

# State of the Birds, 2021

## Park 566



Dan Lory  
February 2022

# Goals of this project

As the Chicago Park District continues the EPA-funded environmental improvement actions in the park, this study's goals are to:

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

2021 was year 4 of data gathering and analysis



# About Park 566

Former site of US Steel South Works. Established as a park in 2004.

70-acre narrow strip along Lake Michigan from 79<sup>th</sup> St to 85<sup>th</sup> St.

Shore is comprised of scrap cement and huge plugs of slag from the former steel mill.

Park is almost entirely flat, with a raised berm along the lake for much of the length.

In 2017 the EPA awarded \$600K for “various environmental improvements.”

Work on those improvements began in autumn, 2017.

*Except where otherwise noted, all photos in this presentation were taken by Dan Lory at Park 566 in 2021.*

# Habitat Features of Park 566



# Environmental Improvements

2017 start	Nov 30, controlled burn of entire northern half of park
2018 key actions	<ul style="list-style-type: none"><li>• Cleared small trees and brush, especially area 1</li><li>• Cleared and planted dune area – Burr Oak, Jack Pine, dune grasses, prairie grasses</li><li>• Broadcast a mix of prairie seeds over entire park</li><li>• Sprayed to eliminate invasive plants</li><li>• Mowed to cut back invasives and assist sprouting prairie grasses</li><li>• Planted 400 shrubs and small trees on the berm in Area 1</li><li>• Erected ropeway and split-rail fencing to limit access to planted areas.</li></ul>
Jan 2019	<p>Unlike Jan 2018, when entire park was shaved to 6” and barren, 2019 began with knee-high vegetation over much of park.</p> <p>400 shrubs in area 1 had remarkable survival rate.</p> <p>Same was true for Burr Oak and Jack Pine in area 1.</p> <p>Dune grasses appeared to suffer significant wave and ice damage</p>
April 2019	Work crews tended to new plantings in area 1, clearing undergrowth, repairing fences, etc.

# Environmental Improvements

May 2019	Late May, spot spraying of certain plants in far north end of park
June 2019	6/17, sprayed entire half of park north of elbow to control invasives. 6/28, mowed the entire park to 6". No spraying evident.
July 2019	Noted presence of prairie plants and other native species that the June mowing was intended to assist, including the following: Black-eyed Susan, Purple Coneflower Goldenrod (species unknown), Partridge Pea
August 2019	Mowed entire area from South Shore Drive to the sand piles near middle of park.
September 2019	Mowed the area overgrown with lambs quarters, east of the sand piles and north to where the lambs quarters ceased.
March 2020	Controlled burn of entire park, with small swaths of unburned grasses remaining here and there throughout park

# Environmental Improvements

July 2020	Mowed entire park to about one foot high.
August 2020	Cleared weeds from around the plantings at the NE end of park. Appears to be a very high survival rate on those plantings.
March 2021	Controlled burn of entire park, including between the planted Jack Pine and Burr Oak in the dunes area to the NE and the mid-park sand piles (sparing the mulberry). Did not burn the far south copse of sumac and mulberry, and left the south sand piles untouched. Overall, a much more complete burn than the one done in end 2020.
April 2021	Sprayed entire park with broadleaf-specific herbicide. Followed with spot spraying of thistle and other invasives throughout entire park, including beach area. Weeding and clean-up around hedge plantings, and spot spraying at far north end.
September 2021	To allow better access for birders and walkers to the area around the shrub plantings, Cardno mowed a 3'-wide circle path through the tall grasses.

# Environmental Improvements

December 2021	Selective burn of area north of sandpiles and west of center road. No seeding was done in 2021.
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## End 2021 vs 2017

- Phragmites almost eliminated
- Small stands of sumac and poplar once scattered through park are gone
- Canada thistle almost eliminated
- Bluestem, coneflowers, other natives increasing
- Plantings in NE corner and beach area are established



# Review of Procedure

Bird the park consistently, keeping records of all birds sighted

- Species
- Frequency/Count
- Nature of the presence

Data for the study were gathered from:

House Wren



2018	270 observation walks 202 followed a fixed route, 68 were of varied routes
2019	469 observation walks 217 followed a fixed route, 252 were of varied routes
2020	251 observation walks (low number due to COVID restrictions) 87 followed a fixed route, 164 were of varied routes
2021	538 observation walks 195 followed a fixed route, 343 were of varied routes

## NOTE:

Number of observers continues to increase as park becomes more popular as a birding site.

# State of the Birds over time

2017:

- 30 birding outings by 20 individuals
- Park's lifetime species count: 169

2018

- 270 birding outings by 47 individuals
- 197 species observed
- Park's lifetime species count: 216

2019

- 469 birding outings by 61 individuals
- 211 species observed
- Park's lifetime species count: 233

2020 (COVID-impacted numbers)

- 251 birding outings by 81 individuals
- 178 species observed (COVID impact)
- Park's lifetime species count: 242

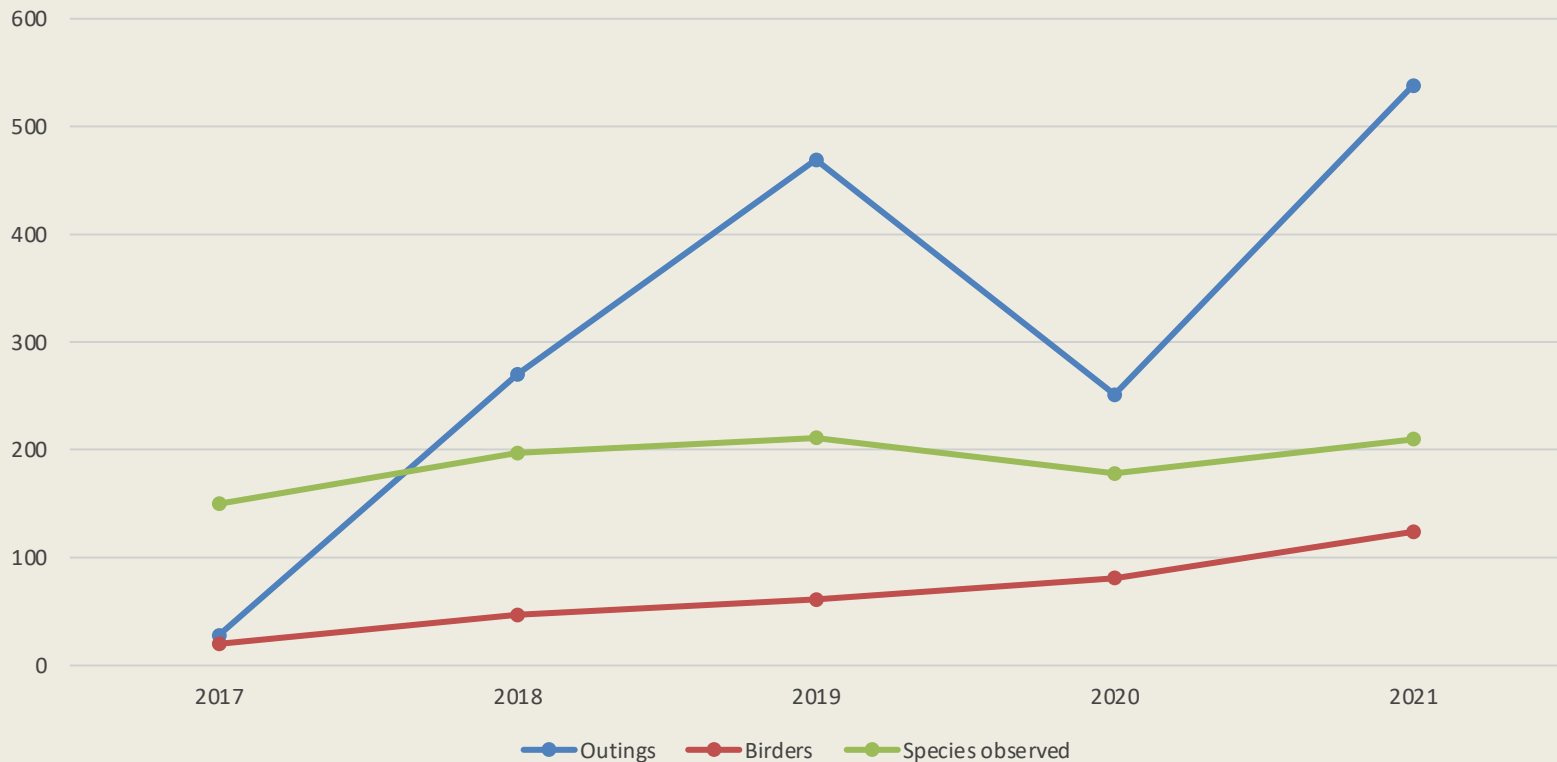
2021

- 538 birding outings by 124 individuals
- 210 species observed
- Park's lifetime species count: 250



Northern Rough-winged Swallow

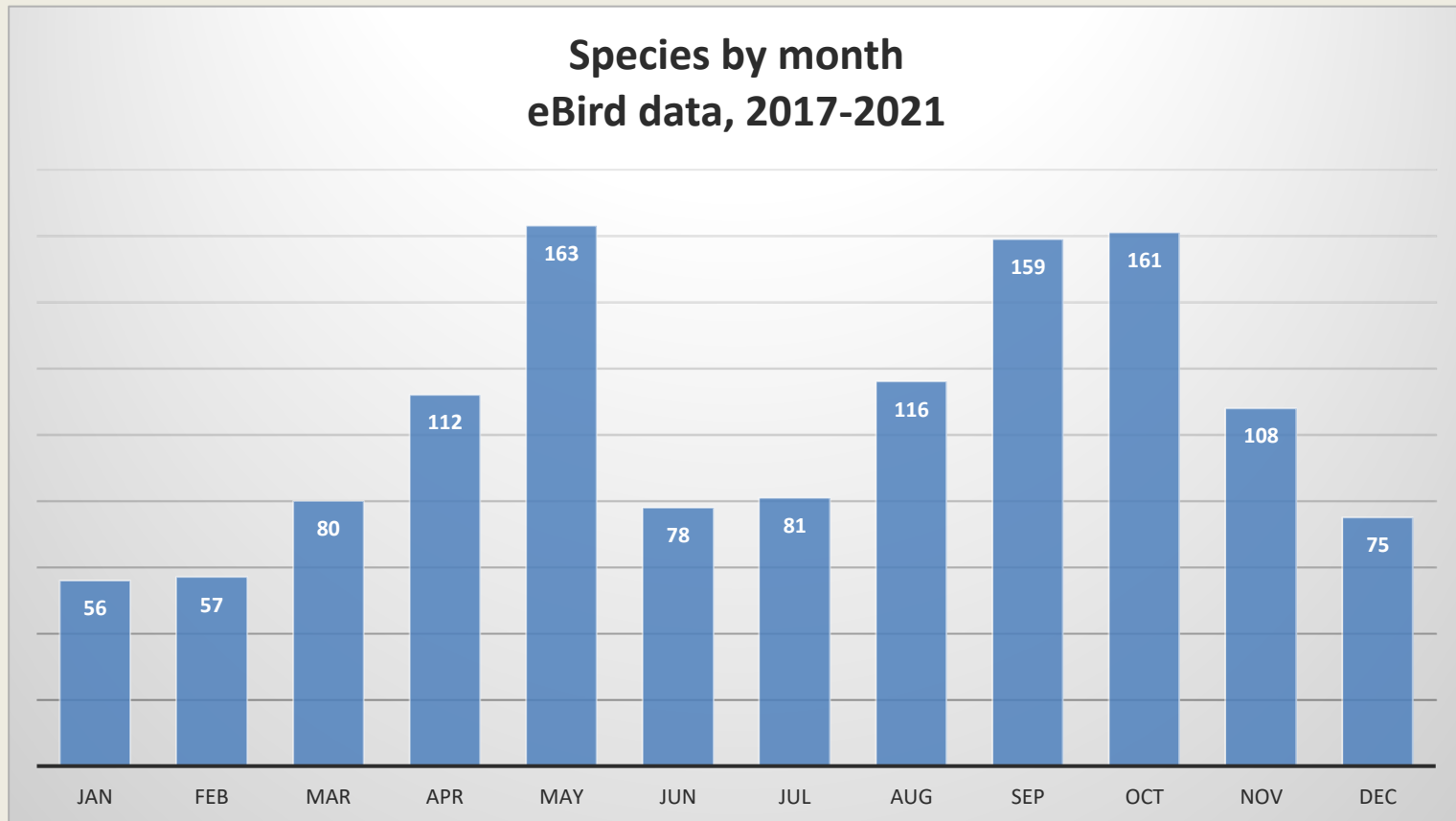
# Park Utilization (by birds and birders) over time



## 2021 compared with previous years:

- The number of outings and species observed rebounded after the pandemic impact in 2020.
- Number of birders who visited the park has increased year after year.

# State of the Birds by Season



Year on year, the number of species viewed in any given year has been between 197 and 211 species (excluding COVID-impacted 2020)

Northbound migrants numerous in April and May

Southbound migrants numerous August - November

# Results 2021: Bird's-eye Overview

In 2021, 210 bird species were observed

124 birders submitted 538 birding checklists across 246 days.

8 new species were added to the park's record.

A photograph of an American Robin standing on the ground. The bird is facing left, with its characteristic orange-red breast and grey back. The ground is covered with dry, brownish vegetation and twigs. The background is a blurred natural setting.

Total species count for Park 566 is now 250 species

Park 566 is ranked #13 among Cook County's birding hotspots

(up from #21 at end 2020)

## Results: 2021 Bird's-eye Overview

### Bottom Line:

Data point to a continuing, vibrant presence of migrant and resident birds.

There is a prevalence of waterfowl and grassland birds, with a healthy mix of shrub habitat and woodland birds.



There is clear evidence of the positive impact of some of the conservation actions.

# Threatened and Endangered Species\*

2 of the 6 species listed as **Threatened Species** were observed:

Osprey

Black-billed Cuckoo

8 of the 23 species listed as **Endangered Species** were observed:

Black-crowned Night Heron

Short-eared Owl

Northern Harrier

Forster's Tern

Common Tern

Piping Plover

Upland Sandpiper

American Bittern



Black-billed Cuckoo

\* *Checklist of Illinois Endangered and Threatened Animals and Plants, 2020*

# Birds of Concern\*

## **Grassland Habitat** Birds of Concern observed at Park 566:

All 6 of the species listed by BCN (LVL 1, LVL 2)

Grasshopper Sparrow (nested)

Bobolink

Upland Sandpiper

Sedge Wren

Henslow's Sparrow

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\*

## Shrubland Habitat Birds of Concern:

4 of the 5 species listed by BCN

Brown Thrasher (nested)

Willow Flycatcher

Field Sparrow (nested)

Black-billed Cuckoo



Field Sparrow



Brown Thrasher

\* 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 observed:

5 of the 7 species listed by BCN

Red-headed Woodpecker

American Woodcock

Chimney Swift

Yellow-billed Cuckoo

Wood Thrush



Chimney Swift

\* 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 observed:

5 of the 9 species listed by BCN

Black-crowned Night Heron

American Bittern

Common Tern

Wilson's Snipe

Piping Plover



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

Grasshopper Sparrow

Common Yellowthroat

Spotted Sandpiper

Killdeer

Brown Thrasher

Dickcissel

Eastern Kingbird

American Kestrel

Field Sparrow

Song Sparrow



# Species reported for the first time - 8

Harlequin Duck

Franklin's Gull

Laughing Gull

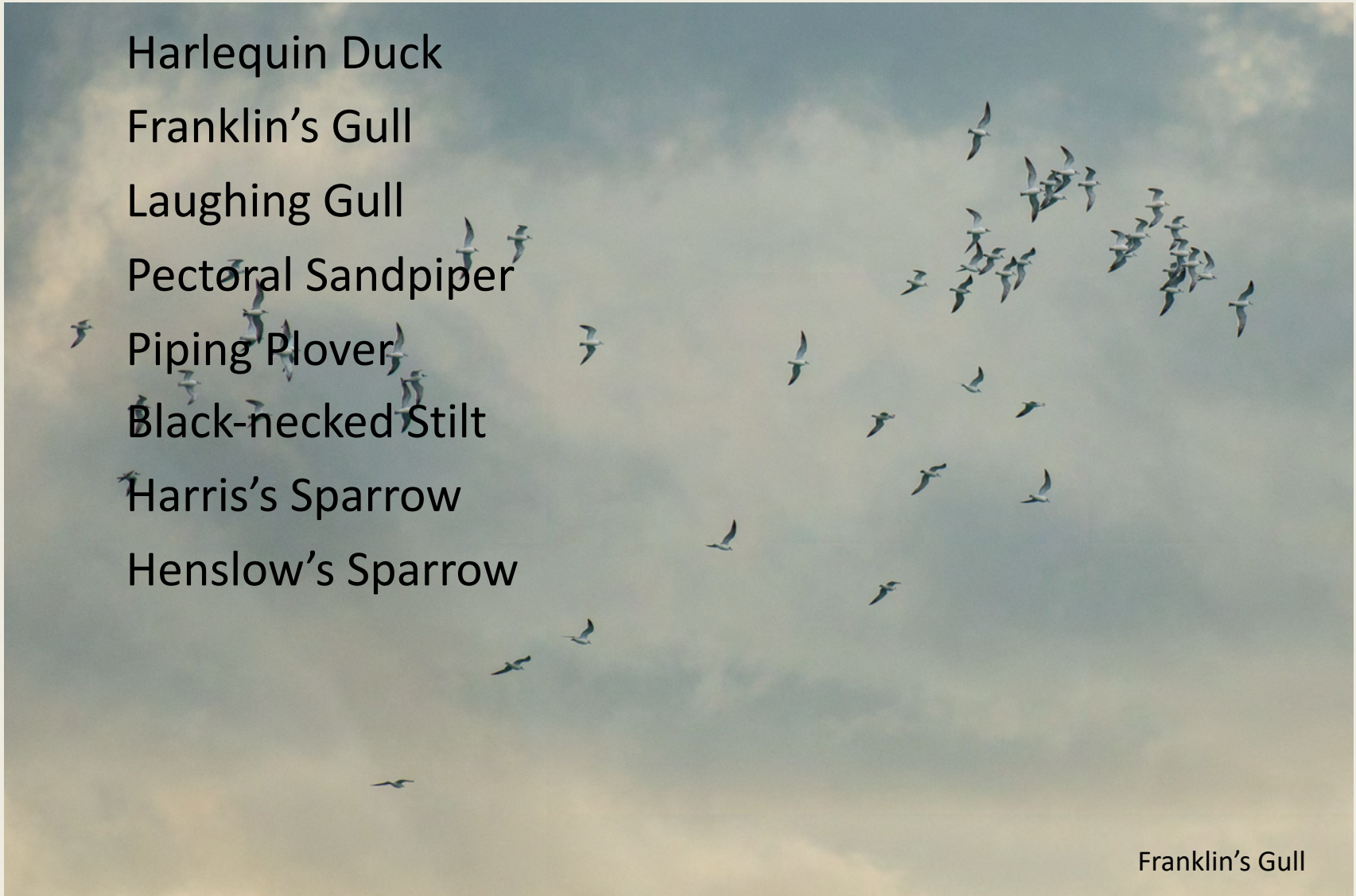
Pectoral Sandpiper

Piping Plover

Black-necked Stilt

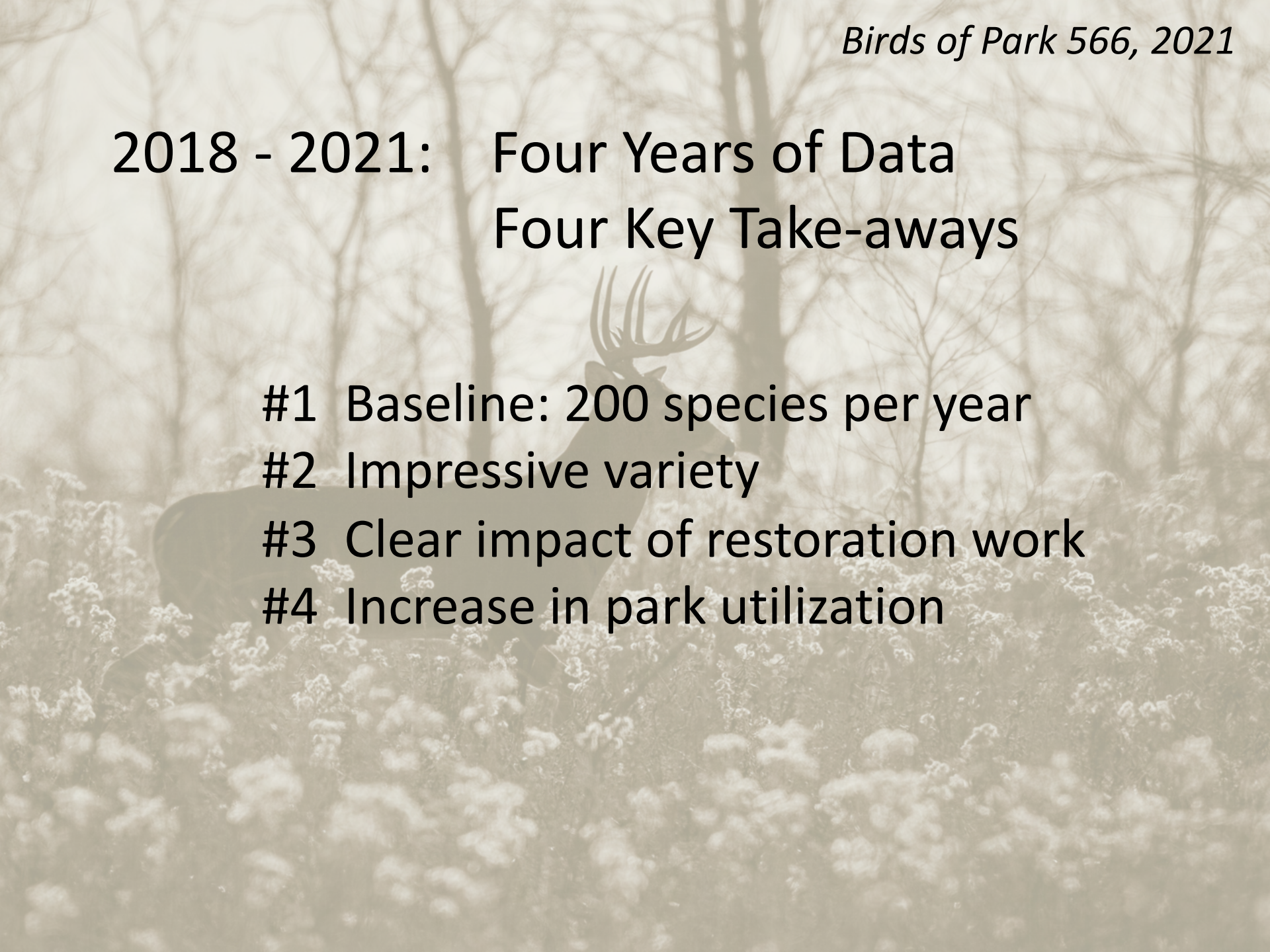
Harris's Sparrow

Henslow's Sparrow



Franklin's Gull

**2018 - 2021: Four Years of Data  
Four Key Take-aways**

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- #1 Baseline: 200 species per year**
  - #2 Impressive variety**
  - #3 Clear impact of restoration work**
  - #4 Increase in park utilization**

# #1: Baseline: Number of species hosted

200

Four years of observations tell us that the park hosts about 200 species in any given year

- 2018-2021 the species count ranged from 197 to 211
- About 80% of these 200 are seen every year without fail
- The remaining 20% is a hodgepodge of birds that appear one year but not the next. Often some surprising rarities.
- The park's total species life list at end 2021 was 250.

For reference, species counts at other parks in 2021:

Jackson Park – 209

Steelworkers' Park – 141

Rainbow Beach – 218

Burnham Prairie (FPCC) – 172

Bartel Grasslands/Killdeer Wetlands (FPCC) – 126

## #2: Good habitat for grassland birds, and surprising variety

Vibrant presence of virtually every grassland species:

19 sparrow species, with 4 species nesting

8 blackbird species (Bobolink, Red-winged Blackbird, etc.)

Dickcissel

Northern Harrier and Short-eared Owl

Shoreline offers impressive variety of over 60 species of waterfowl, gulls, terns, shorebirds.

Not to be overlooked: Adjoining vacant USX property provides a “privacy buffer” for Park 566 and good habitat for shrubland birds (Thrasher, Field Sparrow, etc.)



# #3: Positive impact of restoration activities

## Open space (majority of park)

2021 saw a dramatic increase in the frequency and numbers of grassland species.

But four years is too short a period to attribute increases in bird activity or numbers to specific conservation actions.

Still, the trend appears positive. Continued observation is important.

## Plantings in NE corner of park

There is **clear evidence** of the positive impact of these plantings

With the stand of large locust as a shaded anchor, the newly planted shrubs, jack pine, burr oak and prairie flowers are developing into a small enclave welcoming to birds of woodlands and shrub areas.

97 species observed there in 2021—many more than any previous year

## #4: Increase in park's popularity and use

The once desolate park, overgrown with thistle, phragmites and sumac, has become a lively grassland with prairie flowers blooming in spring and golden grasses in autumn.

Birding outings increased over two-fold since 2018.

One of the appeals—and strengths—of the park is the feeling of isolation that it offers. Good for humans and for birds.



# Conclusion

The data summary portion of this presentation ends here.

The following pages are brief snapshots of various bird groups and other flora and fauna as observed in 2021.

It could go on for a hundred pages, but hopefully these pages can show at least a bit more of the beauty and the diversity of the animal and plant life of Park 566.

Dan Lory, February 2022

# Sparrows

19 species were observed in 2021 - Highest annual count to date

Evidence of breeding:

Song Sparrow

Field Sparrow

Grasshopper Sparrow

Savannah Sparrow



Le Conte's Sparrow



Clay-colored Sparrow

# Sparrows

- Significant frequency (more than 21 days)  
Savannah, Lincoln's, Dark-eyed Junco,  
White-crowned, White-throated, Fox,  
American Tree, Swamp, Song  
Field, Grasshopper
  - Occasional (8-21 days)  
Chipping  
Clay-colored  
Eastern Towhee  
Vesper
  - Rare (1-7 days)  
LeConte's  
Nelson's  
Henslow's  
Harris's
- Notable no-show:  
Lark Sparrow



Nelson's Sparrow

# Warblers

- 26 species were observed in 2021  
vs 26 species in 2019, 24 in 2018
- Evidence of nesting by Common Yellowthroat



Connecticut Warbler



Chestnut-sided Warbler

# Warblers

## Frequent (10 days or more)

Palm, Common Yellowthroat, Yellow-rumped,  
Yellow, Blackpoll, Magnolia, Tennessee, Cape May  
Orange-crowned, Nashville, American Redstart,  
Bay-breasted, Black-throated Green, Wilson's

## Occasional (3-9 days)

Black-and-white, Connecticut, Chestnut-sided  
Northern Waterthrush  
Mourning, Ovenbird  
Canada, Blackburnian

## Rare (1 or 2 days)

Prothonotary  
Northern Parula  
Black-throated Blue  
Pine



Wilson's Warbler



Blackburnian Warbler

# Raptors, Birds of Prey

## Hawks, Vultures

Red-tailed Hawk

Northern Harrier

Sharp-shinned Hawk

Cooper's Hawk

Bald Eagle

Osprey

Turkey Vulture

Red-shouldered Hawk

Broad-winged Hawk



Red-shouldered Hawk



Northern Harrier



# Raptors, Birds of Prey

Falcons (year-round, frequent)

American Kestrel

Merlin

Peregrine Falcon

Owls (seasonal)

Short-eared Owl

Snowy Owl

Great Horned Owl



Great Horned Owl



American Kestrel (with meadow vole)

# Shorebirds, Rails, Sandpipers

*Birds of Park 566, 2021*

## Frequent

Killdeer (nested)  
Spotted Sandpiper (nested)  
American Coot, Wilson's Snipe

## Occasional

Virginia Rail, Sora, Upland Sandpiper  
Sanderling, American Woodcock  
Greater Yellowlegs, Lesser Yellowlegs

## Rare

Semipalmated Plover,  
Piping Plover  
Black-necked Stilt  
Solitary Sandpiper  
Black-bellied Plover  
American Golden Plover  
Least Sandpiper, Baird's Sandpiper  
Pectoral Sandpiper  
Semipalmated Sandpiper



Black-bellied Plover



Least Sandpiper

# Cranes, Herons

*Birds of Park 566, 2021*

## Occasional

Great Blue Heron

Green Heron

## Rare

American Bittern

Sandhill Crane

Great Egret

Black-crowned Night-Heron



Great Egret



Green Heron

# Waterfowl, Grebes, Loons

## Frequent

Canada Goose

Mallard

Red-breasted Merganser

Common Merganser

White-winged Scoter

Greater Scaup, Lesser Scaup

Double-crested Cormorant

Horned Grebe

Common Goldeneye

Redhead

Bufflehead

Canvasback

Blue-winged Teal



Blue-winged Teal



Northern Shoveler

# Waterfowl, Grebes, etc

## Occasional

Northern Shoveler  
Mute Swan, Wood Duck  
Pied-billed Grebe, Common Loon  
Northern Pintail, Hooded Merganser  
Black Scoter, Green-winged Teal  
Ring-necked Duck



Horned Grebe

## Rare

Red-throated Loon, Surf Scoter  
American White Pelican  
Long-tailed Duck  
Greater White-fronted Goose  
Cackling Goose  
Trumpeter Swan, Gadwall  
Ruddy Duck  
Harlequin Duck



American White Pelican

# Gulls, Terns

## Frequent

Ring-billed Gull

Herring Gull

Caspian Tern

## Occasional/Rare

Great Black-backed Gull

Bonaparte's Gull

Laughing Gull

Franklin's Gull

Common Tern

Forster's Tern



Herring Gull



Great Black-backed Gull

# Flycatchers, Vireos

## Frequent

- Eastern Phoebe
- Eastern Kingbird (nesting)
- Willow Flycatcher
- Warbling Vireo
- Least Flycatcher

## Occasional

- Eastern Wood-Pewee
- Great Crested Flycatcher
- Yellow-bellied Flycatcher
- Red-eyed Vireo
- Alder Flycatcher

## Rare

- Blue-headed Vireo



Red-eyed Vireo



Alder Flycatcher

# Thrushes

## Frequent

American Robin

Hermit Thrush

Swainson's Thrush

## Rare

Veery, Wood Thrush

Eastern Bluebird

Gray-cheeked Thrush

# Wrens

## Frequent

House Wren, Winter Wren

Sedge Wren

## Rare

Marsh Wren



Hermit Thrush



Sedge Wren



# Finches, etc

Frequent

American Goldfinch

Occasional/Rare

Pine Siskin

House Finch

*\* photos from 2020*



*Birds of Park 566, 2021*



# Blackbirds, Field and Meadow Birds

## Summer

Red-winged Blackbird

Eastern Meadowlark

Dickcissel (nested)

Brown-headed Cowbird

Common Grackle

Baltimore Oriole

Orchard Oriole

Bobolink

Rusty Blackbird



# Blackbirds, Field and Meadow Birds

Occasional Winter\*

Snow Bunting  
Lapland Longspur  
Horned Lark



Horned Lark



Snow Bunting

# Woodpeckers, Creepers, etc

## Frequent/Occasional

Northern Flicker

Downy Woodpecker

Yellow-bellied Sapsucker

Red-breasted Nuthatch

Brown Creeper

## Rare

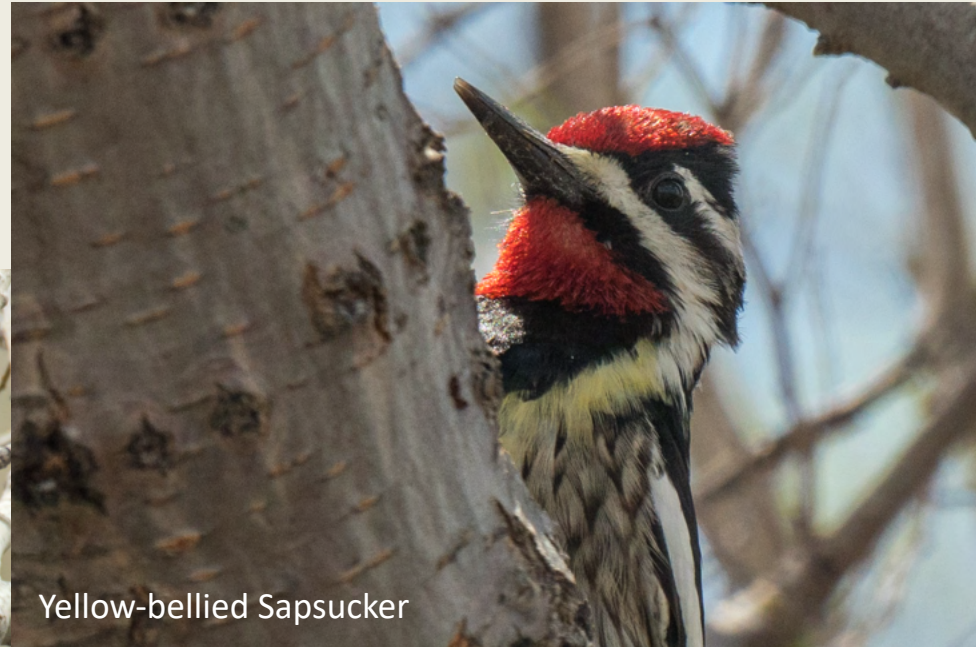
Red-headed Woodpecker

White-breasted Nuthatch

Red-bellied Woodpecker



Northern Flicker



Yellow-bellied Sapsucker

# Swallows, Nightjars, Swifts

## Frequent/Occasional

Northern Rough-winged Swallow

Barn Swallow

Chimney Swift

Tree Swallow

Purple Martin

Common Nighthawk

## Rare

Bank Swallow

Cliff Swallow



Purple Martin



Barn Swallow

# And assorted others



Ruby-throated Hummingbird



Scarlet Tanager



Golden-crowned Kinglet and Oleander Aphids

# Butterflies and Moths



Monarch Butterfly



Corn Earworm Moth



Painted Lady



Mourning Cloak

# Dragonflies



Blue Dasher



Painted Skimmer



Twelve-spotted Skimmer



# Other Creatures

Whorled Milkweed

Oleander Aphid

White-banded Crab Spider



Great Black Digger Wasp



Three-banded Robber Fly

# Other Creatures



Coyote



Five-lined Skink and Plains Garter (photos by Simon Tolzmann)

