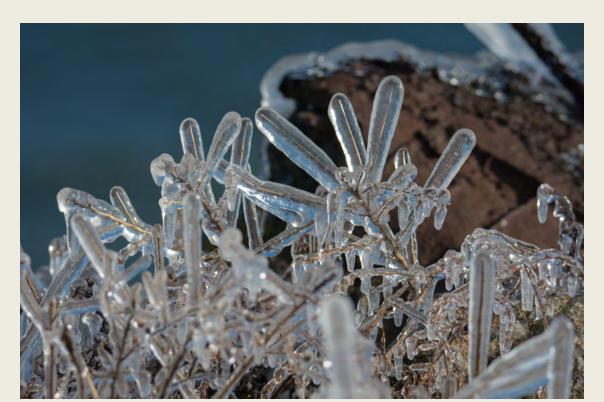


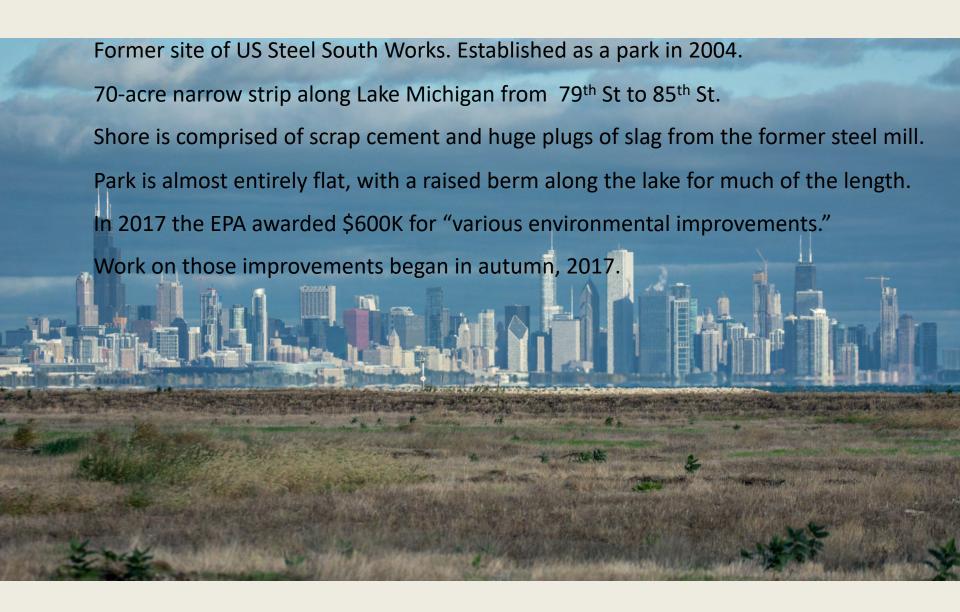
Goals of this study

At the start of the Chicago Park District's EPA-funded environmental improvements in the park, this study's goals are to:

- 1. Establish a baseline measure of bird activity in the park
- 2. Document any immediate impact of environmental improvement actions on bird activity in the park
- 3. Record the presence of other flora and fauna as observed



About Park 566



Habitat Features of Park 566



Environmental Improvements

Nov 2017	Nov 30, controlled burn of entire northern half of park, from S. Farragut Dr down to the elbow.
Jan 2018	Year began with northern half of park covered in foot-high burnt grasses, with scrub trees and larger brush still standing. South half of park is dead grasses.
March-April 2018	Cleared most small trees and brush from fence line on NE corner of park and then all the way down the shore to the slip. (Areas 1, 2, 3 were impacted)
April-May 2018	 Planted Burr Oak and Jack Pine in grassy field north of the bay. (Area 1) Hauled in topsoil to cover about an acre, halfway between the elbow and the slip. (Area 4)
May-June	Selective spray of entire park, targeting all invasives.
July 2018	 Mowed entire park to 6", including the heavy brush and small trees that had still been standing in north end of park (Area 10). Sprayed entire park with Roundup.

Environmental Improvements

October 2018	 Sprayed beach area (grass between the newly planted trees) with RoundUp. Sprayed entire park again with Roundup. Wrapped a select number of trees along shore with wire fencing to protect from beaver damage. Built split-rail fence along Farragut Dr. Planted and fenced 400 shrubs and small trees on the berm in Area 1. Appears to be an equal mix of: American Plum, Red Ozier Dogwood, Elderberry, American Filbert, Wild Black Current, Blue-fruited Silky Dogwood, Alleghany Shadblow, Ninebark, Black Chokeberry, Common Witch Hazel, Wahoo (Eastern Burning Bush)
November- December 2018	 Planted dune grass in the beach area. Nov 8 burned 20 acres, apparently of certain target plants. Disked and seeded the open areas around the trees that had been planted in April between the beach and Farragut. Built roped-in walkway to keep visitors off planted dunes area. Seeded entire park with variety of prairie grasses.

State of the Birds: Before 2018

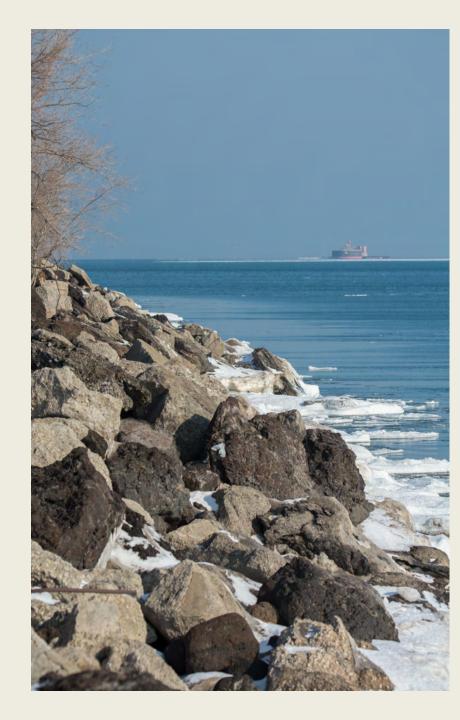
No recorded birding outings prior to Dec 23, 2014

In the 3-year period 2015-2017:

88 birding outings (about 30/year) by about 20 different individuals (as per eBird)

168 bird species observed across those three years

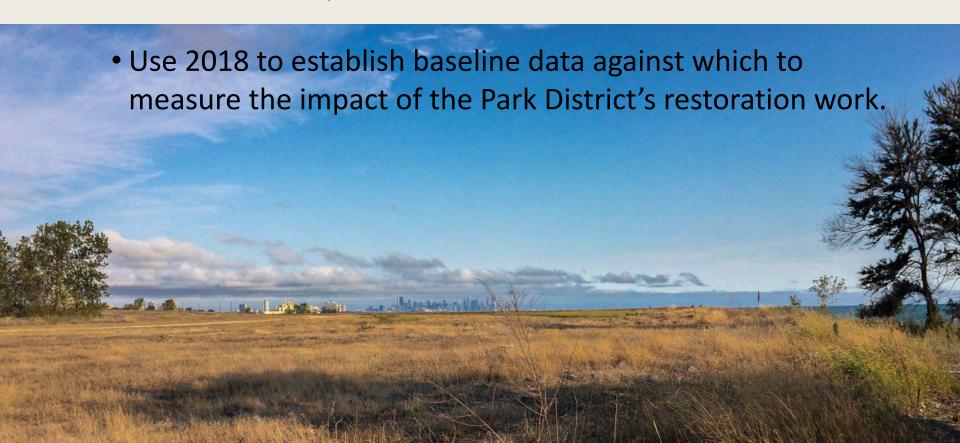
Impressive, yet Park 566 has been "underbirded."



Project Plan

Wonderful opportunity to:

 Test hypothesis that more species actually visit the park than the three years of data indicate, and



Procedure

Stated simply:

Bird the park more consistently than it had ever been birded before, keeping records of all birds sighted.

- Species
- Frequency/Count
- Specific locations of bird sightings (to limited degree)
- Nature of the presence (transitory, nesting, etc.)

Data for the study were gathered from:

- 1. 202 observation walks by one observer over the course of the entire year
 - 2.8-mile fixed route around circumference of park
- 2. 68 other observation walks by 49 other observers during the year
 - Random routes, dates, and distances

All data recorded in eBird. Data management assistance by Hiroki Lory.

All photos in this presentation were taken by Dan Lory at Park 566 in 2018.



Results: Bird's-eye Overview

In 2018: 197 bird species were observed

189 species observed by Dan Lory in the study's 202 fixed-route observation walks

8 additional species were sighted by others throughout 2018

Total species count for Park 566 is now 215 species

30% increase over the 168 species that had been observed 2015-2017.



Results: Bird's-eye Overview



Threatened and Endangered Species*

1 of the 7 species listed as **Threatened Species** was observed in Park 566:

Black-billed Cuckoo

7 of the 24 species listed as **Endangered Species** were observed in Park 566:

Black-crowned Night Heron

Short-eared Owl Upland Sandpiper American Bittern Northern Harrier Osprey Forster's Tern

Upland Sandpiper

^{*} pertains to species' breeding status in Illinois, as recognized by State and Federal agencies

Birds of Concern*

Grassland Habitat Birds of Concern that visited Park 566:

7 of the 12 species listed by BCN

Grasshopper Sparrow (nested)

Bobolink

American Kestrel (nested)

Sedge Wren

Dickcissel (nested)

Eastern Meadowlark

Upland Sandpiper



^{*} Refers to species of declining populations (in IL and elsewhere) for which conservation efforts can have significant impact-- as per Bird Conservation Network

Birds of Concern*

Shrub Habitat Birds of Concern that visited Park 566:

7 of the 10 species listed by BCN

Black-billed Cuckoo

Brown Thrasher (nested)

Willow Flycatcher

Field Sparrow (nested)

Yellow-breasted Chat

Blue-winged Warbler

Eastern Kingbird (nested)





^{*} Refers to species of declining populations (in IL and elsewhere) for which conservation efforts can have significant impact-- as per Bird Conservation Network

Birds of Concern*

Woodlands Habitat Birds of Concern that visited Park 566:

8 of the 14 species listed by BCN
Red-headed Woodpecker
Eastern Whip-poor-will
American Woodcock
Northern Flicker
Chimney Swift
Yellow-billed Cuckoo
Veery
Prothonotary Warbler



^{*} Refers to species of declining populations (in IL and elsewhere) for which conservation efforts can have significant impact-- as per Bird Conservation Network

Birds of Concern*

Wetlands Habitat Birds of Concern that visited Park 566:

8 of the 22 species listed by BCN

American Bittern

Black-crowned Night Heron

Pied-billed Grebe

Wilson's Snipe

Marsh Wren

Virginia Rail

Osprey

Caspian Tern

Wilson's Snipe

^{*} Refers to species of declining populations (in IL and elsewhere) for which conservation efforts can have significant impact-- as per Bird Conservation Network

Nesting Species

Evidenced by territorial behavior, nest with eggs or young, carrying food, juvenile birds present

Song Sparrow (areas 1,2,10)

Field Sparrow (areas 6,7,9)

Grasshopper Sparrow (areas 2,3)

Common Yellowthroat (areas 1,9,10)

Brown Thrasher (areas 1,9)

Dickcissel (area 10)

Eastern Kingbird (area 1)

American Kestrel (area 6)

Mallard (area 6)

Spotted Sandpiper (areas 2,3,5)



Sparrows

- 14 species were observed in 2018.
- Total of 18 species seen in park since 2015.
- Evidence of breeding:

 Song Sparrow (areas 1,2,10)
 Field Sparrow (areas 6,7,9)
 Grasshopper Sparrow (areas 2,3)







Sparrows

Significant frequency (15 days or more)
 Savannah, Lincoln's, Dark-eyed Junco, White-crowned
 American Tree, Swamp, Song, Field, Grasshopper

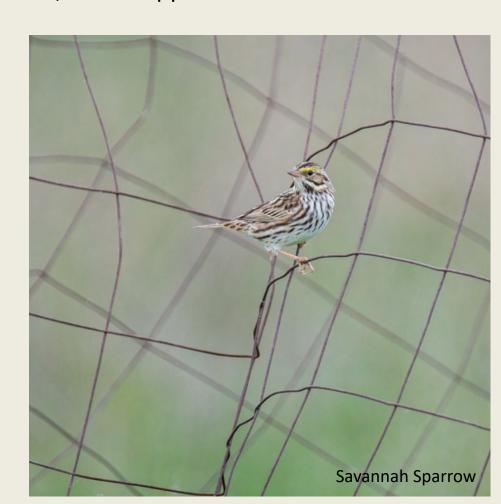
Occasional (4-14 days)

Eastern Towhee, Fox, Clay-colored, Chipping, White-throated

Missing in 2018

Vesper, Lark, Nelson's and LeConte's, possibly due to the drastic cutting in July.

Never observed
 Henslow's Sparrow



Warblers

- 24 species were observed in 2018.
- Seen in prior years, but missing in 2018: Black-throated Blue Warbler
- Evidence of breeding
 Common Yellowthroat (areas 1,9,10)



Warblers

Frequent (15 days or more)

Palm, Common Yellowthroat, Yellow-rumped Yellow, Blackpoll, Nashville, American Redstart

Occasional (4-14 days)

Northern Waterthrush, Tennessee, Cape May Magnolia, Orange-crowned, Wilson's Black-and-white, Blackburnian, Canada Bay-breasted, Black-throated Green

Rare (3 days or less)

Ovenbird, Northern Parula Blue-winged, Chestnut-sided Prothonotary, Mourning

Birds of Park 566





Raptors, Birds of Prey

Hawks, Vultures

Red-tailed Hawk
Broad-winged Hawk
Rough-legged Hawk
Northern Harrier
Cooper's Hawk
Bald Eagle
Osprey
Turkey Vulture





Raptors, Birds of Prey

Falcons (year-round, frequent)

American Kestrel

Merlin

Peregrine Falcon

Owls (seasonal)

Short-eared Owl

Snowy Owl

Great-horned Owl





Shorebirds, Rails, Sandpipers

Frequent

Killdeer

Spotted Sandpiper (nested)

American Coot

American Woodcock

Wilson's Snipe

Occasional

Sanderling, Black-bellied Plover Greater & Lesser Yellowlegs

Rare

Semipalmated Plover, Willet
Virginia Rail, Sandhill Crane
American Golden Plover, Dunlin
Upland Sandpiper, Ruddy Turnstone
Baird's Sandpiper, Least Sandpiper
Semipalmated Sandpiper







Waterfowl, Grebes, etc

Frequent

Canada Goose (almost daily)

Red-breasted Merganser

Double-crested Cormorant

Mallard (nested)

Common Goldeneye

Common Merganser

Horned Grebe

Greater Scaup

Redhead

Bufflehead





Waterfowl, Grebes, etc

Occasional

White-winged Scoter, Blue-winged Teal Canvasback, Lesser Scaup, Snow Goose Green-winged Teal, Common Loon, Black Scoter, Greater White-fronted Goose

Rare

Mute Swan, Northern Shoveler
Wood Duck, Long-tailed Duck
Ring-necked Duck, Cackling Goose
Hooded Merganser, Surf Scoter
Northern Pintail, Pied-billed Grebe
Ross's Goose, Red-throated Loon
American Black Duck
Western Grebe





Gulls, Terns

Frequent

Ring-billed Gull Herring Gull Caspian Tern

Rare

Great Black-backed Gull Bonaparte's Gull

Lesser Black-backed Gull

Iceland Gull

Glaucous Gull

Forster's Tern







Flycatchers, Vireos

Frequent

Eastern Phoebe, Eastern Kingbird Warbling Vireo, Least Flycatcher Eastern Wood Pewee

Occasional

Willow Flycatcher, Red-eyed Vireo

Rare

Philadelphia Vireo Great Crested Flycatcher

Blue-he







Thrushes

Frequent

American Robin Swainson's Thrush

Hermit Thrush

Rare

Veery
Eastern Bluebird
Gray-cheeked Thrush







Sedge Wren

Wrens

All regional wrens except Carolina Wren

Surprise: Marsh Wren more frequent than Sedge Wren



Chickadee, Kinglets...

Black-capped Chickadee Blue-gray Gnatcatcher Golden-crowned Kinglet Ruby-crowned Kinglet







Finches, etc

Frequent

American Goldfinch

Common Redpoll

Occasional

House Finch

Rare

Pine Siskin, Hoary Redpoll







Blackbirds, Field and Meadow Birds

Summer

Red-winged Blackbird
Eastern Meadowlark
Dickcissel
Common Grackle
Baltimore Oriole
Orchard Oriole
Bobolink
Rusty Blackbird (rare)







Blackbirds, Field and Meadow Birds

Frequent Winter

Snow Bunting

Horned Lark

Lapland Longspur







Various Shrub Birds

Frequent/Occasional

Brown Thrasher (nested)

Gray Catbird

Northern Mockingbird

Rare

Northern Shrike

Yellow-breasted Chat



Woodpeckers, Creepers, etc

Frequent/Occasional

Northern Flicker
Downy Woodpecker
Red-breasted Nuthatch
Yellow-bellied Sapsucker
Brown Creeper
Red-headed Woodpecker

Rare

Red-bellied Woodpecker White-breasted Nuthatch







Swallows, Nightjars, Swifts

Frequent/Occasional

Northern Rough-winged Swallow

Barn Swallow

Chimney Swift

Tree Swallow

Rare

Common Nighthawk







No-shows

Seen in prior years, but not observed in 2018

Neotropic Cormorant – was observed at Rainbow Beach

Common Tern

Black Tern

Black-legged Kittiwake

American White Pelican

Whimbrel Le Conte's Sparrow

Sora Vesper Sparrow

Sharp-shinned Hawk Nelson's Sparrow

Monk Parakeet Lark Sparrow

Alder Flycatcher

Yellow-bellied Flycatcher – probable sighting, but could not confirm

Bank Swallow – probable sighting

Black-throated Blue Warbler

Yellow-throated Vireo

In order of number of species observed

Area 1 - 103 species

- Area with largest diversity of habitat
 Large & small trees, shrubs, grass, shore
- Welcoming environment, despite significant habitat changes in 2018
- Raptors, passerines, shorebirds, shrub birds wide variety
- Evidence of nesting:
 Song Sparrow, Common Yellowthroat, Eastern Kingbird, Brown Thrasher

Area 2 – 101 species

- No honey locusts, but tall grasses, numerous poplars and rocky shoreline were good for flycatchers, warblers, sparrows, raptors, shorebirds.
- Evidence of nesting:
 Song Sparrow (nest located), Grasshopper Sparrow, Spotted Sandpiper





Area 5 – 86 species

- Nice mix of sumac, large trees and shrub undergrowth. Along rocky shoreline.
- Warblers, raptors, vireos, flycatchers. Lake and shore birds.
- Evidence of nesting: Spotted Sandpiper

Area 3 – 64 species

- Grassland with several small trees. One swath of knee-high grasses was left untouched by CPD cuts and burns.
- Raptors, sparrows, larks, ground-foraging birds
- Evidence of nesting: Grasshopper Sparrow



Area 9 – 57 species

- High grasses adjacent to large stand of young poplar
- Wrens, woodcock, snipe, woodpeckers, Yellow-breasted Chat, warblers, raptors
- Evidence of nesting:
 Field Sparrow, Song Sparrow, Common Yellowthroat, Brown Thrasher
 Drastic reduction in activity after the July cutting

Area 7 – 52 species

- Similar to area 9, but shorter grass, and trees more scattered
- Warblers, finches, woodpeckers, kinglets, gnatcatcher, Meadowlark

Area 6 – 47 species

- Large piles of sand with dense shrub growth,
 with grass to east and mixed shrub to west
- Sparrows, warblers, Meadowlark, raptors
- Evidence of nesting: Field Sparrow, American Kestrel, Mallard (nest located)

Area 4 – 31 species

- Low grass with several trees along shore; patch of waist-high grass that grew in after top soil was spread in late spring.
- Sparrows, ground-feeding birds, Upland Sandpiper

Area 10 - 27 species

- High grass, with scattered stands of scraggly small trees
- Evidence of nesting: Dickcissel, Common Yellowthroat

Area 8 – 25 species

- Large piles of sand overgrown with dense shrub, surrounded by low grass
- Redpoll, sparrows, blackbirds



Butterflies and Moths









Butterflies and Moths









Butterflies and Moths







Dragonflies













Other Creatures





Other Creatures







Other Creatures







