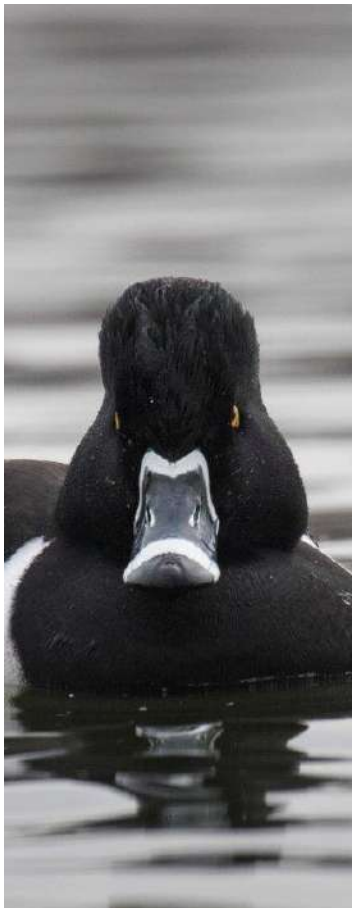
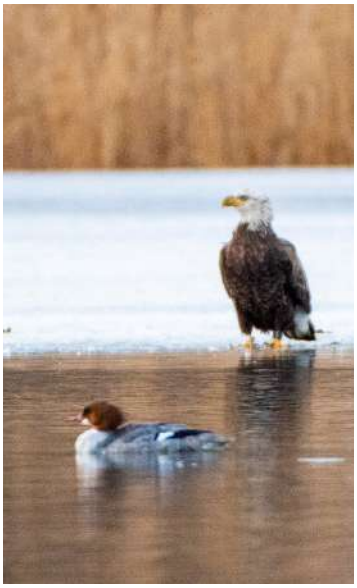
Winter 2021

Brooklyn Bird Club's

CLAPPER RAIL

Inside This Issue





Cover: Northern Cardinal in Green-Wood Cemetery. Next Page: Herring Gull at Coney Island. Photos by Marc Brawer.

Editor's Note

As this long winter comes to an end, I'm sure you're just as eager as I am to see spring. The first Pine Warblers have already arrived, the first phoebes and Golden-crowned Kinglets, armies of blackbirds and grackles. Northern Gannets are moving up the coast in large waves and ducks and geese (some of them, at least) are staging in Jamaica Bay for their return north. I find myself already daydreaming about warblers singing from treetops in May, contemplating day trips to Doodletown or New Jersey's Great Swamp - a thought that, frankly, has felt like a luxury the last 12 months, until now, as so many New Yorkers get vaccinated.

The bird club's membership has never been higher, which I think speaks to people's newfound embrace of birding but also the club's civic engagement and environmental stewardship during this painful year. We've organized trash cleanups in Prospect Park, helped make bird-safe glass happen at the Salt Marsh nature center and soon Jamaica Bay's visitor center, and continued field trips to keep people connected to the club. I look forward to seeing many new faces this spring as we all get to bask in the excitement, sounds and colors of migratory birds returning to our city.

– Ryan Goldberg

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A Record Day: The 2020 Christmas Bird Count

By Mike Yuan

The Brooklyn CBC, held safely on Saturday, December 19, with National Audubon Covid-19 guidelines, was one of its most successful ever. The 137 species seen set our highest species count ever, eclipsing our previous high of 134, set in the last significant finch irruption year of 2012. The confluence of this year's finch irruption and cold, post-blizzard conditions to the north pushed the birds to coastal areas, and the local snow cover concentrated open ground-preferring birds to tidal beach and marsh edges.

The 45,787 individuals seen was higher than average, made possible by excellent coverage among all sectors, and bolstered by an effort of Brooklyn birders to improve the counting of roosting gulls within the circle.

Of the nine species with which we set all-time high counts, a highlight was 2,789 Bonaparte's Gulls, the majority seen streaming onto the coast from Fort Tilden and Breezy Point, with many sticking around in Gravesend Bay and the Rockaway Inlet. We set 10-year highs with an additional 28 regularly-occurring species, mostly from wintering passerines such as White-throated Sparrow (943) and urban raptors like Cooper's Hawk (21) and Common Raven (9).

Of the several species where we experienced 10-year lows, only two Northern Gannets were seen off Breezy Point. And there were two new species for the count, a Mew Gull at Brooklyn Army Terminal's Pier 4, and a Veery, coincidentally near the Pier 4 marina in Brooklyn Bridge Park.

Rare for the count highlights included irrupting finches, seven apiece of Common Redpoll and Red Crossbill, plus five King Eiders (including one in Upper New York Harbor, also at Brooklyn Army Terminal), a Spotted Sandpiper, Lapland Longspur and lingering passerines Marsh Wren, Lincoln's Sparrow (2), Ovenbird, and Yellow-breasted Chat.

Ring-necked Pheasant, Tree Swallow, Eastern Meadowlark, and Wilson's Snipe were the worst misses, species that were obviously affected by the snow-covered conditions.

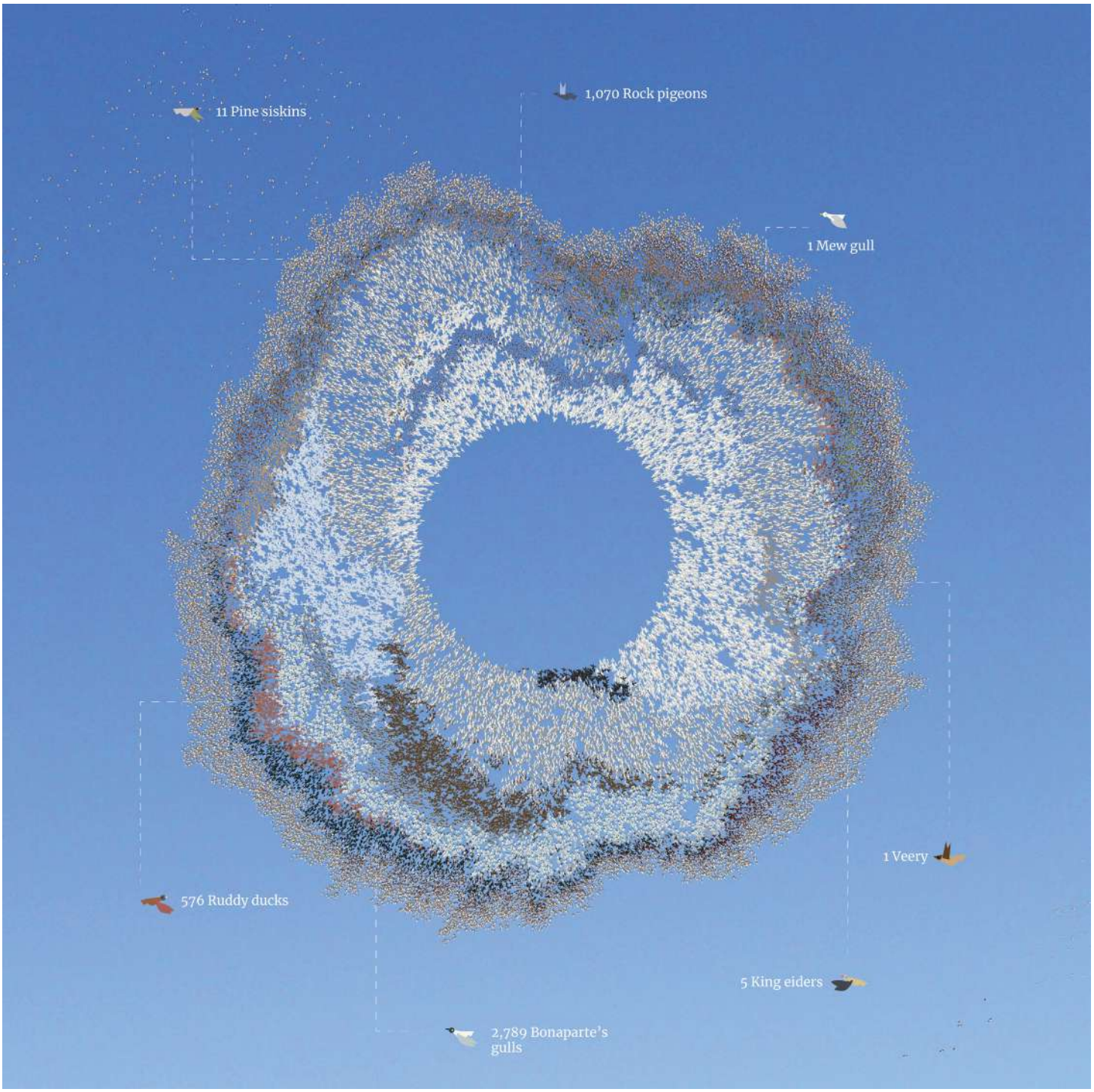
Much gratitude to the participants, count leaders, and the Brooklyn Bird Club for being the village that it takes to conduct this count, with special thanks to teams coordinator Bobbi Manian and my fellow co-compiler Chris Laskowski.

We hope to hold next year's count under "normal" conditions and welcome all to get involved to make the count even better.

Cover: Bonaparte's Gull at Breezy Point. Above: American Pipit at Rockaway Yacht Club. Photos by Ryan Mandelbaum.

2020 CHRISTMAS BIRD COUNT BROOKLYN

12	107	137	45,787
TEAMS	PARTICIPANTS	SPECIES	TOTAL BIRDS COUNTED



Every bird counted in the 2020 Brooklyn Christmas Bird Count.

The Count

Written and Illustrated by Jer Thorp

1. The Count

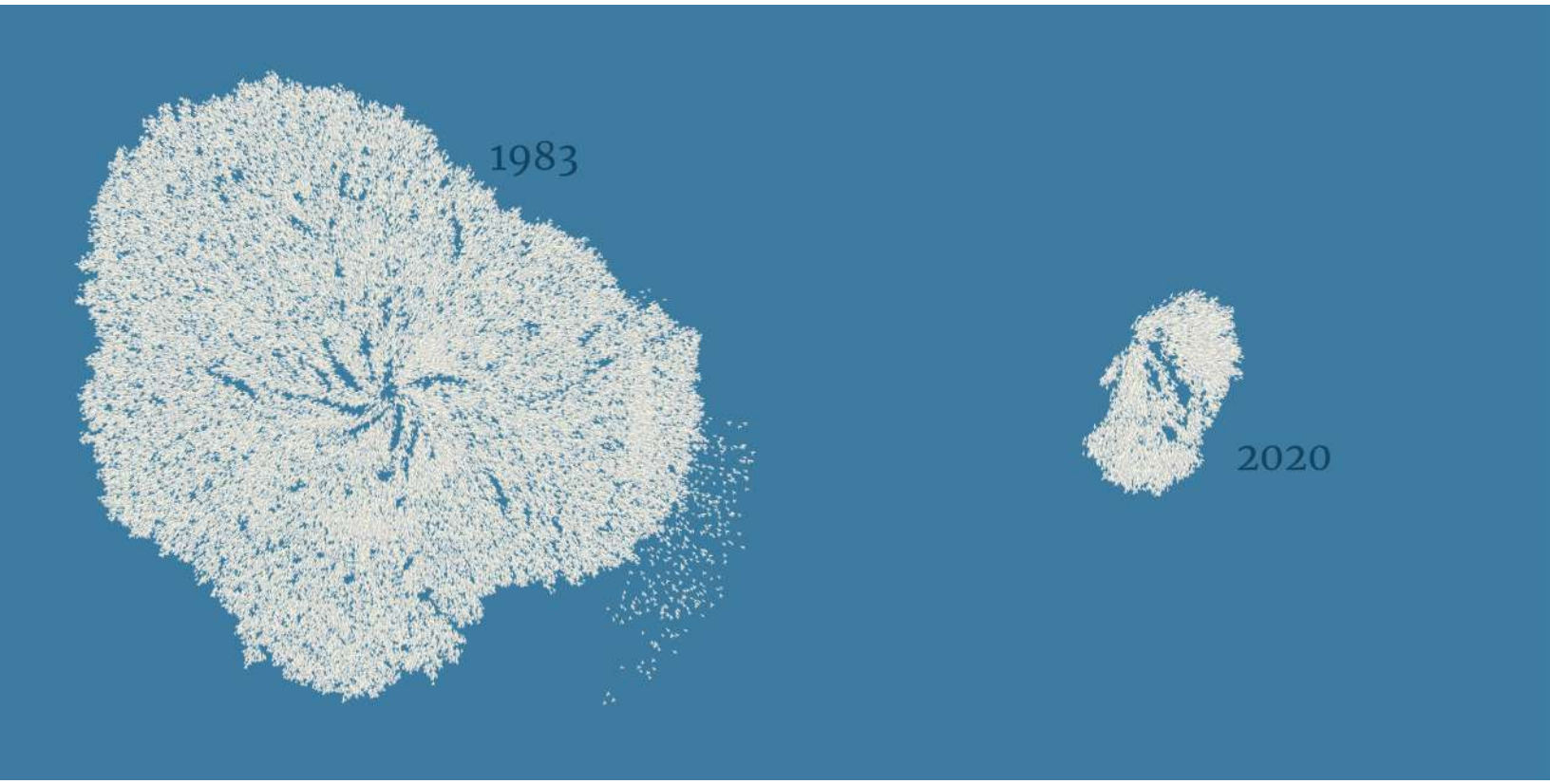
If your goal is to count as many birds as you can in a single day in Breezy Point, Queens, you'll pull your car slowly past a roadside guard station at 6:15am in the pitch dark. You'll drive two miles through the private community, population 4,067, and then you'll roll, tires pip-popping over the gravel, into the little fisherman's parking lot at the end of the road. You'll put on a few more layers, make sure your thermos is in your backpack, put your binoculars around your neck. Then you'll set out off in a small group down a snow-and-mud off-roading trail, listening for the first chirps and tweets to come out from the just recently not-quite-dark.

The Brooklyn Bird Club's Christmas Bird Count in 1981 tallied 73,107 birds. The next year they beat that by some 23,000 sightings, and then set an all-time record in 1983: 123,048. Since 1985 though, only four counts have seen more than 50,000 birds, with an average over the last 20 years of around 40,000.

Some of the year-to-year variation in CBC totals is due to inclement weather on count days. Rain and fog or snow and sleet make it harder for people to see birds, and for birders to get out of bed (2019's 31-year low of 26,835 birds is at least partly attributable to a cold and misty Saturday). The biggest part of the drop between 1983 and now is a result of change in habitat. The Fountain Avenue and the Pennsylvania Avenue landfills, both in East New York, closed in 1985. These man-made peninsulas, 40 meters of trash piled over marshlands, were home to huge numbers of gulls. The 1983 CBC found tens of thousands of Herring Gulls, Great Black-backed Gulls and Ring-billed Gulls—birds which dispersed to other non-Brooklyn garbaging grounds when the landfills closed.

Most of the change from count-to-count is harder to assign to a single cause. Individual birds can be predictable; there's a Hermit Thrush in the little park beside me right now that I can see every evening, feeding on bright red berries under the rumble of the Manhattan Bridge. Some stolid species can be depended to arrive in the same places in roughly the same number every year. There are 70 barn swallows wintering in Central America right now that'll be swooping into my park in the first week of April, ready to build their mud-and-stick nests on the pilings of Pier 2. In each of my hundreds of walks in Dumbo this year, I saw pigeons, usually in the same place and in approximately the same numbers (pigeons show up in reliable numbers in every CBC, about a thousand every year since the start of the century). Breezy Point, a wilder place than Brooklyn Bridge, has fewer residents and many more seasonal visitors, birds en route to somewhere or nesting in the dunes.

Just before one in the afternoon, having walked



Herring Gull counts for 1983 and 2020.

All the winter finches, 2020.

and counted for six hours, you'll sit down for lunch. The birding gods, perhaps pleased with the morning's effort, will offer a gift: a trio of American Pipits landing just in front of you on the beach. Pipits (CBC record 99, 2008) are flighty birds that are far more often heard than seen, and many photos of them are accompanied by Where's Waldo-esque instructions ("Look between the third rock to the right and the dark brown log. No, the dark brown one.") Where gulls and pigeons are CBC mainstays, pipits are not quite as dependable, missing from about one in every five counts. Other species have a similar tendency toward the sporadic: oystercatchers and Carolina Wrens, Chipping Sparrows and Golden-crowned Kinglets.

Other species are downright capricious, perhaps most so the winter finches. These birds will show up in numbers one year, only to be absent entirely for the next. You might hear a Common Redpoll few minutes into your Breezy Point count, when a keen-eared member of our team hears the call from a small grove of trees just over a hill. Then again, you might not.

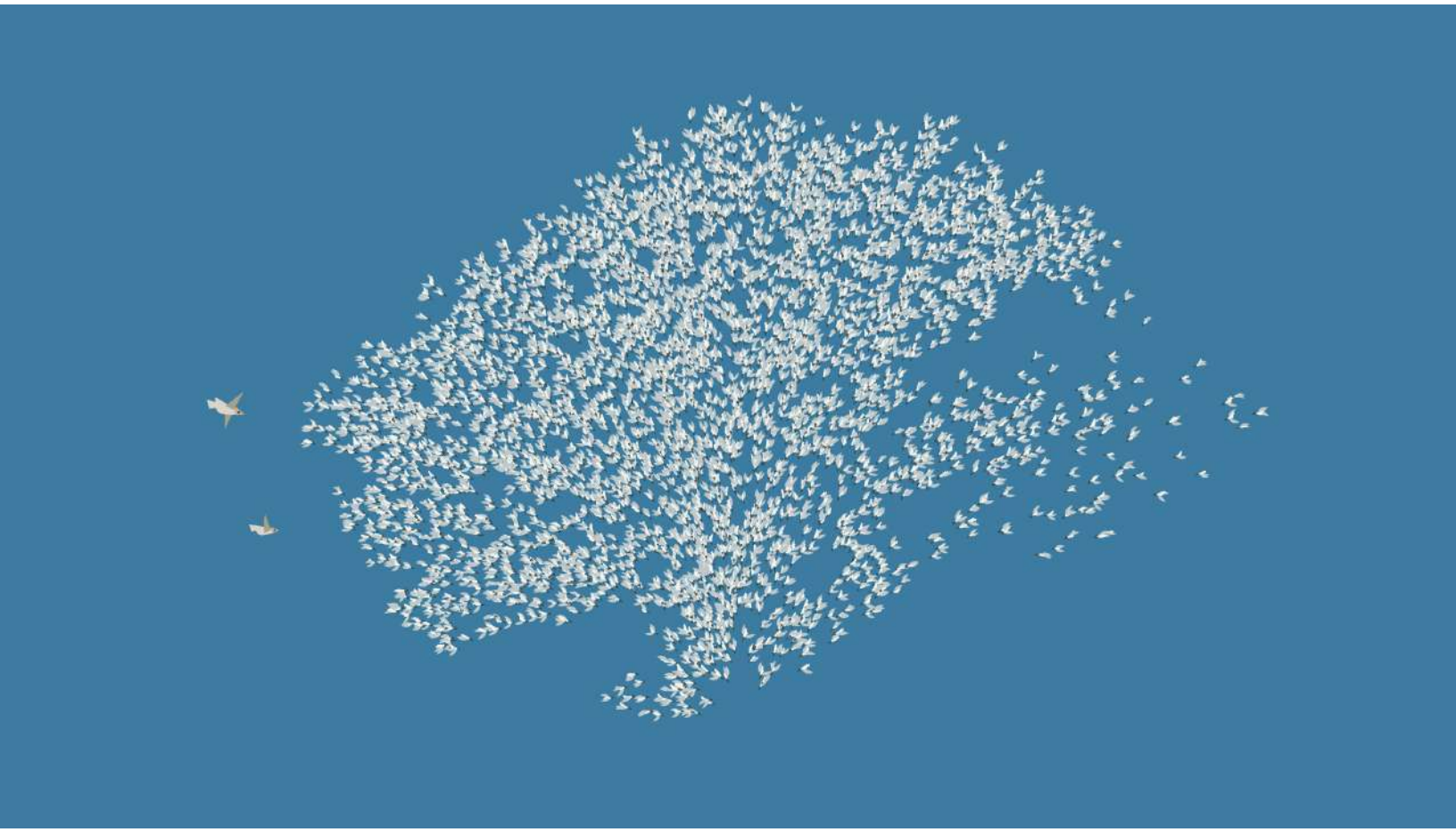
Here are the last 20 years of tallies for the Common Redpoll: 21, 0, 0, 0, 1, 0, 0, 0, 48, 0, 0, 0, 0, 2, 0, 0, 0, 0, 0, 3, 0, 9.

Here's the Pine Siskin, another winter finch: 1, 0, 0, 0, 1, 4, 0, 0, 0, 5, 0, 6, 0, 33, 0, 7, 9, 0, 0, 4, 0, 11.

And the Red Crossbill, an even rarer winter visitor to NYC: 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 2, 0, 0, 0, 0, 0, 0, 0, 7.

Populations of all three are foragers for the seeds of coniferous trees in the boreal forest. This is high-energy food, so attractive to birds (and squirrels) that their populations are matched closely to the amount of seeds that the trees make. So closely that, in most years, almost no seeds make it off the trees and into the ground. Spruces and pines (along with oaks, maples, and ash) have developed a clever strategy to get their seeds into the ground: every few years they saturate the market. During these "mast years," all of the trees synchronize to produce bumper crops of cones and seeds. Our winter finches happily fill their bellies, and with this extra energy produce more winter finches, and the bigger populations venture further south in search of food.

Every migratory bird lives a life that depends on a myriad of forces: ocean currents and snowfall, plankton blooms and pine cones. Northern Gannets, a seabird that looks like a gull but is actually a booby, spend a lot of the year feeding on fish at the edge of the continental shelf, but usually come closer to shore in the winter. One Brooklyn CBC 4,915 gannets were counted, but only two were seen in 2020. In an oppositely-balanced



2,789 Bonaparte's Gulls and 2 Northern Gannets.

story, 2,789 Bonaparte's Gulls were seen, but exactly zero were counted in 2019 or 2018.

This bird-by-bird, year-to-year change is what makes the Christmas Bird Count interesting. While it's true that the total numbers of individuals and species stay relatively stable, each year is its own unique jigsaw puzzle, and every time the counters don't know exactly what they'll see until the counting is done. The history of Brooklyn counts are snapshots of a particular geography over a stretch time, but they also carry evidence of how Breezy Point and Spring Creek and Prospect Park are connected by wing, both to themselves and to places less urban and further afield.

When the sun starts to set over the sandy dunes, you'll walk back to the parking lot, boots cracking through sheets of ice that have formed over the mud. In the car, it'll be not-quite-dark again and you'll sit with the heat on full-blast. Perhaps you'll think for a minute about counting. About how this checklist act that seemed so far from the things you went to birds looking for: the flashes of riotous color, the wondrous bubbling calls, the walking and the calm and a whole slew of other things that are decidedly and purposefully non-computational. You might not resolve this conflict, right then. Don't worry. There'll be time for that later.

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Notes:

An annual species-by-species finch forecast has been published for 21 years. For 20 of those years it was compiled by Ron Pittaway, who just last year handed off the job to Tyler Hoar.

I write in "Living in Data" about how the computational scaffolding around data, namely the database schemas built to hold it, can predestine the ways in which it might be used and understood. The CBC data is no exception: in years where a bird isn't seen on count day, there's usually a blank cell in the spreadsheet, but sometimes there's a zero. What gives? What I originally thought was a data entry error (sorry, Mike!) turns out to be a vagary of how CBCs are organized. Within the week in which the count is held, birders in the area keep their eyes out for rare birds. When these are seen they can be counted as a species

seen in the year, but not as part of the overall tally if they are not seen on the specific count day. Birders are weird.

If you're wondering how Breezy Point, Queens is part of the Brooklyn CBC, it's because of the methodology of the broader Audubon Society count: participating groups pick a point on a map and then draw a 15-mile diameter circle around it. Any piece of land (or water) in that circle is fair game.

2. The Graphics

"I'll make a graphic where you can see every one of the birds that get counted!" was a fun idea to have in the lead-up to the CBC, but it turned out to be very complicated to render this many birds, to make the species identifiable, and to get them arranged in a way that seemed appropriate. I hope that this particular kind of laborious rendering gives viewers a feeling for the scale of the count in a way that numbers alone wouldn't. (Go ahead, count the birds, I dare you.)

I love birds. This might seem a little silly, but I really wanted to respect each of the birds that was in the dataset, and by putting each of them in the graphic I think it does honor them, if only in a small way, only meaningful to me.

These two Twitter threads (here and here) document much of the process:

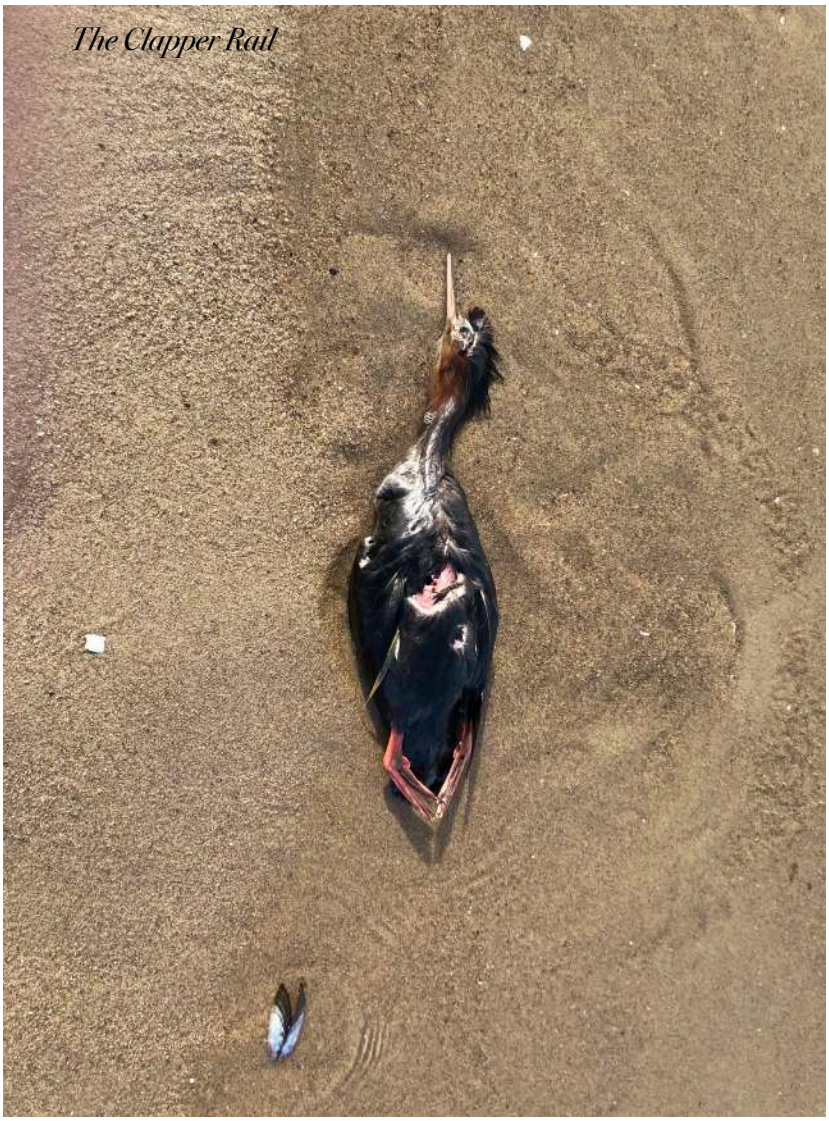
Data for the graphics in this piece came from Mike Yuan, the official CBC co-compiler for the Brooklyn Bird Club. Colors (and where possible, sizes) were extracted from WikiData photos. Data was processed using Node.js and the placement and rendering systems and were built in Processing.

3. The Actual Sign I Passed on the Way Into Breezy Point

God Bless Breezy Point
God Bless America
God Bless Christmas

* This article was republished with the permission of the author.

Scenes from the CBC



This page and cover: Jamaica Bay. Photos by Chris Laskowski.

Clockwise from top: Mew Gull at Brooklyn Army Terminal, American Kestrel at Canarsie, Black-capped Chickadee and Fox Sparrow at Bergen Beach. All photos by Tripper Paul.

Clockwise from top: Savannah Sparrow at Breezy Point, American Pipit at Rockaway Yacht Club, Bonaparte's Gulls and Horned Lark at Breezy Point. Photos by Ryan Mandelbaum. Lapland Longspur at Breezy Point, photo by Max Epstein.

Clockwise from top: Pine Warbler, Spotted Sandpiper, Green-winged Teal and Northern Shoveler at Spring Creek. All photos by Rick Cech.

frmCompileInput_RARE - Access — Michael Yuan

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BROOKLYN CHRISTMAS COUNT — Compile Night 2020 — RARE SPECIES

2200

Family: Wood-warblers (Parulidae)

Species_Common	NS	PP	GW	OH	MP	FB	BB	SC	JB	RP	BP	BT	Note	Countabl	CT week	SpeciesId
Ovenbird		1												✓		7
Black-and-white Warbler														✓		7
American Redstart														✓		7
Cape May Warbler														✓		7
Yellow Warbler														✓		7
Blackpoll Warbler														✓		7
Black-throated Blue Warbler														✓		7
Black-throated Green Warbler														✓		7
Wilson's Warbler								0						✓	✓	7

Record: 1 of 9 — No Filter — Search

	TOTAL	REGULAR	IRREG	RARE
# SPECIES	135	99	21	15
# REPORTED	48,125	42,220	5,869	36

NS	PP	GW	OH	MP	FB	BB	SC	JB	RP	BP	BT
50	56	37	66	66	67	56	76	76	60	71	27

Talking: Mike Yuan

	Last Seen	x 10 Yrs	Max Ever	Max Year	Min Ever	Avg All Yr	Max 10 Yr	10 Yr Max Year	Min 10 Yr	Avg 10 Yr	Species_Note:
Ovenbird	2019	1	1	1997	1	1.00	1	2019	1	1.00	
Black-and-white Warbler	2019	2	1	2011	1	1.00	1	2011	1	1.00	
American Redstart											
Cape May Warbler	1976		1	1976	1	1.00					
Yellow Warbler	2018	2	1	2004	1	1.00	1	2015	1	1.00	
Blackpoll Warbler	2012	1	1	2008	1	1.00	1	2012	1	1.00	
Black-throated Blue Warbler	2012	1	1	2012	1	1.00	1	2012	1	1.00	

Screenshots from the compilation Zoom meeting.

American Oystercatchers at Jamaica Bay.
All photos by Alan Bacchiochi.

200 in 380

By Alan Bacchiochi

My sober date is April 10, 2017. My birding date is May 15 of the same year. Both pursuits dovetail, as a matter of course and intention.

My first meeting was not a train wreck, but when I got there I seemed to have been through one. I didn't know what to expect. Walking through that door carried threat and admittance. Mentally I was addled. Physically I was bloated, sleep-deprived, pre-diabetic, and hepatatic steatotic. It wasn't planned, but somehow I found myself there. I was off my usual homeward track in front of a church, and I followed the line of people as they went into the basement. At the meeting's end, a man with a Southern accent asked me if I needed any help.

"I need to stop drinking," I said. "Well, you're here. Do you think you're up for another meeting tomorrow?" That was how it started. I've only seen that man a few times since, but I owe him my gratitude.

On a chilly, windy day in May, with vibrant but partly cloudy skies, I went to the Rockaways. I had never been there before. With an old set of binoculars and a useless field guide I took the ferry to the edge of the city. Near the brick Art-Deco bath house I stared at an out-of-place cast-iron Victorian street clock twice my height. It had four cracked faces; none told the correct time. A few people were on the beach. One heavy guy never moved from his depression in the sand. There were so many birds. Gulls in the air, little scurrying things on the sand, birds on the water and something else on the beach as well. I couldn't name any of them. But I wanted to like some addled Adam in a littoral Eden.

That something else became Bird #1 on my life list: an American Oystercatcher. I found it comical and fantastic with its gull-sized brown body and long probing orange bill. It squeaked in flight. The

oystercatcher was entirely new to me. On the ride home I found it in the field guide. Putting a name to that bird was also a new thrill. It added a force and depth to the experience. I had accomplished something.

That long beach walk and seeing the natural world in action hooked me. The abundance and variety of birds makes them a great subject of study. The ebbs and flows of migration is a wonderful thing. The particular character of the different species and their methods of existence is fascinating. To study birds you really need to understand how they live in and are affected by the world. They are all around us, yet birds do not live on our plane. Humans dwell in two dimensions, and birds fully live in all three. And there's also a mysterious disconnect. When I stare into a bird's eye there's something alien there. I couldn't articulate such thoughts back then. I lucked out by going to the beach.

Why finally recovery? Why not sooner? I hear people ask why So-and-So can't just stop. It doesn't work like that. So-and-So is an addict. Addiction means you don't have control. Eventually life will get worse faster than you can lower your standards, and then you've hit bottom. But even then you might not be able to surrender to the truth. Without that act of courage and brutal honesty there's no foundation for future work. I didn't mean to end up at that first meeting, but afterwards I felt elated because I had taken a tiny but positive step.

Buteos, pink clouds, passerines, dry drunks, tyrant flycatchers, smart feet, warblers, white knuckles: I told myself to calm down. So what if birds have different plumages based on sex, age and time of year? So what if the conversation in your head gets too loud? I couldn't wrestle things and win. I needed to let things be and live through it. Birding knowledge and the tools of sobriety are built step by step. The depth of the former and the resilience of the latter slowly accrue.

My first summer birding I was out in the sun. I was walking a lot, and I was learning the beginnings of how to look at birds. I learned the local birds. I even figured out that male and female House Sparrows were not two different species. I was also learning what not being drunk was like. A bad day is just a bad day, not an excuse for anything else.

On a cold January morning just after dawn I arrived at Jamaica Bay National Wildlife Refuge. The bay towards JFK was frozen. On the East Pond the phragmite was golden and rustling. I cautiously stepped a foot out on the ice edge to get a better view. For a moment I was alone in the midst of hundreds of acres of wetland, shore, and bay. Then I saw the Tundra Swan, with its black beak and small stature, in the open water a hundred yards off. Consulting reports to make a plan and find a target bird was a new and gratifying step forward in my birding.

My second goal was a Snowy Owl. Again, I had followed reports of sightings and had gone to those sites. I had researched what to look for and where to look. But no white plastic bag on a dune had taken winged flight. I made my way around the West Pond and some time passed. I became resigned to having a nice morning walk. At Bench 10, on the northwest corner, there is a dead tree. At the time it had a massive osprey nest in its V about 20 feet up. I was looking away from the tree, out at the bay, and then I turned. A silent shape flashed in the corner of my eye. The owl's wings stretched wide, stalling its flight. Its body hung down as if standing on air. It settled smoothly into the osprey nest with only its head visible. I had only heard the wind off the bay. I was flush with a sort of high.

Two life birds in one morning, now I wanted to get three! Just before the Broad Channel subway stop, a Boat-tailed Grackle was on the roof of a house making its low-fidelity, 8-bit arcade game blaster call. And I had Bird 100. Then I wanted to get Bird 200. Why be content with 100? The first drink has a sense of excitement and entitlement and defeat. Is getting a new bird different? Yes. Seeing new birds in the effusion of migration triggers a visceral thrill. A good day birding cannot end! There has to be some interesting bird around the corner. How about I just go to one more location and see what might be there? Can you change bird to booze and location to bar and have the same story? Not really. Birding is salubrious. Addiction is not. Birding causes a mental excitement. Addiction creates agitation. The former satisfies and the latter itches.

But in the corners of that birding excitement are traps. Mental excitement can be healthy or malign. I had a quiet mania much of that first year: do more, be in control. I regretted time lost. I wanted a year to fill every day. And then I had an epiphany. I needed to just accept the here and now. "More Now!" without consideration is the spirit of alcoholism. So I tried to be more patient, to enjoy the excitmeent of seeing a new bird or some goal of the day, but not to be snared by it.

I don't see alcoholism as an invidious other. I lost the genetic lottery. Seeing my condition this way doesn't excuse my actions. I do look back at the bad.

I do not get mired in it. I move forward, or I will go back out. I work for my future rather than worry about it. I sometimes joke that I'm trying to live better so that I can die well. I heard once that figuring it all out isn't part of recovery. I can go down the mental rabbit hole, and I laugh at myself when I poke my head back up. I can lose my perspective, and I often do. I take it in stride. The most important thing is that I don't drink. And I know that the peace and also effort of birding helps me.

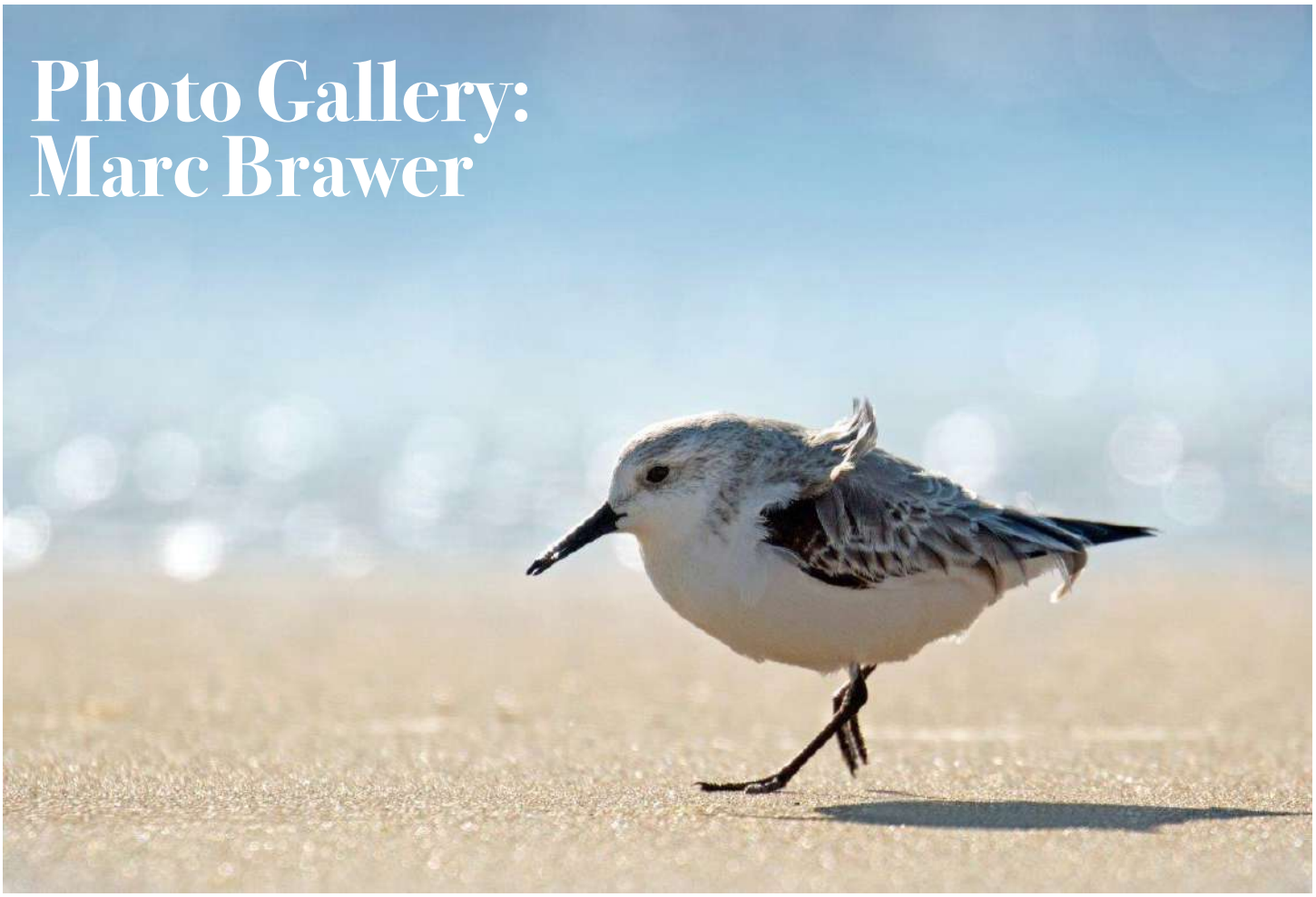
At the end of May, 15 days after my first birding anniversary, a Yellow-crowned Night Heron in Plumb Beach's salt marsh became my Bird 200. This bird has an attitude that says, "I'm all about business." It has a dagger bill for fishing, it stands a little over two-feet high on extended, leathery, yellow wader legs. Its body and long neck are gray. Its black head has three bold white stripes over the cheeks and crown, bright ruby eyes, and long ornamental plumes go rearward from the nape.

Bird 200 had been a quiet obsession, a humming drive in the background. When I hit it I felt freed of the count. I would maintain my life list, but I suddenly accepted the list as having no end. Recovery as well has no end. I saw another bird that day that might have been 201. However, I couldn't identify it past its genus, Tringa. And I was fine with letting it be just that. I might want more birds on my list, and it is exciting to get them. But, I have to be honest, sometimes I just don't know what the bird is, and I'm not going to add feathers where none exist.

That same May I saw a Northern Flicker high up in a London Plane tree. It was nearing sunset, and I thought that there should be a Northern Flicker in a Klimt painting. The yellow flash of its underwings had caught my eye. Before I started birding I wouldn't have noticed. I wouldn't have known what it was had I noticed. I would've mentioned the bird over drinks at the bar, but I probably wouldn't have cared enough to remember to look it up. Sobriety has made me aware of a larger world. Birding has broadened and deepened the world I see. Each requires patience, an ever broadening perspective, and learning my place within the world. The pitfalls of alcoholism sometimes manifest in my birding. But I've learned tools to deal with that. As I said once to a new birder, "Enjoy what's in front of you. Don't let what you don't know bring you down."

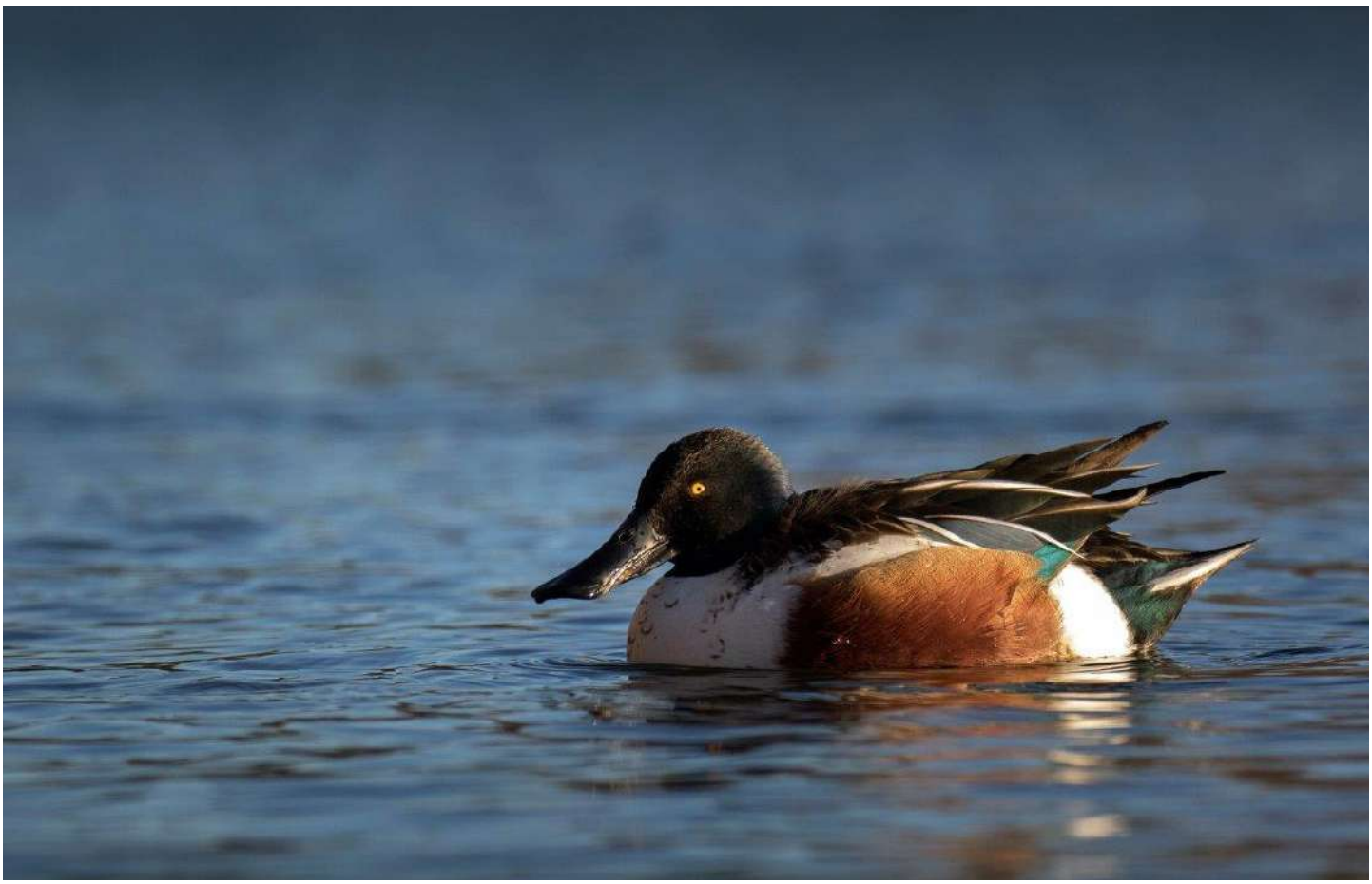
Snowy Owl in Osprey nest at Jamaica Bay.

Photo Gallery: Marc Brawer



Top and bottom: Sanderlings at Breezy Point and Coney Island Creek.

Top and bottom: White-throated Sparrow and Swamp Sparrow at Prospect Park.



Top and bottom: Ring-necked Duck and Northern Shoveler at Prospect Park.

The Dodo on eBird

By Daniel K. Smith

Raphus cucullatus, extinct. Plaster and wax model, made by taxidermists of the Museum National d'Histoire Naturelle in Paris, middle 19th century.

Selecting a username should be like buying a mattress, if you're not comfortable with it, return it for another one. I was creating my eBird account. It was late at night and red wine was involved. I was trying to be clever and now I have username remorse. Call me Dodomyth.

As a beginner birder, I was concerned that I might be considered a "dodo" on eBird, but I was too invested in my eBird account to create a new one. My grandson showed me a way out of my dilemma: learn to love the dodo.

During a visit to the Queens Zoo, my grandson Chace and I came across a cemetery for extinct species and one gravestone was for the dodo. "A dodo" said Chace, laughing. I asked him what was funny but his only reply was "A dodo!", as if to say everyone knows a dodo is funny, like an evolutionary punch line. The dodo's encounter with man was too brief for us to get a full picture of the creature and in that absence a comically tragic figure emerged. But the image on its gravestone showed a bird that, in spite of the laughter, has maintained its dignity.

Dodo, painting by Roelant Savery, c. 1628, once owned by ornithologist George Edwards.

Right from the beginning ridicule was heaped on the awkward-looking creature. It's uncertain where its name originated but none of the suspects are flattering. Several ancient Dutch words have been suggested: dodaersen (fat behind), dronte (swollen), or dodoor (lazy). There's an old Portuguese word, duodo, that meant idiot.

The dodo existed for eons on a volcanic island off Madagascar called Mauritius, in the Indian Ocean. At the time of discovery by Arab and European explorers Mauritius was uninhabited. Sixty species of orchids and other flowering plants grew in the forest that covered the island's 790 square miles. The Dutch, and the infamous East Indian Trading Company, settled the island in the late 16th century with their usual cargo of enslaved people and domesticated animals. The settlement was used as a station to resupply ships and harvest ebony.

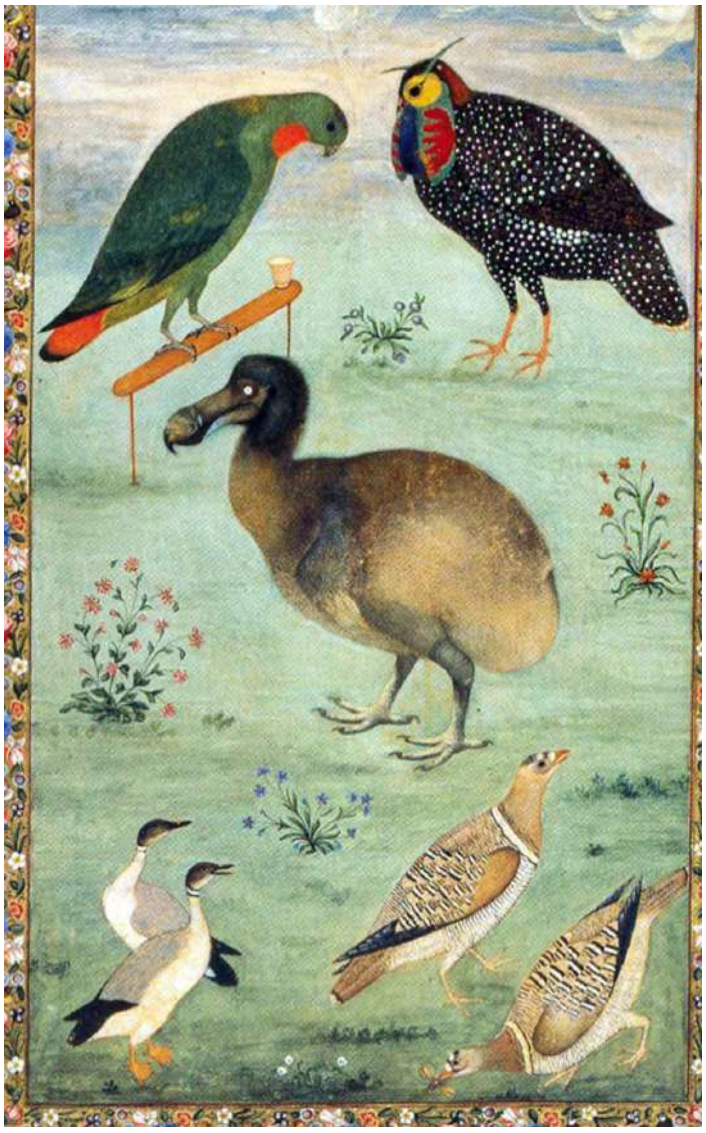
Mauritius rose from the sea about 8 million years ago. Since it was never connected to any land mass, all life on the island had to get there on its own. For the dodo, the vehicle was an expert navigator—the pigeon (family Columbidae). The ancestors of our rock pigeon found their way to Mauritius and settled into an unoccupied ecological niche. That place was on the ground where large size and a strong beak were more advantageous than wings.

The Nicobar pigeon is the dodo's closest living relative, but there's no resemblance. It's a large pigeon at 16 inches long, but nowhere near the dodo's size, which stood about three-feet tall and weighed 20 to 30 pounds. Today, the Nicobar pigeon thrives in a remote wildlife sanctuary on Nicobar Island in the Indian Ocean.

Unlike the Galapagos fauna, the wildlife of Mauritius didn't interest the explorers.* However, the irony of a flightless bird made the dodo interesting enough so that a few live birds were brought back to Europe, Japan, and China.

Sir Hamon L'Estrange was a Calvinist writer and in 1638 he described coming across a living dodo in London. A shop hung a cloth depicting a strange "fowle" as an advertisement to come in and see the bird. "It was kept in a chamber, and was a great fowle somewhat bigger than the largest Turkey Cock, and so legged and footed, but stouter and thicker and of a more erect shape, coloured before like the breast of a young cock fesan, and on the back a dunn or deare colour. The keeper called it a Dodo…"

A few of the imported birds survived in royal menageries long enough to have their likeness captured in paintings. Dutch artist Roelant Savery did some studies from living specimens and included the bird in several paintings. His "Edwards' Dodo" (it was once owned by ornithologist George Edwards) from 1626 is the most frequently used reference for dodo illustrations. A painting by Ustad Mansur in Russia's Hermitage Museum from the late 1620s is considered



Dodo Among Indian Birds, painting by Ustad Mansur, c. 1625; perhaps the most accurate depiction of a live Dodo.

the most accurate because other birds in the scene are easily identified.

Dodos were easy prey for the settlers because they had no fear of humans, but primary accounts of how edible they were are inconsistent. Archeologists haven't discovered any bones of slaughtered dodos in recent excavations of Fort Fredrick Hendrik, which would favor the accounts that said they tasted terrible and were tough to eat. It was the newcomers' pigs, monkeys and the rats inadvertently introduced to the island that caused their extermination. The last sighting of a dodo was made in 1662 by a shipwrecked sailor, Volkert Evertszen.

For a period of time the Dodo wasn't even allowed to be extinct and their very existence was questioned. They were thought to be mythical, like the Phoenix or Griffin. This was due to the belief that the world and everything in it was created by God and nothing in God's world could be destroyed. The concept of extinction wasn't demonstrated until 1796, by George Culver, who used the skull of a mammoth as an example of a creature that didn't exist anymore.

While this revelation was unsettling to theologians, nobody had ever seen a mammoth much less killed one. But the dodo had been erased recently and it was wiped out on man's watch. Rather than wrestle with the idea that man killed off one of God's creations, it was easier to embrace the notion of a clumsy animal that couldn't get out of its own way—or claim that it never existed in the first place.

The flightless bird had no defense. In 1807, a C. Smith, in "A Natural History Intended Chiefly for Young Persons," wrote:

"The Dodo, Didus, is a bird that inhabits some of the islands of the East Indies. Its history is little known; but if the representation of it be at all just, this is the ugliest and most disgusting of birds, resembling in its appearance one of those bloated and unwieldy persons who by a long course of vicious and gross indulgences are become a libel on the human figure."

This conception of the dodo lasted centuries. In the 1960s this passage appeared in a book for young adults by Robert Silverberg called "The Auk, the Dodo and the Oryx, Vanished and Vanishing Creatures":

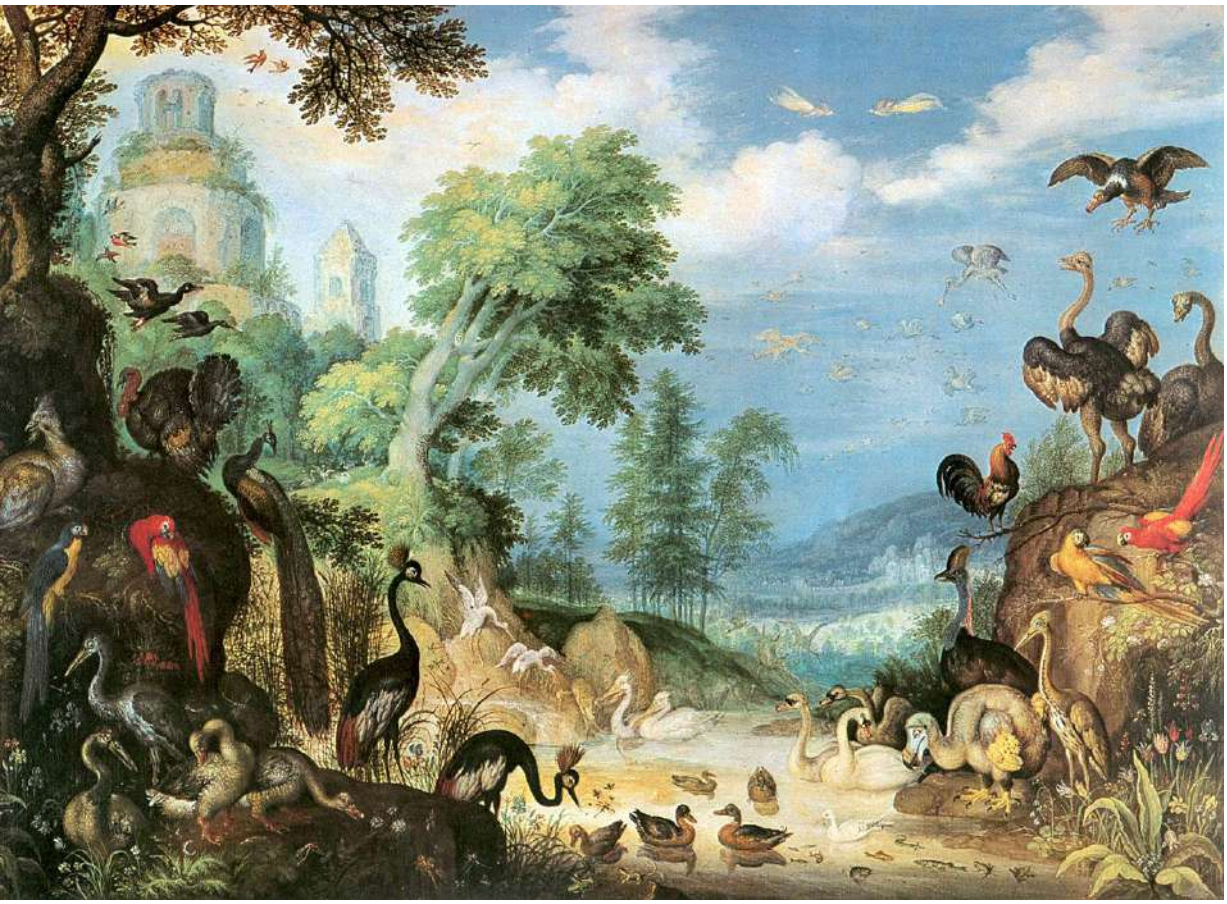
"…the Dodo waddled along on short yellow legs and big splay-toed feet, and when it tried to run it jogged so clumsily that its plumb belly scraped the ground."

Darwin's "Origin of the Species" was published in 1859 and his theories on evolution seemed to suggest there were other forces at work that might produce such an unlikely looking beast as the dodo. The Oxford

Dodo Birds, chalk on paper by Roelandt Savery, c. 1626.

University Museum of Natural History was opened in 1860 and served as the arena where church and science squared off over Darwin's theories. As a storm grew around them, right in the middle of the main public gallery of the new Museum, was a dodo.

Part of London's Great Exhibition in 1851 were dodo bones and a life-size reconstruction. This exhibit was so popular that it toured England for many years after the Great Exhibition and was part of the Oxford Museum's grand opening. The exhibit attracted the attention and imagination of Charles Dodgson.



Landscape with Birds showing a Dodo in the lower right, painting by Roelant Savery, c. 1628.

Writing as Lewis Carroll, he paired the bird with one of the best-known figures of English Literature, Alice, in "Alice's Adventures in Wonderland," in 1865.

Lewis Carroll gave us an intelligent and resourceful dodo that we meet in chapter three, The Caucus Race and A Long Tail. Alice and a group of animals are caught in a pool of her tears. The group is soaking wet and the Dodo comes up with the solution to get everybody dry. Dodgson included the Dodo as a joke on himself. He stuttered and introduced himself as "Do-do-dodgson." The illustrator of "Alice's Adventures in Wonderland," Sir John Tenniel, used the Oxford portrait as reference for the character.

Artist and paleontologist Dr. Julian Hume is at the center of today's dodo research on Mauritius. His team excavated the Mare aux Songes swamp where dodo bones were discovered over 100 years ago. They were able to date their finds of seeds, pollen, dodo bones, and other species at 12,000 years old. 3D images of a dodo skeleton reveal a swift and agile bird perfectly evolved to its environment. This is in line with early accounts that dodos were difficult to chase down and could hold their own against a man by delivering a nasty blow with its beak. The scars of muscle attachment in the wing bones suggest the dodo made use of them and they weren't completely atrophied. A study of the skull revealed large olfactory bulbs which indicate the bird had a keen sense of smell and the brain size was proportionally equivalent to the pigeon's.

If I could channel Roger Tory Peterson and describe a dodo on eBird it might sound like this: "Tall and larger than the swan, bald to thinly feathered head with large hooked beak, renders it unlike anything else. Ground dwelling with sturdy yellow legs, surprisingly fast. Atrophied wings used for balance."

Now I'm OK with my username. But I wish we could do something about the bird's.

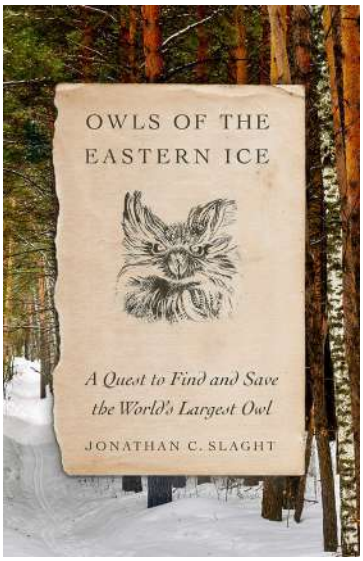
*The Catholic bishop who made the first landfall in 1535 "pronounced them cursed of God. Thereafter pious Spaniards generally avoided them" (Larson 2001). Historical Biology Vol. 20, number 2, June 2008, Turvey and Cleke.

Orioles. Mixed media on paper by Toni Simon.

Unsolved Mysteries

By Janet Schumacher

Owls of the Eastern Ice: A Quest to Find and Save the World's Largest Owl
Jonathan C. Slaght, published by Farrar, Straus and Giroux (2020)



During the dog days of August, I was happy to dive into Jonathan Slaght's wintery adventures studying the Blakiston's Fish Owl in far eastern Russia along the Sea of Japan. Despite being the largest owl with the wingspan of a bald eagle, the nocturnal Blakiston Fish Owl is difficult to locate. It generally only calls during the mating season at dusk, and the vocalization is muted. It roosts high in the largest trees, and as Slaght describes it, it appears like a "disheveled mass of wood-chip brown."

With snow on the ground, trees bare and mating season beginning, late winter is the best time to find the owls. They feed on salmon by wading in shallow fresh water streams. So it is possible to track them like a mammal, looking for their unique footprints in snow-covered banks. Their territories in winter are limited to the springs where radon gases seep in the channels and keep the water open. And the large, shaggy birds sometimes snag feathers on branches. These feathers reflect the sun and give clue to the nest site.

The Blakiston's Fish Owl doesn't have the typical facial discs that allow owls to hear prey. It doesn't need hearing to locate fish. And the owl isn't silent. The feathers aren't barbed, and its flight easily heard. Slaght noted that the heavy owl lands with a thud. Females can weigh more than 11 pounds; males around seven pounds. The female only lays one or two eggs every other year. Typically only one owlet survives, and it spends it second year with its parents learning to fish.

Slaght chose studying the owl for his PhD thesis at the University of Minnesota. Slaght is fluent in Russian, having spent time in Russia accompanying his father on business and then three years there as part of the Peace Corps. He found the remote and rugged Primorye province appealing. At 45 degrees latitude, it's a mix of temperate, subtropical, and boreal species. On this unique peninsula that borders China and Korea, Amur tigers and brown bears share the forest along with leopards, lynx, wild boar and musk and Sika deer. The raccoon dog, the only dog known to hibernate, also lives there.

Vast areas of the peninsula are a matrix of wetland and moving vegetation. Nearby Lake Tonka is an important stopover for migrating water birds, including large flocks of White Storks, Baird's Pochard and Scaly-sided Mergansers. The critically endangered Spoon-Billed Sandpiper has been found there on migration.

Slaght was intrigued by what he calls this "weird," large owl. He recognized that with its mop of unruly feathers, the Blakiston Fish Owl could be the charismatic poster child for preserving this natural area, which was increasingly threatened by logging and commercial fishing.

Slaght spent 20 months on field research over a five-year period. He credits his Russian counterpart, Sergei Avdeyuk, as an invaluable partner in many ways: he taught Slaght how to find the owls, knew the hazards of the terrain, was able to keep their ancient vehicles functioning, and hired capable field assistants. Avdeyuk also checked on the owls while Slaght was back in Minneapolis.

The first season was spent locating accessible owl pairs. The second, trapping and tagging the owls so their territories could be mapped and protected. Mist nets were useless, but a trap in the stream, stocked with live fish, was more successful. Slaght credits fish owl researchers in Hokkaido, Japan for the design. This method, however, required hours of ice fishing or for Slaght to don a wetsuit and capture live bait in the icy streams.

Making sure the owls wouldn't be trapped in the cold water, the researchers initially camped by the nets, with their breath forming icy drips inside the tent. The captured owls were then quickly measured, banded and released. The next year they attached a GPS tracker to a few owls. As there were few cell towers in the

area, and the GPS trackers didn't have enough battery life in the cold to transmit, they needed to recapture the owls to download the data. This effort provided valuable information regarding the Blakiston's Fish Owl's habits and range.

Climate change resulted in earlier spring thawing, making travel in the area hazardous. Slaght and his Russian researchers relied on the goodwill of inhabitants in the remote areas, occasionally staying in their cabins. One social hazard Slaght learned to gracefully avoid was the nightly ritual in which once the aluminum-capped bottle of home brew vodka was opened, it must be finished.

Logging companies were rapidly building an extensive network of roads into pristine areas. The wood is primarily exported to Europe and North America for flooring. Although the tall Manchurian elms and Japanese poplars the owls use for nesting were not being harvested, they were often felled in the process. Fortunately the owner of the largest logging company was a local resident, who hunted and fished in the area. He was amenable to making modifications to their methods, preserving old trees and blocking poachers' access to roads with large berms. And once again looking to the methods the Japanese used to increase the population of Blakiston's Fish Owls near Hokkaido, Slaght's team put up empty barrels with platforms for nest boxes, which the owls adopted.

Unfortunately with climate change, storms of increasing strength threaten the peninsula. In 2016 the Lionrock typhoon severely damaged key study areas. But visiting after the storm, the team was heartened to hear the muted duet of a pair of owls that had relocated a short distance away.

Last October, Slaght presented his research at the Linnaean Society of New York via Zoom. The highlight was a short video clip of an owl pair, huddled wing to wing, dueting on a branch. It was a lively virtual talk watched by 200 with lots of questions. Many wanted to know about visiting Primorye province. Slaght replied that there was little infrastructure for ecotourism. In fact, he pointed out, in Russia many nature reserves are limited to scientific study and tourists are not welcome. Perhaps that is not a bad idea, as rangers in the U.S. found large mammals freely roaming when national parks were closed due to the pandemic.

The owls are protected by law in Russia, but there has been no conservation plan. There is also an urban/rural divide concerning the protection of species in Russia, but there has not been conflict between the owl and loggers as has been the case with the Spotted Owl here in the Pacific Northwest. Slaght noted that most local residents are unaware of this cryptic, nocturnal owl with a soft call, but are more likely to be concerned about maintaining the population of deer and have more animosity towards the tigers. In Vladivostok, the capital of the province where most of the residents live, the annual Tiger Day festival is widely celebrated.

There's still a lot to be learned about the bird. In "Owls of the Eastern Ice," Slaght, who is currently the Russian and Northeast Asia Coordinator for the Wildlife Conservation Society, does not mention its scientific name, Bubo blakistoni. Paul Sweet, the collection manager at the American Museum of Natural History's ornithology department, questioned the classification of the owl as a Bubo. Slaght shrugged, saying that was just one of the remaining mysteries to be solved about the Blakiston's Fish Owl.

***

For diversion, I found "The Birdwatcher," a mystery by William Shaw, enjoyable. Set in coastal Northern Ireland, the local police officer is a birder. He's ordered to investigate the murder of his neighbor, who was also a birder and the detective's fellow sea-watch observer. It turns out he didn't know his neighbor as well as he thought.

In the course of his investigation, the officer notes the first of the season Goldeneye, the Pomeranian Skua and gannets plying the coast, and becomes frustrated when he can't take the time to verify that it was a Dusky Warbler darting into a shrub. For most birders, we too have this level of awareness constantly running even while on the street doing errands: why are the jays going crazy on Union Street, and hey, that was a raven croaking over Flatbush. Oh, look, a fish tail on the sidewalk: that's an Osprey up on the radio tower! In between the frequent ambulances and police sirens this summer, it was a comfort to hear Chimney Swifts endlessly looping in the sky.

And birders make great detectives. We scan the shores, noticing the odd bit of color, the distant lump in the trees, the movement in the brush. Check every white bag on the beach. Note details and location. We have our optics. Sometimes the findings are grim. Last summer, when asked by cops how she had spotted the body in phragmites, one intrepid Brooklyn birder simply said, "I'm a birder," and pointed to her binoculars and scope. Brooklyn noir.

Photo Gallery: Chasing Birds with Charles Tang

Clockwide from top: Black-headed Gull in Prospect Park; Ferruginous Hawk in Dutchess County, NY; Hoary Redpoll in Sherwood Island State Park, CT; Townsend's Warbler in Bergen County, NJ.

Clockwide from top: Pink-footed Goose in Long Island, Pileated Woodpecker in Dutchess County, Iceland Gull at Brooklyn Army Terminal Pier.

The Parasites You Know

By Matthew Wills

The Flying Zoo: Birds, Parasites, and the World They Share
Michael Stock, published by University of Alberta Press (2019)

Each one of us is an ecosystem. We're the sum total of symbiotic relationships, chimeras mixing invertebrates and microbiota, some of which is for the good, some for the bad. This goes for the birds, too.

In addition to vitally important microbiomes, without which we vertebrates would not be alive, there are the dangers. The parasites. Thanks to modern sanitation and public health, such as it is, we don't have to worry too much about these in Brooklyn. The birds, however, are another story. Michael Stock is a Canadian biologist who opens up the world of bird parasites for us in this fascinating and sometimes unsettling book.

Behold the Blue Jay. Stock inventories the known parasites you might find on or in one of these bright, noisy birds: "one flea, six species of lice, five types of ticks, and eight species of mites, in addition to being infected by nine kinds of flukes (trematodes), three tapeworms, one acanthocephalan (thorny-headed worm), and sixteen kinds of roundworms." His chapters break down the biology and relationships of such creatures.

Living on or in another creature can be a tough business. A species of soft tick can stay dormant for 18 years, a characteristic particularly helpful in isolated seabird nesting colonies. On the other hand, a warm, dry nest is a fine place for lice. Researchers can find out which bird species fostered a specific Brown-headed Cowbird chick by identifying the lice on the chick.

There are some fabulously gross life-forms living off birds. Blowfly larvae, for instance: "nest infestation rates of 100 larvae per nest are common among a variety of passerines." As little as five larvae can "drain all the blood from a barn swallow chick in just one day."

Intestinal parasites won't be everyone's cup of tea: "the tapeworms of grebes that live at the anterior end of the intestine tend to have longer hooks and more elaborate holdfast structures than those living at the posterior end."

All in all, you'll probably never look at a bird the same way again. This book drives home the extreme importance of feather-maintenance, all those hours of a bird's life spent bathing and preening. And there is a larger point here. Birds are the animals we know, just as we are the human beings we know, because of a long co-evolutionary interaction between hosts and parasites. Behavior, song, and plumage, all may be affected by these relationships.

Stock suggestively notes that much work needs to be done in this field and nudges readers towards various research avenues. He is actually "shocked" about how little we actually now about the health, diseases, and parasites of even such well-known birds as Blue Jays and Black-capped Chickadees. Seems like a good book to gift to budding ornithologists.

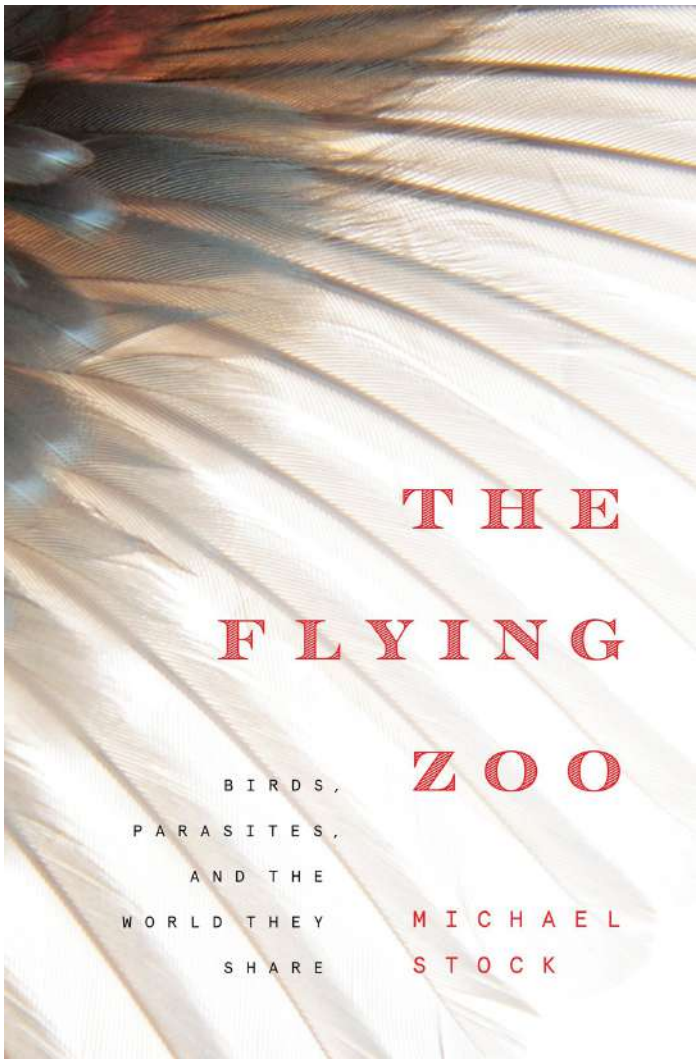


Photo Gallery: Ronnie Almonte

Clockwise from top: Northern Harrier at Shirley Chisholm State Park, Ruddy Duck at Hendrix Creek, Bald Eagle, Common Merganser, and American Black Duck at Prospect Park.

Prospect Park Happenings

By Stanley Greenberg

The Prospect Park Community Committee met on January 26. The Park Enforcement Patrol reported 18 vehicle violations and two dog violations. Clearly nothing is being done about dogs off-leash around the park. The only way this will ever change is if we make a concerted effort to get the Alliance and the Parks Dept. to pay attention to this problem. If anyone has specific suggestions, please let me know. We might consider petitioning, or some type of public demonstration. It has gotten completely out of control during the pandemic, and probably will not improve until we are closer to the end of it, but we may want to strategize for that time before it arrives.

The new park entrance is open on Flatbush Avenue, providing more access to the northern end of the park. Other capital projects going on now include the new lighting and pavement for the path to the Vale from Grand Army Plaza, and the restoration of the Music Grove Pavilion. Further in the future, with uncertain timelines, are the renovation of the entrance at Parkside Avenue that will accompany the construction of the new Shirley Chisholm Memorial there, and the bike lane on Ocean Avenue. Lefferts Homestead restoration work will begin soon.

The Alliance received double the number of donations they usually receive for their end-of-year campaign. (I don't think we were given an actual number though.)

The main event of the evening was a presentation about the Alliance's initiative to engage better with the community. Dennis and I were invited to a preview of the plan in recognition of the bird club's commitment to volunteering in the park. The presentation was essentially the same though, so I got to hear it twice. The Alliance seems to recognize that many local groups and populations are not represented on the Community Committee, and hopes to change that.

They will begin reaching out to the local community with a survey, workshops, and presentations. The main concern I expressed about the whole plan was that the ComCom has no actual power, and that increasing engagement with local people and organizations is meaningless if all we get to do is meet once a month to raise the same issues over and over again. While it's nice to get updates on construction and occasionally on new park policies, I think there should be more opportunities to influence the policies that some of the member groups have specific expertise in. Whether any of this will happen remains to be seen.

The next meeting will be some time in March; no date has been set yet.

View of the Lilly [sic] Pond in Prospect Park.
Albumen silver print, Edward and Henry T. Anthony & Co, c. 1869.

Brooklyn Bird Club: 2020 Financial Report

By Dennis Hrehowsik, BBC president and treasurer

We began 2020 with $9,850, the combined total of funds in the checking and PayPal accounts. Money added to the two accounts throughout the year came entirely through annual membership dues of $25 per person, as well as some small donations. These credits totaled $8,433.99 as of February 16, 2021, which, added to our $9,850, gave us a working budget of $18,283.99.

Our expenses were as follows:

General Liability Insurance: $1,706.94 (renewed annually).

Donations: $1,180. This year we made donations to the following organizations: the Brooklyn Public Library, Prospect Park Alliance, Green-Wood Cemetery Historic Fund, New York State Ornithological Association, the New York State Young Birders Club, and Scout Troop 302 for an owl box.

Separately, members raised $9,035.41 for International Migratory Bird Day in October. These funds were given directly to the Jamaica Bay and Rockaway Parks Conservancy for the installation of bird-safe window film at the Salt Marsh and Jamaica Bay nature centers. The club donated the $255 in PayPal fees so that the organization could receive the entire amount our members raised. I included this in the donations total.

Programs: $509.90. Each speaker in our monthly series is paid a $100 honorarium (several local speakers donated their time). Additionally, we incurred new costs this year to support our virtual programs through Zoom and Rev closed-captioning services.

Events: $438.84. These include the supplies for the cleanups sponsored by the club this summer.

Birdseed for Prospect Park feeders: $154.67.

P.O. box annual rental fees: $360.

Website maintenance and fees: $223.03.

Our total expenditures for 2020 were $4,573.38. Deduct this amount from our total budget of $18,283.99 and the difference is $13,710.61. This is our current balance going into the new year.

The club is in the best fiscal health ever during my tenure. This is due largely to our current roll of 300-plus active members, the most ever for our group. Thank you all for your continued support of the BBC—there is no club without you.

American Tree Sparrow at Breezy Point. Photo by Marc Brawer.

Upcoming BBC Programs

Please check the BBC website for updates.

Tue 3.23.21 7:00pm

Via Zoom, registration required. Please register here.

Washington Square Park Eco Projects with Georgia Silvera Seamans

Georgia Silvera Seamans will present the changing ecology of 9.75 acres of unceded Lenape land now known as Washington Square Park. She will discuss two current projects in the park: the Observing Wildlife Longitudinally (a.k.a. the bird survey) and the WSP Phenology Project.

Georgia is an urban forester and the co-founding director of Washington Square Park Eco Projects. She is also an independent researcher and freelance writer.

Tue 4.6.21 7:00pm

Via Zoom, registration required. Please register here.

Audubon Mural Project: A Virtual Walking Tour with Leigh Hallingby

Leigh Hallingby will present 40 murals from the Audubon Mural Project, an impressive effort to create murals of over 300 North American birds. Most of the murals are in the Harlem neighborhoods of Hamilton Heights and Washington Heights, where John James Audubon lived the last ten years of his life

Leigh is a licensed NYC tour guide who specializes in Harlem, Morningside Heights, and the Upper West Side. She is passionate about exploring all five boroughs and beyond on foot, mostly through organized walking tours. Leigh is retired from a 36-year career as a non-profit librarian.

Prospect Park Spring Migration Walks resume!

Registration required. Please check events page for details.

Each walk is strictly limited to 12 participants to allow for adequate social distancing. You must register in advance. Walk-ups will not be permitted. Masks which cover nose and mouth must be worn at all times.

- Monthly First Sunday walk
- Weekly Saturday walk, April 10 - May 29
- Weekly Tuesday walk, April 13 - May 25
- Weekly Thursday walk, April 15 - May 27

Tue 5.18.21 7:00pm

Via Zoom, registration required. Please register here.

Glen Davis Presents Wildlife Track Stars

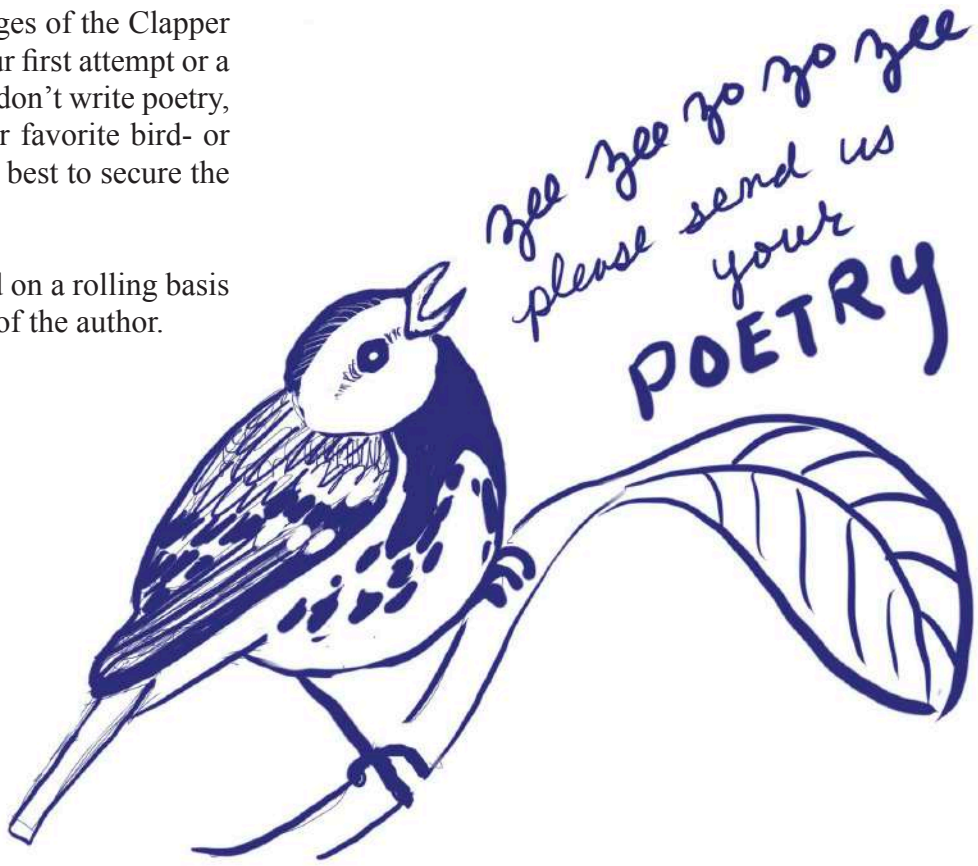
California Condors can now be "geo-fenced" to avoid wind turbine collisions! Small songbirds and so many more critters can be remotely detected by itsy bitsy radio transmitters! The world of wildlife tracking is exciting and always changing! In the 14 years since Cellular Tracking Technologies started with the worlds first GPS and Cellular platform tracking unit (originally used with Golden Eagle) many developments have led to wide variety of tracking application for wildlife. Join ornithologist and tour leader, turned electronics developer Glen Davis for a presentation and overview of the leading trends in wildlife tracking research and development.

Glen started birding in Brooklyn at age 10 and was a regular of Brooklyn Bird Club trips and meetings until graduating high school in 1995. Since then Glen has worked a myriad of field jobs and as a tour leader. Glen resides in Cape May with his wife Kashi and currently works at Cellular Tracking Technologies as well as a counselor in the summer for Camp Cascades for Young Birders.

Submit a poem to the Clapper Rail

We call out to you to enliven the pages of the Clapper Rail with a poem—whether it be your first attempt or a poem you've had published! If you don't write poetry, we invite you to submit one of your favorite bird- or nature-inspired poems. We'll do our best to secure the permission to reprint.

Poetry submissions will be reviewed on a rolling basis and may be edited with the consent of the author.



Brooklyn Christmas Count Annual Report: 2020

Species	Total Seen	NS	PP	GW	OH	MP	FB	BB	SC	JB	RP	BP	BT
Snow Goose	1,264		1				3			1260			
Brant	10,015	54			371	869	1555	1308	1182	3240	825	102	509
Canada Goose	3,512	116	311	107	204	247	349	322	423	789	106	329	209
Mute Swan	169		4		80	4	1		2	75		3	
Wood Duck	2		1						1				
Northern Shoveler	513		83			15			200	215			
Gadwall	116	46			6				17	45			2
American Wigeon	88	22			1	10			9	40	6		
Mallard	758	48	234		97	232	6	4	55	69		1	12
American Black Duck	1,049	56	10		155	60	10	32	61	168	22	19	456
Northern Pintail	12				1					8			3
Green-winged Teal	75								65	10			
Ring-necked Duck	1								1				
Greater Scaup	761	98			4	6	33	48	201	369			2
Lesser Scaup	249	49			8	10		1	180	1			
King Eider	5	1									4		
Common Eider	67				10		3				18	35	1
Surf Scoter	17				8						2	7	
White-winged Scoter	14										2	12	
Black Scoter	196				15	2					28	151	
Scoter (sp.)	135										50	85	
Long-tailed Duck	153				8	8	24	4	1		42	66	
Bufflehead	927	160			53	93	73	76	131	203	46	6	86
Common Goldeneye	44	1	0		1		2		21	18			1
Hooded Merganser	72				3	5		8	4	52			
Common Merganser	3				2			1					
Red-breasted Merganser	748	6			29	103	354	41	33	66	36	70	10
Ruddy Duck	576	1	1			44		2	520	8			
Ring-necked Pheasant	0					cw							
Pied-billed Grebe	2				1				1				
Horned Grebe	100					1	22	12	17	44	1	1	2
Red-necked Grebe	1										1		
Rock Pigeon	1,070	394	72	72	275	26	2	71	8	9	90	51	
Mourning Dove	213	44	48	10	18	17	4	3	43	23		3	
Clapper Rail	1									1			
American Coot	92		10						5	76			1
American Oystercatcher	1											1	
Black-bellied Plover	22					17						5	
Killdeer	6	1						2	1	2			
Ruddy Turnstone	4						1			2	1		
Sanderling	279										42	237	
Dunlin	37					11				10			16
Purple Sandpiper	28				16						5	7	
American Woodcock	1							1					
Spotted Sandpiper	1								1				
Greater Yellowlegs	1									1			

Species	Total Seen	NS	PP	GW	OH	MP	FB	BB	SC	JB	RP	BP	BT
Bonaparte's Gull	2,789				180		200				2045	364	
Laughing Gull	0										cw		
Mew Gull	1	1											
Ring-billed Gull	6,523	2781	536	12	706	210	1244	205	259	21	52	496	1
Herring Gull	3,808	334	18		157	120	92	25	168	597	140	2103	54
Iceland Gull	2	2											
Lesser Black-backed Gull	1										1		
Great Black-backed Gull	483	45	1		36	27	38	4	16	78	8	198	32
Red-throated Loon	154				6	3	13	1			18	112	1
Common Loon	165				18	15	16	3	2	4	22	85	
Northern Gannet	2											2	
Great Cormorant	31				2		1		2	1	1	24	
Double-crested Cormorant	121	17			6	6	50	6	8	7	10	11	
Great Blue Heron	37		1		9	6	3	1	8	3		1	5
Great Egret	1								1				
Black-crowned Night-Heron	2								1	1			
Turkey Vulture	2				1				1				
Bald Eagle	0	cw											
Northern Harrier	42					4	2	4	10	8	1	9	4
Sharp-shinned Hawk	9					2	4		2	1			
Cooper's Hawk	21	1	1	3	3	1	6	1	1	1	2	1	
Red-shouldered Hawk	7		1		1	1	4						
Red-tailed Hawk	32	2	4	4	4	2	4	2	6	1	1	1	1
Barn Owl	3								1	2			
Great Horned Owl	1		1										
Short-eared Owl	1								1				
Northern Saw-whet Owl	1			1									
Belted Kingfisher	4	1				1		1	1				
Red-bellied Woodpecker	42		23	14	4	1							
Yellow-bellied Sapsucker	13		5	7	1								
Downy Woodpecker	112	1	23	4	8	8	13	14	20	5	6	10	
Hairy Woodpecker	1		1										
Northern Flicker	61	1	3	2	2	4	27	6	4	3	5	3	1
American Kestrel	20	4		2	2	3	2	1	3		1	1	1
Merlin	11	1	3	2	1	2			1	1			
Peregrine Falcon	8		1			1	2		1	3			
Monk Parakeet	7			7									
Blue Jay	192	3	91	50	14	8	3	4	18			1	
American Crow	303	20	38	4	11	23	84	51	45	7	4	16	
Fish Crow	248	60			7				61	120			
Common Raven	9	1					2		2		3	1	
Horned Lark	273				5	27	25			83	16	104	13
Black-capped Chickadee	344	1	64	43	19	21	53	24	21	20	35	43	
Tufted Titmouse	88	1	38	34	14							1	
Red-breasted Nuthatch	15			3			10	1			1		
White-breasted Nuthatch	55		23	28	3				1				
Brown Creeper	5		3		1	1							
Winter Wren	13		7				1			3	1	1	
Marsh Wren	1					1							

Species	Total Seen	NS	PP	GW	OH	MP	FB	BB	SC	JB	RP	BP	BT
Carolina Wren	89	1	6	3	4	5	16	6	10	23	10	5	
Golden-crowned Kinglet	1								1				
Ruby-crowned Kinglet	7		3		1		1			1		1	
Veery	1	1											
Hermit Thrush	16	3	8		1	1	1	1			1		
American Robin	265	46	17	2	25		54	88	2	27	2	2	
Gray Catbird	24	7	5				2			4	4	2	
Northern Mockingbird	143	13	6	9	7	6	23	23	12	14	21	9	
European Starling	1,247	109	194	110	150	118	101	104	50	146	65	90	10
Cedar Waxwing	15						4	2		9			
House Sparrow	470	180	116	8	46	19	4	14	21	20	11	31	
American Pipit	78				6	1		1		40		30	
House Finch	130	2	10	27		2	3	11	1	7	30	37	
Purple Finch	4						4						
Common Redpoll	9		1						1		2	5	
Red Crossbill	7						7						
Pine Siskin	11			8				1	2				
American Goldfinch	96	2	9	18	11	4	12	8	9	10	2	11	
Lapland Longspur	1											1	
Snow Bunting	144						6			2		136	
Chipping Sparrow	10							1				9	
Field Sparrow	10					1	4	1				4	
Fox Sparrow	55		8	8		1	18	5	10	3		2	
American Tree Sparrow	140		1		1	12	1	11	34	16	6	58	
Dark-eyed Junco	201	2	28	75	16	5	9	6	43	6	3	8	
White-crowned Sparrow	1						1						
White-throated Sparrow	943	71	194	30	36	18	234	124	64	89	56	27	
Savannah Sparrow	113					15	1		36	5	10	44	2
Song Sparrow	480	8	18	12	14	56	41	66	60	100	45	58	2
Lincoln's Sparrow	3	2									1		
Swamp Sparrow	58	3	2			4	1	5	12	23	3	5	
Eastern Towhee	13	1		3			1			5		3	
Yellow-breasted Chat	1									1			
Baltimore Oriole	3		2	1									
Red-winged Blackbird	407		79	110	40	12			30	2	107	27	
Brown-headed Cowbird	5		1		1							3	
Rusty Blackbird	1		1										
Common Grackle	7		1	2								4	
Boat-tailed Grackle	650									650			
Ovenbird	1		1										
Orange-crowned Warbler	3	1							1	1			
Common Yellowthroat	2								1	1			
Palm Warbler	1					1							
Pine Warbler	1								1				
Yellow-rumped Warbler	278					4	68	47		58	38	63	
Wilson's Warbler	0								cw				
Northern Cardinal	313	8	66	39	17	25	29	26	21	29	14	39	
Species Count:	137	53	58	37	66	65	67	56	76	76	59	70	27
Number Seen:	45,787	4,834	2,438	874	2,963	2,588	4,987	2,841	4,270	9,066	4,081	5,408	1,437

Brooklyn XMas Highlights: 2020 *Territory =* TC

Species Name	*x Last 10 Years*	*Last Seen*	*All-Time Mx Yr*	*All-Time Max*	*All-Time Min*	*10-Year Max Yr*	*10-Year Max*	*10-Year Min*	*Av*	*2020*	*Hi All*	*Hi 10Yr*	*Lo All*	*Lo 10Yr*	*Rare/ Irr*
Regular [8-10 yrs]															
Snow Goose	9	2020	1994	1,572	2	2020	1,264	8	360	1,264		x			
Canada Goose	10	2020	2008	6,414	540	2020	3,512	1,408	2,064	3,512		x			
Northern Shoveler	10	2020	2010	772	6	2020	513	22	329	513		x			
Lesser Scaup	10	2020	1982	589	1	2020	249	17	111	249		x			
Pied-billed Grebe	10	2020	1961	500	1	2011	20	2	9	2				x	
American Coot	10	2020	1979	344	11	2020	92	18	45	92		x			
Purple Sandpiper	10	2020	1979	85	1	2020	28	6	15	28		x			
Greater Yellowlegs	9	2020	1994	20	1	2011	16	1	8	1				x	
Great Black-backed Gull	10	2020	1983	18,198	111	2020	483	111	290	483		x			
Red-throated Loon	10	2020	2020	154	1	2020	154	26	93	154	x	x			
Northern Gannet	10	2020	1998	8,002	1	2017	4,915	2	732	2				x	
Great Blue Heron	10	2020	1991	46	10	2020	37	12	21	37		x			
Northern Harrier	10	2020	1991	59	11	2020	42	11	19	42		x			
Cooper's Hawk	10	2020	2020	21	2	2020	21	8	14	21	x	x			
Red-tailed Hawk	10	2020	1995	56	6	2020	32	13	22	32		x			
Downy Woodpecker	10	2020	1995	130	20	2020	112	30	59	112		x			
Hairy Woodpecker	9	2020	2014	12	1	2014	12	1	5	1				x	
American Kestrel	10	2020	1960	55	1	2020	20	1	9	20		x			
Merlin	10	2020	2008	12	1	2020	11	1	5	11		x			
Horned Lark	10	2020	1938	1,025	3	2020	273	25	78	273		x			
Black-capped Chickadee	10	2020	1999	590	4	2020	344	4	98	344		x			
Winter Wren	8	2020	2020	13	1	2020	13	1	5	13	x	x			
Golden-crowned Kinglet	8	2020	2005	55	1	2019	14	1	5	1				x	
American Robin	10	2020	2009	420	22	2020	265	33	152	265		x			
Gray Catbird	10	2020	2005	28	1	2020	24	3	9	24		x			
American Pipit	9	2020	2008	99	1	2020	78	1	13	78		x			
American Tree Sparrow	10	2020	1999	527	22	2020	140	22	65	140		x			
White-throated Sparrow	10	2020	1992	1,084	188	2020	943	266	464	943		x			
Savannah Sparrow	10	2020	1961	198	3	2020	113	3	37	113		x			
Song Sparrow	10	2020	1994	721	103	2020	480	134	304	480		x			
Eastern Towhee	10	2020	2005	13	1	2020	13	1	4	13		x			
Red-winged Blackbird	10	2020	2020	407	15	2020	407	18	92	407	x	x			
Brown-headed Cowbird	9	2020	2006	1,111	1	2015	651	5	161	5				x	
Northern Cardinal	10	2020	2020	313	39	2020	313	127	192	313	x	x			
Irregular [4-7 yrs]															
Common Eider	6	2020	2010	82	1	2020	67	1	27	67		x			IRR
Common Merganser	4	2020	1938	30	1	2017	13	2	6	3					IRR
Red-necked Grebe	7	2020	2014	7	1	2014	7	1	3	1					IRR
American Oystercatcher	4	2020	1985	26	1	2019	5	1	3	1					IRR
Ruddy Turnstone	5	2020	1993	55	1	2020	4	1	2	4		x			IRR
Bonaparte's Gull	7	2020	2020	2,789	1	2020	2,789	1	549	2,789	x	x			IRR
Black-crowned Night-Heron	7	2020	1971	95	1	2019	8	1	3	2					IRR
Turkey Vulture	4	2020	2001	3	1	2011	3	1	2	2					IRR
Red-shouldered Hawk	7	2020	2010	7	1	2020	7	1	3	7		x			IRR
Barn Owl	6	2020	1992	12	1	2019	3	1	2	3					IRR
Northern Saw-whet Owl	6	2020	1995	4	1	2018	3	1	2	1					IRR
Fish Crow	8	2020	1990	337	1	2019	314	2	94	248					IRR
Common Raven	7	2020	2020	9	1	2020	9	1	3	9	x	x			IRR
Red-breasted Nuthatch	7	2020	1997	95	1	2018	30	1	12	15					IRR
Purple Finch	6	2020	1974	53	1	2018	11	1	4	4					IRR
Pine Siskin	5	2020	1963	256	1	2012	33	4	13	11					IRR
White-crowned Sparrow	4	2020	1982	14	1	2012	2	1	1	1					IRR

Species Name	x Last 10 Years	Last Seen	All-Time Mx Yr	All-Time Max	All-Time Min	10-Year	10-Year Max	10-Year Min	Av	2020	Hi All	Hi 10Yr	Lo All	Lo 10Yr	Rare/ Irr
Irregular [4-7 yrs]															
Baltimore Oriole	5	2020	2020	3	1	2020	3	1	2	3	x	x			IRR
Rusty Blackbird	5	2020	1937	12	1	2011	3	1	2	1					IRR
Boat-tailed Grackle	7	2020	1993	719	1	2020	650	2	122	650		x			IRR
Common Yellowthroat	6	2020	1999	4	1	2012	2	1	1	2					IRR
Pine Warbler	5	2020	1987	3	1	2016	2	1	1	1					IRR
Rare [0-3 yrs]															
Ring-necked Duck	4	2020	2007	9	1	2015	2	1	2	1					RARE
King Eider	1	2020	1960	6	1	2020	5	5	5	5		x			RARE
Clapper Rail	4	2020	1938	19	1	2012	3	1	2	1					RARE
Spotted Sandpiper	2	2020	2016	1	1	2016	1	1	1	1					RARE
Mew Gull	1	2020	2020	1	1	2020	1	1	1	1					RARE
Iceland Gull	3	2020	1945	2	1	2020	2	1	1	2		x			RARE
Lesser Black-backed Gull	3	2020	1984	2	1	2019	2	1	1	1					RARE
Great Egret	2	2020	1975	12	1	2011	1	1	1	1					RARE
Short-eared Owl	2	2020	1960	38	1	2014	1	1	1	1					RARE
Wrens															
Marsh Wren	3	2020	1984	8	1	2017	2	1	2	1					RARE
Thrushes															
Veery	1	2020	2020	1	1	2020	1	1	1	1					RARE
Fringilline & Cardueline Finches															
Common Redpoll	3	2020	1963	150	1	2020	9	2	5	9		x			RARE
Red Crossbill	2	2020	1973	60	1	2020	7	2	5	7		x			RARE
Longspurs and Snow Buntings															
Lapland Longspur	3	2020	1939	70	1	2019	2	1	1	1					RARE
Towhees and Sparrows															
Lincoln's Sparrow	2	2020	2020	3	1	2020	3	1	2	3	x	x			RARE
Yellow-breasted Chats															
Yellow-breasted Chat	3	2020	1991	2	1	2011	1	1	1	1					RARE
Wood-warblers															
Ovenbird	2	2020	1997	1	1	2019	1	1	1	1					RARE

Since 1981 x Places

Year	All Areas	No Shore	Pr Park	GW Cem	Owls Hd	Mar Park	Floyd B	Berg Bch	Spr Creek	Jam Bay	Riis Park	Brzy Pt	JB Boat
1981	111		42	32	50	43	42	42	48	58	44	38	25
1982	110		45	29	54	49	42	57	44	65	45	43	
1983	122		52	33	63	62	55	54	71	73	52		38
1984	120		44	32	49	49	52	47	60	59	43	43	33
1985	120		43	32	53	59	53	70		67	60		14
1986	121		48	36	53	60	50	61		61	58		47
1987	118		49	28	42	64	49	65		58	58		45
1988	119		46	30	52	60	51	31	62	66	56		46
1989	122		46	32	44	48	46	44	58	61	45	32	
1990	111	3	55	33	47	48	45	42	59	68	40	30	45
1991	134		56	42	62	50	49	50	59	78	34	40	42
1992	126	18	52	45	63	60	53	58	59	71	49	42	52
1993	126		49	42	49	59	49	55	62	81	56	45	53
1994	124	16	58	38	46	53	47	50	64	74	34	39	52
1995	127	18	57	48	64	71	53	53	66	67	47	48	44
1996	120	33	58	33	55	61	45	48	61	69	41	44	43
1997	131	19	62	39	50	56	60	54	65	77	54	56	
1998	127	17	57	39	48	50	43	47	63	79	49	50	12
1999	129	1	56	39	62	59	64	58	69	83	62	55	
2000	124	1	57	35	49	51	60	47	54	80	49	57	
2001	123	1	61	38	46	47	54	42	53	68	51	57	
2002	119		54	32	46	44	42	44	51	64	41	51	
2003	127	19	57	34	48	60	53	45	52	70	53	61	27
2004	129	13	54	33	54	53	56	39	55	71	48	60	
2005	123	12	55	39	66	53	64	41	60	72	56	53	
2006	122		58	32	62	52	50	29	55	65	49	54	
2007	124		62	43	62	69	55	34	55	62	65	60	
2008	124		60	36	64	68	48	46	70	72	60	61	
2009	123	17	51	35	56	54	55	43	56	61	50	53	
2010	126	20	47	44	66	67	57	53	64	71	67	59	
2011	132	21	56	36	52	51	49	45	64	69	58	57	
2012	134	24	64	47	61	61	53	60	66	75	46	46	
2013	111	17	50	27	52	56	51	51	59	61	45	50	
2014	125	25	56	42	51	59	60	57	63	58	57	53	
2015	117	24	56	33	51	51	40	49	53	47	44	41	
2016	119	35	53	33	55	51	49	57	65	54	61	55	
2017	120	36	52	33	53	61	50	57	61	65	52	61	
2018	121	44	59	40	53	66	67	46	68	57	54	59	
2019	130	48	59	34	48	59	57	50	68	65	54	55	12
2020	137	53	58	37	66	65	67	56	76	76	59	70	27
Max	137	53	64	48	66	71	67	70	76	83	67	70	53
Avg	123	21	54	36	54	56	52	49	60	67	51	51	37
Total	231	86	132	100	147	155	138	134	154	159	145	125	101

Brooklyn XMas Count: Historic Count Results

Year	*Total Species*	*Regular Species*	*Irreg. Species*	*Rare Species*	*# Seen*
1981	111	85	15	11	73,099
1982	110	83	15	12	96,862
1983	122	87	16	19	121,053
1984	120	93	13	14	93,249
1985	120	91	18	11	35,260
1986	121	91	17	13	28,970
1987	118	88	18	12	24,374
1988	119	92	18	9	30,429
1989	122	89	18	15	23,049
1990	111	87	13	11	26,482
1991	134	94	19	21	47,312
1992	126	95	14	17	36,321
1993	126	94	17	15	35,149
1994	124	96	16	12	34,174
1995	127	95	20	12	34,525
1996	120	95	14	11	33,519
1997	131	97	17	17	43,023
1998	127	94	16	17	51,638
1999	129	95	21	13	36,134
2000	124	94	18	12	46,267
2001	123	94	19	10	27,583
2002	119	97	12	10	27,818
2003	127	94	22	11	34,904
2004	129	96	18	15	29,980
2005	123	98	15	10	31,991
2006	122	96	14	12	41,165
2007	124	95	14	15	41,427
2008	124	97	16	11	46,616
2009	123	96	14	13	42,942
2010	126	96	20	10	54,822
2011	132	100	19	13	57,508
2012	134	99	21	14	41,717
2013	111	96	10	5	39,174
2014	125	97	22	6	41,924
2015	117	95	15	7	42,766
2016	119	98	16	5	34,441
2017	120	97	16	7	56,886
2018	121	97	16	8	32,568
2019	130	99	18	13	26,835
2020	137	98	22	17	45,787
	123.2	94.3	16.8	12.2	43,744
# Species	232	100	32	100	
Av % Seen	53.1%	94.3%	52.5%	12.2%	
Act % Seen	59.1%	98.0%	68.8%	17.0%	