WTGMA (Figures 1, 2 and 3; Table 1). Pack size ranged from two to 12 and averaged 5.5 wolves per pack (Figure 4; Table 1). Similar to previous years, wolf packs were distributed in largely exclusive territories across suitable habitat in the WTGMA (Figure 1).

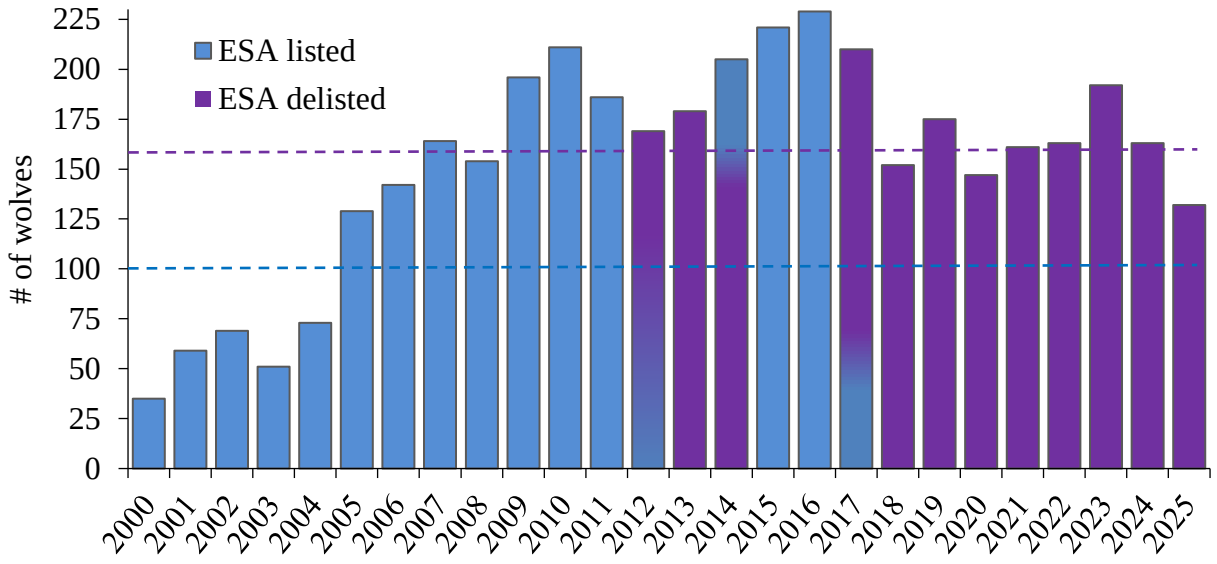


Figure 2. Minimum number of wolves in the WTGMA at the end of the calendar year. (Endangered Species Act status [listed vs. delisted] is included for comparative purposes; the blue dashed line indicates the ≥100 wolf minimum population commitment; the purple dashed line indicates the 160-wolf population objective for the WTGMA)

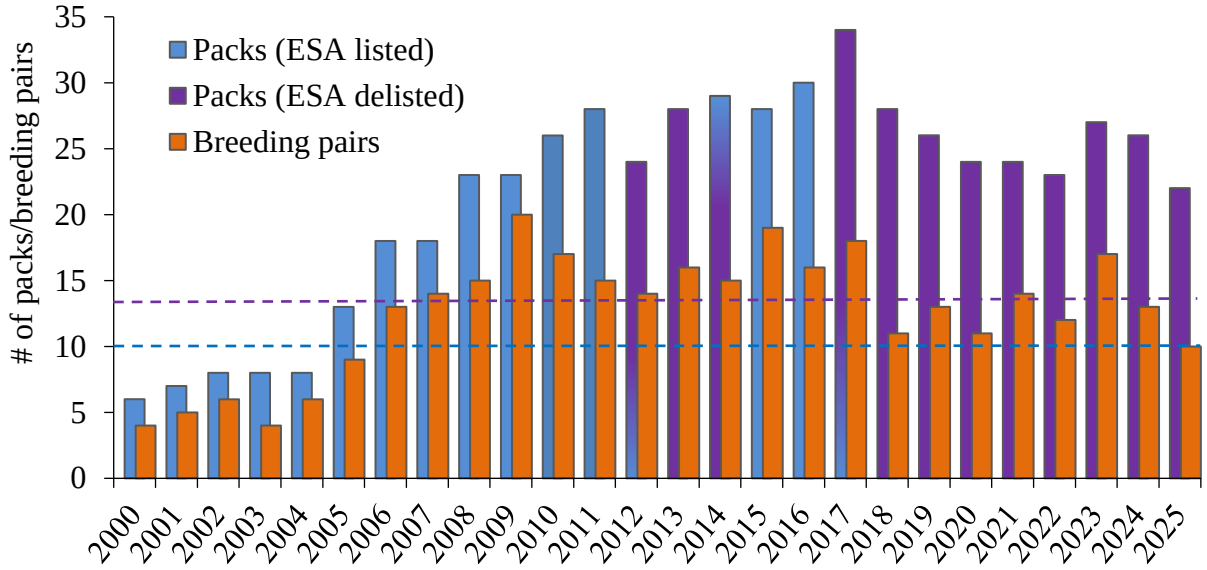


Figure 3. Minimum number of wolf packs and breeding pairs in the WTGMA at the end of the calendar year. (the blue dashed line indicates the ≥10 breeding pair minimum commitment; the purple dashed line indicates the 13-14 breeding pair objective for the WTGMA)

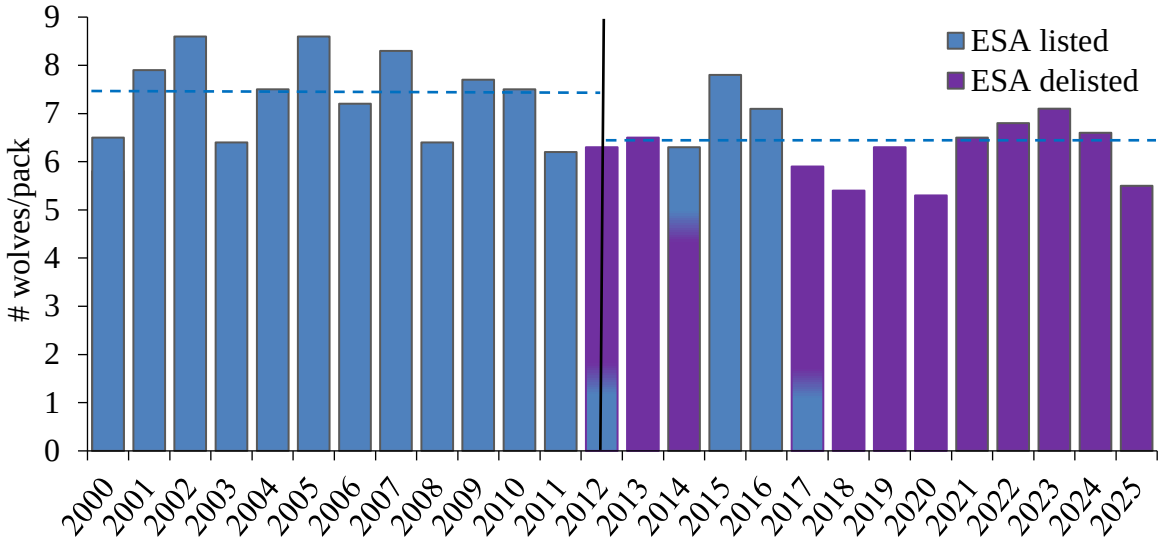


Figure 4. Average pack size for wolf packs in the WTGMA at the end of the calendar year (the dashed line indicates the average pack size before delisting [7.4 wolves per pack from 2000-2011] and post-delisting [6.4 wolves per pack from 2012-2025]).

Mortality

Wolf mortality was monitored in the WTGMA using multiple methods. The primary method used to identify wolf mortalities not associated with hunting was through the tracking of radio-collared wolves (i.e., known fate analysis). This information allows managers to monitor collared wolves for mortality status and investigate the site to evaluate cause-specific mortality and collect carcasses for further evaluation through necropsy. Wolf hunting mortality in the WTMGA was monitored via mandatory reporting and registration by successful hunters as required in the Wyoming Game and Fish Commission Gray Wolf Hunting Season Regulation (Chapter 47) and Wyoming Statute 23-1-304(d). This requirement allowed Wyoming Game and Fish Department personnel to document mortality, collect information on wolves taken during the hunt, update mortality limits in the WTGMA/Seasonal WTGMA, and close wolf hunting seasons if the mortality limit was met. Cooperating agencies also provided information on wolf mortalities, including wolves killed in control actions by USDA Wildlife Services. Wolf mortalities from all causes were documented and confirmed, including those found by the public, cooperating agencies, and Wyoming Game and Fish Department personnel.

In 2025, 60 wolves were known to have died in the WTGMA (Figure 5; Tables 1 and 2). Causes of mortality included: hunting = 28; conflict control = 16; other human causes = 4; natural causes = 8; and unknown causes = 4 (Figure 5; Tables 1 and 2). Conflict control mortalities included six wolves from agency-directed lethal control actions, seven wolves taken under the authority of a lethal take permit, and three wolves taken in defense of private property as authorized by the Wyoming Game and Fish Commission Chapter 21 Regulation. The four wolf deaths from other human causes included two wolves killed by vehicle strikes, one wolf taken without a license during the hunting season, and one case of mistaken identity where a wolf was taken when thought to be a coyote. Natural mortalities included five wolves killed by other wolves, one predated by a mountain lion, one wolf suffering from severe mange that was euthanized, and one wolf that died from unknown natural causes. The number of wolves that died in the WTGMA in 2025 (60 wolves; Figure 5) was lower than average (70.6 wolves/year from 2012-2024). Mortality was expected to decrease compared to 2024 because the WTGMA wolf population was at the population objective

at the beginning of the calendar year, which usually results in moderate human-caused mortality (Figure 5; see also Figure 17 in the "Wolf Management in the WTGMA" section below). As expected, human-caused mortality accounted for the majority of all wolf mortalities recorded in the WTGMA in 2025 (Table 2). The overall mortality rate was just under one-third of all wolves known to have been alive in the WTGMA in 2025, which was slightly above the average mortality rate for 2012-2024 (28.2%: Table 2).

Table 2. Summary of wolf mortality by cause of death in the WTGMA in 2025.

Cause of death	Total	% of mortality	% of wolves
Hunting	28	46.7	14.6
Conflict control	16	26.7	8.3
Other human causes	4	6.7	2.1
All Human Causes	48	80.0	25.0
Natural	8	13.3	4.2
Unknown	4	6.7	2.1
Total Mortality	60	100.0	31.3

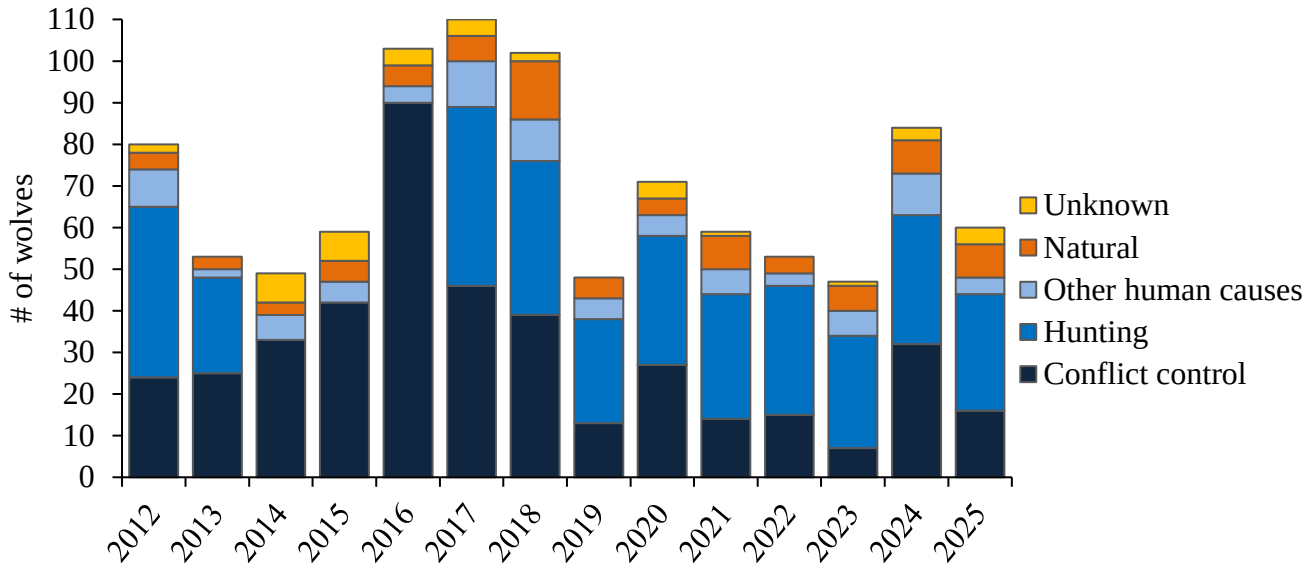


Figure 5. Number of wolf mortalities by cause of death in the WTGMA during the calendar year (wolves were listed under the Endangered Species Act in portions of 2014-2017).

Disease Monitoring

Disease presence and prevalence in wildlife populations is generally density-dependent, meaning the risk of a particular disease impacting a population increases as population density increases. Wolves are no exception, with evidence that both sarcoptic mange (*Sarcoptes scabiei*: mange) and canine distemper virus (distemper) infections are highest in wolf populations at high population and wolf pack densities (Almberg et al. 2010, 2012). Both diseases may kill adult and juvenile wolves, but primarily manifest population declines through increased pup mortality and low pup recruitment (Almberg et al. 2009). While evidence for mange and distemper has been present in the wolf population in Wyoming, they have had little impact in most years on wolf population dynamics outside Yellowstone National Park (Yellowstone; Jimenez et al. 2010, Almberg et al.

2012). Management actions such as hunting and conflict control in the WTGMA appear to have generally held the wolf population below the threshold where disease outbreaks are more probable. This conclusion was supported by the data when WTGMA wolf population increased rapidly following the reinstatement of Endangered Species Act protections in 2014 and remained at relatively high density from 2015 through early 2018, which was correlated with a dramatic increase in distemper and mange infections in the WTGMA through 2018 (Figures 2, 3 and 6). Documentation of disease in the WTGMA wolf population declined and remained low from 2018-2024 when wolf density in the WTGMA was reduced following Endangered Species Act delisting and return to state management in 2017 (Figures 2, 3 and 6). However, the WTGMA wolf subpopulation in 2023 was unusually productive with low mortality, yielding an end of year population close to the carrying capacity for wolves in the WTGMA (Figures 2, 3 and 5). This population increase in 2023 likely initiated an increase in distemper transmission that maintained momentum into 2025 despite the population returning to the population objective in 2024 (see discussion below). The Wyoming Game and Fish Department will continue to monitor disease in the WTGMA wolf population and the dynamics that correlate with disease prevalence to inform an adaptive management approach aimed at maintaining the wolf population above minimum commitments and near the identified population objective, thereby stabilizing other elements of wolf population dynamics.

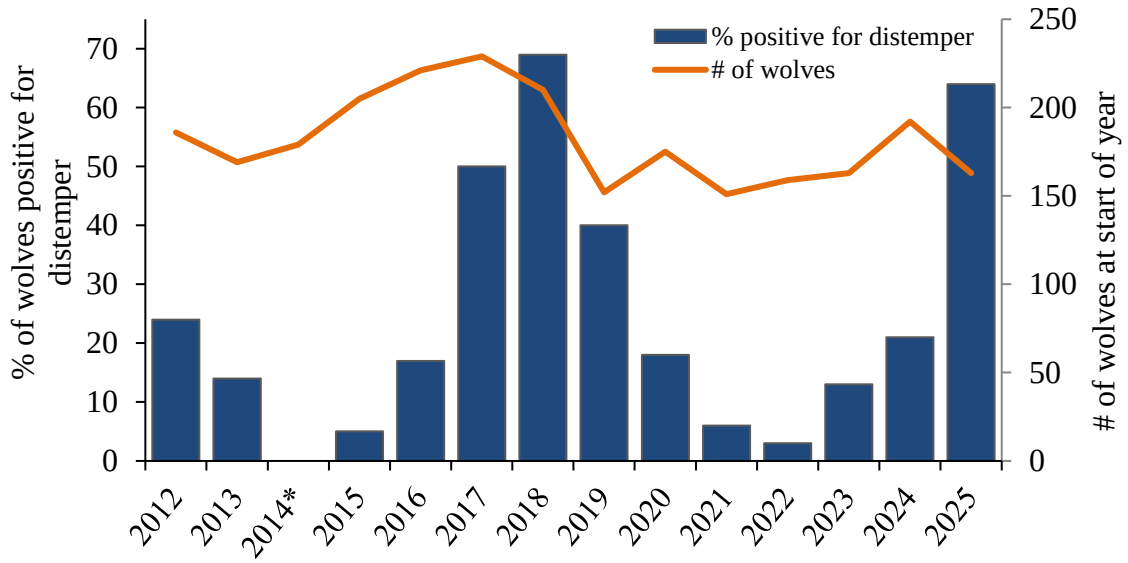


Figure 6. Proportion (%) of wolves captured in winter (November through March) that tested positive for canine distemper virus in the WTGMA and number of wolves in the WTGMA at the start of the calendar year (*too few wolves were captured following Endangered Species Act relisting of the wolf population in 2014 to allow for an adequate sample).

Mange: Mange is a contagious skin disease caused by mites and is commonly found in wolf populations throughout the world. Mange was first detected in Wyoming outside Yellowstone in 2002 (Jimenez et al. 2010). Documentation of mange increased in the WTGMA in 2024 and 2025, which correlates with increased wolf density in 2023. During winter capture efforts, individuals from six packs showed evidence of hair loss consistent with mange infection (Lower Gros Ventre, Horsetail Creek, Thief Creek, Wapiti, Water Dog Lakes, and Willow Creek). One wolf from the Lower Gros Ventre pack suffering from severe mange was euthanized after it took refuge in an outbuilding in February 2025. The Wapiti pack also appeared to suffer from severe mange infection in 2025. The breeding female of the Wapiti pack was killed on a lethal take permit in August and was in very poor condition with significant hair loss. In addition, none of the 10 pups

documented in the Wapiti pack in summer 2025 survived to the end of the calendar year. The mortality in this one pack, coupled with possible mortality caused by distemper in 2025, appears to be one of the factors contributing to poor recruitment in the WTMGA wolf population in 2025.

Distemper: Distemper is a contagious viral disease that infects species such as domestic dogs, coyotes, foxes, raccoons, skunks, and wolves. Based on other areas of the world that have experienced epizootic distemper infections, these diseases will occasionally cause mortality, particularly among juveniles. Outbreaks usually result from increasing host population density, remain localized in specific areas/years, and do not threaten regional wolf population viability (Almberg et al. 2010). Almberg et al. (2010) likewise predicted wolf subpopulations to experience periodic, but unpredictable, distemper outbreaks. However, until 2025, distemper prevalence in the WTGMA did not appear to be unpredictable based on evidence collected since 2012 (Figure 6). Distemper prevalence appears to follow a specific pattern that is not correlated to wolf population density (# of wolves in the WTGMA) at the start of the year (Figure 7A), but is significantly correlated to wolf population density at the start of the year prior to the current year (i.e., for 2025, this equates to the 192 wolves present at the end of 2023/start of 2024: Figure 7B). This regression predicts a distemper rate of 28% for 2025 based on a population of 192 wolves at the end of 2023 (Figure 7B), which supports a slight increase in infection rates but does not fully explain the much higher severity measured for the distemper outbreak in 2025 (64.3% of wolves captured; Figures 6 and 7B). An alternative explanation is distemper is cyclical in the WTGMA wolf population regardless of wolf population density (see cyclical nature of Figure 6) or may be random as indicated by Almberg et al. (2010). Both alternate explanations may have some credence given the observable pattern of infection through time (Figure 6) and the unexpectedly high rate of infection observed in 2025 (Figure 7B. In light of this data, the current evidence suggests moderating wolf population density around the proposed WTGMA wolf population objective (160 wolves) is beneficial for minimizing population-level impacts from distemper outbreaks, which will generally provide more predictability and stability in wolf population dynamics. However, such trends can best be elucidated through long-term monitoring and analysis, which wolf managers will continue to prioritize into the future.

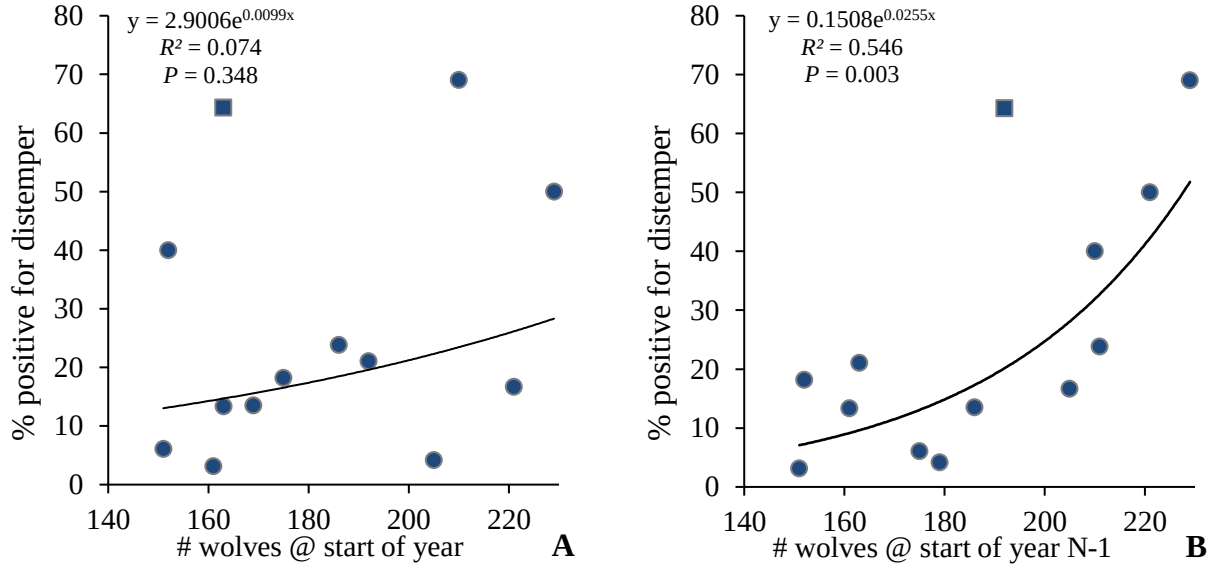


Figure 7. Minimum number of wolves present in the WTGMA at the beginning of the calendar year (A) or at the beginning of the previous calendar year ("N-1"; B) compared to the proportion (%) of wolves captured that tested positive for canine distemper virus (distemper) during winter captures. ("■" indicates the 2025 data point)

Canine Parvovirus: Canine parvovirus is a contagious viral disease that has caused significant population level impacts for wolf populations throughout North America, primarily in the 1980s (Kreeger 2003). The U.S. Fish and Wildlife Service and Yellowstone have surveyed for evidence of canine parvovirus while managing Wyoming wolf populations and found a high rate of infection (>80% of wolves exposed) with no apparent deleterious effects to individual wolves or the population (Almberg et al. 2009, Jimenez et al. 2012). The Wyoming Game and Fish Department has not tested samples for canine parvovirus to date, but continues to retain samples from captured wolves that could be tested for canine parvovirus or other diseases if the need arises in the future.

Population Trend

The Wyoming Game and Fish Department closely monitors and manages the wolf population in the WTGMA because this is the area that corresponds to the available suitable habitat required for long-term viability of a wolf population in Wyoming outside Yellowstone and would, therefore, maintain the number of wolves and breeding pairs required to meet population commitments outlined in the Wyoming Gray Wolf Management Plan (Wyoming Game and Fish Commission 2011). Despite lower mortality in 2025, the wolf population in the WTGMA decreased by 19% as a result of reduced pup production and recruitment (Figures 2, 3, 5, 8 and 9; Table 2). The WTGMA wolf subpopulation exhibited dynamics within the range previously observed, but below historic trends for metrics including comparisons between population levels and breeding pairs (Figures 8 and 9) and levels on non-hunting, human-caused mortality (see Figure 17 below). However, an apparently disease-mediated reduction in pup survival and recruitment negatively impacted the resilience of the population to human-caused mortality at levels heretofore unrecorded (see Figure 16 below). The result was a year-end WTGMA wolf population that was below the population objective and was the lowest recorded since 2005 (Figure 2).

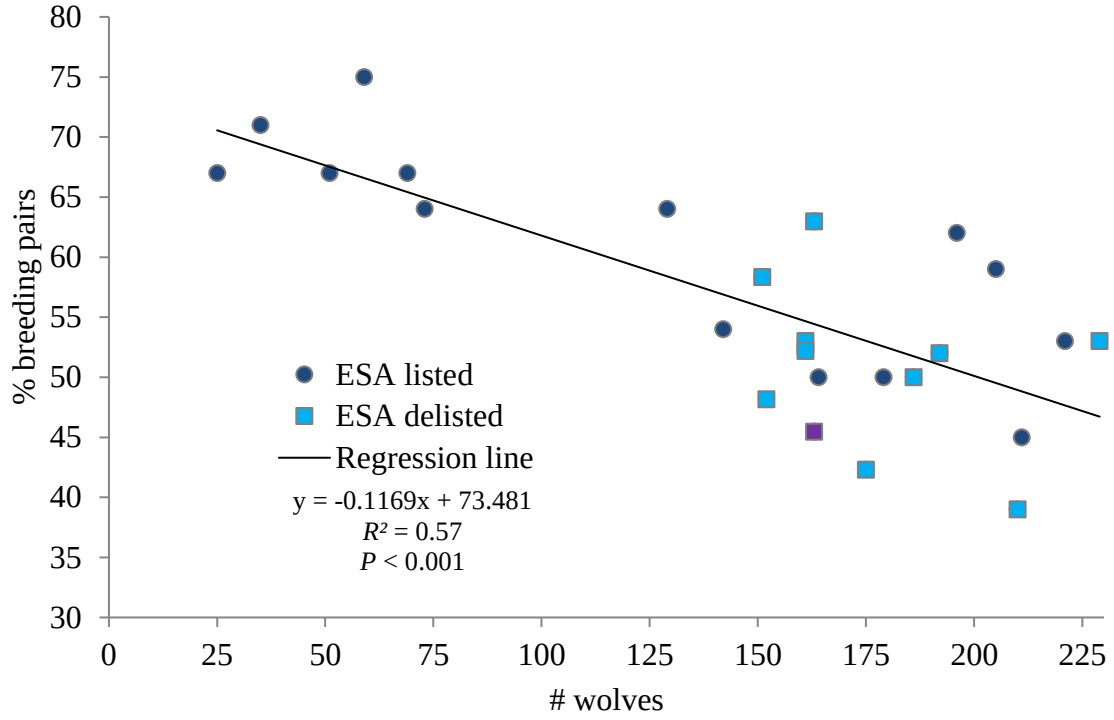


Figure 8. Minimum number of wolves present in the WTGMA at the beginning of the calendar year compared to the proportion (%) of packs that qualified as a breeding pair in the WTGMA at the end of the calendar year from 2000-2025. ("■" indicates the 2025 data point)

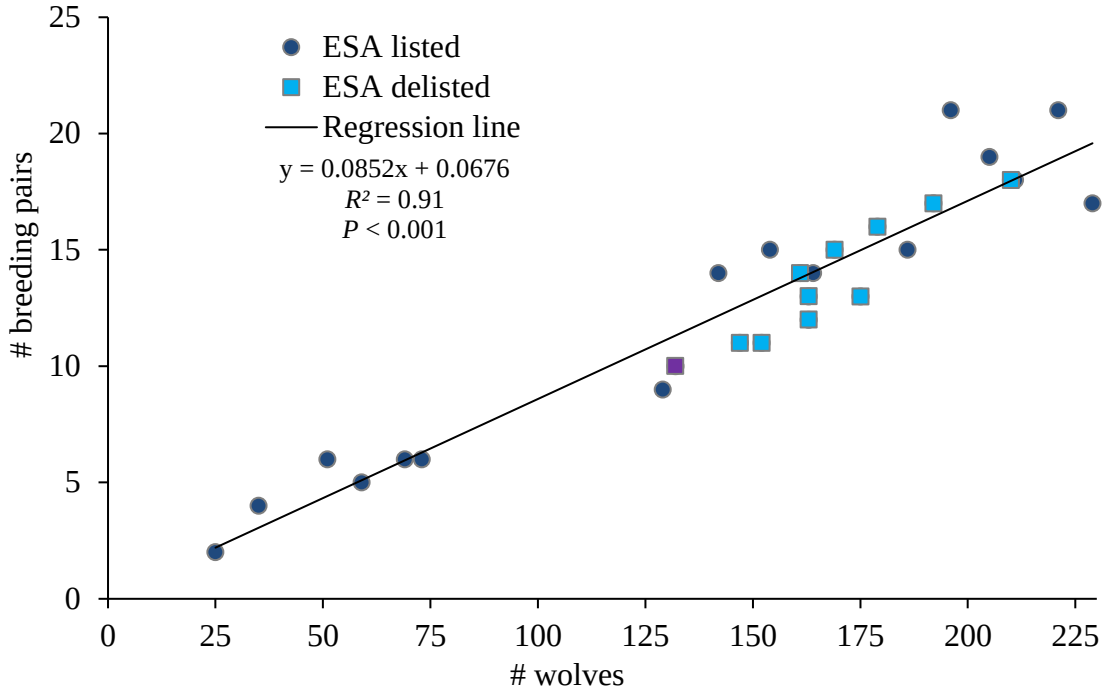


Figure 9. Minimum number of wolves and breeding pairs in the WTGMA at the end of the calendar year from 1999-2025. ("■" indicates the 2025 data point)

Breeding pairs decreased from ≥13 in 2024 to ≥10 in 2025 (23%) and was at the minimum breeding pair commitment of ≥10 breeding pairs (Figure 3; Table 1). Recruitment, as measured by the proportion of packs that qualified as a breeding pair (2025 = 45%), was below expected for a population of 132 wolves (58%; Figures 3, 8 and 9). Litter sizes (4.6 pups per pack in 2025) were slightly higher than the previous three years (4.5 pups per pack from 2022-2025) and the long-term average (4.5 pups per pack from 2012-2024). Recruitment was lower in 2025 due to fewer litters being born in 2025 (19 litters comprising at least 87 pups in 2025 vs. 23 litters comprising at least 100 pups in 2024) and low pup survival (Figures 8 and 9; Table 1). In fact, only 31-34 pups of the 87 documented survived to the end of the year (approximately 37% survival), with at least 6 packs that produced pups failing to raise any to the end of year. Disease outbreaks primarily affect juvenile survival and recruitment in wolf populations as described above, but it is incredibly difficult to monitor and measure wolf pup survival prior to their first winter when pups are large enough to carry standard telemetry collars (Fuller et al. 1989, Mills et al. 2008). Evidence of disease has declined and has generally remained low in the WTGMA following management by the Wyoming Game and Fish Department (Figure 6). However, the increase in wolf population density in the WTGMA in 2023 appears to have contributed to increasing distemper rates in 2024 and 2025 (Figures 6 and 7B), as supported by detection of new infections in multiple packs in the WTGMA during captures in 2024 and 2025 (e.g., Elk Fork, Pahaska, Thief Creek, Two Ocean, Water Dog Lakes, Willow Creek, and Windy Mountain: Figure 1; Table 1).

As highly social carnivores, wolf packs constitute the primary functioning unit of any given wolf population. Thus, it is necessary to also monitor and evaluate elements of wolf pack demography in the WTGMA, in addition to the population objectives outlined above, to ensure the wolf population is robust to management actions and meets objectives identified in the Wyoming Gray Wolf Management Plan (Wyoming Game and Fish Commission 2011). The number of wolf packs in the WTGMA decreased from ≥26 packs in 2024 to ≥22 packs at the end of 2025 and was the lowest since 2007 (Figure 3). There was no evidence suggesting the presence of wolf packs in the

WTGMA that were not documented. Two pairs were documented to have formed toward the end of 2025 and beginning of 2026 near Carter Mountain in the Cody region, but they were not recorded as packs for the 2025 census because they had not established defined territories (Table 1). Average pack size at the end of 2025 (5.5 wolves per pack) was one wolf less than average pack size in 2024 (6.6 wolves per pack), and was reflective of the decline in wolf numbers and lower recruitment in the WTGMA (Figures 2, 3, 4 and 5). No new packs formed in 2025 and three packs dissolved and were not recorded at the end of the year (Figure 1; Table 1). Wolf packs that are shared between jurisdictions often shift their territories through time, meaning pack assignments can change accordingly. In 2025, the Porcupine Creek pack shifted to primarily using the Seasonal WTGMA and was counted toward that management area instead of the WTGMA (Figure 1; Tables 1 and 3).

To further evaluate pack dynamics, we reconstructed pack tenures (i.e., the duration an individual pack persisted on the landscape) for 106 packs documented in the WTGMA from 1997-2025 using published annual wolf reports. Average tenure for wolf packs in the WTGMA is influenced by both persistence of established, long-term packs (increases average pack tenure) and the number of new packs that form or packs that dissolve in a given year (reduces average pack tenure). In the WTGMA, average wolf pack tenure increased in 2025, mostly because new packs were not formed and packs with long tenures persisted (Figure 10). The pack formation rate in the WTGMA in 2025 was below the long-term average (no packs formed in 2025 vs. 4.2 packs formed per year on average since 2012) and pack dissolution rate was also below the long-term average (three packs dissolved in 2025 vs. 4.3 packs dissolved per year on average since 2012). In general, average tenure of wolf packs established in the WTGMA has remained high after the implementation of wolf hunting seasons in 2017 (Figure 10). The relatively long tenures documented for wolf packs from 2017-2025 while wolves in Wyoming have been delisted demonstrate Wyoming Game and Fish Department management is resulting in a wolf population around the desired objective most years while allowing packs to maintain stable social structure that enables long-term persistence of packs in suitable habitat within the WTGMA (Figure 10).

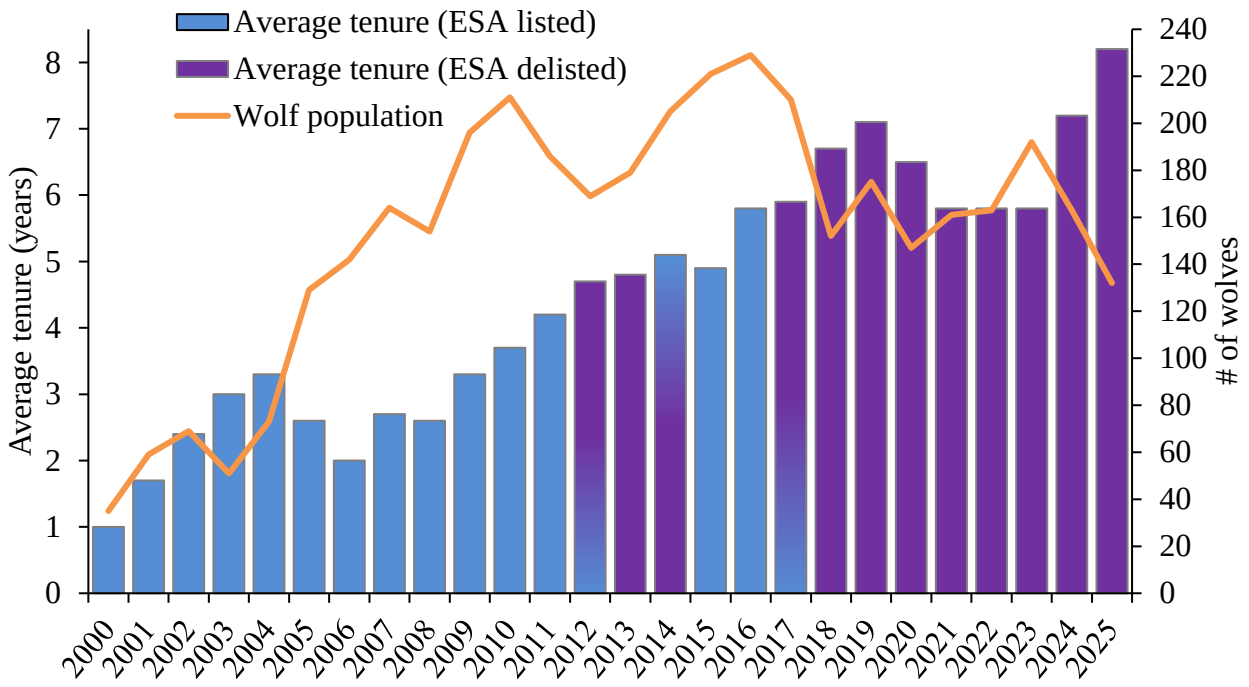


Figure 10. Wolf population trend and average pack tenure in years for wolf packs in the WTGMA from 2000-2025.

Overall, the wolf population in the WTGMA has largely followed the basic precepts of population dynamics theory over the course of recolonization and transfer to state management (e.g., density-dependence as seen in Figures 7, 8, 9; see also Figure 16 in the *"Development of 2025 Wolf Hunting Seasons"* below). Predictable population responses to natural and human-caused perturbations enable precise estimation of the impact of management decisions, allowing for responsive adaptive management as population conditions shift through time. In addition, the dual population objectives of wolf numbers and breeding pairs incorporates an added level of complexity for managing the wolf population in the WTGMA. However, throughout wolf recolonization in the WTGMA, the minimum number of breeding pairs has remained highly correlated to the minimum number of wolves in the WTGMA (Figure 9). This strong correlation allows for a high level of confidence in predicting how management actions, such as wolf hunting seasons, may impact both population and breeding pair numbers (Figure 9). Yet, wildlife populations are subject to stochastic events and delayed responses that are often difficult to predict, such as those observed in the WTGMA wolf subpopulation in 2025. The fact that the wolf population fell below the population objective in 2025, yet still met minimum commitments outlined in the Wyoming Gray Wolf Management Plan, demonstrate the effective implementation of the Plan's imperative to manage toward an objective that is resilient to stochastic, population-level disturbances (Wyoming Game and Fish Commission 2011). Based on historic population trends (see Figures 2, 8, 16 and 17), the wolf subpopulation in the WTGMA is expected to respond with greater productivity and higher survival following the decline experienced in 2025. In the end, such stochastic events emphasize the necessity to continue rigorous population monitoring and analysis of wolf population trends in the WTGMA to ensure appropriate management into the future.

Genetic Monitoring

Genetic monitoring is an essential component of wolf management in the northern Rocky Mountain wolf metapopulation. The U.S. Fish and Wildlife Service determined that, in addition to minimum population criteria, genetic interchange must also occur between the three wolf recovery areas in the northern Rocky Mountains. To monitor whether this delisting criterion is met, the U.S. Fish and Wildlife Service requires that all states collect and analyze genetic samples from wolf populations in the northern Rocky Mountains. Analysis of genetic interchange will be conducted cooperatively between the U.S. Fish and Wildlife Service and the states of Wyoming, Montana, and Idaho on a periodic basis (possibly every 12-20 years following 3-5 wolf generations: Wyoming Game and Fish Commission 2011). Genetic samples will continue to be collected from wolves in the WTGMA to ensure enough genetic information is available to determine whether sufficient genetic interchange is occurring.

In 2025, genetic samples were collected from 90 wolves in the WTGMA that will be used in analysis of genetic interchange. Genetic samples were collected from 48 wolves that died and 42 wolves captured for monitoring purposes. The biological samples obtained from wolves in the WTGMA will be retained for future analyses regarding genetic interchange between wolf subpopulations in the northern Rocky Mountains as outlined in the Wyoming Gray Wolf Management Plan (Wyoming Game and Fish Commission 2011). Such an analysis was conducted in 2021 using samples from 2010-2018 (US Fish and Widlife Service et al., *in preparation*); this analysis concluded a high level of genetic diversity continues to exist within each wolf recovery area in the northern Rocky Mountains. In addition, individuals with ancestry representing each of the three original recovery areas were present in each wolf recovery area in the northern Rocky

Mountains, indicating sufficient genetic interchange to maintain genetic diversity into the foreseeable future.

Capture and Telemetry Collaring

Very high frequency (VHF) and global position system (GPS) telemetry collars are the primary tools used for monitoring wolf populations in the WTGMA. VHF collars were used for general monitoring purposes and GPS collars provided more fine-scale data for specific monitoring or research projects. Each wolf captured was fitted with a collar and, during capture processing, personnel collected morphological information, genetic samples, and blood for disease testing. Collared wolves were released on site and monitored to document territories, movements (including dispersal), pack size, pack composition, breeding status and success, survival, to mitigate livestock conflicts, and to aid in law enforcement investigations.

Forty-two wolves from 18 packs were collared in the WTGMA in 2025, including nine recaptures. A total of 94 wolves in 30 packs were monitored in the WTGMA during calendar year 2025, including individuals collared in previous years. At the end of 2025, there were 53 wolves in 23 packs and two single wolves being monitored with telemetry collars in the WTGMA (40% of the 132 wolves present in the WTGMA at the end of 2025). Winter wolf capture efforts continued through March 2026 in conjunction with the year-end population census, at which point a total of 77 wolves in 22 packs and six single wolves were being monitored via telemetry collars. The proportion of collared individuals is generally highest in March following winter aerial capture efforts and decreases throughout the remainder of the year as pups are born in April and collared wolves die, disperse, or collars fail.

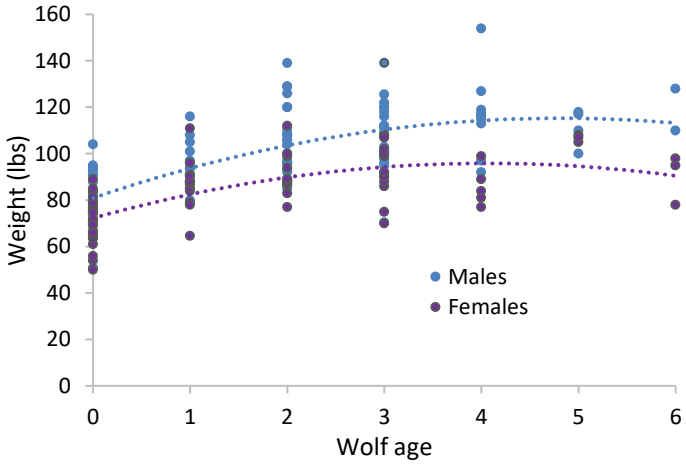
Predatory Animal Areas

As of December 31, 2025, there were ≥28 wolves in ≥5 packs, including ≥1 breeding pair, in the predatory animal areas (including the Seasonal WTGMA) in Wyoming (Figure 1; Table 1). Sixty-five wolf mortalities were documented in predatory animal areas in 2025, including: 29 taken by the public under Wyoming Statute [W.S. 23-1-101(a)(viii)] as predatory animals, 32 taken by USDA Wildlife Services, two wolves harvested in the Seasonal WTGMA during the regulated wolf hunting season, one taken by the public in defense of sheep, and one wolf killed by other wolves (Table 1). Wolf captures included eight wolves from four packs in the predatory animal areas. A total of 11 wolves from five packs were monitored in 2025 in the predatory animal areas. At the end of 2029, nine wolves from four packs were being monitored via telemetry collars in predatory animal areas in Wyoming. Monitoring for wolves along the Lander Front of the Wind River Range has generally been opportunistic, but, with greater monitoring in 2025 it was determined the pack called Blue Trail in 2024 was a new pack (the original Blue Trail remains in the Wind River Reservation) and was called the Timber Top pack (Figure 1; Tables 1 and 3). Forty-six genetic samples were collected from wolves that died in predatory animal areas in 2025. Of note, two wolves were documented to have dispersed from the Porcupine Creek pack in the Seasonal WTGMA to Utah during recent years. One traversed the distance from the Hoback Junction south of Jackson, WY to the Utah border within 7 days in April 2025. The other disappeared in March of 2024.

Gray wolf weights: Background and current data

One common refrain wolf biologists encounter while interacting with the public concerns the body size and weights of wolves. Gray wolves are the largest members of the canid family but, when compared to domestic dogs, they are much lighter than their large frames suggest because they are lean like marathoners and have long legs and thick fur. Wolves are one of the most broadly distributed mammalian carnivores, inhabiting all ecosystem types in the Northern Hemisphere from desert to tundra. Their adaptability creates what could be best described as "ecotypes", often thought of as subspecies, that are best suited for a particular environment and prey base. Prior to westward expansion and settlement, Wyoming likely served as the ecotone, or transition zone, between a plains wolf ecotype and a wolf ecotype better adapted to mountainous terrain. This transition from grassland prairie to mountainous terrain is apparent to all who travel from southeast to northwest Wyoming today. As westward expansion continued, the plains wolf ecotype was extirpated through eradication efforts organized primarily by the federal government. The mountain wolf ecotype, however, persisted just north of the U.S.-Canada border. This is the ecotype that began natural recolonization of northwest Montana, and was the source of wolves captured for reintroduction efforts in 1995. This has led to significant discussion in the public sphere regarding the appropriateness, and expected larger size, of wolves captured for reintroduction. Unfortunately, reliable records are limited from time periods before extirpation, but it is worth exploring the weights of wolves captured in Wyoming outside Yellowstone National Park for the record. Wolves are generally captured in mid-winter when their weights are higher than summer due to more readily available prey. The overall average weight for 196 wolves captured from 2012 to winter 2026 in Wyoming outside Yellowstone is 92lbs. Wolves are sexually dimorphic, with males weighing more than females, on average. Both sexes increase in weight until they are 4-5 years old and then remain stable or lose mass as they age. Very few wolves are captured that exceed 6 years of age, which demonstrates their relatively short lifespans.

Three-year-old male wolf 1526M during capture in February 2026, 99.5lbs.



Capture weights for wolves in Wyoming, 2012-2026.

Juvenile males (9-12 months old) average 80lbs, while juvenile females average 71lbs. Males >1 year old average 106.5lbs and females 90.5lbs, similar to a Bernese Mountain Dog. Only three males have eclipsed 130lbs (1.5% of all wolves weighed, max=154lbs and may have had a full stomach, which can add ≥15lbs). Females rarely break 110lbs (max=112lbs). Overall, Wyoming wolves appear typical in weight, but comparative weights are rarely published for other areas of North America.

Wolf Population Monitoring in the Wind River Reservation

Population and Breeding Pair Status

The Wind River Reservation minimum wolf population and breeding pair estimates were determined using analogous methods as described for the WTGMA above, with a more recent focus on monitoring via remote trail cameras. Wolves first recolonized the Wind River Reservation in 2003 and are currently distributed across the Wind River and Owl Creek Mountain ranges (Figures 1 and 11). The wolf subpopulation in the Wind River Reservation slowly increased through 2013 and has since fluctuated between 10 and 20 wolves (Figure 11). As of December 31, 2025, ≥9 wolves in ≥3 packs, including no breeding pairs, were documented on the Wind River Reservation (Figures 1 and 11; Table 3).

Capture and Telemetry Collaring

One wolf was captured in the Byrd Draw pack assigned to the Wind River Reservation in 2025.

Mortality

One wolf was legally harvested during the wolf hunting season in January 2025 on the Wind River Reservation (Table 3). No other mortalities were documented.

Table 3. Wolf packs, minimum pack size at the end of the calendar year, wolf mortality, and wolf-livestock conflicts in Yellowstone National Park and the Wind River Reservation in 2025.

WOLF PACK[1,2]	MINIMUM PACK SIZE	DOCUMENTED MORTALITY[3]					KNOWN DISPERSED	MISSING[5]	CONFIRMED CONFLICTS[6]			
		NATURAL	HUMAN[4]	UNKN	HUNTING	CONTROL			CATTLE	SHEEP	DOGS	OTHER
Yellowstone National Park northern range												
8 Mile[9]	16	1			[1]		1					
Bliss Pass[9]	6											
Junction Butte	15				[1]		2					
Rescue Creek	16						3					
Misc. wolves		1						1				
Yellowstone National Park non-northern range												
Cougar Creek[9]	4							1				
~~Dunanda Falls~~					[1]							
~~Hawk's Rest~~							4					
Mollie's[9]	7	1										
Wapiti Lake	18		[1]				1					
1470F group[9]	2											
Misc. wolves								1				
YELLOWSTONE NATIONAL PARK TOTAL[7]	**84**	**3**	**0**	**0**	**0**	**0**	**11**	**3**	**0**	**0**	**0**	**0**
Wind River Reservation												
Arrow Mountain	3											
Blue Trail	2											
Byrd Draw	2											
Misc. wolves	2				1							
WIND RIVER RESERVATION TOTAL[8]	**9**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
TOTAL in YNP and WRR	**93**	**3**	**0**	**0**	**1**	**0**	**11**	**3**	**0**	**0**	**0**	**0**

1 Underlined packs qualified as breeding pairs on December 31, 2025.
2 Strikethough packs were not documented during 2024, did not exist on Dec. 31, 2025 and are not displayed in Figure 1.
3 Includes hunting and trapping mortality. Wolves taken in hunts outside Yellowstone are not included in totals but are indicated in brackets [x].
4 Excludes wolves killed in control actions and legal hunting.
5 Collared wolves that became missing in 2024.
6 Includes livestock and domestic animals confirmed as killed or injured by wolves.
7 Mortality and confirmed conflicts with livestock by wolf packs assigned to Yellowstone that occured in WYO are reported in Table 1.
8 Mortality and confirmed conflicts with livestock by wolf packs assigned to the Wind River Reservation that occured in WYO are reported in Table 1.
9 Border pack with ID, MT, or WYO; assigned to Yellowstone.

Wolf Population Monitoring in Yellowstone National Park

Population and Breeding Pair Status

The Yellowstone minimum wolf population and breeding pair estimates were determined using analogous methods as described for the WTGMA above. As of December 31, 2025, there were ≥84 wolves in ≥7 packs, including ≥3 breeding pairs, living primarily in Yellowstone (Table 3). Pack size ranged from two to 18, averaging 11.7 members (Table 3). Pack and territory changes included the Dunanda Falls pack shifting out of Yellowstone to use areas in Idaho and Wyoming, the Hawk's Rest pack dissolving, and a new group called 1470F group forming in the early summer (Figure 1; Tables 1 and 3). The remaining packs, four in northern Yellowstone and three in interior Yellowstone, were stable (Figure 1; Tables 1 and 3).

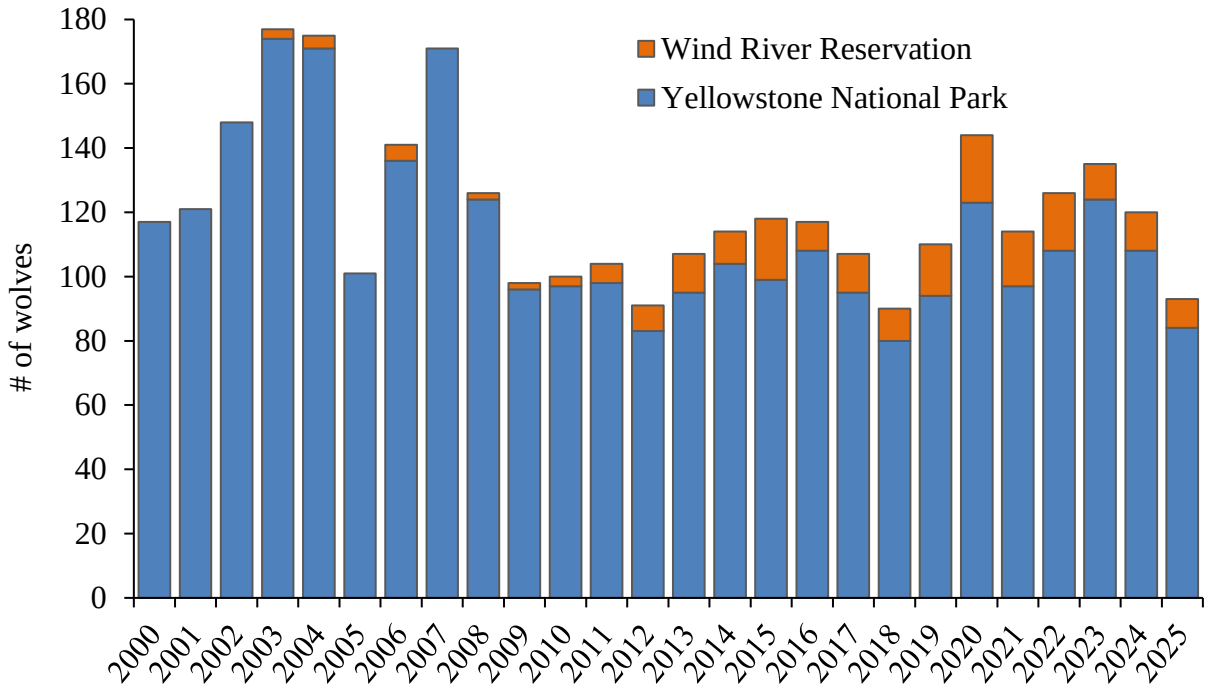


Figure 11. Minimum number of wolves in Yellowstone National Park and the Wind River Reservation at the end of the calendar year.

Prior to the birth of litters in spring 2025, there were approximately 88 adult wolves in Yellowstone. Two packs produced multiple litters: Junction Butte with three litters and Wapiti Lake with at least two. Three packs produced one litter each: 8 Mile, Rescue Creek, and Mollie's. In addition, three packs had no pups recorded in 2025 although for different reasons: Bliss Pass did not localize and the female was likely not pregnant, Cougar Creek's lead female was pregnant but if she localized it was only for a very short time before the pups died, and the 1470F group was elusive to observe but likely had pups at least into the autumn but none by the end of the year (Table 3).

Of the minimum 36 pups produced in Yellowstone packs, 17 (47%) survived to the end of the year. This survival percentage is considered a maximum as several litters died before they could be counted (Cougar Creek and 1470F group) or were almost certainly undercounted (1478F's litter in Junction Butte). Seventeen surviving pups is the lowest annual pup recruitment total recorded

in Yellowstone since 1996. This is likely natural variation due to a combination of factors including a possible disease outbreak.

Capture and Telemetry collaring

Three wolves from two packs were captured and collared in February 2025. The low number of captures was due to most of the 2024-2025 winter captures being completed in December 2024 (see 2024 annual report). In addition to fitting a radio collar on each captured wolf, staff took blood samples for disease screening and pedigree analysis, a whisker for isotopic diet analysis, body and tooth measurements, and weights. A uniquely-identifying pit-tag was inserted under the skin near the wolf's shoulder in the event a collar is dropped or chewed off and the wolf is recaptured in the future.

Wolves 1478F and 1545M received collars with GPS capabilities which send location data through satellites, can be programmed remotely, and are used to evaluate habitat selection, movement patterns, prey selection, biomass consumption, and multi-species interactions. GPS collars last for at least two years and are generally programmed to record locations from four to 48 times per day, depending on the season and study objectives. For the first time in winter 2024-2025, some GPS collars were programmed at an intensive ten-minute fix rate for several weeks during the year. This data corresponds to audio data recorded by collar biologgers and also includes orientation and movement data.

Each year's collaring goals are designed to maintain an adequate number of collars on each pack for monitoring and research objectives as well as for academic collaborations and interagency communication. At the end of 2025, there were 26 collars distributed throughout the eight packs and groups in Yellowstone (Table 3).

Mortality

Three wolves died in Yellowstone in 2025; lone wolf 1048M died of age-related organ failure, 1411F of the Mollie's pack was killed by the Junction Butte pack, and 1495F of the 8 Mile pack was killed by the Rescue Creek pack (Table 3). Four additional wolves from packs assigned to Yellowstone died outside of Yellowstone in 2025, including three wolves legally harvested in neighboring states (2 in Montana, 1 in Idaho) and one poached in Montana (Table 3).

Disease Monitoring

Low pup production for some packs (Bliss Pass, Cougar Creek, and Mollie's) and low pup survival for others (Wapiti Lake and Junction Butte) suggested there could have been some disease-related wolf pup mortalities in 2025 (see discussion on distemper in the WTGMA in the "Disease Monitoring" section above). Future disease screening of surviving wolves may help determine if this is true and which disease(s) might be responsible. In past years, distemper caused pup mortality during the summer months. This virus is a common, naturally-occurring infection which cycles through areas with carnivore populations and has been documented in Yellowstone at least five times since 1995 (Almberg et al. 2009, 2010, 2012).

WOLF MANAGEMENT

SUMMARY OF WOLF MANAGEMENT STATEWIDE

In 2025, the Wyoming Game and Fish Department implemented a wolf hunting season with the biological objective to stabilize the wolf population at around 160 wolves in the WTGMA. A mortality limit of 44 wolves was divided between 13 hunt areas in the WTGMA and one hunt area in the Seasonal WTGMA (Hunt Area 12). Wolf hunting seasons were open from September 15 to December 31, 2025 with the exception of Hunt Area 12 (opened on October 15, 2025). The hunting season for each hunt area closed at the season end date or when the mortality limit was met, whichever occurred first. A total of 31 wolves were taken that applied to the mortality limit during the 2025 wolf hunting season. In addition, the 2024 wolf hunting season extended from January 1 to March 31, 2025 in Hunt Area 13, during which no wolves were taken. Likewise, the Wind River Reservation held wolf hunting seasons in 2025, during which one wolf was harvested.

Wolves were confirmed to have killed or injured 59 head of livestock (33 cattle, 25 sheep, and one miniature horse) and one domestic dog statewide in Wyoming in 2025. Forty-nine wolves were lethally and legally removed by agencies or the public in an effort to reduce livestock losses to wolves (16 in the WTGMA and 33 in predatory animal areas). No conflicts occurred in Yellowstone or the Wind River Reservation.

Wolf Management in the WTGMA

Hunting

Wolf Hunting Season Background: Chapter 47 governs wolf hunting in the WTGMA and was part of the management framework evaluated and approved by the U.S. Fish and Wildlife Service during the Endangered Species Act delisting process. Wolf hunting regulations for 2024 and 2025 were authorized by the Wyoming Game and Fish Commission and outlined specific hunt areas, mortality limits, season dates, and other wolf hunting regulations in the WTGMA and Seasonal WTGMA. As reported in the 2024 annual wolf report, the 2024 wolf hunting season included season dates for Hunt Area 13 that extended from January 1 to March 31, 2025. For the 2025 wolf hunting season, the Wyoming Game and Fish Department delineated 14 wolf hunt areas in the WTGMA and Seasonal WTGMA (Figure 12). Some hunt areas were combined under one mortality limit to accommodate specific wolf pack movements and management objectives (Table 4). As outlined in the Wyoming Gray Wolf Management Plan, the Wyoming Game and Fish Commission-approved wolf hunting seasons were held in conjunction with big game hunting seasons and ran primarily from September 15 to December 31 (Table 4; Wyoming Game and Fish Commission 2011). Season start and end dates were selected to maintain breeding pairs, pup recruitment, and adequate social structure in the WTGMA population, which are required to enable the population to meet minimum population commitments and objectives outlined in the Wyoming Gray Wolf Management Plan (Wyoming Game and Fish Commission 2011). The wolf hunting season opening date was shifted from September 1 in 2018-2019 to September 15 in 2020-2025 to reduce the proportion of juveniles taken in the hunt. Likewise, the December 31 season end date was designed to suspend hunting sufficiently ahead of the breeding season in mid-February to prevent mortality of breeders during the time of year they are most vulnerable to harvest (Rebholz et al. 2024). In Hunt Area 13, the 2024 season was extended to end March 31 to allow greater opportunity to harvest wolves in areas used by the wintering Whiskey Mountain Bighorn Sheep Herd (Figure 12; Table 4). However, in 2025 the season start date for Hunt Area 13 was returned to December 31, so the season did not extend into 2026. The wolf hunting season in Hunt Area 12

(the Seasonal WTGMA) differed from the other 13 hunt areas by opening on October 15 (the date wolves changed from predatory animal to trophy game animal designation as prescribed by Wyoming Statute 23-1-101(a)(xii)(B)(II)) and closed on December 31 (Figure 12; Table 4). Mortality related to wolf hunting was regulated by hunt area specific mortality limits that were defined under a general license structure. Hunters could purchase up to two wolf hunting licenses for wolf seasons in 2025. Legal and illegal wolf mortality that occurred during the open hunting season counted toward established mortality limits. The season for each hunt area closed when the mortality limit was met or at the season end date, whichever occurred first.

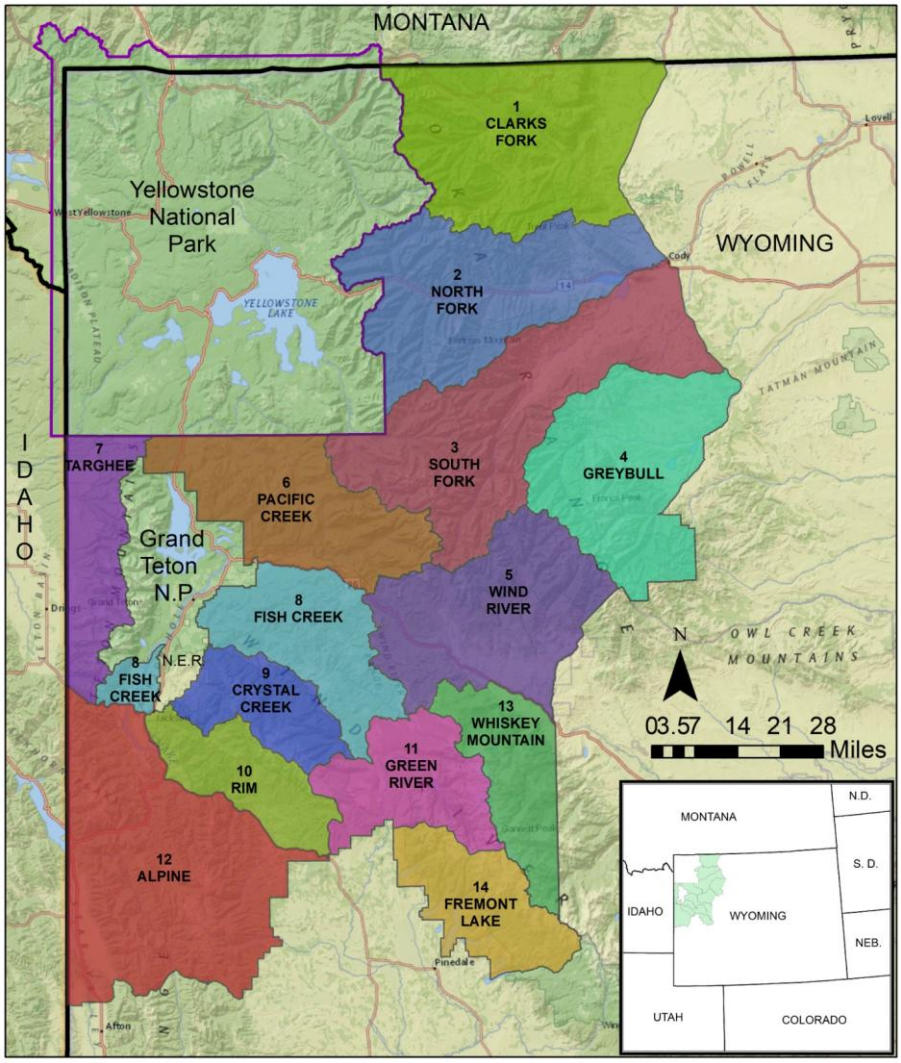


Figure 12. Wolf hunt areas for the 2025 wolf hunting season in northwest Wyoming.

Wolf mortality limits were determined using data collected annually on wolf population dynamics and human-caused mortality in the WTGMA. All forms of mortality, in addition to estimates of recruitment and wolf population demographics, were considered in the mortality limit calculation. The Wyoming Game and Fish Department predicted the population would be stabilized around 160 wolves (and 13-14 breeding pairs) at the end of 2025 in the WTGMA if 37.8% of the wolves present at the beginning of 2025 died from all human-caused mortality. The predicted, non-hunting, human-caused mortality rate (14.2%) was then subtracted from 37.8% to obtain a 23.6% wolf hunting mortality rate that would likely result in a stabilized population from the beginning to the end of the year. This harvest rate, plus the addition of 3 wolves to the mortality limit to reduce the population from 163 to 160 wolves, equaled a total mortality limit of 42 wolves when

applied to the minimum wolf population census of 163 wolves present in the WTGMA at the beginning of 2025. The total mortality limit of 42 wolves was then sub-divided among 13 hunt areas in the WTGMA (Figure 12; Table 4). An additional two wolves were included in the total mortality limit to be applied to Hunt Area 12 (the Seasonal WTGMA), for a total mortality limit of 44 wolves (Figure 12; Table 4).

Table 4. Summary of the 2025 wolf hunting season in the WTGMA and Seasonal WTGMA (i.e., Hunt Area 12).

WGFD WOLF HUNTER HARVEST SUMMARY 2025					
HUNT AREA(s)	MORTALITY LIMIT FROM REGULATIONS	SEASON DATES GENERAL	HARVEST COUNTED TOWARDS LIMIT*	AREA STATUS	DATE/TIME AREA CLOSED
1, 2	7	Sep. 15 - Dec. 31	7	CLOSED	10/22 @ 16:09
3, 4	3		2	CLOSED	1/1 per Regulation
5, 13	7		6	CLOSED	1/1 per Regulation
6, 7	5		2	CLOSED	1/1 per Regulation
8, 9, 10, 11	19		11	CLOSED	1/1 per Regulation
12	2	Oct. 15 - Dec. 31	2	CLOSED	11/18 @ 08:26
14	1	Sep. 15 - Dec. 31	1	CLOSED	10/31 @ 13:03
Total 2025 Mortality Limit	**44**	**Total 2025 Harvest**	**31**		
* All legal harvest or illegal human-caused gray wolf deaths that occur during an open hunting season apply to the mortality limit.					

Wolf Hunting in the WTGMA and Seasonal WTGMA: In 2025, a total of 2,731 wolf hunting licenses (2,441 residents and 290 nonresidents) were sold to 2,514 individuals, which was above the average from 2017-2024 (2,355 licenses). A total of 217 individuals purchased the maximum allowed, two hunting licenses in 2025. A total of 31 wolves were taken in the 14 hunt areas during open wolf hunting seasons in autumn 2025 (Figure 5; Tables 1, 2 and 4). Among the 31 wolves attributed to the mortality limit, 28 wolves were legally harvested in the WTGMA, two wolves were legally harvested in the Seasonal WTGMA, and one wolf was illegally taken without a license in hunt area 8 (Table 4). Three of the eight hunt areas/hunt area combinations closed prior to the established December 31, 2025 closing date due to the mortality limit being met (Table 4).

Hunting related mortality during the wolf hunting season in 2025 was recorded in 14 of 32 packs (44% of packs) that regularly used the WTGMA (includes Hawk's Rest, Dunanda Falls, Mollie's, and Jedediah packs; Figure 1; Table 1). Two additional wolves were taken that were known dispersers (Table 1). Harvest occurred during each month of the season, with most occurring in September and October (Figure 13). Of the 30 wolves legally taken during the 2025 hunting season, twice as many males were taken compared to females (10 females:20 males) and more juveniles (13 juveniles:8 subadults:9 adults) were taken than adults and subadults. For all wolf hunting seasons combined, a higher proportion of young wolves (juveniles and subadults) have been taken in earlier months with the ratio shifting toward adults through the end of the hunting season in December (Figure 14). Harvest success has been stable between 2.6% and 3% since 2018 (Figure 15). Likewise, hunter effort required to successfully harvest a wolf has remained relatively consistent through the same period (Figure 15), demonstrating a predictable trend that indicates current wolf hunting strategies will continue to be effective at managing wolf numbers toward population objectives in the WTGMA.

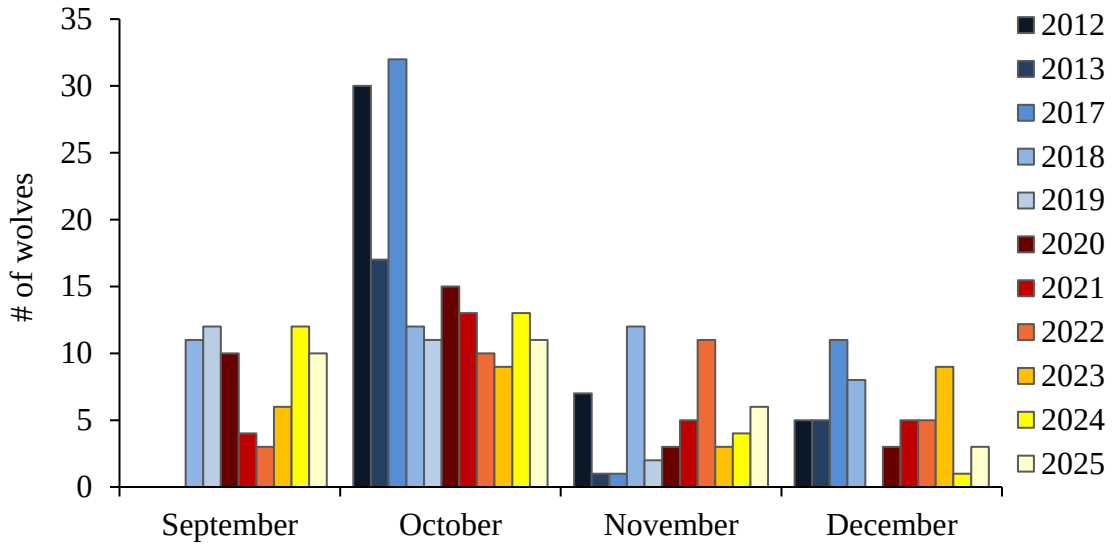


Figure 13. Number of wolves harvested during wolf hunting seasons by month and year in the WTGMA and Seasonal WTGMA in northwest Wyoming (2012, 2013 and 2017 had Oct. 1 openers; 2018-2019 had Sept. 1 openers; 2020-2025 had Sept. 15 openers).

Suspected disease-related mortality affected wolf pup recruitment in the WTGMA in 2025 resulting in atypical population dynamics compared to previous years. This reduced recruitment resulted in an end of year population that was well below the population objective set for the WTGMA (Figures 2, 8, 14 and 16). It is incredibly difficult to monitor and measure wolf pup survival, which precludes detailed, real-time adjustments in proposed wolf hunting seasons for the WTGMA (Fuller et al. 1989, Mills et al. 2008). Accordingly, data collected during summer 2025 suggested pup production was adequate to sustain the proposed level of harvest prior to the initiation of the autumn hunting season and it is likely the majority of pup loss occurred during late summer and into autumn. The Wyoming Game and Fish Department will continue to monitor and analyze wolf population dynamics to guide in making subsequent management decisions regarding wolf hunting seasons.

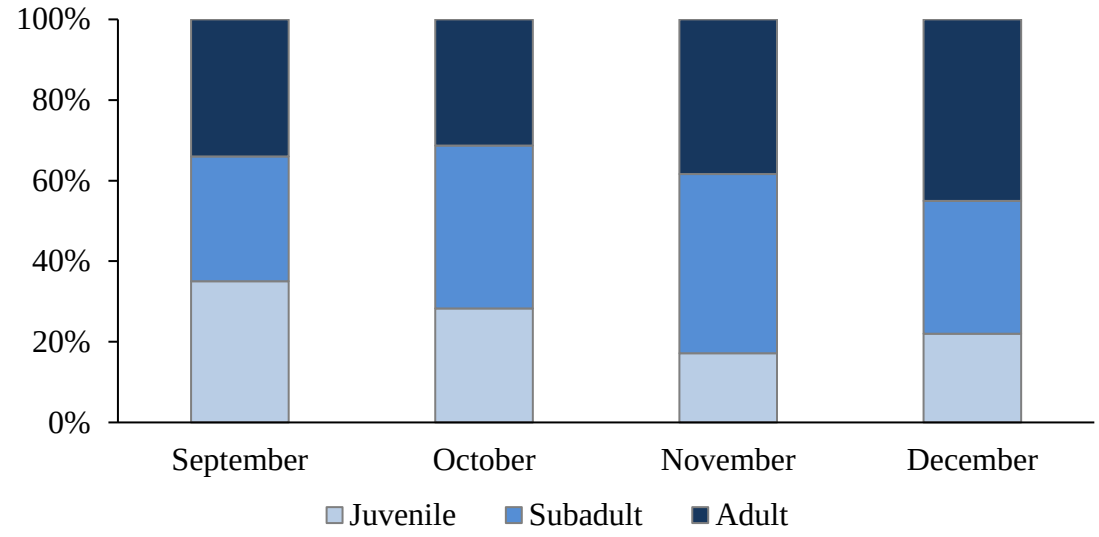


Figure 14. Proportion (%) of adult (>2 years of age), subadult (1-2 years of age), and juvenile (<1 year of age) wolves taken during wolf hunting seasons by month in the WTGMA and Seasonal WTGMA in northwest Wyoming during all wolf hunting seasons: 2012, 2013, 2017-2022 (seasons started Oct. 1 in 2012- 2017, Sept. 1 in 2018-2019, and Sept.15 in 2020-2025).

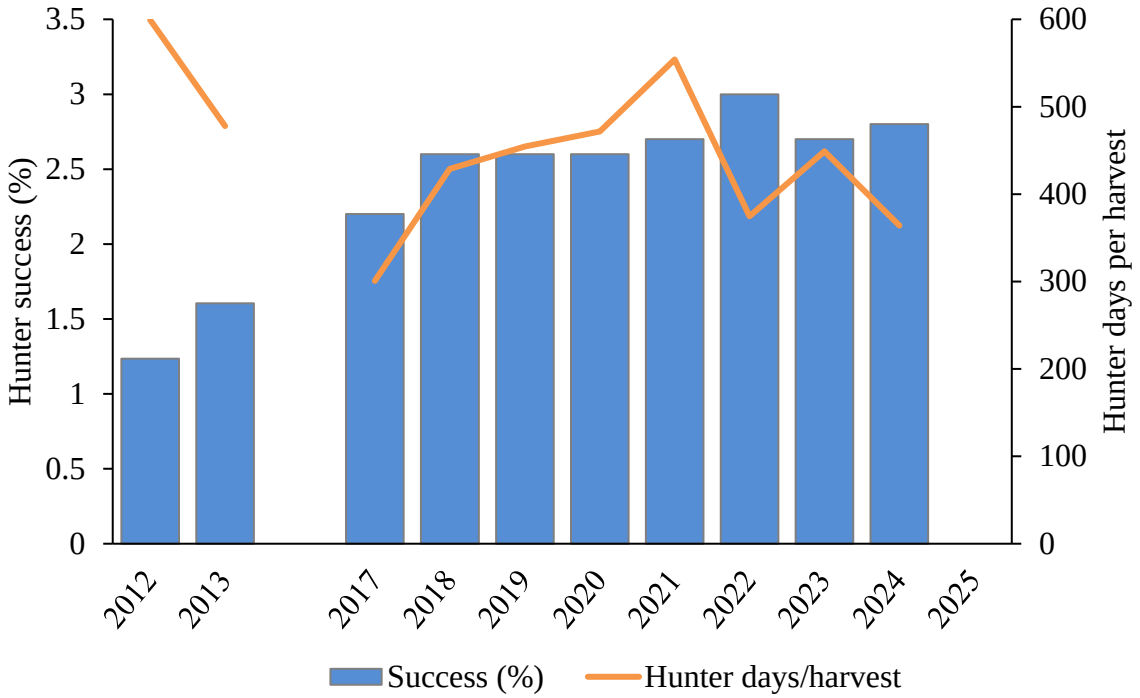


Figure 15. Percent of licensed hunters that successfully harvested a wolf and hunter effort (hunter days per successful harvest) for wolf hunting seasons in the WTGMA in northwest Wyoming (data for 2025 will be available in 2026).

Development of the 2026 Wolf Hunting Season: In 2025, the end of year wolf population in the WTGMA was 28 wolves below the population objective of 160 wolves and was at the minimum breeding pair commitment outlined in the Wyoming Gray Wolf Management Plan (10 breeding pairs), but was below the objective of 13-14 breeding pairs set during the wolf hunting season setting process (Figures 2 and 3; Table 1). From 2018-2022, the Wyoming Game and Fish Department consistently maintained an end of year wolf population within 10% of the population objective (Figure 2). However, the population increased above the160 wolf objective by the end of 2023 due to lower mortality and higher recruitment than expected based on long-term population dynamics trends (Figures 2, 5 and 8). Wolf mortality (Figures 16 and 17) and recruitment (Figures 8 and 9) returned to long-term trends in 2024, resulting in an end of year population that was at the population objective (Figure 2). However, wolf recruitment, and thereby resilience to human-caused mortality, in 2025 was below the level expected based on previous population trends, resulting in a population below population and breeding pair objectives (Figures 2, 7B, 8 and 16). The efficacy of the season-setting process employed by the Wyoming Game and Fish Department is dependent on analysis of long-term wolf population trend data for the WTGMA, including recruitment (i.e., breeding pairs: Figures 8 and 9) and mortality (Figures 16 and 17). As with all wildlife populations, there will be years of stochasticity where population dynamics do not follow long-term trends. To that end, the data collected in 2025 demonstrates the wisdom employed by the Wyoming Game and Fish Department in setting population objectives above the minimum commitments outlined in the Wyoming Gray Wolf Management Plan, and supports the approach implemented in the WTGMA because, despite being below the management objectives, the population still remained at or above the minimum commitments (Figures 2 and 3). The Department will continue to take an adaptive management approach for setting wolf hunting seasons as outlined in the Wyoming Gray Wolf Management Plan with the intent to allow the WTGMA wolf population to increase back toward the established population objective in 2026 (Wyoming Game and Fish Commission 2011).

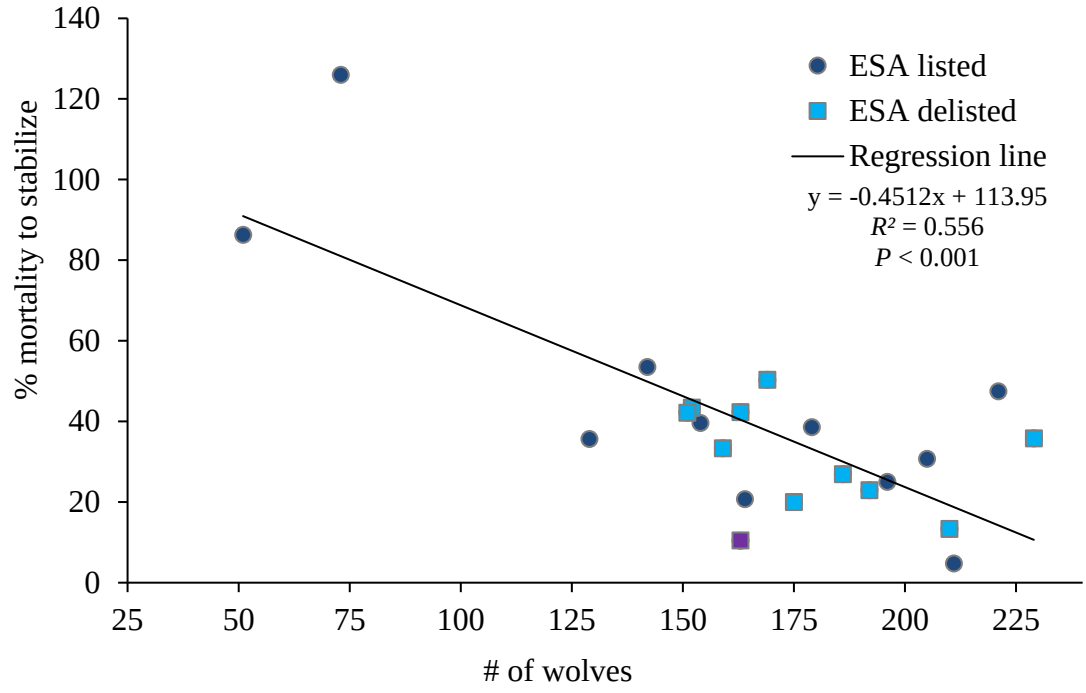


Figure 16. Minimum number of wolves at the beginning of the calendar year and the proportion (%) human-caused mortality that would have been required to stabilize wolf population growth during the calendar year in the WTGMA from 2004-2025 ("■" indicates the 2025 data point).

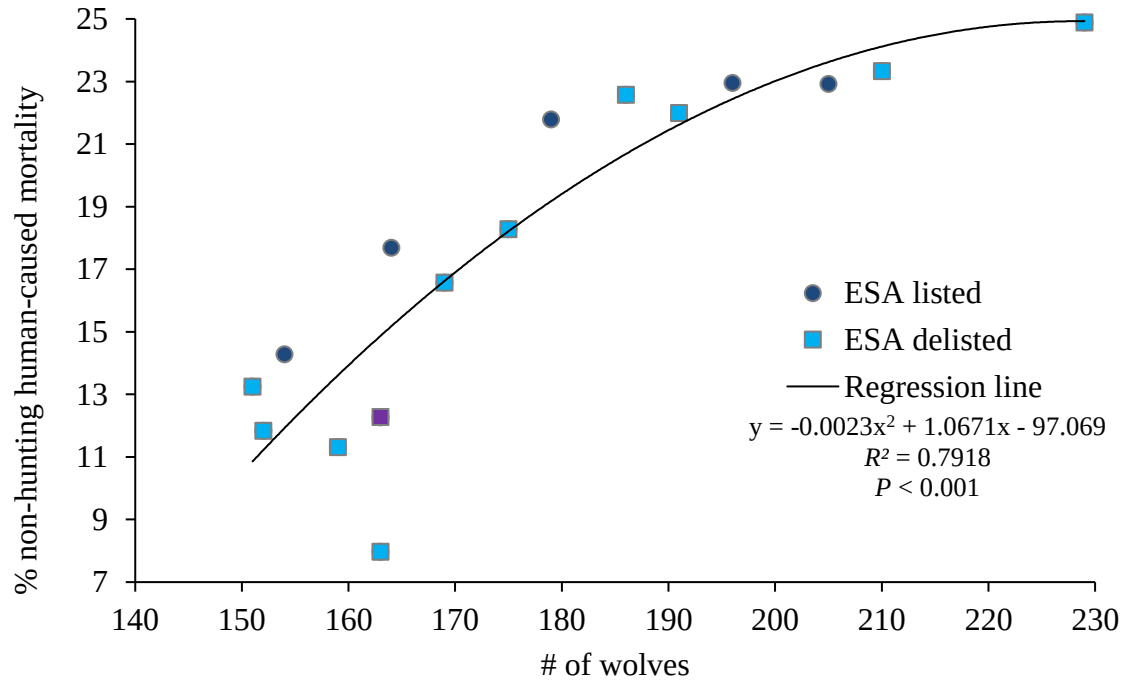


Figure 17. Minimum number of wolves at the beginning of the calendar year and proportion (%) of wolves present in the WTGMA at the beginning of the calendar year that were killed by non-hunting human-causes during the calendar year from 2008-2025 (statistical outliers from 2011 and 2016 are excluded; "■" indicates the 2025 data point).

Wolf-Livestock Conflicts

As in previous years, the Wyoming Game and Fish Department investigated all livestock that were reported as killed or injured by wolves (i.e., conflicts) in the WTGMA (Figure 1). Only confirmed livestock conflicts are documented in this report consistent with Wyoming Game and Fish Commission Chapter 28: Regulation Governing Big or Trophy Game Animal or Game Bird or Gray Wolf Damage Claims (Chapter 28), which requires confirmed evidence at the scene or on the livestock carcass indicating wolves were more likely than not responsible for the death or injury of the individual livestock. All suspected conflicts between livestock and wolves are expected to be reported in the WTGMA because verification is required to qualify for damage compensation and/or for wolf management actions to be initiated.

In 2025, wolves killed or injured 28 head of cattle, one miniature horse, and one dog in the WTGMA (Figure 18; Tables 1 and 5). Cattle confirmed as killed or injured by wolves included 19 calves and nine cows/yearlings (Figure 18; Tables 1, 5 and 6). The number of wolf-livestock conflicts have continued to decline incrementally under Wyoming Game and Fish Department management since Endangered Species Act protections were removed in 2017, with 2025 recording the fewest documented since 2010 (Figure 18; Tables 5 and 6). Management actions included capture and collaring wolves, intensive monitoring, lethal removal, nonlethal depredation prevention measures, and issuance of 15 lethal take permits to livestock producers (11 initial permits and four permits that were renewed due to continued conflict with livestock). Sixteen wolves were killed in response to livestock conflicts in the WTGMA; six in agency-directed lethal control actions, seven under authority of lethal take permits, and three in defense of private property (Figures 5 and 18; Tables 1, 2 and 5).

Table 5. Confirmed wolf-livestock conflicts and wolves killed in conflict control actions in the WTGMA by calendar year.

Year	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Cattle	38	15	26	41	46	44	60	81	141	87	55	48	51	38	39	36	32	28
Sheep	14	37	0	0	1	19	3	19	0	0	0	0	0	0	0	0	0	0
Dogs	0	0	0	0	4	1	0	0	0	1	0	0	1	5	0	0	0	1
Horses/other	0	1	1	0	0	2	0	1	0	0	2	2	10	1	5	1	1	1
Total livestock killed/injured	52	53	27	41	51	66	63	101	141	88	57	50	62	44	44	37	33	30
Wolves killed	32	21	32	28	19	24	29	25	90	46	39	12	27	14	15	7	32	16

Number of Packs Involved in Confirmed Livestock Conflicts: Thirteen packs (41% of 32 packs total in 2025) that use the WTGMA were involved in ≥1 livestock conflict in the WTGMA in 2025 (includes Hawk's Rest, Dunanda Falls, Molllie's, Jedediah, and Gooseberry packs: Figure 19; Table 1). Five packs were responsible for one confirmed conflict with livestock (38% of conflict packs; 16% of all packs), four packs were responsible for two confirmed conflicts with livestock (31% of conflict packs; 13% of all packs), and four packs were responsible for ≥3 confirmed conflicts with livestock (31% of conflict packs; 13% of packs; Table 1). The number of packs responsible for depredation of livestock has generally been reduced and held steady at lower levels than those experienced when wolves were listed on the Endangered Species Act (September 2014 – April 2017: Figures 18 and 19).

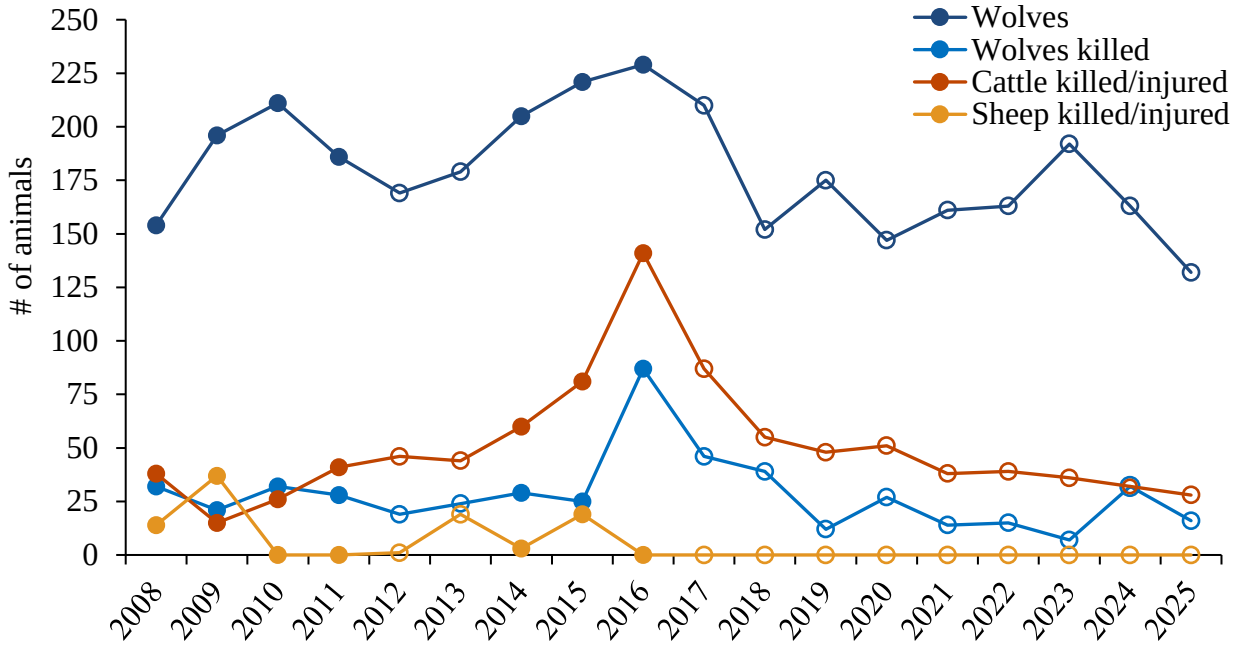


Figure 18. Number of wolves, confirmed wolf-livestock conflicts, and wolves killed in conflict control actions in the WTGMA by calendar year (filled circles indicate years where wolves were not hunted, open circles indicate years with wolf hunting seasons).

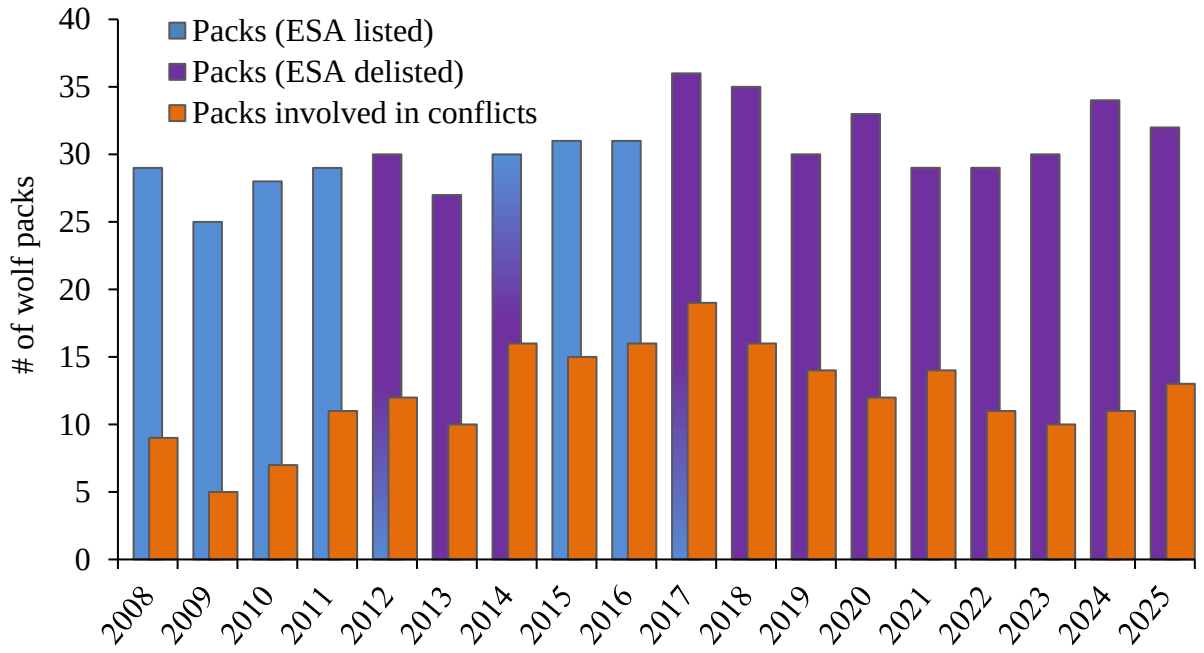


Figure 19. Minimum number of wolf packs in territories overlapping the Wolf Trophy Game Management Area during the calendar year and number of wolf packs that were involved in ≥1 confirmed wolf-livestock conflict in the by calendar year.

Location of Livestock Conflicts: Land ownership is recorded for all instances of confirmed wolf-livestock conflict in the WTGMA as part of routine investigations of reported conflicts. Of 28 wolf-cattle conflicts in the WTGMA in 2025, a majority occurred on public lands (Table 6). Wolf Hunt Area 1 had the highest confirmed wolf-cattle conflicts followed by hunt area 11, while conflicts in other hunt areas were significantly lower (Table 7).

Table 6. Proportion (%) of wolf-cattle conflicts that occurred on private or public lands in the WTGMA from 2017-2025.

Year	2017	2018	2019	2020	2021	2022	2023	2024	2025	Average
Public	49%	45%	71%	63%	47%	56%	58%	78%	57%	58%
Private	51%	55%	29%	37%	53%	44%	42%	22%	43%	42%

Table 7. Confirmed wolf-livestock conflicts in the WTGMA by wolf hunt area in 2025.

Hunt area	1	2	3	4	5	6	7	8	9	10	11	13	14	Total
Cattle	8	2	2	1	3	0	0	1	2	3	6	0	0	28
Sheep	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other	0	0	0	0	0	1	0	0	0	0	0	0	0	1
Total	8	2	2	1	3	1	0	1	2	3	6	0	0	29

Seasonal Trend in Livestock Conflicts: Patterns of wolf-cattle conflict in 2025 were similar to previous years (Figure 20). Confirmed wolf-cattle conflicts began in April, peaked in August, and ceased by the end of November (Figure 20). Overall, the magnitude of monthly conflicts between wolves and cattle has declined since Endangered Species Act protections were removed in Wyoming in 2017 (Figure 18). Notably, Wyoming Game and Fish Department management has shortened the damage season and reduced damage intensity through time.

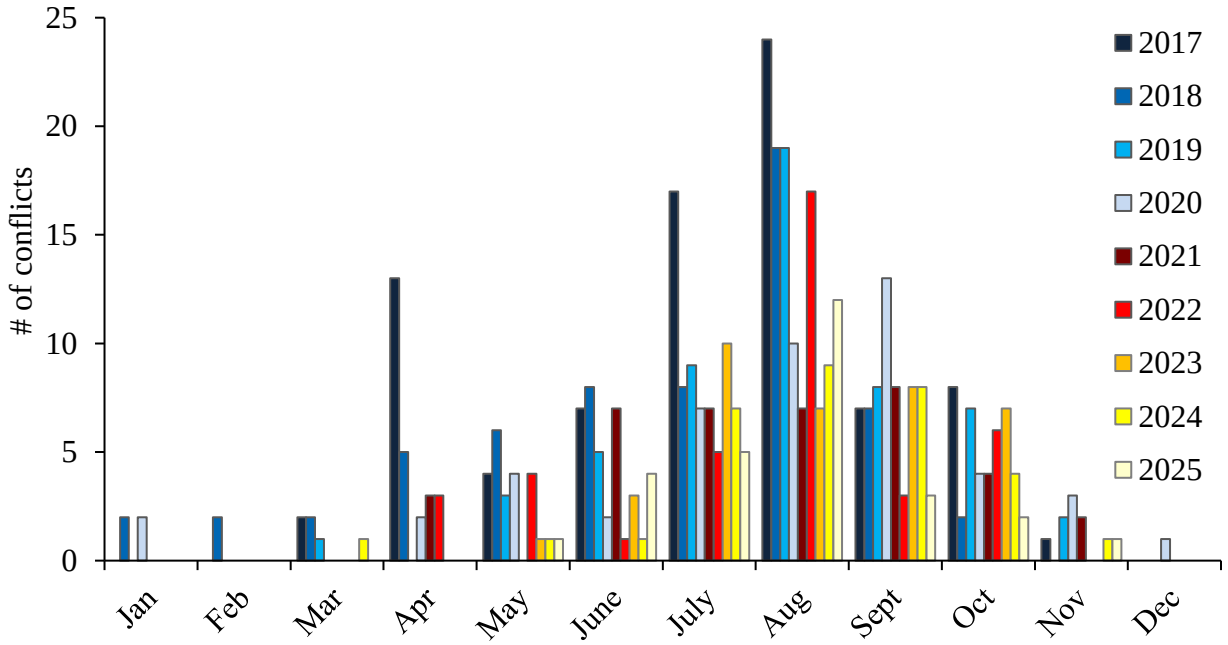


Figure 20. Number of wolf-cattle conflicts per month in the 2017-2025.

Compensation for Livestock Damage Caused by Wolves: In 2025, the Wyoming Game and Fish Department paid $352,454 to compensate 19 livestock producers for livestock killed or injured by wolves in the WTGMA and Seasonal WTGMA (Figure 21). Compensation payments declined from >$300,000 from 2014-2017 to ~$200,000 or less from 2018-2022, mirroring synchronous declines in conflict between wolves and livestock following removal of Endangered Species Act protections in Wyoming in 2017 (Figures 18 and 21). The increase in compensation payments from 2023-2025 were not related to increased conflict, but were related to significantly increasing

market values for cattle (Figures 18 and 21). Confirmed wolf-livestock conflicts in the Seasonal WTGMA also qualify for damage compensation as required by Wyoming statutes despite the fact that conflicts in the Seasonal WTGMA occur during the summer when wolves are designated as predatory animals and are not under the management jurisdiction of the Wyoming Game and Fish Department. In 2025, there were 12 sheep (all lambs) and 3 cattle (all calves) killed by wolves in the Seasonal WTGMA included in the total compensation value (Figure 21).

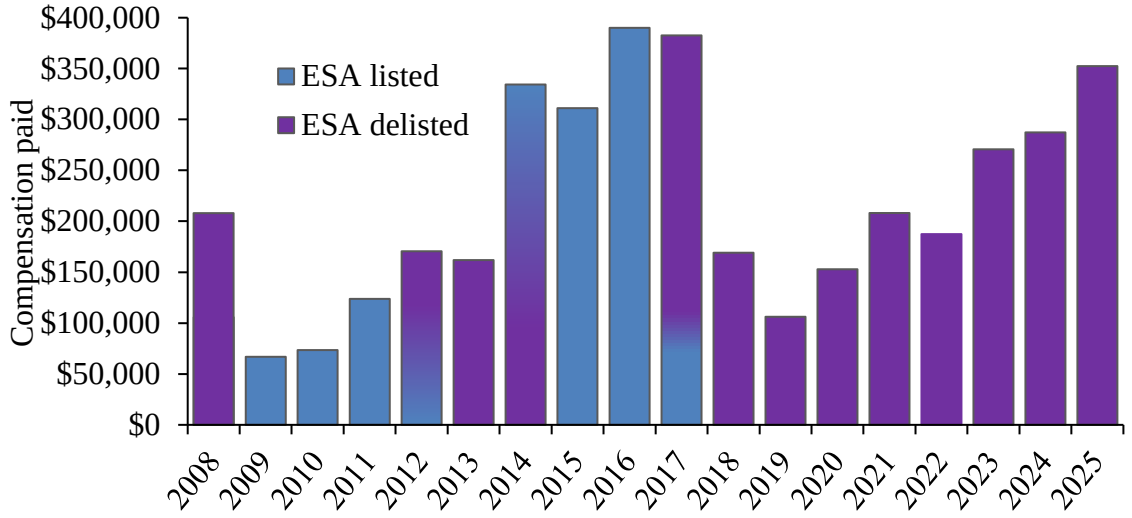


Figure 21. Compensation paid for confirmed livestock damage caused by wolves in the WTGMA (all years) and Seasonal WTGMA (2012-current year) by calendar year.

Unacceptable Impacts to Ungulates or Elk Feedgrounds

Under the Wyoming Gray Wolf Management Plan, Wyoming Statute 23-1-304(j), and Chapter 21 Regulation, the Wyoming Game and Fish Department may lethally remove wolves when it is determined that "wolf predation is causing an unacceptable impact on a wild ungulate population or herd" or when a "wolf-wild ungulate conflict has occurred at any state operated elk feedground" (Wyoming Game and Fish Commission 2011). An "unacceptable impact on a wild ungulate population or herd" is defined in Chapter 21 as:

> "Unacceptable impact on a wild ungulate population or herd" means any decline in a wild ungulate population or herd that results in the population or herd not meeting the Commission population management goals, objectives or recruitment levels established for the population or herd. The Department shall determine whether a decline in a wild ungulate population or herd constitutes an "unacceptable impact" and whether wolf predation is a significant factor causing the "unacceptable impact" based upon the best scientific data and information available."

In addition, under Chapter 21, wolves may be lethally removed for conflicts caused at state-operated elk feedgrounds only "when a gray wolf or wolves displace elk from a feedground and it results in one of the following conflicts:"

1. Damage to private stored crops by displaced elk; or,
2. Elk co-mingling with domestic livestock; or,
3. Displacement of elk from a feedground onto a highway right of way causing human safety concerns.

The Wyoming Game and Fish Department did not conduct any lethal removal actions as a result of unacceptable impacts to ungulates or elk feedgrounds caused by wolves in 2025. Monitoring and analysis of potential impacts to ungulate populations remains an integral part of ongoing management of wolves and their prey in the WTGMA.

Predatory animal areas

Wolves were verified to have killed or injured five cattle (all calves) and 25 sheep (15 lambs and 10 adults) in the predatory animal areas in 2025 (Table 1). Of these verified conflicts, 12 sheep and 3 cattle were verified to have been killed or injured in the Seasonal WTGMA (Table 1). A total of 33 wolves were lethally removed to prevent conflicts with livestock in the predatory animal area and Seasonal WTGMA in 2025 (32 by USDA Wildlife Services and one wolf taken in defense of livestock by the public: Table 1).

Wolf Management in the Wind River Reservation

In 2025, wolves were classified as a trophy game animal on the Wind River Reservation. Legal take could occur for wolves during regulated hunting seasons and for defense of life and property. Reported livestock conflicts with wolves on the Wind River Reservation are investigated by the U.S. Fish and Wildlife Service Lander Fish and Wildlife Conservation Office or the Eastern Shoshone and Northern Arapaho Tribal Fish and Game Department.

Two wolf hunting seasons were implemented on the Wind River Reservation that were open during portions of 2025. One season was open from December 1, 2024 through February 28, 2025 and the second was open from December 1, 2025 through February 28, 2026. Season dates were chosen to correspond with the period of the year when wolf pelts are prime. A total quota of six wolves was split evenly between two hunt areas in the Owl Creek and Wind River Mountains during both seasons. Mandatory reporting was required within 48 hours to allow for seasons to be closed once the quota was met. One wolf was legally harvested in 2025 (Table 3). No depredation was verified on the Wind River Reservation in 2025 (Table 3).

Wolf Management in Yellowstone National Park

Wolf management in Yellowstone included temporary closures around the Junction Butte, Mollie's, and Wapiti Lake den areas to protect young pups from disturbance and allow adult wolves to travel near the den unimpeded. The closures were lifted after several months when the wolf pups were increasingly mobile.

Wolf management also included monitoring for habituated wolf behavior. We recorded several cases of habituated behavior in 2025 from the Junction Butte and Wapiti Lake packs, and staff attempt to correct behavior through aversive conditioning as soon as possible. Aversive conditioning is performed by trained staff during a teachable moment when the wolf makes the decision to be in close proximity to humans or vehicles. Although this task can be logistically challenging and often requires daily monitoring the wolf of concern, aversive conditioning has been a successful tool for changing wolf behavior to greater avoidance of people. Most wolves in Yellowstone are extremely wary of humans and, if it were not for long-distance viewing through spotting scopes, would rarely ever be seen.

Highlighting new nonlethal depredation prevention research: Flashtags

Wolves were extirpated from the western United States through federal government programs by the 1930's, primarily to protect livestock from depredation. Once wolf populations began recolonizing portions of their former range, lethal control has continued to be the primary method employed to reduce and prevent wolf-livestock conflicts. Previous Department-led research indicates the probability of depredation by wolves increases when cattle are grazed toward the center of pack territories and with larger pack sizes (Atkinson 2023). The Department leverages this empirical knowledge while mitigating wolf conflict and, as a result, wolf conflicts have been reduced since Endangered Species Act protections were removed in 2017 (Figure 18). However, nonlethal conflict prevention options may reduce large carnivore depredation on livestock. Many nonlethal deterrents have been implemented through time, including livestock guardian dogs (LGDs), range riders, scare devices, and electrified fladry. These methods are generally scale limited as they only provide relief over small areas and short durations while also suffering from high implementation costs. Ear tag deterrents have the advantage of being utilized across the spatial and temporal scales necessary for preventing conflicts on large, open-range grazing areas in northwest Wyoming and across a broad array of wolf ranges globally. Additionally, nonlethal ear tag deterrents are an emerging idea that provides a prospective mitigation tool that is easy to deploy, cost effective, and which may have efficacy for all species of large carnivores present in a given landscape (e.g., Bott et al. 2024). Given the ecology of depredation by wolves (and other large carnivores), ear tag deterrents demonstrate great potential in reducing conflict between livestock and large carnivores while also alleviating costs for livestock producers. Large Carnivore Section (WGFD) biologists have been testing and refining a resilient LED Flashtag design that could be deployed on calves prior to the grazing season since 2024. This was the first step in initiating more rigorous research. Beginning in summer 2026, the Large Carnivore Section, the Holbrook Team from University of Wyoming, and Green River Cattle Association will initiate a full-scale research project to test the efficacy of Flashtags in preventing depredation. During the 2026-27 grazing seasons we will evaluate Flashtags through radio-monitoring and GPS-monitoring of bovine calves. Some individuals will be fit with Flashtags and some without a deterrent (i.e., treatment-control design). This large-scale project will provide valuable data required to determine whether Flashtags can effectively prevent depredation by wolves and grizzly bears in open range grazing systems.

Calf with Flashtag deployed.

Progression of Flashtag design prototypes, from left to right.

OUTREACH

WYO

Personnel with the Wyoming Game and Fish Department delivered in person and virtual presentations to multiple school and community groups in 2025. Personnel continued to provide interviews for numerous magazine, newspaper, and television feature stories for local and national media outlets. As part of normal wolf monitoring and management activities, Wyoming Game and Fish Department personnel interacted with members of the public thereby increasing the public's involvement and understanding of wolf biology, monitoring, and management throughout Wyoming. The Wyoming Game and Fish Department also conducted eight public meetings during the wolf hunting season-setting process in May and June 2025 as well as providing information on wolf ecology and safety at multiple Living in Large Carnivore Country Workshops held throughout Wyoming.

EXPENDITURES

WYO

During the 2025 calendar year, the Wyoming Game and Fish Department conducted annual population monitoring, responsive conflict management, internal and external education and information, and other statutory and regulatory obligations in regards to damage compensation and law enforcement for wolves. The Department directed approximately $734,563 toward wolf population monitoring, management, damage compensation, and depredation prevention research in 2025. Program expenditures are reported by primary work activities conducted below, but do not represent the totality of Department expenses incurred:

- Monitoring and management program: $282,947
- Nonlethal depredation prevention research: $69,806
- Internal and external information and education: $29,356
- Compensation for verified wolf-livestock conflict: $352,454

Cooperating agencies in WYO also expended funds directed toward wolf monitoring and management in 2025 as follows:

- Grand Teton National Park: $138,000
- USDA Wildlife Services: $17,842
- Wyoming Department of Agriculture: $78,653

Wind River Reservation

A total of $6,500 was spent on wolf monitoring and management in the Wind River Reservation in 2025 ($4,500 by the U.S. Fish and Wildlife Service Lander Fish and Wildlife Conservation Office and $2,000 by the Eastern Shoshone and Northern Arapaho Tribal Fish and Game Department).

Yellowstone National Park

About $1,200,000 was spent on monitoring and managing wolves in Yellowstone in 2025; $330,000 from federal funding and $870,000 from private sources.

CONTRIBUTORS

Many personnel contributed to the content of the 2025 Wyoming Wolf Population Monitoring and Management Annual Report. Thanks go to all those who contributed.

Information presented in this report for the wolf population in WYO:

- Wyoming Game and Fish Department: Large Carnivore Section: Ken Mills (corresponding author), Clint Atkinson (provided analytical expertise), Mike Boyce, Justin Clapp, Josiah Crump, Brian DeBolt, Justin Dellinger, Luke Ellsbury, Ryan Kindermann, Phil Quick, Paul Rivera, Kesley Secrist, Annie Stevens, Scott Stingley, and Dan Thompson.
- Aerial tracking and data collection: Mark Packila.
- Fiscal information: Christina Malessa.
- Wolf monitoring volunteer: Ron Blanchard.
- Grand Teton National Park: John Stephenson, Sarah Dewey, Lindsay Dreger, and Emily Davis.
- Wildlife Services: Mike Burrell, Mike Foster, Vivian Meek and Brady Smith.
- Wyoming Game and Fish Wildlife Health Laboratory: Jessica Jennings-Gaines, Alison Flynt, Kara Robbins, Sara Weller, and Elizabeth Wheeler.
- Wyoming State Veterinary Laboratory: Laura James.
- Wyoming Department of Agriculture: Jerald Johnson.

Information presented in this report for the wolf population on the Wind River Reservation:

- U.S. Fish and Wildlife Service Lander Fish and Wildlife Conservation Office: Pat Hnilicka.
- Eastern Shoshone and Northern Arapaho Tribal Fish and Game Department: Art Lawson.

Information presented in this report for the wolf population in Yellowstone National Park:

- National Park Service: Kira Cassidy, Daniel Stahler, Erin Stahler, Matthew Metz, Jeremy SunderRaj, Taylor Rabe, Jack Rabe, Nikki Tatton, Mark Packila, Brenna Cassidy, Wes Binder, Claire Lacey, Gordy Scott and Cameron Ho.

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WYO

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Wind River Reservation

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Yellowstone National Park

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The Porcupine Creek pack (led by collared male 1465M) pursues 1542M (who dispersed from the Blacktail Butte pack) in January 2026. 1542M was injured in this interaction, yet eventually joined Porcupine Creek as the winter progressed. Such is not always in the result in Wyoming, where cases of wolves killing other wolves during territorial disputes or incursions occur annually. Recently, the Water Dog Lakes pack formed and gained 4 adult males that dispersed from the Yellowjacket pack (see 2024 annual report). From autumn 2023-autumn 2025, Water Dog Lakes killed five collared wolves as they usurped four different pack territories in an unusually aggressive expansion of their territory. One of the Water Dog Lakes males (1543M) joined a female from Gypsum Mountain in autumn 2025 after driving off the former breeding male (1306M) and a second Water Dog Lakes male (1550M) died of unknown, natural causes. This leaves two adult males in Water Dog Lakes (1429M, who may be dispersing, and 1430M, the breeding male), likely ending their aggressive encounters with neighboring packs, at least for the short term. Interestingly, there were no aggressive encounters between Water Dog Lakes and Togwotee, the pack directly to the north, likely because the Water Dog Lakes breeding female (1323F) was born into the Togwotee pack and is related to the current Togwotee pack members.