

Recovery of the Timber Wolf- 1988-89

by Richard Thiel

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SUMMARY

The Wisconsin Timber Wolf Recovery Plan was approved in March 1989, and copies were sent to 1,000 citizen participants in April 1989.

Timber Wolf Alliance and project biologists met to develop educational ideas regarding wolves. TWA is developing an 'Adopt a Wolf Pack' group involvement program to increase awareness of wolves in Wisconsin.

Twenty Chequamegon National Forest and fifteen Nicolet National Forest Opportunity Area analyses were reviewed and comments were supplied on areas identified as wolf management areas. Initiatives are underway in developing management strategies with an industrial forest complex on lands adjacent to three active wolf territories in north-central Wisconsin.

A Wolf Depredation Control Program Proposal was submitted to DNR administration and the Bureau of Environmental Analysis and Review in April 1989. A final proposal will be submitted to the Fish & Wildlife Service by October.

A minimum of 7 packs and 31 wolves were estimated to be present in Wisconsin in the winter of 1988-89. Five wolves were collared in 1989. A total of 6 wolf packs are currently being monitored using telemetry techniques.

During 1988, four packs produced litters, though pups are only known to have survived in one pack to November. A previously unrecognized group of wolves was discovered south of Net Lake.

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WISCONSIN DEPARTMENT OF NATURAL RESOURCES

BOX 7921

MADISON, WI 53707

RECOVERY OF THE TIMBER WOLF

PERFORMANCE REPORT

1 July, 1988 to 31 August, 1989

Prepared by Richard P. Thiel, Wolf Biologist  
Bureau of Endangered Resources

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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 (this phase inactive)  
            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: A Wisconsin Timber Wolf Recovery Plan was developed under Wisconsin Department of Natural Resources Job 104 between 1986 and 1989. In fall 1988 an Environmental Assessment was completed on the proposed plan to fulfill requirements of the Wisconsin Environmental Policy Act. In March 1989 the Department approved the Wisconsin Timber Wolf Recovery Plan, and major funding for implementation of the plan was provided in April 1989 under Job 105. This report covers activities conducted between April and August, 1989, unless otherwise specified.

Job 105.1 DIRECT EDUCATIONAL ACTIVITIES ON WOLF ECOLOGY

Sub-jobs 1.1 through 1.6 were not funded during this reporting period.

Sub-job 1.7 is not active until year 5 of project.

Sub-job 1.8 OBJECTIVE: Provide liaison with Timber Wolf Alliance; attend all meetings and banquets; review materials they develop.

Timber Wolf Alliance (TWA) is a non-profit organization consisting of a coalition of over 25 Wisconsin based conservation, environmental and native American groups. Its charter is to provide objective, factual information on wolf ecology to Wisconsin and upper Michigan residents. TWA, which formed in 1987-88, intends to acquire, develop and distribute educational materials for use by those requesting them.

The project biologist chairs TWA's Education Committee, and attended the July TWA board meeting. The project biologist met with TWA members on five occasions, assisting in the development of various educational materials. The following summarizes TWA educational projects undertaken to date for which the project biologist provided technical advise:

- 1). TWA has acquired 4 wolf ecology videos for their lend-loan library.
- 2). TWA has contracted with the Department in a 20 minute slide/tape show production on the biology and life history of wolves, emphasizing Wisconsin and the upper Great Lakes states region. Completion is scheduled for September 1989.
- 3). TWA is developing a 15 minute slide/tape show production on various human attitudes towards wolves in the upper Great Lakes states. Completion is anticipated by October 1989.
- 4). TWA is developing a Kindergarten through 3rd Grade Teachers' Curriculum Guide featuring 5 lesson plans. Completion is scheduled for October 1989.
- 5). TWA is developing an 'Adopt-a-Wolf Pack' group involvement program. This program is intended to increase participant awareness of wolves in Wisconsin, and provide an outlet for sharing in state/federal recovery efforts. With a \$100 donation, participants select one of six featured Wisconsin wolf packs, and receive educational materials based on the following 3 educational levels: (a) early elementary [K-3], (b) intermediate elementary [4-8] and (c) adult [9 +]. Educational materials include: (a) a pack historical sketch, (b) a participant certificate, (c) an 8 x 10 wolf pack photo, (d) a quarterly newsletter in levels K-8, and TWA and DNR quarterly newsletters for adult levels. Revenues generated from this program will be applied to other TWA educational functions, and to an annual TWA donation to the Department towards monitoring the wolf population.

Completion of this project is scheduled for September, 1989.

Job 105.2 PROVIDE ADDED LEGAL PROTECTION TO WOLVES.

Sub-job 2.1 and 2.2 do not require federal funding.

Sub-job 2.3 - 2.6 inactive during this period.

Job 105.3 COOPERATIVELY MANAGE HABITATS WITH LANDOWNERS

Sub-job 3.1 inactive during this period.

Sub-job 3.2 OBJECTIVE: Cooperatively manage habitats with industrial forests, county forests, state properties, national forests, tribal nations and private landowners:

- (a). Identify and agree on deer management practices
- (b). Identify and agree on appropriate access management practices
- (c). Identify specific cost-share management activities.

County, State, Native American and Industrial Properties:

Initiatives are underway in developing management strategies with an industrial forest complex on lands adjacent to three active wolf territories in north-central Wisconsin. Identification of overall multiple-use management objectives on these lands are currently being addressed. Specific objectives, such as wolf management, will developed at a later date.

Federal Properties:

Twenty Chequamegon National Forest Opportunity Area analyses were reviewed and comments were supplied on two areas identified as wolf management areas.

Fifteen Nicolet National Forest Opportunity Area analyses were reviewed and comments were supplied on three areas identified as wolf management areas.

JOB 105.4 MONITOR STATUS AND DISTRIBUTION OF WOLVES

Sub-job 4.1 OBJECTIVE: (a) Conduct summer night howl surveys to determine productivity rates, (b) monitor wolf population dynamics via radio telemetry, (c) collect

carcasses for necropsy and deposit into scientific museums.

Five wolves were collared in spring and summer 1989. Movements of 4 other wolves are being followed. A total of 6 wolf packs are being monitored via telemetry. Based on telemetry and ground tracking information, a minimum of 7 packs and 31 wolves were present in Wisconsin in winter 1988-89. One dead wolf was recovered after being killed by other wolves. Pups are verified present in 2 packs this summer.

For more detailed information see Appendix 1, and refer to Section 15 Performance Report, 1988-89.

Sub-job 4.2 inactive during this period.

#### JOB 105.5 INITIATE DISEASE ABATEMENT WORK

Sub-job 5.1 OBJECTIVE: Assess prevalence/impacts of disease and parasitism via necropsies and examination of captured wolves.

Meetings were held in Spooner in January and Minneapolis in March 1989 between biologists, pathologists and veterinarians of National Park Service, Fish & Wildlife Service, Forest Service, Wisconsin and Minnesota Departments of Natural Resources and various Universities to determine the types of diseases and parasites that potentially impact on wolves. Discussions centered on Canine Parvovirus (CPV), Lyme Disease, Genetic bottle-necking, and Heartworm.

A consensus was reached the CPV had a major impact on wolves when they were first exposed to the disease in the late 1970's and early 1980's, but should have minimal continuing impact on Minnesota wolves. Impacts on Wisconsin and Isle Royale wolves will be difficult to assess due to small number of wolves and complications with other maladies small populations are subjected to.

Lyme disease impacts are largely unknown, but affects on reproduction and suppression of longevity are possible.

Heartworm is becoming more prevalent in northern regions among dogs and may become more prevalent in wolves. Two Minnesota and one Wisconsin case have been documented; all three were old aged wolves.

Tests from blood samples of the five wolves captured in 1989 have not been completed.

Sub-job 5.2 OBJECTIVE: Routinely vaccinate all wolves captured for radio telemetry purposes.

Four of 5 wolves captured in 1989 were vaccinated against CPV, CoronaVirus and Canine Distemper.

Sub-job 5.3 was not active during this period.

#### JOB 105.7 IMPLEMENT LIVESTOCK DAMAGE CONTROL ACTIVITIES

Sub-job 7.1 OBJECTIVE: Develop cooperative agreement with Fish & Wildlife Service on livestock damage control program that permits DNR to take individual wolves when necessary.

In April 1989 a Wolf Depredation Control Program Proposal was submitted to DNR administration and the Bureau of Environmental Analysis and Review with supporting documentation of alleged wolf depredation complaints received between 1980 and 1988. The proposal took into consideration conditions set forth in the Congressional Endangered Species Act, Amendments of 1982, Section 4 (d), Section 7 (b)(4) & (7)(c), Section 9, and Section 10 (a).

A final proposal will be submitted to the Fish & Wildlife Service by October.

In July 1989 DNR updated an older agreement with USDA Animal and Plant Health Inspection Service, Animal Damage Control personnel to handle wolf depredation control activities in Wisconsin.

Sub-job 7.2 OBJECTIVE: Institute a livestock depredation compensation program.

At present, an endangered resource damage compensation fund, totaling 3 percent of Wisconsin's annual tax check-off contributions, is used for claims of damage caused by wolves. A \$400.00 claim was processed by a beef farmer in Douglas County in April 1989 who claimed losses of two calves. The farmer did not immediately report his losses and the damage was not verified. Despite this, the claim was processed as possibly caused by wolves. No wolves are known to reside within 10 miles of the site.



JOB 105.8 COORDINATE WOLF MANAGEMENT ACTIVITIES WITH  
OTHER AGENCIES.

Sub-job 8.1 OBJECTIVE: Seek establishment of a regional Lakes states wolf recovery coordinating committee and secure representation from Wisconsin.

Meetings sponsored by the US Forest Service were held in May 1989 between Michigan, Wisconsin, Minnesota, and the Fish & Wildlife Service and National Park Service to discuss wolf recovery prospects and coordination activities in the upper Great Lakes states. The establishment of an inter-agency wolf committee was discussed with no conclusions being reached. Another meeting is scheduled for January 1989.

Sub-job 8.2 OBJECTIVE: Develop guidelines by 1990-91 for management of corridors allowing for natural movements of wolves between Minnesota, Wisconsin, Michigan and Ontario.

Dispersal corridor management actions were discussed informally with members of the Eastern Timber Wolf Recovery Team and Fish & Wildlife Service regional staff at the March 1989 Minneapolis Disease meetings. Although no conclusions were reached, this matter may stimulate further action from the Team.

Sub-job 8.3 OBJECTIVE: Maintain formal (via workshops, conferences, etc.) and informal contact with others interested in regional wolf recovery efforts.

A meeting was held in January 1989 between University, Fish & Wildlife Service, and Wisconsin and Minnesota DNR to discuss research findings on various canine diseases.

A workshop was held with staff personnel on the Chequamegon, Nicolet and Ottawa National Forests in February 1989. Personnel were briefed on wolf status in Wisconsin and the region and received training in identifying wolf sign and differentiating it from coyote and dog.

Approximately 150 letters were written answering inquiries about wolf recovery in Wisconsin.

JOB 105.9 CONTINUE CITIZEN PARTICIPATION ACTIVITIES

Sub-job 9.1 OBJECTIVE: Send out reports each quarter to people on DNR wolf mailing list.

Four quarterly progress reports, summarizing field data, were sent out as scheduled (Appendix 1).

Sub-job 9.2 OBJECTIVE: Obtain periodic citizen input on management activities via public presentations, etc.

A draft Environmental Assessment of the Wisconsin Timber Wolf Recovery Plan was sent to approximately 1100 citizen participants in October 1988, and reviews were received from 24. The Environmental Assessment was approved in November. The Wisconsin Timber Wolf Recovery Plan was approved in March 1989, and copies of the approved plan were sent to the 1100 citizen participants in April 1989.

Prepared by Richard P. Thiel  
27 August, 1989



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STATUS OF THE TIMBER WOLF IN WISCONSIN  
PERFORMANCE REPORT

October 1, 1987 to September 30, 1988

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prepared by Richard P. Thiel, Wolf Biologist

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Funding Sources: Section 6 funding under project job 101.1, 101.2 and 101.3 ended on 30 September, 1988 and no further funds were secured. Between 1 October 1988 and 30 April, 1989 field work was supported by miscellaneous citizen donations, and some Pittman-Robertson (PR) revenues provided under Job 104.2 and Job 105.4 and 105.5. Beginning on 1 May, 1989 field work was supported through a Region 3, US Fish & Wildlife Service Section 15 contract.

For the purposes of this reporting period, winter funding (1 October through 30 April) was provided by citizen contributions and under PR Job 104, while summer work (>1 May) was funded via Section 15 under Jobs 1, 2 and 3.

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WINTER WOLF POPULATION MONITORING  
1 October, 1988 through 30 April, 1989

PR JOB 104.2 MONITOR WOLF ACTIVITY

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Objective: Monitor wolf activity by live-trapping, and radio-tracking wolves in northern Wisconsin.

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Monitoring Radioing Wolves. At the beginning of the period 9 radioed wolves in 7 packs were monitored. By the end of the period monitoring had been reduced to 3 wolves in 2 packs.

Winter Population Census: Sufficient telemetry data were obtained on 4 wolf packs to estimate the numbers of wolves and sizes of individual territories. Limited ground tracking provided additional data on minimal numbers of wolves present in the other 2 packs. In addition, field data obtained during spring trapping, provided information on the existence of another wolf pack in the state.

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The mid-winter 1988-89 Wisconsin timber wolf population (including the WI-MN border area) was estimated at 31 wolves in 8 social groups (Table 1). The 1988-89 census reveals a modest increase in numbers over the previous 2 winters as the state's population continues to rebound from lows reached in the mid 1980's.

Based on 4 packs monitored during winter 1988-89, winter pack size averaged 3.25 wolves. This is consistent with data from the two previous winters; 3.2 wolves per pack in 1987-88, and 3.3 wolves per pack in 1986-87.

Territory size of the 4 radioed packs averaged 36.4 mi<sup>2</sup>, and ranged from 26 to 45 square miles. The radioed packs supported a density of 1 wolf per 11.2 mi<sup>2</sup> (34.5 wolves per 1000 km<sup>2</sup>). However, the Douglas County Study Area (DCSA) wolf population showed a modest decline (See Below, and Table 2).

#### Significant Population Events, 1988-89:

##### Douglas County Study Area (DCSA):

No wolves have been radioed in the Tripod II pack in the Nemadji State Forest for 2 years. Signs of 4 wolves along the headwaters of the Willow River were reported by Northwoods Audubon staff during the period, but whether this activity is attributable to TP-II wolves, or another group is not known. The locale of sign is on the northwest border of known TP-II activity during the mid 1980's.

A new pack developed along the MN-WI border during the previous spring and summer, the Truck Trail pack (TTP). Wolf 129F, collared in May 1987, paired up with a wolf in an area sandwiched between two existing pack territories. They maintained a 38 square mile area up until the end of February when she was killed by the 35 pack pair. Prior to her death she was seen with two other wolves. She bore 3 pups in 1988 according to results of her necropsy. The disposition of the surviving wolves following her death was not ascertained.

No pups were present in the 35 pack during winter 1988-89. The pack consists of a radioed pair of wolves, 059F and 063M. They maintained their territory throughout the winter.

A pair of wolves, a non-collared male and 3.5 year old wolf 081F, was present in Moose Lake pack territory, as well as a single wolf that did not appear to associate with the pair. The pair ranged the western half of the territory, while the single confined its activity to the eastern portions of the old Moose Lake territory.

Northwest Wisconsin: Wolf 107M continued to maintain a home range within the territory of the defunct Rainbow Lake pack. In December he was seen twice with another wolf. Intermittent snow tracking indicated another wolf was present within the range, but neither wolves were observed associating with one another during the rest of the period.

North Central Study Area (NCSA): Six wolves were observed in Bootjack pack in winter 1988-89, including 3 adult-sized wolves (099F, 109M) and 3 pups. The alpha female's radio failed in December and contact was lost with yearling male 109M in April.

No telemetry censuses of Averill Creek pack (ACP) or Ranger Island pack (RIP) were made this year. Contact was lost with wolves 119F of ACP and 113F of RIP in mid November. Winter tracking indicated approximately 6 wolves existed in each pack.

Northeastern Wisconsin: No survey work was conducted in this region this winter. Reports of single wolves were noted from the northern Nicolet National Forest.

Pup Production and Survival: Litters were produced in 4 packs in 1988 (TTP; BJP; RIP; ACP). Some pups survived in each of these packs; among the radioed packs, 1 survived in TTP and 3 survived in BJP. Summer 1988 movements of 35P wolves 059F and 063M suggest a litter may have been born, but by September the pair was alone.

Mortality: Radioed TTP wolf 129F was killed by the 35P pair in early February, 1989 along the boundary between the two territories. No other radioed wolves were known or suspected to have died during the period. No non-radioed wolves were reported killed during the period.

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SUMMER 1989 WOLF POPULATION MONITORING  
1 MAY through 30 SEPTEMBER, 1989

Section 15 Job 1: Monitor wolves in Antigo Area.

Objective: Monitor wolf distribution and population changes in the Antigo area of north-central Wisconsin.

Radio Telemetry: One yearling female wolf (075F) was captured in May in ACP, and three male pups were captured in RIP in August. Two of these were ear-tagged and released, and a third was collared (Table 3).

Howl Surveys: A single pup responded to howls at a suspected ACP homesite in June. At least 3 adult wolves were present in ACP in July 1989, and movements of 075F hint to the presence of pups.

The RIP occupied a homesite on a farm pasture again this summer. Three pups were captured there in August; 2 were ear-tagged and released and a third was radioed. Based on observations and night howling surveys, up to 6 pups may be present.

#### **Section 15 Job 2: Monitor wolves in the Woodruff Area.**

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Objective: Monitor wolf distribution and population changes in the Woodruff area of north-central Wisconsin.

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Radio Telemetry: Two male wolves were collared in BJP in July (Table 3).

Howl Surveys: Night howl surveys indicate the presence of 3-4 pups in BJP at the traditional homesite within the Chequamegon National Forest during late August 1989.

#### **Section 15 Job 3: Monitor wolves in Northwestern Wisconsin.**

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Objective: Monitor wolf distribution and population changes in northwestern Wisconsin.

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Radio Telemetry: Monitoring activities continued with 3 wolves captured in previous years. In addition, a single wolf was captured within the Empire pack (EP) territory in June (Table 3). The status of wolves inhabiting this area of Douglas County was not adequately known during the past 4 years (See Table 1). Thus far, the movements of wolf 139M are similar to wolf 029F's, monitored between 1983 and 1984. The EP territory is bordered by 35P on the west and MLP on the northeast.

Howl Surveys: At least 3 wolves are present in EP, based on howl surveys. Similar surveys were unproductive in MLP. No surveys were conducted within 35P or TTP territories.

Miscellaneous: A wolf or wolf-dog hybrid and one of her half-dog pups were killed while killing sheep at Spooner in late July. The wolf-like canid had mated with a mongrel dog and produced a litter of 6 pups according to observations made of the family. The wolf-like canid is believed to be an escapee from captivity. Captive wolf-dog hybrids that manage to escape or are intentionally released pose a threat to Wisconsin's small wolf population via dilution of the wild gene pool.

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## 1988-89 Wisconsin Timber Wolf Monitoring Summary

The Wisconsin timber wolf population continued its modest increase during 1988, with a minimum of 31 wolves in 8 packs being counted. Pups survived in 4 of the 7 packs. Two packs (35P and MLP) either did not produce litters or lost them by autumn, 1988. The DCSA wolves continued to decline, in part because of poor productivity in recent years. The NCSA wolf population is increasing due to excellent productivity in the past 3 years. Mortality was light (1 radioed wolf), and summer 1989 productivity appears normal.

Table 1. 1988-89 Mid-Winter Wisconsin Timber Wolf Population.

Winter	DCSA				NW WI RP	NCSA			Others	Total
	MLP	Empire	35P	TTP		BJP	ACP	RIP		
1986-87	2r	?	2r	NE	4-6	2	6r	NE	2	18-20
1987-88	3r	2	4r	NE	1r	4r	6+	4r	2-3r	26-27
1988-89	3r	3	2r	2r	1r+1	6r	6	6	1	31

r = at least 1 radioed wolf present

NE = non-existent

Table 2. Annual Fluctuations in Wolf Densities in Wisconsin Based on Radioed Packs.

Winter	Cumulative Territory DCSA State		No. of Wolves	W o l f   D e n s i t y			
				DCSA	Statewide		
				mi <sup>2</sup> /wolf	wolf/1000km <sup>2</sup>	mi <sup>2</sup> /wolf	wolf/1000km <sup>2</sup>
1980-81	344		12	28.6	13.5		
1981-82	326		13	25.1	15.4		
1982-83	378		10	37.8	10.2		
1983-84	275		12-13	22.0	17.5		
1984-85							
1985-86	193		6	32.2	12.0		
1986-87 <sup>1</sup>	105(4)	190	10	26.3	15.0	19.3	20.0
1987-88 <sup>1</sup>	68(7)	177	14	9.75	39.6	12.6	30.5
1988-89 <sup>1</sup>	109(7)	145	13	15.6	25.0	11.2	34.5

<sup>1</sup>Figures appearing in ( ) indicate no. of wolves counted in radioed DCSA packs, and figures appearing in No. of Wolves column are total statewide.

Table 3. Capture and Telemetry Data on Wolves Monitored in 1988-89.

<u>Wolf #</u>	<u>Pack</u>	<u>Sex</u>	<u>Age</u>	<u>Capture Date</u>	<u>Last Date Located</u>	<u>No. Locations</u>	<u>Territory Size (mi<sup>2</sup>)</u>	<u>No. Wolves</u>
DCSA:								
081	MLP	F	P	10-13-85	2-14-89	200	est. 60	2-3
059	35P	F	A	05-12-88	MC*	75	26	2
063	35P	M	Y	05-20-86	MC	200	26	2
129	TTP	F	A?	05-14-87	1-26-89	102	38	3
139	EP	M	A	06-07-89	MC	22	no est.	3
NWWI:								
107	RLP	M	A	05-22-87	MC	139	53	1 + 1
NCSA:								
099	BJP	F	A	08-08-87	12-5-88	66	36	6
109	BJP	M	Y	07-22-88	4-12-89	34	36	6
125	BJP	M	Y?	07-13-89	MC	11	no est.	
126	BJP	M	A	07-14-89	MC	10	no est.	
113	RIP	F	Y	05-20-88	11-08-88	18	no est.	
101	RIP	M	P	08-09-89	MC	5	no est.	
104	RIP	M	P	08-08-89	not radioed			
122	RIP	M	P	08-07-89	not radioed			
119	ACP	F	Y	05-13-88	11-08-88	17	no est.	
075F	ACP	F	Y	05-25-89	MC	14	no est.	

MC = monitoring continues