Final Report

Grant Agreement: # 08-020W

Census of Wintering Population of Two Illinois Endangered Species (Short-eared Owl and Northern Harrier) on Reclaimed Strip Mine Land.

Time frame of the grant:

The grant began on 15 October 2007 as drive throughs were made each evening to find the arrival date for the Short-eared owls and Northern Harriers. The grant ended with the last walk-through of the roosting area on 1 April 2008.

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Project Objective:

In the winter of 2006-07 there was a large increase in Mid-winter of the number of Short-eared owls being seen on an area of reclaimed strip-mined land during mid-winter. The area is located at Peabody River King Fish and Wildlife Area in St. Clair County Illinois. It was originally thought by a few individuals that the owls were there as a wintering population and were not being seen throughout the early part of the winter. Others, thought that the owls arrived during the last six weeks of the winter.

This project is a comprehensive census to determine if the owls come to this area all winter or is this area a gathering place in late winter for the push back North to the nesting grounds.

Methods and Procedures:

A census plan was established that would periodically have people walk through the roosting field to cause the owls to rise a few minutes prior to sundown when they would normally be getting up to begin hunting. In the previous winter season it was noted that an animal, or a hunter, passing through the area did not disturb the owls enough to cause them to leave the area.

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Several people were employed to walk in a line, perpendicular to the line of travel, across the roosting field at the prescribed time. Any owls rising would be visually observed by the censusing party. The Northern Harriers were observed and counted as they went down at their roosting site. A three week interval was chosen with the idea that it would not disturb the owls or the harriers. The census plan would begin about two weeks after the owls arrived at Peabody FWA. The first walk through was set for 6 November so that other dates at three week intervals would not fall on holidays.

Completed Project Discussion:

The first Northern Harrier arrived in the project area on 15 October 2007 and the Short-eared Owls arrived on 31 October 2007 each with only one bird. Both species were seen on other dates leading up to the first official walk through on 6 November when no Short-eared owls were observed. The next official walk through yielded three of each species on 27 November.

During December both species were seen in small numbers on seven different evenings. The only official walk through was on 18 December with two of each species. The largest number seen was on 30 December with four Short-eared owls and two Northern Harriers.

In January there were two walk through dates on 8 January and 30 January. Six other times Short-eared owls and Northern Harriers were observed by driving the roads. On the first walk through date no owls or harriers were observed. On the second date four Short-eared owls and one Northern Harrier were observed. All the owls have been seen flying and none have gotten up to allow a pin-pointing of their roosting area. Even though the roost field from the previous year was not being used as it had in the past winter we continued to walk through it each time.

February started with a six inch snowfall on 1 February. Owls were observed on four out of the five occasions that drive through observing was done with the highest number being four. Northern Harrier observations were sporadic being observed only three times and only two in number. On the only walk through, 19 February, four Short-eared owls and one Northern Harrier were observed.

In March were some very cold days, seventh to ninth, and no owls were observed on two different drives. On 11 March the walk through was done on the original field as in the past with no owls being seen. Then the group walked another area and had nine Short-eared owls rise as a group. This was by far the largest number of owls seen during the winter season. The next day a controlled burn was done in another area of Peabody FWA and the smoke drifted over the field where the owls had gotten up. Owls were seen on two of three times just driving through over the next seven days. It was decided to walk through on a weekly basis in order to better establish a departure date. On the next walk through, 19 March, after two days of rain amounting to seven and one half inches, five Short-eared owls were observed getting up at one time. Two Northern harriers were observed that night also. That was the last night owls and harriers were observed for the season.

During the grant period six other raptor species were observed using the Peabody FWA. They were, in descending order of number of days with sightings: Red-tailed Hawk (34), Barred Owl (17), Coopers Hawk (7), American Bald Eagle (6 tie), American Kestrel (6 tie), Great Horned Owl (1).

There were ten official walk through dates and forty-eight other dates that observations were made while sitting in a car or driving the roads of Peabody. Nine people participated in carrying out this grant.

Summary Discussion:

To some extent, Peabody FWA, is used every year by Short-eared Owls and Northern Harriers . For the past two years a larger number of Short-eared owls have roosted there in the latter part of the winter season. The method used in this grant, of walking through the roost field, was adequate to cause the owls to rise and be counted. The two difficulties encountered were the weather, of which we have no control, and knowing exactly what area the owls are roosting. (two thousand acres) Most of the walk throughs did not cause owls to rise out of their roost area. They were observed flying and their roosting place could not be ascertained. On two occasions owls were made to rise by walking in the roost field. Both times were larger numbers (nine and five) and both times were late in the season. (11 March and 19 March)

It is evident that small numbers of Short-eared owls and Northern Harriers are using this area all winter. It is possible that the owls and harriers are moving back and forth from other reclaimed areas. The World Shooting Complex is only fourteen miles away and Pyramid State Park is thirty miles away. Both of these areas have the same type of habitat. Seventy-four Short-eared owls were observed at Pyramid on their Christmas Count and thirty-one Northern Harriers were observed there in February. It may be that all three of these areas have a gathering of birds in the latter part of the winter season to begin their flight back North to their nesting grounds. This year the departure date is two weeks earlier than the previous year. It is not known whether the controlled burn close to their known roosting area or the seven and one half inch rain had any effect on their earlier departure.

MONTHLY SPECIES COUNT OF RAPTORS AT PEABODY FWA

DATE	SEOW	NOHA	RTHA	COHA	GHOW	BDOW	BAEA	MAKE
10/15		1						
10/24		1	1	1				
10/26		2						
10/29		2						
10/30	1	2						
11/1	2	1						
11/2			2					
11/3	1	2	2					
11/5		2						
11/6	0	3	3					
11/17	0	2	3					
11/20	1	3					1	
11/22	2							
11/23	2	2	2				1	1
11/24	2							
11/25	1							
11/27	3	3	1				1	
11/28	1	4	2					
11/30	1	2	2		1	1		
12/2	1							
12/6	1	3	2		First snowfall			
12/15					5" snowfall			
12/17		1				2		
12/18	2	2	2	1		2	1	
12/19	2	1	2			2		
12/24	2	1	2			2		
12/26						2		
12/27	1					2		
12/28						2		
12/29			1			2		
12/30	4	2	2			1	1	
12/31								

MONTHLY SPECIES COUNT OF RAPTORS AT PEABODY FWA

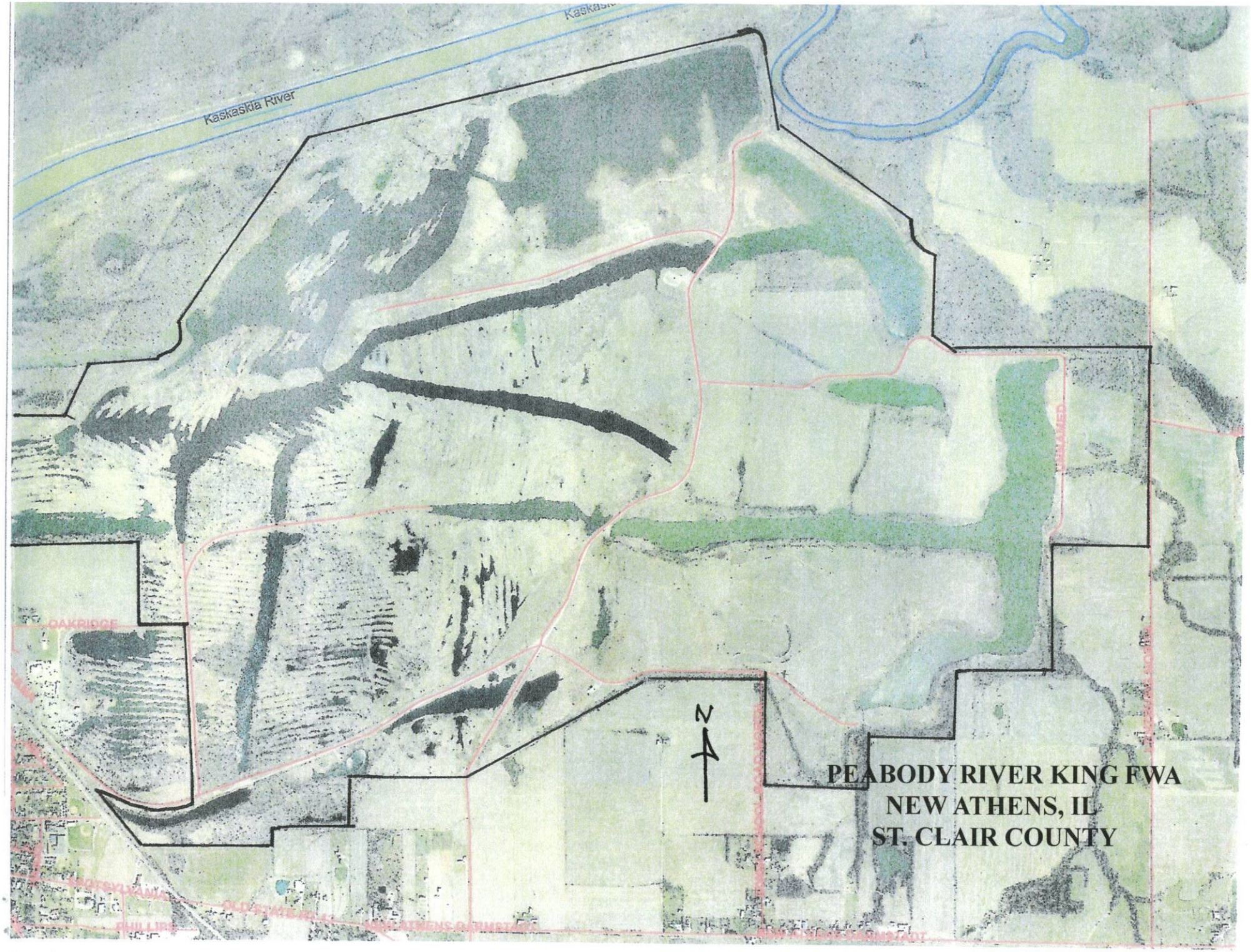
DATE	SEOW	NOHA	RTHA	COHA	GHOW	BDOW	BAEA	MAKE
1/2	2	1	3			1		
1/8	0	0	1			2		1
1/18		2	4			1	1	1
1/23	2	4				1		
1/24	2	1	1			1		
1/25	3		1			2		
1/26	4					2		
1/30	4	1	2			1		1
2/1					6" snowfall			
2/8	3	2	1					
2/9		2						
2/15	1		1					
2/17	2		2					
2/19	4	1	2					
2/25	4		2					
3/7		1	2	1	Very cold			
3/8					Colder			
3/9		2	2					
3/11	9	2	2					
3/12					Controlled burn			
3/13			2					
3/15	2	1						
3/16	1	3	1					
3/18					Rain and more rain			
3/19	5	2	2		Rain ending at noon 7+"			
3/23			2					
3/25			2					
3/28			2					
4/1			2					

RED ARE WALK THROUGH DAYS FOR CENSUS COUNT

DATES WORKED BY CENSUS CREW											
CENSUS WORKER	11/6	11/27	12/18	1/8	1/30	2/19	3/11	3/18	3/25	4/1	TOTAL
Shirley May New Athens	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	10
Mary Regan Belleville		Y	Y	Y	Y	Y	Y	Y			7
Elizabeth Brown New Athens			Y	Y	Y	Y					4
Barbara Bates Mascoutah				Y	Y	Y	Y				4
Dea Phillips Belleville	Y										1
Bernice Savit Trenton	Y										1
Carolyn Wright Columbia	Y										1
Tim Dever New Athens					Y						1

GRANT #08-020W WAGES PAID

CENSUS WORKER	HOURS WORKED	TOTAL AT $8 PER HOUR
Shirley May New Athens	10	$80.00
Mary Regan Belleville	7	$56.00
Elizabeth Brown New Athens	4	$32.00
Barbara Bates Mascoutah	4	$32.00
Dea Phillips Belleville	1	$8.00
Bernice Savit Trenton	1	$8.00
Carolyn Wright Columbia	1	$8.00
Tim Dever New Athens	1	$8.00
WORKER TOTAL		$232.00
DIRECTOR GRANTEE	25 HOURS AT $12/HR.	$300
GRANT TOTAL		$532


Kaskaskia River
OAKRIDGE
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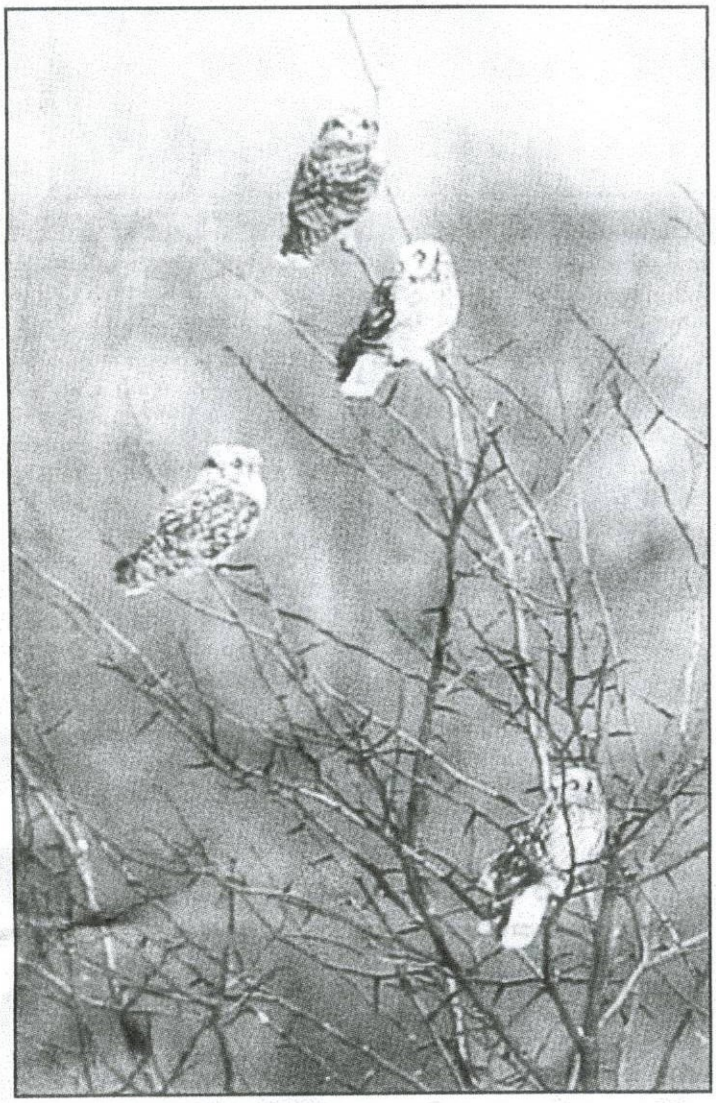
PEABODY RIVER KING FWA
NEW ATHENS, IL
ST. CLAIR COUNTY

Wildlife grant awarded to census short-eared owls at Peabody FWA



Endangered Short-eared Owls

The Illinois Department of Natural Resources recently awarded a 2008 Wildlife Preservation Grant to Thomas May of New Athens for censusing the Short-eared Owls and Northern Harriers that frequent Peabody River King Fish and Wildlife Area East of New Athens in Southern St. Clair County. Wildlife Preservation Grants are funded by Illinois taxpayers through contributions from their State income tax return. The Illinois Wildlife Preservation Fund is designed to preserve, protect, perpetuate and enhance non-game wildlife and native plant resources of this state through preservation of a satisfactory environment and an ecological balance.

Short-eared Owls and Northern Harriers are both on the Illinois Endangered Species list. They nest on the ground in the grasslands of Canada and the northern tier of the United States. They migrate to Peabody and other southern grassland areas like the Shooting Complex at Sparta and Pyramid State Park near Pinckneyville to spend their winters. They will congregate in an area that has an ample food supply. During the day the Short-eared Owls will gather together in tall grass and rest before hunting during the night. The Northern Harriers will hunt during the day and go down into the tall grass at dusk. These two species get along very well together and can co-exist in the same grassland.

Last winter Peabody was home to as many as thirty-eight owls and a dozen harriers during the winter season. The owls arrived from their northern breeding range on Oct. 17 and stayed until March 29. The harriers arrived earlier and left later.

The grant is allowing Mr. May to enlist a working group to help in making an accurate count of both species on this reclaimed strip mined land. The count will take place at three-week intervals throughout the winter by walking through the roost sites and causing the owls to rise when they would normally be starting their evening of hunting. This method has proven not to disturb the owls.

Female Northern Harrier in flight – characteristic white rump

Male Northern Harrier – Landing on post

Short-eared owl in corn stubble