

# Appendix A

## Migration Survey Data Tables

**CASSADAGA WIND PROJECT  
BIRD AND BAT SURVEY REPORT, 2013-2014**

**Appendix A Table 1.** Total number of species and individuals detected and distance from observer at 14 point count locations during 4 survey periods, Cassadaga Wind Project, Fall, 2013

<b>Common Name</b>	<b>Scientific Name</b>	<b>0-50 m</b>	<b>50-100 m</b>	<b>&gt; 100 m</b>	<b>Flyovers</b>	<b>Grand Total</b>
American crow	<i>Corvus brachyrhynchos</i>		14	87	8	109
American goldfinch	<i>Spinus tristis</i>	31	12		18	61
American kestrel	<i>Falco sparverius</i>				1	1
American robin	<i>Turdus migratorius</i>	6	4			10
black-capped chickadee	<i>Poecile atricapillus</i>	27	14			41
blue jay	<i>Cyanocitta cristata</i>	7	36	29	2	74
Canada goose	<i>Branta canadensis</i>				150	150
cedar waxwing	<i>Bombycilla cedrorum</i>	16	5		18	39
chipping sparrow	<i>Spizella passerina</i>	1				1
common yellowthroat	<i>Geothlypis trichas</i>	4	2			6
dark-eyed junco	<i>Junco hyemalis</i>	2				2
eastern bluebird	<i>Sialia sialis</i>	1	1			2
eastern phoebe	<i>Sayornis phoebe</i>	1				1
eastern towhee	<i>Pipilo erythrophthalmus</i>	4				4
eastern wood-pewee	<i>Contopus virens</i>	1	3			4
European starling	<i>Sturnus vulgaris</i>		6		8	14
field sparrow	<i>Spizella pusilla</i>		1			1
gray catbird	<i>Dumetella carolinensis</i>	9	3			12
hooded warbler	<i>Wilsonia citrina</i>	1				1
mourning dove	<i>Zenaidura macroura</i>	4	2		1	7
northern flicker	<i>Colaptes auratus</i>	1	1	1		3
red-tailed hawk	<i>Buteo jamaicensis</i>		1			1
red-winged blackbird	<i>Agelaius phoeniceus</i>	21			11	32
Savannah sparrow	<i>Passerculus sandwichensis</i>	1				1
song sparrow	<i>Melospiza melodia</i>	12	4			16
white-breasted nuthatch	<i>Sitta carolinensis</i>	6	1			7
yellow-bellied sapsucker	<i>Sphyrapicus varius</i>			1		1
<b>Grand total</b>		<b>156</b>	<b>110</b>	<b>118</b>	<b>217</b>	<b>601</b>

**CASSADAGA WIND PROJECT  
BIRD AND BAT SURVEY REPORT, 2013-2014**

**Appendix A Table 2.** Total number of observations, relative abundance, and frequency of species at point count locations during 4 survey periods, Cassadaga Wind Project, Fall, 2013

Species	Agricultural (8 points)			Forest edge (3 points)			Over-grown field (3 points)		
	Total a	Relative abundance b	Frequency c	Total a	Relative abundance b	Frequency c	Total a	Relative abundance b	Frequency c
American crow	74	2.31	100%	16	1.33	100%	19	1.58	100%
American goldfinch	34	1.06	75%	13	1.08	100%	14	1.17	100%
American kestrel	1	0.03	13%						
American robin	6	0.19	38%	4	0.33	67%			
black-capped chickadee	17	0.53	75%	15	1.25	100%	9	0.75	100%
blue jay	34	1.06	100%	16	1.33	100%	24	2.00	100%
Canada goose	150	4.69	38%						
cedar waxwing	11	0.34	50%	24	2.00	67%	4	0.33	67%
chipping sparrow	1	0.03	13%						
common yellowthroat				3	0.25	100%	3	0.25	67%
dark-eyed junco	2	0.06	13%						
eastern bluebird	2	0.06	13%						
eastern phoebe				1	0.08	33%			
eastern towhee				3	0.25	67%	1	0.08	33%
eastern wood-pewee	1	0.03	13%	3	0.25	67%			
European starling	14	0.44	25%						
field sparrow							1	0.08	33%
gray catbird	2	0.06	25%	3	0.25	67%	7	0.58	100%
hooded warbler							1	0.08	33%
mourning dove	6	0.19	25%				1	0.08	33%
northern flicker	1	0.03	13%	1	0.08	33%	1	0.08	33%
red-tailed hawk	1	0.03	13%						
red-winged blackbird	32	1.00	63%						
Savannah sparrow	1	0.03	13%						
song sparrow	9	0.28	50%	1	0.08	33%	6	0.50	100%
white-breasted				5	0.42	100%	2	0.17	33%

**CASSADAGA WIND PROJECT  
BIRD AND BAT SURVEY REPORT, 2013-2014**

<b>Appendix A Table 2.</b> Total number of observations, relative abundance, and frequency of species at point count locations during 4 survey periods, Cassadaga Wind Project, Fall, 2013									
<b>Species</b>	<b>Agricultural (8 points)</b>			<b>Forest edge (3 points)</b>			<b>Over-grown field (3 points)</b>		
	<b>Total a</b>	<b>Relative abundance b</b>	<b>Frequency c</b>	<b>Total a</b>	<b>Relative abundance b</b>	<b>Frequency c</b>	<b>Total a</b>	<b>Relative abundance b</b>	<b>Frequency c</b>
nuthatch									
yellow-bellied sapsucker	1	0.03	13%						
<b>Grand Total</b>	<b>400</b>			<b>108</b>			<b>93</b>		
<b>Relative abundance</b>	<b>12.5</b>			<b>9.00</b>			<b>7.75</b>		
<b>Species richness</b>	<b>21</b>			<b>14</b>			<b>14</b>		
<b>Shannon Diversity Index</b>	<b>2.81</b>			<b>2.72</b>			<b>2.62</b>		
a Total number of individuals detected (mainly singing males, also males and females that were visually observed).									
b Mean number of birds observed.									
c Percentage of survey points at which the species was observed.									

# Appendix B

## Raptor Survey Data Tables

**CASSADAGA WIND PROJECT  
BIRD AND BAT SURVEY REPORT, 2013-2014**

**Appendix B Table 1.** Daily observations of raptor species and daily passage rates, Cassadaga Wind Project, Spring, 2014

<b>Species</b>	<b>3/1</b>	<b>3/14</b>	<b>3/19</b>	<b>3/27</b>	<b>4/1</b>	<b>4/10</b>	<b>4/14</b>	<b>4/23</b>	<b>5/1</b>	<b>5/7</b>	<b>5/13</b>	<b>5/20</b>	<b>5/26</b>	<b>Entire Season</b>
American kestrel						1	1	1	1		1	1	1	7
bald eagle	1			1		1		1	2					6
broad-winged hawk									17					17
golden eagle									1					1
northern harrier									1					1
osprey					1				2					3
red-shouldered hawk	1			1							1			3
red-tailed hawk	7	3	3		3	5	3		7		1	1	1	34
rough-legged hawk	2	1	2											5
sharp-shinned hawk					1	1			2					4
turkey vulture	1	2	3	6	8	10	8	3	5		2	2	14	64
unidentified accipiter hawk	1													1
unidentified buteo hawk									3		2			5
unidentified raptor	2	3									1			6
<b>Daily totals</b>	<b>15</b>	<b>9</b>	<b>8</b>	<b>8</b>	<b>13</b>	<b>18</b>	<b>12</b>	<b>5</b>	<b>41</b>	<b>0</b>	<b>8</b>	<b>4</b>	<b>16</b>	<b>157</b>
<b>Daily passage rates</b>	<b>1.9</b>	<b>1.1</b>	<b>1.6</b>	<b>1.0</b>	<b>1.6</b>	<b>2.3</b>	<b>1.7</b>	<b>0.8</b>	<b>5.1</b>	<b>0.0</b>	<b>1.1</b>	<b>0.6</b>	<b>2.0</b>	<b>1.6</b>

**CASSADAGA WIND PROJECT  
BIRD AND BAT SURVEY REPORT, 2013-2014**

**Appendix B Table 2.** Hourly summary of raptor observations, Cassadaga Wind Project, Spring, 2014

<b>Species</b>	<b>9:00-10:00</b>	<b>10:00-11:00</b>	<b>11:00-12:00</b>	<b>12:00-1:00</b>	<b>1:00-2:00</b>	<b>2:00-3:00</b>	<b>3:00-4:00</b>	<b>4:00-5:00</b>	<b>Grand Total</b>
American kestrel	2	1	1	1	2				7
bald eagle		1			1	1	1	2	6
broad-winged hawk			1	1	1		7	7	17
golden eagle								1	1
northern harrier				1					1
osprey						1	2		3
red-shouldered hawk					2		1		3
red-tailed hawk	4	4	4	7	3	8	3	1	34
rough-legged hawk	2		1	2					5
sharp-shinned hawk					3	1			4
turkey vulture	1	6	10	14	20	6	6	1	64
unidentified accipiter					1				1
unidentified buteo hawk		3			2				5
unidentified raptor			4			1	1		6
<b>Hourly totals</b>	<b>9</b>	<b>15</b>	<b>21</b>	<b>26</b>	<b>35</b>	<b>18</b>	<b>21</b>	<b>12</b>	<b>157</b>

**CASSADAGA WIND PROJECT  
BIRD AND BAT SURVEY REPORT, 2013-2014**

**Appendix B Table 3.** Number of individuals of species observed inside turbine areas (1/4 mile buffer) above or below 150 m, Cassadaga Wind Project, Spring, 2014

<b>Species</b>	<b>150 m or Greater</b>	<b>Less than 150 m</b>	<b>Outside the Project Area</b>
American kestrel		7	
bald eagle	1	5	
broad-winged hawk	7	10	
golden eagle		1	
northern harrier		1	
osprey		3	
red-shouldered hawk	1	2	
red-tailed hawk	6	21	7
rough-legged hawk		5	
sharp-shinned hawk		4	
turkey vulture		63	1
unidentified accipiter			1
unidentified buteo hawk	5		
unidentified raptor		1	5
<b>Total</b>	<b>20</b>	<b>123</b>	<b>14</b>



# Appendix C

## Breeding Bird Survey Data Tables

**CASSADAGA WIND PROJECT  
BIRD AND BAT SURVEY REPORT, 2013-2014**

**Appendix C Table 1.** Total number of species and individuals detected and distance from observer at 85 point count locations during 2 survey periods, Cassadaga Wind Project, Spring, 2014\*

Acronym	Definition					
		0-50 m	50-100 m	> 100 m	Flyovers	Grand Total
Common name	Scientific name					
alder flycatcher	<i>Empidonax alnorum</i>	4	5			9
American crow	<i>Corvus brachyrhynchos</i>	4	7	172		183
American goldfinch	<i>Spinus tristis</i>	25	38	1	4	68
American redstart	<i>Setophaga ruticilla</i>	4	5	1		10
American robin	<i>Turdus migratorius</i>	44	82	24	1	151
Baltimore oriole	<i>Icterus galbula</i>	1				1
barn swallow	<i>Hirundo rustica</i>	13	5			18
belted kingfisher	<i>Megaceryle alcyon</i>			1		1
black-and-white warbler	<i>Mniotilta varia</i>	9	1			10
blackburnian warbler	<i>Setophaga fusca</i>	1				1
black-capped chickadee	<i>Poecile atricapillus</i>	21	25	7		53
black-throated blue warbler	<i>Setophaga caerulescens</i>	2				2
black-throated green warbler	<i>Setophaga virens</i>	5	3			8
blue jay	<i>Cyanocitta cristata</i>	3	14	45	1	63
bobolink	<i>Dolichonyx oryzivorus</i>	66	105	7		178
brown creeper	<i>Certhia americana</i>	1				1
Canada goose	<i>Branta canadensis</i>		2	49	4	55
Carolina wren	<i>Thryothorus ludovicianus</i>	1				1
chestnut-sided warbler	<i>Setophaga pensylvanica</i>	23	32	10		65
chipping sparrow	<i>Spizella passerina</i>	3	12	1		16
common grackle	<i>Quiscalus quiscula</i>		4			4
common yellowthroat	<i>Geothlypis trichas</i>	36	44	36		116
Cooper's hawk	<i>Accipiter cooperii</i>				1	1
dark-eyed junco	<i>Junco hyemalis</i>	8	8	2		18
downy woodpecker	<i>Picoides pubescens</i>	3				3
eastern meadowlark	<i>Sturnella magna</i>	3	6	2	2	13
eastern phoebe	<i>Sayornis phoebe</i>	1	9	3		13
eastern towhee	<i>Pipilo erythrophthalmus</i>	28	45	13		86
eastern wood-pewee	<i>Contopus virens</i>	4	16	8		28
European starling	<i>Sturnus vulgaris</i>	6	40			46
field sparrow	<i>Spizella pusilla</i>	6	17	14		37
golden-crowned kinglet	<i>Regulus satrapa</i>	5	1			6
gray catbird	<i>Dumetella carolinensis</i>	16	7	2		25
great blue heron	<i>Ardea herodias</i>			1		1
hooded warbler	<i>Setophaga citrina</i>	14	17	5		36
house wren	<i>Troglodytes aedon</i>	1				1
indigo bunting	<i>Passerina cyanea</i>	7	22	7		36
killdeer	<i>Charadrius vociferus</i>	2	5	1		8
least flycatcher	<i>Empidonax minimus</i>	5				5
mallard	<i>Anas platyrhynchos</i>	2				2
mourning dove	<i>Zenaida macroura</i>		5	32		37
mourning warbler	<i>Geothlypis philadelphia</i>	19	9	1		29
northern cardinal	<i>Cardinalis cardinalis</i>	2	10	20		32
northern flicker	<i>Colaptes auratus</i>	5	9	16		30
ovenbird	<i>Seiurus aurocapilla</i>	20	32	21		73
palm warbler	<i>Setophaga palmarum</i>	5				5
red-bellied woodpecker	<i>Melanerpes carolinus</i>			3		3
red-breasted nuthatch	<i>Sitta canadensis</i>	1				1
red-eyed vireo	<i>Vireo olivaceus</i>	18	24	21		63
red-shouldered hawk	<i>Buteo lineatus</i>	2		3		5
red-tailed hawk	<i>Buteo jamaicensis</i>	1	2	6	1	10
red-winged blackbird	<i>Agelaius phoeniceus</i>	136	232	62	4	434
rock pigeon	<i>Columba livia</i>	12	1	12		25
rose-breasted grosbeak	<i>Pheucticus ludovicianus</i>		9	10		19
ruby-crowned kinglet	<i>Regulus calendula</i>	1				1
ruby-throated hummingbird	<i>Archilochus colubris</i>	1				1
ruffed grouse	<i>Bonasa umbellus</i>	1				1
savannah sparrow	<i>Passerculus sandwichensis</i>	13	5			18
scarlet tanager	<i>Piranga olivacea</i>	4	14	2		20
song sparrow	<i>Melospiza melodia</i>	66	77	8		151
spotted sandpiper	<i>Actitis macularius</i>	3				3
tree swallow	<i>Tachycineta bicolor</i>	5	7			12
turkey vulture	<i>Cathartes aura</i>			2	2	4
unidentified empidonax flycatcher	<i>Empidonax (sp)</i>	1				1
veery	<i>Catharus fuscescens</i>	2	5			7
white-breasted nuthatch	<i>Sitta carolinensis</i>	2	5			7
white-throated sparrow	<i>Zonotrichia albicollis</i>		3			3
wild turkey	<i>Meleagris gallopavo</i>		2	3		5
willow flycatcher	<i>Empidonax traillii</i>	1		1		2
wood thrush	<i>Hylocichla mustelina</i>	6	12	2		20
yellow warbler	<i>Setophaga petechia</i>	3	3			6
yellow-bellied sapsucker	<i>Sphyrapicus varius</i>	11	9	5		25
yellow-rumped warbler	<i>Setophaga coronata</i>	29				29
<b>Grand Total</b>		<b>747</b>	<b>1052</b>	<b>642</b>	<b>20</b>	<b>2461</b>

\*Numbers largely represent singing males but also include male and some female individuals that were visually detected.

**CASSADAGA WIND PROJECT  
BIRD AND BAT SURVEY REPORT, 2013-2014**

**Appendix C Table 2.** Total number of species and individuals detected by habitat type and <100m from observer at 85 survey and control point-count locations during 2 survey periods, Cassadaga Wind Project, Spring, 2014\*

Common name	Scientific name	Habitat Classification										All Points (85 points)	
		agricultural (14 points)		forest edge (35 points)		hardwood forest (6 points)		mixed forest (20 points)		over-grown field (10 points)		survey (59)	control (26)
		survey (12)	control (2)	survey (23)	control (12)	survey (6)	control (0)	survey (14)	control (6)	survey (4)	control (6)		
alder flycatcher	<i>Empidonax alnorum</i>			1	1	1				6		8	1
American crow	<i>Corvus brachyrhynchos</i>			6	4					1		7	4
American goldfinch	<i>Spinus tristis</i>	10	2	21	9	1			1	6	13	38	25
American redstart	<i>Setophaga ruticilla</i>			2	2	1		3	1			6	3
American robin	<i>Turdus migratorius</i>	23	7	36	27	5		6	3	4	15	74	52
Baltimore oriole	<i>Icterus galbula</i>			1								1	
barn swallow	<i>Hirundo rustica</i>	2		10						1	5	13	5
black-and-white warbler	<i>Mniotilta varia</i>			1	1	2		3	3			6	4
blackburnian warbler	<i>Setophaga fusca</i>			1								1	
black-capped chickadee	<i>Poecile atricapillus</i>	4		19	11	5		2	5			30	16
black-throated blue warbler	<i>Setophaga caerulescens</i>					2						2	
black-throated green warbler	<i>Setophaga virens</i>							7	1			7	1
blue jay	<i>Cyanocitta cristata</i>	1		8	4	2			2			11	6
bobolink	<i>Dolichonyx oryzivorus</i>	73	12	60	13					10	3	143	28
brown creeper	<i>Certhia americana</i>								1				1
Canada goose	<i>Branta canadensis</i>	2										2	
Carolina wren	<i>Thryothorus ludovicianus</i>				1								1
chestnut-sided warbler	<i>Setophaga pensylvanica</i>	4		12	10	3		13	5	2	6	34	21
chipping sparrow	<i>Spizella passerina</i>	4		4	3					1	3	9	6
common grackle	<i>Quiscalus quiscula</i>			1	3							1	3
common yellowthroat	<i>Geothlypis trichas</i>	7	1	22	14	2		13	3	12	6	56	24
dark-eyed junco	<i>Junco hyemalis</i>	1		4	1			8	2			13	3
downy woodpecker	<i>Picoides pubescens</i>			2		1						3	
eastern meadowlark	<i>Sturnella magna</i>	5		4								9	
eastern phoebe	<i>Sayornis phoebe</i>		1	3	3						3	3	7
eastern towhee	<i>Pipilo erythrophthalmus</i>	8		14	6	15		27	3			64	9
eastern wood-pewee	<i>Contopus virens</i>			2	2	3		9	2		2	14	6
European starling	<i>Sturnus vulgaris</i>			40	4						2	40	6
field sparrow	<i>Spizella pusilla</i>	1	2	7	7					6		14	9
golden-crowned kinglet	<i>Regulus satrapa</i>				4				2				6
gray catbird	<i>Dumetella carolinensis</i>	2		8	5	1		4			3	15	8
hooded warbler	<i>Setophaga citrina</i>	2		3	6	3		12	4		1	20	11
house wren	<i>Troglodytes aedon</i>			1								1	
indigo bunting	<i>Passerina cyanea</i>	3	2	6	7	1		3	1	2	4	15	14
killdeer	<i>Charadrius vociferus</i>	3		4								7	

**CASSADAGA WIND PROJECT  
BIRD AND BAT SURVEY REPORT, 2013-2014**

**Appendix C Table 2.** Total number of species and individuals detected by habitat type and <100m from observer at 85 survey and control point-count locations during 2 survey periods, Cassadaga Wind Project, Spring, 2014\*

Common name	Scientific name	Habitat Classification										All Points (85 points)	
		agricultural (14 points)		forest edge (35 points)		hardwood forest (6 points)		mixed forest (20 points)		over-grown field (10 points)		survey (59)	control (26)
		survey (12)	control (2)	survey (23)	control (12)	survey (6)	control (0)	survey (14)	control (6)	survey (4)	control (6)		
least flycatcher	<i>Empidonax minimus</i>					5						5	
mallard	<i>Anas platyrhynchos</i>			2								2	
mourning dove	<i>Zenaida macroura</i>	2		2							1	4	1
mourning warbler	<i>Geothlypis philadelphia</i>	1		5	2	5		10	3	1	1	22	6
northern cardinal	<i>Cardinalis cardinalis</i>	4		3	4				1			7	5
northern flicker	<i>Colaptes auratus</i>			2	1	3		4	2	2		11	3
ovenbird	<i>Seiurus aurocapilla</i>			10	5	6		21	9	1		38	14
palm warbler	<i>Setophaga palmarum</i>			5								5	
red-breasted nuthatch	<i>Sitta canadensis</i>			1								1	
red-eyed vireo	<i>Vireo olivaceus</i>	1		9	4	7		13	6	2		32	10
red-shouldered hawk	<i>Buteo lineatus</i>							2				2	
red-tailed hawk	<i>Buteo jamaicensis</i>	2		1								3	
red-winged blackbird	<i>Agelaius phoeniceus</i>	96	23	85	55	2				21	86	204	164
rock pigeon	<i>Columba livia</i>				1						12		13
rose-breasted grosbeak	<i>Pheucticus ludovicianus</i>	1		5		3						9	
ruby-crowned kinglet	<i>Regulus calendula</i>			1								1	
ruby-throated hummingbird	<i>Archilochus colubris</i>			1								1	
ruffed grouse	<i>Bonasa umbellus</i>					1						1	
savannah sparrow	<i>Passerculus sandwichensis</i>	12		6								18	
scarlet tanager	<i>Piranga olivacea</i>	1		3	1	1		9	3			14	4
song sparrow	<i>Melospiza melodia</i>	19	5	61	24	1		5	2	11	15	97	46
spotted sandpiper	<i>Actitis macularius</i>			2						1		3	
tree swallow	<i>Tachycineta bicolor</i>			1	8						3	1	11
unidentified empidonax flycatcher	<i>Empidonax (sp)</i>				1								1
veery	<i>Catharus fuscescens</i>			1		2		4				7	
white-breasted nuthatch	<i>Sitta carolinensis</i>			2		2		2	1			6	1
white-throated sparrow	<i>Zonotrichia albicollis</i>	2		1								3	
wild turkey	<i>Meleagris gallopavo</i>	2										2	
willow flycatcher	<i>Empidonax traillii</i>			1								1	
wood thrush	<i>Hylocichla mustelina</i>			1	2	5		10				16	2
yellow warbler	<i>Setophaga petechia</i>			5	1							5	1
yellow-bellied sapsucker	<i>Sphyrapicus varius</i>	3		7		5		3	2			18	2
yellow-rumped warbler	<i>Setophaga coronata</i>			29								29	
<b>Grand Total</b>		<b>301</b>	<b>55</b>	<b>555</b>	<b>257</b>	<b>96</b>	<b>0</b>	<b>193</b>	<b>68</b>	<b>90</b>	<b>184</b>	<b>1235</b>	<b>564</b>

\*Numbers largely represent singing males but also include male and some female individuals that were visually detected.

**CASSADAGA WIND PROJECT  
BIRD AND BAT SURVEY REPORT, 2013-2014**

**Appendix C Table 3.** Total number of observations, relative abundance, and frequency at all point count locations during 2 survey periods, Cassadaga Wind Project, Spring, 2014

Habitat	Agricultural (14 pts)						Forest Edge (35 pts)						Hardwood Forest (6 pts)			Mixed Forest (20 pts)						Overgrown Field (10 pts)					
	Survey points (12)			Control points (2)			Survey points (23)			Control points (12)			Survey points (6)			Survey points (14)			Control points (6)			Survey points (4)			Control points (6)		
	Total <sup>a</sup>	RA <sup>b</sup>	FR <sup>c</sup>	Total <sup>a</sup>	RA <sup>b</sup>	FR <sup>c</sup>	Total <sup>a</sup>	RA <sup>b</sup>	FR <sup>c</sup>	Total <sup>a</sup>	RA <sup>b</sup>	FR <sup>c</sup>	Total <sup>a</sup>	RA <sup>b</sup>	FR <sup>c</sup>	Total <sup>a</sup>	RA <sup>b</sup>	FR <sup>c</sup>	Total <sup>a</sup>	RA <sup>b</sup>	FR <sup>c</sup>	Total <sup>a</sup>	RA <sup>b</sup>	FR <sup>c</sup>	Total <sup>a</sup>	RA <sup>b</sup>	FR <sup>c</sup>
alder flycatcher							1	0.02	4%	1	0.04	8%	1	0.08	17%							6	0.75	75%			
American crow							6	0.13	13%	4	0.17	17%										1	0.13	25%			
American goldfinch	10	0.42	42%	2	0.50	50%	21	0.46	48%	9	0.38	58%	1	0.08	17%				1	0.08	17%	6	0.75	75%	13	1.08	100%
American redstart							2	0.04	9%	2	0.08	8%	1	0.08	17%	3	0.11	21%	1	0.08	17%						
American robin	23	0.96	67%	7	1.75	100%	36	0.78	78%	27	1.13	75%	5	0.42	50%	6	0.21	29%	3	0.25	33%	4	0.50	75%	15	1.25	100%
baltimore oriole							1	0.02	4%																		
barn swallow	2	0.08	8%				10	0.22	13%													1	0.13	25%	5	0.42	50%
black-and-white warbler							1	0.02	4%	1	0.04	8%	2	0.17	33%	3	0.11	21%	3	0.25	50%						
blackburnian warbler							1	0.02	4%																		
black-capped chickadee	4	0.17	33%				19	0.41	52%	11	0.46	50%	5	0.42	67%	2	0.07	7%	5	0.42	67%						
black-throated blue warbler													2	0.17	17%												
black-throated green warbler																7	0.25	43%	1	0.08	17%						
blue jay	1	0.04	8%				8	0.17	22%	4	0.17	8%	2	0.17	33%				2	0.17	33%						
bobolink	73	3.04	83%	12	3.00	100%	60	1.30	43%	13	0.54	8%										10	1.25	50%	3	0.25	17%
brown creeper																			1	0.08	17%						
Canada goose	2	0.08	8%																								
carolina wren										1	0.04	8%															
chestnut-sided warbler	4	0.17	25%				12	0.26	35%	10	0.42	50%	3	0.25	50%	13	0.46	64%	5	0.42	67%	2	0.25	50%	6	0.50	67%
chipping sparrow	4	0.17	17%				4	0.09	17%	3	0.13	25%										1	0.13	25%	3	0.25	50%
common grackle							1	0.02	4%	3	0.13	17%															
common yellowthroat	7	0.29	42%	1	0.25	50%	22	0.48	74%	14	0.58	67%	2	0.17	17%	13	0.46	57%	3	0.25	50%	12	1.50	100%	6	0.50	83%
dark-eyed junco	1	0.04	8%				4	0.09	13%	1	0.04	8%				8	0.29	29%	2	0.17	33%						
downy woodpecker							2	0.04	9%				1	0.08	17%												
eastern meadowlark	5	0.21	25%				4	0.09	13%																		
eastern phoebe				1	0.25	50%	3	0.07	13%	3	0.13	17%													3	0.25	50%
eastern towhee	8	0.33	42%				14	0.30	35%	6	0.25	25%	15	1.25	100%	27	0.96	79%	3	0.25	50%						
eastern wood-pewee							2	0.04	9%	2	0.08	17%	3	0.25	50%	9	0.32	50%	2	0.17	33%				2	0.17	33%
European starling							40	0.87	9%	4	0.17	8%													2	0.17	17%
field sparrow	1	0.04	8%	2	0.50	100%	7	0.15	26%	7	0.29	42%										6	0.75	75%			
golden-crowned kinglet										4	0.17	25%							2	0.17	33%						
gray catbird	2	0.08	17%				8	0.17	26%	5	0.21	42%	1	0.08	17%	4	0.14	29%							3	0.25	50%
hooded warbler	2	0.08	17%				3	0.07	13%	6	0.25	50%	3	0.25	50%	12	0.43	57%	4	0.33	50%				1	0.08	17%
house wren							1	0.02	4%																		
indigo bunting	3	0.13	25%	2	0.50	100%	6	0.13	22%	7	0.29	42%	1	0.08	17%	3	0.11	21%	1	0.08	17%	2	0.25	25%	4	0.33	50%
killdeer	3	0.13	17%				4	0.09	17%																		
least flycatcher													5	0.42	50%												
mallard							2	0.04	4%																		
mourning dove	2	0.08	17%				2	0.04	9%																1	0.08	17%
mourning warbler	1	0.04	8%				5	0.11	22%	2	0.08	17%	5	0.42	83%	10	0.36	57%	3	0.25	33%	1	0.13	25%	1	0.08	17%
northern cardinal	4	0.17	33%				3	0.07	13%	4	0.17	33%							1	0.08	17%						

**CASSADAGA WIND PROJECT  
BIRD AND BAT SURVEY REPORT, 2013-2014**

**Appendix C Table 3.** Total number of observations, relative abundance, and frequency at all point count locations during 2 survey periods, Cassadaga Wind Project, Spring, 2014

Habitat	Agricultural (14 pts)						Forest Edge (35 pts)						Hardwood Forest (6 pts)			Mixed Forest (20 pts)						Overgrown Field (10 pts)					
	Survey points (12)			Control points (2)			Survey points (23)			Control points (12)			Survey points (6)			Survey points (14)			Control points (6)			Survey points (4)			Control points (6)		
	Total <sup>a</sup>	RA <sup>b</sup>	FR <sup>c</sup>	Total <sup>a</sup>	RA <sup>b</sup>	FR <sup>c</sup>	Total <sup>a</sup>	RA <sup>b</sup>	FR <sup>c</sup>	Total <sup>a</sup>	RA <sup>b</sup>	FR <sup>c</sup>	Total <sup>a</sup>	RA <sup>b</sup>	FR <sup>c</sup>	Total <sup>a</sup>	RA <sup>b</sup>	FR <sup>c</sup>	Total <sup>a</sup>	RA <sup>b</sup>	FR <sup>c</sup>	Total <sup>a</sup>	RA <sup>b</sup>	FR <sup>c</sup>	Total <sup>a</sup>	RA <sup>b</sup>	FR <sup>c</sup>
northern flicker							2	0.04	9%	1	0.04	8%	3	0.25	50%	4	0.14	29%	2	0.17	17%	2	0.25	50%			
ovenbird							10	0.22	26%	5	0.21	25%	6	0.50	67%	21	0.75	57%	9	0.75	100%	1	0.13	25%			
palm warbler							5	0.11	4%																		
red-breasted nuthatch							1	0.02	4%																		
red-eyed vireo	1	0.04	8%				9	0.20	35%	4	0.17	33%	7	0.58	67%	13	0.46	86%	6	0.50	67%	2	0.25	25%			
red-shouldered hawk																2	0.07	7%									
red-tailed hawk	2	0.08	17%				1	0.02	4%																		
red-winged blackbird	96	4.00	92%	23	5.75	100%	85	1.85	70%	55	2.29	92%	2	0.17	33%							21	2.63	100%	86	7.17	100%
rock pigeon										1	0.04	8%													12	1.00	17%
rose-breasted grosbeak	1	0.04	8%				5	0.11	22%				3	0.25	33%												
ruby-crowned kinglet							1	0.02	4%																		
ruby-throated hummingbird							1	0.02	4%																		
ruffed grouse													1	0.08	17%												
savannah sparrow	12	0.50	58%				6	0.13	26%																		
scarlet tanager	1	0.04	8%				3	0.07	9%	1	0.04	8%	1	0.08	17%	9	0.32	50%	3	0.25	50%						
song sparrow	19	0.79	92%	5	1.25	100%	61	1.33	96%	24	1.00	92%	1	0.08	17%	5	0.18	21%	2	0.17	33%	11	1.38	100%	15	1.25	100%
spotted sandpiper							2	0.04	4%													1	0.13	25%			
tree swallow							1	0.02	4%	8	0.33	8%													3	0.25	33%
unidentified empidonax flycatcher							1	0.02	4%																		
veery										1	0.04	8%	2	0.17	33%	4	0.14	29%									
white-breasted nuthatch							2	0.04	9%				2	0.17	33%	2	0.07	14%	1	0.08	17%						
white-throated sparrow	2	0.08	17%				1	0.02	4%																		
wild turkey	2	0.08	8%																								
willow flycatcher							1	0.02	4%																		
wood thrush							1	0.02	4%	2	0.08	17%	5	0.42	67%	10	0.36	50%									
yellow warbler							5	0.11	17%	1	0.04	8%															
yellow-bellied sapsucker	3	0.13	17%				7	0.15	22%				5	0.42	67%	3	0.11	21%	2	0.17	17%						
yellow-rumped warbler							29	0.63	9%																		
<b>Grand Total</b>	<b>301</b>			<b>55</b>			<b>555</b>			<b>257</b>			<b>96</b>			<b>193</b>			<b>68</b>			<b>90</b>			<b>184</b>		
<b>Relative abundance</b>	<b>12.54</b>			<b>13.75</b>			<b>12.07</b>			<b>10.71</b>			<b>8.00</b>			<b>6.89</b>			<b>5.67</b>			<b>11.25</b>			<b>15.33</b>		
<b>Species richness</b>	<b>31</b>			<b>9</b>			<b>56</b>			<b>36</b>			<b>30</b>			<b>24</b>			<b>25</b>			<b>18</b>			<b>19</b>		
<b>Shannon Diversity Index</b>	<b>2.34</b>			<b>1.68</b>			<b>3.18</b>			<b>3.00</b>			<b>3.11</b>			<b>2.92</b>			<b>3.02</b>			<b>2.43</b>			<b>2.05</b>		

a Total number of individuals detected (mainly singing males, also males and females that were visually observed).

b Mean number of birds observed.

c Percentage of survey points at which the species was observed.

# Appendix D

## Bat Survey Data Tables

**CASSADAGA WIND PROJECT  
BIRD AND BAT SURVEY REPORT, 2013-2014**

**Appendix D Table 1.** Summary of acoustic bat data during each survey night at the Met 1 High detector, Cassadaga Wind Project, 2013-2014

Night of	Operational?*	BBSH			HB	MYSP	RBTB			UNKN			Total	Wind Speed (m/s)	Temperature (celsius)	Barometric Pressure
		BBSH	Big brown	Silver-haired	Hoary	MYSP	Eastern red	Tri-colored	RBTB	HFUN	LFUN	UNKN				
08/26/13	1												0	5.9	19.2	943.3
08/27/13	1	1										2	3	4.4	19.7	941.0
08/28/13	1	1								1		3	5	4.7	20.0	943.1
08/29/13	1	1		2									3	3.2	21.3	945.6
08/30/13	1		1	1						2		3	7	7.2	21.6	938.1
08/31/13	1	1		1								1	3	3.2	19.7	938.8
09/01/13	1	1		2								1	4	5.2	19.9	937.2
09/02/13	1	1	1			1				1		1	5	4.8	14.9	936.8
09/03/13	1												0	7.3	13.6	941.5
09/04/13	1												0	6.6	15.3	943.2
09/05/13	0												0	4.4	9.4	947.6
09/06/13	0												0	6.5	14.0	945.0
09/07/13	1												0	6.9	17.1	940.3
09/08/13	0												0	7.9	11.5	943.8
09/09/13	0												0	9.9	18.4	943.3
09/10/13	0												0	9.0	24.5	947.6
09/11/13	0												0	7.6	21.1	942.7
09/12/13	0												0	5.0	13.3	936.0
09/13/13	0												0	2.8	6.9	940.1
09/14/13	0												0	6.6	10.0	944.3
09/15/13	0												0	4.4	11.3	943.6
09/16/13	0												0	6.4	5.6	949.6
09/17/13	1						1						1	8.2	11.6	948.9
09/18/13	1						2					1	3	7.0	14.2	945.7
09/19/13	1	1		1						1		8	11	7.3	16.6	943.2
09/20/13	1	2		2						1		3	8	8.0	19.1	936.2
09/21/13	1	3		9		2						6	20	4.5	9.6	933.1
09/22/13	1									2			2	3.0	7.0	940.3
09/23/13	1			1			1					2	4	2.7	8.3	943.5
09/24/13	1												0	5.3	11.1	940.9
09/25/13	1		1										1	6.6	13.0	941.0
09/26/13	1	1											1	5.3	12.5	945.8
09/27/13	1											2	2	7.3	13.9	949.0
09/28/13	1									1		1	2	8.2	12.3	945.3
09/29/13	1						1			1			2	7.0	15.2	942.5
09/30/13	1			1	1		1					2	5	5.6	14.5	941.9
10/01/13	1			1	1					1			3	9.3	16.0	941.8
10/02/13	1		1				2			1		1	5	5.4	14.8	945.1
10/03/13	1			2								3	5	6.3	18.0	943.6
10/04/13	1									1		1	2	5.3	17.7	945.0
10/05/13	1				1							1	2	5.6	18.7	942.4
10/06/13	1	1		7	2							1	11	8.0	18.9	934.4
10/07/13	1	3		2								1	6	5.0	8.4	942.1
10/08/13	1	1					1			1			3	7.2	10.4	950.0
10/09/13	1			1						1		2	4	5.5	12.4	948.8
10/10/13	1			1								1	2	5.7	14.6	945.5
10/11/13	1			1			1						2	6.5	14.7	944.9
10/12/13	1												0	7.8	15.9	947.1
10/13/13	1	1			1							2	4	3.9	12.3	949.7
10/14/13	1			1						1			2	5.6	10.0	947.8
10/15/13	1												0	8.6	14.5	939.6
10/16/13	1												0	7.6	10.0	935.6
10/17/13	1												0	9.3	7.6	931.9
10/18/13	1												0	7.9	9.0	936.0
10/19/13	1												0	8.6	3.7	931.2
10/20/13	1												0	9.3	7.5	937.9
10/21/13	1												0	7.7	8.0	932.9
04/16/14	1												0	6.8	-1.7	949.8
04/17/14	0												0	8.7	6.7	949.4
04/18/14	0												0	4.4	3.6	946.9
04/19/14	0												0	7.4	5.8	949.5



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BIRD AND BAT SURVEY REPORT, 2013-2014**

**Appendix D Table 1.** Summary of acoustic bat data during each survey night at the Met 1 High detector, Cassadaga Wind Project, 2013-2014

Night of	Operational?*	BBSH			HB	MYSP	RBTB			UNKN			Total	Wind Speed (m/s)	Temperature (celsius)	Barometric Pressure
		BBSH	Big brown	Silver-haired	Hoary	MYSP	Eastern red	Tri-colored	RBTB	HFUN	LFUN	UNKN				
04/20/14	0												0	6.9	12.7	945.5
04/21/14	0												0	6.9	15.1	934.0
04/22/14	0												0	8.5	0.5	928.6
04/23/14	0												0	4.4	0.3	938.4
04/24/14	0												0	7.8	5.6	937.0
04/25/14	0												0	9.3	3.7	929.9
04/26/14	0												0	3.8	1.1	938.1
04/27/14	0												0	7.2	4.4	942.2
04/28/14	0												0	7.6	9.9	936.6
04/29/14	0												0	11.4	6.9	938.4
04/30/14	0												0	8.5	10.0	933.3
05/01/14	0												0	7.9	6.2	931.7
05/02/14	0												0	5.9	6.6	933.3
05/03/14	0												0	8.0	5.1	931.7
05/04/14	0												0	5.9	2.7	938.3
05/05/14	0												0	3.8	6.4	938.2
05/06/14	0												0	6.7	7.7	943.0
05/07/14	0												0	7.1	12.3	943.1
05/08/14	0												0	6.9	20.7	944.1
05/09/14	1												0	10.0	15.4	937.2
05/10/14	1												0	6.4	11.3	940.6
05/11/14	1											1	1	6.4	17.6	945.5
05/12/14	1												0	7.0	17.8	944.9
05/13/14	0												0	6.5	19.7	945.9
05/14/14	1												0	7.6	16.5	942.2
05/15/14	1												0	7.0	7.7	937.0
05/16/14	1												0	3.4	2.8	937.7
05/17/14	1												0	3.9	4.0	944.1
05/18/14	1												0	6.7	9.0	947.8
05/19/14	0												0	4.8	12.7	948.0
05/20/14	0												0	8.6	12.2	939.5
05/21/14	0												0	5.5	15.8	937.8
05/22/14	0												0	6.8	8.9	939.2
05/23/14	1												0	5.2	8.3	943.1
05/24/14	1												0	3.8	14.4	947.0
05/25/14	1												0	6.6	17.2	946.5
05/26/14	1												0	8.2	19.7	942.4
05/27/14	1											2	2	4.6	17.7	939.8
05/28/14	1												0	6.1	10.3	943.1
05/29/14	1											1	1	4.6	12.7	945.9
05/30/14	1												0	3.8	15.4	948.9
05/31/14	1											1	1	7.9	14.8	950.1
06/01/14	1												0	8.1	18.5	946.9
06/02/14	1	1											1	8.3	19.5	941.9
06/03/14	1			1								2	3	4.9	15.4	939.6
06/04/14	1											1	1	2.8	13.4	936.1
06/05/14	1												0	4.3	9.6	939.2
06/06/14	1												0	3.9	15.0	943.6
06/07/14	1												0	5.6	17.8	941.8
06/08/14	1		1									3	4	4.9	13.1	938.8
06/09/14	1	1		1								5	7	3.4	16.8	941.6
06/10/14	1						1						1	6.0	18.7	941.4
06/11/14	1				1								1	8.7	18.6	938.5
06/12/14	1												0	4.2	17.6	937.4
06/13/14	1												0	5.4	11.0	939.4
06/14/14	1												0	2.8	11.6	946.2
06/15/14	1	1										4	5	6.6	19.3	947.5
06/16/14	1	2		1								3	6	6.3	20.5	946.6
06/17/14	1			1								2	3	7.7	19.0	941.9
06/18/14	1											2	2	4.6	17.4	944.6
06/19/14	1									1			1	4.0	15.6	946.9

**CASSADAGA WIND PROJECT  
BIRD AND BAT SURVEY REPORT, 2013-2014**

**Appendix D Table 1.** Summary of acoustic bat data during each survey night at the Met 1 High detector, Cassadaga Wind Project, 2013-2014

Night of	Operational?*	BBSH			HB	MYSP	RBTB			UNKN			Total	Wind Speed (m/s)	Temperature (celsius)	Barometric Pressure
		BBSH	Big brown	Silver-haired	Hoary	MYSP	Eastern red	Tri-colored	RBTB	HFUN	LFUN	UNKN				
06/20/14	1												0	7.4	14.3	941.4
06/21/14	1										1		1	6.4	16.0	941.4
06/22/14	1						1						1	6.9	18.6	943.2
06/23/14	1												0	7.7	20.7	943.4
06/24/14	1	1										4	5	5.9	19.0	941.5
06/25/14	1											2	2	2.4	17.8	942.5
06/26/14	1											2	2	2.6	17.6	946.5
06/27/14	1											1	1	6.5	20.6	949.7
06/28/14	1				1								1	7.2	21.1	949.8
06/29/14	1				1							1	2	7.6	19.4	945.0
06/30/14	1											3	3	8.1	22.5	940.7
07/01/14	1				1							1	2	5.1	21.2	939.2
07/02/14	1				3							1	4	5.4	18.2	942.0
07/03/14	1											3	3	5.5	13.4	944.7
07/04/14	1												0	4.6	14.2	949.9
07/05/14	1												0	7.5	16.7	947.3
07/06/14	1											1	1	9.4	18.2	938.1
07/07/14	1											1	1	7.3	20.2	936.5
07/08/14	1												0	8.8	16.8	935.4
07/09/14	1												0	4.5	14.5	943.9
07/10/14	1												0	5.7	16.8	949.4
07/11/14	1			1	1								2	3.3	19.8	950.6
07/12/14	1												0	7.4	21.3	944.4
07/13/14	1				1								1	6.0	19.3	941.0
07/14/14	1				1								1	5.4	18.8	937.2
07/15/14	1		2										2	6.3	14.0	937.1
07/16/14	1											1	1	5.3	12.2	941.0
07/17/14	1												0	4.9	14.8	948.1
07/18/14	1												0	5.5	17.5	949.7
07/19/14	1												0	7.6	15.7	945.7
07/20/14	1											1	2	5.3	18.2	947.2
07/21/14	1											1	1	3.3	20.7	949.4
07/22/14	1				2								2	7.9	22.4	944.4
07/23/14	1		3									1	4	4.3	14.2	942.5
07/24/14	1				1								1	3.5	14.2	944.0
07/25/14	1												0	5.0	15.7	942.8
07/26/14	1				1							3	4	7.7	19.9	937.7
07/27/14	1												0	3.9	16.6	931.3
07/28/14	1		1										1	3.4	11.9	938.0
07/29/14	1												0	6.7	12.9	941.2
07/30/14	1				1								1	5.7	14.5	942.6
07/31/14	1											1	1	7.1	17.2	946.7
08/01/14	1											1	1	5.0	18.8	948.3
08/02/14	1											1	1	4.7	17.0	946.5
08/03/14	1				1								1	3.0	17.0	946.7
08/04/14	1											1	1	4.8	19.2	946.6
08/05/14	1		1									2	3	2.9	15.9	943.5
08/06/14	1												0	3.7	16.2	944.1
08/07/14	1												0	2.5	15.7	947.1
08/08/14	1						1						1	5.6	16.9	948.0
08/09/14	1				1								1	5.9	18.5	948.3
08/10/14	1												0	6.8	20.2	946.6
08/11/14	1											1	1	10.1	17.7	937.5
08/12/14	1											1	1	6.5	16.5	935.9
08/13/14	1											1	1	5.7	12.4	938.8
08/14/14	1												0	6.3	10.8	939.3
08/15/14	1												0	8.1	12.5	940.8
08/16/14	1	1											1	6.9	15.6	939.4
08/17/14	1											1	1	1.4	15.3	942.3
08/18/14	1	1					2					1	4	6.7	16.1	938.8
08/19/14	1	1		1								2	4	7.0	19.3	940.1

**CASSADAGA WIND PROJECT  
BIRD AND BAT SURVEY REPORT, 2013-2014**

**Appendix D Table 1.** Summary of acoustic bat data during each survey night at the Met 1 High detector, Cassadaga Wind Project, 2013-2014

Night of	Operational?*	BBSH			HB	MYSP	RBTB			UNKN			Total	Wind Speed (m/s)	Temperature (celsius)	Barometric Pressure
		BBSH	Big brown	Silver-haired	Hoary	MYSP	Eastern red	Tri-colored	RBTB	HFUN	LFUN	UNKN				
08/20/14	1												0	6.8	18.5	942.8
08/21/14	1											3	3	3.3	18.8	943.8
08/22/14	1											1	1	3.9	18.6	944.1
08/23/14	1	1											1	5.5	16.8	946.4
08/24/14	1											1	1	5.7	18.3	948.8
08/25/14	1												0	8.0	18.3	947.8
08/26/14	1			1	1		1					1	4	7.0	21.2	946.4
08/27/14	1	2	6									1	9	4.4	14.3	944.3
08/28/14	1												0	3.7	13.8	947.1
08/29/14	1												0	8.4	17.2	946.8
08/30/14	1											1	1	8.2	21.9	944.6
08/31/14	1												0	5.7	19.4	944.0
09/01/14	1	5			1		1						7	8.0	20.8	941.4
09/02/14	1											1	1	5.4	16.7	942.3
09/03/14	1	1			1							1	3	5.3	18.9	947.8
09/04/14	1	2										1	3	8.7	20.9	947.3
09/05/14	1											2	2	7.7	20.3	943.3
09/06/14	1		6		1							1	8	4.3	13.3	945.3
09/07/14	1				1							1	2	6.6	14.0	949.3
09/08/14	1											1	1	8.2	15.4	947.6
09/09/14	1											1	1	7.8	16.4	944.6
09/10/14	1				1							1	2	11.6	19.7	934.7
09/11/14	1				1								1	3.8	9.8	944.8
09/12/14	1				1								1	3.8	8.0	944.9
09/13/14	1												0	4.0	8.7	949.4
09/14/14	1			1	1						1		3	3.0	10.0	947.9
09/15/14	1	1											1	3.4	10.3	942.7
09/16/14	1												0	3.6	10.3	943.1
09/17/14	1				2								2	4.0	11.1	941.1
09/18/14	1									1	1		2	3.2	7.4	946.3
09/19/14	1												0	9.3	13.6	945.1
09/20/14	1	1											1	10.0	18.4	937.9
09/21/14	1				2							8	10	8.6	9.6	934.3
09/22/14	1												0	5.8	7.9	947.5
09/23/14	1			1									1	4.9	13.3	955.0
09/24/14	1												0	8.1	14.1	954.8
09/25/14	1		1										1	3.1	15.2	952.2
09/26/14	1												0	4.4	15.7	952.0
09/27/14	1	1										1	2	4.9	17.8	950.5
09/28/14	1	2		2									4	1.5	17.2	944.8
09/29/14	1											1	1	3.9	14.8	939.6
09/30/14	1												0	2.6	13.6	941.3
10/01/14	1		1				1						2	6.1	15.0	944.5
10/02/14	1												0	9.3	14.6	941.0
10/03/14	1											2	2	7.2	12.4	928.3
10/04/14	1			1									1	9.4	2.0	927.4
10/05/14	1												0	8.0	5.7	932.8
10/06/14	1												0	8.6	10.8	933.5
10/07/14	1												0	7.9	10.1	932.1
10/08/14	1	1		3								1	5	7.5	7.9	938.2
10/09/14	1												0	3.7	6.3	941.6
10/10/14	1		1									1	2	3.6	5.8	942.4
10/11/14	1										1		1	3.4	5.4	945.9
10/12/14	1												0	8.1	10.7	944.2
10/13/14	1												0	9.7	15.7	942.4
10/14/14	1												0	9.1	17.1	936.8
10/15/14	1						2						2	3.9	12.2	935.1
<b>By Species</b>		<b>45</b>	<b>27</b>	<b>51</b>	<b>36</b>	<b>3</b>	<b>20</b>	<b>0</b>	<b>0</b>	<b>25</b>	<b>146</b>	<b>0</b>	<b>353</b>			
<b>By Guild</b>		<b>123</b>			<b>36</b>	<b>3</b>	<b>20</b>			<b>171</b>						
		<b>BBSH</b>			<b>HB</b>	<b>MYSP</b>	<b>RBTB</b>			<b>UNKN</b>			<b>Total</b>			

\* 1 = Detector functioned for the entire night; 0 = Non-operational for all or part of the night.

**CASSADAGA WIND PROJECT  
BIRD AND BAT SURVEY REPORT, 2013-2014**

**Appendix D Table 2.** Summary of acoustic bat data during each survey night at the Met 1 Low detector, Cassadaga Wind Project, 2013-2014.

Night of	Operational?*	BBSH			HB	MYP	RBTB			UNKN			Total	Wind Speed (m/s)	Temperature (°Celsius)	Barometric Pressure
		BBSH	Big brown	Silver-haired	Hoary	MYP	Eastern red	Tri-colored	RBTB	HFUN	LFUN	UNKN				
08/14/13	1					1							1	4.6	12.9	945.0
08/15/13	1									5			5	3.7	14.0	946.2
08/16/13	1	9				1	4		1	24	1		40	4.5	17.0	950.0
08/17/13	1	84	1			2	4		1	42	19		153	4.9	18.4	950.6
08/18/13	1	13				1	1			11	2		28	5.0	17.5	947.5
08/19/13	1	13					1			2	8		24	4.7	17.7	946.3
08/20/13	1	21					5			15	5		46	5.5	19.3	949.0
08/21/13	1	503	5			1				6	84		599	6.0	20.5	945.8
08/22/13	1	350	1							7	47		405	3.7	18.9	944.3
08/23/13	1	6								9	4		19	6.0	15.0	948.9
08/24/13	1	11								10	3		24	5.9	17.9	953.2
08/25/13	1	118									14		132	9.2	19.5	948.8
08/26/13	1	6								4	1		11	5.9	19.2	943.3
08/27/13	1												0	4.4	19.7	941.0
08/28/13	1	4	1								1		6	4.7	20.0	943.1
08/29/13	1	1								2	1		4	3.2	21.3	945.6
08/30/13	1	2								1			3	7.2	21.6	938.1
08/31/13	1	1											1	3.2	19.7	938.8
09/01/13	1					1					1		2	5.2	19.9	937.2
09/02/13	1												0	4.8	14.9	936.8
09/03/13	1					1				1	1		3	7.3	13.6	941.5
09/04/13	1					3							3	6.6	15.3	943.2
09/05/13	1	1		1		1							3	4.4	9.4	947.6
09/06/13	1	1								1			2	6.5	14.0	945.0
09/07/13	1	1								1			2	6.9	17.1	940.3
09/08/13	1	2	2	1									5	7.9	11.5	943.8
09/09/13	1									1	2		3	9.9	18.4	943.3
09/10/13	1	2							1				3	9.0	24.5	947.6
09/11/13	1	3	1								2		6	7.6	21.1	942.7
09/12/13	1										1		1	5.0	13.3	936.0
09/13/13	1									1			1	2.8	6.9	940.1
09/14/13	1										1		1	6.6	10.0	944.3
09/15/13	1	1											1	4.4	11.3	943.6
09/16/13	1			1									1	6.4	5.6	949.6
09/17/13	1												0	8.2	11.6	948.9
09/18/13	1	2											2	7.0	14.2	945.7
09/19/13	1										1		1	7.3	16.6	943.2
09/20/13	1	1				1				1			3	8.0	19.1	936.2
09/21/13	1			1		2				1			4	4.5	9.6	933.1
09/22/13	1	1											1	3.0	7.0	940.3
09/23/13	1	1											1	2.7	8.3	943.5
09/24/13	1										1		1	5.3	11.1	940.9
09/25/13	1	1											1	6.6	13.0	941.0
09/26/13	1										2		2	5.3	12.5	945.8
09/27/13	1	1											1	7.3	13.9	949.0
09/28/13	1									2			2	8.2	12.3	945.3
09/29/13	1	2									1		3	7.0	15.2	942.5
09/30/13	1									2			2	5.6	14.5	941.9
10/01/13	1	3											3	9.3	16.0	941.8
10/02/13	1												0	5.4	14.8	945.1
10/03/13	1												0	6.3	18.0	943.6
10/04/13	1												0	5.3	17.7	945.0
10/05/13	1	1								1			2	5.6	18.7	942.4
10/06/13	1			1		1				1			3	8.0	18.9	934.4
10/07/13	1												0	5.0	8.4	942.1
10/08/13	1	1											1	7.2	10.4	950.0
10/09/13	1												0	5.5	12.4	948.8
10/10/13	1	1								1			2	5.7	14.6	945.5
10/11/13	1								1				1	6.5	14.7	944.9
10/12/13	1												0	7.8	15.9	947.1
10/13/13	1												0	3.9	12.3	949.7
10/14/13	1												0	5.6	10.0	947.8
10/15/13	1												0	8.6	14.5	939.6
10/16/13	1												0	7.6	10.0	935.6
10/17/13	1												0	9.3	7.6	931.9
10/18/13	1												0	7.9	9.0	936.0
10/19/13	1												0	8.6	3.7	931.2

**CASSADAGA WIND PROJECT  
BIRD AND BAT SURVEY REPORT, 2013-2014**

**Appendix D Table 2.** Summary of acoustic bat data during each survey night at the Met 1 Low detector, Cassadaga Wind Project, 2013-2014.

Night of	Operational?*	BBSH			HB	MYPSP	RBTB			UNKN			Total	Wind Speed (m/s)	Temperature (°Celsius)	Barometric Pressure
		BBSH	Big brown	Silver-haired	Hoary	MYPSP	Eastern red	Tri-colored	RBTB	HFUN	LFUN	UNKN				
10/20/13	1												0	9.3	7.5	937.9
10/21/13	1												0	7.7	8.0	932.9
04/16/14	1												0	6.8	-1.7	949.8
04/17/14	1												0	8.7	6.7	949.4
04/18/14	1												0	4.4	3.6	946.9
04/19/14	1												0	7.4	5.8	949.5
04/20/14	1												0	6.9	12.7	945.5
04/21/14	1												0	6.9	15.1	934.0
04/22/14	1												0	8.5	0.5	928.6
04/23/14	1												0	4.4	0.3	938.4
04/24/14	1												0	7.8	5.6	937.0
04/25/14	1												0	9.3	3.7	929.9
04/26/14	1												0	3.8	1.1	938.1
04/27/14	1												0	7.2	4.4	942.2
04/28/14	1												0	7.6	9.9	936.6
04/29/14	1												0	11.4	6.9	938.4
04/30/14	1												0	8.5	10.0	933.3
05/01/14	1												0	7.9	6.2	931.7
05/02/14	1												0	5.9	6.6	933.3
05/03/14	1												0	8.0	5.1	931.7
05/04/14	1												0	5.9	2.7	938.3
05/05/14	1												0	3.8	6.4	938.2
05/06/14	1												0	6.7	7.7	943.0
05/07/14	1												0	7.1	12.3	943.1
05/08/14	1	1			1						1		3	6.9	20.7	944.1
05/09/14	1									1			1	10.0	15.4	937.2
05/10/14	1												0	6.4	11.3	940.6
05/11/14	1									1	1		2	6.4	17.6	945.5
05/12/14	1												0	7.0	17.8	944.9
05/13/14	1												0	6.5	19.7	945.9
05/14/14	1										1		1	7.6	16.5	942.2
05/15/14	1												0	7.0	7.7	937.0
05/16/14	1												0	3.4	2.8	937.7
05/17/14	1												0	3.9	4.0	944.1
05/18/14	1	1					1						2	6.7	9.0	947.8
05/19/14	1												0	4.8	12.7	948.0
05/20/14	1												0	8.6	12.2	939.5
05/21/14	1	1									1		2	5.5	15.8	937.8
05/22/14	1	1											1	6.8	8.9	939.2
05/23/14	1												0	5.2	8.3	943.1
05/24/14	1												0	3.8	14.4	947.0
05/25/14	1		1										1	6.6	17.2	946.5
05/26/14	1										2		2	8.2	19.7	942.4
05/27/14	1	1											1	4.6	17.7	939.8
05/28/14	1												0	6.1	10.3	943.1
05/29/14	1	1					1				1		3	4.6	12.7	945.9
05/30/14	1												0	3.8	15.4	948.9
05/31/14	1	1	1										2	7.9	14.8	950.1
06/01/14	1		1								2		3	8.1	18.5	946.9
06/02/14	1	1											1	8.3	19.5	941.9
06/03/14	1	1									3		4	4.9	15.4	939.6
06/04/14	1												0	2.8	13.4	936.1
06/05/14	1												0	4.3	9.6	939.2
06/06/14	1		1										1	3.9	15.0	943.6
06/07/14	1	1			1								2	5.6	17.8	941.8
06/08/14	1	1		2							1		4	4.9	13.1	938.8
06/09/14	1										4		4	3.4	16.8	941.6
06/10/14	1	5											5	6.0	18.7	941.4
06/11/14	1												0	8.7	18.6	938.5
06/12/14	1			1		1				1			3	4.2	17.6	937.4
06/13/14	1									1	1		2	5.4	11.0	939.4
06/14/14	1												0	2.8	11.6	946.2
06/15/14	1										1		1	6.6	19.3	947.5
06/16/14	1	1											1	6.3	20.5	946.6
06/17/14	1	2		1							7		10	7.7	19.0	941.9
06/18/14	1	1									2		3	4.6	17.4	944.6
06/19/14	1									1			1	4.0	15.6	946.9

**CASSADAGA WIND PROJECT  
BIRD AND BAT SURVEY REPORT, 2013-2014**

**Appendix D Table 2.** Summary of acoustic bat data during each survey night at the Met 1 Low detector, Cassadaga Wind Project, 2013-2014.

Night of	Operational?*	BBSH			HB	MYSP	RBTB			UNKN			Total	Wind Speed (m/s)	Temperature (°Celsius)	Barometric Pressure
		BBSH	Big brown	Silver-haired	Hoary	MYSP	Eastern red	Tri-colored	RBTB	HFUN	LFUN	UNKN				
06/20/14	1												0	7.4	14.3	941.4
06/21/14	1									1	1		2	6.4	16.0	941.4
06/22/14	1	3								1	1		5	6.9	18.6	943.2
06/23/14	1	1											1	7.7	20.7	943.4
06/24/14	1										2		2	5.9	19.0	941.5
06/25/14	1			1						1	2		4	2.4	17.8	942.5
06/26/14	1					1							1	2.6	17.6	946.5
06/27/14	1	3									1		4	6.5	20.6	949.7
06/28/14	1									2			2	7.2	21.1	949.8
06/29/14	1												0	7.6	19.4	945.0
06/30/14	1				1		1				1		3	8.1	22.5	940.7
07/01/14	1										2		2	5.1	21.2	939.2
07/02/14	1	1											1	5.4	18.2	942.0
07/03/14	1										1		1	5.5	13.4	944.7
07/04/14	1									1			1	4.6	14.2	949.9
07/05/14	1	1			1								2	7.5	16.7	947.3
07/06/14	1	1								1			2	9.4	18.2	938.1
07/07/14	1	1									1		2	7.3	20.2	936.5
07/08/14	1												0	8.8	16.8	935.4
07/09/14	1				1								1	4.5	14.5	943.9
07/10/14	1	1									1		2	5.7	16.8	949.4
07/11/14	1		1								2		3	3.3	19.8	950.6
07/12/14	1	1									2		3	7.4	21.3	944.4
07/13/14	1	3					1			1			5	6.0	19.3	941.0
07/14/14	1	1											1	5.4	18.8	937.2
07/15/14	1				1		1						2	6.3	14.0	937.1
07/16/14	1									1			1	5.3	12.2	941.0
07/17/14	1												0	4.9	14.8	948.1
07/18/14	1									1			1	5.5	17.5	949.7
07/19/14	1												0	7.6	15.7	945.7
07/20/14	1	1	1							1			3	5.3	18.2	947.2
07/21/14	1	1	1			1					2		5	3.3	20.7	949.4
07/22/14	1	3									1		4	7.9	22.4	944.4
07/23/14	1	1	1							2	1		5	4.3	14.2	942.5
07/24/14	1												0	3.5	14.2	944.0
07/25/14	1									2			2	5.0	15.7	942.8
07/26/14	1	1								1	1		3	7.7	19.9	937.7
07/27/14	1									1	1		2	3.9	16.6	931.3
07/28/14	1												0	3.4	11.9	938.0
07/29/14	1												0	6.7	12.9	941.2
07/30/14	1						1			1			2	5.7	14.5	942.6
07/31/14	1												0	7.1	17.2	946.7
08/01/14	1							1					1	5.0	18.8	948.3
08/02/14	1	2								1			3	4.7	17.0	946.5
08/03/14	1					1							1	3.0	17.0	946.7
08/04/14	1					1							1	4.8	19.2	946.6
08/05/14	1	1				1				1			3	2.9	15.9	943.5
08/06/14	1										1		1	3.7	16.2	944.1
08/07/14	1												0	2.5	15.7	947.1
08/08/14	1												0	5.6	16.9	948.0
08/09/14	1	2				1							3	5.9	18.5	948.3
08/10/14	1									1			1	6.8	20.2	946.6
08/11/14	1	1											1	10.1	17.7	937.5
08/12/14	1												0	6.5	16.5	935.9
08/13/14	1									1			1	5.7	12.4	938.8
08/14/14	1												0	6.3	10.8	939.3
08/15/14	1												0	8.1	12.5	940.8
08/16/14	1												0	6.9	15.6	939.4
08/17/14	1										1		1	1.4	15.3	942.3
08/18/14	1	1								1			2	6.7	16.1	938.8
08/19/14	1	1									1		2	7.0	19.3	940.1
08/20/14	1	1											1	6.8	18.5	942.8
08/21/14	1									1	2		3	3.3	18.8	943.8
08/22/14	1	1											1	3.9	18.6	944.1
08/23/14	1	2									2		4	5.5	16.8	946.4
08/24/14	1										3		3	5.7	18.3	948.8
08/25/14	1												0	8.0	18.3	947.8



**CASSADAGA WIND PROJECT  
BIRD AND BAT SURVEY REPORT, 2013-2014**

**Appendix D Table 2.** Summary of acoustic bat data during each survey night at the Met 1 Low detector, Cassadaga Wind Project, 2013-2014.

Night of	Operational?*	BBSH			HB	MYPSP	RBTB			UNKN			Total	Wind Speed (m/s)	Temperature (°Celsius)	Barometric Pressure
		BBSH	Big brown	Silver-haired	Hoary	MYPSP	Eastern red	Tri-colored	RBTB	HFUN	LFUN	UNKN				
08/26/14	1									1			1	7.0	21.2	946.4
08/27/14	1									1			1	4.4	14.3	944.3
08/28/14	1												0	3.7	13.8	947.1
08/29/14	1												0	8.4	17.2	946.8
08/30/14	1												0	8.2	21.9	944.6
08/31/14	1												0	5.7	19.4	944.0
09/01/14	1												0	8.0	20.8	941.4
09/02/14	1	1										1	2	5.4	16.7	942.3
09/03/14	1												0	5.3	18.9	947.8
09/04/14	1	1											1	8.7	20.9	947.3
09/05/14	1												0	7.7	20.3	943.3
09/06/14	1	1								1			2	4.3	13.3	945.3
09/07/14	1												0	6.6	14.0	949.3
09/08/14	1									1			1	8.2	15.4	947.6
09/09/14	1												0	7.8	16.4	944.6
09/10/14	1												0	11.6	19.7	934.7
09/11/14	1												0	3.8	9.8	944.8
09/12/14	1												0	3.8	8.0	944.9
09/13/14	1												0	4.0	8.7	949.4
09/14/14	1									1	1		2	3.0	10.0	947.9
09/15/14	1												0	3.4	10.3	942.7
09/16/14	1												0	3.6	10.3	943.1
09/17/14	1												0	4.0	11.1	941.1
09/18/14	1	2									1		3	3.2	7.4	946.3
09/19/14	1												0	9.3	13.6	945.1
09/20/14	1												0	10.0	18.4	937.9
09/21/14	1	1											1	8.6	9.6	934.3
09/22/14	1												0	5.8	7.9	947.5
09/23/14	0												0	4.9	13.3	955.0
09/24/14	0												0	8.1	14.1	954.8
09/25/14	1	1											1	3.1	15.2	952.2
09/26/14	1											3	3	4.4	15.7	952.0
09/27/14	1	1									1		2	4.9	17.8	950.5
09/28/14	0												0	1.5	17.2	944.8
09/29/14	0												0	3.9	14.8	939.6
09/30/14	1												0	2.6	13.6	941.3
10/01/14	1												0	6.1	15.0	944.5
10/02/14	1												0	9.3	14.6	941.0
10/03/14	1											2	2	7.2	12.4	928.3
10/04/14	1												0	9.4	2.0	927.4
10/05/14	1												0	8.0	5.7	932.8
10/06/14	1												0	8.6	10.8	933.5
10/07/14	1												0	7.9	10.1	932.1
10/08/14	1	1											1	7.5	7.9	938.2
10/09/14	1	1										1	2	3.7	6.3	941.6
10/10/14	1			1									1	3.6	5.8	942.4
10/11/14	1									1			1	3.4	5.4	945.9
10/12/14	1												0	8.1	10.7	944.2
10/13/14	1												0	9.7	15.7	942.4
10/14/14	1												0	9.1	17.1	936.8
10/15/14	1												0	3.9	12.2	935.1
<b>By Species</b>		<b>1234</b>	<b>19</b>	<b>11</b>	<b>6</b>	<b>23</b>	<b>21</b>	<b>0</b>	<b>5</b>	<b>187</b>	<b>274</b>	<b>0</b>	<b>1780</b>			
<b>By Guild</b>		<b>1264</b>			<b>6</b>	<b>23</b>	<b>26</b>			<b>461</b>			<b>Total</b>			
		<b>BBSH</b>			<b>HB</b>	<b>MYPSP</b>	<b>RBTB</b>			<b>UNKN</b>						

\* 1 = Detector functioned for the entire night; 0 = Non-operational for all or part of the night.

**CASSADAGA WIND PROJECT  
BIRD AND BAT SURVEY REPORT, 2013-2014**

**Appendix D Table 3.** Summary of acoustic bat data during each survey night at the Met 2 High detector, Cassadaga Wind Project, 2014

Night of	Operational?*	BBSH			HB	MYSP	RBTB			UNKN			Total	Wind Speed (m/s)	Temperature (°Celsius)	Barometric Pressure
		BBSH	Big brown	Silver-haired	Hoary	MYSP	Eastern red	Tri-colored	RBTB	HFUN	LFUN	UNKN				
04/23/14	1												0	4.5	0.2	938.7
04/24/14	1												0	7.0	5.7	937.0
04/25/14	1												0	7.0	4.3	929.9
04/26/14	1												0	4.3	1.7	938.3
04/27/14	1			1									1	6.6	4.9	942.1
04/28/14	1												0	9.0	10.5	936.5
04/29/14	1									3			3	11.8	7.3	939.0
04/30/14	1												0	7.2	10.4	933.0
05/01/14	1												0	5.3	6.7	932.0
05/02/14	1												0	4.6	7.2	933.7
05/03/14	1												0	6.2	5.6	931.8
05/04/14	1												0	5.7	2.9	938.5
05/05/14	1												0	3.7	6.6	938.1
05/06/14	1												0	6.0	7.9	942.7
05/07/14	1												0	5.4	11.8	942.6
05/08/14	1										2		2	5.0	20.7	943.7
05/09/14	1				1								1	6.6	15.7	937.5
05/10/14	1												0	4.6	11.3	940.5
05/11/14	1												0	4.9	17.3	945.0
05/12/14	1	1			1								2	4.8	18.1	944.6
05/13/14	1										4		4	5.6	19.9	945.9
05/14/14	1				3					1	1		5	7.5	16.9	942.2
05/15/14	1										1		1	5.8	8.4	937.2
05/16/14	1												0	2.9	3.0	938.0
05/17/14	1												0	2.8	4.3	944.5
05/18/14	1												0	4.2	9.0	948.0
05/19/14	1	1			1						1		3	3.4	12.5	948.0
05/20/14	1												0	5.9	11.8	939.4
05/21/14	1	1											1	4.1	16.2	937.6
05/22/14	1									1			1	6.1	9.5	939.5
05/23/14	1												0	4.3	8.4	943.2
05/24/14	1				1								1	2.8	13.7	946.4
05/25/14	1	1		2							1		4	4.5	16.9	946.3
05/26/14	1												0	5.3	19.7	942.2
05/27/14	1		1		1						2		4	4.1	18.2	939.4
05/28/14	1										1		1	5.5	11.1	943.0
05/29/14	1	1									2		3	4.1	13.2	945.8
05/30/14	1									1			1	4.3	15.5	948.5
05/31/14	1				1						1		2	6.5	14.6	950.0
06/01/14	1												0	7.2	18.4	946.7
06/02/14	1										2		2	6.9	19.9	941.9
06/03/14	1										1		1	4.1	15.2	939.2
06/04/14	1		1										1	3.1	12.4	935.1
06/05/14	1												0	4.4	10.5	938.7
06/06/14	1	2									1		3	2.9	14.7	943.3
06/07/14	1	1		2									3	4.4	16.5	941.2
06/08/14	1										1		1	4.7	13.9	938.4
06/09/14	1		1		1								2	2.9	16.9	941.2
06/10/14	1												0	5.5	19.1	940.9
06/11/14	1												0	8.0	18.9	938.6
06/12/14	1												0	3.2	17.9	937.1
06/13/14	1				1						2		3	5.0	11.6	939.4
06/14/14	1										3		3	2.1	11.5	946.2
06/15/14	1	1			1						1		3	5.7	19.1	947.1
06/16/14	1			4	3						4		11	3.4	20.7	946.2
06/17/14	1												0	6.0	19.5	941.8
06/18/14	1	1									1		2	3.5	17.9	944.0
06/19/14	1	1		4							2		7	4.0	15.6	946.7
06/20/14	1				2		1			1	5		9	6.4	14.4	941.2
06/21/14	1				2						3		5	4.9	15.6	941.0
06/22/14	1		1								1		2	5.2	18.2	943.0
06/23/14	1												0	6.7	21.0	943.2
06/24/14	1												0	5.3	19.6	941.1
06/25/14	1										1		1	2.8	18.3	942.1
06/26/14	1			1							2		3	2.8	17.4	945.9
06/27/14	1				4						1		5	5.2	20.6	949.1
06/28/14	1	1		1			1				2		5	6.5	21.1	949.3



**CASSADAGA WIND PROJECT  
BIRD AND BAT SURVEY REPORT, 2013-2014**

**Appendix D Table 3.** Summary of acoustic bat data during each survey night at the Met 2 High detector, Cassadaga Wind Project, 2014

Night of	Operational?*	BBSH			HB	MYSP	RBTB			UNKN			Total	Wind Speed (m/s)	Temperature (°Celsius)	Barometric Pressure
		BBSH	Big brown	Silver-haired	Hoary	MYSP	Eastern red	Tri-colored	RBTB	HFUN	LFUN	UNKN				
06/29/14	0												0	5.7	19.8	944.6
06/30/14	1				1							4	5	6.6	22.8	940.6
07/01/14	0												0	4.2	21.7	938.6
07/02/14	1												0	3.3	18.5	941.7
07/03/14	1												0	5.1	13.8	944.5
07/04/14	1												0	4.2	14.0	949.8
07/05/14	1	1											1	4.6	16.3	947.1
07/06/14	1												0	7.2	18.5	938.3
07/07/14	1												0	5.7	20.7	936.3
07/08/14	1											1	1	7.0	17.4	935.4
07/09/14	1											1	1	3.8	14.7	943.8
07/10/14	1				1							3	4	4.5	16.3	948.9
07/11/14	1											1	1	3.1	18.9	949.8
07/12/14	1												0	6.4	21.6	944.2
07/13/14	1				1							1	2	3.7	19.4	940.7
07/14/14	1												0	4.4	19.0	936.9
07/15/14	1												0	4.3	14.3	937.2
07/16/14	1									2		1	3	4.6	12.4	941.0
07/17/14	1				1					1		1	3	3.0	14.7	948.1
07/18/14	1												0	4.2	16.9	949.5
07/19/14	1												0	6.1	16.1	946.2
07/20/14	1											1	1	4.2	18.7	947.1
07/21/14	1											1	1	2.4	19.7	948.8
07/22/14	1				2								2	6.6	23.3	944.4
07/23/14	1												0	3.6	14.7	942.3
07/24/14	1				1							1	2	2.6	13.8	943.7
07/25/14	1												0	3.2	15.7	942.7
07/26/14	1												0	6.1	20.4	937.6
07/27/14	1												0	3.6	16.9	930.8
07/28/14	1												0	3.1	12.2	937.8
07/29/14	1												0	5.3	13.1	941.6
07/30/14	1				1							2	3	4.6	14.8	942.6
07/31/14	1				1							5	6	6.3	17.2	946.8
08/01/14	1						1						1	3.8	18.5	947.9
08/02/14	1												0	3.2	17.0	946.1
08/03/14	0												0	2.3	16.8	946.1
08/04/14	0												0	3.0	18.9	946.2
08/05/14	0												0	2.4	16.0	943.4
08/06/14	0												0	3.2	16.1	944.0
08/07/14	0												0	1.9	15.5	946.7
08/08/14	1												0	4.7	16.4	947.5
08/09/14	1												0	5.1	17.8	948.0
08/10/14	1												0	5.4	19.9	946.4
08/11/14	1												0	10.0	18.1	937.8
08/12/14	1				1							1	2	5.1	16.7	935.9
08/13/14	1		1									1	2	4.4	12.5	939.0
08/14/14	1												0	5.2	11.3	939.6
08/15/14	1												0	4.7	12.3	940.9
08/16/14	1											1	1	5.2	16.2	939.4
08/17/14	1			1	1		1					2	5	1.6	15.3	942.1
08/18/14	1											2	2	5.0	15.7	938.5
08/19/14	1			1									1	5.5	19.6	939.9
08/20/14	1												0	5.1	19.0	942.8
08/21/14	1			1								3	4	2.1	19.2	943.7
08/22/14	1												0	3.6	19.3	943.8
08/23/14	1												0	5.3	17.0	946.2
08/24/14	1			4								4	8	3.9	17.5	948.7
08/25/14	1												0	6.6	18.2	947.8
08/26/14	1	2	2	1						1		7	13	5.4	21.6	946.4
08/27/14	1						1					1	2	4.4	14.4	944.0
08/28/14	1												0	2.3	13.5	947.0
08/29/14	1	1											1	7.3	17.0	946.8
08/30/14	1			1	1							1	3	6.8	22.3	944.6
08/31/14	1	1		9			1					5	16	4.2	19.9	944.0
09/01/14	1	4		4								3	11	6.3	21.3	941.4
09/02/14	1			2									2	4.1	16.9	942.3
09/03/14	1			5								5	10	4.8	18.8	947.6

**CASSADAGA WIND PROJECT  
BIRD AND BAT SURVEY REPORT, 2013-2014**

**Appendix D Table 3.** Summary of acoustic bat data during each survey night at the Met 2 High detector, Cassadaga Wind Project, 2014

Night of	Operational?*	BBSH			HB	MYSP	RBTB			UNKN			Total	Wind Speed (m/s)	Temperature (°Celsius)	Barometric Pressure
		BBSH	Big brown	Silver-haired	Hoary	MYSP	Eastern red	Tri-colored	RBTB	HFUN	LFUN	UNKN				
09/04/14	1		1		5						4		10	6.7	21.0	947.4
09/05/14	1	5		3	1						5		14	6.3	20.9	943.3
09/06/14	1		2								2		4	3.5	13.0	945.2
09/07/14	1												0	4.6	12.7	948.9
09/08/14	1				3						1		4	7.4	15.6	947.8
09/09/14	1	1			2						2		5	6.7	16.7	944.8
09/10/14	1										1		1	9.7	20.2	935.4
09/11/14	1				2						2		4	3.5	10.5	945.2
09/12/14	1	1		3	2		1				3		10	4.1	8.6	945.1
09/13/14	1												0	3.6	9.3	949.6
09/14/14	1										1		1	2.2	10.0	948.0
09/15/14	1		1						1				2	2.9	10.8	942.8
09/16/14	1										2		2	2.2	10.0	943.0
09/17/14	1										1		1	2.9	10.7	941.1
09/18/14	1												0	3.2	7.4	946.4
09/19/14	0												0	7.7	13.9	945.7
09/20/14	0												0	7.3	18.8	938.5
09/21/14	0												0	8.3	10.1	934.8
09/22/14	0												0	4.3	7.6	947.7
09/23/14	0												0	3.7	11.9	954.7
09/24/14	0												0	5.7	12.8	954.3
09/25/14	0												0	3.1	13.9	951.8
09/26/14	0												0	4.2	15.2	951.8
09/27/14	0												0	4.0	16.9	949.8
09/28/14	0												0	1.1	16.5	944.5
09/29/14	0												0	2.4	14.3	939.3
09/30/14	1										2		2	2.4	13.8	941.1
10/01/14	1	1					1			1			3	4.7	14.5	944.1
10/02/14	1			1									1	7.2	14.5	941.3
10/03/14	1												0	6.0	12.9	928.5
10/04/14	1												0	7.4	2.6	928.5
10/05/14	1												0	7.1	5.9	933.5
10/06/14	1												0	6.6	11.4	934.2
10/07/14	1												0	6.5	10.7	932.4
10/08/14	1	1		2						1	1		5	5.7	8.2	938.6
10/09/14	1									1			1	2.2	5.0	942.1
10/10/14	1			1									1	3.4	6.4	942.6
10/11/14	1												0	2.4	5.1	946.0
10/12/14	1												0	7.3	10.8	944.4
10/13/14	1												0	8.5	15.9	942.7
10/14/14	1												0	8.7	17.7	936.9
10/15/14	1	1											1	2.1	12.3	935.0
<b>By Species</b>		<b>31</b>	<b>11</b>	<b>54</b>	<b>50</b>	<b>0</b>	<b>8</b>	<b>0</b>	<b>1</b>	<b>14</b>	<b>135</b>	<b>0</b>	<b>304</b>			
<b>By Guild</b>		<b>96</b>			<b>50</b>	<b>0</b>	<b>9</b>			<b>149</b>			<b>304</b>			
		<b>BBSH</b>			<b>HB</b>	<b>MYSP</b>	<b>RBTB</b>			<b>UNKN</b>			<b>Total</b>			

\* 1 = Detector functioned for the entire night; 0 = Non-operational for all or part of the night.

**CASSADAGA WIND PROJECT  
BIRD AND BAT SURVEY REPORT, 2013-2014**

**Appendix D Table 4.** Summary of acoustic bat data during each survey night at the Met 2 Low detector, Cassadaga Wind Project, 2014

Night of	Operational?*	BBSH			HB	MYP	RBTB			UNKN			Total	Wind Speed (m/s)	Temperature (°C)	Barometric Pressure
		BBSH	Big brown	Silver-haired	Hoary	MYP	Eastern red	Tri-colored	RBTB	HFUN	LFUN	UNKN				
04/23/14	1												0	4.5	0.2	938.7
04/24/14	1												0	7.0	5.7	937.0
04/25/14	1												0	7.0	4.3	929.9
04/26/14	1												0	4.3	1.7	938.3
04/27/14	1												0	6.6	4.9	942.1
04/28/14	1												0	9.0	10.5	936.5
04/29/14	1												0	11.8	7.3	939.0
04/30/14	1												0	7.2	10.4	933.0
05/01/14	1												0	5.3	6.7	932.0
05/02/14	1												0	4.6	7.2	933.7
05/03/14	1												0	6.2	5.6	931.8
05/04/14	1												0	5.7	2.9	938.5
05/05/14	1												0	3.7	6.6	938.1
05/06/14	1												0	6.0	7.9	942.7
05/07/14	1												0	5.4	11.8	942.6
05/08/14	1												0	5.0	20.7	943.7
05/09/14	1												0	6.6	15.7	937.5
05/10/14	1												0	4.6	11.3	940.5
05/11/14	1												0	4.9	17.3	945.0
05/12/14	1	1											1	4.8	18.1	944.6
05/13/14	1												0	5.6	19.9	945.9
05/14/14	1												0	7.5	16.9	942.2
05/15/14	1								1				1	5.8	8.4	937.2
05/16/14	1	1		1							1		3	2.9	3.0	938.0
05/17/14	1			1									1	2.8	4.3	944.5
05/18/14	1									1	3		4	4.2	9.0	948.0
05/19/14	1												0	3.4	12.5	948.0
05/20/14	1												0	5.9	11.8	939.4
05/21/14	1												0	4.1	16.2	937.6
05/22/14	1										1		1	6.1	9.5	939.5
05/23/14	1												0	4.3	8.4	943.2
05/24/14	1												0	2.8	13.7	946.4
05/25/14	1									1	1		2	4.5	16.9	946.3
05/26/14	1												0	5.3	19.7	942.2
05/27/14	1												0	4.1	18.2	939.4
05/28/14	1	2									2		4	5.5	11.1	943.0
05/29/14	1	1									2		3	4.1	13.2	945.8
05/30/14	1	1						1			3		5	4.3	15.5	948.5
05/31/14	1	3			1						1		5	6.5	14.6	950.0
06/01/14	1	1		1									2	7.2	18.4	946.7
06/02/14	1	1			1					1	3		6	6.9	19.9	941.9
06/03/14	1	2						1					3	4.1	15.2	939.2
06/04/14	1										1		1	3.1	12.4	935.1
06/05/14	1	1				1					2		4	4.4	10.5	938.7
06/06/14	1							1		1	2		4	2.9	14.7	943.3
06/07/14	1	2		2				1					5	4.4	16.5	941.2
06/08/14	1				1								1	4.7	13.9	938.4
06/09/14	1				1			1					2	2.9	16.9	941.2
06/10/14	1		1								2		3	5.5	19.1	940.9
06/11/14	1												0	8.0	18.9	938.6
06/12/14	1			1						1			2	3.2	17.9	937.1
06/13/14	1		1	1				1		1			4	5.0	11.6	939.4
06/14/14	1	1								1			2	2.1	11.5	946.2
06/15/14	1										1		1	5.7	19.1	947.1
06/16/14	1	1									1		2	3.4	20.7	946.2
06/17/14	1												0	6.0	19.5	941.8
06/18/14	1												0	3.5	17.9	944.0
06/19/14	1										2		2	4.0	15.6	946.7
06/20/14	1	2						1		1	2		7	6.4	14.4	941.2
06/21/14	1		1								3		4	4.9	15.6	941.0
06/22/14	1	1		1							1		3	5.2	18.2	943.0
06/23/14	1	1								1	1		3	6.7	21.0	943.2
06/24/14	1										1		1	5.3	19.6	941.1
06/25/14	1									2			2	2.8	18.3	942.1
06/26/14	1										1		1	2.8	17.4	945.9
06/27/14	1												0	5.2	20.6	949.1
06/28/14	1	3								1			4	6.5	21.1	949.3
06/29/14	1							1		1			2	5.7	19.8	944.6

**CASSADAGA WIND PROJECT  
BIRD AND BAT SURVEY REPORT, 2013-2014**

**Appendix D Table 4.** Summary of acoustic bat data during each survey night at the Met 2 Low detector, Cassadaga Wind Project, 2014

Night of	Operational?*	BBSH			HB	MYP	RBTB			UNKN			Total	Wind Speed (m/s)	Temperature (°C)	Barometric Pressure
		BBSH	Big brown	Silver-haired	Hoary	MYP	Eastern red	Tri-colored	RBTB	HFUN	LFUN	UNKN				
06/30/14	1	2	1										3	6.6	22.8	940.6
07/01/14	1	2									1		3	4.2	21.7	938.6
07/02/14	1	1								2	1		4	3.3	18.5	941.7
07/03/14	1	1											1	5.1	13.8	944.5
07/04/14	1	1								1	3		5	4.2	14.0	949.8
07/05/14	1									1	1		2	4.6	16.3	947.1
07/06/14	1	2									3		5	7.2	18.5	938.3
07/07/14	1	1									1		2	5.7	20.7	936.3
07/08/14	1	2									1		3	7.0	17.4	935.4
07/09/14	1	3					1						4	3.8	14.7	943.8
07/10/14	1									1	2		3	4.5	16.3	948.9
07/11/14	1		1										1	3.1	18.9	949.8
07/12/14	1									1			1	6.4	21.6	944.2
07/13/14	1						2			1	1		4	3.7	19.4	940.7
07/14/14	1	1								1			2	4.4	19.0	936.9
07/15/14	1	8								1	2		11	4.3	14.3	937.2
07/16/14	1	4					1			1	1		7	4.6	12.4	941.0
07/17/14	1									3			3	3.0	14.7	948.1
07/18/14	1									1	1		2	4.2	16.9	949.5
07/19/14	1												0	6.1	16.1	946.2
07/20/14	1	1											1	4.2	18.7	947.1
07/21/14	1									2			2	2.4	19.7	948.8
07/22/14	1	5								1	2		8	6.6	23.3	944.4
07/23/14	1	2								2	3		7	3.6	14.7	942.3
07/24/14	1	2									2		4	2.6	13.8	943.7
07/25/14	1				1					2			3	3.2	15.7	942.7
07/26/14	1	2					1						3	6.1	20.4	937.6
07/27/14	1					1	1			1			3	3.6	16.9	930.8
07/28/14	1										1		1	3.1	12.2	937.8
07/29/14	1										1		1	5.3	13.1	941.6
07/30/14	1												0	4.6	14.8	942.6
07/31/14	1	1					1						2	6.3	17.2	946.8
08/01/14	1									1	1		2	3.8	18.5	947.9
08/02/14	1	2					1			1	1		5	3.2	17.0	946.1
08/03/14	1												0	2.3	16.8	946.1
08/04/14	1	1	1		1					2			5	3.0	18.9	946.2
08/05/14	1	1				1				1			3	2.4	16.0	943.4
08/06/14	1								1				1	3.2	16.1	944.0
08/07/14	1	1				1					2		4	1.9	15.5	946.7
08/08/14	1												0	4.7	16.4	947.5
08/09/14	1	2				1				2	1		6	5.1	17.8	948.0
08/10/14	1	1											1	5.4	19.9	946.4
08/11/14	1												0	10.0	18.1	937.8
08/12/14	1												0	5.1	16.7	935.9
08/13/14	1												0	4.4	12.5	939.0
08/14/14	1												0	5.2	11.3	939.6
08/15/14	1									1			1	4.7	12.3	940.9
08/16/14	1										1		1	5.2	16.2	939.4
08/17/14	1	3				1							4	1.6	15.3	942.1
08/18/14	1	2					1			1			4	5.0	15.7	938.5
08/19/14	1	1									2		3	5.5	19.6	939.9
08/20/14	1	4											4	5.1	19.0	942.8
08/21/14	1	1											1	2.1	19.2	943.7
08/22/14	1	4	1								3		8	3.6	19.3	943.8
08/23/14	1												0	5.3	17.0	946.2
08/24/14	0												0	3.9	17.5	948.7
08/25/14	0												0	6.6	18.2	947.8
08/26/14	0												0	5.4	21.6	946.4
08/27/14	0												0	4.4	14.4	944.0
08/28/14	0												0	2.3	13.5	947.0
08/29/14	0												0	7.3	17.0	946.8
08/30/14	0												0	6.8	22.3	944.6
08/31/14	0												0	4.2	19.9	944.0
09/01/14	0												0	6.3	21.3	941.4
09/02/14	0												0	4.1	16.9	942.3
09/03/14	1										1		1	4.8	18.8	947.6
09/04/14	1												0	6.7	21.0	947.4
09/05/14	1												0	6.3	20.9	943.3

**CASSADAGA WIND PROJECT  
BIRD AND BAT SURVEY REPORT, 2013-2014**

**Appendix D Table 4.** Summary of acoustic bat data during each survey night at the Met 2 Low detector, Cassadaga Wind Project, 2014

Night of	Operational?*	BBSH			HB	MYSP	RBTB			UNKN			Total	Wind Speed (m/s)	Temperature (°C)	Barometric Pressure	
		BBSH	Big brown	Silver-haired	Hoary	MYSP	Eastern red	Tri-colored	RBTB	HFUN	LFUN	UNKN					
09/06/14	1									1			1	3.5	13.0	945.2	
09/07/14	1											1	1	4.6	12.7	948.9	
09/08/14	1													0	7.4	15.6	947.8
09/09/14	1													0	6.7	16.7	944.8
09/10/14	1													0	9.7	20.2	935.4
09/11/14	1									1	1		2	3.5	10.5	945.2	
09/12/14	1													0	4.1	8.6	945.1
09/13/14	1	1											1	3.6	9.3	949.6	
09/14/14	1													0	2.2	10.0	948.0
09/15/14	1									1			1	2.9	10.8	942.8	
09/16/14	1													0	2.2	10.0	943.0
09/17/14	1						1				1		2	2.9	10.7	941.1	
09/18/14	1													0	3.2	7.4	946.4
09/19/14	1										1		1	7.7	13.9	945.7	
09/20/14	1													0	7.3	18.8	938.5
09/21/14	1													0	8.3	10.1	934.8
09/22/14	1								1		1		2	4.3	7.6	947.7	
09/23/14	1													0	3.7	11.9	954.7
09/24/14	1	1											1	5.7	12.8	954.3	
09/25/14	1	2								1			3	3.1	13.9	951.8	
09/26/14	1									1			1	4.2	15.2	951.8	
09/27/14	1	1		1						1			3	4.0	16.9	949.8	
09/28/14	1									1			1	1.1	16.5	944.5	
09/29/14	1													0	2.4	14.3	939.3
09/30/14	1	1											1	2.4	13.8	941.1	
10/01/14	1									1	1		2	4.7	14.5	944.1	
10/02/14	1													0	7.2	14.5	941.3
10/03/14	1													0	6.0	12.9	928.5
10/04/14	1													0	7.4	2.6	928.5
10/05/14	1													0	7.1	5.9	933.5
10/06/14	1													0	6.6	11.4	934.2
10/07/14	1													0	6.5	10.7	932.4
10/08/14	1	1								1			2	5.7	8.2	938.6	
10/09/14	1													0	2.2	5.0	942.1
10/10/14	1													0	3.4	6.4	942.6
10/11/14	1													0	2.4	5.1	946.0
10/12/14	1									1			1	7.3	10.8	944.4	
10/13/14	1													0	8.5	15.9	942.7
10/14/14	1													0	8.7	17.7	936.9
10/15/14	1													0	2.1	12.3	935.0
<b>By Species</b>		<b>96</b>	<b>7</b>	<b>9</b>	<b>6</b>	<b>6</b>	<b>18</b>	<b>0</b>	<b>4</b>	<b>54</b>	<b>82</b>	<b>0</b>	<b>282</b>				
<b>By Guild</b>		<b>112</b>			<b>6</b>	<b>6</b>	<b>22</b>			<b>136</b>							
		<b>BBSH</b>			<b>HB</b>	<b>MYSP</b>	<b>RBTB</b>			<b>UNKN</b>			<b>Total</b>				

\* 1 = Detector functioned for the entire night; 0 = Non-operational for all or part of the night.

**CASSADAGA WIND PROJECT  
BIRD AND BAT SURVEY REPORT, 2013-2014**

**Appendix D Table 5.** Summary of acoustic bat data during each survey night at the tree detector, Cassadaga Wind Project, Fall, 2013

Night of	Operational?	BBSH			HB	MYP	RBTB			UNKN			Total	Wind Speed (m/s)	Temperature (celsius)	Barometric Pressure
		BBSH	Big brown	Silver-haired	Hoary	MYP	Eastern red	Tri-colored	RBTB	HFUN	LFUN	UNKN				
08/14/13	1									3	1		4	4.6	12.9	945.0
08/15/13	1									1			1	3.7	14.0	946.2
08/16/13	1					1							1	4.5	17.0	950.0
08/17/13	1									2	2		4	4.9	18.4	950.6
08/18/13	1										1		1	5.0	17.5	947.5
08/19/13	1									1			1	4.7	17.7	946.3
08/20/13	1									1	1		2	5.5	19.3	949.0
08/21/13	1									1			1	6.0	20.5	945.8
08/22/13	1					1				1			2	3.7	18.9	944.3
08/23/13	1												0	6.0	15.0	948.9
08/24/13	1												0	5.9	17.9	953.2
08/25/13	1										1		1	9.2	19.5	948.8
08/26/13	1					1							1	5.9	19.2	943.3
08/27/13	1												0	4.4	19.7	941.0
08/28/13	1									1			1	4.7	20.0	943.1
08/29/13	1									3			3	3.2	21.3	945.6
08/30/13	1									1			1	7.2	21.6	938.1
08/31/13	1									1			1	3.2	19.7	938.8
09/01/13	1												0	5.2	19.9	937.2
09/02/13	1									2			2	4.8	14.9	936.8
09/03/13	1					1							1	7.3	13.6	941.5
09/04/13	1									1			1	6.6	15.3	943.2
09/05/13	1					1							1	4.4	9.4	947.6
09/06/13	1										1		1	6.5	14.0	945.0
09/07/13	1												0	6.9	17.1	940.3
09/08/13	1									1	3		4	7.9	11.5	943.8
09/09/13	1												0	9.9	18.4	943.3
09/10/13	1									1			1	9.0	24.5	947.6
09/11/13	1									1			1	7.6	21.1	942.7
09/12/13	1												0	5.0	13.3	936.0
09/13/13	1					1							1	2.8	6.9	940.1
09/14/13	1												0	6.6	10.0	944.3
09/15/13	1									1			1	4.4	11.3	943.6
09/16/13	1												0	6.4	5.6	949.6
09/17/13	1									1			1	8.2	11.6	948.9
09/18/13	1										1		1	7.0	14.2	945.7
09/19/13	1	1									1		2	7.3	16.6	943.2
09/20/13	1					1							1	8.0	19.1	936.2
09/21/13	1												0	4.5	9.6	933.1
09/22/13	1												0	3.0	7.0	940.3
09/23/13	1												0	2.7	8.3	943.5
09/24/13	1												0	5.3	11.1	940.9
09/25/13	1												0	6.6	13.0	941.0
09/26/13	1												0	5.3	12.5	945.8
09/27/13	1									1			1	7.3	13.9	949.0
09/28/13	1									1			1	8.2	12.3	945.3
09/29/13	1									1			1	7.0	15.2	942.5
09/30/13	1									1			1	5.6	14.5	941.9
10/01/13	1	1								1	1		3	9.3	16.0	941.8
10/02/13	1	1											1	5.4	14.8	945.1
10/03/13	1												0	6.3	18.0	943.6
10/04/13	1												0	5.3	17.7	945.0
10/05/13	1												0	5.6	18.7	942.4
10/06/13	1												0	8.0	18.9	934.4
10/07/13	1												0	5.0	8.4	942.1
10/08/13	1												0	7.2	10.4	950.0
10/09/13	1												0	5.5	12.4	948.8
10/10/13	1												0	5.7	14.6	945.5
10/11/13	1												0	6.5	14.7	944.9
10/12/13	1												0	7.8	15.9	947.1
10/13/13	1												0	3.9	12.3	949.7
10/14/13	1												0	5.6	10.0	947.8
10/15/13	1												0	8.6	14.5	939.6
10/16/13	1												0	7.6	10.0	935.6
10/17/13	1												0	9.3	7.6	931.9
10/18/13	1												0	7.9	9.0	936.0
10/19/13	1												0	8.6	3.7	931.2
10/20/13	1												0	9.3	7.5	937.9
10/21/13	1												0	7.7	8.0	932.9
<b>By Species</b>		<b>3</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>7</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>29</b>	<b>13</b>	<b>0</b>	<b>52</b>			
<b>By Guild</b>		<b>3</b>			<b>0</b>	<b>7</b>	<b>0</b>			<b>42</b>						
		<b>BBSH</b>			<b>HB</b>	<b>MYP</b>	<b>RBTB</b>			<b>UNKN</b>			<b>Total</b>			

\* 1 = Detector functioned for the entire night; 0 = Non-operational for all or part of the night