NORTHERN LONG-EARED BAT ACOUSTIC SURVEY REPORT FOR PROJECT FEASIBLITY AND LOCATION

Prevailing Winds Study Area in Bon Homme and Charles Mix Counties, South Dakota



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INTRODUCTION

Prevailing Winds, LLC (Prevailing Winds), is considering the development of the Prevailing Winds Wind Farm (Project), located in Bon Homme and Charles Mix Counties, South Dakota. To help in siting the eventual Project, Prevailing Winds evaluated a large Study Area (see Figure 1 for depiction of the Study Area as defined for 2015 studies). Prevailing Winds requested that Western Ecosystems Technology, Inc. (WEST) evaluate the potential for the federally threatened northern long-eared bat (*Myotis septentrionalis*; [NLEB]) to occur within the 2015 Study Area during the summer months. This report describes the results of the NLEB presence or probable absence acoustical assessment completed for the Study Area by WEST. These surveys were conducted following the survey recommendations found in the U.S. Fish and Wildlife Service (USFWS) *Northern Long-eared Bat Interim Conference and Planning Guidance* (USFWS 2014a) and 2015 Range-Wide Indiana Bat Summer Survey Guidelines (USFWS 2015).

NORTHERN LONG-EARED BAT SUMMER HABITAT REQUIREMENTS

NLEB are forest dependent species, generally relying on forest features for both foraging and roosting during the summer months (USFWS 2013; USFWS 2007). In particular, NLEB appear to be a forest interior species that require adequate canopy closure for both roost and foraging habitat (Lausen 2009). Additionally, riparian areas are considered critical resource areas for many species of bats because they support higher concentrations of prey, provide drinking areas, and act as unobstructed commuting corridors (Grindal et al. 1999). While NLEB are associated with forest habitats, they also occur in agricultural settings where forest habitats have been highly fragmented.

Wing morphology of the NLEB makes them ideally suited for the high maneuverability required for gleaning-type foraging within a cluttered forest interior (Henderson and Broders 2008). Abundance of NLEB prey items, particularly beetles and moths, are typically higher in more closed forest stands than in openings, which supports studies which have found that NLEB tend to avoid open habitats (Owen et al. 2003).

During the summer, NLEB roost singly or in colonies underneath bark, in cavities, or in crevices of both live and dead trees (USFWS 2007; USFWS 2013). Males and non-reproductive females may also roost in cooler places, like caves and mines. NLEB seem opportunistic in selecting roosts, using tree species based on suitability to retain bark or provide cavities or crevices. NLEB have also been found roosting in structures like barns and sheds.

During the summer months, NLEBs are unlikely to cross over large open lands (i.e., land lacking suitable habitat) to search for foraging and roosting habitats, but rather to use tree-lined linear features as travel corridors to and from roosting and foraging habitats (USFWS 2014a). These tree-lined corridors may be important for bats as navigational aids in agricultural landscapes, as protection from predators and wind, and may act to concentrate insect prey (Verboom and Huitema 1997). The NLEB is expected to be particularly tied to intact forested habitats; for example, Henderson and Broders (2008) found that NLEB did not travel more than 255 feet (78 meters) from the edge of intact forest structure. A study of nine female NLEBs using an

intensively managed forest in West Virginia found this species forages in areas with forest patch sizes between 114 and 161 acres (46 and 65 hectares; Owen et al. 2003); however, studies in landscapes dominated by agricultural activities found NLEB can use woodlots and riparian zones with as little as 15 to 49 acres (6 to 20 hectares) of forest cover (Henderson and Broders 2008; Foster and Kurta 1999).

METHODS

Acoustic surveys followed the USFWS 2015 Range-Wide Indiana Bat Summer Survey Guidelines (USFWS 2015), per the Northern Long-Eared Bat Interim Conference and Planning Guidance (USFWS 2014a). The USFWS guidelines require one survey site for every 123 acres of suitable habitat for a minimum of four detector nights (USFWS 2014a). Two sampling locations at each survey site should then be surveyed for a minimum of two detector/nights each.

Initial desktop assessment of potential habitat conducted by WEST, identified approximately 1,180 acres of forested habitat; as such, this equates to 20 survey locations (two detectors per site). Although the USFWS protocol calls for 20 survey locations (10 sites with two detectors per site) for two detector/nights (for a total of 40 detector/nights), WEST surveyed 20 locations/stations for a minimum of two nights each for a total of 104 detector nights. WEST biologists deployed up to eight detectors at suitable sites throughout the Study Area for a minimum of four detector nights.

Acoustic surveys were conducted from July 21 − August 10, 2015 following USFWS guidelines (USFWS 2015). Bats were surveyed using SD1 or SD2 AnaBat[™] ultrasonic detectors (Titley Electronics Pty Ltd., NSW, Australia), or SM2 Song Meter detectors (Wildlife Acoustics, Inc., Concord, Maine). Acoustic monitoring began before sunset and continued for the entire night. Survey duration at each site was for a minimum of two nights. If weather conditions such as persistent rain (> 30 minutes), strong winds (> 9 mph for > 30 minutes), or persistent cold temperatures (below 10°C [50°F] for > 30 minutes) occurred during the first five hours of a survey night, then that site was surveyed for an additional night (USFWS 2014). To maximize the quality of recorded echolocation calls, detectors were positioned at least 1.5 meters off the ground, at ≥ 45° angle, and with PVC tube weatherproofing (Britzke et al. 2010, USFWS 2014a). Sensitivity was set to "6" on AnaBat detectors, and the amplifier gain was set to 36 decibels for the SM2 units.

Bat calls were identified to species using Bat Call Identification (BCID; Allen 2012). If the identification program identified calls as NLEB at a site with a high degree of probability (P < 0.05), then qualitative analysis was conducted to determine if NLEB were present or absent at the site. Qualitative echolocation call analysis was conducted by a biologist experienced with acoustic identification and who met required USFWS qualifications (Dr. Kevin Murray of WEST; USFWS 2014a). If probable NLEB echolocation call sequences identified by BCID were not characteristic of NLEB, contained distinct calls produced by species other than NLEB, or were of insufficient quality, they were reclassified. Per USFWS guidelines, NLEB were considered present at sites with probable calls verified by qualitative analysis. NLEB were considered

absent from sites with no probable NLEB calls or from sites with probable NLEB calls that were not verified by qualitative analysis. The Study Area lies well outside of the accepted range of Indiana bats; therefore Indiana bats were not included in the BCID model.

RESULTS

AnaBat and SM2 detectors were used to survey 20 acoustic survey locations, consisting of two detector stations per site, from July 21 - August 10, 2015. UTM coordinates and brief site descriptions for each site are listed in Table 1. Pictures and datasheets with site descriptions are found in Appendices A and B. WEST checked weather at the Hajek Farms, Tyndall, SD (KSDTYNDA2) weather station, which can be found on Weather Underground's Wundermap (http://www.wunderground.com/wundermap/). Weather conditions at sites 1, 2, 3, 4, 5, 6a, and 8 did not meet the standards for acoustic monitoring set by USFWS (2014a) on July 25 and at sites 6, 9, 10, and 11 on July 27 due to wind speeds sustaining greater than 9 miles per hour during the first five hours of survey on both nights. However, data on these nights were still included in the analysis because, while not ideal, conditions could still be suitable during a portion of the night and NLEB and other bats might still be detected. Weather conditions at all 20 locations for all other survey nights met the criteria established by the USFWS (2014a), and each detector location had at least two detector nights with good weather conditions (Table 2). Acoustic surveys were completed at 20 locations (two detector stations per site) for a total of 104 detector nights (Tables 1 and 2). BCID identified a total of 6,478 bat call files and identified 6,323 files (98%) to species, with an average of 62.3 bat calls per detector night (Table 2). Table 2 summarizes the number of detector nights, number of bat call files, and number of bat calls identified to species at each site. Table 3 provides information on species identifications for each site.

Based on the BCID analysis, nine stations (locations), recorded potential NLEB calls with a p-value less than 0.05 for the maximum-likelihood estimation (Table 4); therefore data from the nine stations were included in qualitative analysis (USFWS 2014a). Six stations (PW1, PW6a, PW8a, PW11, PW14, and PW16) recorded probable (i.e., p-value <0.05) NLEB calls on a single night only; stations PW9a and PW17 recorded probable NLEB calls on two and three nights, respectively; and station PW13 recorded probable NLEB calls on six nights (Table 4). Qualitative identification verified the presence of NLEB at stations PW9a (on a single night only) and PW13 (on six nights); however, qualitative analysis did not verify the presence of NLEB at the remaining seven stations with probable NLEB calls (Table 4).

DISCUSSIONS/CONCULSIONS

Limited information is available on NLEB migratory pathways and behaviors. While there is some information suggesting this species tends to follow forested areas and avoid open areas if possible, these bats may occasional move through non-forested areas.

The habitat assessment conducted by WEST at the Study Area provides information on potential NLEB habitat that might be found within the Study Area and nearby areas. If these bats occur in the area during the summer months, they will likely occur within or near (within

1,000 feet) of these habitat patches. Given its association with forest habitat (Henderson and Broders 2008; Foster and Kurta 1999), WEST anticipates that the larger and more contiguous blocks of forested areas would be more likely to be used by these species compared to the smaller forested blocks and/or tree lines and shelterbelts.

The NLEB was qualitatively verified as occurring at two acoustical stations surveyed within the Study Area (stations PW9a and PW13). Though not documented during this survey effort, there is potential for NLEB to be present within other suitable habitat within the Study Area during the summer months, particularly in the west/southwest portions of the Study Area, given the density and distribution of potential NLEB habitat; and the connectivity to larger forested and/or forested riparian habitats just outside of the Study Area boundary (i.e., forested/semi-forested corridors of Choteau Creek and Dry Choteau Creek and tributaries thereof).

Surveys are considered complete for all 20 stations at the Study Area and no further action is recommended to confirm NLEB presence within the current boundary (Table 5); however, acoustic data is probabilistic and presence determinations can be error prone. For a more detailed assessment of NLEB occurrence in the area, the USFWS guidelines (USFWS 2014a, 2015) recommend mist-netting in combination with radio-telemetry and emergence counts to confirm roost tree locations and roost size (Phase 3 and 4). Though the possibility exists for mist-netting results to contradict the acoustic results, it is unlikely for the USFWS to overturn acoustic evidence with mist-net evidence.

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Table 1. Location and site description of the 20 acoustic survey stations at the Prevailing Winds Study Area.

Study Alea.				
Station ID	Zone	Easting†	Northing†	Site Description
PW1	14	0569563	4776786	Edge of shelterbelts, adjacent to agricultural fields
PW2	14	0568133	4774899	Open woodlot adjacent to pasture
PW3	14	0568878	4775146	Edge of shrubby grove, adjacent to pond and pasture
PW4	14	0572800	4773535	Edge of shelterbelt and creek bed, adjacent to hay fields
PW5	14	0570321	4772303	Edge of small forest patch, adjacent to pasture
PW6	14	0579638	4770270	Edge of shelterbelt and grassy area, adjacent to pasture
PW6a	14	0574168	4770744	Grassy path adjacent to forest
PW7	14	0572985	4766554	Edge of forest in pasture
PW8	14	0575714	4766373	Edge of forest in grassy area, adjacent to pasture
PW8a	14	0575652	4768628	Grassy area adjacent to forest
PW9	14	0580064	4765600	Grassy path adjacent to forest edge and cornfield
PW9a	14	0569742	4766932	Pasture adjacent to forest edge
PW10	14	0578533	4763193	Grassy area adjacent to shelterbelt
PW11	14	0576700	4763072	Grassy area adjacent to forest edge and cropland
PW12	14	0575445	4762139	Grassy area adjacent to forest edge
PW13	14	0574443	4759581	Grassy/shrubby area adjacent to forest edges
PW14	14	0574925	4758670	Grassy/shrubby area adjacent to cedar/juniper
PW15	14	0575580	4758206	Grassy area adjacent to forest edge
PW16	14	0576680	4757714	Grassy area adjacent to forest edge
PW17	14	0578987	4756031	Grassy area adjacent to forest edge and cropland

Table 2. Number of bat calls recorded at each acoustic survey station determined by BCID for the Prevailing Winds Study Area.

Acoustic Survey Station	Total Bat Calls	Calls Identified	Detector Nights	Bat Calls/ Detector Night
PW1	248	241 (97%)	6	41.3
PW2	406	390 (96%)	6	67.7
PW3	104	100 (96%)	6	17.3
PW4	42	42 (100%)	6	7
PW5	137	135 (96%)	6	22.8
PW6a	1,309	1,296 (99%)	5	261.8
PW6	185	183 (99%)	9	20.6
PW7	379	372 (98%)	3	126.3
PW8	279	271 (97%)	5	55.8
PW8a	530	520 (98%)	4	132.5
PW9	325	320 (98%)	5	65
PW9a	203	194 (96%)	4	50.8
PW10	209	207 (99%)	5	41.8
PW11	458	450 (98%)	5	91.6
PW12	53	53 (100%)	3	17.7
PW13	699	674 (96%)	6	116.5
PW14	36	36 (100%)	6	6
PW15	29	28 (97%)	2	14.5
PW16	192	188 (98%)	6	32
PW17	655	623 (95%)	6	109.2
Total	6,478	6,323 (98%)	104	62.3

Table 3. Summary of BCID echolocation call identifications for the Prevailing Winds Study Area¹.

Station ID	EPFU	LABO	LACI	LANO	MYLU	MYSE	NYHU	PESU	UNK	Total
PW1	42	24	71	89	2	1	3	9	7	248
PW2	137	137	11	39	1	0	14	51	16	406
PW3	19	35	2	13	2	0	8	21	4	104
PW4	21	0	1	19	0	0	0	1	0	42
PW5	72	4	9	48	0	0	1	1	2	137
PW6	100	4	9	62	1	0	0	7	2	185
PW6a	626	176	22	425	1	1	29	16	13	1,309
PW7	234	36	6	60	25	0	4	7	7	379
PW8	40	181	0	2	5	0	36	7	8	279
PW8a	113	316	7	30	4	1	31	18	10	530
PW9	47	14	35	213	0	0	4	7	5	325
PW9a	51	55	9	32	4	5	5	33	9	203
PW10	97	10	16	76	2	0	0	6	2	209
PW11	115	59	48	182	2	1	3	40	8	458
PW12	24	7	0	16	0	0	1	5	0	53
PW13	123	223	8	56	15	195	28	26	25	699
PW14	14	3	1	16	0	2	0	0	0	36
PW15	16	0	1	8	0	0	2	1	1	29
PW16	45	63	2	32	9	1	14	22	4	192
PW17	138	218	3	62	8	3	17	174	32	655

¹EPFU = Big Brown Bat; LABO = Eastern Red Bat; LACI = Hoary Bat; LANO = Silver-haired Bat; MYLU = Little Brown Bat; MYSE = Northern Long-eared Bat; NYHU = Evening Bat; PESU = Tri-colored bat; UNK = Unknown

Table 4. Summary of Myotis call identifications by BCID and qualitative analysis¹ for stations with potential Northern long-eared bat calls at the Prevailing Winds Study Area.

Station ID	Date	Identification Method	MYSE (NLEB)
PW1	luly 24	BCID	1
PVVI	July 24	Qualitative	0
PW6a	luly 24	BCID	1
PVVOa	July 31	Qualitative	0
PW8a	July 20	BCID	1
PVVOA	July 30	Qualitative	0
PW9a	August 0	BCID	1
rvvya	August 9	Qualitative	0

Table 4. Summary of Myotis call identifications by BCID and qualitative analysis¹ for stations with potential Northern long-eared bat calls at the Prevailing Winds Study Area.

Station ID	Date	Identification Method	MYSE (NLEB)
DWO	August 10	BCID	4
PW9a	August 10	Qualitative	1
PW11	July 20	BCID	1
PVII	July 29	Qualitative	0
PW13	August 1	BCID	39
F W 13	August 1	Qualitative	25
PW13	August 2	BCID	41
F VV 13	August 2	Qualitative	21
PW13	August 3	BCID	33
FWIS	August 3	Qualitative	23
PW13	August 4	BCID	29
FWIS	August 4	Qualitative	19
PW13	August 5	BCID	19
FWIS	August 5	Qualitative	9
PW13	August 6	BCID	34
F W 13	August 0	Qualitative	16
PW14	August 1	BCID	2
F VV 14	August 1	Qualitative	0
PW16	August 1	BCID	1
FVVIO	August 1	Qualitative	0
PW17	August 1	BCID	1
F VV 17	August 1	Qualitative	0
PW17	August 4	BCID	1
	August 4	Qualitative	0
PW17	August F	BCID	1
F VV 1 /	August 5	Qualitative	0

¹Only calls with p-values < 0.05 for the maximum-likelihood estimation were included in qualitative analysis (USFWS 2014a).

Table 5. Summary of actions at each acoustic survey site for the Prevailing Winds Study Area.

Prevailing v	viilus Stut	ay Area.		
Station ID	BCID NLEB Calls	Probable NLEB Calls (P < 0.05)	NLEB Qualitatively Verified	Presence/Absence Determination
PW1	Yes	Yes	No	NLEB absent
PW2	No	No	No	NLEB absent
PW3	No	No	No	NLEB absent
PW4	No	No	No	NLEB absent
PW5	No	No	No	NLEB absent
PW6	No	No	No	NLEB absent
PW6a	Yes	Yes	No	NLEB absent
PW7	No	No	No	NLEB absent
PW8	No	No	No	NLEB absent
PW8a	Yes	Yes	No	NLEB absent
PW9	No	No	No	NLEB absent
PW9a	Yes	Yes	Yes	NLEB present
PW10	No	No	No	NLEB absent
PW11	Yes	Yes	No	NLEB absent
PW12	No	No	No	NLEB absent
PW13	Yes	Yes	Yes	NLEB present
PW14	Yes	Yes	No	NLEB absent
PW15	No	No	No	NLEB absent
PW16	Yes	Yes	No	NLEB absent
PW17	Yes	Yes	No	NLEB absent

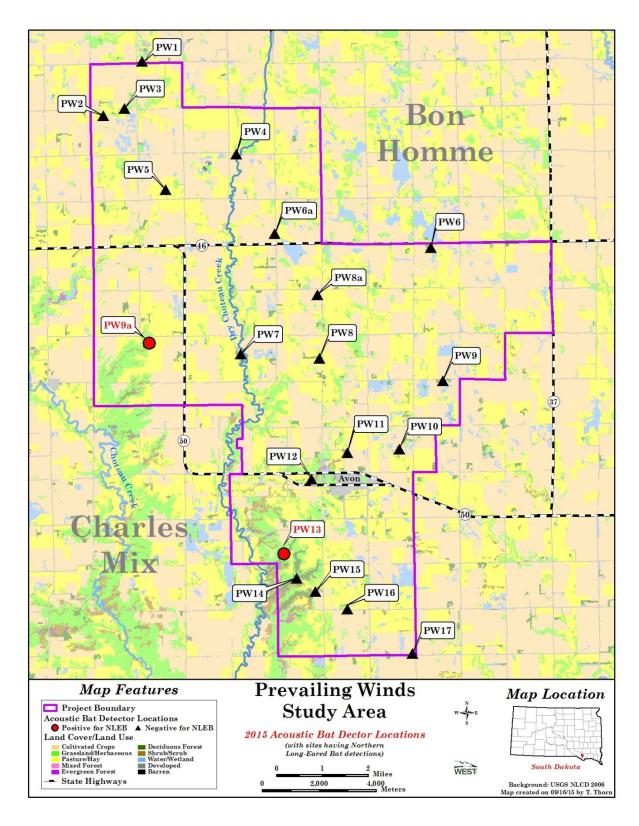


Figure 1. Locations of acoustic bat detectors and those confirmed positive for NLEB at the Prevailing Winds Study Area from July 21 through August 10, 2015.

Appendix A. Pictures of Acoustic Survey Sites



Photo 1. Bat habitat surveyed by AnaBat detector at station PW1.



Photo 2. Bat habitat surveyed by AnaBat detector at site PW2.



Photo 3. Bat habitat surveyed by AnaBat detector at station PW3.



Photo 4. Bat habitat surveyed by AnaBat detector at site PW4.



Photo 5. Bat habitat surveyed by AnaBat detector at station PW5.



Photo 6 . Bat habitat surveyed by AnaBat detector at site PW6.



Photo 7. Bat habitat surveyed by AnaBat detector at station PW6a.



Photo 8. Bat habitat surveyed by AnaBat detector at site PW7.



Photo 9. Bat habitat surveyed by AnaBat detector at station PW8.



Photo 10. Bat habitat surveyed by AnaBat detector at site PW8a.



Photo 11. Bat habitat surveyed by AnaBat detector at station PW9.



Photo 12. Bat habitat surveyed by AnaBat detector at site PW9a.



Photo 13. Bat habitat surveyed by AnaBat detector at station PW10.



Photo 14. Bat habitat surveyed by AnaBat detector at site PW11.



Photo 15. Bat habitat surveyed by AnaBat detector at station PW12.



Photo 16. Bat habitat surveyed by AnaBat detector at site PW13.



Photo 17. Bat habitat surveyed by AnaBat detector at station PW14.



Photo 18. Bat habitat surveyed by AnaBat detector at site PW15.



Photo 19. Bat habitat surveyed by AnaBat detector at station PW16.



Photo 20. Bat habitat surveyed by AnaBat detector at site PW17.

Acoustic Monitorin	g STATION		2011 Data Forn	n		Station #:F	W-1
Observer: R	S		Date: 7-	21-15	Proje	ect: Prevailing have	5
Station Informatio	n 27 or NAD83 Zon	e: 14	Easting:O	56950	Nort	hing: 477678	~
Detector Type:	SM2 Petters:	Anabat		mber(s):	80814	(microphone) (recorder, if applicabl	e)
Placement:	Ground Raised		Raised Sy	/stem: N/	Pulley F	ixed	
Station Type:	Fixed Tempo	rary	Microphe	one Protecti	on: Plastic Bi	n Bat Hat None	
Met Tower Pre	esent? Yes (N	9	Sound Re	eception:	PVC Elbow R	eflector Plate None	
Microphone H		-	Aspect:_ (Beasing or C	E ardinal Direction o		Supply: 12V ge and Amp-hours of battery, solar p	anel, etc.)
Habitat Informatio	n						
Habitat:	Shrub/Steppe		Deciduous Forest	Gr	assland	Other (describe)	
Rank by abundance within 100 m of	Crop/Agriculture	1	Coniferous Forest	De	sert		
detector. 1 = most abundant, etc.	Riparian/Wetland		Pinyon-Juniper	w	ater (lake, etc.)		
Photos: Take phon		rdinal direct	feature?			he microphone is pointing, and one of	fthe
General Remar		,	Code	es Bat Feat	ires	Description	
	I ladger sw	Fields	11	AS=anthropogen		Description	
(I=I) I		mi	N C	V=cave	-:		
/ =	= () = 07	TIME		N=mine	:		
-/ EIN	= =	1101	R	O=rocky outcrop	- :		
EIII	TABINE	ann		F=coniferous fo stand	rest		
\		7	/	oF=deciduous fo stand	rest :		
		/	1020	/A=water	1		
P	astone		Мар оц	any other features		ndius of detector (x). Label using code etc.). Provide descriptions for bot Jed	The state of the s

Acoustic Monitorin	g STATION	2011 Da		,	Discover and	Station #: 1 Prevziling h	DW 10	
Observer:		_ Date	7-21-1	5	Project:_	I revelling h	rihds	
Station Informatio	n	4						
Datum: NAD2	7 o NAD83 Zor	ne: 14 Easti	ng: 056	8133	Northing	: 47748	99	_
Detector Type:	SD2 SD1 SM2 Petters		erial Numbe	r(s): 80	966	(microphone)	able)	
Placement: (Ground Raised	Ra	ised Systen	n: N/A Pu	ulley Fixed			
Station Type:	Fixed Tempo	prary M	licrophone I	Protection	Plastic Bin	Bat Hat None		
Met Tower Pre	sent? Yes (N	so so	ound Recept	tion: PVC Elt	bow Reflec	ctor Plate None		
Microphone H			spect: 5	Direction of mic)	Power Sup	ply: 12 V	n panel, etc	,
Habitat Informatio	n							
Habitat:	Shrub/Steppe	2 Deciduou	s Forest	Grassland		Other (describe)	3	-P35
Rank by abundance within 100 m of	Crop/Agriculture	1 Coniferou	s Forest	Desert				
detector: 1 = most abundant, etc.	Riparian/Wetland	Pinyon-Ju	niper	Water (lake	, etc.)			
Photos: Take phot	os of the area from each c	ple a bat feature	Yes			rophone is pointing, and on		mb drive.
General Remai	rks: 1, 5, 5	W, Vait, C	one					-
Habitat Map	1	allow 1	AS=ant	thropogenic		Description		
	/	N	CV=cav	A CONTRACTOR OF THE PARTY OF TH				
	* A C	1 14	MN=mir	ne :				
1 5	2 1 20		RO=roc	ky outcrop :	-			
	2 5	2	CF=cor	niferous forest				
2 8	> 8			ciduous forest				
1	E 3	1 /-	sta					-
low		FTVES	WA=wa	ter :				-
path						f detector (x). Label using o Provide descriptions for bat		

Acoustic Monitorin	g STATION	2011 Data F	orm		Station#:_	PW-3	3
Observer: 2*	5	Date:	7-21-15	Proje	ect: Prevailing	wind)
Station Informatio	n				2		
Datum: NAD2	27 or NAD83 Zon	e: 14 Easting:	02688	78 North	hing: 47751	46	_
Detector Type:	SD2 SD1		Number(s): C	3697	(microphone)	ablah	
Placement:	Ground Raised		d System: N/A	Pulley F	ixed	ubiej	
Station Type:	Fixed Tempo	rary Micro	phone Protection	on: Plastic Bi	Bat Hat None		
Met Tower Pre	esent? Yes N	Sound	d Reception:	VC Elbow R	eflector Plate None		
Microphone H			ct: NE		Supply: (2 V	r panel, etc.)	
labitat Informatio	n						
Habitat:	Shrub/Steppe	2 Deciduous For	est Gra	ssland	Other (describe)	1	130
Rank by abundance within 100 m of detector. 1 = most	Crop/Agriculture Riparian/Wetland	Coniferous For Pinyon-Juniper		ert ter (lake, etc.)			-
Photos: Take phot	os of the area from each co		Yes No		N, E ne microphone is pointing, and on abel and mail to your bat lickon		
General Remai		feotores present and anything i	ese of interest (e.g., soge	grouse peners, exc.f. §	uger and mon to your out to some	on your ziidiis	—
labitat Map	*	Cons)	AS=anthropogenic structure		Description		
1383	me of	a Treil	MN=mine RO=rocky outcrop				_
	CAN	V	CF=coniferous fore	est			
7 5) # A 4	1 1 Shags	stand DF=deciduous fore	est			
09	000		stand WA=water	-	Anna Maria Maria Maria		
775	DONE O.	- /	WA=water Other=:				
12	00	I Free ?	ap out bat <u>and</u> habitat fee		dius of detector (x). Label using a etc.). Provide descriptions for bar	Christian Control of the Control of	

Acoustic Monitoring	STATION	2011	ata Form			Station #:_F	ow-4
Observer: RS		Dat	e: 7-21-	15	Project:	Station #: F	vinds
Station Information Datum: NAD2	n 7 or NAD83 Zone	. \- \- Eas	ting: 057	2800	Northing:	477353	5
Detector Type:	SD2 SD3	Anabat II	Serial Number	(s): 03	483	(mkraphone)	oble)
Placement:	Ground Raised		Raised System	: N/A Pul	lley Fixed		
Station Type:	Fixed Tempor	ary	Microphone P	rotection:	lastic Bin B	at Hat None	
Met Tower Pres	(m): 2		Searing or Cardinal S		Power Suppl	1014	panel, etc.)
labitat Informatio	n						
Habitat:	Shrub/Steppe		us Forest	Grassland		Other (describe)	国物
within 100 m of detector. 1 = most	Crop/Agriculture Riparian/Wetland	2 Conifer	ous Forest	Desert Water (lake,			
Photos: Take photo detector set up itself. A	n chosen to samp s of the area from each car ke take photos of any bat j	dinal direction (facing	away from the detect				of the
General Remar	ks:						
labitat Map	00 0	n N	AS=anth struc CV=cave MN=mini RO=rock CF=coni	e : γ outcrop : ferous forest		Description	
	0	(Kt	Stan DF=deci stan WA=wat	duous forest			
110	ON)r-y	Other=: Map out bat an	d habitat features with		etector (x). Label using co wide descriptions for bor f	
	C	rek				1000	

	ng STATION	2011	Data Form			Station #:	PW-5	
Observer: K	5	Da	ite: 7-2	1-15	Project:_	Station #:_ Prevailing	Wind	15
Station Informatio	on							
Datum: NAD	27 or NAD83 Zor	ne: 14 Ea	sting: 05	70321	_ Northing	477 23	193	-
Detector Type	SD2 SD1 SM2 Petters	Anabat II	Serial Numbe	er(s):80	917	(microphone)	oble)	
Placement:	Ground Raised		Raised Systen	n: N/A Po	ulley Fixed			
Station Type:	Fixed Tempo	orary	Microphone I	Protection:	Plastic Bin	Bat Hat None		
Met Tower Pre	esent? Yes	19	Sound Recept	tion: PVC Ell	Reflec	tor Plate None		
Microphone H	t (m):		Aspect: E	Direction of mic)	Power Supp	oly: 12 V	r panel, etc.)	
Habitat Informatio	on							
Habitat:	Shrub/Steppe	Decidu	ious Forest	Grassland		Other (describe)	2	Past
Rank by abundance within 100 m of	Crop/Agriculture	Conifer	rous Forest	Desert				
detector. 1 = most abundant, etc.	Riparian/Wetland	Pinyon	-Juniper	Water (lake	, etc.)			
Topography: (Flat Slope	High Point L		her:				
Photos: Take phot		ardinal direction (facing	g away from the detect			N, E, S, W ophone is pointing, and one and meil to your bat lioson o	of the	
Was this statio	ros of the area from each co	ardinal direction (facing	g away from the detect	tor), as well as from th		N, Z, S, G ophone is pointing, and one ad mail to your bat liakon o	of the	
Was this station Photos: Toke photo detector set up itself.	ros of the area from each co	ardinal direction (facing	g away from the detect	tor), as well as from th		ophone is pointing, and one	of the	
Was this station Photos: Toke photo detector set up itself.	ros of the area from each co	ardinal direction (facing	g away from the detection withing else of interest and the second	tor), as well as from th		ophone is pointing, and one and mail to your bat liaison o	of the	
Was this station Photos: Toke photo detector set up itself.	ros of the area from each co	ordinal direction (facing t features present and a	g away from the detection withing else of interest and the second	at Features hropogenic acture :		ophone is pointing, and one and mail to your bat liaison o	of the	
Was this station Photos: Toke photo detector set up itself.	ros of the area from each co	ardinal direction (facing t features present and a	Codes Baase of Marie Structure o	at Features hropogenic cture e		ophone is pointing, and one and mail to your bat liaison o	of the	
Was this station Photos: Take photo detector set up itself. If General Remainstrate Map	rks:	ordinal direction (facing t features present and a	Codes Baase of Marie Structure o	at Features hropogenic cture ie		ophone is pointing, and one and mail to your bat liaison o	of the	
Was this station Photos: Take photo detector set up itself.	akso take photos of any bar	ordinal direction (facing t features present and a	Codes Ba AS=anti stru CV=cave MN=min RO=rock	at Features hropogenic icture : e : hy outcrop iferous forest		ophone is pointing, and one and mail to your bat liaison o	of the	
Was this station Photos: Take photo detector set up itself. If General Remainstrate Map	rks:	ordinal direction (facing t features present and a	Codes Ba AS=anti stru CV=cave MN=min RO=rock	at Features hropogenic icture : e : hy outcrop iferous forest		ophone is pointing, and one and mail to your bat liaison o	of the	
Was this station Photos: Take photo detector set up itself. If General Remainstrate Map	akso take photos of any bar	ordinal direction (facing t features present and a	Codes Ba AS=anti stru CV=cave MN=min RO=rock	at Features hropogenic icture : e :_ ky outcrop :_ iduous forest		ophone is pointing, and one and mail to your bat liaison o	of the	
Was this station Photos: Take photo detector set up itself. If General Remainstrate Map	akso take photos of any bar	ordinal direction (facing t features present and a	Codes Ba AS=anti stru CV=cave MN=min RO=rock DF=deci	at Features hropogenic cture : e : iferous forest ad iduous forest		ophone is pointing, and one and mail to your bat liaison o	of the	

Acoustic Monitorin	ng STATION	2011 Da	ita Form			Station #:	PW-	6
Observer: R5)	Date	7-21-	15	Project:	revailing 4	i'hds	
Station Informatio	n		1					
Datum: NAD	27 or NAD83 con	e: 14 Easti	ng: 057	9638	Northing:_	47702	76	_
Detector Type			erial Numbe	r(s): 804	182	(microphone)		
Placement:	SM2 Petters: Ground Raised		aised System	n: N/A Pul	ley Fixed	(recorder, if applic	oble)	
Station Type:	Fixed Tempo	rary M	licrophone P	Protection: P	lastic Bin B	lat Hat None		
Met Tower Pre	esent? Yes	50	ound Recept	tion: PVC Elbe	Reflecto	or Plate None		
Microphone H	t (m): 2		spect: NE	Direction of mic)	Power Suppl (e.g., voltage and A	y: 12 V mp-hours of battery, sola	r panel, etc.)
Habitat Informatio	n				1-4			-0 (
Habitat:	Shrub/Steppe	7 Deciduou	s Forest	Grassland		Other (describe)	2	Pasto
within 100 m of detector. 1 = most	Crop/Agriculture	Coniferou	is Forest	Desert				
Photos: Take phot detector set up itself.	on chosen to samp os of the area from each co Also take photos of any bat	rdinal direction (facing av	vay from the detect			shone is pointing, and one	of the	4 Cone no drive.
General Remai								
Habitat Map		Paa)		at Features hropogenic		Description		
/ (1	1	stru CV=cave	icture :				
150 /=	\ / 0	/ M	MN=min					
0 16	l Pas	ture \	RO=rock	ky outcrop :				
1 V /7	1 1 '		CF=con	iferous forest				
170	33	1		iduous forest				
121) 7		stan	nd :				
10/	I A U	1	WA=wat	er :				
K	V	As				etector (z). Label using co wide descriptions for bat ;		
	1							

Observer: Kyo			2011 Data Forn	n			Station #:	11-10-1
	MelDon-14	-	Date: 7/2	8/20	15 Pr	oject:	revailing	Win.
ation Informatio	n							
Datum: NADZ	27 or NAD83 Zon	e:/ [/] /	Easting: 5	7410	8 N	orthing:	47707	144
Detector Type	SD2 SD1	Anabat	200,000,000	mber(s)	80966		(microphone)	<i>3</i> -4 :
Placement: (Ground Raised		Raised Sy	/stem:	N/A Pulley	Fixed		anny
Station Type:	Fixed Tempo	rary	Micropho	one Prot	ection: Plastic	Bin I	Bat Hat None	
Met Tower Pre	esent? Yes N	0	Sound Re	eception	PVC Elbow	Reflect	or Plate None	
Microphone H	A COMPANY OF THE PARTY OF THE P	_	Aspect:_	350 undired Direct		er Supp	ly: 12 V mp-hours of bottery, solo	r ponet, etc.)
bitat Informatio	n							
Habitat:	Shrub/Steppe		Deciduous Forest		Grassland	2	Other (describe)	4
within 100 m of	Crop/Agriculture	3	Coniferous Forest		Desert	SOVES	rond	
detector. 1 = most abundant, etc.	Riparian/Wetland		Pinyon-Juniper		Water (lake, etc.)			
		do a hat	fastura? V	es N				
Photos: Toke photo detector set up itself. A General Reman	on chosen to samp os of the creo from each co the take photos of any but	rdinal directi	on (facing away from the	derector), o interest (e.g			f most to your bot liakon o	
Photos: Toke photo detector set up itself. A General Reman	os of the area from each co tha take photos of any but	rdinal directi	ent (Jochep away from the	derector), o interest (e.g. Bat Fe	s well as from the direction, sage process pellets, etc. 1 cfly from the direction of the sage process pellets, etc.). <u>Label</u> one	f most to your bot liakon o	
Photos: Take photo detector set up itself. A	os of the area from each co tha take photos of any but	features pres	on (facing away from the ent and anything else of A 140 d 5 Code N N R R R	s Bat Fe	s well as from the direction, sage prouse pellets, etc. **L). <u>Label</u> one	f moit to your box Roson o	
Photos: Toke photo detector set up itself. A General Remar	the take photos of any but	rdinal directi	on (facing away from the ent and anything else of A 14 a 4 5	s Bat Fe santhropo structure /=cave	s well as from the directly sage process pellets, etc. 1 cf / g / fr eatures genic crop is forest) label one	Description	
Photos: Toke photo detector set up iself. A General Remarkshitat Map	the take photos of any but	features pres	on (focing away from the ent and anything else of A 14 a 4 5 Code N Code N Code N Code O D	s Bat Fe S Bat Fe S anthropo structure V=cave V=mine D=rocky out F=coniferous stand A=water	s well as from the directle sage process pellets, etc. **C f / y // **atures genic **Example of the control) label one	Description	

116	g STATION	2011 Data I	Form			Station #:_	PW-7	•
bserver: K>	-	Date:	7-21-15		Project:_	Prevailing	Wire	k
tation Informatio	n							
Datum: NAD2	7 or NAD83 Zone	Easting:	05729	85	Northing:	47665	54	_
Detector Type:	SD2 SD1	Anabat II Seria	l Number(s):_	01556	7	(microphone)		
	SM2 Pettersso	on B.A.T.				(tecorder, if appl	icable)	
Placement:	Ground Raised	Raise	ed System:	N/A Pulle	ey Fixed			
Station Type:	Fixed Tempora	ary Micro	ophone Prote	ction: Pl	astic Bin I	Bat Hat None		
Met Tower Pre	esent? Yes No	Soun	d Reception:	PVC Elbo	w Reflect	or Plate None)	
	2		. NE			CV		
Microphone Hi (Height from ground to		Aspe	ct: // C		ower Supp	mp-hours of battery, so.	(or name) esc 1	-
		(1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.	, in the same beautiful		ong commy and c			
bitat Informatio	n							10
Habitat:	Shrub/Steppe	Deciduous For	est	Grassland		Other (describe)	12	4
within 100 m of	Crop/Agriculture	Coniferous For	rest	Desert			1	
detector. 1 = most abundant, etc.	Riparian/Wetland	Pinyon-Junipe	r	Water (lake, et	(c.)			
Topography:	3		/					
Was this statio		e a bat feature?		well as from the a			the of the	Ca
Was this statio	os of the area from each card Ako take photos of any bat fe	final direction (facing away fr	om the detector), as t	well as from the a			ne of the	Cardill
Was this statio Photos: Toke photo detector set up itself. A	os of the area from each card Ako take photos of any bat fe	linal direction (facing away for actures present and anything	om the detector), as t	well as from the a			he of the	Ca
Was this statio Photos: Toke photo detector set up itself. A	os of the area from each card Ako take photos of any bat fe	linal direction (facing away for actures present and anything	om the detector), as a else of interest (e.g., s	well as from the a sage grouse pelle atures		d mail to your bot liakon	ne of the	Ca o de la
Was this statio Photos: Toke photo detector set up itself. A	os of the area from each card Ako take photos of any bat fe	linal direction (facing away for actures present and anything	om the detector), as a else of interest (e.g., s Codes Bat Feat AS=anthropog structure CV=cave	well as from the a sage grouse pelle atures		d mail to your bot liakon	ne of the	Ca
Was this statio Photos: Toke phon detector set up itself. A General Remar bitat Map	os of the area from each card Also take photos of any bat fe	final direction (facing away for entures present and anything	om the detector), as a else of interest (e.g., s Codes Bat Fea AS=anthropog structure CV=cave MN=mine	ntures enic :		d mail to your bot liakon	ne of the	Ca
Was this statio Photos: Toke phon detector set up itself. A General Remar bitat Map	os of the area from each card Also take photos of any bat fe	final direction (facing away for entures present and anything	codes Bat Fee AS=anthropog structure CV=cave MN=mine RO=rocky outc	atures enic :		d mail to your bot liakon	ne of the	Ca
Was this statio Photos: Toke phon detector set up itself. A General Remar bitat Map	os of the area from each card Also take photos of any bat fe	final direction (facing away for entures present and anything	om the detector), as a else of interest (e.g., s Codes Bat Fea AS=anthropog structure CV=cave MN=mine	atures enic :		d mail to your bot liakon	ne of the	Ca
Was this statio Photos: Toke photo detector set up itself. A	os of the area from each card Also take photos of any bat fe	final direction (facing away for entures present and anything	com the detector), as a client of interest (e.g., selse of interest (e.	enic rop forest		d mail to your bot liakon	ne of the	Ca
Was this statio Photos: Toke phono detector set up itself. A General Remar bitat Map	os of the area from each card Also take photos of any bat fe	final direction (facing away for entures present and anything	om the detector), as a else of interest (e.g., selse of interest (e.g.,	enic rop forest		d mail to your bot liakon	ne of the	Co
Was this statio Photos: Toke phone detector set up itself. A General Reman	os of the area from each card Also take photos of any bat fe	final direction (facing away for entures present and anything	om the detector), as a else of interest (e.g., s else of interest (e.g	enic rop forest		d mail to your bot liakon	ne of the	Ca

Observer: R	ng STATION	2011 Data	Form			Station #:	M-8
Justivei. V-	5	Date:	7-21.	15 Pr	oject:	Prevailing	Wind
tation Informatio	n						
Datum: NAD	27 or NAD83 Zon	e: 4 Easting	057	5714 N	orthing:	47663	73
Detector Type	: SD2 SD1	Anabat II Seri	al Number(s)	0156	3	(microphone)	
	SM2 Petters	son B.A.T.				(recorder, if applical	nie)
Placement: (Ground Raised	Rais	sed System: (N/A Pulley	Fixed		
Station Type:	Fixed Tempo	mary Mic	rophone Prot	ection: Plastic	: Bin E	Bat Hat None	
Met Tower Pre	esent? Yes	9 Sou	nd Reception	: PVC Elbow	Reflect	or Plate Non	
Microphone H	it (m):		nect: E		er Suppl	ly: GV mp-hours of battery, solat	nanel, etc.)
abitat Informatio	on						
Habitat:	Shrub/Steppe	Deciduous Fo	orest 2	Grassland	13	Other (describe)	
Rank by abundance within 100 m of	Crop/Agriculture	Coniferous F		Desert		- Cinci (describe)	
detector. 1 = most	Riparian/Wetland	Pinyon-Junip		Water (lake, etc.)			
		ple a bat feature?		lo	ν, Σ,	S. W. Un. +	Care
		features present and anythin					
detector set up aself.	rks:						
General Remai							
General Rema		fr	Codes Bat F	eatures		Description	
General Rema	*	Î	Codes Bat Fo	ogenic		Description	
General Rema	OF.	1	AS=anthrop	ogenic		Description	
General Rema	OF.	Î	AS=anthrop	ogenic		Description	
General Rema)F	Î N	AS=anthrop structure CV=cave	ogenic 		Description	
General Rema	OF.		AS=anthrop structure CV=cave MN=mine RO=rocky ou CF=conifero	ogenic		Description	
General Rema	OF and a second	N Trail	AS=anthrop- structure CV=cave MN=mine RO=rocky ou CF=conifero stand DF=deciduo	ogenic :		Description	
General Rema	OF S		AS=anthrop- structure CV=cave MN=mine RO=rocky ou CF=conifero stand	ogenic :		Description	
	Po to		AS=anthrop structure CV=cave MN=mine RO=rocky ou CF=conifero stand DF=deciduo stand	ogenic :		Description	

	ng STATION	4 3	2011 Data Forn	n			Station #: P	N 8 F
erver: Kyun	MiDone	11	Date: 7/2	8/20	/S Pr	oject:	Prevailing	Win
on Informatio	n						7	
Datum: NAD2	27 of NAD83 Zor	ne: <u>/4</u> T	Easting: 5	7565	Z No	orthing:	476867	28
Detector Type		Anabat I		ımber(s):	8091	7	(mkrophose)	
	SM2 Petters	son B.A.	.T.	-		76.	(recorder, # applicat	ole)
Placement: (Ground Raised		Raised S	ystem:	N/A Pulley	Fixed)	
tation Type:	Fixed Tempo	orary	Microph	one Prote	ection: Plastic	Bin	Bat Hat None	
Met Tower Pre	esent? Yes (N	lo)	Sound Re	eception:	PVC Elbow	Reflect	or Plate None	
Microphone H	it (m): Z		Aspect:	/ZD ardinal Directi	Community with the No.	er Supp	ly: 12 V	nanel est.)
tat Informatio	n		8					
Habitat:	Shrub/Steppe		Deciduous Forest		Grassland	7	Other (describe)	
ank by obundance	Common State of	7	J. 100	1		-	- Anei (describe)	
THE RESERVE OF THE PARTY OF THE	Crop/Agriculture	1 7 1	Coniferous Forest		Desart		1	Liberton Company
ethin 100 m of etector. 1 = most bundant, etc.	Crop/Agriculture Riparian/Wetland Flat Slope	High Poin	Pinyon-Juniper tt Low Point	Other:	Desert Water (lake, etc.)			
viction 100 on of letector. 1 = most thundant, etc. Topography: Was this statio	Flat Slope on chosen to sam	ple a bat	Pinyon-Juniper at Low Point feature?	Yes N	Water (lake, etc.)	a the column		
viction 100 or of letector. 1 = most doundant, etc. Topography: Was this statio Photos: Take phot	Riparian/Wetland Flat Slope on chosen to sam tos of the area from each of	ple a bat	Pinyon-Juniper at Low Point feature?	Yes N	Water (lake, etc.) well as from the direction		phone is pointing, and one of mails to your bat Roben on	
viction 100 or of letector. I = most shundont, etc. Topography: (Was this station Photos: Take phot letector set up itself. (Riparian/Wetland Flat Slope on chosen to sam tos of the area from each of	ple a bat ordinal direction	Pinyon-Juniper It Low Point feature? In floring away from the east and anything else a	Yes No	Water (lake, etc.) well os from the directive sage grouse pelies, etc.			
etector at of etector. 1 = most bundont, etc. Topography: Was this statio Photos: Take phot etector set up iself. General Remail	Flat Slope on chosen to sam tos of the gree from each of	ple a bat ordinal direction	Pinyon-Juniper It Low Point feature? In flacing away from the east and anything else a	Yes No	Water (lake, etc.) well os from the directions age prouse pellers, etc.			
viction 100 or of letector. I = most shundont, etc. Topography: (Was this station Photos: Take phot letector set up itself. (Flat Slope on chosen to sam tos of the gree from each of	ple a bat ordinal direction	Pinyon-Juniper It Low Point feature? In floring away from the east and anything else a	Yes Note detectors, as If increase teng.	Water (lake, etc.) well as from the direction sage grouse pelies, etc.		d mail to your but Robon on	
etector at of etector. 1 = most bundont, etc. Topography: Was this statio Photos: Take phot etector set up iself. General Remail	Flat Slope on chosen to sam tos of the gree from each of	ple a bat ordinal direction	Pinyon-Juniper It Low Point feature? In flacing eway from the east and anything else of the code of	Yes No edetector), os of inccress (e.g., as Bat Fe	Water (lake, etc.) well as from the direction sage grouse pelies, etc.		d mail to your but Robon on	
etector at of etector. 1 = most bundant, etc. Topography: Vas this statio Photos: Take phot etector set up iself. General Remail	Flat Slope on chosen to sam tos of the gree from each of	ple a bat ordinal direction	Pinyon-Juniper It Low Point feature? In floring away from the ent and anything else of the control of the co	Yes No le detector), os ly incerest (e.g., ly incer	well of from the direction some prouse peliers, etc.		d mail to your but Robon on	
viction 100 or of letector. I = most doundant, etc. Topography: Was this statio Photos: Take phot letector set up itself General Remail tat Map	Flat Slope on chosen to sam tos of the gree from each of	ple a bat ordinal direction	Pinyon-Juniper It Low Point feature? In floring away from the east and anything else a code N Code N R	Yes Note detectory, or a superior of the super	well os from the direction sage grouse pelies, etc.		d mail to your but Robon on	
etchin 100 or of letector. I = most bundont, etc. Topography: Was this statio Photos: Take phot letector set up iself. General Remail tat Map	Flat Slope on chosen to sam tos of the gree from each of	ple a bat ordinal direction	Pinyon-Juniper It Low Point feature? In floring away from the east and anything else a code N Code N R	Yes No le detector), os ly incerest (e.g., ly incer	well os from the direction sage grouse pelies, etc.		d mail to your but Robon on	
etector. I = most bundant, etc. Topography: Was this statio Photos: Take phot etector set up iself General Remail tat Map	Flat Slope on chosen to sam tos of the gree from each of	ple a bat ordinal direction	Pinyon-Juniper It Low Point feature? In floring owny from the ent and onything else of the point Code N Code N R	Yes Note detector, as of increase fe.g., and i	well of from the directions ope groupe peliers, etc.		d mail to your but Robon on	
etector. 1 = most bundont, etc. Topography: Was this statio Photos: Take phot etector set up iself. General Remai	Riparian/Wetland Flat Slope on chosen to sam tos of the cree from each of the cute photos of any bar rks: follow	ple a bat ordinal direction of features press	Pinyon-Juniper It Low Point feature? In floring owny from the ent and onything else of the point Code N Code N R	Yes Note detectory, or a success fe.g., and a succe	well of from the directions ope groupe peliers, etc.		d mail to your but Robon on	
etector. I = most bundant, etc. Topography: Was this statio Photos: Take phot etector set up iself General Remail tat Map	Flat Slope on chosen to sam tos of the gree from each of	ple a bat ordinal direction of features press	Pinyon-Juniper It Low Point feature? In floring away from the ent and anything else of the point N Code N Code N Code R C	Yes Note detector, as of increase fe.g. Bat Fe AS_anthropoly at ructure V=cave IN=mine O=rocky outs CF=conferous stand O=deciduous	well of from the directions ope groupe peliers, etc.		d mail to your but Robon on	

	ng STATION		2011 Data Form	ner.			Station #: /	W-7
server:Kym	M. Jone	12	Date: 7/	27/	2015	Project:	ravailing	Wind
tion Informatio	n							
Datum: NAD2	27 o NAD83 Zor	ne: <u>/4</u> 7	Easting: 9	800	64_	Northing	47656	00
Detector Type		Anabat		mber(s)	034	835	(microphose)	
Placement: <	SM2 Petters Ground Raised		A.T. Raised Sy	/stem:	N/A Pulley	Fixed	(гесогдег, ў арраі	roble)
Station Type:	Fixed Tempo	orary	Microph	one Prot	ection: Plas	tic Bin	Bat Hat None	
Met Tower Pre	esent? Yes N	10	Sound Re	eception	: PVC Elbow	Reflect	tor Plate None	
Microphone H	and the second second		Aspect:			wer Supp	sty: 12 V K	adta u panet, enc.)
itat Informatio	n							
Habitat:	Shrub/Steppe		Deciduous Forest	2	Grassland	4	Other (describe)	
	300 A S C S C S C S C S C S C S C S C S C S	1	THE RESIDENCE OF THE PARTY OF T					
within 100 m of	Crop/Agriculture	1	Coniferous Forest	Herese	Desert		CONTRACTOR OF THE PARTY OF THE	
within 100 m of desector. 1 = most abundant, etc.	Crop/Agriculture Riparian/Wetiand Flat Slope	High Pol	Pinyon-Juniper	Other;	Water (lake, etc.)			
within 100 in of detector. 1 = mast abundant, etc. Topography: Was this statio Photos: Take photo	Riperian/Wetland	ple a bat	Pinyon-Juniper Int Low Point I feature? Y Ion (focing owny from the	es N	Water (lake, etc.)	ction the micro	phone is pointing, and on	e of the
within 100 in of detector. 1 = most obstacles, etc. Topography: Was this statio Photos: Toke photodetector set up itself. A	Riperian/Wetland Flat Slope In chosen to sample of the area from each color to be the area from each color to be to be the area from each color to be the each color to be t	ple a bat	Pinyon-Juniper Int Low Point It feature? Y Y Y Y Y Y Y Y Y Y Y Y Y	es N r detector), a l'interest fe a	Water (lake, etc.)	ction the micro	phose is pointing, and on d mail to your bat Poison :	e of the
within 100 in of detector. I = most obstaclour, etc. Topography: Was this statio Photos: Take phone detector set up itself. A General Remarkation	Flat Slope In chosen to sample of the area from each control to take photos of any but the:	ple a bat	Pinyon-Juniper Int Low Point I feature? Y Ion (focing away from the sent and anything else of	es N	Water (lake, etc.) Io s well as from the dire , sage grouse pellets, i	ction the micro	phase & pointing, and on dead to your bet Hoses:	e of the
within 100 in of decector. I = most obstacleur, etc. Topography: Was this statio Photos: Take phone detector set up itself. A General Remarkation	Flat Slope In chosen to sample of the area from each control to take photos of any but the:	ple a bat	Pinyon-Juniper Int Low Point I feature? Y Ion (focing owny from the sent and anything else of	es N detector, o interest fe.g. Bat Fe s_anthropo	Water (lake, etc.) Io s well as from the dire , sage grouse pellets, i	ction the micro	d moit to your bet Hoison :	e of the
within 100 in of detector. I = most obstaclour, etc. Topography: Was this statio Photos: Take phone detector set up itself. A General Remarkation	Flat Slope In chosen to sample of the area from each control to take photos of any but the:	ple a bat	Pinyon-Juniper Int Low Point I feature? Y I fea	es N r detector, or r	Water (lake, etc.) lo s well as from the dire , sage grouse pellers, i	ction the micro	d moit to your bet Hoison :	e of the
within 100 in of detector. I = most obstaclions, etc. Topography: Was this statio Photos: Toke photodetector set up itself. A General Remar Itat Map	Flat Slope In chosen to sample of the area from each control to take photos of any but the:	ple a bat	Pinyon-Juniper Int Low Point I feature? Y Ion (focing owny from the sent and anything else of A N Code N R R R R	es N r detector), o r detector) r detec	Water (lake, etc.) Io s well as from the dire , sage grouse pellets, i	ction the micro	d moit to your bet Hoison :	e of the
within 100 at of detector. I = most obstaclost, etc. Topography: Was this statio Photos: Take photodetector set up isself. A General Remarkation	Flat Slope In chosen to sample of the area from each control to take photos of any but the:	ple a bat	Pinyon-Juniper Int Low Point I feature? Y I fea	es N r detector), o interest (e.g. s Bat Fe s_anthropo structure v=cave v=mine D=rocky out	Water (lake, etc.) Io s well as from the dire , sage grouse pellers, i eatures igenic icrop is forest	ction the micro	d moit to your bet Hoison :	e of the
within 100 in of detector. 1 = most obstaclour, etc. Topography: Was this statio Photos: Take photodetector set up itself. A General Remar Itat Map	Flat Slope In chosen to sample of the area from each control to take photos of any but the:	ple a bat	Pinyon-Juniper Int Low Point I feature? Y Ion (focing owny from the sent and anything else of the low Point O	es N r detector), or r detecto	Water (lake, etc.) Io s well as from the dire , sage grouse pellers, i eatures igenic icrop is forest	ction the micro	d moit to your bet Hoison :	e of the

Date: 8 7 70 Station Information Datum: NAD27 of NAD83 Zone: 4 Easting: 5 9 Detector Type: SD2 SD1 Anabat II Serial Number(s) SM2 Pettersson B.A.T. Placement: Ground Raised Raised System: Station Type: Fixed Temporary Microphone Pro Met Tower Present? Yes No Sound Reception Microphone Ht (m): 4 Sound Reception Microphone Ht (m): 5 Aspect: 50 Condition of the content of	N/A Pulley N/A Pulley Description: Plastic Power for of mici (e.g., vo.) Grassland Descrit Water (lake, etc.)	Fixed Bin Ba Reflector r Supply		3 Z
Detector Type: SD2 SD1 Anabat il Serial Number is SM2 Pettersson B.A.T. Placement: Ground Raised Raised System: Station Type: Fixed Temporary Microphone Pro Met Tower Present? Yes No Sound Reception Microphone Ht (m):	N/A Pulley N/A Pulley Description: Plastic POWE Elbow Fower (e.g., vo.) Grassland Description: Plastic Water (lake, etc.)	Fixed Bin Ba Reflector r Supply	(mkrophone)	ing)
Detector Type: SD2 SD1 Anabat II Serial Number(SM2 Pettersson B.A.T. Placement: Ground Raised Raised System: Station Type: Fixed Temporary Microphone Pro Met Tower Present? Yes No Sound Reception Microphone Ht (m): Sound Reception Microphone Pro Aspect: SO Sound Reception Microphone Pro Aspect: SO Sound Reception Conference Forest Towards of Conditional Distriction of Condition of Condition Distriction of Condition Distriction of Conditi	N/A Pulley N/A Pulley Description: Plastic POWE Elbow Fower (e.g., vo.) Grassland Description: Plastic Water (lake, etc.)	Fixed Bin Ba Reflector r Supply	(mkrophone)	ing)
SM2 Pettersson B.A.T. Placement: Ground Raised Raised System: Station Type: Fixed Temporary Microphone Pro Met Tower Present? Yes No Sound Reception Microphone Ht (m):	N/A Pulley tection: Plastic PVC Elbow Power ten of mic) fe.g., vo Grassland Desert Water (lake, etc.)	Bin Ba Reflector	frecorder, # applicable t Hat None Plate None :	
Placement: Ground Raised Raised System: Station Type: Fixed Temporary Microphone Pro Met Tower Present? Yes No Sound Reception Microphone Ht (m):	POWE Flow Power fon of mic) (e.g., vo. Grassland Desert Water (lake, etc.)	Bin Ba Reflector	t Hat None Plate None 17 U	
Station Type: Fixed Temporary Microphone Pro Met Tower Present? Yes No Sound Reception Microphone Ht (m):	POWE Flow Power fon of mic) (e.g., vo. Grassland Desert Water (lake, etc.)	Bin Ba Reflector	Plate None	onel, etc.)
Met Tower Present? Yes No Sound Reception Microphone Ht (m):	Power fon of mic) (e.g., vo	Reflector	Plate None	onet, etc.)
Microphone Ht (m):	Power fon of mic) fe.g., vo Grassland Desert Water (lake, etc.)	r Supply	: 17 V o-bours of bottery, solar ;	onet, etc.)
Habitat Information Habitat: Rook by obundance within 100 at of detector. I = most obundance, etc. Topography: Flat Slope High Point Low Point Other Was this station chosen to sample a bat feature? Yes Photos: Take photos of the area from each cordead direction (facing away from the detector) detector set up kself. Also take photos of any but features present and anything else of interest for the detector. General Remarks: Codes Bat Assambles	Grassland Desert Water (lake, etc.)	200	p-bours of battery, solar p	onet, etc.)
Habitat: Runk by obundance within 100 m of detector. 1 - most obundant, etc. Topography: Flat Slope High Point Low Point Other Was this station chosen to sample a bat feature? Yes Photos: Take photos of the area from each condinat direction flocking away from the detector detector set up itself. Also take photos of any but features present and anything else of interest for General Remarks: Codes Bat Assanthron	Desert Water (lake, etc.)	4	Other (describe)	
Rank by abundance within 100 at of detector. I = most abundant, etc. Topography: Flat Slope High Point Low Point Othe Was this station chosen to sample a bat feature? Yes Photos: Take photos of the area from each cardinal direction flacing away from the detector detector set up itself. Also take photos of any but features present and anything else of interest for General Remarks: Crop/Agriculture Conliferous Forest Pinyon-Juniper Yes Photos: Take photos of the area from each cardinal direction flacing away from the detector detector set up itself. Also take photos of any but features present and anything else of interest for General Remarks: Codes Bat As_anthrop	Desert Water (lake, etc.)	4	Other (describe)	
within 100 in of detector. I = most abundant, etc. Riparian/Wetland Pinyon-Juniper Topography: Flat Slope High Point Low Point Other Was this station chosen to sample a bat feature? Yes Photos: Take photos of the area from each cardinal direction flacing away from the detector detector set up itself. Also take photos of any but features present and anything eise of interest for General Remarks: [Codes Bat Assembly Codes Ba	Water (lake, etc.)	4		
Topography: Flat Slope High Point Low Point Other Was this station chosen to sample a bat feature? Yes Photos: Toke photos of the area from each cardinal direction (facing oway from the detector) detector set up itself. Also take photos of any but features present and caything eike of interest for General Remarks: Application		4		
Topography: Flat Slope High Point Low Point Other Was this station chosen to sample a bat feature? Yes Photos: Take photos of the area from each cardinal direction flocing away from the detector, detector set up itself. Also take photos of any but features present and anything eite of interest for General Remarks: About the photos of the area from each cardinal direction flocing away from the detector, detector set up itself. Also take photos of any but features present and anything eite of interest for the photos. Codes Bat Assanthron				
	i, sage grouse pelles, etc.) eatures	<u>Label</u> and n		
M CV-cave				_
6N=mine		SPECIFICAL PROPERTY.		
RO=rody c	tcrop :			
CF=conifer	us forest			
DF=decidu stand				
DF + CF (WA=water				
Other=:				
write in any other j		neller at dec	ette fil Tabelerin	

	ig STATION	- 33	2011 Data Forn	n			Station #:	W10
server: Kyn	M. Bonel	1	Date: 7/2	7/20	15 P	roject:	Prevailing.	Wino
tion Informatio	n						Carlos de Car	
Datum: NAD2	27 or NAD83 Zon	e: <u>14 T</u>	Easting: 5	785	33 N	lorthing:	47631	93
Detector Type:	SD2 SD1	Anabati	Serial Nu	mber(s):_	808/4	7	(microphone)	
	SM2 Petters	son B.A	.т.	-			frecorder, if applicab	lej
Placements	Ground Raised		Raised Sy	/stem:	N/A Pulley	Fixed		
Station Type:	Fixed Tempo	rary	Micropho	one Prote	ction: Plasti	c Bin	Bat Hat None	
Met Tower Pre	esent? Yes N	0	Sound Re	eception:	PVC Elbow	Reflect	tor Plate None	
Microphone Hi	The state of the s		Aspect:_	15°	The same of the sa	ver Supp	7	The State Street
			toesting or to	mdinal Directio	eormal teg,	чолод е опа	Amp-hours of barrery, soon p	anet, etc.)
itat Informatio	in							
Habitat:	Shrub/Steppe		Deciduous Forest	2	Grassland	1	Other (describe)	
Rank by abundance within 100 m of	Crop/Agriculture	3	Conferous Forest	Service .	Desert			
fetector. 1 = most thundant, etc.	Riparian/Wetland		Pinyon-Juniper		Water (lake, etc.)			
Topography:	Flat Slope	High Poin	t Low Point	Other:_	-	_		
Was this statio	on chosen to samp	ole a bat	feature? Y	es No	well as from the direct		phone is polisting, and one o	
Photos: Toke photo detector set up itself. A	on chosen to samp	ole a bat	feature? Y	es No	well as from the direct		phone is polisting, and one of d mail to your but linkon on ;	
Was this statio Photos: Take photo detector set up isself. A General Remar	on chosen to samp or of the area from each co this take photos of any bot	ole a bat	feature? Y in (locing emoy from the ent and anything else of	es No e detector, as a 'interest leg., s	vel as from the direct age grouse pellers, en tures			
Was this statio Photos: Take photo detector set up isself. A General Remar	on chosen to samp	ole a bat	feature? Y in (locing emoy from the ent and anything else of	es No	vel as from the direct age grouse pellers, en tures		d mail to your bat Rokon on ;	
Was this statio Photos: Take photo detector set up isself. A General Remar	on chosen to samp or of the area from each co this take photos of any bot	ole a bat	feature? You the of the control of t	es No detector, os s interest (e.g., s s santhropografucture	vel as from the direct age grouse pellers, en tures		d mail to your bat Rokon on ;	
Was this statio Photos: Toke photo detector set up itself. A General Remar	on chosen to samp	ole a bat	feature? You do not for the of	es No e detector, as a interest fe.g., s S Bat Fea s_anthropage structure v=cave	vell as from the direct age grouse pellets, en tures		d mail to your bat Rokon on ;	
Was this statio Photos: Toke photo detector set up isself. A General Remar itat Map	on chosen to samp	ole a bat	feature? You do not form the ent and anything else of the North Action of the North Ac	es No detector, os s interest (e.g., s s santhropografucture	vell as from the direct age grouse pellers, en itures		d mail to your bat Rokon on ;	
Was this statio Photos: Toke photo detector set up itself. A General Remar itat Map	on chosen to samp or of the area from each co this take photos of any bot rks:	ole a bat	feature? You do not find the of the o	es No e detectog, as a l'interest fe.g., s S Bat Fea s_anthropogi structure V=cave N=mine D=rocky outcr	vell as from the direct age grouse pellers, en tures unic		Description	
Was this station Photos: Toke photo detector set up itself. A General Remar itat Map	on chosen to samp or of the area from each co this take photos of any bot rks:	ole a bat	feature? You do not find the of the o	es No e detector, as a sisterest fe.g., s sisterest	vell as from the direct age grouse pellers, en tures unic	t) <u>label</u> os	Description	
Was this station Photos: Toke photo detector set up itself. A General Remar itat Map	on chosen to samp	ole a bat	feature? You flooding omey from the ent and anything else of Miles	es No e detector, as a l'interest le.g., s S Bat Fea s_anthropogratructure v=cave N=mine D=rocky outer p=coniferous stand A=water p=:	itures inforest inforest	t de	Description	rour thumb dri

Acoustic Monitorin	g STATION	20	11 Data Form	1 ,			Station #: /	W-11
Observer: Kyan	Milana	4	Date: 7/2	7/20	15	roject:/	Prevailing	Winds
Station Informatio	n							
Datum: NAD2	27 or NAD83 Zon	ne: <u>/4</u> 7	Easting: 57	6700	1	Northing:	476307	- 7
Detector Type	SD2 SD1 SM2 Petters	Anabat II	Serial Nur	mber(s):	0369	7	(mikrophone) frecorder, if applic	nited
Placement: (Ground Raised	1	Raised Sys	stem:	N/A Pulley	Fixed		
Station Type:	Fixed Temp	orary	Micropho	ne Prote	ection: Plast	ic Bin	Bat Hat None	
Met Tower Pre	sent? Yes (lo	Sound Red	ception:	PVC Elbow	Reflect	tor Plate None	
Microphone H	- A - A - A - A - A - A - A - A - A - A		Aspect:_	5°		wer Supp	hty: /Z V Amp-bours of battery, sola	rpanel, etc.)
labitat Informatio	n							
Habitat:	Shrub/Steppe	De	ciduous Farest	-1-	Grassland	13	Other (describe)	
Rank by obundance within 100 m of	Crop/Agriculture	Z co	niferous Forest		Desert	7.000		value to a
detector. 1 = most abundant, etc.	Riparian/Wetland	Pir	yon-Juniper		Water (lake, etc.)			
Photos: Take photo		ordinal direction (J	ocing away from the	detector), as	well as from the direc		ophone is polecting, and one of mail to your bot Bokan o	
General Remar	ks:		Code	Bat Fea	tura.		Description	
	Cirp	1		_anthropog structure			Description	
1		1		=cave	-			
1 widows	1	Linkow	1 2 2 2	=mine =rocky outc	rop :			
Decidores	1 de	evest		=coniferous stand	W145			
1		1	DE	=deciduous	forest			
	61054 Cro	P	WA	stand	1			
	10.	1	Other	=:	1			
			Map out b	out <u>and</u> habite	et features within 100 res of interest (c)#1 w	as roders of d	letector (x). Label using co- ovide descriptions for bat fo	Ses provided, and

Acoustic Monitorin	ng STATION	2011 Data Form	m			△ Station #:_	DWIZ
Observer: Lym	Moderald	Date: 7 / 2	8/201	5 p	roject:_	Prevailin	9 Wino
Station Informatio	n						
Datum: NAD	27 o NAD83 Zone:	14 T Easting: 5	7544	15 N	orthing	4762	139
Detector Type	SD2 SD1 A	nabat II Serial Nu	umber(s):_	8048	2	(nikraphone)	
	SM2 Pettersson	B.A.T.	-			frecorder, # applic	noble)
Placement:	Ground Raised	Raised S	ystem: N	/A Pulley	Fixed)	
Station Type:	Fixed Temporar	Microph	one Protect	tion: Plasti	c Bin	Bat Hat None	
Met Tower Pre	esent? Yes No	Sound Re	eception:	PVC Elbow	Reflec	tor Plate None	
Microphone Hi (Height from ground to	A SECTION	Aspect:_	760° ardinal Direction		er Supp	oly: / Z V	r panet, etc.)
labitat Informatio	in						
Habitat:	Shrub/Steppe	Deciduous Forest	77	and the state of	17	Team of the same of	
Rank by abundance within 100 m of	Crop/Agriculture	Conferous Forest		ressland	-	Other (describe)	
detector. I = most abundant, ecc.	Riparian/Wetland	Pinyon-Juniper	100	/ater (lake, etc.)	1	+	
	n chosen to sample		es No				
Photos: Take photo	is of the area from each cordina	al direction (facing away from the	e detector), as we	I as from the directi	on the micro	ophone is pointing, and one	of the
General Remar		ires present and paything else of	l interest (e.g., so	re grouse pellets, etc). <u>Label</u> on	od mall to your bet libbon o	n your thumb drive
labitat Map		^ Code	Bat Feat	ures		Description	
		11	S=anthropogen structure			Description	
	5	1 10	V≂cave				
1	7 / 1	1	N=mine	-			
(0,	10	1	D=rocky outcrop F=coniferous fo stand				
	//	Di	scand e_deciduous for stand	rest			
	1/08/	/ "	A=water				
	1 4	Othe					
_		write in a provided	any other features	of interest (cliff, roo	rodius of d d, etc.). Pri	letector (x). Label using co- ovide descriptions for bot fe	fes provided, and estures in spaces

1/	ig STATION	ZOTT Data Folu	The second second	0.920		Station #: /	00/5
erver: Ky a	1 Millerald	Date: 8 / /	1201	S Pr	oject:	Mualli	271
on Informatio	on						
Datum: NAD	27 or NAD83 Zone:	4T Easting: 5	1 44	43	orthing:	475958	71
Zatomi. HAD	er or mades zone.	Lasung:	T 1 1	TVC	ortning:	77717	21
Detector Type	: SD2 SD1 An	abat II Serial Nu	mber(s)	03483		(mkrophone)	
	SM2 Pettersson		25.74			(recorder, if applica	able)
lacement:	Ground Raised	Raised Sy	/stem:	N/A Pulley	Fixed		outy.
-		14.144.4		ide. Transf	Timed	>	
Station Type:	Fixed Temporary	Micropho	one Prot	ection: Plastic	Bin	Bat Hat None	
					_		
Met Tower Pre	esent? Yes No	Sound Re	eception	: PVC Elbow	Reflect	tor Plate None	
Microphone H	time 1.5	Aspect:	90	Dev.	C	17 V	
	detector/microphone)	Aspect:	ordinal Direc		er Supp	Amp-hours of battery, sola	r nonel etc)
		5000				3	general strang
tat Informatio	on T						
lask by abundance	Shrub/Steppe	Deciduous Forest	1	Grassland	1	Other (describe)	
eithin 100 m of letector. 1 = most	Crop/Agriculture	Coniferous Forest	3	Desert	-		
sbundant, etc.	Riparian/Wetland	Pinyon-Juniper		Water (lake, etc.)			
	on chosen to sample a			lo	o the allow		of the
	Also take photos of any bot featur						
**************************************		es become one ordering core of	author terk	, solve grouse beserv, est.	/ Lengt on	e wen to keet pet 18926# 6	o your mumb
General Remar	rks:		3.10				
tot Man		_ Code	K KAT H				
tat Map	-	H		eatures	2-11-	Description	
	DE	H	S=anthrops structure	egenic		Description	
	DE	N O	Seanthrops structure V=cave	egenic		Description	
	DE 61	N O	structure V=cave	ogenic		Description	
	DE 61	N C	S=anthrops structure V=cave N=mine O=rocky ou	ngenic		Description	
	DE 61	N C	structure V=cave	ngenic		Description	
	DE 61	N ON NO	structure V=cave N=mine O=rocky our P=conferor stand F=deciduos	berop		Description	
	DE DE	N CO	structure structure V=cave N=mine D=rocky our F=conferor stand F=deciduous stand	berop		Description	
	DF	N CO	structure V=cave N=mine D=rocky ou p=coniferor stand p=deciduou stand A=water	berop		Description	
tat Map	DF	N C MM MM RC C C C C C C C C C C C C C C	structure V=cave V=mine D=rocky our F=conferor stand F=deciduor stand A=water F=1 bor ond both	terop :	codus of d	Description Description Description	iles provided, a

oustic Monitorin	ig STATION	1	2011 Data Form	1			Station #:	W-14
server: Ky m	Mison	P/F	Date: 8/1	120)	5 P	roject:_	Dr waitin	a Wo
tion Informatio	n	1						•
Datum: NAD2	27 or NAD83 Zon	e:1417	Easting: 5	749	25_ N	orthing	47 5867	0
Detector Type	1	Anabat II	100000000000000000000000000000000000000	mber(s)	0369	7	Imkrophone)	
	SM2 Petterss	son B.A.	d.		-		frecorder, if applica	ble)
Placement: (Ground Raised		Raised Sy	stem:	N/A Pulley	Eixed	>	
Station Type:	Fixed Tempo	rary	Micropho	one Prot	ection: Plasti	c Bin	Bat Hat None	
Met Tower Pre	esent? Yes No	•	Sound Re	eception	: PVC Elbow	Reflec	tor Plate None	
	-						1-1	
Microphone H			Aspect:	30	Pow	ver Supp	aly: 12 V	
(Height from ground to	detector/microphone)		(Bearing or Co	ardinal Direc	tion of mic) (e.g.,	voltage and	Amp-boors of battery, solar	panel, etc.)
itat Informatio	n							
Habitat:	Shrub/Steppe	3	Deciduous Forest	2	Grassland	IN	Other (describe)	
Rank by abundance within 100 m of	Crop/Agriculture		Coniferous Forest	Same of	Desert	ESSON.	- Caron (Accountage)	
detector. 1 = most abundant, etc.	Riparlan/Wetland		Pinyon-Juniper	1	Water (lake, etc.)			
Photos: Take photo		rdinal direction	n (facing away from the	detector), a			optione's pointing, and one of	
General Remar		KWWI S JA SK	ac one displanty car of	antries (c.)	, soge giouse peners, en	CJ. Lene on	of mean to your part has on an	year themb d
itat Map	-		11	s Bat Fe	a constitution of the cons		Description	
	1	1	U A	structure				
/ -	10	1	N o	/=cave	ŧ			
1	/ D >	- 1	100	t=mine				
		1		=rocky out				
5	12	5	.0	stand	as forest			
	-0		DI	deciduos	s forest			
/ <	\ \	0/	244	stand	-			
1	10	/		A≕water	2			-
1			Othe					
		/			tot features within 100 c	n todice of a	fetector (s). Label using cod	ac organization on

	g STATION	4	011 Data Form	n			Station #: /	00 - 1
serveriky an	McDon	14	Date: 8/	1/20	15 F	roject:_/	Prevail	ig a
rtion Informatio	n							
Datum: NAD	7 or NAD83 Zor	ne: <u>/4 T</u>	Easting: 5	755	80 1	Northing:	4758	206
Detector Type	SD2 SD1	Anabat II	Serial Nu	ımber(s):	8096	6	(mkrophose)	
	SM2 Petters	sson B.A.1	t.	100,000			(recorder, # applic	able)
Placement: (Ground Raised		Raised Sy	ystem:	N/A Pulley	Fixed		MARK TO
Station Type:	Fixed Tempo	orary	Micropho	one Prote	ection: Plast	ic Bin	Bat Hat None	
Met Tower Pre	sent? Yes N	ło	Sound Re	acention	DUC FILE) n.a		
met fouci rie	sener res Tr		Sound Ne	ecepuon:	PVC Elbow	Reflect	or Plate None	
Microphone H	The state of the s		Aspect:_	ardinal Directle	The state of the s	ver Supp	ly: /Z V	t panel, etc.)
oitat Informatio	n							
Habitat:	Shrub/Steppe		Deciduous Forest	2	Grassland	1	Other (describe)	
Rank by abundance within 100 m of	Crop/Agriculture		Coniferous Forest		Desert			
detector. 1 = most abundant, etc.	Riparian/Wetland		Pinyon-Juniper		Water (lake, etc.)	13		
Was this statio	n chosen to sam			es No	,			
							phone is pointing, and one	
detector set up itself. A	ka take photos of any ba		t and anything else of	l interest le.g.	sage grouse pellets, et		f mail to your bot Paken a	
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General Remar	ka take photos of any ba		Code	interest (e.g.,	soge prouse pellets, es		f mail to your bot Paken a	
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	ng STATION		011 Data Forn	7			Station #:	M16
erver: 11 m	MSsel	\preceq	Date:8///	2015		Project:	Pravailing	Wind
ion Informatio	on							
Datum: NAD	27 or NAD83 Zor	ne/ <u>4</u> 7	Easting: 5	766	80	Northing	: 4757	714
Detector Type	AND AND	Anabat II	Serial Nu	mber(s):	8048	7	Unkrophosej	
	SM2 Petters	sson B.A.	т.				(recorder, # appli	ubie)
Placement: <	Ground Raised	1	Raised Sy	stem:	N/A Pulley	Fixed	>	
Station Type:	Fixed Tempo	orary	Micropho	one Prot	ection: Plas	tic Bin	Bat Hat None	
Met Tower Pro	esent? Yes N	lo	Sound Re	ception	PVC Elbow	Reflec	tor Plate None	
Microphone H	It (m): o decector/micropho ee)		Aspect:_	(D) Wdinal Direct	Edward Chin	wer Supp	hty: /Z V Amp-hours of battery, solic	r panel, etc.)
tat Informatio	on							
labitat:	Shrub/Steppe		Deciduous Forest	2	Grassland	1/	Other (describe)	
ank by abundance ithin 100 m of	Crop/Agriculture		Coniferous Forest	SHORT	Desert			
ADDITION 5 - MARK	Riparian/Wetland		Pinyon-Juniper		Water (lake, etc.)			
opography:	Flat Slope	High Point	76 - 2000	Other:				
opography: (Vas this statio hotos: Take phot	Flat Slope on chosen to sam tos of the area from each co	High Point	Low Point eature? Yo	es N	O well as from the dizes	tion the micro	ophone is pointing, and one of moil to your bot fink on e	e of the n your thumb d
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Aspect: 280 Project: 120 Projec	bserver: VI al		- AMEA	Data Form				Station #:_ /-	
Datum: NAD27 of NAD83 Zone: 4 T Easting: 5 7 8 9 8 7 Northing: 4 7 5 6 0 3 / Detector Type: SD2 SD1 Anabat II SM2 Petterson B.A.T.	D. W. O.V.	McDerson	Da	ate: 8/1	2015	Pr	oject:	revalling	Win
Detector Type: SD2 SD1 Anabat II Serial Number(s): 80917 International factorities of precision	tion Informatio	n							
SM2 Pettersson B.A.T. Placement: Ground Raised Raised System: N/A Pulley Fixed Station Type: Fixed Temporary Microphone Protection: Plastic Bin Bat Hat None Met Tower Present? Yes No Sound Reception: EVCEIbow Reflector Plate None Microphone Ht (m):	Datum: NADI	27 of NAD83 Zon	ie:/4 T Ea	sting: 5	7898	7_ N	orthing:	47560	31
Placement: Ground Raised Raised System: N/A Pulley Fixed Station Type: Fixed Temporary Microphone Protection: Plastic Bin Bat Hat None Met Tower Present? Yes No Sound Reception: Plastic Bin Bat Hat None Microphone Ht (m):	Detector Type			Serial Nun	nber(s):	80917	7	Chicago Control	
Met Tower Present? Yes No Sound Reception: EVCEIbow Reflector Plate None Microphone Ht (m):	Placement: (Raised Sys	tem: N/	A Pulley	Fixed	Frecoraer, & applica	ideey
Microphone Ht (m):	Station Type:	Fixed Tempo	orary	Micropho	ne Protecti	on: Plastic	:Bin I	Bat Hat None	
(Bering or Cardinal Direction of mix) (e.g., voltage and Amp-issure al betterny, solar point, etc.) Ottat Information Habitat: Road for shouldings within 100 mg. Shruh/Steppe Decideous Forest Grassland Z Other (describe) Crop/Agriculture Z Conferous Forest Desart Riparlan/Wetland Pinyon-Juniper Water (lake, etc.) Topography: Flat Slope High Point Low Point Other: Was this station chosen to sample a bat feature? Yes No Photos: Toke photos of the area from each confined direction (focilig away from the decease), as well as from the direction the microphane is polarize, and one of the director set up helf. Also take photos of any bot features present and anything che of interest (e.g., sope grouse present, etc.) Lakel and mail to your bet sloben on your thumbs of the area from the direction of the microphane is polarized. Assume the microphane is polarized, and one of the director set up helf. Also take photos of any bot features present and anything che of interest (e.g., sope grouse present, etc.). Lakel and mail to your bet sloben on your thumbs of the structure. No Codes Bat Features Assumption opening the structure of the confidence of of the confid	Met Tower Pre	esent? Yes N	•	Sound Rec	eption:	PVC Elbow	Reflect	or Plate None	
Habitat: Rout by devictorse with 100 or of descent. 1 - most observed and only thing one of descent. 2 - most observed and only thing one of descent. 3 - most observed and only thing one of descent. 4 - most observed and only thing one of the descent of the oreal from each cardinal direction (focing away from the descent, or well as from the direction the microphene is pointing, and one of the descent of the photos of the photos of any bot features present and only thing end of interest (e.g., sage grouse pellets, etc.). Latel and mail to your bot liabon on your distribution. Codes Bat Features		A Commence of the Commence of	_	American State of the Control of the	180°		1000	A CONTRACTOR OF THE PARTY OF TH	panel, etc.)
Ronk by obundance within 100 m of Crop/Agriculture Crop/Agriculture Crop/Agriculture Crop/Agriculture Crop/Agriculture Crop/Agriculture Riparlan/Wetland Pinyon-Juniper Water (lake, etc.) Topography: Flat Slope High Point Low Point Other: Was this station chosen to sample a bat feature? Yes No Photos: Toke photos of the area from each cardinal direction (locking away from the detector), as well as from the direction the microphone is pointing, and one of the detector set up itself. Also take photos of any bat features present and onything eite of interest (c.g., sope grouse prefers, etc.). Label and mail to your bat Habos on your thumbed as a fracture. Codes Bat Features As, anthropographic structure Normalize Normalize Riparlan/Wetland Description As, anthropographic structure CV-cave Minimine Riparlan/Wetland Description Crop/Agriculture Codes Bat Features As, anthropographic structure CV-cave Minimine Riparlan/Wetland Description CP-coniferous forest stand WA-water Others:	oitat Informatio	n							
Cop/Agriculture Conferous Forest Desert		Shrub/Steppe	Decido	uous Forest	Gra	assland	2	Other (describe)	
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