Office of Resource Conservation - State of Illinois

Project Number: T-100-D-1

Final Report

For the reporting period, 11/01/2015 to 06/30/2021

Project Title: Habitat Enhancement for Nightjars at Stephen A. Forbes State Park

Purpose and Objectives: Increase the overall open woodland communities at Stephen A. Forbes State Park through understory removal of undesirable maples and hickories on 1676 forested acres and implementing prescribed burning on an additional 2400 acres of woodland communities. These additional open woodland acres will provide critical additional habitat for nightjars and other Illinois species in greatest need of conservation that are dependent upon open woodland communities. The continuation and expansion of the existing MOON route at Stephen A. Forbes State Park will document if the habitat enhancement project maintains the existing nightjar population levels and if nightjar populations to expand into the enhanced habitats. If additional funding is obtained, the Illinois Natural History Survey may expand the research component and conduct additional surveys to document nightjar nest site selection, foraging habitats and use of various habitat types related to management practices.



Open Woodland Community at Stephen A. Forbes State Park, Marion County, Illinois

Approach:

To improve degraded open woodland communities at Stephen A. Forbes State Park in Marion County, Illinois habitat enhancement through understory removal of undesirable woody vegetation on 1676 acres and a prescribed fire program on 2400 acres will be implemented through this grant.

 A contractor will be hired to remove undesirable woody species (sugar maple and hickory) from the understory of degraded open woodland communities on 1676 acres of degraded open woodland communities (Figure 02) using Federal Funds. All woody vegetation will be removed by cut stump method; all stumps will be treated by a licensed herbicide applicator following IDNR guidelines for herbicide application.

This objective was completed. A contractor Stice Forestry was contractually hired by the State of Illinois to complete the removal of undesirable woody species on 1676 acres of degraded open woodland communities at S.A. Forbes State Park (Figure 01). Stice Forestry started the project on December 29, 2020 and completed the project on June 30, 2021. Stice Forestry was the low bidder on the project and was awarded a contract for \$142,230.00 - Contract #ORC16959 Agency Reference Number 20-422DNR-RESCO-B-16959 for invasive woody control at Stephen A. Forbes State Park. The contract funded 2586-man hours of invasive woody control at \$55.00 per hour.



Example of removal of undesirable woody species in open woodland communities at Stephen A. Forbes State Park

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2. Illinois Department of Natural Resources (IDNR) staff will conduct prescribed burning on 2400 acres of open woodland communities during the three-year duration of the project as match. All prescribed burning will follow an approved IDNR prescribed burn plan and will be conducted by trained staff and overseen by a certified prescribed burn manager. All prescribed burning will follow guidelines provided by the IDNR prescribed burn policy.

This objective was completed. During the duration of this grant (2015 to 2021), IDNR has conducted 29 prescribed burns totaling 4,692 acres of open woodland communities at Stephen A. Forbes State Park. This includes 17 acres in 2015, 617 acres in 2016, 1104 acres in 2017, 200 acres in 2018, 1099 acres in 2019, 655 acres in 2020 and 1000 acres in 2021. IDNR exceeded the targeted acreage in Objective #2 by 2292 acres.

Burn Summaries

2015 - IDNR conducted one prescribed burn during 2015 at Stephen A. Forbes State Park on open woodland communities on November 09, 2015 totaling 17 acres (Figure 02).

2016 - IDNR conducted nine prescribed burns on open woodland communities at Stephen A. Forbes State Park totaling 617 acres. A 347-acre burn was conducted on February 22, 2016 (Figure 03), and a 75-acre prescribed burn was conducted on February 23, 2016 (Figure 04). IDNR also conducted six growing season burns totaling 17.0 acres during 2016, these included two prescribed burns on August 24, 2016 totaling 4.0 acres (Figure 05), two burns totaling 7.66 acres on August 25, 2017 (Figure 06), one burn on September 13, 2017 totaling 5.0 acres (Figure 07), one burn on September 22, 2016 totaling 0.4 acres (Figure 08) and one burn totaling 178 acres on November 21, 2016 (Figure 09).

2017 - IDNR conducted six prescribed burns on open woodland communities at Stephen A Forbes State Park totaling 1104 acres for this reporting period. The following prescribed burns were conducted during this reporting period; a 67 acre burn was conducted on February 15, 2017 (Figure 10), a 550 acre burn was conducted on February 16, 2017 (Figure 11), a 5 acre burn was conducted on August 14, 2017 (Figure 12), a 1.25 acre burn was conducted on August 14, 2017 (Figure 13), a 59 acre burn was conducted on October 02, 2017 (Figure 14) and a 422 acre burn was conducted on December 11, 2017 (Figure 15).

2018 - IDNR conducted one prescribed burn on open woodland communities at Stephen A. Forbes State Park totaling 200 acres on March 19, 2018 (Figure 16).

2019 - IDNR conducted three prescribed burns at Stephen A. Forbes State Park on open woodland communities, totaling 1099.5 acres. A prescribed burn conducted on March 18, 2019 (Figure 17) totaling 1094 acres. In addition, two growing season burns totaling 5.5 acres were conducted on September 05, 2019: a 4.0 acre burn on the Marlow Pond Prairie (Figure 18) and a 1.5 acre burn at Stagecoach Prairie (Figure 19).

2020 - IDNR conducted four prescribed burns on open woodland communities at Stephen A. Forbes State Park, totaling 655 acres (Figure 20). Two prescribed burns were conducted on April 07, 2020 totaling 320 acres and 136 acres respectively. Two prescribed burns were also conducted on April 08, 2020 totaling 87 acres and 110 acres.

2021 –IDNR conducted five prescribed burns on open woodland communities at Stephen A. Forbes State Park, totaling 1000 acres (Figure 21). two prescribed burns totaling 425 acres were conducted on March 22, 2021, two prescribed burns totaling 268 acres were conducted on March 24, 2021 and one prescribed burn was conducted on March 29, 2021 totaling 307 acres.



3. The Illinois Department of Natural Resources will hire a contractor to remove undesirable woody species (sugar maple and hickory) from the understory of degraded open woodland communities on 100 acres of degraded open woodland communities using State Funds as match. All woody vegetation will be removed by cut stump method; all stumps will be treated by a licensed herbicide applicator following IDNR guidelines for herbicide application.

This objective was completed. The 2019 project met Objective #3 and additional projects in 2018, 2017 and 2016 exceeded the acreage requirement.

2019 - IDNR used state funds: Illinois Habitat Stamp Funds through the Wildlife Division to hire a contractor to remove undesirable woody species from 100 acres of open woodland communities

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at Stephen A. Forbes State Park (Figure 22). The contractor Forest Resources received \$10,000.00 for the project, the project was started in late summer and completed in early fall 2019 following IDNR guidelines.

2018 -IDNR applied for and received a National Wild Turkey Federation grant for \$4,500.00 to implement undesirable woody species on 50 acres of open woodland communities at Stephen A. Forbes State Park (Figure 23). The contractor - Bundy Tree Farm received the contract for the project, the project was started on January 22, 2018 and completed on February 19th, 2018.

2017 - IDNR applied for and received a National Wild Turkey Federation grant for \$15,000.00 to implement undesirable woody species on 167 acres of open woodland communities at Stephen A. Forbes State Park (Figure 24). The contractor - Bundy Tree Farm received the contract for the project, the project was started on January 01, 2017and completed on March 09, 2017.

2016 - IDNR applied for and received a National Wild Turkey Federation grant for \$18,000.00 to implement undesirable wood y species on 200 acres of open woodland communities at Stephen A. Forbes State Park (Figure 25). The contractor - Bundy Tree Farm received the contract for the project, the project was started on January 26, 2016 and completed on March 03, 2016.

4. To monitor both existing nightjar populations at Stephen A. Forbes State Park, the existing MOON routes will be continued to be conducted. Additional stops will be added to the existing MOON route to cover additional parts of Stephen A. Forbes State Park and surrounding areas. Data from the MOON routes will provide documentation of the response of nightjars to habitat enhancement at Stephen A. Forbes State Park.

This objective was completed. An established MOON Route was conducted twice annually from 2016 to 2021 at S.A. Forbes State Park when weather conditions allowed.

2016 - The existing MOON route at Stephen A Forbes State Park was conducted on May 23 2016; nightjars were documented on 6 of the 10 stops with 8 total nightjars heard calling at the stops; this included 7 Chuck-will-widows and one Whip-poor-will (Figure 26). An additional two chuck-will-widows were observed while driving the route but were not recorded at the stops. The second monitoring route was not conducted due to less than ideal weather conditions during the designated time frame.

2017 - The existing MOON route at Stephen A Forbes State Park was conducted on May 08, 2017; nightjars were documented on 7 of the 10 stops with 12 individuals recorded during 2017 (Figure 27). Seven of the ten stops with 12 nightjars recorded, represents the highest number of nightjars ever documented during the previous ten years that this route has been conducted. The MOON route data also indicates that chuck-will-widow numbers are increasing on this route while whip-poor-will numbers are decreasing.

2018 - The existing MOON route at Stephen A Forbes State Park was conducted on April 30, 2018 (Figure 28) and again on May 29, 2018 (Figure 29); combining both surveys, nightjars were

documented on three of the 10 stops with two three individuals recorded during 2018). Three of the ten stops with three nightjars recorded, represents the lowest number of nightjars ever documented during the previous ten years that this route has been conducted. Note: MOON Routes typically are conducted during a full moon with no precipitation, and low wind speed. During 2018, weather conditions prevented having ideal conditions during the monitoring routes time frames.

2019 – The existing MOON route at Stephen A. Forbes State Park was conducted on May 20, 2019 (Figure 30) and again on June 25, 2019 (Figure 31); combining both surveys, nightjars were documented on six of the 10 stops during 2019. Poor weather conditions during late April 2019, prevented having ideal conditions during much of the monitoring route survey period.

2020 – The existing MOON route at Stephen A. Forbes State Park was conducted on May 07,2020 (Figure 32) and again on June 07, 2020 (Figure 33); combining both surveys, seven individual nightjars were documented on six of the 10 stops during 2020. The second monitoring route was not conducted due to less than ideal weather conditions during the designated time frame.

2021 – The existing MOON route at Stephen A. Forbes State Park was conducted on 04.30.2021, only one nightjar was detected on the ten stops during 2021 (Figure 24). Poor weather conditions occurred during the first monitoring period. The second monitoring route was not conducted due to less than ideal weather conditions during the designated time frame.

Principle Investigator:

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Grant Award Number: F15AF01088 Grant Title/Description:	Modification Number: 02 Habitat Enhancement for Nightjars at Stephen A Forbes State Park, T-100-D-1
Grant Submission Date:	May 23, 2019
Recipient DUNS Number:	617554506
CFDA Number(s):	15.634
Authorizing Legislation (cfda.gov):	Bipartisan Budget Act of 2018, Pub. L. 115-123,
	Consolidated Appropriations Act FY 2017 P.L. 114-
	113, and prior approp. acts; Fish and Wildlife Act,
	16 U.S.C. §742 et seq.; and Fish and Wildlife
	Coordination Act, 16 U.S.C. §§661-666.
Effective Date:	June 30, 2019
Start Date:	November 1, 2015
End Date:	June 30, 2021

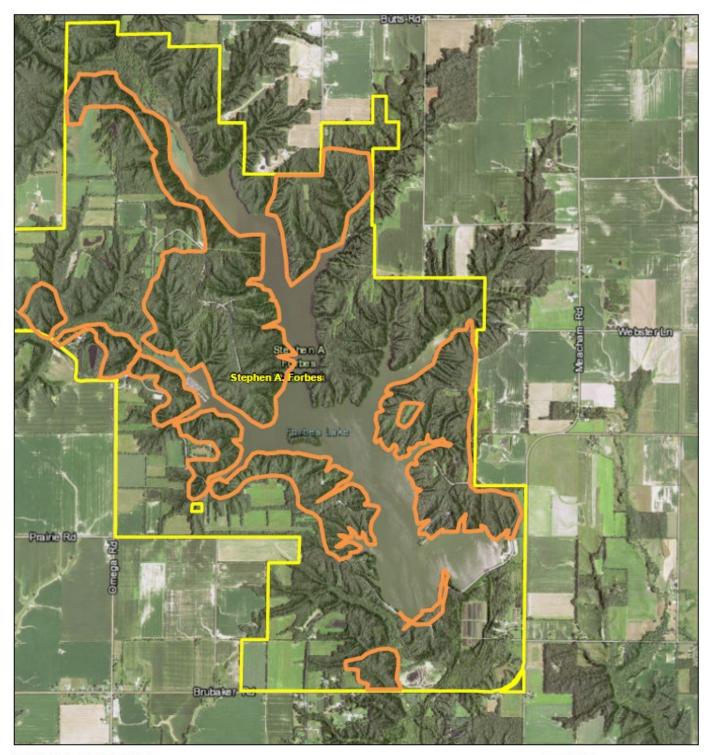
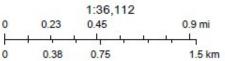


Figure 01. Open Woodland Management Areas Winter 2020-2021 1676 acres

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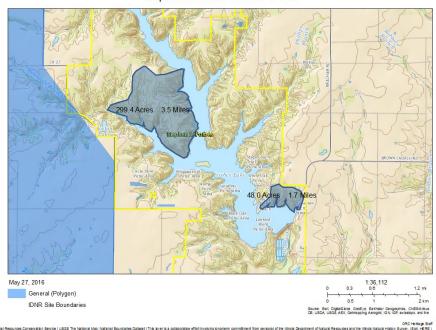


Prescribed burns Completed by IDNR Staff – Stephen A. Forbes State Park



Figure 02. 2015 - Stephen A. Forbes State Park 11.09.2015

Figure 03. 2016 – Stephen A. Forbes State Park 02.22.2016



Stephen a Forbes burn 02-22-16

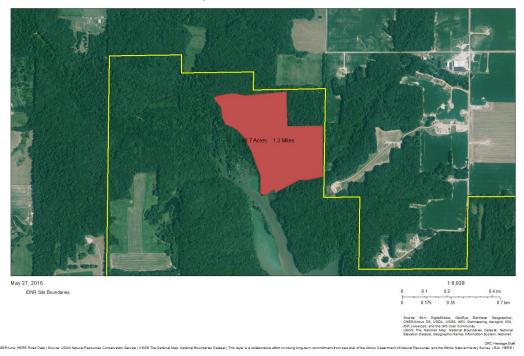
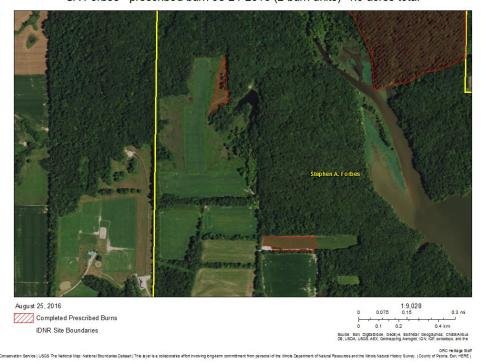


Figure 04. 2016 – Stephen A. Forbes State Park 02.23.2016

Stephen a Forbes burn 02-23-2016





SA Forbes - prescribed burn 08-24-2016 (2 burn units) 4.0 acres total

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Figure 06. 2016 – Stephen A. Forbes State Park 08.25.2016



SA Forbes State Park - Marion County - prescribed burns (2 burns) 08-25-2016 7.66 acres total

Figure 07. 2016 – Stephen A. Forbes State Park 09.13.2016



SA Forbes State Park - W76D Road Prairie - growing season burn 09-13-2016

0.1 0.2 Source: Earl, DigtalGlobe, GeoEye, Earthsta

November 9, 2016 owner_parcel_boundary

Figure 08. 2016 – Stephen A. Forbes State Park 09.13.2016



SA Forbes State Park - Stagecoach Prairie - growing season burn 09-22-2016

Figure 09. 2016 – Stephen A. Forbes State Park 11.21.2016

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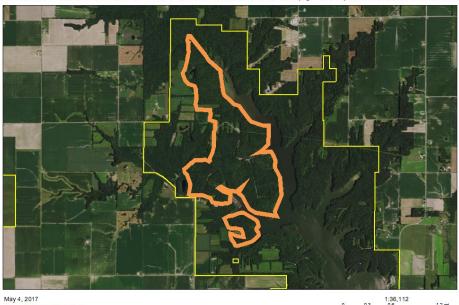
Stephen A Forbes State Park - prescribed burns 11-21-2016 east & se sides 178 acres

Figure 10. 2017 – Stephen A. Forbes State Park 02.15.2017



Prescribed burn - SA Forbes State Park 02-15-2017 - 67 acres Marion Co.

Figure 11. 2017 – Stephen A. Forbes State Park 02.16.2017



rescribed burn - SA Forbes State Park 02-16-2017 barren, campground point & circle drive 550 acre

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IDNR Site Boundaries

Figure 12. 2017 – Stephen A. Forbes State Park 08.14.2017



SA Forbes State Park - Barrens prairie-growing season burn 08-14-2017 5.0 acres

Figure 13. 2017 - Stephen A. Forbes State Park 08.14.2017



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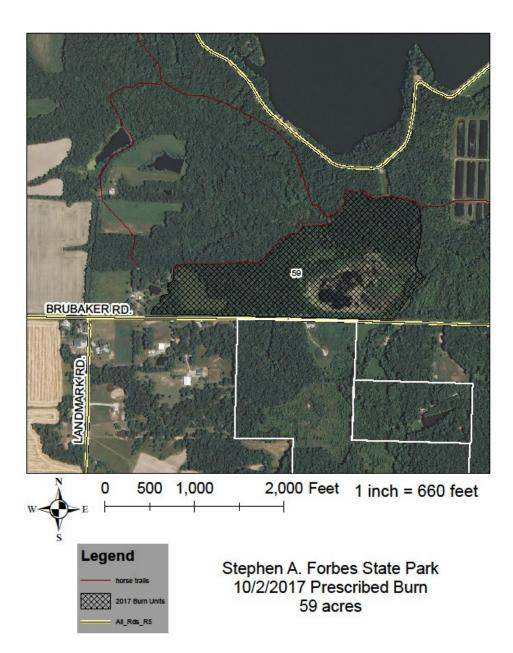
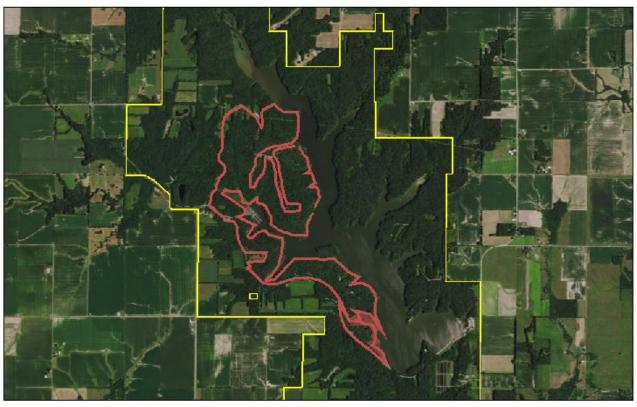


Figure 14. 2017 – Stephen A. Forbes State Park 10.02.2017

Figure 15. 2017 – Stephen A. Forbes State Park 12.11.2017



Prescribed burn - SA Forbes State Park 12-11-2017 422 acres

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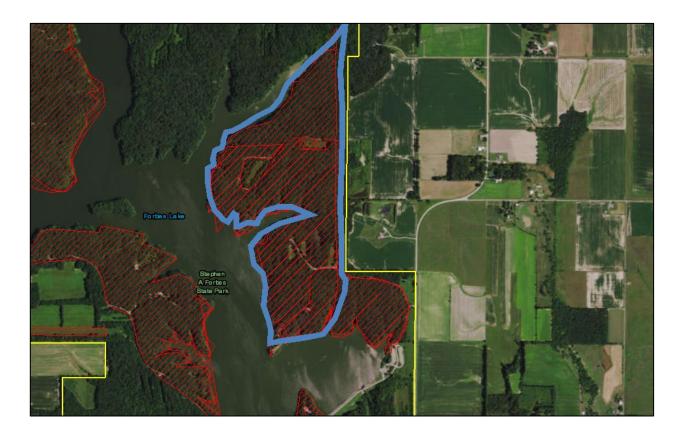
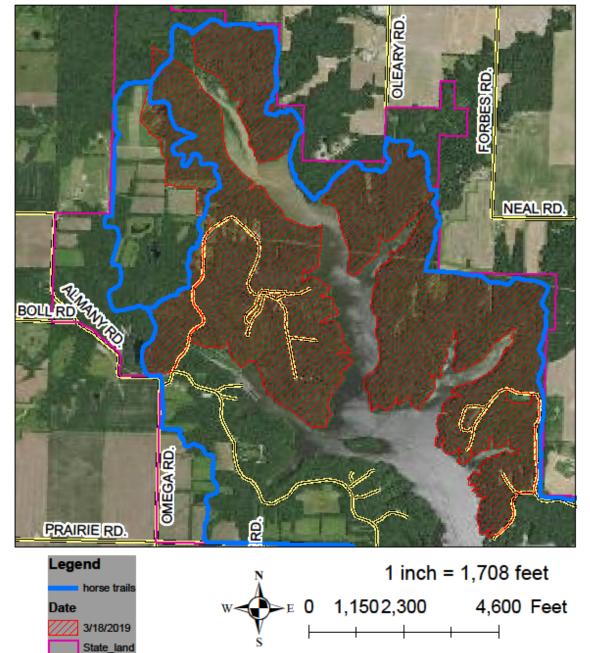


Figure 16. 2018 – Stephen A. Forbes State Park 03.19.2018

Stephen A. Forbes 3/18/2019 prescribed burn 1094 acres





SA Forbes SP - prescribed burn 09/05/2019 Marlow Pond Prairie

Figure 18. 2019 – Stephen A. Forbes State Park 09.05.2019

Figure 19. 2019 – Stephen A. Forbes State Park 09.05.2019

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SA Forbes SP - prescribed burn 09/05/2019 Stagecoach Prairie

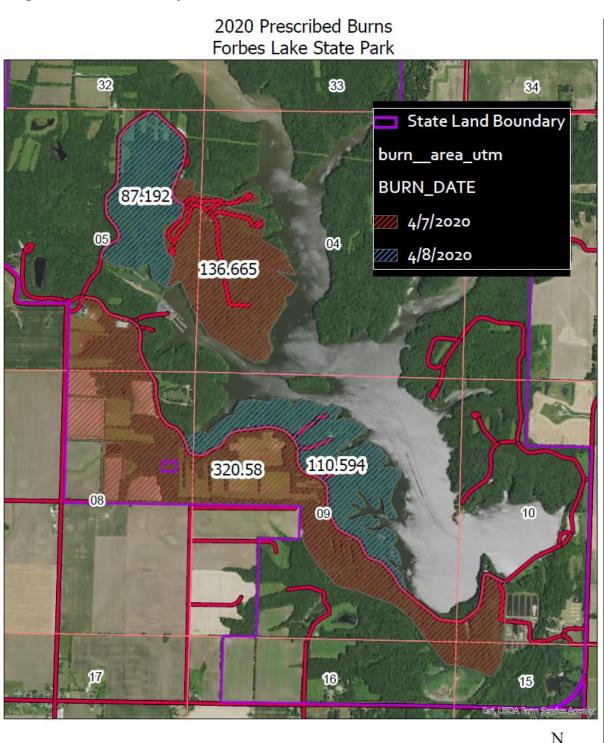


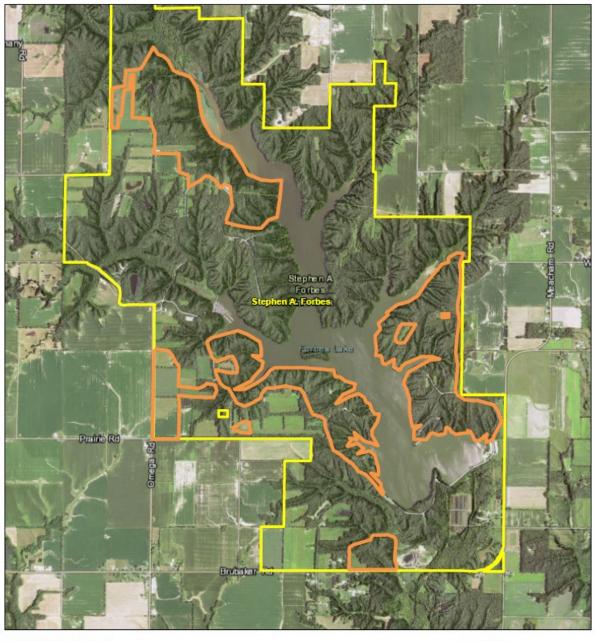
Figure 20. 2020 – Stephen A. Forbes State Park 03-07-2020 and 03-08-2020

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Figure 21. 2021 – Stephen A. Forbes State Park 03.22.2021, 03.24.2021



SA Forbes State Park prescribed burns Winter 2020/2021

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Objective 3 - Open Woodland Management Projects

Figure 22 – 2019 - SA Forbes State Park IDNR Habitat Stamp Fund Open Woodland Project (100 acres)

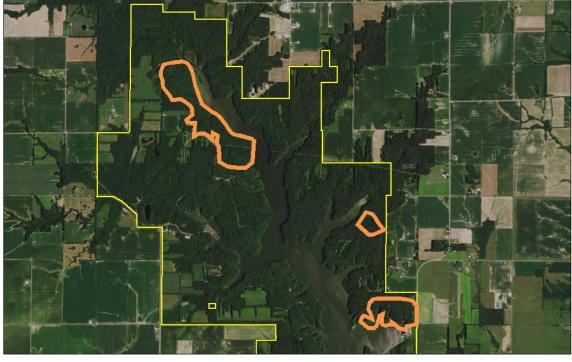


SA Forbes SP 2019 open woodland mgmt unit 100a

Figure 23. 2018 - Stephen A. Forbes State Park - NWTF funds - Open Woodland Project (50 acres)



Figure 24. 2017 - Stephen A. Forbes State Park - NWTF funds - Open Woodland Project (167 acres)



Timber Stand Improvement site - SA Forbes State Park Jan-March 2017

May 5, 2017 IDNR Site Boundaries 0 0.3 0.6 1.2 mi 0 0.3 0.6 1.2 mi 0 0.35 0.7 1.4 km

Source: Esrl, DigitalGlobe, GeoEye, Earthstar Geographics, CNESIA Irbus DS, USDA, USGS, AeroG RID, IGN, and the GIS User Community

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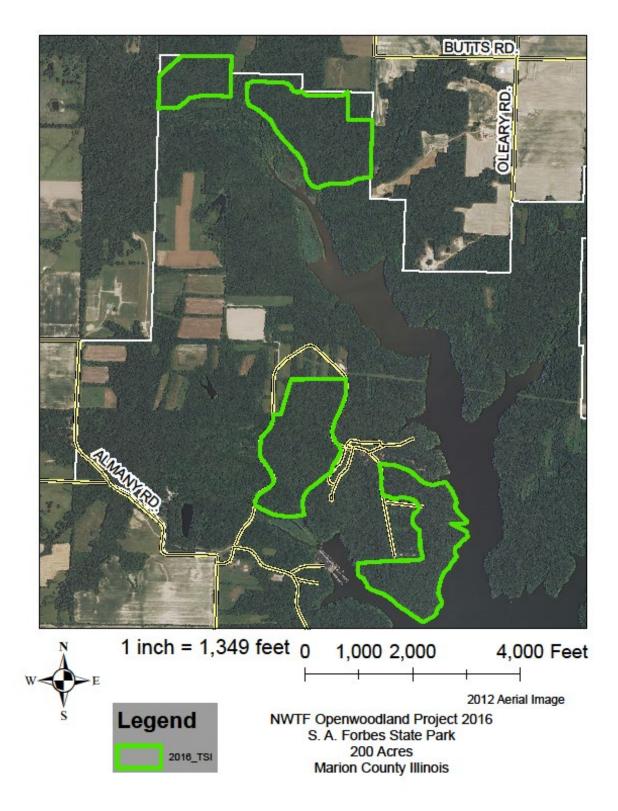


Figure 25. 2016 - Stephen A. Forbes State Park – NWTF Funds Open Woodland Project (200 acres)

Objective 4 – Monitoring MOON Route Survey Data Sheets

Figure 26 - Nightjar Survey Route 05.23.2016 - SA Forbes State Park

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Figure 27 - Nightjar Survey Route 05.08.2017 - SA Forbes State Park

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Figure 28 - Nightjar Survey Route 04.30.2018 - SA Forbes State Park

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Survey co (fill below	Survey conditions at each stop: Estimated Temp: 27											Sky Codes	Noise Codes				
Stop#:	1	2	3	4	5	6	7	8	9	10	0 = none	0 = clear	0 = none				
Wind	G	Ø	0	0	C	C)	0	0	0	-	1 = slight	1 = mostly clear	1 = slight				
Sky	6	0	0	O	\odot	01	63	(1)	67		2 = moderate	2 = mostly cloudy	2 = medium				
Noise	0	Ő	Õ	02	0		C^{*}		63		3 = strong	3 = overcast	3 = excessive				
Mile	0.0										Used Playback (Circle) EASO: Yes/No BAOW: Yes/No						

2018 Owl and Nightjar Survey Data Sheet

					Time	Blocks (I	Minutes	of Surve	y)			
Stop #	Time	Species	Min 1	Min 2	Min 3	Min 4	Min 5	Min 6	Min 7	Min 8	Min 9	Min 10
1	342										8	
2	351	CWW		\sim	V	V	~					
2	359	CWWI	V	~	V	V	1	C.				
	,	BDOW		V	V							
4	4:08											
5	4116											
6	4/24	7										
7	432										2	
8	438											
01	4110	BDOW			\sim	berger		·V				
10	4 53											
										-		
												4

Figure 29 - Nightjar Survey Route 05.29.2018 - SA Forbes State Park

							ONTIN	ULD	DAY DAY	CKOF	FUNM	······································	
Observer	Nam	e: (no y	Har	risar		Cour	nty: (MAR.	1000	Moon above	horizon: 🗹 Yes	No
Date: 5	-29	1-18	1	6.				Rout	e Nam	ie & N	umber: Fo	iles S.P	
Street Ad	dress	: 4 34	f w	.Br	yan	1					City, State, Z	ip Code: Olncy	624.50
Start time	e:	. 1	End ti	me:		Mo	Observer em	ail: leroy havris	m 3 man				
Survey conditions at each stop: (fill below) Estimated Temp: 70°											Wind Codes	Sky Codes	Noise Codes
Stop#:	1	2	3	4	5	6	7	8	9	10	0 = none	0 = clear	0 = none
Wind	Ô	0	\mathcal{O}	\odot	0	0	0	8	(17)	17	1 = slight	1 = mostly clear	1 = slight
Sky	2	2	2	2	2	2	2	2	2.	2	2 = moderate	2 = mostly cloudy	2 = medium
Noise	0	0	\circ	0	0	0	C	C	0	0	3 = strong	3 = overcast	3 = excessive
Mile	0.0 ©	an a	1					Used Playt	oack (Circle) No BAOW:	Yes/No			

2018 Owl and Nightjar Survey Data Sheet

					Time	Blocks (Minutes	of Surve	y)			
Stop #	Time	Species	Min 1	Min 2	Min 3	Min 4	Min 5	Min 6	Min 7	Min 8	Min 9	Min 10
1	3:39											
2	3 141	BDD										
3	3154	CONVI	~	1	V	1-	6	2-				
EJ.	4:02											
5	4:10											
6	4:17	BDOW						~				
]	4:24											
8	4:30	$\langle 0 i \theta 0 \rangle$				Conner and	4	Line			20 2	
9	4:37	(televis)	1	V								
10	4 / 44											

Figure 30 - Nightjar Survey Route 05.20.2019 - SA Forbes State Park

2019 Owl and Nightjar Survey Data Sheet

Observer	Name	e: _	·Ho	vv150			Coun	ty: M	ALL: O	les 1	Moon above	horizon: 📈 Yes	No
Date:	5-	20.	19					Rout	e Nam	ie & Ni	umber: For	tes S.P.	
Street Ad	dress	93	400	Bar	and	G.)r				City, State, Z	ip Code: Olney	In Gause
Start tim	e: 3:3	3AM	End ti	me: 4	52 AM	Mo	'no	Observer em	ail: leroy hard	image Ca E river			
Survey co (fill below	1		each s	stop:	Esti	mateo	i Temj	5° F	- 521	Wind Codes	Sky Codes	Noise Codes	
Stop#:	1	2	3	4	5	6	7	8	9	10	0 = none	0 = clear	0 = none
Wind	6									1	1 = slight	1 = mostly clear	1 = slight
Sky	0						1 .			1	2 = moderate	2 = mostly cloudy	2 = medium
Noise	0				1					0	3 = strong	3 = overcast	3 = excessive
Mile 0.0												oack (Circle) No BAOW:	Yes/No

					Time	e Blocks	Minutes	of Surv	ey)			
Stop #	Time	Species	Min 1	Min 2	Min 3	Min 4	Min 5	Min 6	Min 7	Min 8	Min 9	Min 10
1	3:33								* 			
2	3.42											
3	350	CWWI					X	×				
4	358	BDOW			X							
t		COWI					X	X				
5	407	BDOW		×				7				
6	4:15	CWWY	X	X	X	X	X		1			
7	4:23	CWWI	X	×	X	X	X	X		•		
3	4:30	CUWI	X	X	X	X	X	12				
9	438	BDOW	X	X	X	•	1 ×					
ŀ		CWWI	-		×	X						
10	4:46											
					5							
											-	

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Observe	r Nam	e: C	Leve	y Ha	44120	~	Cour	nty: \Lambda	ARKI	20	Moon above	horizon: Yes	No			
Date:	6-1	25-1	9)				Rout	e Nan	1e & N	umber: Fo	obes S.P.				
Street A	ddress	: 9	34	W.R.	tree	54		City, State, Z	ip Code: Oincy	IN 6245						
Street Address: 934 W. Bey and St Start time: 3:45 End time: Monitor in 2020: yes/no											Observer em					
Survey c (fill below		ons at	each s	stop:	Estin	nated	Tem	p: 63'	F	win	Wind Codes	Sky Codes	Noise Codes			
Stop#:	1	2	3	4	5	6	7	8	9	10	0 = none	0 = clear	0 = none			
Wind	1+							1			1 = slight	1 = mostly clear	1 = slight			
Sky	1										2 = moderate	2 = mostly cloudy	2 = medium			
Noise	0										3 = strong	3 = overcast	3 = excessive			
Mile	0.0										Used Playback (Circle) EASO: Yes/No BAOW: Yes/No					

					Time	e Blocks (Minutes	of Surve	ey)			
Stop #	Time	Species	Min 1	Min 2	Min 3	Min 4	Min 5	Min 6	Min 7	Min 8	Min 9	Min 10
1	345											
2	3 51											
3	358											
4	4:06											
5	414	BDOW		X	X	×	X					
6	422											
7	450											
8	431	CWWJ	X	X	X	Y	X	X				
9	443	(wwI	X	X	X	6						
		CWWJI	X	X								
10	450											
											12.00	
					v							

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Figure 32 - Nightjar Survey Route 05.01.2020 - SA Forbes State Park

2020 Owl and Nightjar Survey Data Sheet

Observer	Nam	e: [CVO Y	Han	nsom		County: MARION				Moon above horizon: Yes No					
Date:	5-	1-2	2.0					Rou	te Nan	ne & N	umber: Fo	irbes S.P.				
Street Ac	Idress	9	134	63. 1	Biyas	1					City, State, Z	Lip Code: Olmey	IN 62450			
Start time: 2:24 End time: 3:40 Mo							nitor iı	n 2021	: yes	/no	Observer em	ail: Jever havers	1: Jevery havenson 3 (Dy Mar).			
Survey conditions at each stop: (fill below)					Esti	imated Temp: 48					Wind Codes	Sky Codes	Noise Codes			
Stop#:	1	2	3	4	5	6	17	8	9	10	0 = none	0 clear	0 = none			
Wind	0	,									1 = slight	1 mostly clear	I = slight			
Sky	1								-		2 moderate	2 = mostly cloudy	2 medium			
Noise	0								1		3 - strong	3 = overcast	3 excessive			
Mile 0.0										Used Playback (Circle) EASO: Yes No BAOW: Yes No						

Stop #	Time	Enosio	Min 1	Min 2		Blocks (1.201	1
.5top #		Species	IVIII I	Min 2	Min 3	Min 4	Min 5	Min 6	Min 7	Min 8	Min 9	Min 10
1	2:24	BOOW					~	1				
2	2.133	BOOW	V	V	5							
		CUUNT			V	V	r					
3	241	CANAL	V	r	V	V	V	1 million				
		BOOW		V		V						
4	250	C Way?	V	V	V	V	V	V				
		BDOW		V			V					
5	258											
6	306	·										
-	313											
8	3:20	CWWI		V	V	V	V	V				
		Cajuit			V	V	V	F.				
9	327	CUNT				5	L					
,		BDOW		1								
01	334	yanen y										

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1 CINING Defrem 8+ a 12 12

	Observer	Name: LES		22010	A) Count	MARI	CK OF FOR	oon above	horizon:	XYes_	No	
1	Date:	06/07	2/20	20		Route Nam	e & Numb	er PO	2565	SP		
ł		dress: 9									11 62	00
- 1	Start time		ad time:		Monitor in			City, State, Zip Code: OLNEY, IL 624020 Observer email: (ERNY)ACLINGO 30 gMile				
h	Survey cos	ditions at e	ach stop:	Estima	ited Temp:			Wind Codes	Sky Codes		Noise Co	1000
H	fill below) Stop#:	1 2	3 4	5 6	5 7	8 9	10	10004	0 = clear 1 = most2	11000	0 = none 1 = slight	
-		2	-		-	-		 slight moderate 	2 = most		2 = medium	
1.000		2						strong	3 = overo		3 - excessiv	0
N	tile (1.0						sed Play ASO: Yes	back (Cir		Yesto	
-		1										
		201			Tim	e Blocks	(Minutes	of Surv	ey)			
Stop	# Time	Species	Min 1	Min 2	Min 3	Min 4	Min 5	Min 6	Min 7	Min 8	Min 9	Min 10
1	3:00										1	
2	3:14	-								100	1	
3	3:20	-							-			
4	3:29	-						1				
5	3:36	-									1	1
6	3:43	-			1			1		1		
7	3:50	CULT	×	×	×	¥	×	×				
8	1000	Tun	×	×	×	×	×			1	1	1
9	4:03	TOWNT	×	×	×	×	×	X				
0	4:10	-	~	Bres	1915-0			1000			1.	
				1/28	12.87		18.2	123	a Berne		100	1000
								1.2.5			-	-
								14.9	1 1 11			
				-		1				-	-	-
					1					-	-	-
-						-	-		-	-		-
					-	-		1			-	1000
-						1 1 1 2 3	10.00		1.000	1000		
				-		1000	-	-		-	_	_

Figure 33 - Nightjar Survey Route 06.07.2020 - SA Forbes State Park

							ONTIN	UED C	ON BA	CK OF	FORM					
Observer	Observer Name: Levoy Harrison Coun										Moon above horizon: Yes No					
Date:	4-3	0-2	21					Route Name & Number: Forbes - Marion 6								
Street Address: 934 W. Bryartst									City, State, Zip Code: Olney Il 62450							
Start time: 2 : 3 End time: 356 Monitor in									2022: yes/no Observer email: (eroy harrison 30 gr							
	Survey conditions at each stop: Estimated Temp										Wind Codes	Sky Codes	Noise Codes			
Stop#:	1	2	3	4	5	6	7	8	9	10	0 = none	0 = clear	0 = none			
Wind										(1 = slight	1 = mostly clear	(1 = slight			
Sky											2 = moderate	2 = mostly cloudy	2 = medium			
Noise	1										3 = strong	3 = overcast	3 = excessive			
Mile											Used Playt EASO: Yes	ack (Circle)	Yes			

2021 Owl and Nightjar Survey Data Sheet

			Time Blocks (Minutes of Survey)											
Stop #	Time	Species	Min 1	Min 2	Min 3	Min 4	Min 5	Min 6	Min 7	Min 8	Min 9	Min 10		
1	235	BDOW					X	X						
2	2114													
3	252													
11	301													
5	309									1		,		
6	317											,		
-1	\$25													
8		CUINT			×	×	- June -	1.						
9	341									1.10				
10	3418													
-														
2.2														
	,													
										-		-		

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