



Mexican Wolf Recovery Program Quarterly Update

Second Quarter 2023 (April, May, June)

The following is a summary of Mexican Wolf Recovery Program activities in the Mexican Wolf Experimental Population Area (MWEPA) in Arizona, including the Fort Apache Indian Reservation (FAIR), San Carlos Apache Reservation (SCAR), and New Mexico. Additional Program information can be obtained by calling (928) 339-4329 or toll free at (888) 459-9653, or by visiting the Arizona Game and Fish Department website at azgfd.gov/wolf or by visiting the U.S. Fish and Wildlife Service website at fws.gov/southwest/es/mexicanwolf. For information on the FAIR, call (928) 338-4385 ext. 226 or visit wmatoutdoor.org. Past updates may be viewed at these websites. Interested parties may [sign up](#) to receive this update electronically by visiting azgfd.com and clicking on the E-news Signup tab on the top left corner of the webpage. This update is a public document and information in it can be used for any purpose. The Mexican Wolf Recovery Program is a multi-agency cooperative effort among the Arizona Game and Fish Department (AZGFD), New Mexico Department of Game and Fish (NMDGF), USDA Forest Service (USFS), USDA-Animal and Plant Health Inspection Service, Wildlife Services (WS), U.S. Fish and Wildlife Service (USFWS), White Mountain Apache Tribe (WMAT), Bureau of Land Management (BLM), and the U.S. National Park Service (NPS).

To view semi-monthly wolf location information please visit <https://arccg.is/bLyPO>

Please report any wolf sightings or suspected livestock depredations to: the Alpine wolf office (928) 339-4329, Pinetop wolf office (928) 532-2391 or toll free at (888) 459-9653. For sightings or suspected depredations on the FAIR, please call the WMAT wolf office in Whiteriver at (928) 338-4385 ext. 226. To report incidents of take or harassment of wolves, please call the AZGFD 24-hour dispatch (Operation Game Thief) at (800) 3520700.

Overall Mexican Wolf Recovery Program Quarterly Updates

The Arizona and New Mexico Game and Fish Departments, as well as both Regions 2 and 6 of the U.S. Fish and Wildlife Service, have met several times with Colorado Parks and Wildlife in a collaborative effort to manage the potential impact of northern gray wolves from Colorado's restoration program entering in the Mexican Wolf Experimental Population Area (MWEPA) and introducing northern wolf genetics into the unique Mexican wolf genome. This continues to be a very collaborative effort.

Numbering System: Mexican wolves are given an identification number recorded in an official studbook that tracks their history. Capital letters (M = Male, F = Female) preceding the number indicate adult animals 24 months or older. Lower case letters (m = male, f = female) are used to indicate wolves younger than 24 months. A lowercase letter "p" preceding the number is used to indicate a wolf pup born in the most recent spring. The capital letter "A" preceding the letter and number indicates breeding wolves.

Definitions: A "wolf pack" is defined as two or more wolves that maintain an established territory. In the event that one of the two breeding (dominant) wolves dies, the remaining breeding wolf, regardless of pack size, retains the pack status. The packs referenced in this update contain at least one wolf wearing a radio telemetry collar. The Interagency Field Team (IFT) recognizes that wolves without radio telemetry collars may also form packs. If the IFT confirms that wolves are associating with each other and are resident within the same home range, they will be referenced as a pack.

CURRENT POPULATION STATUS

The end of year count for 2022 generated a minimum abundance of 241 Mexican wolves in the wild (105 in AZ and 136 in NM). At the end of 2022, there were a minimum of 59 packs documented (19 in AZ and 40 in NM). This was a 23% increase in the population from the 2021 end of year count. Annual counts are conducted in the winter as this is when the population experiences the least amount of natural fluctuation (i.e., the population increases dramatically in the spring with the birth of new pups and declines throughout the summer and fall as pup mortality generally occurs in this period). Thus, the IFT summarizes the total number of counted wolves in winter. Counting the population at the end of each year allows for comparable year-to-year trends at a time of year when the Mexican wolf population is most stable.

WOLF PACK UPDATES:

For each documented wolf pack in the table below, wolves fitted with functioning collars at the end of the quarter are listed by studbook number. Studbook numbers of wolves without collars or with non-functioning collars are not listed in the pack updates. Not all wolves in the population are collared or have assigned studbook numbers. Captures, mortalities, removals, and food caching are listed in the corresponding column for the given

time period. If a pack was food cached at any time within the quarter, the food cache column will indicate the type of food cache. The primary reason for food caching will be noted with “S” for supplemental and “D” for diversionary; the reason for a food cache may change over time. If a wolf dies, becomes fate unknown, or is removed in the current time period, its studbook number will be removed from the pack column in the following time period. After three months of consistent dispersal behavior away from pack territory, a dispersing wolf is no longer considered a member of its originating pack and will be added to a new row as a single wolf or member of a different pack. Packs that have raised pups in the quarter will be listed as “Yes” in the “Raising pups” column. This will remain for the calendar year if the pack was documented rearing pups in the period of April through September. Any fields that require further comment will be annotated with “*” and further comments are listed in the “Comments” column.

ARIZONA:

Wolf Pack Collared Wolves	Captures	Mortalities	Removals	Food cache	Raising pups (April – Sept)	Cross foster (April/May)	*Comments
Bear Canyon AM2563, AF1823	0	0	0	0	Yes	No	
Castle Rock M1921, AF1686, f2632	0	0	0	0	No	No	
Eagle Creek M1477, F1548	0	0	0	0	No	No	
Elk Horn AM1838, AF1866	0	0	0	D	Yes	No	
Fantasia* AF2759	0	0	0	0	Yes	No	In May, AF2759 was documented with an uncollared male wolf. The pair was documented raising pups and is now referred to as the Fantasia pack.
Firebox* AM1881	0	0	0	0	Yes	No	In April, AM1881 was documented displaying behavior consistent with raising pups with an uncollared female. They were named the Firebox pack. Recent behavior suggests they are no longer raising pups.
Hoodoo M1789, M1893, AF2752*	0	0	0	D	Yes	No	In April, AF2752 became the new alpha female of the Hoodoo pack after being documented displaying behavior consistent with raising pups.

Wolf Pack Collared Wolves	Captures	Mortalities	Removals	Food cache	Raising pups (April – Sept)	Cross foster (April/May)	*Comments
Juniper Bench AF1920, f2757	0	1*	0	D	Yes	No	In June, f2757 was found dead in AZ. The incident is under investigation.
Pancho Spring AF1889, AM2770	0	0	0	D	Yes	No	
Panther Creek AF1683, f2768	1*	1*	0	0	Yes	No	In April, f2768 was found dead in AZ. This incident is under investigation. In May, the IFT captured, collared, and released AF1683.
Prime Canyon m2848, f2849	2*	0	0	0	Yes	No	In May, the IFT captured, collared, and released subadult m2848. In June, the IFT captured, collared, and released subadult f2849.
Rocky Prairie AM1383, F2536, m2762, f2769	0	0	0	0	Yes	No	
Rose AM1704	0	0	0	0	Yes	No	
Saffel AM1854, AF1939, M1852	0	0	0	D	Yes	No	
Sierra Blanca AF1550, AM1571	0	0	0	S	Yes	Yes*	In May, the IFT cross-fostered three captive born pups into the Sierra Blanca pack.
Warm Springs F1938	0	0	0	0	No	No	
Single f2603*	0	0	0	0	No	No	F2603 went fate unknown in June after not being documented for three months.
Single M2545	0	0	0	0	No	No	
Single F2754*	0	0	0	0	No	No	F2754 was translocated back into the wild in AZ by the IFT after being temporarily held in captivity.
Single f2779	0	1*	0	0	No	No	In April and uncollared yearling female wolf (assigned studbook number f2779) was located dead in AZ. The incident is under investigation.

Wolf Pack Collared Wolves	Captures	Mortalities	Removals	Food cache	Raising pups (April – Sept)	Cross foster (April/May)	*Comments
Single m2722*	0	0	0	0	No	No	m2722 from the Iron Creek pack was classified a single in May after being documented traveling alone for three months.
Single F1333	0	1*	0	0	No	No	F1333 was classified a single in April after being documented traveling alone for three months. In June, AF1333 was found dead in AZ. The mortality is under investigation.

FAIR:

Wolf Pack Collared Wolves	Captures	Mortalities	Removals	Food Cache	Raising pups (April – Sept)	Cross foster (April/May)	*Comments
Baldy AM1347, f2767	0	0	0	0	Yes	No	
Tsay-O-Ah AM2698, AF1283, m2766	0	0	0	0	No	No	
Tu dil hil AM1338, AF1679, f2758	0	0	0	0	Yes	No	

NEW MEXICO:

Wolf Pack Collared Wolves	Captures	Mortalities	Removals	Food Cache	Raising pups (April – Sept)	Cross foster (April/May)	*Comments
Agua Frio AF1936, AM1875	0	0	0	0	Yes*	No	The IFT documented the Agua Frio pack raising pups in April, however, location data suggests they are longer rearing pups.
Aldo AM2561, AF1712	0	0	0	0	Yes	No	
Beaver Point AM1949, AF2753	0	0	0	0	Yes	No	
Blue Canyon M1953*	0	1*	0	0	No	No	In June, M1953 was located dead in NM. The incident is under investigation.

Wolf Pack Collared Wolves	Captures	Mortalities	Removals	Food Cache	Raising pups (April – Sept)	Cross foster (April/May)	*Comments
Burnt Peaks F1692, M2557	0	0	0	0	No	No	
Buzzard Peak AM1831, AF1726, f2713, m2709	0	0	0	0	Yes	No	
Canovas Creek AF2569, AM1584	0	1*	0	S	Yes	No	In May, AF2569 was documented dead in NM. The incident is under investigation.
Centerfire AF1916, AM2697	0	0	0	D	Yes	No	
Chimney Canyon M2636	0	0	0	0	Yes*	No	In June, the IFT documented M2636 raising pups with an uncollared female.
Cimmaron Mesa AF1705, AM2702	0	0	0	0	Yes	No	
Colibri AM1856	0	0	0	0	Yes*	No	The IFT documented the Colibri pack raising pups in May, however, location data suggests they are no longer raising pups.
Cottonwood Canyon AF2503, AM1859	0	0	0	0	Yes	No	
Dark Canyon AM1354, AF1456, f2743, m2739	0	0	0	S	Yes	Yes*	In May, the IFT cross-fostered 3 captive born pups into the Dark Canyon den.
Dillon Mountain AF1865	1*	0	0	0	Yes	No	In June, the IFT captured, collared and released AF1865, a cross foster from captivity into the Elk Horn pack in 2020, and determined she was the breeding female of a new pack now referred to as the Dillon Mountain pack.
Frieborn AF1443, AM2765	0	0	0	0	Yes	No	
Gallinas Canyon AF2588, AM2700	0	0	0	0	Yes*	No	The IFT documented the Gallinas Canyon pack raising pups in May, however, location data suggests they are no longer raising pups.
Hail Canyon AF2690, AM2764	0	0	0	S	Yes	Yes*	In May, the IFT cross-fostered 2 captive born pups into the Hail Canyon den.

Wolf Pack Collared Wolves	Captures	Mortalities	Removals	Food Cache	Raising pups (April – Sept)	Cross foster (April/May)	*Comments
Iron Creek AM1240, AF1278, M2549, F2756, f2746	0	0	0	S	Yes	Yes*	In May, the IFT cross-fostered 3 captive born pups into the Iron Creek den.
Lava AF1405, M2750	0	0	0	0	No	No	The IFT has not located AF1405 or M2750 during this quarter.
Leon AM1824, AF1578, f2763	0	0	0	S	Yes	Yes*	In May, the IFT cross-fostered 3 captive born pups into the Leon den.
Leopold AF1346, M1855	0	0	0	0	Yes	No	
Lonesome AF2694, AM2755	0	0	0	0	Yes*	No	The IFT documented the Lonesome pack raising pups in May, however, location data suggests they are no longer raising pups.
Luna AF1487, M2567	0	0	0	0	No	No	
Manada del Arroyo F1828	0	0	0	S	Yes*	No	The IFT documented the Manada del Arroyo pack denning in May, however, location data and ground efforts suggest they are no longer raising pups.
Mangas AM1296, m2774, f2775	0	0	1*	D	Yes	No	In April, under a Management Order, the IFT lethally removed AM1296 due to repeated and continued confirmed wolf depredations. m2774 dispersed and is no longer associated with the Mangas Pack.
Milligan Gulch AF2688, AM2687	0	0	0	0	Yes	No	
Noble Mountain AF1918, M2597	0	0	0	0	Yes	No	
Owl Canyon AM1790	0	0	0	0	No	No	
Pitchfork Canyon AF1853, AM2566	0	0	0	S	Yes	Yes*	In May, the IFT fostered 2 wild born pups from the Sierra Blanca pack into the Pitchfork Canyon den.
Point of Rocks AM1717, AF2515	0	0	0	S	Yes	Yes*	In May, the IFT cross-fostered 2 captive born pups into the Point of Rock den.
Potato Canyon M2590	0	0	0	0	No	No	

Wolf Pack Collared Wolves	Captures	Mortalities	Removals	Food Cache	Raising pups (April – Sept)	Cross foster (April/May)	*Comments
Saddle Mountain F2540*	1*	0	0	0	No	No	In May, the IFT captured, collared, and released F2540 and is now referred to as the Saddle Mountain pack.
San Mateo AF1399	0	0	0	0	No	No	
Sawtooth M2704	0	0	0	0	No	No	
Sheepherders Baseball Park (SBP) AF1553, AM2703	0	0	0	0	Yes	No	
Squirrel Springs AF1788	0	0	0	0	Yes*	No	The IFT documented the Squirrel Springs pack raising pups in April, however, location data suggests they are no longer raising pups.
Wagontongue AM1946, m2773	0	0	0	0	Yes	No	
Whiskey Creek AM1842, m2760	0	0	0	0	Yes	Yes*	In May, the IFT cross-fostered 2 wild born pups from the Leon pack into the Whiskey Creek den.
Whitewater Canyon*	0	0	0	0	No	No	The IFT has not documented any members of the Whitewater Canyon pack this quarter, and therefore is no longer considered a functioning pack.
Willow Creek AF1890, M2772	0	0	0	0	No	No	
Single M1888	0	0	0	0	No	No	
Single F2593*	0	0	0	0	No	No	In June, the IFT translocated F2593 back into the wild in New Mexico after a brief hold in captivity.
Single M2847	1*	0	0	0	No	No	In May, the IFT captured, collared and released M2847.
Single M2701	0	0	0	0	No	No	

MORTALITIES

Six Mexican wolf mortalities were documented in the second current quarter (4 in AZ and 2 in NM), which brings the total number of documented mortalities in 2023 to 12 (7 in AZ and 5 in NM). The annual mortality total for 2022 (12) was substantially lower than 2021 (25 mortalities) and 2020 (29 mortalities) and was the lowest annual total of documented Mexican wolf mortalities since 2017 (12 mortalities) when the Mexican wolf population was significantly smaller (minimum of 114 wolves).

GENETIC MANAGEMENT

Captive pups cross-fostered (since 2016)	Captive pups cross-fostered in 2023	^aCross-fosters documented alive at the end of the quarter	^aDocumented mortalities of cross-fosters	^aCross-fosters surviving to breeding age	^{a, b}Cross-fosters documented producing pups (through 2022)	^{a, b}Documented litters produced by cross-fosters (through 2022)
99	16	14	10	15	7	13

^aThese are only **MINIMUM** values that have been documented by the IFT. The IFT does not affix radio collars on pups at the time of the cross-foster, as the pups are still too small. Pups are collared opportunistically when cross-fostered wolves are captured later in the year or in subsequent years. Not all cross-fosters that survive are captured and collared.

^bThe IFT is still in the process of documenting litters and pups produced in the current breeding season.

INCIDENTS

The following are investigations of livestock depredations conducted by Wildlife Services during the quarter that were determined to be caused by wolves. Investigations of dead and injured livestock conducted by Wildlife Services during this time period that were determined to be from causes other than wolves (i.e., vehicle strike, illness, coyote predation, bear predation, or unknown cause) are not listed in this quarterly update.

DEPREDACTIONS

	Confirmed Wolf (Current Quarter)		Yearly Total Confirmed Wolf Killed or Died from Injuries	Probable Wolf (Current Quarter)		Yearly Total Probable Wolf by State
	Killed or Died from Injuries	Injured		Killed or Died from Injuries	Injured	
Arizona	10	5	16	0	1	1
New Mexico	24	4	63	8	0	8
2023 Total			79			9

Unshaded cells contain totals for the given time period, gray cells contain totals for the year.

PUBLIC INCIDENTS

On April 13, 2023, the IFT received a phone call from a resident in Nutrioso, reporting that three adult wolves were seen in a pasture adjacent to their house feeding on an elk. When the reporting party (RP) approached the area, the wolves fled the area. The IFT responded to the area and removed the elk carcass to eliminate the carcass from attracting other predators to the area. The IFT determined through collar signals and data that wolves observed were from the Sierra Blanca Pack. Hazing efforts were initiated in the area following the incident to deter the wolves from hunting elk in the community.

On May 3, 2023, the IFT took a report of two wolves traveling past a house in Nutrioso. The IFT responded to the area and documented radio collar signals from the Hoodoo pack. The IFT attempted to haze, but the wolves had moved out of the area. The IFT later confirmed GPS collar data showed the Hoodoo pack had been in proximity to the area.

On May 20, 2023, the IFT received a delayed report from a resident in Alpine, stating that on May 15, 2023, they heard their dogs barking outside and went to investigate. Outside of their property line, they observed two wolves and a large herd of elk. The animals reportedly remained in the area for a short period then ran off when the RP yelled at them. The IFT later confirmed GPS collar data indicated Hoodoo animals had been present in the area at the time of the incident.

On June 13, 2023 the IFT received a report from the Reserve District Ranger that two uncollared wolves were observed in the district parking lot. They reported that the animals took off when personnel in the office came out to look. One of the employees got a grainy video. Pack affiliation is unknown and the IFT took no action.

PROACTIVE MANAGEMENT

State	Hazing efforts (separate attempts to haze wolves)	Hazing events (successful hazing of a wolf)	Diversionsary food caches*	Carcasses removed	Proactive Equipment Deployed (RAG boxes, fox lights, fladry)
Arizona	116	32	6	41	3
New Mexico	8	3	12	0	0
2023 Totals	253	96	17	56	4

Unshaded cells contain totals for the given time period, gray cells contain totals for the year.

**Includes supplemental food caches, as these also served as diversionsary food caches this year.*

PROGRAM PERSONNEL

In June, Lauren Toivonen started as the new Mexican Wolf Field Projects Coordinator for USFWS. Lauren has her M.S. in Natural Resources from the University of Missouri and a B.S. in Wildlife Biology from Missouri State University. Lauren has worked with species throughout the Midwest and southeastern regions of the U.S., including Mexican and red wolves. Lauren began working with the USFWS as a biologist in Ecological Services at the North Dakota Field Office in 2019 where she was the office lead on black-footed ferret reintroductions. Welcome Lauren to the IFT!

John Oakleaf has transitioned from the Field Projects Coordinator to a Senior Mexican Wolf Scientist position with the USFWS to focus on administrative duties and research needs. Thank you John for your years of service as Field Projects Coordinator and tireless dedication to Mexican wolf recovery!

REWARDS OFFERED

The USFWS is offering a reward of up to \$10,000, the AZGFD Operation Game Thief is offering a reward of up to \$1,000, and the NMDGF is offering a reward of up to \$1,000 for information leading to the conviction of the individual(s) responsible for the shooting deaths of Mexican wolves. A variety of non-governmental organizations and private individuals have pledged additional funding for a total reward amount of up to \$37,000, depending on the information provided.

Individuals with information they believe may be helpful are urged to call one of the following agencies: USFWS special agents in Pinetop, Arizona, at (346) 254-0515, in Chandler, Arizona at (480) 967-7900, in or in Albuquerque, New Mexico, at (505) 346-7828; the WMAT at (928) 338-1023 or (928) 338-4385; AZGFD Operation Game Thief at (800) 352-0700; or NMDGF Operation Game Thief at (800) 432-4263. Killing a Mexican wolf is a violation of state law and the Federal Endangered Species Act and can result in criminal penalties of up to \$50,000, and/or not more than one year in jail, and/or a civil penalty of up to \$25,000.