Summary of Results of the 2004 and 2005 Avian Surveys Conducted Within the Lake Shelbyville Waterfowl Management Areas, Moultrie County, Illinois

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Introduction

Lake Shelbyville, located in Moultrie and Shelby Counties in east central Illinois, is a US Army Corps of Engineer's (USACOE) facility built as part of a general comprehensive plan for the development of the Kaskaskia River Basin for flood control, recreation, water supply, and fish and wildlife conservation (see Amundsen 2005). The Illinois Department of Natural Resources (IDNR) and the USACOE have planned a habitat improvement project in the Lake Shelbyville Waterfowl Management Areas (LSWMA) located at the northern end of this impoundment (see Amundsen 2005). A number of waterfowl, shorebirds and other avian species use the site during migration and some may breed on site.

Shorebirds and waterfowl have been unofficially tallied on the site since 1980. However, a quantitative census has never been conducted. In June 2003 I was awarded a grant to conduct a study prior to construction of the improvement project to determine the amount of habitat suitable for water birds and shorebird use as well as the species richness of shorebirds and other avian species present. The results of that survey were compiled and forwarded to IDNR on 17 November 2005 in a report titled **Results of the 2004 Avian Survey Conducted Within the Lake Shelbyville Waterfowl Management Areas, Moultrie County, Illinois** (Amundsen 2005) which provides the baseline data needed to facilitate evaluation of the projects success in providing increased habitat for shorebirds and waterfowl. A second year of surveys was conducted in 2005 and the combined results of both year surveys are presented in this report. Should future monitoring indicate shorebird and waterfowl use is not increasing, the United States Fish and Wildlife Service (USFWS) has recommended that the management plan be re-evaluated and changes implemented to help promote improved migratory and breeding bird use. .

Study Area and Methods

A description of the study areas and the methods used during the surveys is described in the above referenced report. The only change between years was the addition of one new census point (JCNS2) in 2005 (Figure 3). Latitude and longitude of all points are given in Table 1.

Most points were surveyed 8 times from April through October 2005. Each point was visited monthly during the spring (April and May) and three times during the breeding season (3 June visits at Dunn, Jonathon Creek and McGee and 2 June and 1 July visit at Fishhook). Fishhook, McGee and Dunn were visited three times during the fall migration periods (August, September and October), however, Jonathon Creek was not accessible in early October and therefore, only two fall visits were made to that site. During these visits we used a modified point-counts (Ralph et al. 1995) to determine community composition. We recorded all individuals seen or heard (including birds observed flying over) during six-minute count periods. Only birds recorded within 75 m of the census point and were not flybys were used to calculate relative frequency (percentage of points at which the species was observed), relative abundance (mean number of individuals of a species observed within each impoundment and sub-impoundment) and species density expressed as number of individuals per hectare. Initiation time and duration of individual counts varied depending on weather conditions and season.

Results

A combined total of one hundred twenty five species representing 38 families were recorded at LSFWA during all visits to this site during the two years that the surveys were conducted (Table 2). One hundred nine species were recorded in 2004. Thirteen of the 23 species observed only in 2004 where wetland dependent species. Ninety-six species were counted in 2005 of which 12, including one wetland dependent species, had not previously been observed. Two Illinois endangered species, one Little Blue Heron and one Northern Harrier was observed during the 2004 spring visits and one Illinois and Federally threatened species, a Bald Eagle, was observed in 2005.

Tables 3 through 14 compare the species and total number of individuals recorded within each of the four impoundments (Fishhook, Jonathon Creek, Dunn and McGee) for the three seasons (spring, breeding and fall) that censuses were conducted within the Lake Shelbyville waterfowl Management Areas in 2004 and 2005. These tables also show the frequency (the number of points a species was observed divided by the total number of points) and the relative abundance (the percentage of the total number of individuals of all species) of each species for each impoundment for the two years of the study.

Tables 15 through 31 compares the 2004 and 2005 combined total number of species, the total number of individuals of each species and the density (expressed as individuals per hectare) of each species observed at all census points located within the 17 sub-impoundments that sub-divide the four primary water control impoundments for the three seasons surveys were conducted.

Discussion

Water levels within the Waterfowl Management Areas (WMA's) can vary from year to year and water level manipulation within the Lake Shelbyville Fish and Wildlife Area are, in part, at the mercy of the USACOE. Since Lake Shelbyville is primarily a flood control lake, the USACOE holds water during heavy periods of rainfall to protect downstream interests. Therefore, the IDNR is unable to drain WMA's during periods of high water. Fortunately high water levels were not an issue in 2004 and 2005 and the IDNR was able to manage water levels as they desired. As a result, Lake Shelbyville Waterfowl Management Areas were managed in a traditional manner, being typically drained rapidly during the early spring, planted in row crop grains and then again flooded prior to the fall influx of migrating waterfowl. The similarity in water level management between years provided consistency in habitat types during the bird censuses. Therefore, the data gathered in the past two years provides an excellent baseline of the bird species present under this rapid drawdown scenario.

During the preliminary visits to the sight in early spring 2004, prior to draw down, thousands of ducks and geese were observed within the still flooded impoundments. However, in both 2004 and 2005, by the time surveys were started in late April most of the water had been drained and little open water habitat remained. The only water to reenter the WMA's after the rapid draw down was from rainfall. Unfortunately, rainfall into the WMA's was not significant enough to produce even temporary suitable shorebird habitat in 2004 or 2005. Parts of the Fishhook and Mc Gee WMA's were flooded in September 2005 prior to the start of waterfowl hunting season.

The highest counts of wetland bird species in 2004(i.e. ducks, geese and shorebirds) were recorded during the spring survey period when areas of standing shallow water existed in some of the impoundments (Table 3). In contrast, in 2005 most wetland bird species were recorded in the fall after water was pumped back into some impoundments (Fishhook and McGee, Table 5), with the vast majority being

concentrated in Fishhook Refuge (Table 20). As in 2004, the largest count and number of species of shorebirds were recorded during the spring survey period (Tables 3, 6, 9 and 12). Significantly more species could have been attracted to these areas had there been more suitable habitat present during the spring migration period of April and May.

As during the 2004 breeding and fall seasons, little standing water existed in any of the LSWMA impoundments in 2005. Again, the summer breeding bird survey was similar to completing a census in the middle of an agricultural field surrounded by small successional fields and woodlots with the result that most of the birds recorded were not wetland dependent species. The species with the highest relative abundances in the various WMA's include Red-winged Blackbird, Dickcissel, Song Sparrow and Indigo Bunting, all species primarily found in dry habitats (Tables 4, 7, 10 and13).

Only two shorebird species, the Killdeer and the Wilson's Snipe, were observed during the 2005 fall migration period (August -October) in any of the four waterfowl areas (Tables5, 8, 11 and14). During September, water was pumped back into some of the Fishhook and McGee impoundments resulting in extensive areas of open water. These newly created wetlands provided foraging habitat for a number of waterfowl species but were flooded too late to attract earlier migrating shorebirds.

The proposed 1135 Ecosystem Project has the potential to benefit an expanded number of wetland bird species. The project plan calls for a slow spring draw down in which water less than 4" deep would remain available through August in some units. This will certainly provide more and longer lasting habitat for migrating shorebirds. More could have been done in 2004 and 2005 to improve shorebird habitat as well. A slower spring draw down (~1"/week) would allow invertebrates to be continuously available to spring migrating shorebirds within the WMA's without displacing waterfowl. Similarly, since there are four waterfowl units, gradual draw downs could be initiated within individual WMA's at staggered time intervals to provide a variety of habitats attractive to different shorebird guilds migrating at the same time.

While the proposed 1135 Ecosystem Project has the potential to benefit an expanded number of wetland bird species, it remains on hold due to a lack of Federal funds. However, the District Land Manager (Site Superintendent) and the District Wildlife Biologists have agreed in principle to manage two locations, South Dunn and Jonathon Creek WMA's, as moist soil units in 2006 rather than the traditional method comprised of a

rapid spring drawdown, planting row crop grains and then again flooding prior to the fall influx of migrating waterfowl. The IDNR has provided funding for a survey of shorebirds and other water birds in these locations during the 2006 spring migration and breeding season. The results of the 2006 survey will subsequently be compared with the 2004-05 baseline data to determine if changes in species composition, richness and abundance have occurred as a consequence of changes in management practices.

Literature Cited

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Table 1. Latitude and longitude of Census Points Used During the Avian Surveys Conducted at the Lake Shelbyville Waterfowl Management Areas, Moultrie County, Illinois.

Census Point	Location
FRH1	39.55831440,-88.57780678
FRH2	39.56292143,-88.56953401
FRH3	39.55911940,-88.56844654
FRH4	39.55527655,-88.57524477
FREF1	39.57089497,-88.57084620
FREF2	39.56823707,-88.57067311
FLOST1	39.56755998,-88.56572251
FLOST2	39.56645432,-88.56023898
FTP1	39.56270652,-88.56725405
FTP2	39.56495823,-88.56595653
FW1	39.56101103,-88.56474577
FP1	39.55802933,-88.56464870
FCB1	39.55590268,-88.56703268
FG1	39.55617626,-88.57029593
FM1	39.55428991,-88.57020046

Table1. Continued on following page.

Table 1. (Continued). **Location of Census Points.**

Census Point	Location
DB1	39.62349300,-88.70627906
DB2	39.62486772,-88.70333157
DB3	39.62726695,-88.70505086
DB4	39.62907468,-88.71008914
DB5	39.62668458,-88.70902875
DREF1	39.62127515,-88.71104459
DREF2	39.61762299,-88.70757256
JCCT1	39.57788237,-88.55676401
JCCT2	39.57663246,-88.55750439
JCGWT1	39.58039477,-88.55639580
JCBWT1	39.57539915,-88.55497071
JCNS1	39.57498458,-88.56058239
JCNS 2	
MWD1	39.61450257,-88.72019168
MBD1	39.61676946,-88.71865343
MBD2	39.61566204,-88.71474344
MBD3	

Table 2. List of Species observed during the 2004 and 2005 Avian Surveys Conducted at the IDNR Lake Shelbyville Fish and Wildlife Areas, Moultrie County, Illinois. †= Illinois endangered, ††=Illinois threatened, #= Illinois watch list, *= Non-native species. Taxonomic order, specific names and common names from American Ornithologists' Union 2000, Banks et al,. 2002, 2003 and 2004. Illinois status from Illinois Endangered Species Board 2004.

Family	Species	Common Name	Fishhook		McGee		Dunn		Jonathon Creek	
			2004	2005	2004	2005	2004	2005	2004	2005
Anatidae	Chen caerulescens	Snow Goose	X							
	Branta canadensis	Canada Goose	X	X	X	X	X	X	X	
	Aix sponsa	Wood Duck	X	X	X				X	X
	Anas strepera	Gadwall	X	X						
	Anas americana	American Widgeon	X	X					X	
	Anas platyrhynchos	Mallard	X	X	X	X	X	X	X	
	Anas discors	Blue-winged Teal	X	X	X		X	X		X
	Anas clypeata	Northern Shoveler	X	X			X			
	Anas acuta	Northern Pintail	X	X						
	Anas crecca	Green-winged Teal	X	X						
	Aythya collaris	Ring-necked Duck		X						
	Oxyura jamaicensis	Rudy Duck	X	X						
Phasianidae	Phasianus colchicus	Ring-necked Pheasant *	X	X	X	X	X	X	X	X
	Meleagris gallopavo	Wild Turkey		X		X	X			
	Colinus virginianus	Northern Bobwhite					X	X		
Podicipedidae	Podilymbus podiceps	Pied-billed Grebe	X	X						
Pelecnaidae	Pelecanus erthrorhynchos	American White Pelican	X							
Phalacrocoracidae	Phalacrocorax auritus	Double-crested Cormorant					X		X	
Ardeidae	Ardea herodias	Great Blue Heron	X	X	X	X	X	X	X	X
	Ardea alba	Great Egret	X				X			
	Egretta caerulea	Little Blue Heron ††					X			
	Butorides virescens	Green Heron	X		X			X		
Cathartidae	Cathartes aura	Turkey Vulture	X	X	X	X	X	X	X	X
	Haliaeetus leucocephalus	Bald Eagle ††		X						
Accipitridae	Circus cyaneus	Northern Harrier †	X							
	Accipiter cooperii	Cooper's Hawk		X				X	X	X
	Buteo lineatus	Red-shouldered Hawk		X		X	X	X		X
	Buteo jamaicensis	Red-tailed Hawk	X	X	X	X	X	X	X	X
	Falco sparverius	American Kestrel	X							

Table 2 continued on following page.

Table 2. List of Species (continued).

Family	Species	Common Name	Fishhook		McGee		Dunn		Jonathon Creek	
			2004	2005	2004	2005	2004	2005	2004	2005
Rallidae	Rallus limicola	Virginia Rail#	X							
	Porzana carolina	Sora #		X						
	Fulica americana	American Coot	X	X						
Charadriidae	Charadrius semipalmatus	Semipalmated Plover	X				X			
	Charadrius vociferus	Killdeer	X	X	X	X	X	X	X	X
Scolopacidae	Tringa melanoleuca	Greater Yellowlegs		X			X	X		X
	Tringa flavipes	Lesser Yellowlegs		X			X	X	X	X
	Tringa solitaria	Solitary Sandpiper	X	X	X		X	X	X	
	Actitis macularius	Spotted Sandpiper	X				X			
	Calidris pusilla	Semi-palmated Sandpiper	X				X			
	Calidris minutilla	Least Sandpiper	X				X		X	
	Calidris melanotos	Pectoral Sandpiper	X	X			X	X	X	X
	Calidris alpina	Dunlin	X							
	Limnodromus griseus	Short-billed Dowitcher	X							
	Gallinago delicata	Wilson's Snipe	X	X		X	X	X		
Laridae	Larus philadelphia	Bonaparte's Gull					X			
	Larus argentatus	Herring Gull	X	X						
Columbidae	Zenaida macroura	Mourning Dove	X	X	X	X	X	X	X	X
Cuculidae	Coccyzus americanus	Yellow-billed Cuckoo	X	X	X		X	X	X	X
Apodidae	Chaetura pelagica	Chimney Swift	X	X			X			
Trochilidae	Archicholus colubris	Ruby-throated Hummingbird						X		
Alcedinidae	Ceryle alcyon	Belted Kingfisher	X	X	X	X				
Picidae	Melanerpes erthrocephalus	Red-headed Woodpecker	X		X		X		X	
	Melanerpes carolinus	Red-bellied Woodpecker	X	X	X	X			X	X
	Picoides pubescens	Downy Woodpecker	X	X	X		X			X
	Colaptes auratus	Northern Flicker	X	X	X			X		X
Tyrannidae	Contopus virens	Eastern Wood-pewee	X		X		X			X
	Empidonax alnorum	Alder Flycatcher	X							
	Empidonax traillii	Willow Flycatcher	X	X	X		X	X		X
	Empidonax minimus	Least Flycatcher			X			X		
	Sayornis pheobe	Eastern Pheobe	X							X
	Myiarchus crinitus	Great-Crested Flycatcher	X	X		X	X			X
	Tyrannus tyrannus	Eastern Kingbird	X	X	X	X	X	X	X	X

Table 2 continued on following page.

Table 2. List of Species (continued).

Family	Species	Common Name	Fishhook		McGee		Dunn		Jonathon Creek	
			2004	2005	2004	2005	2004	2005	2004	2005
Vireonidae	Vireo griseus	White-eyed Vireo	X							X
	Vireo bellii	Bell's Vireo #				X				
	Vireo gilvus	Warbling Vireo	X	X	X	X	X			X
	Vireo olivaceus	Red-eyed Vireo			X					
Corvidae	Cyanocita cristata	Blue Jay	X	X	X	X	X	X	X	X
	Corvus brachyrhynchos	American Crow	X	X	X	X	X	X	X	X
Hirundinidae	Progne subis	Purple Martin	X	X	X					
	Tachycineta bicolor	Tree Swallow	X	X	X	X	X	X	X	X
	Stelgidopteryx serripennis	Northern Rough-winged Swallow	X	X	X		X	X	X	X
	Riparia riparea	Bank Swallow	X							
	Petrochelidon pyrrhonota	Cliff Swallow	X	X	X			X		X
	Hirundo rustica	Barn Swallow	X	X	X	X	X	X	X	X
Paridae	Poecile carolinensis/atricapillus	Chickadee	X	X	X	X			X	X
	Baeolophus bicolor	Tufted Titmouse	X	X	X		X			X
Sittidae	Sitta carolinensis	White-breasted Nuthatch		X						X
Troglodytidae	Thryothorus ludovicianus	Carolina wren	X	X	X	X	X	X	X	X
	Troglodytes aedon	House Wren	X	X	X	X	X	X	X	X
	Cistothorus platensis	Sedge Wren	X	X		X		X	X	X
Regulidae	Regulus satrapa	Golden-crowned Kinglet								X
	Regulus calendula	Ruby-crowned Kinglet			X					
Sylviidae	Polioptila caerulea	Blue-gray Gnatcatcher	X		X			X		X
Turdidae	Sialia sialis	Eastern Bluebird	X	X	X	X		X	X	X
	Hylocichla mustelina	Wood Thrush	X				X			
	Turdus migratorius	American Robin	X	X	X	X	X	X	X	X
Mimidae	Dumetella carolinensis	Gray Catbird	X	X	X		X	X	X	X
	Mimus polyglottos	Brown Thrasher	X	X	X	X	X	X	X	X
Sturnidae	Sturnus vulgaris	European starling *	X	X	X		X	X	X	X
Motacillidae	Anthus rubescens	American Pipit	X		X	X	X	X	X	
Bombycillidae	Bombycilla cedrorum	Cedar Waxwing		X						

Table 2 continued on following page.

Table 2. List of Species (continued).

Family	Species	Common Name	Fishhook		McGee		Dunn		Jonathon Creek	
			2004	2005	2004	2005	2004	2005	2004	2005
Parulidae	Vermivora chrysoptera	Golden-winged Warbler			X					
	Vermivora ruficapilla	Nashville Warbler	X		X					
	Parula americana	Parula Warbler		X						
	Dendroica petechia	Yellow Warbler					X	X	X	X
	Dendoica pensylvanica	Chestnut-sided warbler			X					
	Dendroica tigrina	Cape May warbler			X					
	Dendroica coronata	Yellow-rumped Warbler		X	X					X
	Dendroica palmarum	Palm Warbler		X				X		
	Dendroica castanea	Bay-breasted Warbler								X
	Geothlypis trichas	Common Yellowthroat	X	X	X	X	X	X	X	X
	Icteria virens	Yellow-breasted Chat	X		X			X	X	X
Thraupidae	Piranga olivacea	Scarlet Tanager							X	
Emberizidae	Pipilo erythrophthalmus	Eastern Towhee			X	X	X		X	X
	Spizella arborea	American Tree Sparrow	X							
	Spizella passerina	Chipping Sparrow	X		X					
	Spizella pusilla	Field Sparrow	X	X	X	X		X	X	X
	Pooecetes gramineus	Vesper Sparrow		X						
	Passerculus sandwichensis	Savannah Sparrow	X	X			X	X	X	
	Ammodramus savannarum	Grasshopper Sparrow	X	X		X		X		X
	Melospiza melodia	Song Sparrow	X	X	X	X	X	X	X	X
	Melospiza georgiana	Swamp Sparrow	X		X			X		X
	Zonotrichia albicollus	White-throated Sparrow	X	X	X					X
	Zonotrichia leucophrys	White-crowned Sparrow	X	X	X		X	X		X
	Junco hyemalis	Dark-eyed Junco		X						X
Cardinalidae	Cardinalis cardinalis	Northern Cardinal	X	X	X	X	X	X	X	X
	Pheucticus ludovicianus	Rose-breasted Grosbeak			X	X				X
	Passerina amoena	Indigo Bunting	X	X	X	X	X	X	X	X
	Spiza americana	Dicksissel	X	X	X	X	X	X	X	X

Table 2 concluded on following page.

Table 2. List of Species (concluded).

Family	Species	Common Name	Fishhook		McGee		Dunn		Jonathon Creek	
			2004	2005	2004	2005	2004	2005	2004	2005
Icteridae	Agelaius phoeniceus	Red-winged Blackbird	X	X	X	X	X	X	X	X
	Sternella magna	Eastern Meadowlark	X	X		X			X	
	Quiscalus quiscula	Common Grackle	X	X	X	X	X	X	X	
	Molothrus ater	Brown-headed Cowbird	X	X	X	X	X	X	X	X
	Icterus galbula	Baltimore Oriole	X	X	X			X		X
Fringillidae	Carduelis tristis	American Goldfinch	X	X	X	X	X	X	X	X
Total Species	125		92	80	66	43	62	58	51	64
Total Families	38		32	31	28	24	28	25	26	27

Table 3. List of Species and Total Numbers of Individuals and Species Recorded During the 2004 and 2005 Spring Season Avian Census Conducted within the Fishhook Management Area, Lake Shelbyville, Moultrie County, Illinois.

Fishhook Species	Total		Freq.		Rel. Ab.	
	2004	2005	2004	2005	2004	2005
Canada Goose	6	0	0.07	0.00	2.80	0.00
Wood Duck	0	1	0.00	0.06	0.00	0.60
Gadwall	8	0	0.07	0.00	3.74	0.00
Mallard	8	0	0.13	0.00	3.74	0.00
Blue-winged Teal	12	8	0.20	0.19	5.61	4.76
Northern Shoveler	1	0	0.07	0.00	0.47	0.00
Green-winged Teal	22	0	0.07	0.00	10.28	0.00
Great Blue Heron	1	1	0.07	0.06	0.47	0.60
Turkey Vulture	0	35	0.00	0.19	0.00	20.83
Virginia Rail	1	0	0.07	0.00	0.47	0.00
Semipalmated Plover	5	0	0.13	0.00	2.34	0.00
Killdeer	6	2	0.33	0.06	2.80	1.19
Greater Yellowlegs	0	1	0.00	0.06	0.00	0.60
Lesser Yellowlegs	0	10	0.00	0.06	0.00	5.95
Solitary Sandpiper	2	0	0.07	0.00	0.93	0.00
Least Sandpiper	10	0	0.07	0.00	4.67	0.00
Pectoral Sandpiper	0	3	0.00	0.06	0.00	1.79
Short-billed Dowitcher	2	0	0.07	0.00	0.93	0.00
Wilson's Snipe	1	2	0.07	0.13	0.47	1.19
Mourning Dove	1	0	0.07	0.00	0.47	0.00
Downy Woodpecker	0	1	0.00	0.06	0.00	0.60
Alder Flycatcher	1	0	0.07	0.00	0.47	0.00
Willow Flycatcher	1	0	0.07	0.00	0.47	0.00
Eastern Kingbird	0	4	0.00	0.13	0.00	2.38
Warbling Vireo	0	1	0.00	0.06	0.00	0.60
American Crow	0	3	0.00	0.06	0.00	1.79
Tree Swallow	3	0	0.07	0.00	1.40	0.00
Carolina Wren	1	0	0.07	0.00	0.47	0.00
House Wren	1	1	0.07	0.06	0.47	0.60
Blue-gray Gnatcatcher	1	0	0.07	0.00	0.47	0.00
American Robin	1	0	0.07	0.00	0.47	0.00
European Starling	4	0	0.07	0.00	1.87	0.00
American Pipit	37	0	0.20	0.00	17.29	0.00
Yellow-rumped Warbler	0	2	0.00	0.13	0.00	1.19
Common Yellowthroat	5	3	0.20	0.19	2.34	1.79

Table 3 concluded on following page.

Table 3. List of Species and Total Numbers of Individuals and Species Recorded (concluded).

Fishhook Species	Total 2004	Total 2005	Freq. 2004	Freq. 2005	Rel. Ab. 2004	Rel. Ab. 2005
Vesper Sparrow	0	1	0.00	0.06	0.00	0.60
Savannah Sparrow	7	4	0.13	0.13	3.27	2.38
Grasshopper Sparrow	0	1	0.00	0.06	0.00	0.60
Song Sparrow	19	21	0.67	0.63	8.88	12.50
White-crowned Sparrow	0	2	0.00	0.06	0.00	1.19
Northern Cardinal	2	1	0.13	0.06	0.93	0.60
Indigo Bunting	4	0	0.13	0.00	1.87	0.00
Dicksissel	2	0	0.13	0.00	0.93	0.00
Red-winged Blackbird	35	50	0.87	0.69	16.36	29.76
Eastern Meadowlark	0	3	0.00	0.13	0.00	1.79
Brown-headed Cowbird	3	5	0.13	0.13	1.40	2.98
Baltimore Oriole	1	0	0.07	0.00	0.47	0.00
American Goldfinch	0	2	0.00	0.19	0.00	1.19
Total Individuals	214	64				
Total Species Per Year	33	26				
Total Species all years	48					

Table 4. List of Species and Total Numbers of Individuals and Species Recorded During the 2004 and 2005 Breeding Season Avian Census Conducted within the Fishhook Management Area, Lake Shelbyville, Moultrie County, Illinois.

Fishhook	Total		Freq.		Rel. Ab.	
Species	2004	2005	2004	2005	2004	2005
Mallard	24	0	0.07	0.00	10.67	0.00
Great Blue Heron	3	0	0.20	0.00	1.33	0.00
Green Heron	2	0	0.07	0.00	0.89	0.00
Turkey Vulture	0	4	0.00	0.07	0.00	2.21
Red-tailed Hawk	0	1	0.00	0.07	0.00	0.55
Killdeer	11	0	0.27	0.00	4.89	0.00
Solitary Sandpiper	0	1	0.00	0.07	0.00	0.55
Pectoral Sandpiper	1	0	0.07	0.00	0.44	0.00
Northern Flicker	0	1	0.00	0.07	0.00	0.55
Willow Flycatcher	1	1	0.07	0.07	0.44	0.55
Eastern Kingbird	4	4	0.27	0.27	1.78	2.21
Warbling Vireo	1	1	0.07	0.07	0.44	0.55
Blue Jay	1	0	0.07	0.00	0.44	0.00
Tufted Titmouse	3	0	0.07	0.00	1.33	0.00
House Wren	6	1	0.33	0.07	2.67	0.55
Sedge Wren	7	2	0.27	0.13	3.11	1.10
Blue-gray Gnatcatcher	2	0	0.07	0.00	0.89	0.00
American Robin	3	1	0.20	0.07	1.33	0.55
Gray Catbird	4	2	0.13	0.13	1.78	1.10
Brown Thrasher	0	1	0.00	0.07	0.00	0.55
European Starling	3	3	0.13	0.07	1.33	1.66
Common Yellowthroat	6	9	0.40	0.40	2.67	4.97
Field Sparrow	1	0	0.07	0.00	0.44	0.00
Savannah sparrow	2	0	0.13	0.00	0.89	0.00
Grasshopper Sparrow	4	11	0.27	0.47	1.78	6.08
Song Sparrow	18	13	0.80	0.80	8.00	7.18
Northern Cardinal	0	1	0.00	0.07	0.00	0.55
Indigo Bunting	17	13	0.67	0.53	7.56	7.18
Dickcissel	21	42	0.67	0.87	9.33	23.20
Red-winged Blackbird	70	62	1.00	0.93	31.11	34.25
Eastern Meadowlark	0	4	0.00	0.20	0.00	2.21
Common Grackle	6	0	0.20	0.00	2.67	0.00
Brown-headed Cowbird	1	1	0.07	0.07	0.44	0.55
Baltimore Oriole	1	0	0.07	0.00	0.44	0.00
American Goldfinch	2	2	0.13	0.13	0.89	1.10
Total Individuals	225	181				
total Species per Year	28	23				
Total Species all Years	35					

Table 5. List of Species and Total Numbers of Individuals and Species Recorded During the 2004 and 2005 Fall Season Avian Census Conducted within the Fishhook Management Area, Lake Shelbyville, Moultrie County, Illinois.

Fishhook Species	Total		Freq.		Rel. Ab.	
	2004	2005	2004	2005	2004	2005
Wood Duck	1	10	0.07	0.07	0.24	1.02
Gadwall	0	28	0.00	0.20	0.00	2.85
American Widgeon	0	20	0.00	0.07	0.00	2.04
Mallard	3	116	0.07	0.27	0.72	11.81
Blue-winged Teal	10	105	0.13	0.20	2.42	10.69
Northern Shoveler	0	4	0.00	0.20	0.00	0.41
Northern Pintail	0	31	0.00	0.07	0.00	3.16
Green-winged Teal	0	4	0.00	0.07	0.00	0.41
Ring-necked Duck	0	10	0.00	0.07	0.00	1.02
Rudy Duck	0	5	0.00	0.07	0.00	0.51
Pied-billed Grebe	3	15	0.07	0.27	0.72	1.53
Great Blue Heron	2	0	0.13	0.00	0.48	0.00
Red-tailed Hawk	0	1	0.00	0.07	0.00	0.10
American Coot	106	118	0.13	0.20	25.60	12.02
Killdeer	3	0	0.07	0.00	0.72	0.00
Wilson's Snipe	0	3	0.00	0.13	0.00	0.31
Herring Gull	0	3	0.00	0.07	0.00	0.31
Red-bellied Woodpecker	1	1	0.07	0.07	0.24	0.10
Downy Woodpecker	0	2	0.00	0.13	0.00	0.20
Northern Flicker	0	1	0.00	0.07	0.00	0.10
Willow Flycatcher	1	0	0.07	0.00	0.24	0.00
Eastern Pheobe	3	0	0.13	0.00	0.72	0.00
Tree Swallow	0	80	0.00	0.07	0.00	8.15
Black-capped Chickadee	1	0	0.07	0.00	0.24	0.00
House Wren	1	0	0.07	0.00	0.24	0.00
Sedge Wren	6	0	0.20	0.00	1.45	0.00
American Robin	0	1	0.00	0.07	0.00	0.10
American Tree Sparrow	1	0	0.07	0.00	0.24	0.00
Field Sparrow	1	5	0.07	0.13	0.24	0.51
Savannah Sparrow	1	0	0.07	0.00	0.24	0.00
Song Sparrow	6	10	0.40	0.47	1.45	1.02
Swamp Sparrow	4	10	0.27	0.27	0.97	1.02
White-throated Sparrow	2	8	0.13	0.27	0.48	0.81
White-crowned sparrow	2	17	0.13	0.20	0.48	1.73
Dark-eyed Junco	0	2	0.00	0.07	0.00	0.20

Table 5 Concluded on Following Page.

Table 5. List of Species and Total Numbers of Individuals and Species Recorded (Concluded).

Fishhook Species	Total 2004	Total 2005	Freq. 2004	Freq. 2005	Rel. Ab. 2004	Rel. Ab. 2005
Northern Cardinal	3	0	0.13	0.00	0.72	0.00
Indigo Bunting	8	0	0.27	0.00	1.93	0.00
Dicksissel	2	0	0.13	0.00	0.48	0.00
Red-winged Blackbird	237	367	0.40	0.33	57.25	37.37
Eastern Meadowlark	2	1	0.07	0.07	0.48	0.10
American Goldfinch	4	3	0.13	0.13	0.97	0.31
Total Individuals	414	981				
Total Species Per Year	27	30				
Total Species all Years	41					

Table 6. List of Species and Total Numbers of Individuals and Species Recorded During the 2004 and 2005 Spring Season Avian Census Conducted within the Dunn Management Area, Lake Shelbyville, Moultrie County, Illinois.

Dunn	Total		Freq.		Rel. Ab.	
Species	2004	2005	2004	2005	2004	2005
Mallard	4	2	0.14	0.14	5.71	1.96
Blue-winged Teal	0	4	0.00	0.14	0.00	3.92
Northern Shoveler	2	0	0.14	0.00	2.86	0.00
Ring-necked Pheasant	0	1	0.00	0.14	0.00	0.98
Great Blue Heron	0	3	0.00	0.29	0.00	2.94
Killdeer	1	1	0.14	0.14	1.43	0.98
Greater Yellowlegs	3	3	0.29	0.29	4.29	2.94
Lesser Yellowlegs	1	4	0.14	0.29	1.43	3.92
Solitary Sandpiper	5	0	0.57	0.00	7.14	0.00
Least Sandpiper	1	0	0.14	0.00	1.43	0.00
Pectoral Sandpiper	1	25	0.14	0.14	1.43	24.51
Wilson's Snipe	13	4	0.29	0.29	18.57	3.92
Eastewrn Kingbird	1	0	0.14	0.00	1.43	0.00
Warbling Vireo	1	0	0.14	0.00	1.43	0.00
Barn Swallow	1	0	0.14	0.00	1.43	0.00
Eastern Bluebird	0	1	0.00	0.14	0.00	0.98
European Starling	1	0	0.14	0.00	1.43	0.00
American Pipit	0	5	0.00	0.14	0.00	4.90
Yellow Warbler	1	2	0.14	0.29	1.43	1.96
Common Yellowthroat	5	0	0.29	0.00	7.14	0.00
Savannah Sparow	2	1	0.14	0.14	2.86	0.98
Song Sparrow	5	8	0.57	0.86	7.14	7.84
Swamp Sparrow	0	1	0.00	0.14	0.00	0.98
Indigo Bunting	1	0	0.14	0.00	1.43	0.00
Red-winged Blackbird	21	33	0.86	0.86	30.00	32.35
Brown-headed Cowbird	0	4	0.00	0.14	0.00	3.92
Total Individuals	70	102				
Total Species Per Year	19	17				
Total Species All Years	26					

Table 7. List of Species and Total Numbers of Individuals and Species Recorded During the 2004 and 2005 Breeding Season Avian Census Conducted within the Dunn Management Area, Lake Shelbyville, Moultrie County, Illinois.

Dunn	Total		Freq.		Rel. Ab.	
Species	2004	2005	2004	2005	2004	2005
Mallard	1	0	0.14	0.00	1.06	0.00
Ring-necked Pheasant	0	1	0.00	0.14	0.00	1.18
Great Blue Heron	10	2	0.43	0.14	10.64	2.35
Great Egret	3	0	0.14	0.00	3.19	0.00
Red-tailed Hawk	1	0	0.14	0.00	1.06	0.00
Killdeer	4	0	0.29	0.00	4.26	0.00
Willow Flycatcher	2	1	0.29	0.14	2.13	1.18
Least Flycatcher	0	1	0.00	0.14	0.00	1.18
Eastern Kingbird	1	2	0.14	0.29	1.06	2.35
Sedge Wren	0	4	0.00	0.43	0.00	4.71
American Robin	2	1	0.29	0.14	2.13	1.18
Gray Catbird	0	2	0.00	0.29	0.00	2.35
Brown Thrasher	0	1	0.00	0.14	0.00	1.18
European Starling	1	1	0.14	0.14	1.06	1.18
Common Yellowthroat	4	7	0.57	0.86	4.26	8.24
Eastern Towhee	1	0	0.14	0.00	1.06	0.00
Grasshopper Sparrow	0	2	0.00	0.29	0.00	2.35
Song Sparrow	5	11	0.57	1.00	5.32	12.94
Indigo Bunting	5	8	0.43	1.00	5.32	9.41
Dickcissel	7	17	0.71	1.00	7.45	20.00
Red-winged Blackbird	42	22	1.00	1.00	44.68	25.88
Common Grackle	3	2	0.29	0.14	3.19	2.35
Brown-headed Cowbird	2	0	0.29	0.00	2.13	0.00
American Goldfinch	2	7	0.14	0.43	2.13	8.24
Total Individuals	94	85				
Total Species Per Year	18	18				
Total Species All Years	24					

Table 8. List of Species and Total Numbers of Individuals and Species Recorded During the 2004 and 2005 Fall Season Avian Census Conducted within the Dunn Management Area, Lake Shelbyville, Moultrie County, Illinois.

Dunn	Total		Freq.		Rel. Ab.	
Species	2004	2005	2004	2005	2004	2005
Wilson's Snipe	1	0	0.14	0.00	1.79	0.00
Downy Woodpecker	1	0	0.14	0.00	1.79	0.00
Gray Catbird	2	0	0.14	0.00	3.57	0.00
Palm Warbler	0	1	0.00	0.14	0.00	1.11
Song Sparrow	5	12	0.57	0.86	8.93	13.33
Swamp Sparrow	0	10	0.00	0.57	0.00	11.11
White-crowned Sparrow	2	2	0.29	0.29	3.57	2.22
Northern Cardinal	2	0	0.29	0.00	3.57	0.00
Indigo Bunting	10	0	0.57	0.00	17.86	0.00
Red-winged Blackbird	33	54	0.57	0.71	58.93	60.00
American Goldfinch	0	8	0.00	0.43	0.00	8.89
Total Individuals	56	87				
Total Species Per Year	8	6				
Total Species All Years	11					

Table 9. List of Species and Total Numbers of Individuals and Species Recorded During the 2004 and 2005 Spring Season Avian Census Conducted within the Jonathon Creek Management Area, Lake Shelbyville, Moultrie County, Illinois.

Jonathon Creek	Total		Freq.		Rel. Ab.	
Species	2004	2005	2004	2005	2004	2005
Wood Duck	0	2	0.00	0.17	0.00	1.23
Blue-winged Teal	0	12	0.00	0.33	0.00	7.41
Killdeer	0	3	0.00	0.17	0.00	1.85
Greater Yellowlegs	0	42	0.00	0.33	0.00	25.93
Lesser Yellowlegs	0	20	0.00	0.33	0.00	12.35
Solitary sandpiper	4	0	0.20	0.00	6.56	0.00
Pectoral Sandpiper	0	31	0.00	0.33	0.00	19.14
Red-bellied Woodpecker	0	2	0.00	0.17	0.00	1.23
Downy Woodpecker	1	3	0.20	0.33	1.64	1.85
Eastern Kingbird	0	1	0.00	0.17	0.00	0.62
Warbling Vireo	1	0	0.20	0.00	1.64	0.00
Blue Jay	0	1	0.00	0.17	0.00	0.62
Tree Swallow	2	2	0.40	0.17	3.28	1.23
Black-capped Chickadee	0	1	0.00	0.17	0.00	0.62
Carolina Wren	0	1	0.00	0.17	0.00	0.62
House Wren	2	1	0.40	0.17	3.28	0.62
Blue-gray Gnatcatcher	1	1	0.20	0.17	1.64	0.62
Eastern Bluebird	0	1	0.00	0.17	0.00	0.62
American Robin	2	0	0.40	0.00	3.28	0.00
Gray Catbird	1	0	0.20	0.00	1.64	0.00
European Starling	3	2	0.40	0.17	4.92	1.23
American Pipit	1	0	0.20	0.00	1.64	0.00
Golden-winged Warbler	1	0	0.20	0.00	1.64	0.00
Nashville Warbler	1	0	0.20	0.00	1.64	0.00
Yellow Warbler	0	1	0.00	0.17	0.00	0.62
Chestnut-sided warbler	1	0	0.20	0.00	1.64	0.00
Cape May Warbler	1	0	0.20	0.00	1.64	0.00
Common Yellowthroat	5	3	0.60	0.33	8.20	1.85
Yellow-breasted Chat	2	0	0.40	0.00	3.28	0.00
Eastern Towhee	0	1	0.00	0.17	0.00	0.62
Field Sparrow	0	4	0.00	0.17	0.00	2.47
Song Sparrow	2	2	0.40	0.33	3.28	1.23
Swamp Sparrow	1	0	0.20	0.00	1.64	0.00
White-crowned Sparrow	0	1	0.00	0.17	0.00	0.62

Table 9. Concluded on Following Page.

Table 9. List of Species and Total Numbers of Individuals and Species Recorded (Concluded)

Jonathon Creek Species	Total 2004	Total 2005	Freq. 2004	Freq. 2005	Rel. Ab. 2004	Rel. Ab. 2005
Northern Cardinal	1	3	0.20	0.50	1.64	1.85
Indigo Bunting	4	0	0.40	0.00	6.56	0.00
Red-winged Blackbird	16	15	0.60	0.83	26.23	9.26
Brown-headed Cowbird	5	1	0.80	0.17	8.20	0.62
Baltimore Oriole	0	1	0.00	0.17	0.00	0.62
American Goldfinch	3	4	0.40	0.50	4.92	2.47
Total Individuals	61	162				
Total species Per Year	24	28				
Total Species All Years	40					

Table 10. List of Species and Total Numbers of Individuals and Species Recorded During the 2004 and 2005 Breeding Season Avian Census Conducted within the Jonathon Creek Management Area, Lake Shelbyville, Moultrie County, Illinois.

Jonathon Creek	Total		Freq.		Rel. Ab.	
Species	2004	2005	2004	2005	2004	2005
Red-tailed Hawk	2	0	0.40	0.00	2.70	0.00
Killdeer	4	0	0.40	0.00	5.41	0.00
Yellow-billed Cuckoo	0	1	0.00	0.17	0.00	1.05
Red-headed Woodpecker	1	0	0.20	0.00	1.35	0.00
Red-bellied Woodpecker	1	0	0.20	0.00	1.35	0.00
Downy Woodpecker	2	1	0.40	0.17	2.70	1.05
Eastern Wood-pewee	0	1	0.00	0.17	0.00	1.05
Willow Flycatcher	1	2	0.20	0.17	1.35	2.11
Eastern Pheobe	0	2	0.00	0.33	0.00	2.11
Eastern Kingbird	0	1	0.00	0.17	0.00	1.05
Warbling Vireo	1	2	0.20	0.33	1.35	2.11
Blue Jay	0	1	0.00	0.17	0.00	1.05
Tree Swallow	1	0	0.20	0.00	1.35	0.00
Black-capped Chickadee	0	1	0.00	0.17	0.00	1.05
White-breasted Nuthatch	0	1	0.00	0.17	0.00	1.05
Carolina Wren	0	2	0.00	0.33	0.00	2.11
House Wren	2	3	0.40	0.33	2.70	3.16
Sedge Wren	0	1	0.00	0.17	0.00	1.05
Blue-gray Gnatcatcher	1	1	0.20	0.17	1.35	1.05
Eastern Bluebird	5	0	0.40	0.00	6.76	0.00
American Robin	1	0	0.20	0.00	1.35	0.00
Gray Catbird	1	1	0.20	0.17	1.35	1.05
Brown Thrasher	1	1	0.20	0.17	1.35	1.05
European Starling	2	3	0.40	0.17	2.70	3.16
Common Yellowthroat	5	9	0.80	1.00	6.76	9.47
Yellow-breasted Chat	1	2	0.20	0.33	1.35	2.11
Eastern Towhee	1	0	0.20	0.00	1.35	0.00
Chipping Sparrow	1	0	0.20	0.00	1.35	0.00
Field Sparrow	1	5	0.20	0.50	1.35	5.26
Grasshopper Saprrow	0	1	0.00	0.17	0.00	1.05
Song Sparrow	4	5	0.60	0.50	5.41	5.26
Northern Cardinal	3	3	0.60	0.50	4.05	3.16
Rose-breasted Grosbeak	1	0	0.20	0.00	1.35	0.00

Table 10 Concluded on Following Page.

Table 10. List of Species and Total Numbers of Individuals and Species Recorded (Concluded)

Jonathon Creek	Total		Freq.		Rel. Ab.	
Species	2004	2005	2004	2005	2004	2005
Indigo Bunting	8	13	0.80	1.00	10.81	13.68
Dickcissel	1	5	0.20	0.50	1.35	5.26
Red-winged Blackbird	15	15	0.80	0.83	20.27	15.79
Brown-headed Cowbird	5	9	0.60	0.50	6.76	9.47
Baltimore Oriole	0	1	0.00	0.17	0.00	1.05
American Goldfinch	2	2	0.40	0.33	2.70	2.11
Total Individuals	74	95				
Total Species Per Year	28	29				
Total Species All Years	39					

Table 12. List of Species and Total Numbers of Individuals and Species Recorded During the 2004 and 2005 Spring Season Avian Census Conducted within the McGee Management Area, Lake Shelbyville, Moultrie County, Illinois.

McGee Species	Total		Freq.		Rel. Ab.	
	2004	2005	2004	2005	2004	2005
Canada Goose	6	0	0.25	0.00	22.22	0.00
Ring-necked Pheasant	0	1	0.00	0.25	0.00	1.22
Turkey Vulture	0	31	0.00	0.50	0.00	37.80
Killdeer	1	0	0.25	0.00	3.70	0.00
Lesser Yellowlegs	1	0	0.25	0.00	3.70	0.00
Solitary Sandpiper	3	0	0.50	0.00	11.11	0.00
Least Sandpiper	5	0	0.50	0.00	18.52	0.00
Mournig Dove	0	3	0.00	0.25	0.00	3.66
Eastern Kingbird	2	0	0.25	0.00	7.41	0.00
American Crow	0	1	0.00	0.25	0.00	1.22
Eastern Bluebird	0	3	0.00	0.50	0.00	3.66
American Robin	0	1	0.00	0.25	0.00	1.22
American Pipet	3	1	0.50	0.25	11.11	1.22
Common Yellowthroat	1	1	0.25	0.25	3.70	1.22
Song Sparrow	5	7	0.75	1.00	18.52	8.54
Red-winged Blackbird	0	21	0.00	0.75	0.00	25.61
Common Grackle	0	1	0.00	0.25	0.00	1.22
Brown-headed Cowbird	0	11	0.00	0.75	0.00	13.41
Total Individuals	27	82				
Total Species Per Year	9	12				
Total Species All Years	18					

Table 13. List of Species and Total Numbers of Individuals and Species Recorded During the 2004 and 2005 Breeding Season Avian Census Conducted within the McGee Management Area, Lake Shelbyville, Moultrie County, Illinois.

McGee Species	Total 2004	Total 2005	Freq. 2004	Freq. 2005.00	Rel. Ab. 2004	Rel. Ab. 2005
Ring-necked Pheasant	1	0	0.25	0.00	2.63	0.00
Turkey Vulture	0	4	0.00	0.25	0.00	5.97
Killdeer	2	0	0.25	0.00	5.26	0.00
Mourning Dove	1	0	0.25	0.00	2.63	0.00
Eastern Kingbird	1	3	0.25	0.75	2.63	4.48
American Crow	0	1	0.00	0.25	0.00	1.49
Sedge Wren	0	2	0.00	0.25	0.00	2.99
Common Yellowthroat	2	3	0.50	0.50	5.26	4.48
Grasshopper Sparrow	0	6	0.00	0.75	0.00	8.96
Song Sparrow	4	6	0.75	1.00	10.53	8.96
Northern Cardinal	1	0	0.25	0.00	2.63	0.00
Indigo Bunting	2	6	0.50	1.00	5.26	8.96
Dickcissel	4	13	0.50	1.00	10.53	19.40
Red-winged Blackbird	17	21	1.00	1.00	44.74	31.34
Eastern Meadowlark	1	0	0.25	0.00	2.63	0.00
Common Grackle	1	0	0.25	0.00	2.63	0.00
Brown-headed Cowbird	1	1	0.25	0.25	2.63	1.49
American Goldfinch	0	1	0.00	0.25	0.00	1.49
Total Individuals	38	67				
Total Species Per Year	13	12				
Total Species All Years	18					

Table 14. List of Species and Total Numbers of Individuals and Species Recorded During the 2004 and 2005 Fall Season Avian Census Conducted within the McGee Management Area, Lake Shelbyville, Moultrie County, Illinois.

McGee	Total		Freq.		Rel. Ab.	
Species	2004	2005	2004	2005	2004	2005
Wood Duck	3	0	0.33	0.00	4.35	0.00
American Widgeon	1	0	0.33	0.00	1.45	0.00
Mallard	60	15	0.33	0.50	86.96	5.81
Ring-necked Pheasant	1	0	0.33	0.00	1.45	0.00
Killdeer	0	19	0.00	0.25	0.00	7.36
Wilson's Snipe	0	43	0.00	0.50	0.00	16.67
American Robin	1	0	0.33	0.00	1.45	0.00
Indigo Bunting	1	0	0.33	0.00	1.45	0.00
Red-winged Blackbird	2	181	0.33	0.75	2.90	70.16
Total Individuals	69	258				
Total Species Per Year	7	4				
Total Species All Years	9					

Table 15. List of Species, Total Number of Individuals and Species and Relative Abundance of Birds Recorded During the 2004 and 2005 Avian Censuses Conducted within the Redhead Sub-impoundment of the Fishhook Management Area, Lake Shelbyville, Moultrie County, Illinois.

Fishhook REDHEAD (4 pts.)	Spring			Breeding			Fall	
	2004	2005		2004	2005		2004	2005
Species	Ind./Ha	Ind./Ha		Ind./Ha	Ind./Ha		Ind./Ha	Ind./Ha
Gadwall	1.13	0.00		0.00	0.00		0.00	0.14
Mallard	0.99	0.00		3.39	0.00		0.00	0.00
Blue-winged Teal	0.99	0.28		0.00	0.00		0.00	0.00
Northern Shoveler	0.14	0.00		0.00	0.00		0.00	0.00
Green-winged Teal	3.11	0.00		0.00	0.00		0.00	0.00
Pied-billed Grebe	0.00	0.00		0.00	0.00		0.42	1.98
Great Blue Heron	0.14	0.00		0.00	0.00		0.00	0.00
Turkey Vulture	0.00	3.39		0.00	0.56		0.00	0.00
American Coot	0.00	0.00		0.00	0.00		8.47	0.00
Semipalmated Plover	0.28	0.00		0.00	0.00		0.00	0.00
Killdeer	0.56	0.28		0.71	0.00		0.00	0.00
Solitary Sandpiper	0.28	0.00		0.00	0.00		0.00	0.00
Wilson's Snipe	0.14	0.14		0.00	0.00		0.00	0.28
American Crow	0.00	0.42		0.00	0.00		0.00	1.13
Sedge Wren	0.00	0.00		0.42	0.14		0.28	0.00
American Robin	0.14	0.00		0.00	0.00		0.00	0.00
American Pipit	0.28	0.00		0.00	0.00		0.00	0.00
Common Yellowthroat	0.14	0.00		0.14	0.14		0.00	0.00
Vesper Sparrow	0.00	0.14		0.00	0.00		0.00	0.00
Savannah Sparrow	0.42	0.00		0.14	0.00		0.00	0.00
Grasshopper Sparrow	0.00	0.00		0.14	0.14		0.00	0.00
Song Sparrow	0.42	0.99		0.42	0.28		0.28	0.14
Swamp Sparrow	0.00	0.00		0.00	0.00		0.14	0.00
White-crowned Sparrow	0.00	0.14		0.00	0.00		0.14	0.00
Indigo Bunting	0.00	0.00		0.28	0.14		0.00	0.00
Dickcissel	0.28	0.00		0.71	2.12		0.14	0.00
Red-winged Blackbird	0.99	2.54		2.68	2.12		0.28	0.00
Eastern Meadowlark	0.00	0.42		0.00	0.28		0.28	0.00
Common Grackle	0.00	0.00		0.28	0.00		0.00	0.00
American Goldfinch	0.00	0.00		0.00	0.14		0.00	0.00
Total Ind/Ha	10.45	8.76		9.32	6.07		10.45	3.67
Total Species	17	10		10	10		9	5

Table 16. List of Species, Total Number of Individuals and Species and Relative Abundance of Birds Recorded During the 2004 and 2005 Avian Censuses Conducted within the Refuge Sub-impoundment of the Fishhook Management Area, Lake Shelbyville, Moultrie County, Illinois.

Fishhook REFUGE (2 Pts) Species	Spring 2004 Ind./Ha	Spring 2005 Ind./Ha		Breeding 2004 Ind./Ha	Breeding 2005 Ind./Ha		Fall 2004 Ind./Ha	Fall 2005 Ind./Ha
Wood Duck	0.00	0.00		0.00	0.00		0.00	2.82
Gadwall	0.00	0.00		0.00	0.00		0.00	9.32
American Widgeon	0.00	0.00		0.00	0.00		0.00	5.65
Mallard	0.00	0.00		0.00	0.00		0.00	29.66
Blue-winged Teal	0.00	0.00		0.00	0.00		0.00	28.53
Northern Pintail	0.00	0.00		0.00	0.00		0.00	11.58
Green-winged Teal	0.00	0.00		0.00	0.00		0.00	1.13
Ring-necked Duck	0.00	0.00		0.00	0.00		0.00	2.82
Rudy duck	0.00	0.00		0.00	0.00		0.00	1.41
Pied-billed Grebe	0.00	0.00		0.00	0.00		0.00	0.28
Red-tailed Hawk	0.00	0.00		0.00	0.00		0.00	0.28
Virginia Rail	0.28	0.00		0.00	0.00		0.00	0.00
American Coot	0.00	0.00		0.00	0.00		0.00	28.25
Semipalmated Plover	0.28	0.00		0.00	0.00		0.00	0.00
Killdeer	0.28	0.00		0.56	0.00		0.00	0.00
Lesser Yellowlegs	0.00	2.82		0.00	0.00		0.00	0.00
Least Sandpiper	0.28	0.00		0.00	0.00		0.00	0.00
Pectoral Sandpiper	0.00	0.85		0.00	0.00		0.00	0.00
Short-billed Dowitcher	0.28	0.00		0.00	0.00		0.00	0.00
Wilson's Snipe	0.00	0.28		0.00	0.00		0.00	0.00
Herring Gull	0.00	0.00		0.00	0.00		0.00	0.85
Northern Flicker	0.00	0.00		0.00	0.00		0.00	0.28
Eastern Kingbird	0.28	0.00		0.28	0.00		0.00	0.00
American Crow	0.28	0.00		0.00	0.00		0.00	0.00
House Wren	0.28	0.00		0.28	0.00		0.00	0.00
Sedge Wren	0.28	0.00		0.85	0.28		0.28	0.00
American Robin	0.28	0.00		0.28	0.00		0.00	0.00
Common Yellowthroat	0.28	0.00		0.56	0.28		0.00	0.00
Field Sparrow	0.00	0.00		0.00	0.00		0.00	0.56
Savannah Sparrow	0.28	1.13		0.00	0.00		0.00	0.00
Grasshopper Sparrow	0.00	0.00		0.00	1.13		0.00	0.00

Table 16 Concluded on Following Page.

Table 16. List of Species, Total Number of Individuals and Species and Relative Abundance of Birds (Concluded)

Fishhook REFUGE (2 Pts) Species	Spring 2004 Ind./Ha	Spring 2005 Ind./Ha		Breeding 2004 Ind./Ha	Breeding 2005 Ind./Ha		Fall 2004 Ind./Ha	Fall 2005 Ind./Ha
Blue Jay	0.28	0.00		0.28	0.00		0.00	0.00
Song Sparrow	0.28	1.41		1.13	0.56		0.28	0.85
Swamp Sparrow	0.00	0.00		0.00	0.00		0.00	0.28
White-crowned Sparrow	0.00	0.00		0.00	0.00		0.00	3.39
Indigo Bunting	0.28	0.00		0.56	0.28		0.28	0.00
Dickcissel	0.28	0.00		0.85	1.98		0.28	0.00
Red-winged Blackbird	0.28	1.98		5.93	2.26		56.50	9.32
American Goldfinch	0.28	0.00		0.00	0.00		0.85	0.00
Total Ind/Ha	7.91	8.47		11.58	6.78		58.47	137.29
Total Species	18	6		11	7		6	19

Table 17. List of Species, Total Number of Individuals and Species and Relative Abundance of Birds Recorded During the 2004 and 2005 Avian Censuses Conducted within the Lost Pond Sub-impoundment of the Fishhook Management Area, Lake Shelbyville, Moultrie County, Illinois.

Fishhook	Spring			Breeding			Fall	
LOST POND (2 Pts)	2004	2005		2004	2005		2004	2005
Species	Ind./Ha	Ind./Ha		Ind./Ha	Ind./Ha		Ind./Ha	Ind./Ha
Mallard	0.00	0.00		0.00	0.00		0.00	0.28
Great Blue Heron	0.00	0.00		0.28	0.00		0.28	0.00
Killdeer	0.28	0.00		0.00	0.00		0.00	0.00
Red-bellied Woodpecker	0.00	0.56		0.00	0.00		0.00	0.00
Downy Woodpecker	0.00	0.00		0.00	0.00		0.00	0.28
Northern Flicker	0.00	0.00		0.00	0.28		0.00	0.00
Eastern Kingbird	0.00	0.00		0.28	0.28		0.00	0.00
Tree Swallow	0.85	0.00		0.00	0.00		0.00	0.00
House Wren	0.28	0.00		0.56	0.00		0.00	0.00
Sedge Wren	0.00	0.00		0.28	0		0.00	0.00
European Starling	0.00	0.00		0.85	0.85		0.00	0.00
Yellow-rumped Warbler	0.00	0.00		0.00	0.00		0.00	0.00
Common Yellowthroat	0.28	0.56		0.28	0.56		0.00	0.00
Song Sparrow	1.69	0.56		1.13	0.85		0.00	0.56
White-throated Sparrow	0.00	0.00		0.00	0.00		0.00	0.56
White-crowned Sparrow	0.00	0.00		0.00	0.00		0.00	0.28
Indigo Bunting	0.56	0.00		0.85	0.85		0.00	0.00
Dickcissel	0.00	0.00		1.69	1.41		0.00	0.00
Red-winged Blackbird	1.69	3.39		3.39	2.54		0.85	0.00
Brown-headed Cowbird	0.00	0.28		0.00	0.00		0.00	0.00
Baltimore Oriole	0.00	0.00		0.28	0.00		0.00	0.00
American Goldfinch	0.00	0.56		0.00	0.28		0.00	0.00
Total Ind/Ha	5.65	6.21		9.89	7.91		1.13	1.98
Total Species	7	6		11	9		2	5

Table 18. List of Species, Total Number of Individuals and Species and Relative Abundance of Birds Recorded During the 2004 and 2005 Avian Censuses Conducted within the Turtle Pond Sub-impoundment of the Fishhook Management Area, Lake Shelbyville, Moultrie County, Illinois.

Fishhook TURTLE POND (2 Pts) Species	Spring 2004 Ind./Ha	Spring 2005 Ind./Ha		Breeding 2004 Ind./Ha	Breeding 2005 Ind./Ha		Fall 2004 Ind./Ha	Fall 2005 Ind./Ha
Canada Goose	1.69	0.00		0.00	0.00		0.00	0.00
Wood Duck	0.00	0.28		0.00	0.00		0.00	0.00
Mallard	0.28	0.00		0.00	0.00		0.85	0.00
Blue-winged Teal	1.41	1.13		0.00	0.00		0.00	0.00
Great Blue Heron	0.00	0.28		0.56	0.00		0.28	0.00
Green Heron	0.00	0.00		0.56	0.00		0.00	0.00
Red-tailed Hawk	0.00	0.00		0.00	0.28		0.00	0.00
Killdeer	0.00	0.00		1.13	0.00		0.85	0.00
Solitary Sandpiper	0.00	0.00		0.00	0.28		0.00	0.00
Pectoral Sandpiper	0.00	0.00		0.28	0.00		0.00	0.00
Red-bellied Woodpecker	0.00	0.00		0.00	0.00		0.28	0.28
Downy Woodpecker	0.00	0.00		0.00	0.00		0.00	0.28
Alder Flycatcher	0.28	0.00		0.00	0.00		0.00	0.00
Eastern Pheobe	0.00	0.00		0.00	0.00		0.28	0.00
Eastern Kingbird	0.00	0.00		0.28	0.56		0.00	0.00
Warbling Vireo	0.00	0.28		0.00	0.28		0.00	0.00
Black-capped Chickadee	0.00	0.00		0.00	0.00		0.28	0.00
Tufted Titmouse	0.00	0.00		0.85	0.00		0.00	0.00
Carolina Wren	0.28	0.00		0.00	0.00		0.00	0.00
House Wren	0.00	0.00		0.56	0.28		0.00	0.00
Blue-gray Gnatcatcher	0.28	0.00		0.56	0.00		0.00	0.00
American Robin	0.00	0.00		0.56	0.00		0.00	0.28
Gray Catbird	0.00	0.00		0.28	0.28		0.00	0.00
Common Yellowthroat	0.00	0.28		0.28	0.85		0.00	0.00
American Tree Sparrow	0.00	0.00		0.00	0.00		0.28	0.00
Field Sparrow	0.00	0.00		0.00	0.00		0.00	0.85
Song Sparrow	0.00	0.28		0.85	0.28		0.28	0.85
Swamp Sparrow	0.00	0.00		0.00	0.00		0.28	0.85
White-throated Sparrow	0.00	0.00		0.00	0.00		0.28	1.41
White-crowned Sparrow	0.00	0.00		0.00	0.00		0.28	1.13
Dark-eyed Junco	0.00	0.00		0.00	0.00		0.00	0.56
Northern Cardinal	0.56	0.28		0.00	0.28		0.56	0.00
Indigo Bunting	0.56	0.00		0.28	0.28		0.00	0.00
Red-winged Blackbird	0.85	0.85		1.41	1.41		0.00	0.00
Baltimore Oriole	0.28	0.00		0.00	0.00		0.00	0.00
American Goldfinch	0.00	0.00		0.28	0.00		0.28	0.85
Total Ind/Ha	**6.50**	**3.67**		**8.76**	**5.08**		**5.08**	**7.34**

Total Species	10	8		15	11		13	10

Table 19. List of Species, Total Number of Individuals and Species and Relative Abundance of Birds Recorded During the 2004 and 2005 Avian Censuses Conducted within the Widgeon Sub-impoundment of the Fishhook Management Area, Lake Shelbyville, Moultrie County, Illinois.

Fishhook WIDGEON (1 Pt) Species	Spring 2004 Ind./Ha	2005 Ind./Ha		Breeding 2004 Ind./Ha	2005 Ind./Ha		Fall 2004 Ind./Ha	2005 Ind./Ha
Mallard	0.00	0.00		0.00	0.00		0.00	5.65
Blue-winged Teal	0.00	0.00		0.00	0.00		5.08	2.26
American Coot	0.00	0.00		0.00	0.00		25.99	5.65
House Wren	0.00	0.00		0.00	0.00		0.56	0.00
Sedge Wren	0.00	0.00		0.00	0.00		0.56	0.00
Savannah Sparrow	0.00	0.00		0.56	0.00		0.00	0.00
Grasshopper Sparrow	0.00	0.56		0.56	0.56		0.00	0.00
Song Sparrow	2.26	1.13		0.56	0.00		0.56	0.00
White-throated Sparrow	0.00	0.00		0.00	0.00		0.56	0.00
Indigo Bunting	0.00	0.00		1.13	0.00		0.00	0.00
Dickcissel	0.00	0.00		0.56	0.56		0.00	0.00
Red-winged Blackbird	0.56	0.00		1.13	3.39		0.00	0.00
Eastern Meadowlark	0.00	0.00		0.00	0.56		0.00	0.00
Total Ind/Ha	2.82	1.69		4.52	5.08		33.33	13.56
Total Species	2	2		6	4		5	3

Table 20. List of Species, Total Number of Individuals and Species and Relative Abundance of Birds Recorded During the 2004 and 2005 Avian Censuses Conducted within the Pintail Sub-impoundment of the Fishhook Management Area, Lake Shelbyville, Moultrie County, Illinois.

Fishhook PINTAIL (1 Pt) Species	Spring 2004 Ind./Ha	Spring 2005 Ind./Ha		Breeding 2004 Ind./Ha	Breeding 2005 Ind./Ha		Fall 2004 Ind./Ha	Fall 2005 Ind./Ha
Wood Duck	0.00	0.00		0.00	0.00		0.56	0.00
Blue-winged Teal	0.00	0.00		0.00	0.00		0.56	0.00
Wilson's Snipe	0.00	0.00		0.00	0.00		0.00	0.56
Mourning Dove	0.56	0.00		0.00	0.00		0.00	0.00
Eastern Kingbird	0.00	1.69		0.56	0.56		0.00	0.00
House Wren	0.00	0.00		0.56	0.00		0.00	0.00
American Robin	0.00	0.00		0.00	0.56		0.00	0.00
American Pipit	14.12	0.00		0.00	0.00		0.00	0.00
Common Yellowthroat	0.00	0.00		0.00	0.56		0.00	0.00
Field Sparrow	0.00	0.00		0.56	0.00		0.00	0.00
Savannah Sparrow	0.00	0.00		0.00	0.00		0.56	0.00
Grasshopper Sparrow	0.00	0.00		0.56	1.13		0.00	0.00
Song Sparrow	0.56	0.56		1.13	0.00		0.00	0.00
Swamp Sparrow	0.00	0.00		0.00	0.00		0.56	0.00
Indigo Bunting	0.00	0.00		0.00	1.13		1.13	0.00
Dickcissel	0.00	0.00		0.56	1.13		0.00	0.00
Red-winged Blackbird	0.56	0.00		0.56	0.00		16.95	12.43
Common Grackle	0.00	0.00		0.56	0.00		0.00	0.00
Brown-headed Cowbird	0.56	0.00		0.00	0.56		0.00	0.00
American Goldfinch	0.00	0.00		0.56	0.00		0.00	0.00
Total Ind/Ha	16.38	2.26		5.65	5.65		19.21	12.99
Total Species	5	2		9	7		6	2

Table 21. List of Species, Total Number of Individuals and Species and Relative Abundance of Birds Recorded During the 2004 and 2005 Avian Censuses Conducted within the Canvas Back Sub-impoundment of the Fishhook Management Area, Lake Shelbyville, Moultrie County, Illinois.

Fishhook CANVAS BACK (1 Pt) Species	Spring 2004 Ind./Ha	2005 Ind./Ha		Breeding 2004 Ind./Ha	2005 Ind./Ha		Fall 2004 Ind./Ha	2005 Ind./Ha
Downy Woodpecker	0.00	0.00		0.00	0.00		0.00	0.00
Warbling Vireo	0.00	0.00		0.56	0.00		0.00	0.00
Song Sparrow	0.56	0.56		0.56	0.56		0.00	0.00
Indigo Bunting	0.00	0.00		1.13	0.56		0.56	0.00
Dickcissel	0.00	0.00		1.13	1.69		0.00	0.00
Red-winged Blackbird	2.82	1.69		2.26	0.56		0.56	96.05
Common Grackle	0.00	0.00		1.69	0.00		0.00	0.00
Brown-headed Cowbird	0.00	1.69		0.56	0.00		0.00	0.00
Total Ind/Ha	3.39	3.95		7.91	3.39		1.13	96.05
Total Species	2	3		7	4		2	1

Table 22. List of Species, Total Number of Individuals and Species and Relative Abundance of Birds Recorded During the 2004 and 2005 Avian Censuses Conducted within Gadwall Sub-impoundment of the Fishhook Management Area, Lake Shelbyville, Moultrie County, Illinois.

Fishhook GADWALL (1 Pt)	Spring			Breeding			Fall	
	2004	2005		2004	2005		2004	2005
Species	Ind./Ha	Ind./Ha		Ind./Ha	Ind./Ha		Ind./Ha	Ind./Ha
Turkey Vulture	0.00	11.30		0.00	0.00		0.00	0.00
Killdeer	0.00	0.00		0.00	0.00		0.00	0.56
Eastern Kingbird	0.00	0.56		0.00	0.00		0.00	0.00
Tree Swallow	0.00	0.00		0.00	0.00		0.00	45.20
Cliff Swallow	0.00	0.00		0.00	0.00		0.00	0.56
Common Yellowthroat	0.00	0.00		0.56	0.00		0.00	0.00
Grasshopper Sparrow	0.00	0.00		0.00	1.13		0.00	0.00
Song Sparrow	0.56	0.00		0.56	0.56		0.00	0.00
Indigo Bunting	0.00	0.00		1.13	0.00		0.00	0.00
Dickcissel	0.00	0.00		1.69	2.26		0.00	0.00
Red-winged Blackbird	1.69	1.13		1.69	2.82		0.00	1.13
Eastern Meadowlark	0.00	0.00		0.00	0.00		0.00	0.56
Total Ind/Ha	2.26	12.99		5.65	6.78		0.00	48.02
Total Species	2	3		5	4		0	5

Table 23. List of Species, Total Number of Individuals and Species and Relative Abundance of Birds Recorded During the 2004 and 2005 Avian Censuses Conducted within the Mallard Sub-impoundment of the Fishhook Management Area, Lake Shelbyville, Moultrie County, Illinois.

Fishhook MALLARD (1 Pt)	Spring			Breeding			Fall	
	2004	2005		2004	2005		2004	2005
Species	Ind./Ha	Ind./Ha		Ind./Ha	Ind./Ha		Ind./Ha	Ind./Ha
Turkey Vulture	0.00	5.65		0.00	0.00		0.00	0.00
Downy Woodpecker	0.00	0.56		0.00	0.00		0.00	0.00
Willow Flycatcher	0.56	0.00		0.56	0.00		0.56	0.00
Black-capped Chickadee	0.00	0.56		0.00	0.00		0.00	0.00
House Wren	0.00	0.56		0.00	0.00		0.00	0.00
Gray Catbird	0.00	0.00		1.69	0.56		0.00	0.00
Brown Thrasher	0.00	0.00		0.00	0.56		0.00	0.00
European Starling	2.26	0.00		0.00	0.00		0.00	0.00
American Pipit	5.65	0.00		0.00	0.00		0.00	0.00
Yellow-rumped Warbler	0.00	0.56		0.00	0.00		0.00	0.00
Common Yellowthroat	1.69	0.00		0.56	0.56		0.00	0.00
Field Sparrow	0.00	0.00		0.00	0.00		0.56	0.00
Song Sparrow	0.56	0.00		0.56	0.56		0.56	0.56
Swamp Sparrow	0.00	0.00		0.00	0.00		0.56	3.39
White-throated Sparrow	0.00	0.00		0.00	0.00		0.00	0.56
Northern Cardinal	0.00	0.00		0.00	0.00		0.56	0.00
Indigo Bunting	0.00	0.00		1.69	1.13		2.26	0.00
Dickcissel	0.00	0.00		0.00	1.69		0.00	0.00
Red-winged Blackbird	2.82	3.39		1.69	1.69		0.00	62.15
Brown-headed Cowbird	1.13	0.56		0.00	0.00		0.00	0.00
Total Ind/Ha	14.69	11.86		6.78	6.78		5.08	66.67
Total Species	7	7		6	7		6	4

Table 24. List of Species, Total Number of Individuals and Species and Relative Abundance of Birds Recorded During the 2004 and 2005 Avian Censuses Conducted within the Bufflehead Sub-impoundment of the Dunn Management Area, Lake Shelbyville, Moultrie County, Illinois.

Dunn BUFFLEHEAD (5 Pts)	Spring			Breeding			Fall	
	2004	2005		2004	2005		2004	2005
Species	Ind./Ha	Ind./Ha		Ind./Ha	Ind./Ha		Ind./Ha	Ind./Ha
Canada Goose	1.02	0.00		0.00	0.00		0.00	0.00
Mallard	0.56	0.00		0.45	0.00		0.00	0.00
Blue-winged Teal	2.26	0.00		0.00	0.00		0.00	0.00
Northern Shoveler	0.45	0.00		0.00	0.00		0.00	0.00
Northern Bobwhite	0.00	0.00		0.11	0.00		0.00	0.00
Great Blue Heron	0.00	0.11		1.36	0.23		0.00	0.00
Great Egret	0.00	0.00		0.90	0.00		0.00	0.00
Turkey Vulture	0.00	0.00		0.11	0.00		0.00	0.00
Red-shouldered Hawk	0.00	0.00		0.34	0.00		0.00	0.00
Red-tailed Hawk	0.00	0.00		0.79	0.00		0.00	0.00
Killdeer	0.34	0.11		0.34	0.00		0.00	0.00
Greater Yellowlegs	0.45	0.23		0.00	0.00		0.00	0.00
Lesser Yellowlegs	1.69	0.34		0.00	0.00		0.00	0.00
Solitary Sandpiper	0.56	0.00		0.00	0.00		0.00	0.00
Spotted Sandpiper	0.11	0.00		0.00	0.00		0.00	0.00
Least Sandpiper	2.37	0.00		0.00	0.00		0.00	0.00
Pectoral Sandpiper	0.56	2.82		0.00	0.00		0.00	0.00
Wilson's Snipe	0.34	0.34		0.00	0.00		0.11	0.00
Ring-neck Pheasant	0.23	0.00		0.11	0.00		0.00	0.00
Downy Woodpecker	0.00	0.00		0.11	0.00		0.11	0.00
Willow Flycatcher	0.00	0.00		0.11	0.00		0.00	0.00
Eastern Kingbird	0.23	0.00		0.23	0.11		0.00	0.00
Warbling Vireo	0.11	0.00		0.11	0.00		0.00	0.00
Blue Jay	0.23	0.00		0.00	0.00		0.00	0.00
American Crow	0.00	0.00		0.34	0.00		0.00	0.00
Barn Swallow	0.11	0.00		0.00	0.00		0.00	0.00
Carolina Wren	0.00	0.00		0.11	0.00		0.00	0.00
Sedge Wren	0.00	0.00		0.00	0.34		0.00	0.00
Eastern Bluebird	0.00	0.11		0.00	0.00		0.00	0.00
American Robin	0.00	0.00		0.11	0.11		0.00	0.00
Gray Catbird	0.00	0.00		0.11	0.11		0.00	0.00
Brown Thrasher	0.11	0.00		0.11	0.00		0.00	0.00
European Starling	0.11	0.00		0.11	0.00		0.00	0.00
American Pipit	0.00	0.56		0.00	0.00		0.00	0.00

Table 24 Concluded on Following Page.

Table 24. List of Species, Total Number of Individuals and Species and Relative Abundance of Birds (Concluded)

Dunn BUFFLEHEAD (5 Pts) Species	Spring 2004 Ind./Ha	Spring 2005 Ind./Ha		Breeding 2004 Ind./Ha	Breeding 2005 Ind./Ha		Fall 2004 Ind./Ha	Fall 2005 Ind./Ha
Yellow Warbler	0.23	0.00		0.00	0.00		0.00	0.00
Palm Warbler	0.00	0.00		0.00	0.00		0.00	0.23
Common Yellowthroat	0.45	0.00		0.45	0.45		0.00	0.00
Savannah Sparrow	0.23	0.11		0.00	0.00		0.00	0.00
Grasshopper Sparrow	0.00	0.00		0.00	0.23		0.00	0.00
Song Sparrow	0.56	0.56		1.92	0.56		0.34	1.58
Swamp Sparrow	0.00	0.00		0.00	0.00		0.00	0.79
White-crowned Sparrow	0.00	0.00		0.00	0.00		0.11	0.11
Northern Cardinal	0.11	0.00		0.56	0.00		0.23	0.00
Indigo Bunting	0.00	0.00		0.90	0.68		1.02	0.00
Dickcissel	0.00	0.00		0.45	1.47		0.00	0.00
Red-winged Blackbird	4.29	1.81		5.54	1.47		3.95	0.45
Common Grackle	0.00	0.00		0.34	0.23		0.00	0.00
Brown-headed Cowbird	0.23	0.45		0.23	0.00		0.00	0.00
American Goldfinch	0.00	0.00		0.23	0.68		0.00	0.68
Total Ind/Ha	17.97	7.57		16.61	6.67		5.88	3.84
Total Species	26	12		28	13		7	6

Table 25. List of Species, Total Number of Individuals and Species and Relative Abundance of Birds Recorded During the 2004 and 2005 Avian Censuses Conducted within the Refuge Sub-impoundment of the Dunn Management Area, Lake Shelbyville, Moultrie County, Illinois.

Dunn	Spring			Breeding			Fall	
REFUGE (2Pts)	2004	2005		2004	2005		2004	2005
Species	Ind./Ha	Ind./Ha		Ind./Ha	Ind./Ha		Ind./Ha	Ind./Ha
Mallard	1.13	0.56		0.00	0.00		0.00	0.00
Blue-winged Teal	0.00	1.13		0.00	0.00		0.00	0.00
Ring-necked Pheasant	0.28	0.28		0.00	0.28		0.00	0.00
Wild Turkey	0.00	0.00		0.28	0.00		0.00	0.00
Great Blue Heron	0.00	0.56		0.28	0.00		0.00	0.00
Little Blue Heron	0.28	0.00		0.00	0.00		0.00	0.00
Killdeer	0.00	0.00		1.13	0.00		0.00	0.00
Greater Yellowlegs	0.85	0.28		0.00	0.00		0.00	0.00
Lesser Yellowlegs	0.00	0.28		0.00	0.00		0.00	0.00
Solitary Sandpiper	0.85	0.00		0.00	0.00		0.00	0.00
Warbling Vireo	0.28	0.00		0.00	0.00		0.00	0.00
Spotted Sandpiper	0.28	0.00		0.00	0.00		0.00	0.00
Least Sandpiper	2.54	0.00		0.00	0.00		0.00	0.00
Wilson's Snipe	2.82	0.28		0.00	0.00		0.00	0.00
Yellow-billed Cuckoo	0.00	0.00		0.28	0.00		0.00	0.00
Willow Flycatcher	0.28	0.00		0.56	0.28		0.00	0.00
Least Flycatcher	0.00	0.00		0.00	0.28		0.00	0.00
Eastern Kingbird	0.00	0.00		0.28	0.28		0.00	0.00
Sedge Wren	0.00	0.00		0.00	0.28		0.00	0.00
American Robin	0.56	0.00		0.00	0.00		0.00	0.00
Gray Catbird	0.00	0.00		0.28	0.28		0.56	0.00
Brown Thrasher	0.00	0.00		0.00	0.28		0.00	0.00
European Starling	0.00	0.00		0.00	0.28		0.00	0.00
Yellow Warbler	0.00	0.56		0.00	0.00		0.00	0.00
Common Yellowthroat	0.85	0.00		0.85	0.85		0.00	0.00
Eastern Towhee	0.00	0.00		0.28	0.00		0.00	0.00
Song Sparrow	0.56	0.85		1.13	1.13		0.56	0.85
Swamp Sparrow	0.00	0.28		0.00	0.00		0.00	1.13
White-crowned Sparrow	0.00	0.00		0.00	0.00		0.28	0.85
Northern Cardinal	0.00	0.00		0.28	0.00		0.00	0.00
Indigo Bunting	0.00	0.00		0.56	0.56		0.28	0.00
Dickcissel	0.00	0.00		0.85	1.13		0.00	0.00
Red-winged Blackbird	3.95	4.80		8.76	2.26		0.28	9.89
American Goldfinch	0.00	0.00		0.00	0.28		0.00	0.56
Total Ind/Ha	11.58	9.89		7.06	8.47		1.69	13.28
Total Species	14	11		14	14		5	5

Table 26. List of Species, Total Number of Individuals and Species and Relative Abundance of Birds Recorded During the 2004 and 2005 Avian Censuses Conducted within the Cinnamon Teal Sub-impoundment of the Jonathon Creek Management Area, Lake Shelbyville, Moultrie County, Illinois.

Jonathon Creek CINNAMON TEAL (2 Pts)	Spring			Breeding			Fall	
	2004	2005		2004	2005		2004	2005
Species	Ind./Ha	Ind./Ha		Ind./Ha	Ind./Ha		Ind./Ha	Ind./Ha
Blue-winged Teal	0.00	**0.56**		0.00	0.00		0.00	0.00
Great Blue Heron	0.00	0.00		**0.28**	0.00		0.00	0.00
Killdeer	0.00	0.00		**0.85**	0.00		0.00	0.00
Greater Yellowlegs	0.00	**0.56**		0.00	0.00		0.00	0.00
Lesser Yellowlegs	0.00	**2.82**		0.00	0.00		0.00	0.00
Solitary Sandpiper	**1.13**	0.00		0.00	0.00		0.00	0.00
Pectoral Sandpiper	0.00	**0.28**		0.00	0.00		0.00	0.00
Yellow-billed Cuckoo	**0.56**	0.00		**0.28**	0.00		0.00	0.00
Red-headed Woodpecker	0.00	0.00		**0.28**	0.00		0.00	0.00
Downy Woodpecker	**0.28**	0.00		0.00	0.00		0.00	**0.28**
Eastern Wood-pewee	0.00	0.00		**0.28**	0.00		0.00	0.00
Willow Flatcher	0.00	0.00		**0.56**	**0.56**		0.00	0.00
Eastern Pheobe	0.00	0.00		0.00	**0.28**		0.00	0.00
Warbling Vireo	**0.28**	0.00		**0.56**	0.00		0.00	0.00
Red-eyed Vireo	0.00	0.00		**0.28**	0.00		0.00	0.00
Blue Jay	0.00	**0.28**		0.00	0.00		0.00	0.00
American Crow	**0.28**	0.00		**0.56**	0.00		0.00	0.00
Carolina Wren	0.00	0.00		0.00	**0.28**		0.00	0.00
House Wren	0.00	0.00		0.00	**0.28**		0.00	0.00
Sedge Wren	0.00	0.00		0.00	**0.28**		0.00	**0.28**
American Robin	**0.56**	0.00		**0.28**	0.00		0.00	0.00
Gray Catbird	0.00	0.00		**0.28**	**0.28**		**0.28**	0.00
European Starling	**0.28**	0.00		**2.54**	0.00		0.00	0.00
American Pipit	**0.28**	0.00		0.00	0.00		0.00	0.00
Chestnut-sided Warbler	**0.28**	0.00		0.00	0.00		0.00	0.00
Common Yellowthroat	0.00	**0.85**		**0.85**	**0.85**		0.00	0.00
Yellow-breasted Chat	**0.56**	0.00		**0.28**	**0.28**		0.00	0.00
Song Sparrow	**0.28**	**0.56**		**0.56**	**0.56**		0.00	**1.13**
Swamp Sparrow	**0.28**	0.00		0.00	0.00		**0.56**	**0.28**
Northern Cardinal	**0.28**	0.00		**0.28**	0.00		0.00	0.00
Indigo Bunting	**0.56**	0.00		**1.13**	**0.85**		0.00	**0.28**
Dickcissel	0.00	0.00		**0.28**	**1.13**		0.00	0.00
Red-winged Blackbird	**4.52**	**2.26**		**7.91**	**2.54**		**0.28**	**0.28**
Brown-headed cowbird	**1.41**	0.00		**0.85**	0.00		0.00	0.00
Baltimore Oriole	**0.56**	0.00		**0.28**	0.00		0.00	0.00
American Goldfinch	**0.28**	**0.28**		0.00	**0.28**		0.00	**0.28**
Total Ind./Ha	**12.99**	**8.47**		**19.49**	**8.47**		**1.13**	**2.82**

Total Species	18	9		21	13		3	7

Table 27. List of Species, Total Number of Individuals and Species and Relative Abundance of Birds Recorded During the 2004 and 2005 Avian Censuses Conducted within the Green-winged Teal Sub-impoundment of the Jonathon Creek Management Area, Lake Shelbyville, Moultrie County, Illinois.

Jonathon Creek GREEN-WINGED TEAL (2Pts) Species	Spring 2004 Ind./Ha	2005 Ind./Ha		Breeding 2004 Ind./Ha	2005 Ind./Ha		Fall 2004 Ind./Ha	2005 Ind./Ha
Canada Goose	**0.28**	0.00		0.00	0.00		0.00	0.00
Ring-necked Pheasant	0.00	0.00		**0.56**	0.00		0.00	0.00
Red-tailed Hawk	0.00	0.00		**0.28**	0.00		**0.28**	0.00
Killdeer	**0.28**	0.00		0.00	0.00		0.00	0.00
Yellow-billed Cuckoo	0.00	0.00		**0.28**	**0.56**		0.00	0.00
Red-bellied Woodpecker	**0.28**	**1.13**		**0.28**	0.00		**0.56**	0.00
Downy Woodpecker	0.00	**0.56**		**0.28**	**0.56**		**0.85**	0.00
Northern Flicker	0.00	0.00		0.00	0.00		**0.28**	**1.13**
Eastern Wood-pewee	**0.56**	**0.00**		**0.28**	0.00		0.00	0.00
Least Flycatcher	**0.28**	0.00		0.00	0.00		0.00	0.00
Eastern Pheobe	0.00	0.00		0.00	**0.56**		0.00	0.00
Blue Jay	0.00	0.00		**0.28**	0.00		**0.28**	0.00
American Crow	0.00	0.00		**0.28**	0.00		0.00	0.00
Tree Swallow	**0.28**	**1.13**		**0.28**	0.00		0.00	0.00
Black-capped Chickadee	0.00	0.00		**0.28**	**0.56**		**0.28**	0.00
Carolina Wren	**0.28**	0.00		0.00	**0.56**		0.00	0.00
House Wren	**0.85**	0.00		**0.56**	**1.13**		0.00	0.00
Eastern Bluebird	0.00	0.00		**0.28**	0.00		0.00	**0.56**
European Starling	**1.41**	**1.13**		**0.56**	**1.69**		**0.56**	**3.39**
Cape May Warbler	**0.28**	0.00		0.00	0.00		0.00	0.00
Yellow-rumped Warbler	**0.28**	0.00		0.00	0.00		0.00	0.00
Common Yellowthroat	**0.28**	0.00		**0.56**	**0.56**		0.00	0.00
Eastern Towhee	0.00	**0.56**		0.00	0.00		**0.28**	**0.56**
Field Sparrow	0.00	0.00		**0.28**	**0.56**		0.00	0.00
Song sparrow	**0.56**	0.00		**0.56**	**1.13**		**0.28**	0.00
Swamp Sparrow	0.00	0.00		0.00	0.00		0.00	**0.56**
White-throated Sparrow	0.00	0.00		0.00	0.00		**0.85**	0.00
White-crowned Sparrow	0.00	**0.56**		0.00	0.00		**0.28**	0.00
Northern Cardinal	0.00	**0.56**		**0.85**	**0.56**		0.00	0.00

Table 27 Concluded on Following Page.

Table 27. List of Species, Total Number of Individuals and Species and Relative Abundance of Birds (Concluded)

Jonathon Creek GREEN-WINGED TEAL (2Pts) Species	Spring 2004 Ind./Ha	Spring 2005 Ind./Ha		Breeding 2004 Ind./Ha	Breeding 2005 Ind./Ha		Fall 2004 Ind./Ha	Fall 2005 Ind./Ha
Rose-breasted Grosbeak	0.00	0.00		0.00	0.00		0.00	0.56
Dickcissel	0.00	0.00		0.28	0.56		0.00	0.00
Indigo Bunting	0.28	0.00		0.56	1.13		0.00	0.56
Red-winged Blackbird	0.00	1.69		1.13	0.56		0.28	0.00
Brown-headed Cowbird	0.56	0.56		0.28	1.69		0.00	0.56
American Goldfinch	0.00	0.00		0.56	0.00		0.28	0.00
Yellow-breasted Chat	0.00	0.00		0.00	0.56		0.00	0.00
Total Ind./Ha	7.34	7.91		9.89	12.99		5.37	7.91
Total Species	15	10		22	16		13	8

Table 28. List of Species, Total Number of Individuals and Species and Relative Abundance of Birds Recorded During the 2004 and 2005 Avian Censuses Conducted within the Blue-winged Teal Sub-impoundment of the Jonathon Creek Management Area, Lake Shelbyville, Moultrie County, Illinois.

Jonathon Creek BLUE-WINGED TEAL (1 Pt) Species	Spring 2004 Ind./Ha	Spring 2005 Ind./Ha		Breeding 2004 Ind./Ha	Breeding 2005 Ind./Ha		Fall 2004 Ind./Ha	Fall 2005 Ind./Ha
Killdeer	1.13	0.00		0.56	0.00		0.00	0.00
Eastern Kingbird	0.56	0.56		0.00	0.56		0.00	0.00
Warbling Vireo	0.00	0.00		0.56	0.00		0.00	0.00
American Crow	0.00	0.00		0.56	0.00		0.00	0.00
Eastern Bluebird	0.00	0.56		0.00	0.00		0.00	0.00
American Robin	1.13	0.00		0.00	0.00		0.00	0.00
European Starling	1.13	0.00		0.00	0.00		0.00	0.00
American Pipit	0.56	0.00		0.00	0.00		0.00	0.00
Common Yellowthroat	1.13	0.00		1.13	0.56		0.00	0.00
Grasshopper Sparrow	0.00	0.00		0.00	0.56		0.00	0.00
Song Sparrow	0.56	0.00		0.56	0.00		0.00	0.56
Indigo Bunting	0.56	0.00		0.56	0.56		0.00	0.00
Dickcissel	0.00	0.00		1.13	1.69		0.00	0.00
Red-winged Blackbird	1.69	1.13		7.91	2.26		1.13	0.00
Brown-headed Cowbird	0.56	0.00		0.00	0.00		0.00	0.00
Baltimore Oriole	0.56	0.00		0.00	0.00		0.00	0.00
American Goldfinch	0.56	0.00		0.56	0.00		0.56	0.00
Total Ind./Ha	10.17	2.26		13.56	6.21		1.69	0.56
Total Species	12	3		9	6		2	1

Table 29. List of Species, Total Number of Individuals and Species and Relative Abundance of Birds Recorded During the 2004 and 2005 Avian Censuses Conducted within the Northern Shoveler Sub-impoundment of the Jonathon Creek Management Area, Lake Shelbyville, Moultrie County, Illinois.

Jonathon Creek NORTHERN SHOVELER (2004-1Pt/2005-2Pts)	Spring			Breeding			Fall	
	2004	2005		2004	2005		2004	2005
Species	Ind./Ha	Ind./Ha		Ind./Ha	Ind./Ha		Ind./Ha	Ind./Ha
Wood Duck	0.00	**0.56**		0.00	0.00		0.00	0.00
Yellow-billed Cuckoo	**1.13**	0.00		0.00	0.00		0.00	0.00
Red-bellied woodpecker	0.00	0.00		**0.56**	0.00		0.00	0.00
Downy Woodpecker	0.00	**0.56**		**0.56**	0.00		**1.13**	**0.56**
Eastern Wood-pewee	0.00	0.00		0.00	**0.28**		0.00	0.00
Eastern Pheobe	0.00	0.00		0.00	0.00		0.00	**0.28**
Warbling Vireo	**0.56**	0.00		0.00	**0.28**		0.00	0.00
Blue Jay	0.00	0.00		**0.56**	**0.28**		0.00	**1.13**
American Crow	0.00	0.00		**0.56**	0.00		0.00	0.00
Black-capped Chickadee	0.00	**0.28**		**1.13**	0.00		**1.13**	**0.85**
Tufted Titmouse	0.00	0.00		0.00	0.00		0.00	**0.28**
White-breasted Nuthatch	0.00	0.00		0.00	**0.28**		0.00	**0.28**
Carolina Wren	0.00	**0.28**		**0.56**	0.00		**1.13**	0.00
House Wren	**0.56**	**0.28**		**0.56**	0.00		0.00	0.00
Golden-crowned Kinglet	0.00	0.00		0.00	0.00		0.00	**0.28**
Ruby-crowned Kinglet	0.00	0.00		0.00	0.00		**0.56**	0.00
Blue-gray Gnatcatcher	**0.56**	**0.28**		**0.56**	**0.28**		0.00	0.00
Eastern Bluebird	0.00	0.00		**0.56**	0.00		0.00	0.00
American Robin	0.00	0.00		**0.56**	0.00		**2.82**	**0.85**
Gray Catbird	**0.56**	0.00		0.00	0.00		0.00	0.00
Brown Thrasher	0.00	0.00		**0.56**	**0.28**		0.00	0.00
European Starling	0.00	0.00		**0.56**	0.00		0.00	0.00
Golden-winged Warbler	**0.56**	0.00		0.00	0.00		0.00	0.00
Nashville warbler	**0.56**	0.00		0.00	0.00		0.00	0.00
Yellow Warbler	0.00	**0.28**		0.00	**0.28**		0.00	0.00
Yellow-rumped Warbler	0.00	0.00		0.00	0.00		0.00	**0.28**
Bay-breasted Warbler	0.00	0.00		0.00	0.00		0.00	**0.28**
Common Yellowthroat	**0.56**	0.00		**0.56**	**0.56**		0.00	0.00
Yellow-breasted Chat	**0.56**	0.00		**1.13**	0.00		0.00	0.00

Table 29 Concluded on Following Page.

Table 29. List of Species, Total Number of Individuals and Species and Relative Abundance of Birds (Concluded).

Jonathon Creek NORTHERN SHOVELER (2004-1Pt/2005-2Pts) Species	Spring 2004 Ind./Ha	2005 Ind./Ha		Breeding 2004 Ind./Ha	2005 Ind./Ha		Fall 2004 Ind./Ha	2005 Ind./Ha
Eastern Towhee	0.00	0.00		0.56	0.00		0.56	0.00
Chipping Sparrow	0.00	0.00		0.56	0.00		0.00	0.00
Field Sparrow	0.56	0.56		1.13	0.85		0.00	0.28
Song Sparrow	0.00	0.00		0.56	0.00		0.00	0.56
Swamp Sparrow	0.00	0.00		0.00	0.00		0.00	0.85
White-throated Sparrow	0.00	0.00		0.00	0.00		0.56	2.82
Dark-eyed Junco	0.00	0.00		0.00	0.00		0.00	0.56
Northern Cardinal	0.56	0.56		1.69	0.56		0.56	0.00
Rose-breasted Grosbeak	0.00	0.00		0.56	0.00		0.00	0.00
Indigo Bunting	2.26	0.00		1.69	1.41		0.00	1.13
Red-winged Blackbird	0.00	0.56		0.00	0.56		0.00	0.00
Brown-headed Cowbird	0.56	0.00		0.00	0.56		0.00	0.00
Baltimore Oriole	0.00	0.28		0.00	0.28		0.00	0.00
American Goldfinch	1.13	0.85		0.56	0.28		0.00	0.56
Total Ind./Ha	10.73	5.37		16.38	7.06		8.47	11.86
Total Species	14	12		22	16		8	17

Table 30. List of Species, Total Number of Individuals and Species and Relative Abundance of Birds Recorded During the 2004 and 2005 Avian Censuses Conducted within the Wood Duck Sub-impoundment of the McGee Management Area, Lake Shelbyville, Moultrie County, Illinois.

McGee WOOD DUCK (1 Pt)	Spring			Breeding			Fall	
	2004	2005		2004	2005		2004	2005
Species	Indv./Ha	Indv./Ha		Indv./Ha	Ind./Ha		Indv./Ha	Indv./Ha
Mallard	1.13	0.00		0.00	0.00		0.00	0.56
Ring-necked Pheasant	0.00	0.00		0.56	0.00		0.56	0.00
Cooper's Hawk	0.00	0.00		0.56	0.00		0.00	0.00
Red-tailed Hawk	1.13	0.00		1.13	0.00		0.00	0.00
Wilson's Snipe	0.00	0.00		0.00	0.00		0.00	1.69
Mourning Dove	1.13	0.00		0.56	0.00		0.00	0.00
Yellow-billed Cuckoo	0.00	0.00		0.56	0.00		0.00	0.00
Red-headed Woodpecker	1.13	0.00		0.56	0.00		0.00	0.00
Blue Jay	0.00	0.00		1.13	0.00		0.00	0.00
Carolina Wren	0.00	0.00		0.56	0.00		0.00	0.00
Eastern Bluebird	0.00	1.13		0.00	0.00		0.00	0.00
American Robin	0.56	0.00		0.00	0.00		0.56	0.00
Brown Thrasher	0.00	0.00		0.56	0.00		0.00	0.00
European Starling	0.00	0.00		0.56	0.00		0.00	0.00
Common Yellowthroat	0.56	0.56		0.56	0.56		0.00	0.00
Yellow-breasted Chat	0.00	0.00		0.56	0.00		0.00	0.00
Grasshopper Sparrow	0.00	0.00		0.00	0.56		0.00	0.00
Song sparrow	1.13	0.56		1.69	1.13		0.00	0.00
Northern Cardinal	1.13	0.00		1.13	0.00		0.00	0.00
Indigo Bunting	0.00	0.00		0.56	1.13		0.00	0.00
Dickcissel	0.00	0.00		1.13	1.69		0.00	0.00
Red-winged Blackbird	0.00	3.39		4.52	1.13		1.13	40.11
Common Grackle	0.00	0.56		0.00	0.00		0.00	0.00
Brown-headed Cowbird	0.00	2.26		0.56	0.00		0.00	0.00
Total Ind./Ha	3.95	8.47		17.51	6.21		2.26	42.37
Total Species	8	6		18	6		3	3

Table 31. List of Species, Total Number of Individuals and Species and Relative Abundance of Birds Recorded During the 2004 and 2005 Avian Censuses Conducted within the Black Duck Sub-impoundment of the McGee Management Area, Lake Shelbyville, Moultrie County, Illinois.

McGee BLACK DUCK (3 Pts)	Spring			Breeding			Fall	
	2004	2005		2004	2005		2004	2005
Species	Indv./Ha	Indv./Ha		Indv./Ha	Ind./Ha		Indv./Ha	Indv./Ha
Canada Goose	1.13	0.00		0.00	0.00		0.00	0.00
Wood Duck	0.00	0.00		0.00	0.00		0.56	0.00
American Widgeon	0.00	0.00		0.00	0.00		0.19	0.00
Mallard	0.00	0.00		0.00	0.00		11.30	0.00
Ring-necked Pheasant	0.00	0.19		0.38	0.00		0.00	0.00
Turkey Vulture	0.00	5.84		3.77	0.00		0.00	0.00
Killdeer	0.19	0.00		0.38	0.00		0.00	2.64
Lesser Yellowlegs	0.19	0.00		0.00	0.00		0.00	0.00
Solitary Sandpiper	1.69	0.00		0.00	0.00		0.00	0.00
Least Sandpiper	2.07	0.00		0.00	0.00		0.00	0.00
Pectoral Sandpiper	0.19	0.00		0.00	0.00		0.00	0.00
Wilson's Snipe	0.00	0.00		0.00	0.00		0.00	3.58
American Robin	0.00	0.19		0.38	0.00		0.00	0.00
Mourning Dove	0.00	0.56		0.19	0.00		0.00	0.00
Yellow-billed cuckoo	0.00	0.00		0.19	0.00		0.00	0.00
Red-headed Woodpecker	0.00	0.00		0.94	0.00		0.00	0.00
Eastern Kingbird	0.38	0.00		0.19	0.38		0.00	0.00
Blue Jay	0.00	0.00		0.19	0.00		0.00	0.00
American Crow	0.00	0.19		0.19	0.19		0.00	0.00
Black-capped Chickadee	0.00	0.00		0.19	0.00		0.00	0.00
Carolina Wren	0.00	0.00		0.38	0.00		0.00	0.00
House Wren	0.00	0.00		0.38	0.00		0.00	0.00
Sedge Wren	0.00	0.00		0.19	0.38		0.00	0.00
Eastern Bluebird	0.38	0.19		0.00	0.00		0.00	0.00
American Pipit	0.56	0.19		0.00	0.00		0.00	0.00
Yellow Warbler	0.19	0.00		0.00	0.00		0.00	0.00
Common Yellowthroat	0.19	0.00		0.56	0.38		0.00	0.00
Yellow-breasted Chat	0.00	0.00		0.38	0.00		0.00	0.00
Field Sparrow	0.00	0.00		0.19	0.00		0.00	0.00
Savannah Sparrow	0.19	0.00		0.00	0.00		0.00	0.00
Grasshopper Sparrow	0.00	0.00		0.00	0.75		0.00	0.00
Song Sparrow	0.75	1.13		1.13	0.75		0.00	0.00

Table 31 Concluded on Following Page.

Table 31. List of Species, Total Number of Individuals and Species and Relative Abundance of Birds (Concluded).

McGee BLACK DUCK (3 Pts) Species	Spring 2004 Indv./Ha	 2005 Indv./Ha		Breeding 2004 Indv./Ha	 2005 Ind./Ha		Fall 2004 Indv./Ha	 2005 Indv./Ha
Northern Cardinal	0.00	0.00		0.38	0.00		0.00	0.00
Indigo Bunting	0.00	0.00		0.38	0.56		0.00	0.00
Dickcissel	0.19	0.00		0.75	1.51		0.00	0.00
Red-winged Blackbird	0.38	3.01		3.58	3.39		0.00	28.25
Eastern Meadowlark	0.00	0.00		0.19	0.00		0.00	0.00
Common Grackle	0.00	0.00		0.19	0.00		0.00	0.00
Brown-headed Cowbird	0.38	1.32		0.19	0.19		0.00	0.00
American Goldfinch	0.00	0.00		0.19	0.19		0.00	0.00
Total Ind./Ha	9.04	12.81		16.01	8.66		12.05	34.46
Total Species	16	10		26	11		3	3