

# The Chat

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# THE CHAT

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General Field Notes Editors  
North Carolina  
South Carolina

Christina Harvey  
William Post

Briefs for the Files

Josh Southern

Editor

Steve Shultz  
2404 Bristers Spring Way  
Apex, NC 27523  
chat@carolinabirdclub.org

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# Sixty-Two Years of Spring Bird Counts in Guilford County, North Carolina

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R. Newton,<sup>1</sup> E. Link, G. Wheaton

<sup>1</sup> 7215 Northmoor Terrace, Greensboro NC 27455

## Introduction

Over the past 62 years (1957 - 2018), Guilford County birders have endured cold, hot, rainy and windy weather to count birds on a designated date each spring. Thanks to the sustained commitment of volunteers from the Piedmont Bird Club (PBC), we believe this effort represents the longest consecutive Spring Bird Count (SBC) conducted in any North Carolina county. The purpose of this report is to present some of the findings from this SBC. The report is organized as follows: First, we describe our count methodology. Second, the numbers of species and individual birds counted over the years are reported. Third, we describe levels of participant effort on count day. Fourth, we speculate about possible reasons for seeing or not seeing a particular species or larger or smaller numbers of individual birds on count day.

The SBC is normally held on the last Saturday in April or on the first Saturday in May. Over the past 62 years of counting, the dates have ranged from April 27 to May 7. The count is conducted within a count circle, which is a defined circle with a diameter of 15 miles. It is centered at Pisgah Church Road and Battleground Avenue in Greensboro. This census area includes urban and suburban settings as well as more rural areas located in the northern portions of the count circle. Four larger lakes (Higgins, Brandt, Townsend, Jeanette) as well as several smaller waterways and lakes provide open-water habitat. Additionally, the majority of Piedmont Triad International Airport (PTI Airport) is included within the count circle. However, access to this area has been severely curtailed over the past several years because of airport security concerns.

## Methods

All living birds, except poultry and other exotic taxa, seen or heard in the count area on count day are recorded. Data from compiler's records were used (Piedmont Bird Club 2016). This report only presents data from count day because past inconsistencies in reports of additional species and their numbers seen during count week prevent summarizing those data. The effort of the "groups" of participants during count day is recorded in terms of the total number of hours spent (party hours), and miles travelled on foot or by car (party miles). The number of participants in a group or party generally ranges from one to five or more.

For the purposes of this paper, the following terms were used to describe the ‘status’ of each species recorded on count day. These terms are defined as follows: permanent resident (P) is present throughout the year; winter resident (W) resides in Guilford County throughout the winter months, but does not breed locally; summer resident (S) does not reside in Guilford County for the entire year but probably or definitely breeds locally; migratory species (M) are normally seen only during their migration season; rare (R) indicates a species that is not seen every year in the local area; accidental (A) indicates a species that is out of its normal range; its occurrence is completely unexpected and is seen less often than rare species; and vagrant (V) is a species whose occurrence is outside of its expected range, and is rarely seen (Koenig 2016, Hendrickson 2018, LeGrand and Haire 2018, McGowan 2018, Westphal 2018).

## Results

Species: As a reference point, the total number of bird species reported in Guilford County across all seasons and years for which records have been kept currently stands at 316 species (Piedmont Bird Club, in press). The total number of species observed on count day across the 62 years is 234 and one other taxon, Lawrence’s Warbler (Appendix 1). Appendix 1 presents the species listed in taxonomic order (American Ornithological Society 2018), the status of the species, the number of years the species was seen, the lowest and highest numbers of individual birds counted for each species, as well as the cumulative number (62-year sum) and average number of birds recorded for a given species.

On average 127 (SD = 10.6) different species have been observed each year. The lowest number of species seen on a count day was recorded on 24 Apr 1982 when just 104 species were observed in the count circle. The highest number of species recorded on a count day occurred on 30 Apr 1966. A total of 164 species was observed on that date.

Fifty-four species (23% of the 235 total) were counted in every one of the 62 years (Appendix 1). Of those, 34 are permanent residents, two are winter residents, 17 are summer residents, and one is a migratory species. Fifty-seven species (24% the 235 total) were seen on count day in five or fewer years. Of the 57 seen infrequently on Count Day, 13 are winter residents, four are summer residents, 11 represent species that migrate through our area, six are classified as rare, and the remaining 23 are considered accidental, or vagrant species, or have a dual designation status (e.g., Horned Grebe, WR).

Individual Birds: A total of 470,329 individual birds has been counted over the 62 count days with an annual average count of 7592 (SD = 1900) individual birds. The lowest number of individual birds counted, 4107, occurred on 2 May 1958. The highest number of birds recorded on a count day, 13,074 individual birds, occurred on 29 Apr 1967.

Participants' Effort: Party Hours and Miles: The annual average number of volunteers participating on count day was 31 (SD = 5.6). Only 18 birders participated on 2 May 1959; whereas, 48 birders participated on 6 May 1995, the largest number in any year. Party hours reflect the effort spent by groups of participants. The party hour average across the 62 years was 97.4 (SD = 15.1) hours. The fewest hours spent counting were 60 on 30 Apr 1983, and the most hours spent (144) occurred on 2 May 2009. The groups of birders also reported many miles traveled during the count, both on foot and while driving. The foot miles and driving miles were summed and designated as party miles. The number of party miles ranged from 164 on 30 Apr 1960 to 514 on 2 May 1992 with an annual average of 356 (SD = 67.4) miles

Relationship between Count Effort and Species and Individual Birds Observed: If the groups of participants report greater time spent and more miles traveled, does this greater effort result in a higher number of species and total number of birds counted?

As one might have expected, a significant relationship was found between the total number of species reported and the total number of individual birds counted (Pearson correlation = 0.72,  $p=0.01$ ). The relationship between the total number of hours spent birding and the number of species observed also was significant (Pearson correlation = 0.44,  $p=0.05$ ), as was the relationship between the number of miles travelled and the number of species observed (Pearson correlation = 0.41,  $p=0.05$ ).

A significant relationship was found between the number of birds counted and the total number of hours spent counting birds (Pearson correlation = 0.55,  $p=0.05$ ). That is, not surprisingly, more hours devoted to counting resulted in more birds being seen or heard. The relationship between the number of birds counted and the number of participants counting those birds also was significant (Pearson correlation = 0.55,  $p=0.05$ ).

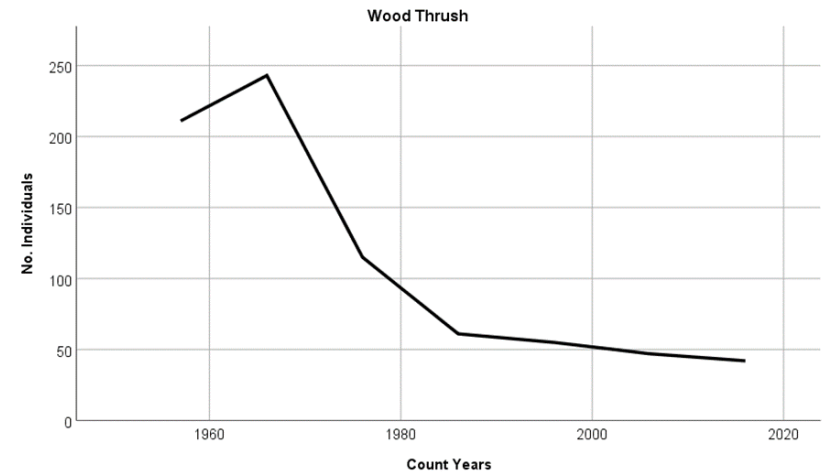
In combination these factors, i.e. species counted, party hours and party miles, accounted for about 50% of the variability in the numbers of individuals counted. Additional factors, including simple random variation, are likely contributing to variation in the number of species and number of birds seen during count day throughout the years.

A Longitudinal Perspective: Sixty-two years of SBC data enable examination of species and trends in the numbers of individual birds across the seven decades. Only two years of data were available in the 1950s; only eight years of data were available in the most recent decade. The total number of birds (abundance) for each species was summed across each decade. Each species received a ranking based on total number of birds counted in each decade. Appendix 2 presents the 21 species and their ranking in the "Top Ten" most abundant species in one or more decades.

Seventy-one percent (15 of 21 total) of the species are permanent residents in Guilford County.

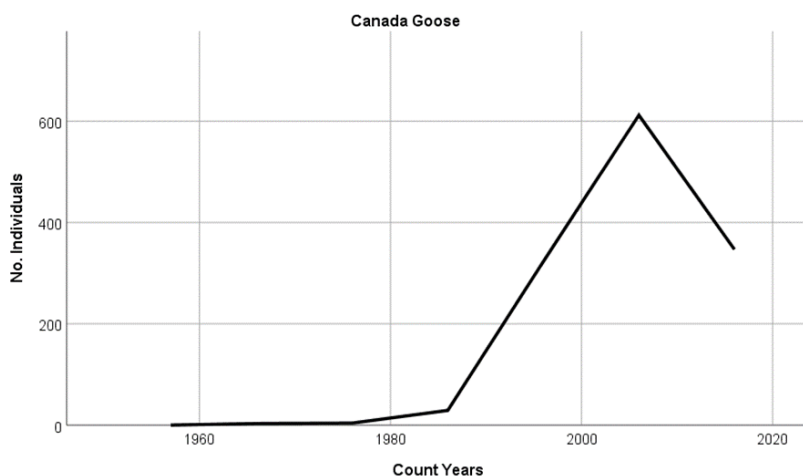
Based on their rankings in all seven decades, three species are considered the most prevalent. These are the American Robin, European Starling and Northern Cardinal. The European Starling is the only species receiving a “Top Five” ranking across each decade of the 62-year count period. No other bird can claim such distinction. Given that this species was introduced in Central Park, New York in 1890 (Koeing 2016), the European Starling has demonstrated its ability to disperse and adapt to new habitats. The European Starling’s peak abundance occurred in the 1970s and their numbers have declined in subsequent decades. The American Robin and Northern Cardinal also are abundant as indicated by their rankings across decades.

Other trends emerge in concert with changes in the landscape of Guilford County over the past 62 years. The Wood Thrush (Fig.1) and Bobolink were among the “Top Ten” most prevalent species in the 1950s and 1960s, respectively. However, as reflected by their rankings, declines in their abundance are evident by the 1970s. The Red-winged Blackbird and House Sparrow show similar trends, ranking in the “Top Ten” species in the early decades and subsequently falling in abundance and rankings.



*Figure 1. Representative species ranked in the Top Ten that showed a decline in the number of individuals counted over the 62 years. The vertical axis anchors the total number of individual birds counted. The horizontal axis represents years. N.B. All figures show variation on the y-axis due to scaling of the y-axis relative to the total number of birds seen for that species.*

Species such as the Canada Goose (Fig. 2), Mallard, and Double-crested Cormorant that use open-water spaces have “Top Ten” rankings in one or more of the last three decades. The Canada Goose numbers rose rapidly, appearing among the “Top Ten” species in the 1990s and rising into the “Top Five” in abundance during the current and two previous decades. The abundance of Mallards peaked in the 1990s and has declined since then. The numbers of Double-crested Cormorants have increased in the current and last decade as evidenced by a “Top Ten” ranking in the current decade.



*Figure 2. Canada Goose is a representative species ranked in the Top Ten that shows an overall increase in abundance through 2006. The vertical axis anchors the total number of individual birds counted. The horizontal axis represents years.*

Species not in the “Top Ten” rankings also demonstrate increases or decreases in abundance across the count years. A representative species demonstrating an increase in abundance is the Brown-headed Nuthatch (Fig. 3); a decrease in abundance is noted for the Northern Bobwhite (Fig. 4).

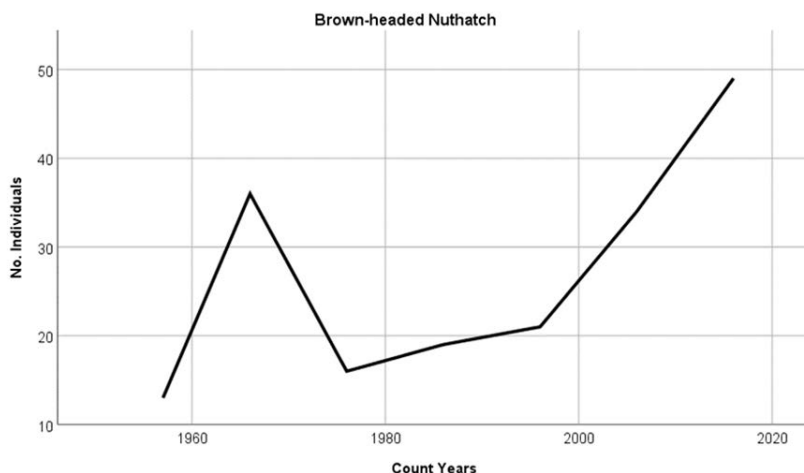


Figure 3. Apparent increase in Brown-headed Nuthatch numbers across the 62 years of the counts. The vertical axis anchors the total number of individual birds counted. The horizontal axis represents years

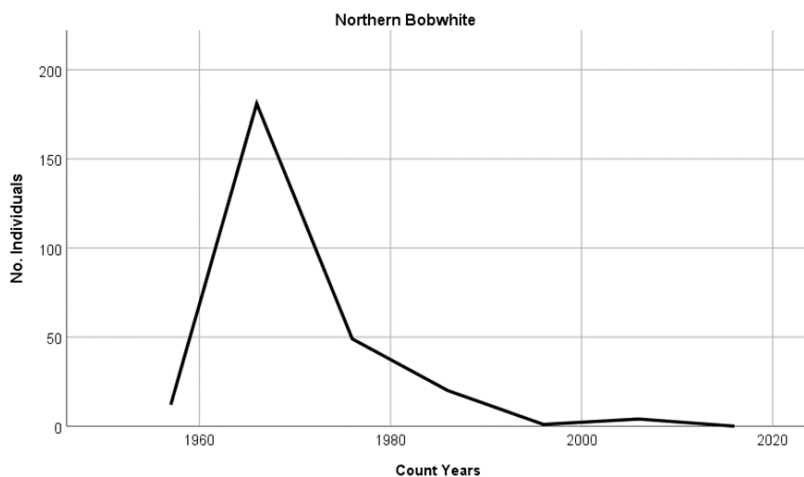


Figure 4. Representative species that showed a decline in the number of individuals counted over the 62 years. The vertical axis anchors the total number of individual birds counted. The horizontal axis represents years.

These findings provide a longitudinal perspective on the species recorded on SBC day. The remainder of the report speculates about possible reasons for fluctuations in the numbers of species seen, the numbers of



individuals observed for a species across the count years and subsequent ranking of a species in the “Top Ten.”. These speculations are made cautiously.

## **Discussion**

### Possible Reasons for Observing or Not Observing A Species:

Count day numbers represent an annual snapshot of the species and abundance of individual birds found within the count circle. Many factors influence the number of species seen or heard in a single day, and these factors are interrelated and compounded across the 62-year count span. These factors include but are not limited to:

#### 1. Human observers

A basic assumption is that all birders do their best to identify the birds in their count area. Factors that may influence an observer’s count include the ability of birder to see, hear and identify the species. The birder’s familiarity with the assigned territory and “knowing” the right place and time to find birds. Other possible factors include the consistency with which sites in the count circle are visited each year, the time available for the count given competing obligations, time available to conduct nocturnal counts, and possibly fatigue, as some birders may spend most of the day observing birds.

#### 2. Weather conditions

Birders and birds encountered hot, cold and rainy conditions on count day. The average annual temperature on count days was a high of 73.4<sup>0</sup> F, and a low of 52.8<sup>0</sup> F. The hottest count day occurred on 29 Apr 2017 when the average temperature was 79 degrees. Despite the heat, 34 birders spent 98.3 hours birding and observed 121 species and 9038 individual birds. On 2 May 1964, the coldest count day, the average temperature was 50 degrees. On this day, the 30 birders spent 111.5 hours birding and saw 146 species and 10,961 individual birds. It is possible that some variation in both species numbers and numbers of individual birds could be related to temperature on count day.

The mean rainfall on count day is 0.07 inches. The 3 May 1997 count day was the rainiest (1.01 inches). The 36 participants spent 105.5 hours observing and reported 127 species and 7435 birds.

Although we expect birds to have sought shelter during these conditions, these dates do not correspond to the count day with the lowest number of birders (1959), lowest total species (1982) or lowest number of birds (1958). Weather conditions (high and low temperature, and precipitation) in Guilford County on count day did not appear to have a significant effect on birders, species, or number of birds counted.

Adverse or favorable weather conditions on count day as well as impending weather events here or in other areas may influence the arrival or departure of migratory species. For example, some species may have stayed later than anticipated, e.g., Northern Pintail and Green-winged Teal. Weather

conditions at the coast, may have influenced some species to drop into Guilford County, e.g., Great Cormorant and Anhinga.

### 3. Changes in habitat

Habitat changes have been reported to be both detrimental and beneficial to different bird species. As noted in the PBC publication, “The Birds of Guilford County, NC: Then and Now”, Greensboro’s steady increase in population has been supported by increased housing development as well as expansion of roads, industry, and the PTI Airport (Piedmont Bird Club 2017).

In 1958 (early in the count period under review) Lake Brandt was modified to raise the water to its current level and, two new lakes were built: Lake Townsend (1969) and two decades later Oak Hollow Reservoir (1972) (Piedmont Bird Club 2017). These changes have benefitted some species that use open water. The rise in abundance of the Double-crested Cormorant is attributed in part to an active roosting site on Lake Brandt. Open water access in addition to other resources (food, nesting sites) have afforded the Canada Goose with sufficient habitat resulting in a population explosion and the species becoming a permanent resident. The first two Canada Geese were reported in the 1965 Count; and, since 1981, a dramatic increase in numbers has been observed with the highest number of 612 individuals recorded in the 2006 Count (Fig. 2). The dip in the total number of Canada Geese counted is recent years is possibly due to multiple factors including Canada Goose abatement efforts (Romano 2018).

Declines in open fields and grasslands as well as changes in farming practices may contribute to the declines in ground nesters such as the Northern Bobwhite, Eastern Whip-poor-will, Horned Lark, as well as other species that rely on this habitat, e.g. Bobolink, and Red-winged Blackbird. An interesting observation is the Northern Bobwhite’s spike in numbers occurring between 1962 and 1974 with a peak count of 181 individual birds in 1966 (Fig. 4). Perhaps the spike represents a new count site within the count circle or an increase in the population of Northern Bobwhites during that time period. Prior to and following this spike, the number of birds counted was generally under 50. Since 1998, only 28 birds have been counted, and in nine of the last 21 years no Northern Bobwhite has been reported on the SBC. The Horned Lark is another species not reported on the SBC since 1999.

Data on the total acreage of agrarian lands lost in Guilford County and the count circle are difficult to obtain. As noted previously, most of the PTI Airport lies in the count circle. Expansion of the airport reduced the grassland and woodland habitat available in the count circle. Notable trends in land use include amalgamation of smaller farms into larger parcels (USDA Agricultural Statistics Service 2017). This trend might result in less diverse plant species to support avian populations, particularly the grassland species. Open spaces are being purchased by conservancies and other groups

(Guilford County Open Space Preserves 2017) and farm land is being sold for development. In 2017, Guilford County Open Space Preserves had 14 sites consisting of a total of just 1727 acres, less than half the size of the Piedmont Triad airport (3770 acres).

Forested land is a haven for the cavity-nesting species including Owls, Woodpeckers, Swallows, Purple Martins, and many song birds. The Wild Turkey lives in mature forests and relies on both open fields and edges of forests for foraging. This species has been seen during 17 of 62 count years, making it difficult to assess loss of habitat and abundance of the species. A reduction in forested lands may, in part, explain the reduction in individuals of some woodland species, for example, the Wood Thrush (Fig. 1).

The U.S. Forestry Service (2017) survey of selected plots of land in Guilford County shows an increase in Virginia pine which is good news for the Brown-headed Nuthatch (Fig. 3). Since the 1980s, a steady increase has occurred in the number of Brown-headed Nuthatches counted.

#### 4. Birds themselves

Many factors contribute to why a species or number of individual birds are seen on count day. Birds may be actively moving about or sheltered and not visible to the counters. Or, birds may just be outside the count perimeter and thus cannot be counted. Timing (arrival and departure) of migrating species can vary slightly and affect counts. The complexity of such fluctuations in species observed and particularly in bird populations is a rich area for research (Koenig 2016). Fluctuating increases or decreases in species and numbers of individual birds counted across the years may also represent normal variation in the bird population; or in the relationship between abundance and availability of resources (nest sites, food); or in the observational process itself.

Sufficient numbers of nesting sites within the count circle may facilitate the maintenance or increase in abundance of birds, thereby increasing the chances of a birder observing the bird on count day. Abundance of food supply could influence the arrival or departure of migratory species. Additionally, the loss of foraging sites could result in movement of the species to different foraging sites within or outside the count circle and potentially reduce the chances of that species being observed.

Additionally, parasites, pathogens and use of pesticides could affect individual birds as well as the entire population of a species or many species (Koenig 2016). Over time these potentially detrimental effects could be reflected by decreased numbers observed during subsequent count years.

The population of birds is and will continue to be influenced by two driving forces, climate change and landscape change. In the past century, climate changes (temperature, precipitation and sea level) have accelerated and are a threat to bird populations. As warming occurs there is a greater mismatch between nesting and breeding behavior and maximum availability

of food resources to raise young. The National Audubon Society Report (2015) documents more than half of the birds in North America as climate threatened or climate endangered. Those species of birds that are unable to rapidly adapt may face an accelerated march toward extinction.

The continued change in landscape due to Greensboro's population growth is and will be another driving force affecting bird populations. Currently, the last three segments of the Greensboro Urban Loop have just been completed or will be completed by 2021. The projected preferred routes for these segments are approximately 37.5 miles long and consume approximately 1775 acres. According to the N. C. Department of Transportation Project Environmental Studies Report (2018), these acres include bird habitat, i.e., cultivated fields, woodlands, wetland habitats, open water venues, floodplains, as well as stream crossings. Approximately 4000 feet of streams will be relocated. Much of the pending loss in bird habitat is located within the count circle.

### **Summary**

This 1957 to 2018 span represents one of the longest consecutive SBCs for any count circle in North Carolina. Many individuals have participated in the SBCs in Guilford County, and the number of participants and the number of hours they spent while counting birds are significantly related to the total number of birds tallied on count day.

The SBC provides some insight into the complexity of human-bird interaction and the complexity of bird behavior, and their population changes and distribution. Thus, factors in addition to the time spent 'in the field' on count day influence the number of individual birds counted each year. Some species have increased in abundance over the years. Perhaps these species are more opportunistic or better able to adapt to the changes in Guilford County's habitat; or they have benefitted from man-made bird friendly environments, i.e., nesting sites and feeding stations. Other species have declined, due in part to the changes in habitat. Conservation strategies including preservation of open spaces and retention of forested and agrarian areas may benefit all species of birds in the County. As the SBCs continue, more definitive trends regarding apparent increases and decreases in the populations of species may emerge, particularly in the face of climate change and the expansion of infrastructure to meet the demands of a growing Greensboro population.

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## **Acknowledgments**

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## Appendices

*Editor's Note:* In the past *The Chat* endeavored to provide in printed format numerical or statistical data provided by various authors. In some cases the associated appendices or tables constituted a not insignificant portion of the particular periodical in which they were presented.

Feedback from readers suggests that making this information accessible while not resorting to page upon page of graphs or tables might be an opportunity. Now that *The Chat* has fully embraced digital publishing, we have the ability to provide ancillary data in ways that may make it more usable to the interested reader, while maintaining a cleaner look across the publication. To this end, I am experimenting with embedding tables and charts as links within the native PDF format of *The Chat*. To access these appendices, generally also provided in PDF format, simply click on the embedded documents. In this case of this article, **Appendix 1** and **Appendix 2** are provided in this format. Please give it a try!

We continue to try and incorporate feedback from readers in the final product, so both positive and constructive comments are appreciated.

To view Appendix 1, click here:

To view Appendix 2, click here:

# BRIEFS FOR THE FILES

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Josh Southern  
203 Hyannis Drive  
Holly Springs, NC 27540  
joshsouthern79@gmail.com

(All dates Summer 2018, unless otherwise noted)

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*Briefs for the Files is a seasonal collection of uncommon-to-rare or unusual North and South Carolina bird sightings and events which do not necessarily require a more detailed Field Note or article. Reports of your sightings are due the 20th of the month after the end of the previous season.*

Winter	December 1–February 28	due March 20
Spring	March 1–May 31	due June 20
Summer	June 1–July 31	due August 20
Fall	August 1–November 30	due December 20

*Reports may be submitted in any format, but I prefer that you use email, list multiple sightings in taxonomic order (rather than by date or location), and type your report directly into the body of the email. If your sightings are in a file, please copy-and-paste the text into the body of the email, rather than sending an attachment.*

*Suitable reports for the Briefs include any sightings you feel are unusual, rare, noteworthy, or just plain interesting to you in any way! It is my responsibility to decide which reports merit inclusion in the Briefs.*

*Please be sure to include details of any rare or hard-to-identify birds.*

*I rely in part on sightings reported in Carolinabirds. Please don't, however, rely on me to pick up your sightings from Carolinabirds. Instead, please also send your sightings directly to me as described above.*

*If I feel that your sighting warrants a Field Note, I will contact either you or the appropriate state Field Notes editor. You may, of course, submit your Field Note directly to the editor without going through me.*

Abbreviations: **BRC** – Bird Records Committee, **BRP** – Blue Ridge Parkway, **Co** – County, **et al.** – and others, **Ft** – Fort, **m. obs.** – multiple observers, **NC** – North Carolina, **NWR** – National Wildlife Refuge, **Rd** – Road, **SC** – South Carolina, **SP** – State Park, **St** – Street, **WTP** – Water Treatment Plant

**Gadwall:** A seemingly healthy drake summered in the Horsepen Creek arm of Lake Brandt, Guilford Co, NC, 9 Jun into Aug (Roberta Newton, Ann Van Sant, m. obs.).

**American Wigeon:** Two, a drake and a hen, on South Pond, Pea Island NWR, Dare Co, NC, 6 Jun (Audrey Whitlock) were late to depart.

**Green-winged Teal:** Two, a drake and a hen, near the Salt Pond at Cape Point, Dare Co, NC, 7 Jun (Karen Lebing, m. obs.) were unusual for June.

**King Eider:** The hen that was seen around Ft Moultrie and the Pitt St Causeway, Charleston Co, SC, in May remained through at least 29 Jun (Pam Ford, Craig Watson).

**Common Eider:** A hen photographed under Jennette's Pier, Dare Co, NC, 8 Jun (Alan MacEachren, Audrey Whitlock) was late. Interestingly, this individual appeared to be the Hudson Bay subspecies, rather than the Atlantic subspecies that is typical here.

**White-winged Scoter:** One on the ocean off Myrtle Beach SP, Horry Co, SC, 21 Jun (Scott Hartley) was late.

**Bufflehead:** A drake lingered at Pea Island NWR, Dare Co, NC, through 15 Jun (Audrey Whitlock, m. obs.).

**Common Merganser:** Breeding was confirmed at two sites in the NC mountains—on Big Laurel Creek near Hot Springs, Madison Co, when a hen was seen with six juveniles 24 Jun, 5 Jul (Greer Karbowski) and 15 Jul (Johanna Preiszner) and on the South Toe River in Yancey Co, when a hen was seen with ten juveniles, 1 Jul (Clifton Avery).

**Red-breasted Merganser:** A drake photographed on Lake Keowee, Oconee Co, SC, 5 Jul (Don Lenahan) was unusual for an inland site in summer.

**White-winged Dove:** Individuals visited feeders in North Myrtle Beach, Horry Co, SC, 4 Jun (Deb Winter); in Williston, Carteret Co, NC, 7-8 Jun (Kathy Calvert); and in Nags Head, Dare Co, NC, 15-17 Jun (Audrey Whitlock).

**Sora:** One heard calling on the north end of Piney Island, Carteret Co, NC, 1 Jun (John Fussell) was probably a late migrant or a non-breeding lingerer. Fussell wonders, however, if the species may occasionally breed in eastern Carteret County. Evidence of breeding in the Carolinas by this species is yet to be obtained.

**Limpkin:** At least three were seen in the Carolinas this summer—individuals along the Black River on the border of Bladen Co and Pender Co, NC, 1 Jul (*fide* John Fussell) and 14 Jul (Jamie Adams); at Congaree National Park, Richland Co, SC, 12-21 Jul (John Grego, m. obs.); and at Savannah NWR, Jasper Co, SC, where photographed, 20 Jul (Allison Leigh).



**American Avocet:** Sightings at inland sites included one on the shore of Lake Hartwell in Clemson, Oconee Co, SC, 11 Jul (William Potter); two at the Mills River WTP, Henderson Co, SC, 14 Jul (Elizabeth Fitts, m. obs.); and eight at the Mills River WTP, 16 Jul (Wayne Forsythe, m. obs.). The latter sighting provided a new record high count for the mountain region.

**American Golden-Plover:** One seen and photographed at South Pond, Pea Island NWR, Dare Co, NC, 15 Jun (Bob Martz) and 16 Jun (Karen Lebing, Audrey Whitlock) was very unusual for the month of June.

**Wilson's Plover:** 22, including two juvenile birds, around the east side of Bogue Inlet, Carteret Co, NC, 17 Jul (Ed Phillips) was a noteworthy count for that area.

**Upland Sandpiper:** Two photographed at the Super Sod farm in Orangeburg Co, SC, 13 Jul (Elizabeth & Jonathan Anderegg) were the first southbound migrants reported this year. Five in the grass around the observation area at Wilmington International Airport, New Hanover Co, NC, 26 Jul (Sam Cooper) was a good count.

**Long-billed Curlew:** At Cape Romain NWR in Charleston Co, SC, one was seen on Bulls Island, 2 Jul (David McLean, Chris Snook) and two were seen around Sandy Point, 4 Jul (Jim Buxton, et al.). The species is almost year-round at that refuge now, only absent mid-May through mid-June.

**Ruddy Turnstone:** One at Buckhorn Reservoir, Wilson Co, NC, 28 Jul (Ricky Davis) was a good find for that inland site.



*Curlew Sandpiper, 27 July 2018, Dare Co, NC*  
*Photo by Karen Lebing*

**Curlew Sandpiper:** An adult male, beginning to molt out of breeding plumage, was seen and photographed by many on North Pond, Pea Island NWR, Dare Co, NC, 22-26 Jul (Audrey Whitlock, m. obs.) and on the flooded lawn in front of the nearby Bodie Island Lighthouse, 27-28 Jul (Martina Nordstrand, m. obs.). It has been almost a decade since the last sighting of this Eurasian vagrant in the Carolinas.

**Short-billed Dowitcher:** One in the Horsepen Creek arm of Lake Brandt, Guilford Co, NC, 7-8 Jul (Henry Link, m. obs.) was a good find for an inland site and somewhat early for a southbound migrant.

**Wilson's Snipe:** One photographed at the Super Sod farm in Orangeburg Co, SC, 21 Jul (Pam Ford, Craig Watson) was very early.

**Willet:** One at Lake Crabtree, Wake Co, NC, 24 Jul (Eddie Owens) was a good find for that inland site.

**Red Phalarope:** A ragged-looking individual seen and photographed at Cape Point, Dare Co, NC, 8-15 Jun (Marcia Lyons, m. obs.) and 28 Jun (Karen Lebing) was incredibly unusual, the first ever seen in NC during the summer.

**Sooty Tern:** The only one seen from shore this summer was an adult individual off Sullivan's Island, Charleston Co, SC, 26 Jul (Steve Barlow).

**Roseate Tern:** One of two continued from late May at Cape Point, Dare Co, NC, through at least 8 Jul (Megan Baker, et al.). A leg-banded individual photographed on the beach 14 miles north of Cape Point, 22 Jul (Michael Gosselin, et al.) was a different individual than the two seen at Cape Point, as those did not have leg bands.

**Fea's Petrel:** This rare tubenose was seen on a pelagic trip out of Hatteras, Dare Co, NC, 7 Jul (Brian Patteson, et al.).

**Great Shearwater:** A individual photographed at Murrells Inlet, Georgetown Co, SC, 9 Jun (Shawn Smolen-Morton) was a good find from shore. A moribund individual was found on North Topsail Beach, Onslow Co, NC, 19 Jun (Gilbert Grant). Sick/injured individuals were found along the Pitt St Causeway, Charleston Co, SC, 23 Jun (Pam Ford, m. obs.) and on Bald Head Island, Brunswick Co, NC, 5 Jul (Jimmy Welch).

**Audubon's Shearwater:** A sick/injured individual was found on the beach in Emerald Isle, Carteret Co, NC, 24 Jul (Andrew Melnick).

**Wood Stork:** Locally unusual were individuals at Richardson Taylor Preserve, Guilford Co, NC, 2-3 Jun (Amy Hanson, m. obs.); in J. Morgan Futch Game Land, Tyrrell Co, NC, 4-13 Jun (Kimberly McCargo, m. obs.); and at Jordan Lake, Chatham Co, NC, 27 Jun (Jonathan Cantrell). One seen and photographed along the Little Tennessee River Greenway in Macon Co, NC, 21-22 Jul (Chayse Davis, m. obs.) was especially unusual for the mountain region. As expected, all of these individuals were immature birds, as immatures are more likely to wander than adults. 26 near the Tyger River in Union Co, SC, 31 Jul (Mark Carroll) and ten at a small pond in Rock Hill, York Co, SC, 31 Jul (Diane Gabanyic) were good counts for sites in the Piedmont.

**Magnificent Frigatebird:** There was a small flurry of sightings in early June, but none thereafter. Individuals were seen in flight over Isle of Palms, Charleston Co, SC, a juvenile, 2 Jun (Pam Ford, Craig Watson); over Kure Beach, New Hanover Co, NC, 2 Jun (Mark Galizio); near Lockwood Folly Inlet, Brunswick Co, NC, a male, 3 Jun (Robert Hunnings); over Ft Macon SP, Carteret Co, NC, 10 Jun (Randy Newman); and over Pea Island NWR, Dare Co, NC, a juvenile, 13 Jun (Karen Lebing, et al.).

**Brown Booby:** A sub-adult female found at the Apache Pier in Myrtle Beach, Horry Co, SC, 29 May, was collected by the Avian Conservation Center for rehabilitation and expected to recover (Emily Davis).

**Great Cormorant:** An immature bird photographed on a jetty at Masonboro Inlet, New Hanover Co, NC, 16 Jun (Sam Cooper) was unusual for summer.

**American Bittern:** One seen at North River Preserve, Carteret Co, NC, 24 Jun and 22 Jul (John Fussell, et al.) was unusual for summer.



*Great Blue Heron [White-morph]  
17 July 2018, Henderson Co, NC  
Photo by Wayne Forsythe*

**“Great White Heron”:** A white-morph Great Blue Heron was seen and photographed in the French Broad River Valley of Henderson Co, NC, 17-25 Jul (Wayne Forsythe).

**Tricolored Heron:** On schedule with post-breeding dispersal, immature birds started showing up at lakes in the NC Piedmont in late July, with individuals seen at Jordan Lake, Chatham Co, 19 Jul (Paul Taillie); on Shattalon Lake, Forsyth Co, 24 Jul (David & Susan Disher, et al.); on Lake Brandt, Guilford Co, 25 Jul (Matt Wangerin); and at Lake Crabtree, Wake Co, 25 Jul (Lynn Erla Beegle, et al.).

**Reddish Egret:** Sightings made along the NC coast included one at Pea Island NWR, Dare Co, 3 Jun intermittently through July (Alan MacEachren, m. obs.); two at New River Inlet, Onslow Co, 5 Jun (Gilbert Grant); one at Cape Point, Dare Co, 6-14 Jun (Michael Gosselin, m. obs.); and one at the Rachel Carson Reserve, Carteret Co, 26 Jul (Jeannie Kraus).

**Black-crowned Night-Heron:** It's possible this species bred in the New Hope Creek arm of Jordan Lake, Chatham Co, NC, as a group of four, including at least two juveniles, were flushed by kayak, 8 Jul (Matt Spangler).

**Glossy Ibis:** One in the New Hope Creek arm of Jordan Lake, Chatham Co, NC, 24-29 Jul (Jelmer Poelstra, m. obs.) was a great find for a site so far from the coast.

**Roseate Spoonbill:** There was an unprecedented northward irruption of this conspicuous wading bird this summer, with dozens of sightings made north and inland of the species' typical range. Individuals were county firsts in Davidson, Mecklenburg Co, NC, 27-28 May (m. obs.); on the French Broad River in Henderson Co, NC, 3 Jun (LeNorah Allen); at J. Morgan Futch Game Land, Tyrrell Co, NC, 6-13 Jun (Jeff Lewis, m. obs.); at Hap Simpson Park, Transylvania Co, NC, 7 Jun (Lindsay Rutland); at a subdivision pond in Simpsonville, Greenville Co, SC, 23 Jun (Len Kopka); and on Lake Tillery, Stanly Co, NC, 8 Jul (Jennifer Archambault, Bill Mullin). Sightings made along the NC coast



*Roseate Spoonbill, 27 May 2018  
Mecklenburg Co, NC  
Photo by Rob Van Epps*

included three at Cape Point, Dare Co, 14 Jun through 17 Jul (m. obs.); three at Ft Fisher, New Hanover Co, 5 Jul (Amy McLane); and three near Cape Lookout, Carteret Co, 11 Jul (Jess Hawkins). Sightings made in the NC Piedmont included two in the Crabtree Creek wetland along N Raleigh Blvd in Wake Co, 15 Jun through 8 Jul (Alysia Richard, m. obs.); three in the New Hope Creek arm of Jordan Lake, Durham Co and Chatham Co, 8-31 Jul (Matt Spangler, m. obs.); one around Lake Townsend, Guilford Co, 24-25 Jul (Tom Baker, m. obs.); and two at Lake Crabtree, Wake Co, 24-25 Jul (Eddie Owens). Up to three in the wetlands along N Rugby Rd in Henderson Co, 15-31 Jul (m. obs.) were especially remarkable for the mountain region. As expected, the majority of these sightings involved immature birds, as they are more likely to wander than adults.

**Swallow-tailed Kite:** Nesting was confirmed along the Black River in Pender Co, NC, when a nest with two nearly-fledged juveniles was photographed 17 Jun (Derb Carter). This nest site is only the second ever documented in North Carolina.

**Mississippi Kite:** One photographed in flight over Frisco, Dare Co, NC, 5 Jun (Maili Waters, et al.) was very unusual for the Outer Banks.

**Broad-winged Hawk:** Individuals seen in Wilmington, New Hanover Co, NC, 3 Jul (Sam Cooper) and photographed along the I'On Swamp Trail, Charelston Co, SC, 5 Jul (Tony Masso) were unusual for sites so near the coast during the mid-summer.

**Burrowing Owl:** Pending review by the SC BRC is the report with photographs of an apparent Burrowing Owl on Harbor Island, Beaufort Co, SC, 30 Jul through 5 Aug (Tammy Hester, m. obs.).

**Scissor-tailed Flycatcher:** One, either a female or an immature bird, photographed perched on a powerline just west of Gaffney, Cherokee Co, SC, 15 Jul (Michael Robertson, et al.) was the only one reported this summer.

**Olive-sided Flycatcher:** One photographed at Long Creek Park, Forsyth Co, NC, 2 Jun (Jesse Anderson, et al.) was a good find.

**Willow Flycatcher:** A singing male behaved as if on territory at the Chuck Hollow Lane Wetland in Mecklenburg Co, NC, 29 May through 10 Jun (Dennis Kent, John Scavetto, m. obs.).

**Cliff Swallow:** Nesting was discovered at three nearby sites around Harlowe, Carteret Co, NC, in June—where NC-101 crosses Core Creek, with 200 birds around 140 active nests, 4 Jun (John Fussell); at a farm shed near Harlowe, with 12 birds gathering mud, 4 Jun (Fussell); and where NC-101 crosses Harlowe Creek, with 80 birds around 48 active nests, 28 Jun (Fussell, Martha Mayo). Fussell notes that “although the species nests regularly in adjacent Craven County . . . the numbers found this year at two sites in Carteret County are completely unprecedented.” Active nests found under several bridges over the Tar River in Greenville, Pitt Co, NC, with 75+ birds in total at those sites in mid-June (Patricia & Russ Tyndall) were also locally unusual.

**Hermit Thrush:** A few of the higher counts at sites in the NC mountains included five at Clingmans Dome, Swain Co, 7 Jun (Michael Harvey); 11 along the Profile Trail at Grandfather Mountain SP, Avery Co, 8 Jul (Guy McGrane); five, including a juvenile bird, along the Bald Knob Ridge Trail, Yancey Co, 19 Jul (Mark Simpson, Marilyn Westphal); and up to four on Roan Mountain, Mitchell Co, throughout the summer (Rick Knight, m. obs.).

**Red Crossbill:** 33 around the Beacon Heights Overlook on the BRP in Avery Co, NC, 4 Jul (Jeff Lewis, et al.) was a good count.

**Vesper Sparrow:** Breeding was confirmed at Pond Mountain Game Land, Ashe Co, NC, when two juveniles were seen there alongside adults, 18 Jun (Chris Kelly).

**Lark Sparrow:** One photographed at Alligator River NWR, Dare Co, NC, 4 Jun (Maili Waters, et al.) was very unusual for a site outside of the Sandhills in summer.

**Savannah Sparrow:** Possibly nesting in the NC mountains were two, one singing, in a grassy field in western Watauga Co, 5 Jun (Guy McGrane) and two, one of which was seen carrying food, along Hannah Ford Rd in Transylvania Co, 24 Jul (Simon Thompson, et al.). An individual seen along Hooper Lane in Henderson Co, NC, 1-11 Jun (Michael Plauché, m. obs.) and 25-31 Jul (Wayne Forsythe, m. obs.) was unusual for summer. One photographed at the Voice of America site in northwest Beaufort Co, NC, 5 Jun (Karen Lebing, et al.) probably was a late migrant.

**Bobolink:** Seven males were behaving as if on territory in a grassy field in western Watauga Co, NC, 5 Jun (Guy McGrane). Two, a male and a female, seen in a grassy field along the French Broad River in central Transylvania Co, NC, 21 Jun (Michael Plauché) was suggestive of attempted breeding there. One seen and heard calling in flight over the Pungo Unit of Pocosin Lakes NWR in Washington Co, NC, 15 Jul (Ricky Davis) almost certainly was an early fall migrant.

**Golden-winged Warbler:** A singing male on territory in Pond Mountain Game Land, Ashe Co, NC, 6-19 Jun (Clifton Avery, Chris Kelly) was a first for that site. Kelly mentions that “Christmas Tree production has been phased out (at that site) over the past 15 years” and this bird was found in one of those former tree fields. Breeding was confirmed in western Macon Co, NC, when two adults were seen with two recently fledged juveniles, 24 Jun (Alex Merritt).

**“Brewster’s Warbler”:** A singing male “Brewster’s Warbler” was also on territory in Pond Mountain Game Land, Ashe Co, NC, 6-19 Jun (Clifton Avery, Chris Kelly).

**Kentucky Warbler:** Breeding was confirmed along the BRP near Bull Gap, Buncombe Co, NC, when an adult male was seen feeding two fledged juveniles, 15 Jul (Simon Thompson). Though the elevation of the nesting site, 3200 feet above sea level, is not unusual, Thompson notes that “this species has barely a toe-hold in the county anymore and the numbers keep declining.”

**Magnolia Warbler:** Suggestive of attempted breeding in the NC mountains was a singing male near the trailhead of the Bald Knob Ridge Trail, Yancey Co, 20 May through 6 Jun (John Gerwin, m. obs.); a singing male along the BRP near the Beacon Heights Overlook, Avery Co, 3-8 Jul (Jeff Lewis, m. obs.); and up to two birds on Roan Mountain, Mitchell Co, throughout the summer (Rick Knight).



*Blackpoll Warbler,  
11 Jun 18, Dare Co, NC Photo by  
Karen Lebing*

**Blackpoll Warbler:** An adult male well-photographed in Waves, Dare Co, NC, 11 Jun (Karen Lebing) was quite late. It may have been quite lost as well, as Lebing notes it was headed south down Hatteras Island.

**Yellow-rumped Warbler:** On territory in the NC mountains were six singing males at Clingmans Dome, Swain Co, 7 Jun (Michael Harvey); four singing males along Black Balsam Rd in Haywood Co, throughout the summer (Mark Simpson, Marilyn Westphal, m. obs.); and one singing male on Roan Mountain, Mitchell Co, throughout the summer (Rick Knight, m. obs.). Nesting was not reported at any site this year.

**Rose-breasted Grosbeak:** A female photographed at a feeder in New Bern, Craven Co, NC, 21 Jun (Lester Coble) was extremely unusual for a site outside the mountains in mid-summer, possibly the latest spring migrant ever documented in the Coastal Plain.

**Dickcissel:** Dickcissels continued from late spring at multiple suspected breeding sites in the Piedmont and coastal plain. Numbers grew at North River Preserve, Carteret Co, NC, to 14 singing males on 10 Jun (John Fussell, Jack Fennell). Dickcissels continued along Benaja Rd in southern Rockingham Co, NC, until the wheat was harvested in late June and none were seen thereafter (Martin Wall). Four singing males were seen along a stretch of Barrier Store Rd on the border of Cabarrus Co and Stanly Co, NC, 16 Jun (Greg Hays, Taylor Piephoff). Two singing males were seen and heard in the Bluff Unit of Santee NWR, Clarendon Co, SC, throughout the period (m. obs.). Up to six were seen at the traditional breeding site just north of Cowpens, Spartanburg Co, SC, this summer (m. obs.).



*Marbled Godwit, courtesy of Mary Sonis*

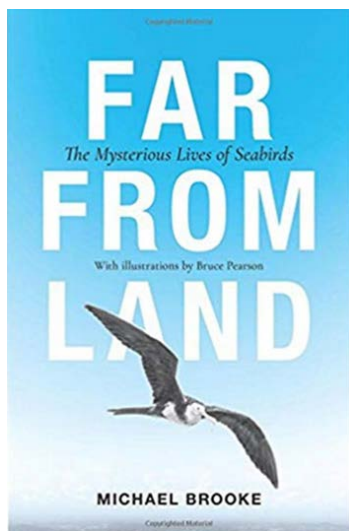


## Birder's Book Review

### *Far From Land: The Mysterious Lives of Seabirds*

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Steve Shultz



*Far From Land: The  
Mysterious Lives of Seabirds*  
Michael Brooke with  
illustrations by Bruce  
Pearson  
ISBN 978-0691174181, 264  
pages, hardback  
2018, Princeton University  
Press, \$29.95

Can birds sleep while they fly? Do murres swim or fly when they migrate? (The answer might surprise you!) Do albatross really fly thousands of miles on foraging trips to glean food for hungry chicks? Why do male and female of some species feed in distinctly different areas?

If you've ever wanted to know the answers to these questions, or simply satisfy a curiosity about "the secret life of pelagic birds" then *Far From Land: The Mysterious Lives of Seabirds* by Michael Brooke may be the next must-read on your list. And in the case that you are not interested in learning juicy tidbits like where Cory's Shearwaters go in the winter, you probably know a birder who is, and after all, it's not too early to start that holiday shopping!

Over the span of 249 pages, Brooke's takes us through an introduction of pelagic birds, explaining what they are and how they differ from our more familiar terrestrial feathered friends, and ends with a look at the interactions between seabirds and people. In between we get to experience life at sea as a pelagic bird, first hatching and leaving the nest (or scrape or burrow as the case may be), then wandering the seas as a "teenager", and finally returning to the nesting area to produce the next generation.

Chapters explore in detail the effects of wind, weather, and currents on foraging strategy and success, the predilections of individual birds and variability in behavior, how birds find food, and how birds feed. These in-depth looks at how birds interact with their environment, fill niches in the food chain, and mechanics of feeding are largely possible due to relatively new technology. The author explains what types of instruments are used, how they work, and what we've learned, and the findings are nothing short of fascinating.

By the end of the book you'll know if birds really spend their teenage years on the wing without alighting on shore, how murres get where they are going (and where they go), live the amazing journey of a chick-feeding tubenose, and understand why we don't see albatross with any regularity off the Carolinas, but regularly see South Atlantic nesting storm-petrels, European shearwaters, and Greenland-nesting Dovekies.



# CAROLINA BIRD CLUB

[www.carolinabirdclub.org](http://www.carolinabirdclub.org)

The Carolina Bird Club is a non-profit organization which represents and supports the birding community in the Carolinas through its official website, publications, meetings, workshops, trips, and partnerships, whose mission is

- To promote the observation, enjoyment, and study of birds.
- To provide opportunities for birders to become acquainted, and to share information and experience.
- To maintain well-documented records of birds in the Carolinas.
- To support the protection and conservation of birds and their habitats and foster an appreciation and respect of natural resources.
- To promote educational opportunities in bird and nature study.
- To support research on birds of the Carolinas and their habitats.

Membership is open to all persons interested in the conservation, natural history, and study of wildlife with particular emphasis on birds. Dues, contributions, and bequests to the Club may be deductible from state and federal income and estate taxes to the extent allowable. Pay dues or make donations at <https://carolinabirdclub.org/dues>. Make change of address at <https://www.carolinabirdclub.org/members/profile>. Send correspondence regarding membership matters to the Headquarters Secretary. Answers to questions about the club might be found at <https://carolinabirdclub.org/about.html>.

## ANNUAL DUES

Individual or non-profit.....	\$30.00
Family.....	\$35.00
Student.....	\$15.00
Sustaining and businesses.....	\$30.00
Patron.....	\$50.00 and up
Life Membership (payable in four consecutive \$100 installments) .....	\$500.00
Associate Life Membership (in same household as life member).....	\$100.00

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NC Vice-Presidents	Sherry Lane, Wilmington NC	
	Steve Tracy, Gastonia NC	
SC Vice-President	Craig Watson, Mt. Pleasant SC	
Secretary	Jill Midgett, Charleston SC	
Treasurer	Paul Dayer, Durham NC	
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	Karyl Gabriel, High Point NC	
	Katherine Higgins, Wilmington NC	
	Marilyn Westphal, Hendersonville NC	
SC Members-at-Large	Steve McInnis, Columbia SC	
	Mac Williams, Hartsville SC	

## EX-OFFICIO EXECUTIVE COMMITTEE MEMBERS

Chat Editor	Steve Shultz, Apex, NC	<a href="mailto:chat@carolinabirdclub.org">chat@carolinabirdclub.org</a>
Newsletter Editor	Vivian Glover, Orangeburg, SC	<a href="mailto:newsletter@carolinabirdclub.org">newsletter@carolinabirdclub.org</a>
Website Editor	Kent Fiala, Hillsborough, NC	<a href="mailto:webeditor@carolinabirdclub.org">webeditor@carolinabirdclub.org</a>
Immediate Past President	Irvin Pitts, Lexington, NC	

## HEADQUARTERS SECRETARY

Carol Bowman	9 Quincy Place Pinehurst NC 28374	<a href="mailto:hq@carolinabirdclub.org">hq@carolinabirdclub.org</a>
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