

**WISCONSIN ENDANGERED RESOURCES REPORT #140
YEAR END SUMMARY
WOLF POPULATION MONITORING
IN WISCONSIN IN 2010**

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The gray wolf (*Canis lupus*) was eliminated from Wisconsin in the late 1950s, but returned to the state in the mid-1970s. The Wisconsin wolf population has been intensely monitored by the Wisconsin Department of Natural Resources (DNR) every year since fall 1979, using radio-telemetry, snow-track surveys, summer howl surveys, collection and necropsies on dead wolves, and collection of wolf observations (Wydeven et al. 2009). Population estimates have been made since winter 1979-1980 when 25 wolves were detected, to winter 2009-2010 when a minimum count of 690 wolves were detected (Wydeven et al. 2010). The gray wolf was listed as state endangered in 1975, state downlisted to threatened in 1999, and state delisted to protected wild animal in 2004. Federally, the gray wolf or eastern timber wolf (*Canis lupus lycaon*) was listed as endangered in Wisconsin in 1967 and 1974. The US Fish and Wildlife Service (USFWS) federally downlisted wolves to threatened status in April 2003, but relisted wolves to endangered status in January 2005 due to lawsuits. Gray wolves were delisted by USFWS in Wisconsin on 12 March 2007, but relisted as endangered on 29 September 2008 due to a lawsuit. Wolves were again delisted on 4 May 2009, but again relisted on 1 July 2009 because of threat of lawsuit. New efforts for federal delisting are planned for spring 2011, and are anticipated to be completed by late 2011.

Thus currently wolves are listed as a state protected wild animal, but continue to be federally listed as endangered. Wolves were listed as federally endangered throughout 2010, and no authority for limited lethal controls on wolves preying on domestic animals were granted by USFWS, as had been done in 2005 and 2006. Thus the only lethal controls possible by the Wisconsin DNR and its partner USDA-Wildlife Services, was on wolves that show risk to human safety. The enclosed report summarizes data collected in 2010. A more extensive report on wolf conservation work in Wisconsin will be completed in September 2011.

Wolf Captures

Thirty-five wolves were live-captured and radio-collared in 2010 (Table 1). Collars were placed on 24 of 181 packs (13%) detected in the state in winter 2010, and on 2 packs not previously detected (Chittamo& Scotchman Lake). Collars were also placed on 5 wolves that mainly appeared to be loners/dispersers. Eight wolves were captured by fur trappers in the fall and turned over to WDNR for radio-collaring. The other 27 wolves were captured by WDNR, USDA-WS, and tribal trappers. Captured wolves included: 11 adult males ($\bar{X} = 79.4$ lbs. \pm 6.9 SD for 10), 6 adult females (63.5 lbs. \pm 7.5 SD), 4 yearling males ($\bar{X} = 67.5$ lbs. \pm 11.5 SD), 12 yearling females ($\bar{X} = 63.7$ lbs \pm 6.1 SD for 11), 1 pup male (30 lbs.) and 1 pup female (60 lbs).

Radio Collared Wolves Monitored in 2010

A total of 91 radio collared wolves were monitored during portions of 2010 (Table 2). Radio-collared wolves monitored during the year included 68 Wisconsin packs, 2 Minnesota packs, and 1 wolf dispersing in Michigan. Wisconsin packs with collared wolves included 65 or 36 % of the 181 packs detected in winter 2010 (Wydeven et al. 2010). One pack detected during the winter survey went extinct and was not included in the winter count, and 2 new packs were detected after the winter 2010 surveys. Nine radio-collared wolves were mostly loners/disperser while on the air in 2010, and at least 11 pack wolves became dispersers during the year. Four wolves switched pack affiliations with only short intervals of dispersal between the switch. During the year, 18 collared wolves died, and radio signals were lost on 13 wolves. Age and gender of wolves monitored (during most of 2010, or at time of death or signal lost) included 28 adult males, 44 adult females, 5 yearling males, 12 yearling females, 1 pup male, and 1 pup female. At the end of 2010, 60 wolves remained on the air including: 16 adult males, 29 adult females, 3 yearling males, 10 yearling females, 1 pup male, and 1 pup female.

Wolf Mortality

A total of 72 wolves and 3 wolf-dog hybrids were found dead in Wisconsin in 2010, and 2 wolves originally from Wisconsin died in adjacent states (Table 3). The sample of wolves found dead included: 20 adult males, 23 adult females, 3 unknown adults, 4 yearling males, 6 yearling females, 3 pup males, 7 pup females, 3 unknown pups, 1 unknown age & gender, and 2 unknown females (last 2 probably yearlings or adults). Among 16 wolves actively monitored (some of these are preliminary) by the Wisconsin DNR: 6 (38 %) were shot illegally, 2 (12 %) were euthanized for human safety concerns, 2 (12%) were killed by vehicle, 1 (6%) died from disease, 1 (6%) died from unknown natural mortality (old age?), 1 (6%) died from other wolves, and 3 (19%) died from unknown causes. One of the wolves that appeared killed by a vehicle, was also suffering from mange, which may have been a predisposing factor (i.e. less alert and spending more time along roads). Including 2 wolves dying in adjacent states, 18 of 91 radio-collared wolves monitored by WDNR died in 2010 for an overall rough mortality rate of 20%, suggesting relatively low mortality rates.

Among the overall sample of 72 wolves found dead in the state in 2010, mortality included: 14 (19 %) illegal shooting (1 by bow), 1 (1%) trauma from unknown causes, 16 (22 %) euthanized in human safety concerns, 1 (1%) euthanized depredator (originally suspected as hybrid), 26 (36 %) vehicle collisions (1 by train), 1 (1%) euthanized sick animal, 2 (3%) disease (mange), 1 (1%) other wolves, 1 (1%) other natural mortality, and 9 (12%) unknown mortalities. Among the overall sample of dead wolves, at least 81% died from human caused mortality, compared to 62 % of the radio collared sample. The radio-collared sample is probably a less biased assessment of overall mortality affecting wolves, but mainly reflects mortality among adults, and may not be as representative of dispersers living in more marginal habitat across the state.

Wolf Observations and Distribution

Reports of wolf observations that were classified as “probable” or “possible” were received from 55 counties in the state, although only single observations were received from 13 counties (Table 4). These reports, from citizens and agency personnel, supplement other wolf survey work, provide early reconnaissance of new wolf occurrence, and provide information on general distribution of wolves across the state, especially lone

dispersers. These reports do probably also contain some misidentifications of coyotes, wolf-dog hybrids, and dogs as wolves. The 365 reports of wolf observations in 2010 were similar to 2009 (373 reports), 2008 (351 reports), and 2007 (329 reports). Highest report rates for wolf observations were from Price (23), Marinette (22), Ashland (20), Douglas (18), and Bayfield (17) counties.

Wolf Depredation on Domestic Animals and Other Nuisance Problems

Wolf depredation to livestock occurred on 47 farms in 2010, compared to 28 farms in 2009, and exceeds the previous record of 32 farms in 2008 (Table 5a). Total livestock depredation in 2010 included: 63 cattle killed (47 calves), 5 cattle injured, 6 sheep killed (4 lambs), 1 goat injured, and 6 farm deer killed. A total of 25 to 27 packs and 2 to 4 loners/dispersers were involved in depredation on livestock. Twenty-three of the depredating packs were detected in the previous winter and were 13% of the known packs in the state. Four verified cases of wolf harassment or threats to livestock were also recorded during 2010 (Table 5a).

Thirty-four cases of wolf depredations on dogs were detected during 2010, including 14 cases of wolf depredations on pet dogs near homes, and 20 cases of depredations on dogs in hunting and training situations (Table 5b). A total of 24 dogs were killed and 14 were injured by wolves by 21 different packs (12% of packs in the state in 2010) and 1 loner/disperser. Among hunting dogs 19 were killed and 4 were injured (including 1 bird dog), and among pet dogs, 6 were killed and 10 were injured. An injury to a bird hunting dog in Jackson County on 21 September 2010, was the first depredation on a dog in a bird hunting situation ever recorded in Wisconsin. The total kill on dogs by wolves was less than the 25 killed in 2006, but the 14 injured in 2010 exceeded the previous high of 11 in 2009. Rate of wolf depredation on hunting dogs was similar to recent years, but rate of depredation on pet dogs was the highest ever recorded in the state. A total of 5 packs were involved in depredation on both dogs (all pet dogs) and livestock. A total of 31 packs (~17 % of state packs) would have been likely exposed to control actions if wolves had been delisted (packs attacking livestock or pets near homes), and with typical success rate of these controls, wolves would have been removed from about half these packs. No authority for lethal controls, except in human safety situations, existed for the Wisconsin DNR in 2010.

Nine safety concerns involving 7 packs across 5 counties were documented in 2010 (Table 5c). In two of these situations, levels of habituation were serious enough that WDNR exercised its authority to “take” wolves that were considered “demonstrable but not immediate threats to human safety”. In cooperation with USDA-Wildlife Services, 15 wolves and 1 wolf–dog hybrid were captured and euthanized or shot from a farm in Price County, and a cranberry bog in Jackson County. The Price County pack was also involved in livestock depredation and harassment, and the Jackson County pack had also attacked and threatened dogs. Additionally, a wolf captured and collared from the Price County farm (770M) in spring 2010, was euthanized away from the farm when recaptured in October when it continued to show habituated and aggressive behavior.

Plans for 2011

Monitoring activity as occurred since 1979 will continue, including trapping and collaring wolves in spring and summer (20-30), placing collars on wolves caught by fur trappers (10-15), aerial monitoring of all collared wolves will be done weekly, retrieving and determining cause of death will be performed on wolves that die in the field, snow track surveys will be conducted with agency personnel and volunteers, and collecting wolf observations will continue. Wolf depredations will be investigated by USDA-WS and they will provide advice and assist in deterring wolves from problem areas. Some limited lethal control activity may be permitted through a section 10 permit with USFWS. The USFWS is planning on starting a new delisting program in spring 2011, but it is not likely to be completed until the end of 2011.

Acknowledgement

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LITERATURE CITED

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Table 1. *Wolves captured and radio-collared in Wisconsin in 2010.*

Wolf Number	Sex/Age^a	Weight (lbs)	Pack/Area	County Captured	Date
Zone 1 - 24 captured, 24 collared					
W759	M/Y	75	Lea Lake	Rusk	06-May 10 ^b
W760	F/Y	61	Belden Swamp	Douglas	07-May-10 ^b
W770	M/A	85	Wintergreen	Price	12-May-10
W773	M/Y	50	Twin Lakes	Bayfield	19-May-10
W755	F/Y	60	Little Rice River	Oneida	22-May-10
W782	F/Y	75	Pemene	Marinette	10-Jun-10 ^b
W764	M/A	80	Torch River	Ashland	20-Jun-10
W752	F/Y	65	Disperser?	Sawyer	25-Jun-10 ^b
W774	F/Y	58	Lipsett Lake	Burnett	25-Jun-10 ^b
W793	F/Y	75	Disperser	Oneida	28-Jun-10
W754	F/Y	60	North Willow	Oneida	28-Jun-10
W784	M/A	85	Chittamo	Washburn	30-Jun-10 ^b
W776	F/A	62	Riverside	Burnett	30-Jun-10 ^b
W781	M/Y	80	West Firelane	Ashland	14-Jul-10 ^b
W779	M/P	30	West Firelane	Ashland	31-Jul-10 ^b
W777	F/Y	65	Disperser	Oneida	31-Aug-10 ^b
W780	F/Y	62	Morrison Creek	Iron	29-Sep-10 ^c
W753	F/Y	NA	Shoberg Lake West	Douglas	18-Oct-10 ^c
W791	M/A	NA	Chain Lake	Douglas	25-Oct-10 ^c
W673	M/A	80	Flag River?	Bayfield	28-Oct-10 ^c
W690	F/A	55	Scotchman Lake	Oneida	31-Oct-10 ^c
W783	M/A	87	Mud Lake	Florence	02-Nov-10 ^c
W761	M/Y	65	Web Creek	Washburn	03-Nov-10 ^c
W792	F/P	60	North Willow	Oneida	12-Nov-10 ^c
Zone 2 – 8 captured; 8 collared					
W655	M/A	85	Brushy Ridge	Clark	20-Feb-10 ^d
W763	F/Y	65	Colburn	Adams	03-Jun-10
W762	M/A	76	Colburn	Adams	07-Jun-10
W790	F/A	60	Bear Bluff	Jackson	26-Jul-10
W778	F/Y	55	Bear Bluff	Jackson	29-Jul-10
W772	M/A	78	Noch Hanai	Jackson	12-Sep-10
W683	M/A	76	Noch Hanai	Jackson	14-Sep-10
W771	F/A	57	McKenna?	Jackson	14-Sep-10
Zone 3 – 3 captured; 3 collared					
W658	F/A	75	Miller Creek	Shawano	05-Jun-10 ^e
W659	F/A	72	Loner	Shawano	21-Jul-10 ^e

W768 M/A 62 Loner? Shawano 16-Nov-10^e

^aAge at time of capture assuming birth date 1 April (P = Pup, Y = Yearling, A = Adult)

^bCaptured by USDA-WS

^dCaptured with cable restraint

^cCaptured by furbearer trapper

^eCaptured by Stockbridge-Munsee tribe

Table 2. *Radio-collared wolves monitored in Wisconsin and adjacent areas of Michigan and Minnesota in 2010.*

Wolf Number	Age^a	Pack/Area	Counties	Date Captured	Last Date	Locations^b
<u>Zone 1</u>						
M2737M	A	Sabin Lake	Bayfield/Sawyer	12 May 06 ^c	10 Jun 10**	130
M2749F	Y	Giant McArthur Pine	Forest/Florence	25 Jun 06 ^c	Ongoing	164
M2752F	A	Disperser	Vilas	25 Jun 07 ^c	04 Feb 10*	3
M2761F	A?	Evergreen	Menominee/Langl/Oconto	19 May 09 ^c	Ongoing	52
M734M	A	Bob's Lake	Forest	03 Jul 09 ^d	Ongoing	52
W475F	A	Shanagolden	Ashland	24 Jun 04	14 Oct 10*	241
W498F	A	Shoberg Lake	Douglas	09 Jun 05	12 Jan 10*	173
W500B F	A	Escanaba Lake	Vilas	27 May 06	Ongoing	195
W503F	A	Miles Lake	Iron/Vilas/Price	21 Aug 09	15 Mar 10*	31
W508F	Y	Pine Lake	Iron	12 Jul 04	Ongoing	275
W511F	Y	Sabin Lake	Sawyer	28 Jun 06	20 Jan 10**	122
W520F	Y	Foxboro	Pine/Carlton (MN)/Douglas	13 Jun 06	20 Jul 10**	152
W555M	A	Skinner Creek	Price/Sawyer/Rusk	13 Jun 09	Ongoing	73
W564F	A	Moose Road	Douglas/Pine (MN)	19 May 07	Ongoing	134
W570F	A	Moreland L./Rainbow L.	Douglas/Bayfield	13 May 07	30 Aug 10**	91
W573F	Y	Black Lake	Ashland/Sawyer	26 Jun 06	Ongoing	171
W602F	A	Crotte Creek	Douglas	11 May 06	Ongoing	182
W615F	A	Pigeon Lake	Bayfield	10 Jun 07	Ongoing	132
W616F	A	Pikes Peak	Douglas	15 May 07	Ongoing	133
W623F	A	Bootjack Lake	Oneida/Vilas/Price	29 May 07	Ongoing	144
W626F	A	Rainbow Lake	Bayfield	27 Jun 07	Ongoing	130
W627F	A	Delta/Mason	Bayfield	28 Jun 07	17 Aug 10*	98
W630F	A	Disperser/Tuscobia Trail	Price/Sawyer	18 Jun 09	Ongoing	67
W631M	A	Belden Swamp/Disperser	Douglas/Pine	16 Jun 08	22 Mar 10**	51
W634F	A	Spruce River	Douglas	16 Jun 08	03 May 10*	66
W637M	Y	Shoberg L/Moreland Lake	Douglas	30 Jun 08	Ongoing	86
W639F	Y	MN Pack	Pine/Burnett	20 Oct 09	20 Sep 10*	46
W648F	A	Disperser	Iron MI	30 Jun 08	04 Jan 10*	48
W650F	Y	Haystack Corner	Sawyer/Rusk	05 Jun 08	Ongoing	96
W651M	A	Brush Creek	Ashland	20 Jun 08	Ongoing	95
W663F	P	Bearsdale	Bayfield	02 Nov 08	Ongoing	90
W664F	A	Shoberg Lake	Douglas/Bayfield	08 Nov 08	Ongoing	89
W667M	A	Kakagon Sloughs	Ashland/Iron	15 Aug 08	Ongoing	91

W669F A Disp/Amnicon River Douglas/Bayfield 27 Apr 09 Ongoing 63

Table 2. *continued*

Wolf Number	Age^a	Pack/Area	Counties	Date Captured	Last Date	Locations^b
W670F	Y	Moreland Lake	Douglas/Bayfield	20 Jun 09	Ongoing	73
W671F	A	Beaver Dam Lake	Ashland/Bayfield	22 Jun 09	Ongoing	71
W672F	A	Bird Sanctuary/Disperser	Douglas	30 Jun 08	Ongoing	96
W673M	A	Flag River	Bayfield	28 Oct 10	Ongoing	10
W678M	Y	Disperser	Rusk	16 Jun 09	04 Feb 10**	22
W682M	A	Disperser/Wintergreen N.	Price/Iron/Ashland	18 May 09	02 Aug 10*	57
W686M	Y	Marheimie Creek	Price	24 Jun 09	Ongoing	79
W687M	A	Thunder Creek/Disperser	Price/Oneida	29 Jun 09	Ongoing	78
W688F	A	Casian	Oneida	28 Oct 09	Ongoing	65
W689F	A	Cranberry Lake/Disperser	Price	18 Nov 09	22 Mar 10**	19
W690F	A	Scotchman Lake	Oneida	31 Oct 10	Ongoing	11
W691M	A	Price Creek/Disperser	Sawyer/Price	20 Jun 09	Ongoing	73
W692F	A	Little Rock Lake	Vilas	11 Jul 09	Ongoing	78
W693F	A	Moreland Lake	Bayfield	29 Jun 09	05 Jan 10*	20
W694F	Y	Ghost Lake/Disperser	Sawyer/Bay./Ash./Price	29 Jun 09	Ongoing	64
W697M	A	Rainbow Lake	Bayfield	27 Oct 09	24 May 10*	31
W698M	A	Crex Meadow/Disperser	Burnett/Pine	24 Aug 09	22 Feb 10**	28
W752F	Y	Carpenter Creek/Disperser	Price/Sawyer/Rusk	25 Jun 10	Ongoing	31
W753F	Y	Disperser	Douglas	18 Oct 10	Ongoing	9
W754F	Y	North Willow	Oneida	28 Jun 10	Ongoing	30
W755F	Y	Little Rice River	Oneida	22 May 10	Ongoing	37
W757M	A	Casey Creek/Moreland L.	Douglas/Bayfield	29 Oct 09	Ongoing	59
W759M	Y	Lea Lake	Rusk	06 May 10	Ongoing	37
W760F	Y	Belden Swamp	Douglas	07 May 10	Ongoing	35
W761M	Y	Webb Creek	Washburn	03 Nov 10	Ongoing	9
W764M	A	Torch River	Ashland/Sawyer	20 Jun 10	Ongoing	30
W770M	A	Wintergreen S?/Disperser	Price/Ashland/Iron	12 May 10	24 Oct 10*	28
W773M	Y	Twin Lakes	Bayfield	19 May 10	Ongoing	35
W774F	Y	Lipsett Lake	Burnett	25 Jun 10	Ongoing	29
W776F	A	Riverside	Burnett	30 Jun 10	Ongoing	26
W777F	Y	Disperser	Price/Sawyer	31 Aug 10 ^{ef}	28 Oct 10*	68
W779M	P	West Firelane	Ashland	31 Jul 10	Ongoing	19
W780F	Y	Morrison Cr.?/ Disperser?	Ashland/Iron	29 Sep 10	29 Nov 10**	10
W781M	Y	West Firelane	Ashland	14 Jul 10	23 Nov 10**	21

W782F Y Pemene Marinette/Florence 10 Jun 10 Ongoing 34

Table 2. *continued*

Wolf Number	Age^a	Pack/Area	Counties	Date Captured	Last Date	Locations^b
W783M	A	Mud Lake	Florence	02 Nov 10	29 Nov 10**	4
W784M	A	Chittamo	Washburn	30 Jun 10	Ongoing	28
W791M	A	Chain Lake	Douglas/Washburn	25 Oct 10	Ongoing	11
W792F	P	North Willow	Oneida	12 Nov 10	Ongoing	9
W793F	Y	Disperser	Oneida/Price	28 Jun 10	Ongoing	30
<u>Zone 2</u>						
W487M	A	Davidson Creek	Jackson	06 Sep 06	01 Sep 10**	66
W635F	Y	Mather East	Juneau/Jackson/Monroe	20 Nov 07	Ongoing	85
W652F	P	McKenna?	Jackson/Clark	15 Aug 08	Ongoing	75
W654F	A	Starlight	Jackson	07 Jun 08	Ongoing	80
W655M	A	Brushy Ridge	Clark	20 Feb 10	26 Feb 10*	3
W657M	A	Meadows Cr/Eau Claire R	Clark/Eau Claire	10 Nov 09	Ongoing	55
W683M	A	Noch Hanai	Jackson	14 Sep 10	18 Nov 10*	10
W684F	A	2-Korner	Wood/Jackson	30 May 09	Ongoing	62
W762M	A	Colburn	Adams	07 Jun 10	17 Aug 10**	12
W771F	A	McKenna?	Jackson	14 Sep 10	23 Nov 10*	10
W772M	A	Noch Hanai	Jackson	12 Sep 10	Ongoing	16
W778F	Y	Bear Bluff/Disperser	Jackson/Juneau/Wood	29 Jul 10 ^e	Ongoing	102
W790F	A	Bear Bluff	Jackson	26 Jul 10	10 Oct 10*	11
<u>Zone 3</u>						
W658F	A	Miller Creek	Shawano	05 Jun 10	Ongoing	46
W659F	A	Loner	Shawano	21 Jul 10	25 Oct 10*	16
W763F	Y	Colburn/ Disperser	Adams/Waushara/Portage	03 Jun 10	Ongoing	30
W768M	A	Disperser	Shawano/Waupaca	16 Nov 10	Ongoing	8

Zone 1: 74 wolves in 58 packs, 50 still on air at end of monitoring period

Zone 2: 13 wolves in 11 packs, 7 still on air at end of monitoring period

Zone 3: 4 wolves in 1 pack, 3 still on air at end of monitoring period

^aAge at time of capture (P = Pup, Y = Yearling, A = Adult)

^bTotal locations from the time of capture

^cCaptured in Gogebic County, Michigan

^dCaptured in Baraga County, Michigan

^eGPS collar;

^fCaptured in Oneida County during depredation trapping on deer farm and moved to Price County

*Mortality

**Lost signal

Table 3. Wolf mortality in Wisconsin in 2010.

Date	Wolf Number	Age/Sex	County	Cause	Pack
<u>Zone 1</u>					
01/02/10		A/F	Vilas	Illegally killed	Miles Lake
01/05/10	W693*	A/F	Bayfield	Disease – mange	Rainbow Lake
01/12/10		P/F	Douglas	Vehicle collision	Spruce River
01/12/10	W498*	A/F	Douglas	Vehicle collision?/ trauma	Shoberg Lake
02/04/10	2752**	A/F	Vilas	Trauma (Possible trap injury)	MI Pack
02/11/10		A/M	Rusk	Vehicle collision	Lea Lake
02/16/10		A/M	Ashland	Vehicle collision	Black Lake
02/20/10		A/M	Ashland	Vehicle collision	Beaver Dam Lake
03/15/10	W503*	A/F	Price	Illegally killed – shot	Miles Lake
03/31/10		A/F	Ashland	Disease-mange	West Firelane
04/03/10		A/M	Lincoln	Vehicle collision	Disperser
04/29/10		Y/F	Douglas	Vehicle collision	Bird Sanctuary
04/30/10		A/?	Douglas	Unknown	Shoberg Lake
05/03/10	W634*	A/F	Douglas	Unknown	Belden Swamp
05/15/10	(H)? ^a	A/F	Price	Euthanized – Depredation	Skinner Creek
05/24/10	W697*	A/M	Bayfield	Vehicle collision	Rainbow Lake
07/18/10	W511*	A/F	Sawyer	Illegally killed - Shot	Sabin Lake
07/27/10		Y?/M	Iron	Vehicle collision	Murray’s Landing
08/03/10	W682*	A/M	Price	Unknown	Wintergreen North
08/06/10		A/F	Douglas	Vehicle collision	Casey Creek
08/11/10		A/M	Price	Euthanized – Health & Safety	Wintergreen South
08/17/10		Y/F	Price	Euthanized – Health & Safety	Wintergreen South
08/17/10	W627*	A/F	Bayfield	Unknown	Mason
08/25/10		?/ ?	Vilas	Vehicle Collision	Pin Cherry Lake
08/25/10		P/M	Price	Euthanized – Health & Safety	Wintergreen South
08/26/10	Hybrid ^b	A/F	Price	Euthanized – Health & Safety	Wintergreen South
08/26/10		A/M	Price	Euthanized – Health & Safety	Wintergreen South
08/26/10		P/F	Price	Euthanized – Health & Safety	Wintergreen South
09/01/10		P/?	Douglas	Vehicle Collision	Shoberg Lake West
09/05/10		A/F	Price	Euthanized – Health & Safety	Wintergreen South
09/06/10		P/F	Douglas	Vehicle collision	Poplar River?
09/08/10	Hybrid?	A/M	Bayfield	Unknown	Unknown
09/15/10		Y/M	Ashland	Vehicle collision	Disperser?
09/29/10		Y/M	Price	Euthanized – Health & Safety	Wintergreen South
10/03/10		A/F	Price	Euthanized – Health & Safety	Wintergreen South
10/12/10		P?/F	Douglas	Illegally killed	Lake Nebagamon
10/14/10	W475*	A/F	Ashland	Natural causes?	Shanagolden
10/15/10		Y?/F	Douglas	Vehicle collision	Poplar River
10/24/10	W770*	A/M	Price	Euthanized – Health & Safety	Disperser?
10/25/10		A/F	Price	Euthanized – Health & Safety	Wintergreen South
10/28/10	W777*	Y/F	Sawyer	Illegally killed – shot	Disperser
11/06/10		A/F	Burnett	Euthanized – poor condition	Crex Meadow
11/10/10		P?/?	Burnett	Unknown	Namakagon Barrens
11/11/10		A/M	Ashland	Vehicle collision	Morrison Creek

11/27/10		Y/M	Rusk	Illegally killed – shot	Blue Hills North
Table 3. <i>continued</i>					
Date	Wolf Number	Age/Sex	County	Cause	Pack
12/28/10		A/?/?	Burnett	Unknown	Namakagon Barrens
12/13/10		?/F	Oneida	Vehicle Collision	Disperser
<u>Zone 2</u>					
01/16/10		A/M	Eau Claire	Illegally killed - Shot, poisoned	Eau Claire River?
01/29/10		A/?	Jackson	Illegally killed – shot	Wildcat Mound
02/26/10	W655*	A/M	Clark	Other wolves?	Brushy Ridge
03/30/10	Hybrid ^b	?/M	Monroe	Vehicle collision?	Unknown
05/08/10		P/F	Jackson	Unknown	Unknown
10/01/10		A/M	Jackson	Euthanized – Health & Safety	Bear Bluff
10/07/10		P/M	Jackson	Euthanized – Health & Safety	Bear Bluff
10/07/10		Y/F	Jackson	Euthanized – Health & Safety	Bear Bluff
10/08/10		P/F	Jackson	Euthanized – Health & Safety	Bear Bluff
10/10/10	W790*	A/F	Jackson	Euthanized – Health & Safety	Bear Bluff
10/13/10		P/M	Jackson	Vehicle collision	Noch Hanai
10/14/10		P/F	Jackson	Euthanized – Health & Safety	Bear Bluff
10/18/10	M2782	A/M	Clark	Vehicle collision (train)	Disperser
11/18/10	W683*	A/M	Jackson	Illegally killed - shot	Noch Hanai
11/23/10	W771*	A/F	Jackson	Illegally killed - shot	Noch Hanai
<u>Zone 3</u>					
02/05/10		A/F	Portage	Vehicle collision	Disperser
02/07/10		A/F	Portage	Illegally killed-gunshot	Fogarty Marsh
02/25/10		A/M	Monroe	Vehicle collision/ euthanized	Ft McCoy?
03/09/10		?/F	Portage	Vehicle collision?	Disperser
03/29/10		A/M	Buffalo	Unknown	Disperser
04/03/10		?/F	Wood	Illegal killing-shot	Disperser?
04/26/10		A/M	Marathon	Vehicle collision?	Disperser
04/29/10		A/M	Monroe	Illegally killed-gunshot	Disperser?
06/28/10		P/?	Wood	Vehicle collision	?
10/25/10	W659*	A/F	Shawano	Illegally killed - shot (w/arrow)	Loner
11/22/10		A/F	Jackson	Unknown	Disperser?
12/04/10		A?/M	Polk	Vehicle collision	Disperser
<u>Zone 4</u>					
01/06/10		Y/F	Dane	Vehicle collision	Disperser
<u>WI Collared Wolves found dead outside of WI</u>					
01/04/10	W648*	A/F	Iron, MI	Mange?	Disperser?
09/20/10	W639*	A/F	Pine, MN	Illegally killed – shot	MN pack

Zone 1 = 47 mortalities, (12 collared), 2 or 3 wolf-dog hybrids

Zone 2 = 15 mortalities, (5 collared, 1 of which was not being actively monitored), 1 wolf-dog hybrid

Zone 3 = 12 mortalities, (1 collared)

Zone 4 = 1 mortality

Outside of WI = 2 WI monitored wolf mortalities

* Actively monitored at time of death by WI DNR

** Actively monitored at time of death by MI DNR

^a Genetically tested as wolf, but physically appeared to be a wolf-dog hybrid.

^b Genetically tested as hybrid

Table 4. Probable and possible wolf observations reported by natural resource agency personnel and private citizens in Wisconsin, 2010.

County	Number of Sightings	Wolves Seen	Track or Sign Observations	Total Wolf Observations
Adams*	4	4	1	5
Ashland*	20	45	0	20
Barron*	1	1	3	4
Bayfield*	10	21	7	17
Burnett*	11	21	0	11
Chippewa*	4	9	2	6
Clark*	1	2	0	1
Columbia	3	4	2	5
Dane	6	6	0	6
Door	3	4	1	4
Douglas*	12	32	6	18
Dunn	1	7	1	2
Eau Claire*	1	9	0	1
Florence*	13	16	0	13
Fond du Lac	1	2	0	1
Forest*	3	7	1	4
Green Lake	1	1	0	1
Iowa	1	1	0	1
Iron*	8	16	4	12
Jackson*	5	16	0	5
Juneau*	3	7	3	6
Kenosha	3	3	0	3
Kewaunee	2	3	1	3
Langlade*	1	1	0	1
Lincoln*	5	7	0	5
Manitowoc	10	12	0	10
Marathon*	9	13	1	10
Marinette*	20	31	2	22
Marquette	4	6	0	4
Menominee*	3	4	0	3
Monroe*	4	15	0	4
Oconto*	10	18	2	12
Oneida*	14	33	2	16
Outagamie	3	4	0	3
Ozaukee	1	1	0	1
Pepin	1	1	0	1
Polk*	4	12	1	5
Portage*	5	8	1	6
Price*	19	40	4	23
Richland	2	2	0	2
Rock	1	1	0	1
Rusk*	3	4	1	4
Sauk	5	6	0	5
Sawyer*	14	21	1	15
Shawano*	14	30	0	14
Trempealeau	1	1	0	1
Vernon	1	1	0	1
Vilas*	14	19	2	16
Walworth	1	1	0	1
Washburn*	5	7	2	7
Washington	2	2	0	2
Waupaca	7	9	1	8
Waushara	3	4	1	4
Winnebago	4	4	0	4
Wood*	5	10	0	5
Total	312	565	53	365

*Counties believed to have packs with breeding activity in 2010. No observations were reported from Taylor county where breeding packs are known to exist.

Table 5a. Wolf depredation cases on livestock in Wisconsin in 2010. (chronic farms shaded)

Date	Animal Lost	Pack Involved	County	Payments ^a	Control Actions ^b
Zone 1					
03/31-10/11	2 calves	Poplar River	Douglas	\$3500.00	
04/02-04/05	2 cows, 1 calf	Harrison Hills	Lincoln	\$2600.00	Non-Lethal
04/05-09/01	3 deer (deer farm)	Swamp Creek	Oneida	\$26000.00	Trapping – removed 2 wolves
04/26-6/10	7 calves	Chase Brook	Burnett	\$4800.00	Non-Lethal
04/28	1 calf	Skinner Creek	Price	\$1500.00	Trapping – 1 wolf euthanized (believed to be hybrid)
05/02	1 calf	Lea Lake	Rusk	\$500.00	
05/03	1 calf	Harrison Hills	Lincoln	\$500.00	Non Lethal
05/08-12/07	2 cows	Wintergreen South	Price	\$3000.00	Non-Lethal & Trapping ^c - 10 wolves & hybrids euthanized
05/10	1 calf	Poplar River	Douglas	\$750.00	Non-lethal
05/14-06/21	4 calves, 1 cow	Amnicon River	Douglas	\$3750.00	Non-Lethal
05/21-09/30	1 calf, 1 sheep, 4 lambs killed; 1 goat injured	Casey Creek	Douglas	\$1425.00	Non-Lethal
05/24	1 calf injured	Pine Creek	Price	NC	
05/26-07/13	2 calves	Pine Creek	Ashland	\$1504.00	
05/28	1 calf	Mondeaux Flowage	Taylor	\$600.00	
05/29-07/29	2 calves	South Range	Douglas	\$1500.00	
06/01	1 calf	Weirgor Lake	Sawyer	\$600.00	
06/10	1 calf	Skinner Creek?	Price	\$700.00	
07/06	1 calf	Pine Creek	Ashland	NC	
07/07	1 calf	Pine Creek	Price	\$600.00	
07/17	1 calf	Mason	Bayfield	\$900.00	
07/23-08/10	1 calf killed, 2 injured	Beaver Dam Lake	Ashland	\$750.00	Non Lethal
08/02	1 steer	Casey Creek	Douglas	\$750.00	Non-Lethal
08/02	1 calf injured	South Range	Douglas	NC	
08/07	3 deer (deer farm)	Wolf Lake?	Washburn	\$29000.00	
08/19	1 calf	Poplar River	Douglas	\$1500.00	
08/21	1 cow	South Range	Douglas	\$2400.00	
08/26	1 calf	Disperser?	Forest	\$750.00	
08/31	1 steer	South Range	Douglas	\$800.00	
09/10	1 calf injured	Amnicon River	Douglas	\$1200.00	Non Lethal
09/15-11/20	3 calves	White River?	Ashland	\$3900.00	
09/22	1 calf	Weirgor Lake?	Sawyer	\$1100.00	
09/22	1 cow	Tupper Creek?	Sawyer	\$1605.00	
09/28	1 ram	Miles Lake?	Price	\$600.00	
10/23	1 steer	Potato River? (new)	Ashland	\$1000.00	
10/30	1 calf	Casey Creek	Douglas	\$1000.00	
11/07	1 cow	Little Black River	Taylor	\$1400.00	
ZONE 1 TOTALS	37 calves killed 5 calves injured 11 adult cattle 4 lambs 2 sheep 1 goat injured 6 deer	21 packs	12 counties	\$102,484.00	36 farms (14 chronic) Non-lethal at 10 farms Trapping 2 farms 2 wolves translocated 11 wolves & hybrids euthanized

Table 5a. Continued

Date	Animal Lost	Pack Involved	County	Payments ^a	Control Actions ^b
Zone 2 Depredations on Livestock					
05/07	1 calf	Mill Bluff?	Monroe	\$500.00	
05/22	1 calf	Rattail	Juneau	\$632.50	
09/20	1 cow	Mill Bluff	Monroe	\$1470.00	
ZONE 2 TOTALS	2 calves 1 adult cattle	2 packs	2 counties	\$2,602.50	3 farms
Zone 3 Depredations on Livestock					
06/03-07/06	4 calves	Lamb's Creek	Dunn	\$2000.00	
06/10	1 calf	Disperser?	Dunn	NC	
06/28	1 calf	Lamb's Creek	Dunn	\$500.00	
07/29	1 cow	Unknown	Marathon	\$1600.00	
08/24	1 cow	Unknown	Barron	\$1800.00	
10/07	1 calf	Miller Creek	Shawano	\$1200.00	
10/08	1 calf	Lamb's Creek	Dunn	\$500.00	
11/07	1 cow	Averill Creek South	Taylor	\$1400.00	
11/09	1 steer	Disperser?	Monroe	\$900.00	
ZONE 3 TOTALS	8 calves 3 adult cattle	2-4 packs	5 counties	\$8,500.00	8 farms
STATEWIDE TOTALS	47 calves killed 5 calves injured 16 adult cattle 4 lambs 2 sheep 1 goat injured 6 deer	25-27 packs 2-4 loners	17 counties	\$113,586.50	47 farms (14 chronic) Non-lethal 10 farms Trapping 2 farms 2 wolves translocated 11 wolves & hybrids euthanized
Zone 1 Verified Harassment or Threat to Livestock					
07/22	Harassment of horses	Belden Swamp	Douglas		Non-lethal
Zone 3 Verified Harassment or Threat to Livestock					
03/19	Threat to livestock	Loner\Disperser?	Lincoln		
05/05	Harassment of horses	Loner\Disperser?	Marinette		Non-lethal
06/04	Threat to livestock	Disperser?	Marathon		
TOTALS	2 threat to livestock 2 harassment of horses	1 packs	4 counties		4 farms Non-lethal at 2 farms

^aNC = No claim received as of date of report preparation

^b* = Shooting permit issued to landowner

^cHealth & safety concern

Table 5b. *Wolf depredation cases on dogs in Wisconsin in 2010*

Date	Animal Lost	P=Pet H=Hunting	Pack Involved	County	Payments ^a	Control Actions ^b
Zone 1						
01/15	1 dog inj. (Lab)	P	Tupper Creek?	Sawyer	\$2495.40	
02/03	1 dog inj. (Redbone)	H	Peshtigo Brook	Oconto	\$151.00	
04/21	1 dog inj. (Pit Bull mix)	P	Belden Swamp	Douglas	NC	
05/16	1 dog (Lab)	P	Shanagolden	Ashland	\$2500.00	
05/26	1 dog inj. (Lab mix)	P	Casey Creek	Douglas	\$303.88	
07/10	1 dog (Plott Hound)	H	Giant Pine	Forest	\$2500.00	
07/16	1 dog (Redtick Hound)	H	Hungry Run	Ashland	\$2500.00	
07/25	1 dog (Plott Hound)	H	Flag River	Bayfield	\$2500.00	
07/26	1 dog (Walker Hound)	H	Pelican Lake	Oneida	\$2500.00	
07/29	2 dogs (Plott & Walker)	H	Flag River	Bayfield	\$5000.00	
07/31	1 dog (Walker Hound)	H	Riverside	Burnett	\$2500.00	
08/02	1 dog (Walker Hound)	H	Peshtigo Brook	Oconto	\$2500.00	
08/07	1 dog (Plott Hound)	H	Peshtigo Brook	Oconto	\$2500.00	
08/07	1 dog (Plott Hound)	H	Giant Pine	Forest	\$2500.00	
08/08	1 dog (Plott Hound)	H	Lake Nebagamon?	Douglas	\$2500.00	
08/14	1 dog (Bear Hound)	H	Pelican Lake	Oneida	\$2500.00	
08/21	1 dog (Plott Hound)	H	Ranger Island	Lincoln	\$2500.00	
08/29	1 dog (Plott Hound)	H	Peshtigo Brook	Oconto	\$2500.00	
09/19	1 dog (Redbone)	H	Pelican Lake	Oneida	\$2500.00	
09/27	1 dog (Bluetick)	H	Flag River	Bayfield	\$2500.00	
10/10	2 dogs (Walker & Bluetick)	H	Peshtigo Brook	Oconto	\$4500.00	
10/20	1 dog (Gordon Setter)	P	Kidrick Swamp	Taylor	\$2040.00	
12//06	1 dog inj. (Walker Hound)	H	Moose Road	Douglas	\$787.80	
ZONE 1 TOTALS	20 dogs killed 5 dogs injured		14 packs	10 counties	\$52,778.08	
Zone 2						
01/09- 07/24	1 dog killed, 2 dogs inj. (Husky mix & Malamute)	P	Bear Bluff	Jackson	\$2592.00	Non-lethal; Trapping ^c -6 wolves euthanized
05/15	1 dog (Min. Cocker Spaniel)	P	Disperser?	Adams	\$1205.00	
08/16	1 dog (Beagle mix)	P	Bear Bluff	Jackson	\$200.00	
08/20	1 dog inj. (Bulldog)	P	Mill Bluff	Juneau	\$113.70 ^d	
09/21	1 dog inj. (Ger.Shorthair)	H	Bear Bluff	Jackson	\$218.60	
ZONE 2 TOTALS	3 dogs killed 4 dogs injured		2 packs	3 counties	\$4,215.60	Non-lethal & trapping at 1 location -6 wolves euthanized
Zone 3						
02/26	1 dog inj. (Am.Samoyed)	P	Fogarty Marsh	Portage	\$30.80	
03/26	1 dog (Brittany Spaniel)	P	Lamb's Creek	Dunn	\$2500.00	

05/10 1 dog inj. (Spaniel/ Pit Bull) P Miller Creek Shawano \$263.86

Table 5b. Continued

Date	Animal Lost	P or H	Pack Involved	County	Payments ^a	Control Actions ^b
06/07	1 dog inj. (Lab/ Collie mix)	P	Blue Hills South	Barron	\$530.00	
08/29	1 dog inj. (Bluetick)	H	Sand Creek	Burnett	\$773.25	
10/02	1 dog inj. (Lab)	P	Lamb's Creek	Dunn	\$101.72	
ZONE 3 TOTALS	1 dog killed 5 dogs injured		5 packs	5 counties	\$4,199.63	
STATEWIDE TOTALS	24 dogs killed 14 dogs injured		21 packs 1 loner	17 counties	\$61,193.31	Non-lethal & trapping at 1 location -6 wolves euthanized

^aNC = No claim received as of date of report preparation

^b*= Shooting permit issued to landowner

^cHealth & safety concern

Table 5c. Human Safety Concerns and Threats to Pets in Wisconsin in 2010.

Date	Threat	Pack	County	Control Action
<u>Zone 1</u>				
01/11	Health & Safety Concern	Pine Creek	Ashland	
05/10	Health & Safety Concern	Harrison Hills	Lincoln	Non-lethal
05/26	Health & Safety Concern	Potato River	Ashland	
05/28	Health & Safety Concern	Harrison Hills	Lincoln	
06/03	Health & Safety Concern	Potato River	Ashland	
09/20	Health & Safety Concern	Chaney Lake	Iron	Non-lethal
09/21	Health & Safety Concern	S. Wintergreen	Price	9 wolves & 1 wolf-dog hybrid euthanized
<u>Zone 2</u>				
09/02	Threat to dogs & human safety	Bear Bluff	Jackson	6 wolves euthanized
09/28	Health & Safety Concern	McKenna	Jackson	
TOTALS	9 Health & safety concern 1 Threat to pets	7 packs	5 counties	Non lethal at 2 locations 15 wolves & 1 wolf-dog hybrid euthanized (same animals listed in tables 5a & 5b)