

The Early Christmas Bird Counts in Delaware County, Pennsylvania

by David Eberly
March 2020

Introduction

After the 1996 Christmas Bird Count Nick Pulcinella wrote a thorough and informative history of the Glenolden CBC entitled *The Glenolden Christmas Bird Count 1922-1996: A Seventy-five Year History*. On December 14, 2019 we held the 100th Glenolden (Delaware County) Christmas Bird Count. The astute reader will note that only 23 years have passed since 1996 so why was the 2019 count our 100th CBC instead of the 98th? A search for the answer to that question led to a review of the early CBCs in our area and the discovery of a story that I think is worth sharing.

The simple answer to the question about the discrepancy in the number of counts is a technicality. Before fixed CBC circles were established the results of each individual party that participated in the CBC were reported as a separate count and the count was named after the area that was covered. Between 1900 and 1939 anywhere from zero to three counts were conducted within our county in any given year. National Audubon calls our CBC the Glenolden (Delaware County) Christmas Bird Count. As Nick correctly reports the first CBC named "Glen Olden" was held in 1922 but two earlier counts (1907 and 1913) were named "Delaware County" and Audubon has lumped those two counts into the historical record of the Glenolden CBC. The addition of the two counts makes the 2019 CBC the 100th Glenolden (Delaware County) Christmas Bird Count instead of the 98th.

What this ignores however are those multiple additional "censuses", as they were called in those days, that were held in the county between 1900 and 1939 but not named "Glenolden" or "Delaware County". In fact at least one Christmas Bird Census or Count has been conducted in Delaware County in 112 of the 120 years since the CBC was founded. Overall I was able to find a total of 34 of these CBCs, all held between 1900 and 1939, that do not show up on a data search of the Glenolden count. They are listed in the table at the end of this section.

This history is intended to supplement not replace Nick's fine work. It will focus mainly on the story of those early CBCs and their place in the rich history of the Glenolden count.

The First Christmas Bird Census December 25, 1900

The idea for a census of birds on Christmas Day as an alternative to the notorious Christmas Day side hunts was famously proposed by Frank Chapman in the December 1900 issue of his publication *Bird-Lore*. The details of the proposal are best described in Chapman's own words and in the wonderful vernacular of the day:

It is not many years ago that sportsmen were accustomed to meet on Christmas Day, 'choose sides' and then, as representatives of the two bands resulting, hie them to the fields and woods on the cheerful mission of killing everything in fur or feathers that crossed their path —if they could.

These exceptional opportunities for winning the laurels of the chase were termed 'side hunts' and reports of the hundreds of non-game birds which were sometimes slaughtered during a single hunt were often published in our leading sportsmen's journals, with perhaps a word of editorial commendation for the winning side. We are not certain that the side hunt is wholly a thing of the past, but we feel assured that no reputable sportsmen's journal of today would venture to publish an account of one, unless it were to condemn it; and this very radical change of tone is one of the significant signs of the times.

Now BIRD-LORE proposes a new kind of side hunt, in the form of a Christmas Bird Census, and we hope that all our readers who have the opportunity will aid us in making it a success by spending a portion of Christmas Day with the birds and sending a report of the 'hunt' to BIRD-LORE before they retire that night. Such reports should be headed by the locality, hour of starting and of returning, character of the weather, direction and force of the wind, and the temperature; the latter taken when starting. The birds observed should then be added following the order in which they are given in the A.O.U. 'Check List,' with, if possible, the exact or approximate number of individuals of each species observed.

Promptness in sending these lists to BIRD-LORE (at Englewood, N.J.) is urged in order that the best of them may be published in our February number, where they will be not only of interest to other participants in the 'hunt' but will also constitute, in a measure, a census of Christmas bird-life.

In his proposal Chapman states that side hunts were largely a thing of the past. But how far in the past and what were they like? An example found on a quick internet search is a report of a hunt held on Christmas Day 1876 in Osceola Missouri published in the January 4, 1877 edition of Forest and Stream magazine. There is no mention of teams but there was a point system awarded on the basis of the number and quality of the game that was shot. There were twenty participants. The winner accumulated 170 points. The total points awarded were 1240 which according to the article was an excellent total for a hunt.

Here is the final tally of the 20 participants:

Rabbits 97
Quail 91
Owls 7
Squirrels 5
Ducks 3
Prairie chicken 1.

I'll bet the prairie chicken was worth a lot of points. And how do you shoot seven owls? ... and in the daytime?

Frank Chapman (1864-1945) was a 36 year old member of the staff of the American Museum of Natural History in New York when he proposed the Christmas Bird Census. He was an associate editor of *Auk* magazine and founded *Bird-Lore* in 1899. *Bird-Lore* was purchased by the National Association of Audubon Societies in 1935 and would become *Audubon Magazine* in 1941.

Chapman's proposal came in the days of the blossoming conservation movement that arose in response to the threatened extinction of several species of wading birds due to the demand for plumes for the lady's millinery trade. The famous legend of the founding of the Audubon societies is nicely told in the March 2013 issue of Smithsonian Magazine and is summarized here:

In 1896, after reading an article describing the plume trade, Harriet Lawrence Hemenway, a Boston Brahmin and amateur naturalist known for embarking on her birding expeditions “wearing unthinkably unfashionable white sneakers” enlisted the help of her cousin Minna Hall and organized tea parties at which they urged their friends from the social register to stop wearing feathered hats. Their efforts were so successful that Hemenway and Hall organized the Massachusetts Audubon Society in that very same year. By 1898 there were more than a dozen state Audubon societies. *Bird-Lore* was published as “the official organ of the Audubon Societies”. A federation that would soon become the National Audubon Society was founded in 1905.

The response to Chapman’s proposal was fairly robust given the short notice. The Christmas Census was only first proposed in the Nov-Dec 1900 issue of *Bird-Lore* but 25 CBCs ranging from eastern Canada to California were held on Christmas Day of that very same year. The Census was conducted by 27 participants who tallied a grand total of 89 species continent-wide. Interestingly 89 species is the current 10 year average for just our single Glenolden count.

Although not included in the records of the Glenolden CBC, Delaware County was indeed represented in that first Christmas Bird Census. The census was conducted by none other than Witmer Stone. Stone (1866-1939) is probably best known as the author of the classic *Bird Studies of Old Cape May*. He was a founding member of the Delaware Valley Ornithological Club (DVOC), worked as an ornithologist at the Academy of Natural Sciences of Philadelphia for over 50 years, served as the Academy’s director, president of the American Ornithological Union and editor of the AOU’s publication, *Auk*.

The area Stone censused on that first CBC in 1900 was named “Delaware River Meadows, Tinicum Township, Delaware County, Pennsylvania”. Stone ventured out for one and one-half hours on Christmas morning and counted 201 individual birds representing 10 species.

Here are the results of that first CBC held in Delaware County as part of the very first Christmas Bird Census:

American Herring Gull-2
Red-tailed Hawk-6
Red-shouldered Hawk-1
Crow-100
Meadowlark-4
American Goldfinch-25
Junco-6
Tree Sparrow-50
Song Sparrow-6
Swamp Sparrow-1

Chapman’s Christmas Bird Census caught on and participation across the U.S. and Canada increased each year. Delaware County was not represented in the CBCs of 1901 and 1902 but re-emerged with a count, “Lansdowne”, in 1903. The table summarizes the many CBCs held in Delaware County in the years up until 1940. At least one count has been held in the county every year since 1921. The 1939 Swarthmore census appears to be the last of the “non-Glenolden” CBCs. Those that are included in the official Glenolden (Delaware County) results are highlighted in the table. Those that are not highlighted are the counts that are part of our county’s heritage but not included in the official results of the Glenolden CBC.

CBCs in Delaware County, PA 1900-1940

CBC	Date	Location	Location notes	Compiler	# species	# individuals	Notes
1	12/25/1900	Delaware River Meadows	Tinicum Twp, Del. Co. PA	Witmer Stone	10	201	Meadowlark (4)
4	12/25/1903	Lansdowne		J. Harold Austin	11	72	"Duck (Baldpate?)"
5	12/25/1904	Radnor Township	Delaware Co.	Charles H. Rogers	14	123	Purple Finch (1)
5	12/21/1904	Concordville, PA		K.R. Styer	18	NR	Bob-White (3)
6	12/25/1905	Radnor Township	Delaware Co.	Alfred C. Redfield	13	177	Winter Wren (2) Bluebird (6)
7	12/24/1906	Radnor Township	Delaware Co.	John S. Patton, Leonard S. Pearson	13	1061	"Crow" (1000), Golden-crowned Kinglet (25)
7	12/29/1906	Radnor Township	Delaware Co.	Alfred C. Redfield	14	113	Meadowlark (8)
8	12/24/1907	Radnor Township	Delaware Co.	Leonard S. Pearson	17	190	White-throated Sparrow (1)
8	12/22/1907	Radnor Township	Delaware Co.	Alfred C. Redfield	16	182	White-throated Sparrow (2), Tree Sparrow (60)
8	12/25/1907	Delaware County, PA	Marple and Haverford Twp	B.W. Griffiths, Chreswell J. Hunt	10	128	first official Delaware County CBC
9	12/21/1908	Radnor Township	Delaware Co. PA	Alfred C. Redfield	23	180	Vesper Sparrow (6), White-throated Sparrow (1)
9	12/28/1908	Concordville, PA		Katharine R. Styer, Elizabeth P. Styer	24	218	Marsh Hawk (2), "pine finch" (2), Vesper Sparrow (6)
10	12/24/1909	Radnor Township	Delaware Co. PA	Alfred C. Redfield	14	500	Vesper Sparrow (6)
11	12/25/1910	Wallingford/Swarthmore (HARRISBURG IN BIRD-LORE)	Crum Creek ... 4 miles	Arthur C. Comey	17	75	Meadowlark (9)
11	12/31/1910	Concordville, PA		Katharine R. Styer, Elizabeth P. Styer	16	?	Pine Siskin, Bluebird
12	12/25/1911	Chester, PA	"and Crum Creek from Crum Lynne to Avendale (sic) and Swarthmore"	Arthur C. Comey	14	207	Bronzed Grackle (1)
14	12/24/1913	Delaware County, PA	"Clifton Heights to West Chester Pike on Darby Creek and return"	Delos E. Culver	21	347	Savannah Sparrow (5), Bluebird (3)
18	12/24/1917	Haverford, PA	"to Darby Creek and back"	Gordon Scoville, Theodore Spencer	15	101+crows (numerous)	Northern Shrike!
19	12/26/1918	Haverford, PA	"to Darby Creek and back"	Gordon Scoville, Theodore Spencer	15	233	Broad-winged Hawk (found dead)
19	12/29/1918	Chester Heights, PA	"to West Branch Chester Creek and Green's Creek and back"	W.E. Hannum	12	88	
22	12/25/1921	Essington, PA	"8 miles through Tinicum Woods, through meadows, along Hook Creek and along the tidal flats along Darby Creek"	V.A. Debes	27	1674	6 species of duck, "Broad-winged (?) Hawk" (2)
22	12/26/1921	Oakmont-Eagle		Wm H Yoder, Henry Gaede	14	219	Northern Shrike
23	12/24/1922	Glen Olden	"RR station to Darby Creek"	John A. Gillespie	18	385	
23	12/27/1922	Haverford to Aronimink	"along Darby Creek"	Gordon T. Scoville	21	429	Pine Siskin (23)
23	12/26/1922	Oakmont to Eagle	Delaware Co.	William H Yoder	20	349	Towhee (4)
24	12/25/1923	Delaware Co (Glenolden)	"RR station to Darby Creek"	John A. Gillespie			
25	12/28/1924	Delaware Co (Glenolden)		John A. Gillespie			
26	12/25/1925	Delaware Co (Glenolden)		John A. Gillespie	16		
26	12/26/1925	Secane Highlands	Primos PA. Muckinpattus Creek and Darby Creek	NA	18	NA	Ruby-crowned Kinglet (2)
27	12/26/1926	Delaware Co (Glenolden)		John A. Gillespie	21		
28	12/25/1927	Secane Highlands	Delaware Co.	4 Hannums	15	133	
28	12/24/1927	Delaware Co (Glenolden)		John A. Gillespie +4 others	34		
29	12/27/1928	Delaware Co (Glenolden)		John A. Gillespie +4 others	35		
30	12/22/1929	Glenolden,PA	"Tinicum, Media to Bryn Mawr and vicinity"	Mabel and John Gillespie + 6 others	40	1311	Barn Owl (4-brood), Long-eared Owl (10)
31	12/22/1930	Springfield	"up Crum Creek and down Darby Creek"	Charles Carter	27	585	
31	12/21/1930	Glenolden, PA	"and adjacent Delaware County"	Mabel and John Gillespie + 6 others	48	3409	Purple (2) and Bronzed (5) Grackles, Grackles sp. (30) Ring-billed Gull (1, unusual)
31	12/29/1930	Swarthmore, PA	"also country around"	Charles E Price, Jr, Robert Creighton	19	393	"woods, fields and along a lake"

CBC	Date	Location	Location notes	Compiler	# species	# individuals	Notes
32	12/26/1931	Glenolden, PA	"to Tinicum and new reservoir" (Springton)	Victor Debes, Mabel & John Gillespie			
32	12/26/1931	Media	"Ridley Creek Valley from Robin Hill to Sycamore Mills, Gradyville, West Chester Pike and beyond."	Ruth Dickinson Newton and George Hallett Jr	23	621	White-throated sparrow, 1
32	12/26/1931	Swarthmore, PA	"(vicinity)"	H. Walter Jones, Edmund Jones	14	230	Rough-legged? hawk
32	12/27/1931	Swarthmore, PA	"followed Crum Creek through woods for 3 miles then back through 5 miles of swamp and fields to starting place"	Paul Paulson, Jr	18	789	19 Bob-white
33	12/26/1932	Glenolden, PA	Glenolden, Tinicum to Springton Reservoir	Mabel and John Gillespie + 5 others	56	1531	Long-eared owl
34	12/24/1933	Glenolden, PA	Tinicum, Swarthmore to Springton Reservoir	Mabel and John Gillespie + 5 others	40	900	"American Merganser"(38), Common Loon (2), Barn Owl (2)
35	12/23/1934	Glenolden, Pa	Tinicum, Springton Reservoir, Swarthmore	Mabel and John Gillespie + 3 others	43	1537	Lots of "Easterns" and "Northerns" attached to the bird names
35	12/24/1934	Swarthmore, PA	"within 7.5 mi radius to Springton and Springfield dams along Crum and Ridley Creeks"	Charles Price Jr	23	274	barn owl, 1 in old sycamore
36	12/22/1935	Glenolden, Pa	Tinicum, Springton Reservoir Swarthmore	Mabel and John Gillespie + 2 others	46	1115	absence of Carolina Wren after severe winter 1933-34
36	12/24/1935	Moylan, Pa	"within 7 1/2 mile radius"	Charles E. Price	26	402	first mention of a circle
37	12/24/1936	Moylan, Pa	"15 mi diameter" Moylan, Springton, Springfield dams,	Charles Price Jr	26	451	
37	12/27/1936	Glenolden, Pa	"to Tinicum, Springton Reservoir and vicinity"	Mr and Mrs Victor Debes, Mabel and John Gillespie and others	49	3448	Rough-legged hawk, 150 meadowlark
38	12/26/1937	Glenolden, PA	"to Hog Island, Tinicum, Media, Springton Reservoir"	Mabel and John Gillespie + 8 others (in pairs)	70	13213	Black Duck (5000), Pintail (5000) "Holboell's Grebe", Rough Legged Hawk (3), Short-eared Owl (1), Bob-white (5), Meadowlark (25).
38	12/26/1937	Swarthmore, PA	"automobile Swarthmore to Tinicum and back, walk to Springton Reservoir"	Robert White + 3 others (Edmund Jones)	28	520	"pheasant" (3)
39	12/26/1938	Glenolden, Pa	"to Hog Island, Tinicum, Media, Springton Dam, Crum Creek, and Swarthmore"	Mabel and John Gillespie + 10 others (multiple parties, includes Price from Moylan)	68	19252	circle consolidating?
40	12/22/1939	Swarthmore, PA	"by car to Delaware River and back then up Crum Creek valley and over surrounding uplands"	Edmund Jones, H Walter Jones, David Ulman, Robert White	45	1155	
40	12/24/1939	Glenolden, Pa	"to Hog Island, Tinicum, Ridley Creek region and Springton Reservoir"	Mabel and John Gillespie + 13 others	80	13594	
41	12/22/1940	Glenolden, Pa	"to Hog Island, Tinicum, Springton Dam, Crum Creek and Swarthmore"	Mabel and John Gillespie + 8 others	67	33783	30,000 Pintail, Hooded, red-breasted and "American" Merganser

A surname familiar to many of us appears in the 1904 count. K.R. Styer conducted a CBC on Dec 21st in Concordville. Styer reported that snow had started to fall and the ground was completely covered. The temperature was 20 degrees and a "sharp" wind blew. Nevertheless Styer found 18 species including 3 Bob-White, 3 Meadowlark, and a flock of 50 tree sparrows.

According to an online history of the Styer nurseries in Concordville it seems likely that K.R. Styer was Kathrynne R Paschall who married Jacob Styer the founder of Concordville Nurseries in the late 1800s. Jacob and Kathrynne's son J. Franklin Styer ran the Styer nursery from 1924 to 1973. Styers appear again in "Concordville" CBCs held in 1908 and 1910 as Katharine R Styer (different spelling but presumably the same person) and Elizabeth P Styer whose name does not appear in the referenced family history so the relationship is not clear. In 1908 the two ladies tallied 18 species including two Marsh Hawks (Northern Harrier), six Vesper Sparrows, and two "pine finch" (pine siskin). Two years later in 1910 they report pine finch as pine siskin.

The first of the two so called "Delaware County" CBCs that have been lumped with the Glenolden count was held on Christmas Day 1907. The census was conducted by B.W. Griffiths and Chreswell J. Hunt who logged 10 miles walking through parts of Marple and Haverford townships from 9:30 am to 3:30 pm. The conditions were described as clear, bare ground, temperature 34 degrees. Here are the results of that first "Delaware County (Glenolden)" CBC as defined by National Audubon: Red-tailed Hawk (1); Sparrow Hawk (1); Downy Woodpecker (6); Crow (37); Goldfinch (1); White-throated Sparrow (3); Tree Sparrow (44); Junco (17); Song Sparrow (16); Cardinal (2). Total species-10; individuals-128.

This would seem to be a fairly paltry list for walking 10 miles over 6 hours and indeed the counters remarked on that point: "Many sunny hillsides and alder thickets were visited but birds were unusually scarce." In the summary of that year's CBC in *Bird-Lore* Chapman reports that many observers commented on the low number of birds they encountered in the field despite favorable viewing conditions. This is a familiar and oft-repeated lament that echos through the years even to this day.

In addition to this first "Delaware County" census there were two other counts held in the county in 1907; both were in Radnor Township. The observers reported 16 and 17 species respectively, a fairly average tally for those days. It's notable that eight counts were held in Radnor Township between 1904 and 1909, half of them by a Mr. Alfred C. Redfield but after 1909 Radnor disappears from the CBC reports.

The other "Delaware County" census that is lumped in the records with the Glenolden CBC was conducted in 1913. The area covered was described as "Clifton Heights to West Chester Pike along Darby Creek". Savannah Sparrow and Bluebird were species of note from that count.

The Tinicum area finally reappears in the 1921 CBC as "Essington, PA" and is worthy of special mention because, although this was not a "Glenolden" count, the area of course became a main focal point of the Glenolden circle. V.A. Debes, whose name appears in many of the future Glenolden counts, trekked 8 miles on Christmas Day "through Tinicum Woods, through meadows, along Hook Creek and along the tidal flats along Darby Creek". Debes reported 27 species and 1,674 individuals. Here we see the first mention of multiple waterfowl species: Herring Gull (3), Red-breasted Merganser (4), Mallard Duck (12), Black Duck (24), Red-headed Duck (11), Scaup Duck (2), American Goldeneye Duck (1). Raptors were also nicely represented: Marsh Hawk (4), Cooper's Hawk (2), Red-tailed Hawk (7), Red-shouldered Hawk (1), Sparrow Hawk (3) and "Broad-winged (?) Hawk" (2) (the question mark is apparently

by Debes). Additional species of interest were Horned Lark (30), Meadowlark (1), and Tree Sparrow (45).

In the same year, 1921, there was also an “Oakmont to Eagle” CBC (“via Darby Creek and surrounding country”) that recorded a Northern Shrike. Rare in the area then as it is today Northern Shrike made an incursion into the mid-Atlantic that winter. The species gets special attention in the summary of the 1921 CBC in *Bird-Lore*. The reviewer noted that in the previous year there were 10 Northern Shrikes reported and all reports were from New England and New York. In the 1921 CBC 57 Northern Shrikes were reported including 15 from New Jersey and Pennsylvania. The editors were pleased to cite this as an example of the evolving scientific value of their census.

The first “Glenolden” Christmas Bird Census was performed on Christmas Eve 1922. The census is listed as “Glen Olden (railroad station to Darby Creek and vicinity)”. The compiler and apparently the only participant was John A. Gillespie. He spent nearly seven hours in the field and counted 18 species and 385 individuals. Here are the results of the first Glenolden CBC: Red-tailed Hawk (5); Downy Woodpecker (2); Crow (10); Starling (250) flock; Meadowlark (9) flock; Purple Finch (2); Goldfinch (3); White-throated Sparrow (43); Tree Sparrow (15); Junco (8); Song Sparrow (9); Fox Sparrow(3); Cardinal (7); Carolina Wren (3); Winter Wren (2); Brown Creeper (4); Golden-crowned Kinglet (8); Robin (2). Gillespie also reported a Hairy Woodpecker and a Screech Owl seen on 12/23. Note the absence of waterfowl. I suspect his route took him to the edge of the Darby Creek tidal flats and he was either unable to view the open water beyond or perhaps the water was frozen.

Gillespie and his wife Mabel were active birders. John’s obituary in *Cassinia*, the journal of the DVOG, is an interesting read. John came to birding in 1918 through Mabel who was described as an “ardent bird student”. Mabel and John ran a bird banding station at their home in Glen Olden. They ended up banding some 10,000 birds with a special interest in banding Bald Eagles and Ospreys. Mabel and John participated in the Glenolden CBC for many years and John was compiler until 1948.

The name Glen Olden is not a typo. The borough was named after the Glen Olden Mills around which the borough was incorporated in 1894. Per an online history of Delaware County the name was derived from the pretty glen in which the mill sat and Olden was the mill owner’s mother’s maiden name.

Two other counts were held in Delaware County the same year as that first Glenolden count. One was listed as “Haverford to Aronimink (along Darby Creek)” and there was another “Oakmont to Eagle” count. Having found the Northern Shrike the previous year the Oakmont to Eagle folks came up with another rarity in the 1922 count. They found 4 “Towhees”. Towhee was considered a rare CBC species and the incursion of towhees is mentioned in the general summary for the 1922 CBC. Their 4 towhees were the only representatives of that species reported in Pennsylvania that year.

Circles

When a “Christmas Bird Census” was first proposed by Frank Chapman in 1900 it caught on very quickly and, judging by the comments in their annual summaries, Chapman and the editors of *Bird-Lore* were a bit surprised but delighted by the success of their endeavor. From the beginning Chapman saw the potential scientific value of the annual census and therefore the need to ensure some consistency in how the counts were conducted and

reported. The basic rules for the census that still hold today were laid out in Chapman's initial proposal. Compliance with the rules and revisions were stressed with increasing emphasis in just about every subsequent annual summary. In the 1916 edition of *Bird-Lore* we see the beginnings of the concept of a circle. Chapman recommends confining the coverage in each census to no more than a 15 mile diameter. The editors also stated they would not accept counts of less than 4 hour duration and preferably the count should last all day.

It does appear that the concept of fixed circles covered annually from the same location took at least a couple more decades to catch on. In 1933 West Chester first described coverage as a 15 mile diameter centered in the town and Cape May defined a circle with a 7.5 mile radius from Rio Grande. The 1935 and 1936 "Moylan" counts mention a 15 mile diameter centered in Moylan but a circle was not defined for the Glenolden count until 1949 and was centered in Media. Note how there is duplication in the areas covered in some of those counts in the 1930s. Tinicum and Springton Reservoir in particular were visited on different dates within the same year more than once.

Early on not much attention was paid to avoid overlap in circles. Consequently the western edge of the Glenolden circle overlaps the eastern edge of the West Chester circle. Because West Chester defined their circle 16 years before Glenolden the overlapping section is ceded to the West Chester count.

In 1941 The National Audubon Society took over publication of *Bird-Lore* magazine and thus management of the Christmas Bird Count. Along with that change came more formalization of the count rules plus a suggested donation of 10 cents per participant to help defray administrative costs. Regulations were published which emphasized the 15 mile diameter, encouraged more than 4 hours of coverage and stressed the avoidance of duplication of coverage. This was also the year that Audubon changed the name of the Christmas Bird Census to the Christmas Bird Count. The logic was that the word "census" implied more thorough coverage of the number of birds than actually occurs and that the word "count" was a more accurate term.

Speaking of circle overlap here is one last anecdote. In the reports of the 1944 and 1945 Glenolden CBCs it is mentioned that counters covered Raccoon Island in New Jersey. Raccoon Island is at the mouth of Raccoon Creek in Gloucester County. Raccoon Island is the marshy area on the downriver side of the Commodore Barry Bridge that was the site of the NJ terminus of the old Chester-Bridgeport Ferry. Did the CBC participants take the ferry to Raccoon Island? The ferry operated from 1930-1974 so it was certainly possible. Neither of the reports of the 1944 or 1945 CBCs mention use of the ferry but it's fun to imagine the birders hitching a ride on the ferry for a mini pelagic trip across the river for a check on Raccoon Island. Although it still lies within the diameter of the current Glenolden circle Raccoon Island also lies within the Northwestern Gloucester County CBC circle and at least it is the understanding on this side of the river that everything across the river is covered by the New Jersey count.

Conclusion

Most birders are probably familiar with the report published jointly by The Cornell Lab of Ornithology and The American Bird Conservancy in September 2019 showing a loss of nearly 30% of the breeding birds in North America since 1970. This translates to the loss of an estimated 2.9 billion birds and includes common every day species. The population of our CBC morning companions white-throated sparrow and dark-eyed junco are singled out in the study as having declined by an estimated one-third. The authors cite habitat destruction as the main driver for these losses and we would have no argument with that in Delaware County. On the

positive side the study noted an overall rise in populations of species of waterfowl (+50%) and raptors (+200%). This is taken as evidence that targeted bird and habitat conservation efforts have shown some benefit. What readers may not be aware of is the major role that citizen science projects like the Christmas Bird Count, Breeding Bird Surveys and ebird played as sources of data for this study.

Frank Chapman's big idea for the Christmas Bird Census arose out of concern for the loss of bird species due to human interference, primarily hunting. He hoped that monitoring populations in a systematic fashion over time would provide scientific value including the detection of similar threats to the birds in the future. Today birds are threatened by human interference of a different type. The use of CBC data in not only the recent Cornell study but in numerous other scientific studies over the years shows the foresight in Chapman's thinking. Chapman would be pleased that his Christmas Bird Census, the original citizen science project, has indeed proven its value and led to the development of similar efforts not only for the protection of birds but in the interest of conservation in general.

Birders in Delaware County and the Tinicum marsh area of Philadelphia County have been significant contributors to this project since 1900. It is a rich heritage. Anyone who has ever gotten up early on a cold dark winter morning to go out and participate in a CBC can take heart in the value of their efforts. Now more than ever we need to honor Frank Chapman's wisdom, take pride in our own contribution as well as the contribution of those who went before us and renew our determination to continue the good work.

Appendix

Although it is uncertain when the concept of an official compiler was first introduced John Gillespie appears to have participated in all of the Glenolden CBCs between 1922 and 1949. He is rightfully considered compiler for that period. Compiling the CBC is a lot of work and those who have taken on the job deserve special mention. In my opinion it is a testament to the dedication of the compilers to the project that the list is as short as it is for 100 years of CBCs.

John A. Gillespie (1922-1948)
Ted Rigby (1949-1975)
Keith Richards (1976-1979)
Frank Haas(1980-1988)
Walt Thurber (1989-1990)
Nick Pulcinella (1991-1996)
Skip Conant (1997-1999)
Nick Pulcinella (2000-2008)
David Eberly (2009-)

Participation in the Glenolden CBC has grown greatly since the individuals and small groups counted in those early years. In the 1960s the number of participants per count was in the teens. Participation in the 1970s, 80s and 90s averaged in the 40s and 50s per year. We now average around 70 participants per year. Among these participants are the team leaders or captains as I call them. They are the ones who do the good work of getting their teams out in the field, keeping track of the bird list, weather, miles, hours and getting the reports to the compiler. The CBC would not happen without their tremendous effort. Here is a list of those who have served me as team captain over the past decade, many have been leaders for years before my time as compiler. My apologies to any I might have left off the list. The effort of all participants is very much appreciated.

Rob Bierregaard, Tom Bush, Brian Byrnes, Mike Coll, Skip Conant, Nick Crocetto, John Damico, Susan Damico, Andrew Eberly, Rob Fergus, Kevin Fryberger, Stephanie Gaboriault, Kim Gruener, Al Guarente, Rich Horwitz, Lois Hunn, Sheryl Johnson, Steve Kapski, Bob Kelly, Noel Kelly, Dan Kobza, Mary Ellen Krober, Chris Langman, Sue Lucas, Dave McDonald, Tom McParland, Rob Megraw, Doris McGovern, Damon Orsetti, Carl Perretta, Chris Pugliese, Nick Pulcinella, Brian Quindlen, Tom Reeves, Win Shafer, Gloria Todor, Chris Walters.
Again, many thanks to you all.

Since Nick's report after the 1996 CBC we have added 10 new species to our count's all time species list: Ross's Goose, Cackling Goose, Wild Turkey, Glossy Ibis, Osprey, Black-headed Gull, Blue-headed Vireo, American Redstart, Northern Parula, and LeConte's Sparrow. Our grand total of species for count day now stands at 191. Two species have been found on count week only: Clay-colored Sparrow (1985) and Rufous Hummingbird (2002).

Here is an updated species list. The numbers following each species are the number of years the species has been reported, the year the species was first found and the year it was last reported. The numbers vary a bit from Audubon's checklist for the Glenolden count as I have included sightings reported from the earlier "non-Glenolden" counts into the totals to give a more complete account of the bird life through the years. For those species first found on a "non-Glenolden" count the year is marked with an asterisk.

Total Species List for CBCs in Delaware County PA 1900-2019
 (#occurrences first report/last report
 * non-Glenolden CBC)

Snow Goose 42 1966/2019	Ruffed Grouse 1 1974
Ross's Goose 1 2008	Wild Turkey 11 2006/2019
Brant 1 1984	Red-throated Loon 4 1953/2006
Cackling Goose 4 2004/2018	Common Loon 32 1932/2017
Canada Goose 72 1940/2019	Pied Billed Grebe 60 1939/2015
Mute Swan 29 1979/2019	Horned Grebe 39 1929/2016
Tundra Swan 49 1937/2018	Red-necked Grebe 3 1937/2014
Wood Duck 45 1943/2019	Double-crested Cormorant 38 1978/2019
Gadwall 47 1953/2019	Great Cormorant 20 1983/2016
American Wigeon 56 1932/2013	American Bittern 18 1951/2018
American Black Duck 92 1921*/ 2019	Great Blue Heron 81 1934/2019
Mallard 91 1921*/2019	Great Egret 14 1956/2015
Blue-winged Teal 15 1939/2009	Green Heron 4 1952/1989
Northern Shoveler 57 1937/2019	Black-crowned Night-Heron 53 1926/2001
Northern Pintail 82 1932/2019	Glossy Ibis 1 2001
Green-winged Teal 72 1938/2019	Black Vulture 33 1978/2019
Canvasback 27 1929/2018	Turkey Vulture 78 1904*/2019
Redhead 16 1921*/2013	Osprey 1 2003
Ring-necked Duck 61 1937/2019	Northern Harrier 92 1908*/2019
Greater Scaup 41 1939/2018	Sharp-shinned Hawk 70 1923/2019
Lesser Scaup 39 1950/2019	Cooper's Hawk 80 1913/2019
Surf Scoter 2 1957/2003	Northern Goshawk 20 1972/2014
White-winged Scoter 1 1960	Bald Eagle 41 1937/2019
Black Scoter 2 1939* 1952	Red-shouldered Hawk 95 1900*/2019
Long-tailed Duck 29 1938/2018	Broad-winged Hawk 1 1991
Bufflehead 73 1935/2019	Red-tailed Hawk 108 1900*/2019
Common Goldeneye 55 1921* 2018	Rough-legged Hawk 47 1930/2007
Hooded Merganser 57 1935/2019	King Rail 2 1950/1953
Common Merganser 88 1929/2019	Virginia Rail 11 1956/2011
Red-breasted Merganser 33 1921*/2005	Common Gallinule 21 1950/2019
Ruddy Duck 76 1938/2019	American Coot 67 1928/2019
Northern Bobwhite 25 1904*/2003	Black-bellied Plover 2 1952/1970
Ring-necked Pheasant 77 1927/2009	Killdeer 84 1927/2018

Greater Yellowlegs 12 1949/2014
Lesser Yellowlegs 12 1953/2007
Ruddy Turnstone 1 1970
Ruff 1 1954
Dunlin 9 1967/1990
Pectoral Sandpiper 2 1953/1979
Semipalmated Sandpiper 2 1970/1971
Western Sandpiper 2 1967/1981
Long-billed Dowitcher 1 1958
Wilson's Snipe 56 1930/2019
American Woodcock 39 1931/2017
Bonaparte's Gull 23 1938/2005
Black-headed Gull 2 2017/2018
Laughing Gull 10 1935/2004
Ring-billed Gull 88 1924/2019
Herring Gull 96 1900*/2019
Iceland Gull 3 1964/1970
Lesser Black-backed Gull 3 1990/2008
Glaucous Gull 5 1958/1970
Great Black-backed Gull 71 1949/2019
Rock Pigeon 52 1939 2019
Mourning Dove 87 1908*/2019
Barn Owl 54 1922*/2001
Eastern Screech-Owl 83 1908*/2019
Great Horned Owl 69 1949/2019
Snowy Owl 7 1937/2011
Barred Owl 8 1942/2006
Long-eared Owl 33 1927/2006
Short-eared Owl 43 1930/1995
Northern Saw-whet Owl 34 1930/2014
Belted Kingfisher 91 1907*/2019
Red-headed Woodpecker 12 1926/2017
Red-Bellied Woodpecker 63 1957/2019
Yellow-bellied Sapsucker 60 1930*/2019
Downy Woodpecker 110 1903*/2019
Hairy Woodpecker 102 1906*/2019
Black-backed Woodpecker 1 1962
Northern Flicker 97 1907*/2019
Pileated Woodpecker 54 1964/2019
American Kestrel 102 1904*/2019
Merlin 27 1947/2019
Peregrine Falcon 37 1929/2018
Eastern Phoebe 32 1931/2018
Loggerhead Shrike 6 1956/1978
Northern Shrike 7 1921*/2014
Blue-headed Vireo 2 2001/2007
Blue Jay 98 1905*/2019
American Crow 88 1900*/2019
Fish Crow 78 1932/2019
Common Raven 9 1995/2019
Horned Lark 58 1921*/2007
Carolina Chickadee 81 1917*/2019
Black-capped Chickadee 82 1904*/2018
Boreal Chickadee 2 1961/1963

Tufted Titmouse 102 1905*/2019
Red-Breasted Nuthatch 72 1931/2019
White-breasted Nuthatch 106 1904*/2019
Brown Creeper 102 1906*/2019
House Wren 39 1926/2019
Winter Wren 100 1904*/2019
Marsh Wren 28 1936/2019
Carolina Wren 104 1904*/2019
Blue-gray Gnatcatcher 8 1959/2003
Golden-crowned Kinglet 96 1903*/2019
Ruby-crowned Kinglet 72 1924/2019
Eastern Bluebird 97 1905*/2019
Hermit Thrush 78 1923/2019
Wood Thrush 1970/1974
American Robin 87 1922/2019
Gray Catbird 72 1928/2019
Brown Thrasher 48 1923/2019
Northern Mockingbird 75 1905*/2019
European Starling 101 1913/2019
American Pipit 41 1927/2017
Cedar Waxwing 75 1935/2019
Lapland Longspur 18 1940/1977
Snow Bunting 32 1945/2001
Ovenbird 5 1978/2014
Black-and-white Warbler 3 1971/2012
Orange-crowned Warbler 9 1951/2018
Nashville Warbler 1 1999
Common Yellowthroat 36 1950/2019
American Redstart 1 2015
Northern Parula 1 2007
Palm Warbler 15 1959/2000
Pine Warbler 16 1974/2015
Yellow-rumped Warbler 67 1940/2019
Black-throated Green Warbler 2 1994/2012
Wilson's Warbler 1 1983
Yellow-breasted Chat 12 1953/2006
Le Conte's Sparrow 1 2012
American Tree Sparrow 110 1900*/2019
Chipping Sparrow 47 1924/2019
Field Sparrow 99 1903*/2019
Fox Sparrow 95 1909*/2019
Dark-eyed Junco 106 1900*/2019
White-crowned Sparrow 59 1931*/2019
White-throated Sparrow 106 1903*/2019
Vesper Sparrow 14 1903*/2013
Savannah Sparrow 76 1913/2019
Song Sparrow 113 1900*/2019
Lincoln's Sparrow 4 1959/2005
Swamp Sparrow 94 1900*/2019
Eastern Towhee 82 1922*/2019
Northern Cardinal 110 1903*/2019
Dickcissel 2 1969/1999
Bobolink 1 1986
Red-winged Blackbird 97 1921*/2019

Eastern Meadowlark 66 1900*/2005
Yellow-headed Blackbird 1 1968
Rusty Blackbird 73 1929/2019
Brewer's Blackbird 2 1958/2000
Common Grackle 85 1911*/2019
Brown-headed Cowbird 66 1949/2019
Baltimore Oriole 9 1974/1999
Pine Grosbeak 1 1961
House Finch 62 1955/2019
Purple Finch 94 1904*/2019
Red Crossbill 8 1969/1997
White-winged Crossbill 5 1954/2012
Common Redpoll 13 1930*/2007
Pine Siskin 49 1908*/2015
American Goldfinch 109 1900*/2019
Evening Grosbeak 27 1951/1995
House Sparrow 90 1930/2019

Total Species = 191

Scaup sp. 13 1921*
peep sp. 1 1976

Count week only:

Rufous Hummingbird (2002)
Clay-colored Sparrow (1985)

References

Souder, William How Two Women Ended the Deadly Feather Trade. Smithsonian Magazine March 2013. <https://www.smithsonianmag.com/science-nature/how-two-women-ended-the-deadly-feather-trade-23187277/>

<http://www.karenfurst.com/blog/history-of-j-franklin-styer-nurseries-concord-township-pa/>

<https://delawarecountyhistory.com/glenoldenborough.html>

Cassinia Obituary John A. Gillespie

http://www.dvoc.org/CassiniaOnLine/Cassinia42/C42_02_05.pdf

Chester Ferry

http://www.oldchesterpa.com/chester_bridgeport_ferry.htm