



STATE OF MICHIGAN
DEPARTMENT OF NATURAL RESOURCES & ENVIRONMENT
LANSING

JENNIFER M. GRANHOLM
GOVERNOR

REBECCA A. HUMPHRIES
DIRECTOR

May 14, 2010

The Honorable Michelle McManus, Chair
Senate Appropriations Subcommittee
on Natural Resources
S-2 Capitol Building
P.O. Box 30036
Lansing, Michigan 48909-7536

The Honorable Michael Lahti, Chair
House Appropriations Subcommittee
on Natural Resources
S-1489 House Office Building
P.O. Box 30014
Lansing, Michigan 48909-7514

Dear Senator McManus and Representative Lahti:

Pursuant to Section 802, PA 118 of 2009, the report of the Department of Natural Resources and Environment (DNRE) Bovine Tuberculosis report, during the first and second quarters of Fiscal Year 2009-10, is attached.

If you have any questions, please feel free to contact me.

Sincerely,

Sharon M. Schafer, Chief
Budget and Support Services
517-373-1750

Attachment

cc: Senate Appropriations Subcommittee Members
House Appropriations Subcommittee Members
Mr. Josh Sefton, Senate Fiscal Agency
Ms. Viola Wild, House Fiscal Agency
Mr. Robert Emerson, State Budget Director,
Department of Management and Budget (DMB)
Mr. Jacques McNeely, DMB
Ms. Jennifer Harrison, DMB
Director Rebecca Humphries, DNRE
Ms. Armina Koch, Deputy Director,
Resource Management, DNRE
Mr. Rodney Stokes, DNRE
Mr. Gary Owen, DNRE
Ms. Lynne Boyd, DNRE
Mr. Mark Bouvy, DNRE



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Bovine Tuberculosis Program Legislative Report
October 1, 2009 - March 31, 2010
 Prepared by the Wildlife Health Section

This report is in response to PA 118 of 2009, Sec. 802: "From the funds appropriated in part 1, the department of natural resources shall submit semiannual reports to the state budget director, the senate and house appropriations subcommittees on natural resources, and the senate and house fiscal agencies that provide detail about enforcement actions taken to eradicate bovine tuberculosis, the number of infected deer found, new science it is working on to detect bovine tuberculosis, and other relevant information about the department's efforts to address the presence of bovine tuberculosis in this state."

Disease Surveillance in Wildlife

Surveillance activities for bovine tuberculosis (TB) in white-tailed deer continued in October through March, including most of the samples obtained through hunter submission at the Department of Natural Resources & Environment (DNRE) deer check stations during the fall hunting seasons. Samples continued to be received from the fall hunts and from the Disease Control Permit program through March.

For white-tailed deer, 32 of the 4,851 animals submitted tested positive for bovine TB. A total of 2 moose and 243 elk were submitted during this time period, and all tested negative for bovine TB. A total of 380 elk licenses were issued for all of the 2009 elk hunting seasons. There is mandatory TB sample submission from all hunter-harvested elk.

Lab Results: Wild Deer Tested for Bovine TB by County October 1, 2009 - March 31, 2010			
<u>County</u>	<u>Suspect</u>	<u>Pending</u>	<u>Positive</u>
Alcona			9
Alpena	1	1	8
Cheboygan			1
Montmorency			7
Oscoda			5
Presque Isle			1
Unknown *			1
TOTAL	1	1	32

* Deer submitted in Alcona County

Definitions:
Pending - Initial laboratory results were negative; still waiting for final results.
Suspect - Bacterial culture is pending and intermediate testing has been positive; still waiting for final results.
Positive - Final culture results were received from MDCH.
Negative - No lesions were found at the Wildlife Disease Lab, or culture results were final negative.

**Wild Deer Tested for Bovine TB by County
October 1, 2009 - March 31, 2010**

County	Positive	Suspect & Pending	Total Tested
Alcona	9		776
Alpena	8	2	875
Antrim			17
Arenac			15
Branch			1
Calhoun			1
Charlevoix			12
Cheboygan	1		66
Clare			1
Clinton			4
Crawford			10
Delta			1
Eaton			2
Emmet			15
Genesee			3
Gladwin			2
Gratiot			1
Huron			3
Ingham			1
Iosco			341
Iron			1
Jackson			4
Kalamazoo			3
Kalkaska			3
Kent			868
Lapeer			1
Livingston			2
Mackinac			1
Macomb			1
Midland			1
Montmorency	7		587
Oakland			3
Ogemaw			16
Osceola			4
Oscoda	5		363
Otsego			3
Ottawa			3
Presque Isle	1		458
Roscommon			1
Saginaw			1
Sanilac			3
Shiawassee			332
St. Clair			2
Tuscola			6
Unknown Location	1 - submitted in TB area		35
Washtenaw			1
Wexford			1
Grand Total	32	2	4851

Disease Control Permits (DCPs)

Disease Control Permit reports are provided for the 4th quarter of calendar year 2009 and 1st quarter of calendar year 2010 in Appendix A and B respectively. The reports provide updates on DCP activity, including submission numbers and lab results.

Research Activities

Complete summaries of the projects outlined below are available in previous reports.

Title: Trap, Test and Cull Project

Status: This project is ongoing. The results are encouraging, showing that a relatively high number of deer could be trapped and tested and that positive animals could be detected and removed.

Title: Evaluating Acceptance of Free-Ranging White-Tailed Deer Bovine Tuberculosis Management Strategies

Primary Investigator: Brent Rudolph, Wildlife Biologist, Wildlife Division

Status: This project is ongoing.

Title: Bovine Tuberculosis Spatial Model for White-tailed Deer

Primary Investigator: Dr. Daniel O'Brien, Wildlife Veterinarian, Wildlife Division

Status: This project is ongoing.

Meetings Attended by Wildlife Division Personnel and other TB Activities

- **Dr. Steve Schmitt, MDNRE Wildlife Veterinarian, Wildlife Health Section Supervisor**
 - Michigan Department of Agriculture (MDA)/DNRE quarterly bovine TB program discussion
 - Presented at United States Animal Health Association (USAHA) meeting in San Diego, CA
 - Conference call about Iosco County TB surveillance
 - Attended TB Advisory Committee meetings
 - Attended Michigan Farm Bureau meetings
 - Attended United State Department of Agriculture-Animal Plant Health Inspection Service-Veterinary Services (USDA-APHIS-VS) TB review meetings and TB Coordinator meetings
 - Worked deer check station in 5-County TB Area
 - Attended meeting to discuss Cheboygan County deer
 - Bovine TB Memorandum of Understanding with MDA/USDA
 - Meeting to discuss the TB CAP and cervid vaccination
 - Presentation to Turtle Lake Club about the New Strategy/Blood Study Project

- **Dr. Dan O'Brien, MDNRE Wildlife Veterinarian**
 - Surveillance (deer heads) throughout the period
 - 10/14/09: Conference call with Ryan Miller, USDA-APHIS-WS in Fort Collins, regarding conduct and results of our live trap/blood test/cull field project
 - 11/4/09: Update on 5th International Conference on Mycobacterium bovis for agricultural stakeholders - Farm Bureau, Lansing
 - 11/15-11/17/09, 11/21-11/22/09, 12/5/09: Deer check - Atlanta, Lincoln and Cedar Springs
 - 11/16/09: Rode with Conservation Officer Warren MacNeill, Alcona County, to assess deer harvest, public attitudes, and baiting and feeding ban compliance in the TB endemic area
 - 2/5/10: Meeting with John Kaneene, Michigan State University, regarding NimBIOS cattle TB modeling research project
 - 3/3/2010: Meeting with K. Pedersen and D. Marks, USDA, regarding draft USDA surveillance protocol for TB in wildlife

- **Elaine Carlson, MDNRE Wildlife Biologist**
 - At the formal regulations session, North East Management Unit staff discussed several options for deer hunting in the TB area beforehand and with a group of Conservation Officers afterwards.
 - Discussed TB issues at length with those who came to the deer strategic plan meeting in Alpena
 - Accomplished our winter feed flights in the greater DMU 452 area and added some coverage to the west during the elk aerial counts
 - Participated in the Team Epi effort on a recently infected cattle farm and wrote up the report

Law Enforcement Division Activities

(Covering October 1, 2009 through March 31, 2010)

Overall compliance appears mixed in the seven counties of the core TB area. One county (Alcona) does appear to have slightly better conformity than in past years. This may be due to enforcement efforts where Conservation Officers saturate an area with low compliance – working each complaint until a ticket is issued or no violation of law is found. (Up one side of the road and back down the other side.)

Officers noted bait & feed piles were smaller in size, generally scattered over larger areas to avoid detection. Some have changed to materials that are harder to detect or to using locations such as tall grass or under conifer trees to also avoid detection.

Counties	RAP Bait/Feed Complaints	(non-RAP) Bait Complaints	(non-RAP) Feed Complaints	Tickets Issued	Warnings	Group Bait or Feed Patrols	Bait or Feed Flights
Alcona	10	32	21	28	20	1	3
Alpena	7	30	14	41	14	2*	6*
Iosco	15	15	1	16	11		1
Montmorency	11	31	11	19	14		
Oscoda	4	22	13	28	6		2
Otsego	8	20		36	4		
Presque Isle	3	11	29	2	5		1
Totals	58	161	89	170	74	3	13

* These flights or group patrols occurred in multiple counties

Patrol Efforts: Baiting enforcement takes up the majority of an officer's patrol efforts during October and November. From the bow opener until just before the November 15th firearm opener, complaints are a steady stream of work for the officers. From Veterans Day through the end of November, activity gets very busy with mainly baiting complaints. It is not unusual for an officer to not get through the list of baiting complaints during their daily shift of work.

Early spring weather contributed to multiple feeding sites being inactive when officers located and checked them (mostly aircraft initiated sites). Also, several sites were found to be turkey feeders that had screens attached to keep deer out.

Complaints: RAP complaints are complaints called into the Department's Report All Poaching hotline. Non-RAP complaints are calls to an officer from all other sources, such as citizens calling the officer or a Department office, reports from other agencies, etc. Many non-RAP complaints were from individuals who, while getting a ticket for baiting themselves, told the investigating officer of a neighbor who was also violating the ban on baiting. Non-RAP complaints were up by approximately 50 percent compared to the same time period last year.

Tickets & Warnings Issued: Tickets were up slightly, with a slight decrease in warnings. Officers were more apt to cite this year than last year.

Aircraft Support: Air support was used in 13 instances, with a lack of snow cover limiting the effectiveness of using the plane during the early bow and firearm deer seasons and late winter.

Judicial Opinion: A judge in Otsego County has thrown out a case against a man charged under Michigan's ban on baiting and feeding deer in the Lower Peninsula. Otsego County District Court Judge Patricia Morse said the ban was "unconstitutionally vague." Otsego County has been designated a no baiting or feeding county for several years in an effort to address concerns about the spread of bovine TB. In response to the discovery of Chronic Wasting Disease in a captive deer in Kent County, the ban was expanded to include the remainder of the Lower Peninsula in 2008. At this time, the Judge's ruling effectively eliminates baiting and feeding ban enforcement in Otsego County. The Department of Natural Resources and Environment is currently reviewing the matter and considering legal options.

APPENDIX A

2009 DISEASE CONTROL PERMIT PROGRAM UPDATE

4th Quarter and Final Cumulative Report

Permits for Livestock Producers

This initiative was designed to make it simpler for livestock producers in areas where bovine tuberculosis (TB) is established to control deer numbers on their farms. Use of the DCPs may help reduce the risk of transmission of TB from free-ranging deer to livestock. Current plans are to make the DCPs available in this manner for three years beginning January 2008, and then evaluate the effectiveness of the program.

Northeastern Michigan, the 5-county TB Area

Wildlife Disease Lab (WDL) mailed out DCPs to most livestock producers in Alcona, Alpena, Montmorency, Oscoda, and Presque Isle Counties. Each producer was initially mailed five kill tags; more may be available upon request when the original five are filled. The permits are valid for a year, and may be used year-round.

Northeastern Michigan, outside the 5-county TB Area

Letters of invitation were mailed to many livestock producers in Antrim, Charlevoix, Cheboygan, Emmet, Iosco, Ogemaw, and Otsego Counties. These DCPs are not valid during any deer hunting season and expired on Aug. 31, 2009.

Shiawassee County TB Surveillance Circle

Due to the finding of a TB positive wild deer in Shiawassee County in the fall of 2007, letters explaining the program were mailed to Shiawassee and Clinton County cattle producers located in a 10-mile radius around the positive deer. The permits are valid for a year, and may be used year-round.

Permits for Private Landowners (non-agricultural) in DMU 452

Following changes to Section 5.7 of the Wildlife Conservation Order by the Natural Resources Commission in November 2007, private landowners, other than cattle producers, may be issued DCPs if they own property 1) in a county where TB is found in any species, or 2) within a 30-mile radius of a location where TB is found in any species.

In particular, participation in the DCP program is being offered to private landowners in DMU 452. Consequently, letters of invitation were mailed in 2009 to many hunt clubs and larger landowners in DMU 452 to inform them of this additional opportunity to take deer. These DCPs are not valid during any deer hunting season. Many of the 2009 permits expired on 4/30/2009; the rest expired on 9/30/2009. Turtle Lake Club was issued 258 kill tags in 2009.

	Deer Taken (reported and/or tested)	Permittees who have taken deer ¹	Letters of Invitation mailed	Permits mailed	Tags mailed	Signed permits received	Permittees requesting more tags ¹
5 County TB Area Agricultural Producers							
1st Quarter	106	32	0	500	2,581	108	10
2nd Quarter	72	15	0	6	115	14	14
3rd Quarter	65	23	0	4	55	22	3
4th Quarter	210	91	0	3	70	52	11
5 CO Ag Cumulative	453	125	0	513	2,821	196	27
Northeastern Michigan, outside the 5 County Agricultural Producers							
1st Quarter	127	24	305	126	760	84	11
2nd Quarter	35	16	0	21	125	16	4
3rd Quarter	52	21	0	6	50	7	2
4th Quarter	18	4	0	0	0	1	0
NE Mich. Ag Cumulative	232	46	305	153	935	108	16
DMU 452 Non-agricultural Landowners							
1st Quarter	134	13	165	28	243	20	0
2nd Quarter	3	1	0	1	5	1	0
3rd Quarter	68	4	0	1	180	1	3
4th Quarter	0	0	0	0	0	0	0
DMU 452 Non-ag Cumulative	205	16	165	30	428	22	3
Shiawassee Circle Agricultural Producers							
1st Quarter	20	9	129	49	245	23	1
2nd Quarter	4	3	0	0	0	1	1
3rd Quarter	11	6	0	2	15	2	2
4th Quarter	57	21	0	1	5	10	3
Shiawassee Cumulative	92	26	129	52	265	36	5
2009 Grand Total							
	982	213	599	748	4,449	362	51

¹ The same permittee may have shot deer or requested more tags during multiple Quarters. The cumulative totals reflect the number of unique permittees shooting deer or requesting more tags.

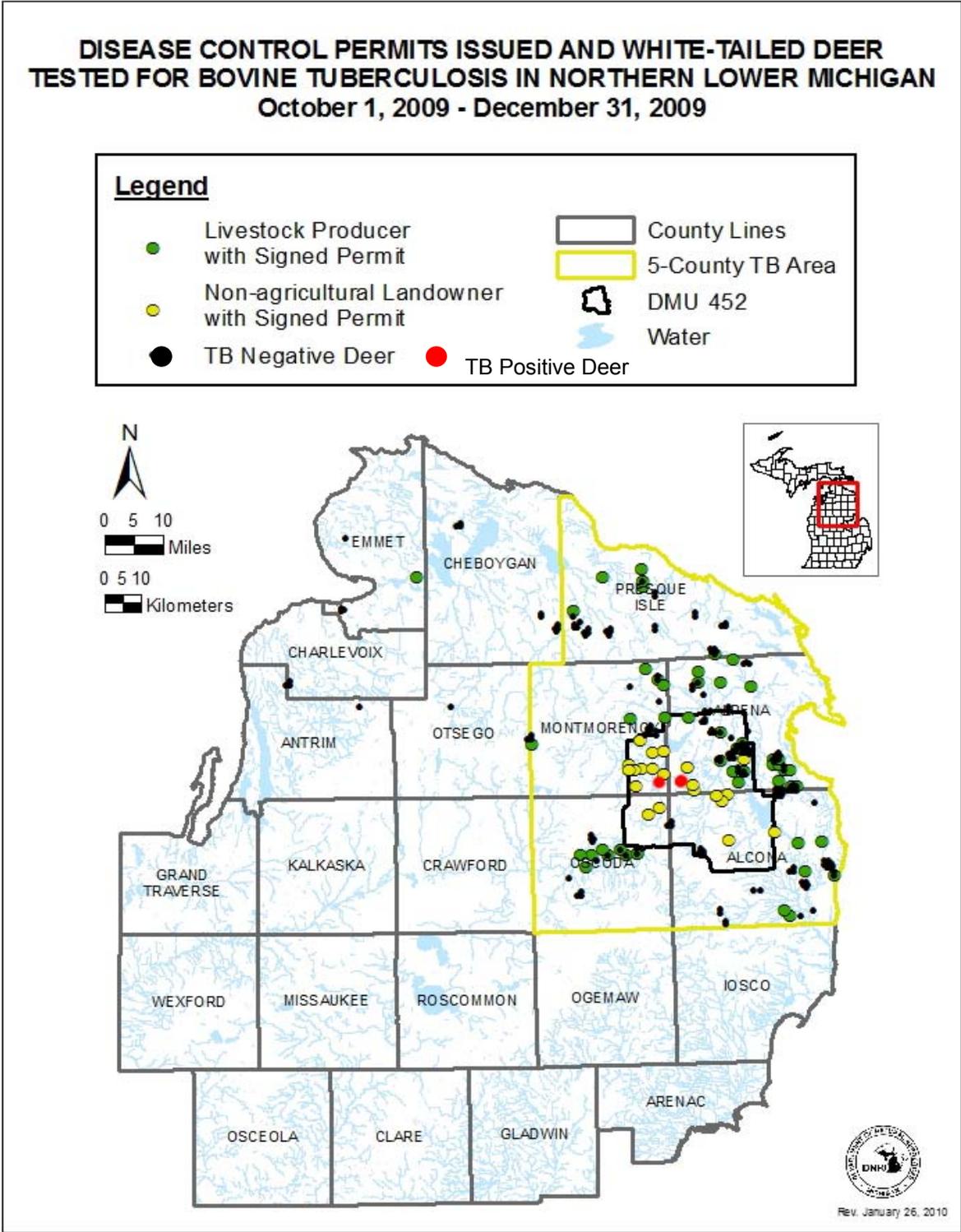
**2009 Bovine TB Laboratory Testing Results
for Wild Deer Taken on DCPs**

All deer testing final positive were taken from inside DMU 452.

County Name	1 st Quarter Jan. 1 – Mar. 31		2 nd Quarter Apr. 1 – Jun. 30		3 rd Quarter Jul. 1 – Sep. 30	4 th Quarter Oct. 1 – Dec. 31		Grand Total
	Negative	Positive	Negative	Positive	Negative	Negative	Positive	
Alcona	11		17		17	44		89
Alpena	99		26	1	33	92	1	252
Antrim	2		26		22	1		51
Charlevoix	5		9		8	3		25
Cheboygan	3		11			9		23
Emmet	2		33		5	6		46
Iosco	11		23					34
Montmorency	55	1	6		3	43	1	109
Ogemaw			5					5
Oscoda	3		5		1	16		25
Otsego			3		4	1		8
Presque Isle	28		32		4	28		92
Unknown county - NE Michigan					2			2
Shiawassee Circle	6		14		8	43		71
Grand Total	225	1	210	1	107	286	2	832



This map shows only those permittees for which the lab received signed DCPs and only those deer submitted for testing during the 4th quarter period.

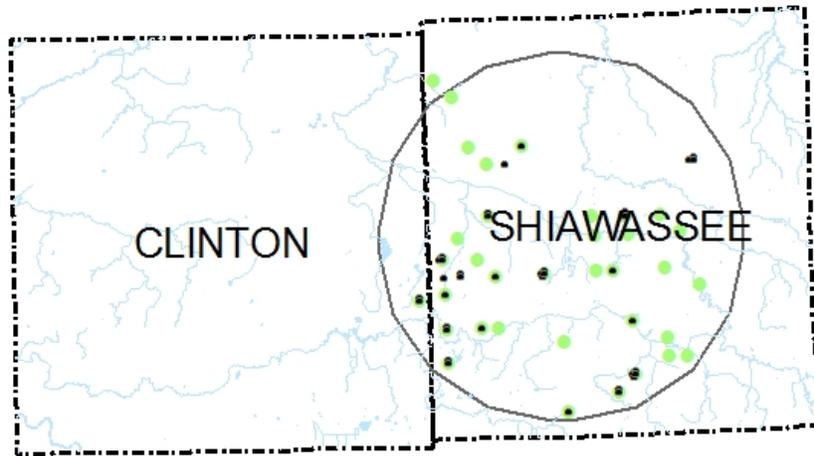


This map shows all permittees for which the lab received signed DCPs during 2009 and only those deer submitted for testing during the 4th quarter period.

DISEASE CONTROL PERMITS ISSUED AND WHITE-TAILED DEER TESTED FOR BOVINE TUBERCULOSIS IN SHIAWASSEE COUNTY
October 1, 2009 - December 31, 2009

Legend

- TB Negative Deer
- Livestock Producers with Signed Permit
- Water
- 10 Mile Buffer Around 2007 TB Positive Deer
- County Line

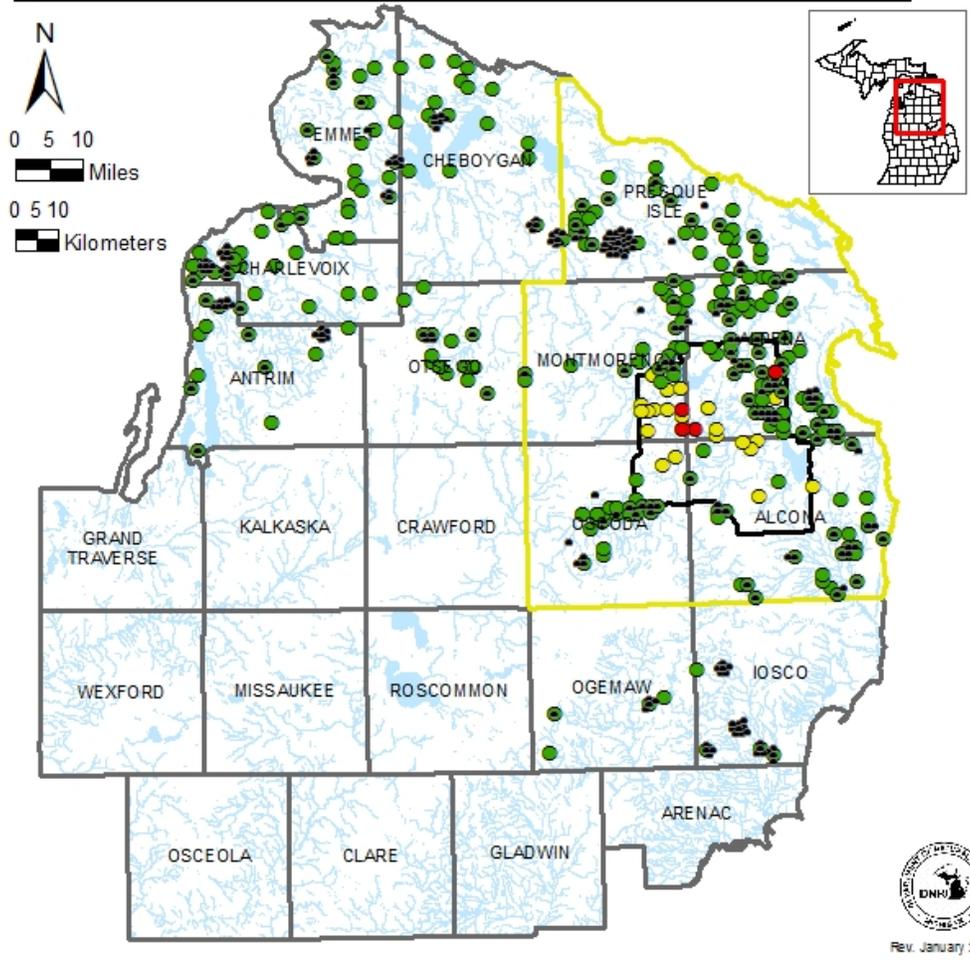


Rev. January 25, 2010

**DISEASE CONTROL PERMITS ISSUED AND WHITE-TAILED DEER
TESTED FOR BOVINE TUBERCULOSIS IN NORTHERN LOWER MICHIGAN
January 1, 2009 - December 31, 2009
Year-end Report**

Legend

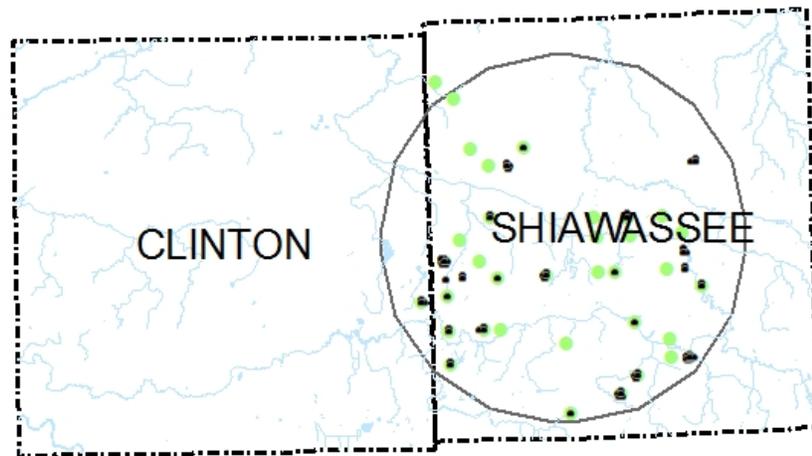
- Livestock Producer with Signed Permit
- Non-agricultural Landowner with Signed Permit
- TB Negative Deer
- TB Positive Deer
- County Lines
- 5-County TB Area
- DMU 452
- Water



**DISEASE CONTROL PERMITS ISSUED AND WHITE-TAILED DEER
TESTED FOR BOVINE TUBERCULOSIS IN SHIAWASSEE COUNTY**
 January 1, 2009 - December 31, 2009
 Year-end Report

Legend

- TB Negative Deer
- Livestock Producers with Signed Permit
- ◻ Water
- 10 Mile Buffer Around 2007 TB Positive Deer
- ▭ County Line



DISEASE CONTROL PERMIT REGULATIONS

5.77 Disease control permit; standards, conditions, records; unlawful acts.

- Sec. 5.77. (1) Disease control permits may be issued to any owner of property in a county with a confirmed case of bovine tuberculosis or lands within 30 miles of a confirmed case of a disease.
- (2) Landowners may apply for a permit by filing an application with the department. This application will include the names of desired authorized designees. This application, once signed by both the landowner and an authorized natural resources representative, shall become the permit. The number of tags issued will be determined by the department of natural resources representative.
 - (3) Property inspections may be conducted under the direction and at the discretion of the authorized department of natural resources representative.
 - (4) A disease control permit shall not be valid except during the time period for which it is authorized.
 - (5) The permittee shall keep records as may be required by the director and present them for inspection at the request of a conservation officer or wildlife biologist.
 - (6) The permittee or authorized designee shall make a reasonable effort to retrieve all deer shot under the authority of a permit.
 - (7) The permittee or authorized designee shall have a copy of the permit and a valid unused tag on their person when taking or attempting to take deer.
 - (8) A person killing a deer shall immediately affix the tag to the gambrel or jaw of the deer. The permittee or authorized designee, upon killing a deer, shall notify the department as instructed on the permit.
 - (9) All deer killed under a disease control permit shall be disposed of as specified by the permit. If required, deer heads shall be submitted to the department by the permittee.
 - (10) The permit shall be valid within the ownership boundaries of the permittee or as stated on the permit.
 - (11) Permits shall be valid for deer of either sex as noted in the permit. If the taking of an antlered deer is allowed by the permit, all antlers shall be submitted to the department.

5.78 Disease control permit, prohibited acts.

- Sec. 5.78. (1) The permittee must designate no more than 3 authorized designees to implement the provisions of the permit unless additional designees are approved by the authorized department of natural resources representative.
- (2) It shall be unlawful for a permittee or an authorized designee to:
 - (a) Kill more than the number of deer authorized by the permit.
 - (b) Possess a deer killed under the authority of a permit without having a valid tag attached to the deer.
 - (c) Take or attempt to take a deer within the permit boundaries unless in possession of a valid tag. The tag shall be presented upon demand to a representative of the director.
 - (d) Use a firearm other than a centerfire rifle or shotgun with slugload.
 - (e) Possess an uncased or loaded firearm in a vehicle.
 - (f) Take or attempt to take a deer using an artificial light or from 1/2 hour after sunset to 1/2 hour before sunrise unless approved by the wildlife management unit and district law enforcement supervisors.
 - (g) Take or attempt to take a deer in any area except that location described on the permit.
 - (h) Take or attempt to take a deer not authorized by the permit.
 - (i) Retain antlers from deer taken on the permit if antlered deer have been approved in the permit.
 - (3) It shall be unlawful for any person other than the permittee or an authorized designee to take or attempt to take deer under the authority of a valid permit.

5.79 Disease control permit; revocation, suspension.

- Sec. 5.79. (1) Pursuant to section 40118 of part 401, wildlife conservation, Act No. 451 of the Public Acts of 1994, as amended, being section 324.40118 of the Michigan Compiled Laws, a conviction for a violation of the provisions of sections 5.76 to 5.78 of this order shall result in the revocation of a permit.
- (2) A modification, suspension, or revocation of a permit is subject to the provisions of section 40114 of part 401, wildlife conservation, Act No. 451 of the Public Acts of 1994, as amended, being section 324.40114 of the Michigan Compiled Laws.
 - (3) Failure of the permittee or an authorized designee to comply with the permit provisions will make the permittee ineligible to receive disease control permits, deer damage control permits, or deer management assistance permits (DMAP) for the following calendar year.

APPENDIX B

2010 DISEASE CONTROL PERMIT PROGRAM UPDATE

1st Quarter Report

Permits for Livestock Producers

This initiative was designed to make it simpler for livestock producers in areas where bovine tuberculosis (TB) is established to control deer numbers on their farms. Use of the DCPs may help reduce the risk of transmission of TB from free-ranging deer to livestock. Current plans are to make the DCPs available in this manner for three years beginning January 2008, and then evaluate the effectiveness of the program.

Northeastern Michigan, the 5-county TB Area

Wildlife Disease Lab (WDL) mailed out DCPs to most livestock producers in Alcona, Alpena, Montmorency, Oscoda, and Presque Isle Counties. Each producer was initially mailed five kill tags; more may be available upon request when the original five are filled. The permits are valid for a year, and may be used year-round.

Northeastern Michigan, outside the 5-county TB Area

Letters of invitation were mailed to many livestock producers in Antrim, Charlevoix, Cheboygan, Emmet, Iosco, Ogemaw, and Otsego Counties. These DCPs are not valid during any deer hunting season and expired on Aug. 31, 2009.

Shiawassee County TB Surveillance Circle

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Permits for Private Landowners (non-agricultural) in DMU 452

Following changes to Section 5.7 of the Wildlife Conservation Order by the Natural Resources Commission in November 2007, private landowners, other than cattle producers, may be issued DCPs if they own property 1) in a county where TB is found in any species, or 2) within a 30-mile radius of a location where TB is found in any species.

In particular, participation in the DCP program is being offered to private landowners in DMU 452. Consequently, letters of invitation were mailed in Dec. 2009 to many hunt clubs and larger landowners in DMU 452 to inform them of this additional opportunity to take deer. These DCPs are not valid during any deer hunting season. Many of the permits expire on 4/30/2010; the rest expire on 9/30/2010.

	Deer Taken	Permittees who have taken deer ¹	Letters of Invitation mailed	Permits mailed	Tags mailed	Signed permits received	Permittees requesting more tags ¹
5 County TB Area Agricultural Producers							
1st Quarter	65	26	0	510	2,600	111	4
2nd Quarter							
3rd Quarter							
4th Quarter							
5 CO Ag Cumulative	65	26	0	510	2,600	111	4
Northeastern Michigan, outside the 5 County Agricultural Producers							
1st Quarter	134	35	317	156	900	79	11
2nd Quarter							
3rd Quarter							
4th Quarter							
NE Mich. Ag Cumulative	134	35	317	156	900	79	11
DMU 452 Non-agricultural Landowners							
1st Quarter	142	14	151	36	39	25	0
2nd Quarter							
3rd Quarter							
4th Quarter							
DMU 452 Non-ag Cumulative	142	14	151	36	39	25	0
Shiawassee Circle Agricultural Producers							
1st Quarter	13	6	137	40	210	19	0
2nd Quarter							
3rd Quarter							
4th Quarter							
Shiawassee Cumulative	13	6	137	40	210	19	0
2010 Grand Total	354	81	605	742	3,749	234	15

¹ The same permittee may have shot deer or requested more tags during multiple Quarters. The cumulative totals reflect the number of unique permittees shooting deer or requesting more tags.

**2010 Bovine TB Laboratory Testing Results
for Wild Deer Taken on DCPs**

County Name	1 st Quarter Jan. 1 – Mar. 31		2 nd Quarter Apr. 1 – Jun. 30		3 rd Quarter Jul. 1 – Sep. 30		4 th Quarter Oct. 1 – Dec. 31		Grand Total
	Negative	Positive	Negative	Positive	Negative	Positive	Negative	Positive	
Alcona	16								16
Alpena	63								63
Antrim	12								12
Charlevoix	0								0
Cheboygan	33	1							34
Emmet	8								8
Iosco	0								0
Montmorency	81								81
Ogemaw	12								12
Oscoda	4								4
Otsego	1								1
Presque Isle	17								17
Clinton	1								1
Shiawassee	9								9
Grand Total	257	1							258



Maps are unavailable for this report.