

Rye, NH- Mosquito Surveillance Summary 2015

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The NH State testing criteria for 2015:

The mosquito season was separated into two phases for mosquito submissions; phase I (early season) and phase II (mid to end season). Note that these criteria have been updated for 2015.

Phase I – July 1 through July 31, 2015 (dates pertain to date of collection):

Cs. morsitans, *Cs. melanura*, *Cx. pipiens*, *Cx. restuans*, *Cx. pipiens/restuans*, *Oc. canadensis*, and *Ae. vexans*.

Only these species will be tested. Any batch (group of mosquitoes) size may be submitted, but cannot exceed 50 mosquitoes.

Phase II – August 1 or first NH EEE or WNV detection (whichever comes first) through September 30, 2015:

In addition to the above species, *Ae. cinereus*, *An. punctipennis*, *An. walkeri*, *Cq. perturbans*, *Cx. salinarius*, *Oc. taeniorhynchus*, *Oc. japonicus*, *Oc. triseriatus*, *Oc. sollicitans*, and *Ps. ferox* will be tested if batch size > 10 mosquitoes (but cannot exceed 50 mosquitoes). Other mosquito pools not meeting the above criteria may be tested on a case by case basis, as resources and time allow.

Please refer to the [State of New Hampshire Arboviral \(Mosquito-Borne\) Illness Surveillance, Prevention and Response Plan](#) for additional information. This plan can be viewed and downloaded at:

<http://www.dhhs.nh.gov/dphs/cdcs/arboviral/documents/arboviralresponse.pdf> and is updated every year. The purpose of the plan is to provide guidance on operational aspects of surveillance, prevention and response by the State and local communities to control mosquito-borne disease and encourage proactive preparations.

The NH DHHS informs the media and public of positive tests results, regions of increased disease risk, and other important up-to-date information through its website <http://www.dhhs.nh.gov/dphs/cdcs/arboviral/results.htm>. Information regarding personal protection measures, general background information, and regular updates on surveillance and laboratory analysis is available at this site.

2015 Rye Adult Mosquito Summary:

Adult mosquito surveillance was conducted from 06/2/2015 to 9/30/2015.

Although the NH State lab did not accept specimens until July 1st, we started trapping in June to track/assess annual mosquito populations for *Cq. perturbans* (cattail swamp mosquito) treatments as well as early trapping for *Cs. melanura* (primary EEE mosquito).

Per contract we placed 2 traps weekly at historic locations:

30 Morgan Court

40 Recreation Road

Another trap was rotated for 12 weeks around various red maple sites capable of producing *Cs. melanura* (EEE mosquito). See attached Map.

The rotational sites and total *Cs. melanura* collections are as follows:

Brackett Road (rotational site1)	<i>Cs. melanura</i>	16
75 Clark Road (rotational site2)	<i>Cs. melanura</i>	1
Stoneridge Drive (rotational site3)	<i>Cs. melanura</i>	0
Merry Meeting Lane (rotational site4)	<i>Cs. melanura</i>	1
18 Whitehorse Drive (rotational site5)	<i>Cs. melanura</i>	1
West Road (rotational site6)	<i>Cs. melanura</i>	1
101 Love Lane (rotational site7)	<i>Cs. melanura</i>	0
99 Wayside Lane (rotational site8)	<i>Cs. melanura</i>	0
480 Sagamore Road (rotational #9)	<i>Cs. melanura</i>	0
South Road (rotational# 10)	<i>Cs. melanura</i>	1
Fairway Drive (rotational #11)	<i>Cs. melanura</i>	0
415 South Road (rotational #12)	<i>Cs. melanura</i>	2

1,366 total individuals collected for the whole season- ALL Locations
24 different species identified

2015 Species	# Collected	% of Total Collected
<i>perturbans</i>	542	39.68%
<i>salinarius</i>	334	24.45%
<i>cantator</i>	95	6.95%
<i>walkeri</i>	79	5.78%
<i>stimulans</i>	42	3.07%
<i>vexans</i>	36	2.64%
<i>canadensis</i>	33	2.42%
<i>sollicitans</i>	26	1.90%
<i>melanura</i>	25	1.83%
<i>cinerus</i>	24	1.76%
<i>territans</i>	22	1.61%

<i>abserratus</i>	16	1.17%
<i>quadrimaculatus</i>	16	1.17%
<i>sapphirina</i>	12	0.88%
<i>punctipennis</i>	11	0.81%
<i>restuans</i>	11	0.81%
<i>restuans/pipiens</i>	11	0.81%
<i>triseriatus</i>	8	0.59%
<i>pipiens</i>	7	0.51%
<i>punctor</i>	5	0.37%
<i>trivittatus</i>	4	0.29%
<i>Ferox</i>	2	0.15%
<i>provocans</i>	2	0.15%
<i>taeniorhynchus</i>	2	0.15%
<i>communis</i>	1	0.07%

1,366

2 CDC carbon dioxide/light traps were placed weekly at 2 locations which our surveillance team, in conjunction with the Centers for Disease Control recommendations, determined produced sufficient numbers of *Cs. melanura* to send for testing and were historic EEE/WNV sites. The summaries below were historic sites previously trapped during 2007 and 2008..the comparisons are for the same dates of collection and same locations to show variations in populations over time.

30 Morgan Court

40 Recreation Road

2015 Species	# Collected	% of Total Collected	2008 Species	# Collected	% of Total Collected	2007 Species	# Collected	% of Total Collected
<i>perturbans</i>	430	34.93%	<i>perturbans</i>	2649	26.64%	<i>perturbans</i>	2044	42.25%
<i>salinarius</i>	330	26.81%	<i>cantator</i>	2150	21.62%	<i>canadensis</i>	691	14.28%
<i>cantator</i>	93	7.55%	<i>canadensis</i>	974	9.79%	<i>cantator</i>	598	12.36%
<i>walkeri</i>	79	6.42%	<i>salinarius</i>	949	9.54%	<i>sollicitans</i>	509	10.52%
<i>stimulans</i>	42	3.41%	<i>vexans</i>	570	5.73%	<i>salinarius</i>	409	8.45%
<i>canadensis</i>	33	2.68%	<i>sollicitans</i>	569	5.72%	<i>quadrimaculatus</i>	234	4.84%
<i>vexans</i>	33	2.68%	<i>quadrimaculatus</i>	467	4.70%	<i>melanura</i>	68	1.41%
<i>sollicitans</i>	26	2.11%	<i>ferox</i>	344	3.46%	<i>cinerus</i>	43	0.89%
<i>melanura</i>	24	1.95%	<i>walkeri</i>	340	3.42%	<i>excruicians</i>	40	0.83%
<i>terriltans</i>	22	1.79%	<i>melanura</i>	308	3.10%	<i>morsitans</i>	38	0.79%
<i>cinerus</i>	19	1.54%	<i>cinerus</i>	180	1.81%	<i>sapphirina</i>	22	0.45%
<i>abserratus</i>	16	1.30%	<i>trivittatus</i>	171	1.72%	<i>punctor</i>	21	0.43%
<i>sapphirina</i>	12	0.97%	<i>punctipennis</i>	59	0.59%	<i>punctipennis</i>	20	0.41%
<i>restuans</i>	11	0.89%	<i>sapphirina</i>	52	0.52%	<i>walkeri</i>	19	0.39%
<i>restuans/pipiens</i>	11	0.89%	<i>restuans</i>	41	0.41%	<i>implicatus</i>	15	0.31%
<i>punctipennis</i>	10	0.81%	<i>excruicians</i>	24	0.24%	<i>vexans</i>	15	0.31%
<i>quadrimaculatus</i>	10	0.81%	<i>triseriatus</i>	23	0.23%	<i>stimulans</i>	12	0.25%
<i>triseriatus</i>	8	0.65%	<i>diantaeaus</i>	19	0.19%	<i>sticticus</i>	9	0.19%

<i>pipiens</i>	6	0.49%	<i>altropalpus</i>	18	0.18%	<i>pipiens</i>	7	0.14%
<i>punctor</i>	5	0.41%	<i>territans</i>	10	0.10%	<i>territans</i>	5	0.10%
<i>trivittatus</i>	4	0.32%	<i>provocans</i>	8	0.08%	<i>triseriatus</i>	5	0.10%
<i>ferox</i>	2	0.16%	<i>morsitans</i>	7	0.07%	<i>communis</i>	4	0.08%
<i>provocans</i>	2	0.16%	<i>abserratus</i>	4	0.04%	<i>restuans</i>	4	0.08%
<i>taeniorhynchus</i>	2	0.16%	<i>pipiens</i>	4	0.04%	<i>taeniorhynchus</i>	2	0.04%
<i>communis</i>	1	0.08%	<i>japonicus</i>	2	0.02%	<i>trivitattus</i>	2	0.04%
	1,231		<i>intrudens</i>	1	0.01%	<i>japonicus</i>	1	0.02%
			<i>minnesotae</i>	1	0.01%	<i>provocans</i>	1	0.02%
			<i>stimulans</i>	1	0.01%		4,838	
				9,945				

2009-2014- DRAGON CONTRACT-arboviral history/species collections unknown

2006- EEE positive mosquito Morgan Ct.-Cs. melanura

WNV positive crow

2005- no surveillance

70 total mosquito batches* (528 adults) were sent to Concord Lab. From 6/30/2015 to 9/30/2015 all batches tested **NEGATIVE** for EEE/WNV.

RY630151	6/30/2015	30 Morgan Court	Rye	L	Ae	<i>vexans</i>	1	NEG
RY6301510	6/30/2015	Brackett Road (rotational site1)	Rye	L	Cx	<i>restuans</i>	1	NEG
RY630152	6/30/2015	30 Morgan Court	Rye	L	Cx	<i>salinarius</i>	2	NEG
RY630153	6/30/2015	30 Morgan Court	Rye	L	Cs	<i>melanura</i>	1	NEG
RY630154	6/30/2015	40 Recreation Road	Rye	L	Cx	<i>salinarius</i>	13	NEG
RY630155	6/30/2015	40 Recreation Road	Rye	L	Oc	<i>canadensis</i>	1	NEG
RY630156	6/30/2015	Brackett Road (rotational site1)	Rye	L	Cx	<i>salinarius</i>	33	NEG
RY630157	6/30/2015	Brackett Road (rotational site1)	Rye	L	Cs	<i>melanura</i>	16	NEG
RY630158	6/30/2015	Brackett Road (rotational site1)	Rye	L	Oc	<i>canadensis</i>	16	NEG
RY630159	6/30/2015	Brackett Road (rotational site1)	Rye	L	Ae	<i>vexans</i>	11	NEG
RY771511	7/7/2015	75 Clark Road (rotational site2)	Rye	L	Cx	<i>salinarius</i>	27	NEG
RY771512	7/7/2015	75 Clark Road (rotational site2)	Rye	L	Cx	<i>restuans</i>	1	NEG
RY771513	7/7/2015	75 Clark Road (rotational site2)	Rye	L	Cs	<i>melanura</i>	1	NEG
RY771514	7/7/2015	75 Clark Road (rotational site2)	Rye	L	Ae	<i>vexans</i>	8	NEG
RY771515	7/7/2015	40 Recreation Road	Rye	L	Cx	<i>salinarius</i>	42	NEG
RY7141516	7/14/2015	40 Recreation Road	Rye	L	Cx	<i>salinarius</i>	14	NEG
RY7141517	7/14/2015	30 Morgan Court	Rye	L	Cx	<i>salinarius</i>	15	NEG
RY7141518	7/14/2015	30 Morgan Court	Rye	L	Cx	<i>restuans</i>	1	NEG
RY7141519	7/14/2015	30 Morgan Court	Rye	L	Ae	<i>vexans</i>	1	NEG
RY7141520	7/14/2015	Stoneridge Drive (rotational site3)	Rye	L	Cx	<i>salinarius</i>	22	NEG
RY7211521	7/21/2015	40 Recreation Road	Rye	L	Cx	<i>salinarius</i>	6	NEG
RY7211522	7/21/2015	Merry Meeting Lane (rotational site4)	Rye	L	Cx	<i>salinarius</i>	15	NEG
RY7211523	7/21/2015	Merry Meeting Lane (rotational site4)	Rye	L	Cs	<i>melanura</i>	1	NEG
RY7211524	7/21/2015	Merry Meeting Lane (rotational site4)	Rye	L	Oc	<i>canadensis</i>	3	NEG
RY7281525	7/28/2015	30 Morgan Court	Rye	L	Cs	<i>melanura</i>	1	NEG
RY7281526	7/28/2015	30 Morgan Court	Rye	L	Cx	<i>restuans</i>	2	NEG
RY7281527	7/28/2015	18 Whitehorse Drive (rotational site5)	Rye	L	Cs	<i>melanura</i>	1	NEG

RY7281528	7/28/2015	18 Whitehorse Drive (rotational site5)	Rye	L	Cx	<i>pipiens</i>	1	NEG
RY7281529	7/28/2015	18 Whitehorse Drive (rotational site5)	Rye	L	Cx	<i>salinarius</i>	2	NEG
RY7281530	7/28/2015	18 Whitehorse Drive (rotational site5)	Rye	L	Ae	<i>vexans</i>	3	NEG
RY851531	8/5/2015	30 Morgan Court	Rye	L	An	<i>walkeri</i>	7	NEG
RY851532	8/5/2015	30 Morgan Court	Rye	L	Cq	<i>perturbans</i>	14	NEG
RY851533	8/5/2015	30 Morgan Court	Rye	L	Cx	<i>salinarius</i>	16	NEG
RY851534	8/5/2015	30 Morgan Court	Rye	L	Cx	<i>restuans</i>	4	NEG
RY851535	8/5/2015	West Road (rotational site6)	Rye	L	Oc	<i>canadensis</i>	9	NEG
RY851536	8/5/2015	West Road (rotational site6)	Rye	L	Cq	<i>perturbans</i>	11	NEG
RY851537	8/5/2015	West Road (rotational site6)	Rye	L	Cx	<i>salinarius</i>	11	NEG
RY851538	8/5/2015	40 Recreation Road	Rye	L	Cq	<i>perturbans</i>	5	NEG
RY8121539	8/12/2015	30 Morgan Court	Rye	L	An	<i>walkeri</i>	12	NEG
RY8121540	8/12/2015	30 Morgan Court	Rye	L	Cx	<i>salinarius</i>	30	NEG
RY8121541	8/12/2015	40 Recreation Road	Rye	L	Cx	<i>salinarius</i>	7	NEG
RY8121542	8/12/2015	101 Love Lane (rotational site7)	Rye	L	Cx	<i>salinarius</i>	2	NEG
RY8121543	8/12/2015	101 Love Lane (rotational site7)	Rye	L	Cq	<i>perturbans</i>	6	NEG
RY8191544	8/19/2015	40 Recreation Road	Rye	L	Cx	<i>salinarius</i>	5	NEG
RY8191545	8/19/2015	40 Recreation Road	Rye	L	Cq	<i>perturbans</i>	6	NEG
RY8191546	8/19/2015	30 Morgan Court	Rye	L	Cx	<i>restuans/pipiens</i>	5	NEG
RY8191547	8/19/2015	99 Wayside Lane (rotational site8)	Rye	L	Cx	<i>salinarius</i>	7	NEG
RY8191548	8/19/2015	99 Wayside Lane (rotational site8)	Rye	L	Cx	<i>pipiens</i>	2	NEG
RY8191549	8/19/2015	99 Wayside Lane (rotational site8)	Rye	L	Oc	<i>sollicitans</i>	9	NEG
RY8191550	8/19/2015	99 Wayside Lane (rotational site8)	Rye	L	Cq	<i>perturbans</i>	5	NEG
RY8261551	8/26/2015	30 Morgan Court	Rye	L	Cx	<i>salinarius</i>	12	NEG
RY8261552	8/26/2015	480 Sagamore Road (rotational #9)	Rye	L	Cq	<i>perturbans</i>	3	NEG
RY8261553	8/26/2015	480 Sagamore Road (rotational #9)	Rye	L	Cx	<i>salinarius</i>	14	NEG
RY921554	9/2/2015	30 Morgan Court	Rye	L	Cx	<i>salinarius</i>	4	NEG
RY921555	9/2/2015	40 Recreation Road	Rye	L	Ae	<i>vexans</i>	1	NEG
RY921556	9/2/2015	40 Recreation Road	Rye	L	Oc	<i>triseriatus</i>	1	NEG
RY921557	9/2/2015	South Road (rotational# 10)	Rye	L	Oc	<i>canadensis</i>	2	NEG
RY921558	9/2/2015	South Road (rotational# 10)	Rye	L	Cs	<i>melanura</i>	1	NEG
RY921559	9/2/2015	South Road (rotational# 10)	Rye	L	Cx	<i>restuans/pipiens</i>	6	NEG
RY921560	9/2/2015	South Road (rotational# 10)	Rye	L	Oc	<i>triseriatus</i>	2	NEG
RY991561	9/9/2015	30 Morgan Court	Rye	L	Cx	<i>salinarius</i>	12	NEG
RY991562	9/9/2015	30 Morgan Court	Rye	L	Cx	<i>restuans</i>	2	NEG
RY991563	9/9/2015	30 Morgan Court	Rye	L	Cs	<i>melanura</i>	1	NEG
RY991564	9/9/2015	40 Recreation Road	Rye	L	Cx	<i>pipiens</i>	1	NEG
RY9161529	9/16/2015	415 South Road	Rye	L	Cs	<i>melanura</i>	2	NEG
RY9161530	9/16/2015	415 South Road	Rye	L	Oc	<i>triseriatus</i>	2	NEG
RY9161531	9/16/2015	30 Morgan Court	Rye	L	Cx	<i>pipiens</i>	3	NEG
RY9161532	9/16/2015	40 Recreation Road	Rye	L	Ae	<i>vexans</i>	7	NEG
RY9301533	9/30/2015	30 Morgan Court	Rye	L	An	<i>walkeri</i>	14	NEG
RY9301534	9/30/2015	30 Morgan Court	Rye	L	Cx	<i>salinarius</i>	3	NEG

***A batch consists of 50 or less individual adult female mosquitoes of the same genus and species.**

New Hampshire Arbovirus Surveillance Bulletin #14

TEST SUMMARIES

MMWR Week 39 September 27, 2015 – October 3, 2015

HUMANS		Number Tested	WNV Positive	EEE Positive	Other Positive
CURRENT YEAR	Week	3	0	0	0
	YTD	50	0	0	0
Prior Season Totals	2014	38	0	3	0
	2013	34	1	0	1 [£]
	2012	37	1	0	0
	2011	44	0	0	0
	2010	32	1	0	0

£ Powassan virus and Jamestown Canyon virus coinfection (testing completed by the CDC)

ANIMALS		Number Tested	WNV Positive	EEE Positive
CURRENT YEAR	Week	0	0	0
	YTD	6	1	0
Prior Season Totals	2014	11	0	3
	2013	28	1	3
	2012	11	0	4
	2011	6	0	0
	2010	8	0	1

MOSQUITO BATCHES*		Number Tested	WNV Positive	EEE Positive
CURRENT YEAR	Week [‡]	140	0	1
	YTD	3678	3	2
Prior Season Totals	2014	3964	1	18
	2013	5316	14	24
	2012	4716	41	9
	2011	2733	9	0
	2010	2214	1	0

* A mosquito batch is a collection of mosquitoes sorted by species, date of collection, and trap location.

‡ This week, mosquitoes were submitted from Cheshire, Hillsborough, Rockingham and Strafford counties.

**NEW HAMPSHIRE ARBOVIRUS TEST RESULTS
2015 Arboviral Season**

MOSQUITO BATCHES

Town or City	Date Collected	Species	Virus Result
Manchester	09/09/2015	Culex restuans	WNV
East Kingston	09/10/2015	Culiseta morsitans	WNV
Keene	09/11/2015	Aedes vexans	WNV
Newton	09/17/2015	Culiseta melanura	EEE
Candia	09/29/2015	Culiseta melanura	EEE

ANIMALS

Town or City	Onset Date	Species	Virus Result
Holderness	09/17/2015	Raven	WNV

HUMANS

There have been no human cases of EEE or WNV identified in New Hampshire in 2015 to date.

Data notes:

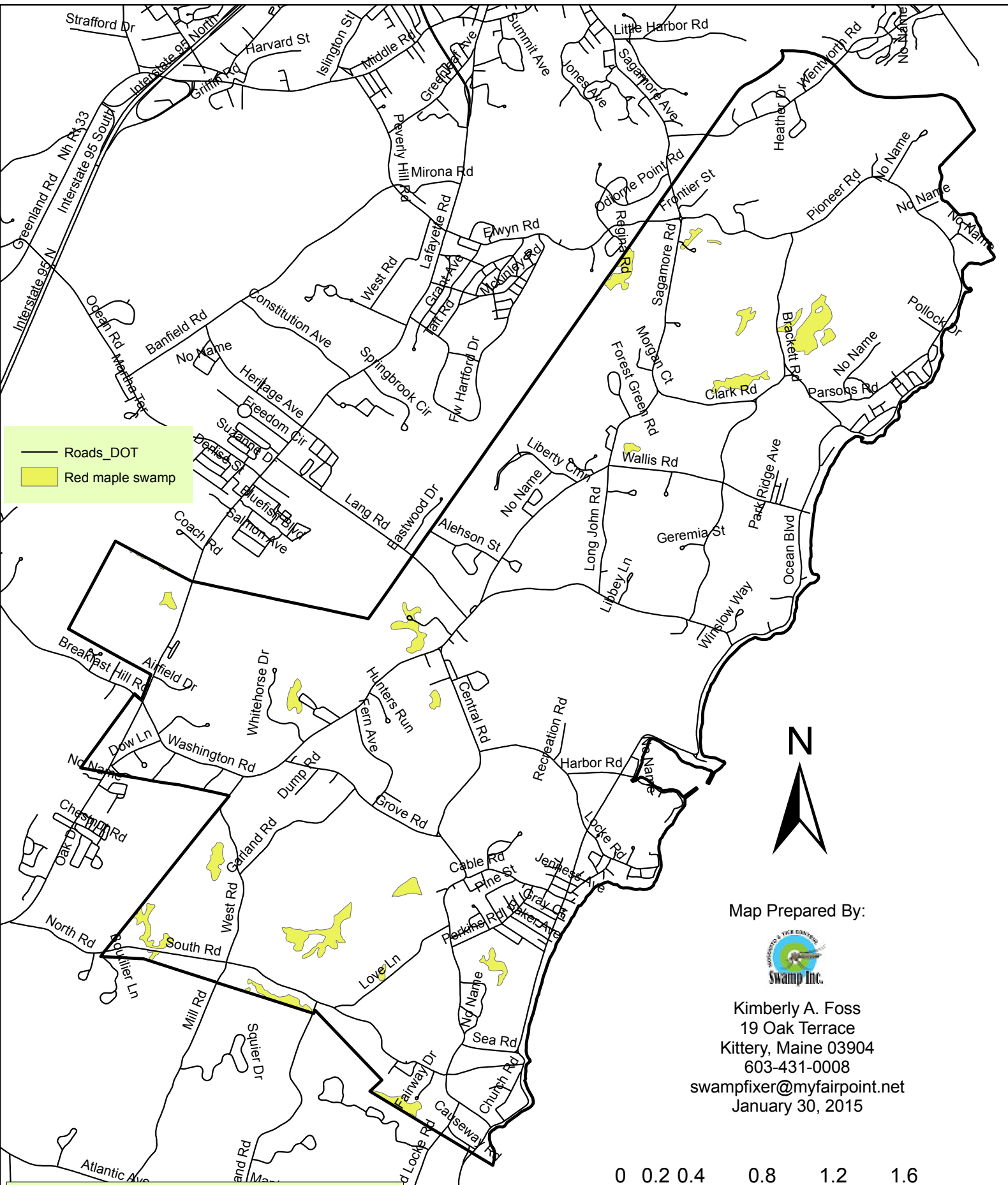
1. Data provided are those for which final results are available. Data are current as of 10/06/2015.
2. Test results include only those specimens tested with results finalized during the week being reported on. Pending results from the previous week are not included.
3. Prior years' data is cumulative.
4. YTD = All specimens submitted beginning 01/01/2015 through the week being reported on.
5. WNV = West Nile virus. EEE = Eastern Equine Encephalitis.

Use the following link to view the locations of positive test results and regional risk maps:

<http://www.dhhs.nh.gov/dphs/cdcs/arboviral/results.htm>

For more information regarding these data, contact Carolyn Fredette, Vectorborne Disease Surveillance Coordinator at (603) 271-0273 or carolyn.fredette@dhhs.state.nh.us.

Rye, NH Mosquito Control Map 1-2015



— Roads_DOT
Red maple swamp



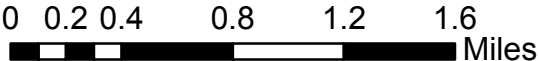
Map Prepared By:



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January 30, 2015

Berrys Brook-Rye Harbor Watershed Area

1:43,823



Anecdotal Description of Mosquito Species Occurring in Maine and New Hampshire:

Compiled by Richard Dearborn and Kimberly A. Foss: Maine Department of Conservation, Forest Health and Monitoring, Insect and Disease Lab 2003, from a variety of sources. Revised by Kimberly A. Foss, SWAMP, Inc/Municipal Pest Management Services, Inc. October 2015

GENUS species	Current Disease Associations (X)=primary vector	Estimated Flight Range	Bites Humans	Adult Host	Larval Habitat	No. Gen./ Yr.	Over- winter Stage	Common Names and Comments
AEDES								
<i>cinereus</i> (Meigen)	WNV EEE SLE	100 to 1000 feet	Yes Major pest in wooded or shaded areas	Mammals	Wooded snowmelt pools, semi-permanent bogs and swamps	2-3	Egg	Day and night biter
<i>vexans</i> (Meigen)	WNV EEE	5 to 10 miles	Yes Major pest	Mammals	Wooded temporary, permanent, semipermanent pools, open flooded areas	2-3	Egg	Day and night biter
OCHLEROTATUS								
<i>abserratus</i> (Felt & Young)			Yes Common spring pest	Mammals, birds	Snowmelt pools	1	Egg	Day and night biter
<i>atropalpus</i> (Coquillett)	WNV	100 to 1000 feet	Yes Around breeding areas	Mammals	Rock pools, some artificial containers	1	Egg	Day and night biter
<i>aurifer</i> (Coquillett)		½ mile	Yes Around breeding areas	Mammals	Snowmelt pools, swamps, bogs, open marshes	1	Egg	Day and night biter
<i>canadensis</i> (Theobald)	WNV EEE	½ mile	Yes Major late spring pest around breeding areas	Mammals, amphibians, reptiles, sometimes birds	Wooded snowmelt pools, flood waters	1-2	Egg	Day and night biter

<i>cantator</i> (Coquillett)	WNV EEE		Yes	Mammals, birds	Salt marshes, fresh or brackish water	1+	Egg	Day and night biter
<i>communis</i> (DeGeer)			Yes	Mammals, birds	Wooded snowmelt pools	1	Egg	Day and evening biter
<i>decticus</i> (Howard, Dyar and Knab)			Yes	Mammals, birds	Sphagnum, acid bogs	1	Egg	Day and night biter
<i>diantaeus</i> (Howard, Dyar and Knab)			Yes Wooded areas	Mammals, birds	Wooded snowmelt pools	1	Egg	Morning and evening biter
<i>dorsalis</i> (Meigen)	WNV SLE	10 to 20 miles	Yes	Large mammals, sometimes large birds	Temporary freshwater and brackish pools marshes and ditches	1+	Egg	“Pale marsh mosquito” New record for 2003 (M. Holman)
<i>excrucians</i> (Walker)		½ mile	Yes Common spring- summer pest	Mammals, sometimes birds	Wooded snowmelt pools, marshes	1-2	Egg	Day and evening biter
<i>fitchii</i> (Felt & Young)	WNV	About 1 mile	Yes Common spring- summer pest in wooded areas	Mammals, birds	Snowmelt pools, bogs, grassy roadside ditches	1	Egg	Day and night biter
<i>hendersoni</i> (Cockerell)		About 1 mile	Yes	Mammals	Tree holes, occasionally tires	1-2	Egg	
<i>implicatus</i> (Vockeroth)			Yes Spring pest	Mammals	Wooded snowmelt pools	1	Egg	Day and night biter
<i>intrudens</i> (Dyar)			Yes Common spring pest	Mammals	Wooded snowmelt pools	1	Egg	Day and night biter

<i>japonicus</i> (Theobald)	WNV SLE		Yes	Mammals, birds	Tires, artificial containers, tree holes, rock pools	2+	Egg	Day biter New Record Portland, Maine: June 26, 2001 (K.Foss)
<i>pionips</i> (Dyar)			Rarely		Snowmelt pools	1	Egg	
<i>provocans</i> (Walker)	WNV		Yes Early spring	Mammals	Semipermanent marshes, wooded snowmelt pools	1	Egg	Evening biter
<i>punctor</i> (Kirby)			Yes Spring	Mammals	Wooded snowmelt pools	1	Egg	Day and night biter
<i>riparius</i> (Dyar and Knab)								New record for 2003 (M. Holman)
<i>sollicitans</i> (Walker)	WNV EEE	100 miles or more	Yes Major coastal summer pest	Mammals, birds, reptiles, amphibians	Salt marshes	4+	Egg	“Eastern salt marsh mosquito”, Day and night biter
<i>sticticus</i> (Meigen)	WNV	4 miles	Yes Major pest around breeding areas	Mammals, birds, reptiles	Flood waters, wooded snowmelt pools	1-2	Egg	Day and evening biter
<i>stimulans</i> (Walker)	WNV	2 miles	Yes Major spring pest	Mammals, birds	Snowmelt pools	1	Egg	Long lived
<i>taeniorhynchus</i> (Wiedemann)	WNV EEE		Yes Major pest around breeding areas	Birds, mammals	Salt marshes	2+	Egg	“Black salt marsh mosquito”, Day and evening biter New record for 2002(M. Holman)
<i>triseriatus</i> (Say)	WNV LAC (X) EEE	½ to 1 mile	Yes Common summer pest around	Mammals, birds, reptiles, amphibians	Tires, artificial containers, tree holes	1	Egg	“Tree hole mosquito” Day and evening biter

			breeding areas					
<i>trivittatus</i> (Coquillett)	WNV EEE	½ mile	Yes Common summer pest around breeding areas	Mammals, birds	Wooded snowmelt pools, floodwaters	1	Egg	Day and evening biter
ANOPHELES								
<i>barberi</i> (Coquillett)	WNV		Yes	Mammals, sometimes birds	Tree holes, artificial containers	1-2	Larva	New record for 2004 (M. Holman)
<i>crucians</i>	WNV EEE			Mammals, birds	Confined bodies of water			New record for NH 2015 (K. Foss)
<i>earlei</i> (Vargas)		1 to 2 miles	Yes Common spring pest	Mammals	Confined bodies of water	1-2	Adult	Day and night biter
<i>punctipennis</i> (Say)	WNV Malaria	1 to 2 miles	Yes Major summer pest	Mammals, birds	Confined and flowing bodies of water, artificial containers	2-3	Adult	“Spotted-winged Mosquito”, Day and night biter
<i>quadrimaculatus</i> (Say)	WNV Malaria (X)	1 mile	Yes Common summer pest	Mammals, sometimes birds and reptiles	Confined bodies of water	2-3	Adult	Common “Malaria Mosquito”, Day and night biter
<i>walkeri</i> (Theobald)	WNV Malaria	1 to 2 miles	Yes	Mammals	Confined bodies of water	2+	Egg	Day and night biter
COQUILLETIDIA								
<i>perturbans</i> (Walker)	WNV EEE	1 to 10 miles	Yes Major summer pest	Birds, mammals, amphibians, sometimes reptiles	Cattail marshes	1-2	Larva	Larvae attach to the base of aquatic plants Day and night biter
CULEX								

<i>pipiens</i> (Linnaeus)	WNV (X) SLE (X) EEE	1 mile or more	Rarely	Birds, rarely mammals	Artificial containers, grassy roadside ditches, catch basins	1-2	Adult	“Northern house mosquito”
<i>restuans</i> (Theobald)	WNV (X) SLE (X) EEE	1 mile	Yes	Birds, sometimes mammals	Tires, tree holes, artificial containers, puddles, grassy roadside ditches, catch basins	1-2	Adult	Day and night biter
<i>salinarius</i> (Coquillett)	WNV (X) SLE (X) EEE		Yes	Birds, mammals	Artificial containers, grassy roadside ditches, brackish water, catch basins	1-2	Adult	Night biter, enters homes
<i>territans</i> (Walker)	WNV EEE	1 mile	Rarely	Cold blooded vertebrates (e.g. frogs), rarely birds	Pond edges, pools, marshes, grassy roadside ditches, artificial containers	1-3	Adult	
CULISETA								
<i>impatiens</i> (Walker)	WNV		Yes Uncommon early spring species	Mammals	Semipermanent ponds, bogs, wooded ground pools	1	Adult	Long lived, rare, day and evening biter
<i>inornata</i> (Williston)	WNV EEE		Yes Uncommon early spring species	Mammals	Wooded snowmelt pools, marshes, bogs, swamps	2+	Adult	“Winter mosquito”
<i>melanura</i> (Coquillett)	WNV EEE (X)	100 to 1000 yards	Rarely	Birds	Within stumps in acidic swamps and bogs, snowmelt pools	2+	Larva	
<i>minnesotae</i> (Barr)			Rarely	Birds, small mammals, turtles	Snowmelt pools, marshes	1-2	Adult	New Record for 2001 (M. Holman)
<i>morsitans</i> (Coquillett)	WNV EEE		Rarely	Birds	Semipermanent swamps, wooded snowmelt pools,	1	Egg	

					marshes, bogs			
PSOROPHORA								
<i>ciliata</i> (Fabricius)	WNV EEE	5 to 10 miles	Yes, day and night biter Uncommon	Mammals	Temporary open sunlit rain filled fields and flood-water areas	1+	Egg	“Gallinipper” New Record for 2006 S. Berwick (K. Foss)
<i>ferox</i> (Humboldt)	WNV EEE	Up to 1 mile	Yes Within wooded areas, Uncommon species	Mammals	Wooded temporary ground pools, flood-water areas	1	Egg	“White-footed woods mosquito”, day and evening biter New Record for 2001 (M. Holman)
URANOTAENIA								
<i>sapphirina</i> (Osten Sacken)	WNV	Up to 8 miles	Rarely Summer species	Birds	Permanent and semipermanent ponds, pools, swamps, marshes	1-2	Adult	New Record Portland, Maine: July 24, 2001 (K. Foss)
WYEOMYIA								
<i>smithii</i> (Coquillett)			Never	Feeds as larvae on other insects in pitcher plant fluid	Sphagnum bogs	1	Larva	“Pitcher plant mosquito” spends most of the year in larval stage
ORTHOPODOMYIA								
<i>signifera</i> (Coquillett)	WNV EEE	Less than 100 ft	Rarely, uncommon species slow to develop	Birds	Deep tree rot holes and wooden containers	2+	Egg in north, larvae in south	