

WISCONSIN ENDANGERED RESOURCES REPORT 74

STATUS OF THE TIMBER WOLF 1990 - 1991

by Adrian P. Wydeven

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**SUMMARY**

Wolf populations continue to increase after reaching a low of 15 in 1985. Populations in mid-winter 1990-1991 consisted of about 40 wolves in 12 different packs.

A total of 3 wolves, 2 males and 1 female, were radio-collared in 1990. Since 1979 54 wolves have been radio-collared in Wisconsin and adjacent areas of Minnesota. Eight radio-collared wolves were monitored during the study period.

Three wolves died during the study period. One died as a result of shooting and the others apparently died from natural mortality. Mortality of 25 radio-collared wolves was determined between October 1979 and June 1991; 60% of the deaths were due to human caused mortality.

fifty-five wolf observations from 16 northern Wisconsin counties were reported during the second half of the study period. Highest reports occur mainly in the 10 counties with active packs.

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September 1991





WISCONSIN DEPARTMENT OF NATURAL RESOURCES

BOX 7921

MADISON, WISCONSIN 53707

RECOVERY OF THE TIMBER WOLF

PERFORMANCE REPORT

JULY 1, 1990 TO JUNE 30, 1991

Prepared by Adrian P. Wydeven, Nongame Wildlife Biologist

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Job:        105.1 Direct educational activities  
            105.2 Provide legal protection  
            105.3 Cooperative habitat management  
            105.4 Monitor statewide wolf population  
            105.5 Initiate disease abatement  
            105.6 Evaluate progress (inactive this phase)  
            105.7 Implement livestock damage control action  
            105.8 Coordinate with other agencies  
            105.9 Citizen participation  
            105.10 Volunteer program  
            105.11 Develop reclassifying criteria (inactive)  
            105.12 Review translocation (inactive)

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Background: The Wisconsin Timber Wolf Recovery Plan was approved for implementation on March 7, 1989. This report covers activities conducted from July 1, 1990 through June 30, 1991.

Job 105.1 DIRECT EDUCATIONAL ACTIVITIES

The project biologist provided training for about 70 persons in the timber Wolf Alliance Speakers Bureau in January 1991. The project biologist acts as a liaison to the Timber Wolf Alliance, and attended the Alliance Board Meeting in January.

Comments, recommendations and technical advice were provided to Nancy Fields and Carliss Karasov in the writing of "Discovering Wolves: A Nature Activity Book", which was produced in cooperation with the Timber Wolf Alliance.

#### Job 105.2 PROVIDE ADDED LEGAL PROTECTION FOR WOLVES

The coyote hunting season closure during the deer-gun season was monitored. Radio-collared packs were flown 4-5 times during the hunting season. Also project personnel patrolled within wolf pack territories during the hunting season.

A wolf was shot in Douglas County in May 1991 and project personnel assisted in the investigation. The Timber Wolf Alliance provided a reward fund for information leading to apprehension of the person(s) killing the wolf. No arrests have yet been made.

Project personnel were also involved in the confiscation of an illegally held captive wolf. The person owning the wolf was fined for keeping an Endangered Species and transport of Endangered Species across state lines.

#### Job 105.3 COOPERATIVELY MANAGE HABITAT WITH LANDOWNERS

William Meier, DNR Wildlife Manager in Merrill, developed a Cooperative Wolf Management Agreement for 55,000 acres of industrial forest land in April 1990. Because of several changes in ownership, Bill has had to carefully monitor and continue promoting the program.

Comments were made on 4 opportunity analysis in the Chequamegon National Forest and 2 on the Nicolet National Forest in wolf range.

#### Job 105.4 (INCLUDES SECTION 15 PERFORMANCE REPORT)

Three wolves were live-captured and radio-collared in summer 1990 (Table 1). The wolves were caught in the 3 areas of the state where wolves have been present since or before the early 1980s; these include Pine (MN)-Douglas, Price-Oneida, and Lincoln Counties.

Eight radio-collared wolves were monitored during portions of the study period (Table 2). Details on wolves captured in 1991 will be presented after the summer trapping has been completed. A summary of the events of monitored packs and lone wolves follows:

##### Douglas County:

Wolf 139M was followed in the Empire Pack until his death on August 21, 1990. The wolf had initially been caught as an adult male in June 7, 1989. Although his movements earlier in 1990 had included several extraterritorial movements, 139M movements from April through August were within the 82 square mile territory occupied by this Pack.

The exact cause of death of 139M was not determined, but it appeared to have been natural mortality. He was apparently an older animal, and age may have been a contributing factor to his death.

Howling surveys in summer 1990 and track surveys the following winter indicated that pups had been produced in the Empire Pack. The mid-winter count consisted of 5 wolves, probably consisting of 2 adults and 3 pups.

Female wolf 154F was captured in the Truck Trail Pack on July 20, 1990. She moved through an area of at least 60 square miles until the end of December 1990 when radio-contact was lost. Her last 3 locations were 4-6 miles west of the main portions of her home range, therefore it is assumed that she probably dispersed. Most of this wolf territory was in the Nemadji State Forest in Pine County Minnesota. Only 1 of her 19 locations was in Wisconsin.

Wolf 154F occupied much of the same general area previously occupied by female wolf 129F. Wolf 129F was killed by other wolves in January 1989, but apparently had produced pups the previous year, and 154F may have been her offspring.

The Truck Trail Pack apparently produced at least 5 pups in summer 1990. The pups were observed along the Summit Trail in the eastern part of their territory by a County Forester on July 26, 1990. At least five wolves occurred in this pack in midwinter, as indicated by track surveys.

A radio-collared wolf that had been monitored from October 13, 1985 to February 14, 1989 was found dead in the Moose Lake Pack on May 12, 1991. Wolf 081F was collared as a pup in this pack and had apparently become the alpha female prior to being shot. Although we were unable to detect pup production through howling surveys in summer 1990, winter track counts in 1991 indicated that at least 5 wolves were present in this territory.

A yearling female 149F was captured and collared in the Moose Lake Pack on June 7, 1991. She apparently is the offspring of 081. Her 3 locations have been in the southwestern portion of the Moose Lake Pack west of Solon Springs.

No wolves were radio-collared in the 35 Pack. Two wolves were found in this territory in winter. These apparently are adult female 059 and adult male 063 who both stopped transmitting in May 1990. They continue to occupy a 23 square mile territory that is sandwiched between the Truck Trail Pack on the west and the Empire Pack on the east.

#### Bayfield County:

Adult male wolf 107M was monitored in the Rainbow Lake Pack from May 22, 1987 to September 17, 1990. He occupied an area of 48 square miles during the last year.

Howling surveys in summer and fall 1990 indicate that pups had been successfully raised in the Rainbow Lake Pack. A minimum of 4 wolves were present in the territory in midwinter. Therefore at least 2 pups survived to winter.

Wolf 107 was recaptured on April 30, 1991 and was renumbered 141 (the previous ear tags had been lost). Wolf 107/141M continues to occupy the Rainbow Lake Pack Territory northwest of Drummond. Signs of breeding activity were found in winter, and spring radio-locations indicated that denning was occurring.

#### Burnett-Polk Counties:

An area of sandy outwash plain east of the St. Croix River was apparently colonized by a pair of wolves in late winter 1991. The 2 wolves concentrated there activity around a large marshland area referred to as the Meadman Meadow.

An adult female (145F) was captured in this area on May 9, 1991. She is occupying an area of at least 15 square miles in southwest Burnett and Northwest Polk County. Wolf 145F showed no signs of having had pups this year.

The Meadman Meadow Pack (M & M Pack) represents the most southern extension of wolf range in western Wisconsin. The territory is only about 50 miles from downtown St. Paul, Minnesota. Because the M & M Pack occupies areas open to coyote hunting during the deer-gun season, additional efforts will need to be made to discourage accidental shooting of these wolves.

#### Sawyer-Ashland Counties:

A 2 year old female (147F) was caught in NE Sawyer County on May 17, 1991. Initially the wolf was thought to be part of the Log Creek Pack located in this area. The Log Creek Pack has been in this area at least since December 1989, but possibly had occurred there earlier. During winter 1990-1991 the Log Creek Pack consisted of at least 2 wolves, an apparent breeding pair.

Wolf 147F was not found from May 26 to June 17, 1990. When located on June 17, 147F was in Ashland County 27.6 miles north of her previous location in Sawyer County. The rest of June was spent in an area northeast of Clam Lake and west of Mellen in the Chequamegon National Forest.

The locations of wolf 147F in late June were west and north of a group known as the McCarthy Lake Pack. This pack consisted of 2 or 3 wolves last fall and winter.

The exact relationship between the McCarthy Lake group and the Log Creek Pack is not known at this time. Additional radio-collared wolves will be needed to determine the extent of the territories of each of these packs. The relationship of 147F to these packs is also unclear at this time; it appears that she may be a dispersing wolf from the Log Creek Pack, but further work will be necessary for verification.

#### Price-Oneida Counties:

Wolf 157M (Adult Male) was monitored in the Bootjack Lake Pack from June 28, 1990 to September 24, 1990. The wolf was apparently suffering from some type of debilitating disease; his weight dropped from 80 pounds at capture to 55 pounds at the time of death. Starvation was apparently the immediate cause of death, but the conditions leading to emaciation were not determined.

Wolf 157M was the second radio-collared wolf to die in the Bootjack Lake Pack in 1990. Adult male 125M died in February 1990 from unknown causes.

Wolf 157M occurred with a 15 square mile area on the eastern side of the Bootjack Lake Pack in Oneida County. Most of his movements were restricted to less than 6 square miles, but he moved 5 miles to the east of this core area about 1 week before his death.

Four wolf pups were seen in the Bootjack Pack in late June. Only 3 wolves occurred in this pack by midwinter, therefore only 1 of the pups apparently had survived. The adult pair showed signs of breeding activity during winter 1991.

A new wolf pack was located south of the Willow Flowage in summer 1990 through howling surveys. The pack apparently produced pups, and 3 wolves were found to be present in midwinter 1990-1991.

#### Lincoln County:

Yearling wolf 104/164M was captured in the Ranger Island Pack on July 6, 1990. He had been originally caught as a pup in August 8, 1989, but was not radio-collared at the time. Wolf 104/164M covered an area of 22 square miles until his radio signal was lost after December 10, 1990. although pups were apparently produced in the pack during spring as indicated by howling surveys, only 3 wolves were left in the pack by midwinter 1990-1991.

No radio-collared wolves were followed in the Averill Creek Pack during this period. A howling responses from pups were obtained from this pack in October 1990. Three wolves including a breeding pair, were found to be present in this pack in February and March 1991.

#### Winter Wolf Population

The minimum population of wolves in Wisconsin in winter 1990-1991 was bout 40 (Table 3). Twelve packs ranged in size from 2 to 5 wolves ( $x = 3.2$  wolves). Because so few packs were radio-collared, counts depended mainly on winter track surveys. Therefore the counts are a minimum figure of wolves present.

Only 2 loners were verified due to subsequent trapping and radio-collaring. Others probably also existed, but because of the wide-ranging habits of loners, it is difficult to get a good count on them. the actual wolf population was probably in the range of 40 to 50 wolves.

No wolves are listed for the Frog Creek Pack in northeast Washburn County on Table 3. Wolf sign was found in the pack in winter and summer 1990, and a wolf pup was sighted in the territory in August 1990. Wolf project personnel were unable to verify the existence of a viable pack in winter 1990-1991. the presence of wolves were also not verified in northeastern Wisconsin despite several sightings reported by the public.

#### Wolf Mortality

Three radio-collared wolves died in Wisconsin during the study period (Table 4). Adult female 081 had been shot in Douglas County, while males 139 and 157 died from natural mortality in Douglas and Oneida Counties.



The mortality of 24 radio-collared wolves trapped in Wisconsin and adjacent areas of Minnesota was determined from October 1979 to June 1991 (Table 5). Human caused mortality accounted for 60% of the losses, with shooting being the most common cause of death.

#### Statewide Wolf Distribution

Wolf observations were obtained from natural resource agency personnel and private citizens during January through June 1991. All observations were classified as probably, possible or not likely. Fifty-five probable and possible wolf observations were collected (Table 6).

These observations included 37 sightings of 45 wolves, and 18 observations of wolf tracks. The sightings included 29 sightings of loners, and 8 sightings of pairs. Track observations included 10 of loners, 5 of pairs and 3 of triplets. Eighteen of the wolf observations were by natural resources agency personnel and 37 by private citizens; agency personnel reported mainly track observations (15 out of 18), while private citizen's reported mainly sightings (34 out of 37).

Counties with highest rates of wolf sighting were mainly those that breeding populations of wolves except Washburn County which had 5 observations of 6 wolves. Because of the nearness of Washburn County to breeding population it may serve as an important corridor to dispersing wolves.

#### Job 105.5 INITIATE DISEASE ABATEMENT

All wolves captured during the period were vaccinated for Canine Parvovirus, Distemper, and Corona Virus.

A meeting was held at the Wildlife Health Lab in Madison on March 31, 1991 to discuss wolf health monitoring. Those attending included Ron Schultz, Randy Jurewicz, Dr. Sarah Hurley, Dr. Nancy Thomas and Adrian Wydeven. Although there is some question about the value of vaccinating wild wolves, it was felt that as a prophylactic it had some benefits for wolves.

Wolves 081 and 157 were necropsied during the period. Wolf 157M was very emaciated and apparently had starved to death. Wolf 081 had been shot, but was in very healthy condition.

#### Job 105.7 IMPLEMENT LIVESTOCK DAMAGE CONTROL ACTIVITIES

No livestock were killed by wolves between July 1, 1990 and June 30, 1991. Two hunting dogs in Marinette County had apparently been injured by a lone wolf in December 1990; the owner was reimbursed for veterinary cost for the treatment of the dogs.



Job 105.8 COORDINATE WOLF MANAGEMENT ACTIVITIES WITH FEDERAL, STATE AND COUNTY AGENCIES

Adrian Wydeven and Ron Nicotera attended the Great Lakes Interagency Wolf Group Meeting in Ashland on January 23-24, 1991. Wydeven also attended meetings with Chequamegon National Forest, Nicolet National Forest, and Douglas County Forestry. Nicotera has been involved in the updating of the Federal Recovery Plan for the Eastern Timber Wolf.

Wydeven has been involved with Wisconsin Department of Transportation in planning wolf mitigation and corridor protection for reconstruction of U.S. Highway 53 between Spooner and Superior.

105.9 CONTINUE CITIZEN PARTICIPATION ACTIVITIES

Quarterly wolf progress reports were written by Wydeven each quarter. During the period 26 presentations were given to 1,180 people by Wydeven. Additional wolf presentations have also been given by Ron Schultz, Bill Meier, and Pat Rominski.

Numerous media contacts were made during the period including 3 radio interviews and call-in programs.

105.10 VOLUNTEER PROGRAM ACTIVITIES

Twenty-three volunteers were utilized during the period for assistance on wolf trapping, howling surveys, and winter track surveys. The DNR is actively participating with the Timber Wolf Alliance to encourage volunteer activities.

Table 1. Capture data on wolves caught in Wisconsin and adjacent areas of Minnesota in 1990.

<u>Study Area County/Pack</u>	<u>Wolf #</u>	<u>Sex</u>	<u>Age</u>	<u>Weight</u>	<u>Capture Date</u>
Price-Oneida/Bootjack	157	M	A	80 lbs.	06/28/90
Lincoln/Averill Creek	104/164	M	Y	75 lbs.	*07/06/90
Pine-Douglas/Truck Trail	154	F	A	56 lbs.	07/20/90

\*Initially captured as a pup on 08/08/89, but not collared at the time.

Table 2. Capture and telemetry data on wolves monitored from July 1, 1990 through June 30, 1991.

<u>Wolf #</u>	<u>Pack</u>	<u>Sex</u>	<u>Age</u>	<u>Date Captured</u>	<u>Last Date Located</u>	<u>Number Locations</u>	<u>Territory Size (Mi<sup>2</sup>)</u>	<u>Wolves</u>
Douglas Co (WI) - Pine Co (MN)								
139	EP	M	A	06/07/89	08/21/90	71	82	6 or >
154	TTP	F	A	07/20/90	12/27/90	19	60+	5-6
149	MLP	F	Y	06/07/91	MC*	3	No estimate	4?
Bayfield County								
107/141	RLP	M	A	05/22/87	MC	191+9**	48	4
Polk-Burnett Counties								
145	M&M	F	A	07/09/91	MC	8	No estimate	2
Sawyer-Ashland Counties								
147	LCP	F	A	05/17/91	MC	6	No estimate	?
Price/Oneida Counties								
157	BJP	M	A	06/28/90	09/24/90	15	15	7
Lincoln County								
104/164	RIP	M	Y	07/06/90	12/10/90	21	22	3 or >

\*MC - Monitoring Continuing

\*\*Recaptured - Number of locations after 2nd capture

Table 3. 1990-1991 Midwinter Estimation of Wisconsin's Timber Wolf Population

<u>County</u>	<u>Area or Pack Name</u>	<u>Wolf #</u>	<u>Evidence*</u>
Douglas	Moose Lake	5	T
Douglas	Empire	5	T & R
Douglas	Hwy 35	2	T
Douglas	Truck Trail	3-5	T & R
Bayfield	Rainbow Lake	4	T & R
Ashland	McCarthy Lake	2	T
Sawyer	Log Creek	2	T & R
Price/Oneida	Bootjack	3	T & R
Washburn	Frog Creek	?	T
Oneida	Little Rice River	3	T
Lincoln	Ranger Island	3	T & R
Lincoln	Averill Creek	3	T
Polk/Burnett	Meadman Meadow	2	T & R
Washburn	Loner	1	R & O
Sawyer/Ashland	Loner	1	R & O
Forest/Florence/ Marinette	Loner(s)	?	T & O

Total - 39-41

- \* O - Observations from general public  
 R - Radio-collared wolves  
 T - Track & sign surveys

Table 4. Mortality during July 1, 1990 - June 30, 1991 of radio-collared wolves in Wisconsin.

<u>Wolf #</u>	<u>Sex</u>	<u>Age</u>	<u>Date Captured</u>	<u>Date Died</u>	<u>Cause of Death</u>
139	M	A	06/07/89	08/21/9	Unknown-probably natural
157	M	A	06/28/90	09/24/9	Starvation; Disease?
081	F	P	10/13/85	=05/01/91	Shooting-near Solon Springs, WI

Table 5. Mortality summary of radio-collared wolves from Wisconsin (and adjacent areas in Minnesota) October 1979-June 1991

Shooting	12	48%
Trapping	2	8%
Road Kills	<u>1</u>	<u>4%</u>
Total human caused	15	60%
Killed by other wolves	3	12%
Disease	1	4%
Starvation (Disease?)	2	8%
Unknown but probably natural	<u>4</u>	<u>16%</u>
Total natural mortality	10	40%
<u>Grand Total</u>	<u>25</u>	<u>100%</u>

Table 6. Wolf observations by Natural Resource Agency personnel and private individuals in northern Wisconsin January - June 1991.

<u>County</u>	<u>No. Sighting</u>	<u>Total Wolves</u>	<u>Track Observations</u>
Ashland	3	3	5
Bayfield	1	1	3
Burnett	2	3	2
Douglas	5	7	1
Florence	1	2	-
Forest	1	1	1
Iron	1	1	2
Langlade	2	2	-
Lincoln	3	4	2
Marinette	1	1	-
Oneida	4	5	-
Price	1	1	-
Rusk	1	1	1
Sawyer	3	4	-
Vilas	3	3	-
Washburn	<u>5</u>	<u>6</u>	<u>-</u>
Total	37	45	18



