



WILLISTOWN
CONSERVATION TRUST

Bird
Conservation
Program



Eastern Bluebird.
Photo by Brian Storey.

**Kirkwood South
Bird Monitoring
Program Report
2009-2022**

Willistown Conservation Trust's (WCT) Bird Conservation Program established a bird monitoring program in 2009 to survey the bird population in the greater Willistown area. Nine properties or preserves are surveyed four mornings per year to record the bird species present during the breeding season (summer), spring and fall migrations, and the winter period. Birds are important indicators of habitat quality as well as environmental changes over time and monitoring these areas can give us a better understanding of the local bird populations and the impacts that small areas can have. All data is collected through eBird, a citizen science tool developed by the Cornell Lab of Ornithology, which contributes to our understanding of the annual cycle of birds on a global scale.

Since 2009, a dedicated group of volunteers have been monitoring the songbirds at Kirkwood South, formerly known as the Scott Property on Providence Road. For one day each spring, fall and winter, following a standardized monitoring protocol, the group records all birds seen and heard during a 20-minute period in the orange blocks indicated in Figure 1. During the summer, when the birds establish territories for nesting and are singing loudly, the bird monitoring group survey three points, marked green in Figure 1, for five minutes each and records all birds seen and heard. All other birds seen or heard outside of the protocol areas are accounted for as well.

To date, 84 bird species have been recorded at Kirkwood South (Appendix 1).

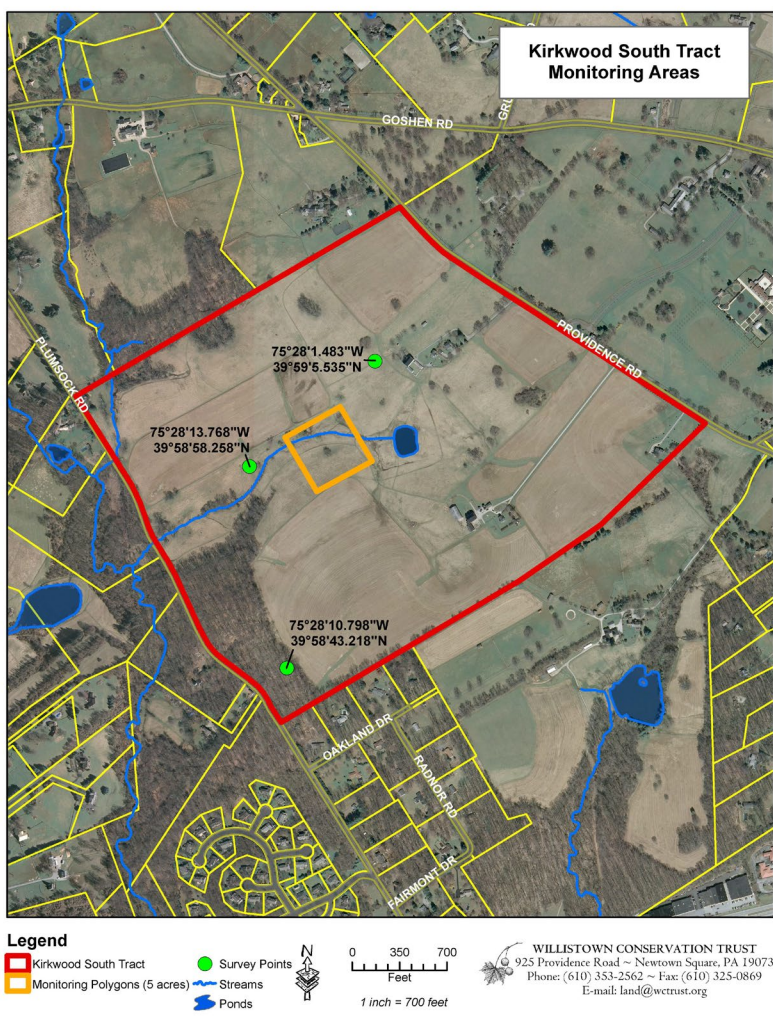


Figure 1. Kirkwood South Tract bird monitoring area.



Figure 2. Kirkwood South. Photo WCT Staff.

Introduction/Methods



American Kestrel. Photo by Aaron Coolman.

Overtime, during just one visit per season each year, we can see that 55 species are likely nesting on the property or in the vicinity. The variety of habitat types around the property including a thickly vegetated stream leading to a pond, as well as expansive meadow habitat and a small track of mature woodland support this great variety of species. The breeding species include resident woodland birds such as Downy and Pileated Woodpeckers, Carolina Chickadee, Tufted Titmouse and White-breasted Nuthatch. The shrubby riparian zone along the stream supports breeding Yellow Warbler, Common Yellowthroat, Willow Flycatcher, Gray Catbird, Orchard Oriole and Eastern Towhee. Black Vulture have even nested in the barn over the years! In addition, the open meadow likely hosts breeding species such as Eastern Meadowlark, Field Sparrow and American Kestrel. Grassland species such as these are one of the fastest declining groups of bird species due to loss of habitat.



Field Sparrow. Photo by Jennifer Mathes.

Nesting Birds



Both spring and fall migrations are important for birds to have high quality habitat to stop-over during their long journeys. More than 70 bird species have been recorded during both migratory seasons including warblers, sparrows, ducks, raptors and even a Spotted Sandpiper! Bobolink, an obligate grassland bird, is regularly documented at Kirkwood South each spring. Of the nine locations monitored for birds by WCT, Bobolink and Savannah Sparrow have only been documented during migration at one other location, Kirkwood Preserve, that also has extensive grassland area.

Another group of species that appears to regularly rely on this area during migration are raptors. Ten species of raptors are seen during spring or fall migrations such as Broad-winged Hawk and Merlin. Open foraging ground remains important for these species.



Bobolink. Photo by Aaron Coolman.



Finally, while many of our breeding birds head south for the winter, many stay year-round as well as many that find Pennsylvania just far south enough for the winter! Our bird monitoring team has documented 32 bird species at Kirkwood South during the winter months. Many are resident species such as chickadees, cardinals and woodpeckers that call this their home all year. Others, such as, white-throated sparrows and slate-colored juncos that breed in the northern forests and scrubland use the habitat regularly each winter. In years where the pond has remained unfrozen during the winter months we have recorded American Black Duck, and the meadow provides a great hunting grounds for raptor species such as Northern Harrier and Merlin.

Through consistent monitoring over time, it has become clear that Kirkwood South supports a diverse group of bird species in the woodland, open fields and pond habitats throughout the year.



Northern Harrier. Photo by Aaron Coolman.

Wintering Birds



Appendix 1. All bird species documented through bird monitoring at Kirkwood Farm 2009-2022.

A = Abundant: a common species which is very numerous

C = Common: certain to be seen in suitable habitat

U = Uncommon: likely present, but not certain to be seen

R = Rare: seen at intervals of 2 to 5 per year

***** = Likely nests on property or vicinity



SWANS, GEESE, AND DUCKS	Spring	Summer	Fall	Winter
American Black Duck				R
Canada Goose*	C	C	C	C
Mallard*	C	C		C
Wood Duck*		U		
CORMORANTS	Spring	Summer	Fall	Winter
Double-crested Cormorant			U	
BITTERNS AND HERONS	Spring	Summer	Fall	Winter
Great Blue Heron*	U	U		
Green Heron*		U		
VULTURES	Spring	Summer	Fall	Winter
Black Vulture*	C	C	C	C
Turkey Vulture*	A	A	A	A
EAGLES, AND HAWKS	Spring	Summer	Fall	Winter
Bald Eagle			C	
Broad-winged Hawk	U		U	
Cooper's Hawk	C		C	
Northern Harrier			U	U
Red-shouldered Hawk			U	
Red-tailed Hawk*	A	A	A	A
Osprey	U		U	
Sharp-shinned Hawk	C		C	
FALCONS	Spring	Summer	Fall	Winter
American Kestrel*	C	C	C	
Merlin			R	R
PLOVERS	Spring	Summer	Fall	Winter
Killdeer				R
SANDPIPERS	Spring	Summer	Fall	Winter
Spotted Sandpiper	R			
GULLS	Spring	Summer	Fall	Winter
Ring-billed Gull				U
PIGEONS AND DOVES	Spring	Summer	Fall	Winter
Mourning Dove*	A	A	A	A
Rock Pigeon (Feral Pigeon)*	A	A	A	A
SWIFTS	Spring	Summer	Fall	Winter
Chimney Swift*	C	C	C	
HUMMINGBIRDS	Spring	Summer	Fall	Winter
Ruby-throated Hummingbird*		U		
WOODPECKERS	Spring	Summer	Fall	Winter
Downy Woodpecker*	C	C	C	C
Northern Flicker*	C	C	C	C
Pileated Woodpecker*		C		
Red-bellied Woodpecker*	C	C	C	C

FLYCATCHERS	Spring	Summer	Fall	Winter
Eastern Kingbird*	C	C		
Eastern Phoebe*	C	C	C	
Eastern Wood-Pewee*		C		
Great Crested Flycatcher*	U	U		
Willow Flycatcher*	C	C		
VIREOS	Spring	Summer	Fall	Winter
Warbling Vireo*	U	U		
JAYS AND CROWS	Spring	Summer	Fall	Winter
American Crow*	A	A	A	A
Blue Jay*	A	A	A	A
Common Raven			U	U
Fish Crow	U			
SWALLOWS	Spring	Summer	Fall	Winter
Barn Swallow*	A	A		
Northern Rough-winged Swallow	C			
Tree Swallow*	A	A	A	
CHICKADEES AND TITMICE	Spring	Summer	Fall	Winter
Carolina Chickadee*	C	C	C	C
Tufted Titmouse*	C	C	C	C
NUTHATCHES	Spring	Summer	Fall	Winter
White-breasted Nuthatch*	C	C	C	C
WRENS	Spring	Summer	Fall	Winter
Carolina Wren*	C	C	C	C
House Wren*	C	C		
KINGLETS AND GNATCATCHERS	Spring	Summer	Fall	Winter
Blue-gray Gnatcatcher	U			
Ruby-crowned Kinglet	U		U	
THRUSHES	Spring	Summer	Fall	Winter
American Robin*	A	A	A	A
Eastern Bluebird*	C	C	C	C
Wood Thrush*	C	C		
MIMIC THRUSHES	Spring	Summer	Fall	Winter
Brown Thrasher*	C	C		
Gray Catbird*	C	C	C	
Northern Mockingbird*	C	C	C	C
STARLINGS	Spring	Summer	Fall	Winter
European Starling*	A	A	A	A
WAXWINGS	Spring	Summer	Fall	Winter
Cedar Waxwing		U		
WARBLERS	Spring	Summer	Fall	Winter
Black-throated Blue Warbler	U			
Common Yellowthroat*	C	C	C	
Ovenbird*	C	C		
Palm Warbler			U	
Yellow Warbler*	C	C		
Yellow-rumped Warbler (Myrtle)	U		U	

SPARROWS	Spring	Summer	Fall	Winter
Chipping Sparrow*	C	C		
Dark-eyed Junco (Slate-colored)			C	C
Eastern Towhee*	C	C	C	
Field Sparrow*		C	C	
Savannah Sparrow	U		U	
Song Sparrow*	A	A	A	C
Swamp Sparrow	U		U	U
White-throated Sparrow	C		C	C
CARDINALS AND GROSBEAKS	Spring	Summer	Fall	Winter
Indigo Bunting*	C	C		
Northern Cardinal*	C	C	C	C
BLACKBIRDS	Spring	Summer	Fall	Winter
Baltimore Oriole*	C	C		
Bobolink	C			
Brown-headed Cowbird*	C	C		
Common Grackle	C			
Eastern Meadowlark*	C	C		
Orchard Oriole*	C	C		
Red-winged Blackbird*	A	A	C	R
FINCHES	Spring	Summer	Fall	Winter
American Goldfinch*	C	C	C	
House Finch*	C	U	U	R
WEAVER FINCHES	Spring	Summer	Fall	Winter
House Sparrow	U			

Thank you to all the dedicated volunteers of the WCT bird monitoring teams. Over the years, more than 20 individuals have participated in making this program a success.



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