

2011 Spring Migration Counts in North Carolina

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Twenty North Carolina count areas submitted data for the 2011 spring migration count. A Grandfather Mountain count was conducted for the first time, but Alamance County did not submit a report this year. Hanging Rock State Park was included with the mountain region this time since it is actually an outer island extension of the Blue Ridge range. Thus seven counts were submitted from the mountain region, twelve from the piedmont, and once again only one from the under-represented coast. The 2011 count period extended from 27 April to 28 May, with the later counts coming from the high-elevation mountain areas.

A total of 418 participants counted 87,361 individual birds and 231 species in 1,276.27 party-hours, with a total of 68.45 birds per party-hour. Party-hours are a measure of effort and are determined by adding the total number of birds counted and dividing that number by the total time in the field of all groups or “parties” of participants in the count. “Parties” usually consist of 1 to 5 participants. Species total was slightly higher than the 229 average for the past five years. Interesting finds included Western Sandpiper and Rusty Blackbird on the Mecklenberg count, Philadelphia Vireo, Sedge Wren, and Gray-cheeked Thrush on the Forsyth count, Lark Sparrow on the Southern Pines count, and Bay-breasted Warbler on the Balsam Mountains count. The Black Mountains count included 32 Red Crossbills, a good number for late May and an early indication of probable breeding in the Black Mountains this year. The Chapel Hill count found only 8 Bald Eagles, which was well below the average for that count in recent years. Other count areas did not show a similar decline this year. Since 2003 at least 4 or 5 counts have included Common Nighthawks, but this year only one count, Southern Pines, located that species.

The number of counts reporting Cliff Swallows has increased over the decade from 5 in 2001 and 2002 to 10 in 2010 and 11 in 2011, although total numbers have fluctuated. The Jordan Lake count first began reporting larger numbers of Cliff Swallows in the mid-1980s and Cliff Swallows have been reported in larger numbers there than anywhere else until this year when the number of swallows from the Forsyth County count surpassed Jordan Lake. Table 1 shows the number of Cliff Swallows reported at counts that have reported them with some regularity.

Several count compilers noted the low number of Wood Thrushes this year, and the data do show a particularly sharp downward overall trend in the past two years. Wood Thrush numbers have been declining for the past several decades, but have declined to their lowest levels in the past two years. The mountain counts have fluctuated more than the piedmont counts

in the past ten years but show the same overall trend. Figures 1 and 2 compare Wood Thrush numbers per party-hour from the mountains and from the piedmont over the past decade. Only the Buncombe and Henderson counts were utilized for the mountain counts since only data from those two counts were available for every year in the past decade, and from the piedmont only the Forsyth, Greensboro, Chapel Hill, Jordan Lake, Durham, and Wake counts were utilized for the same reason.

Table 1. Cliff Swallow numbers in Spring Counts from 1992–2011 (NC indicates no count submitted that year, ND indicates no data available from that year for that count). Key: Hendr—Henderson Co, Catwb— Catawba Co, Forsy—Forsyth Co, CHill—Chapel Hill, Jordan—Jordan Lake, Durh—Durham, Wake—Wake Co, Kerr—Kerr Lake.

	Catwb		CHill		Durh		Falls		Kerr
	Hendr	Forsy	Jordan		Wake				
1992	NC	NC	2	4	50	10	0	NC	NC
1993	NC	NC	0	17	100	6	0	NC	NC
1994	NC	NC	2	0	106	15	0	NC	NC
1995	NC	NC	25	ND	135	5	0	NC	NC
1996	NC	NC	5	3	86	4	0	NC	NC
1997	NC	NC	0	0	47	4	8	NC	NC
1998	NC	NC	6	ND	35	22	ND	NC	NC
1999	NC	NC	40	3	125	12	0	NC	NC
2000	0	NC	4	0	206	9	0	NC	NC
2001	0	NC	2	26	191	36	0	NC	NC
2002	0	NC	75	2	184	48	0	NC	NC
2003	0	NC	90	16	288	31	12	NC	NC
2004	0	80	60	7	214	28	0	45	56
2005	0	NC	32	3	367	32	0	10	7
2006	10	40	27	12	192	39	43	8	15
2007	24	NC	66	2	230	8	24	142	6
2008	0	126	50	1	173	7	24	55	18
2009	5	NC	69	3	142	28	30	31	13
2010	7	NC	30	4	172	1	10	60	20
2011	6	NC	181	39	111	15	10	31	29

Details of individual counts including names of compilers and participants as well as count highlights and species found exclusively on that North Carolina count follow.

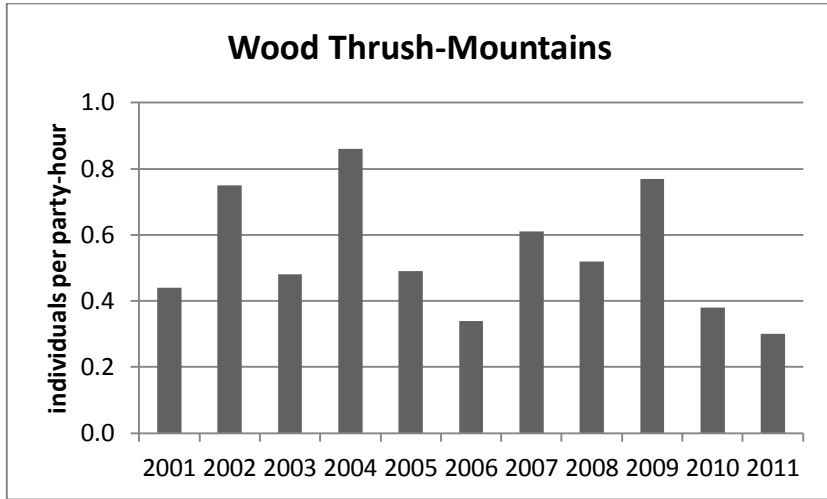


Figure 1. Wood Thrush numbers from mountain counts

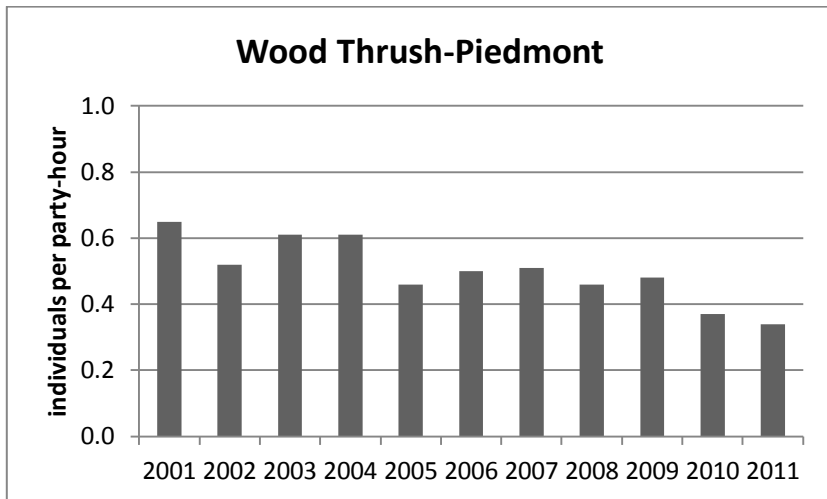


Figure 2: Wood Thrush numbers from piedmont counts

Count Area Details

Mountains

Transylvania County: count date 7 May, 109 species, 2,787 individuals, 21 participants, 55.00 party-hours.

Weather: Temperature 50–70°F, mostly sunny after some morning fog, light winds, afternoon shower in some places, elevation range from 2100 to 5600 ft.

Compiler: Norma Siebenheller (sieb@citcom.net)

Participants: Elaine Badger (feeder), Marvin and Michele Barg, Dorothy Bauer, Pat Blaine (feeder), Ruth Clausen, Elizabeth Galloway, Jerry Griggs, Jeanne Grimmenga, Nancy Iha, Richard Jackson, Mike Judd, Ruth Klock, June Litchfield, Carolyn Mills, Bill Moore, Janie Owens, Norma and Bill Siebenheller, Bill Thomas, Charlie and Linda Threatte, and Connie Updike

Exclusives: none

Notes: Considering the fact that we had only 23 participants this year and only 7 field parties, my initial feeling is that we didn't do badly. However, I can't ignore all the species that we know are here but which were missed—whether because their territories (large lakes, for example) just weren't covered at all; or too many of our birders cannot identify species by song; or the fact that those who can bird by ear cannot be everywhere in the early morning when singing is at its height; or some of us, because of advancing age, cannot cover the ground as well as we used to do—it is all those things, and more, that keep us from achieving the totals we'd like to have. One particular thing that struck me this year was the fact that 27 of the species on our list were seen by only one party. This, as much as anything, seems to indicate that we simply don't have enough coverage for a county of this size.

It's hard to believe the birds we missed: no kestrels or peregrines; no owls; no cuckoos. Brown Creeper and Veery were silent and therefore missed in their Parkway haunts. Cerulean Warbler no longer seems to be audible from the Buck Springs trailhead, though it probably is nesting somewhere along the trail. Blue Grosbeak escaped notice, as did Prairie Warbler and Pine Warbler, though surely they are all here—somewhere.

Still, there are things to be thankful for, like the weather, which was warm and pleasant at all elevations for much of the day. There were surprises like the Kentucky Warbler in Calvert, the Raven on Frozen Creek Road, all those Chestnut-sided Warblers along the Parkway, Blackburnians still thriving at Pink Beds, a late Swamp Sparrow in Calvert and some lingering Pine Siskins in Sherwood Forest. Give us a dozen sharp young birders to add to our regulars and we'll set records next year, guaranteed.

Norma Siebenheller

Great Balsam and Plott Balsam Mountains IBA: count date 21 May, 84 species, 3,196 individuals, 20 participants in 9 parties, 70.50 party-hours.

Weather: Mostly sunny and warm, temperatures 55–80°F, with calm to light winds. Elevation range from 3500 to 6100 feet.

Compiler: Marilyn Westphal (mjwestph@ret.unca.edu)

Participants: Tim Carstens, Nancy Casey, Robert Emmott, Tom Flagg, Michael Galovic, Bill Gifford, Barbara Goergen, Sheila Gregor, Jamie Harrelson, Gail and Herman Lankford, Nora Murdock, Bob Olthoff, Sue Perry, Steve Semanchuk, Ray Sharpton, Lou Weber, Marilyn Westphal, Connie and Stan Wulkowicz

Exclusives: Least Flycatcher, Black-capped Chickadee, Bay-breasted Warbler

Notes: The Balsam Mountains spring bird count is always one of the favorite birding days of the year for many of the participants and this year was no exception. The count was held on May 21st and the weather was wonderful, sunny, with temperatures ranging from 55 to about 80 with calm or only light winds. The count area covers the Blue Ridge Parkway and adjacent trails from just east of the Pisgah Inn to the eastern edge of the Smokies. Although there are lower-elevation sections at the gaps, most of the count takes place in areas exceeding 4500-foot elevations and includes middle- and high-elevation forest as well as mountain balds. The count has been conducted every year since 2006.

Most common species found on the count included in order of abundance: Chestnut-sided Warbler (366), Dark-eyed Junco (350), Eastern Towhee (225), Veery (147), Black-throated Blue Warbler (146), Canada Warbler (134), Black-throated Green Warbler (133), Ovenbird (119), Red-eyed Vireo (107), and Blue-headed Vireo (106). Species breaking previous high records for the count include Red-eyed Vireo (has never exceeded Blue-headed Vireo before this year and Blue-headed Vireo numbers were lower than they have ever been), Red-breasted Nuthatch (72), Veery (the last two years have been very good for Veery), Hermit Thrush (17—this thrush has only been found in the Balsam Mountains during breeding season since 2005), Black-throated Blue Warbler, and Indigo Bunting (106). Other than Blue-headed Vireo, species recording the lowest number since the count began included Winter Wren (16), Wood Thrush (5) and American Robin (98). Wood Thrushes are not generally found at the higher elevations of the mountains, but where they are present in this count area, the total this year was less than half the previous low.

Late migrants found on the count included one each of Palm, Bay-breasted and Blackpoll Warblers and two Ruby-crowned Kinglets. Other species of local interest included a Black-billed Cuckoo and three Northern Saw-whet Owls. The Black-capped Chickadee song once again dominated much of the count area over the Carolina Chickadee song. Visual verification would indicate that many of these at least were likely Black-capped rather than hybrid chickadees, but of course no DNA testing was possible. The Black-capped song continues to largely be the exclusively heard chickadee song from Black Balsam to Richland Balsam.

Thanks to the 20 participants in nine teams who spent a total of 70.5 team-hours in the field finding a total of 84 species and enjoying a beautiful spring day in the mountains while helping with the count.

Marilyn Westphal

Henderson County: count date 14 May, 100 species, 2,381 individuals, 14 participants, 41.25 party-hours.

Compiler: Jim Neal (jlbjneal@gmail.com)

Participants: Barrie and Paulette Cliff, Nancy Cowal, Denise DuPon, Bill Fisk, Rich Leppingwell, John LoCurto, Barbara and Jim Neal, Janie Owens, Sue Perry, Mark Simpson, Simon Thompson, and Marilyn Westphal

Exclusives: none

Notes: Saturday, May 14, 2011 was Spring Migration Count day in Henderson County, NC. The weather was partly cloudy with mild temperatures. Fourteen people worked 10 areas in the county and found 100 species and 2,381 individual birds. The 100 species total was the lowest of our 14 years collecting spring migration data, with the previous low being 103 species in 2001 and the highest being 120 species in 2006. The 2,381 total birds are the fourth lowest ever. The lowest total was 2,015 in 1999 when we had 14 people covering only 8 areas and the highest was 3,705 in 2002 when we had 18 people covering the 10 areas.

This year there were five areas with more than 100 birds found. The Cedar Waxwing was most numerous at 140, American Crow 133, American Robin 121, the European Starling 115 and the Northern Cardinal 112. These were followed by three species in the 90s: Song Sparrow 98, Eastern Towhee 97, and Canada Goose 95. Mourning Dove, Carolina Wren, American Robin, Northern Mockingbird, Eastern Towhee, Song Sparrow, Northern Cardinal and American Goldfinch were found in all 10 count areas. Eighteen species of warblers were seen, with the Common Yellowthroat, Hooded, Black-throated Green, Black-and-white, and American Redstart being the most plentiful. Fifteen of the 18 species nest in the county. No particularly unusual species was found this year.

The number of warbler species was two fewer than we normally find and we did not find several birds that have been found on one or more previous counts. We have always conducted our count on the second Saturday in May and this was latest possible date for the count which may have contributed to our missing a few migrating birds. Overall, it was a job well done and I want to thank all those who participated.

Jim Neal

Buncombe County: count date 15 May, 111 species, 4,148 individuals, 17 participants in 8 parties, 69.50 party-hours.

Weather: Morning temperatures hovered in the low to mid-50s with partly cloudy to overcast skies and wind speeds between 0 and 10 mph. Skies remained partly to mostly cloudy in the afternoon, with temperatures in the upper 60s and wind speeds 0–10 mph.

Compiler: Jamie Harrelson (jharrelson84@gmail.com)

Participants: Ashley Case, Nancy Casey, Bill Fisk, Peggy Franklin, Jamie Harrelson, Griffin Hauser, Gail and Herman Lankford, Joe Meyer, Janie Owens, Kitti Reynolds, Russell Roe, Mark Simpson, Tom Tribble, Lou Weber, Marilyn Westphal, Ruth Young

Exclusives: Warbling Vireo, Cerulean Warbler

Notes: Birding was somewhat slow over much of the count area, most likely due to the cool temperatures. Our total for the count was one species higher than the total last year and was tied with the 2002 count as the second-lowest total in the past eleven years. The total number of birds was slightly below average. The number of participants was below average, possibly impacting our species total for the count. While raptor numbers were low for this count, we did find one very late Northern Harrier. A first for this count was Willow Flycatcher, which was found in two sections: in the vicinity of Warren Wilson College and in the section that includes the North Fork Reservoir. Notably absent from the count were Cooper's and Broad-winged Hawks, Brown-headed Nuthatch, Northern Parula, Magnolia, Cape May, and Pine Warblers. The late date for this count is a likely factor in the absence of some migrants. Numbers for the following species were low compared to the average since 2000: Eastern Phoebe, Eastern Kingbird, Blue-headed Vireo, Blue Jay, Tree Swallow, Carolina Chickadee, Carolina Wren, House Wren, Gray Catbird, Black-throated Green Warbler, Ovenbird, Song Sparrow, Bobolink, House Finch, and American Goldfinch. Totals were high for Rock Pigeon and Cedar Waxwing. Waxwing numbers were more than twice as high as the previous record for the past eleven years (2004) and almost four times as high as the average since 2000.

Thank you to those who helped with the count this year; we hope to see you again next year!

Jamie Harrelson

Black Mountains IBA: count date 28 May, 60 species, 1,342 individuals, 10 participants in 5 parties, 30.25 party-hours.

Weather: Fog in early morning, clearing before noon, temperature 45–70°F, wind 5–10mph.

Compiler: Marilyn Westphal (mjwestph@ret.unca.edu)

Participants: Sue Cameron, Chris Kelly, Gail and Herman Lankford, Nora Murdock, Kitti Reynolds, Steve Semanchuk, Mark Simpson, Marilyn Westphal, and Troy Wilson

Exclusives: none

Notes: The Black Mountains spring bird count covers some of the highest-elevation areas in eastern North America and, although it also includes some lower-elevation areas near the base of the ridge, most of the species found are typical of high elevations in NC and are those more commonly found much farther north. The count was conducted on 28 May. The weather is very changeable in that area and birders often spend much of the morning in the chilly clouds. This year the weather during the count was milder than usual and the early morning fog burned off quickly. A total of 60 species were found, which is about average for the count. The area covered

is much smaller than the Balsam Mountains count area and includes the Blue Ridge Parkway from mile marker 344 to 360 and adjacent trails, Mount Mitchell State Park, and the forest roads down to the Black Mountains campground. This was the fifth year the count was conducted.

Most common species found on the count included: Black-throated Green Warbler (135), Dark-eyed Junco (125), Golden-crowned Kinglet (87), Veery (78), Black-throated Blue Warbler (73), Canada Warbler (67), Blackburnian Warbler (61), Indigo Bunting (56), Blue-headed Vireo (54), and Red-breasted Nuthatch (50). As with the Balsam Mountains count, Veery numbers were at a record high. High numbers were also recorded for Swainson's Thrush (5—proof of breeding for this species in the Black Mountains will continue to be sought this year), and for Blackburnian Warbler, a species that seems to be thriving in the Black Mountains this year. Red Crossbill also reached a high count of 32. This looks like it could be a good breeding season for that species, although it is still early as nesting doesn't usually begin until July. However, the spruce cone crop is looking very good this year.

As with the Balsam Mountains count, record low numbers of Blue-headed Vireo and Winter Wren (30—about half the average number) were found. Golden-crowned Kinglet numbers were also well below average and numbers of this species have followed a steady decline since the beginning of the count, although the number this year may also be at least partially affected by lack of coverage for a certain trail usually covered on the count. As with the Balsam Mountains count Dark-eyed Junco numbers, normally the most common bird on this count, were also below average. The only late migrant found on the count was a Yellow-rumped Warbler. This species has been found during the breeding season at Mount Mitchell on occasion and possible breeding is always suspected.

Many thanks to the 10 participants in five teams who spent 30.25 team-hours in the field and walked almost 23 miles covering this rather rugged area.

Marilyn Westphal

Grandfather Mountain IBA: count date 13 May, 71 species, 786 individuals, 6 participants in 3 parties, 32.00 party-hours.

Weather: Low 51–58°F, partly cloudy, winds calm to 5–10mph.

Compiler: Jesse Pope (highcountrybirder@yahoo.com)

Participants: Bob Cherry, Robin Diaz, Jill Goodwin, Katie Gray, Jesse Pope, Mickey Shortt, and 15 owl-prowl participants

Exclusives: none

Notes: We recorded 71 species and 786 individual birds! Most of the birding was above 4,000 ft in elevation, with some areas as low as 3,500 ft. I was very impressed by the number of species and birds considering we only have 93 species of confirmed breeders within the Grandfather Mountain State Park and the attraction area. More species occur within the Grandfather IBA that would include birds in the Julian Price Park on the Blue Ridge Parkway. A few of the birds we encountered were late migrants, and a few

were suspected breeders as well. One group birded the north side of Grandfather including the Profile Trail and along highway 105 and US 221 back toward the entrance to the Grandfather Mountain Stewardship Foundation attraction. Another group headed across the ridgeline of the Grandfather State Park and down to the Blue Ridge Parkway by way of the Grandfather Trail and the Daniel Boone Scout Trail. The final party birded along the Blue Ridge Parkway and Holloway Mtn. Road. I want to thank everyone who helped out with the count this inaugural year including Bob Cherry, Robin Diaz, Katie Gray, Mickey Shortt, Jill Goodwin, and the 15 folks who joined us for an owl prowling that night. We were lucky enough to hear two different Northern Saw-Whet Owls that night!!

Jesse Pope

Hanging Rock State Park IBA: count date 4 May, 59 species, 685 individuals, 6 participants in 3 parties, 9.00 party-hours.

Weather: Clear, calm, temperature 58 to 70°F

Compiler: Ron Morris (ronmorris@triad.rr.com)

Participants: Kim Brand, Jean Chamberlain, Howard Coston, Craig McCleary, Ron Morris, Jeremy Reiskind, Liz Schmid, Cindy and Chuck Thompson, and Catherine Thorington

Exclusives: none

Notes: There were several interesting aspects to this count. This is a very homogeneous count area. It's almost entirely upland forest with a few streams, plus a snippet of the Dan River at the bottom end of Indian Creek Trail. Because it is so uniform in habitat, it is to be expected that the number of species is relatively low. That's also a reflection of the small number of counters this park always attracts.

Here are some of the lowlights of this year's count.

- one hawk—a Red-shouldered
- 3 Red-bellied woodpeckers!
- 1 Downy woodpecker!
- 4 White-breasted Nuthatches
- 1 Rose-breasted Grosbeak
- 10 thrushes, including Robins and Bluebirds
- 12 warbler species

Now the highlights:

- 110 Red-eyed vireos (probably undercounted)
- good numbers of some warbler species: Black-throated Blue, Yellow-rumped, Black-throated Green, Pine, Black-and-white, Ovenbird, Hooded
- 12 Scarlet tanagers
- a nice male Canada warbler was probably the best bird of the day.

No matter how you analyze it, a beautiful morning in a beautiful park!

Thanks to everyone for your help.

Ron Morris

Piedmont

Iredell County: count date 1 May, 82 species, 1,403 individuals, 7 participants, 30.00 party-hours.

Weather: Clear and sunny, temperature 60–80°F, no measurable wind.

Compiler: Garnet Underwood (guwood@gmail.com)

Participants: Debbie Birnley, Sam Cathey, Cynthia Dickerson, Bill English, Larry Marlin, Garnet and Ron Underwood

Exclusives: Nashville Warbler, Vesper Sparrow

Notes: Our count location is centered on the South Yadkin River bridge crossing at Chipley Ford Road in northern Iredell County, North Carolina.

GPS coordinates N 35.89663 W 80.8997

Four Vesper Sparrows and 20 Grasshopper Sparrows were good counts for our area, as was the flock of nine Double-crested Cormorants. Nashville Warbler was an added bonus.

Garnet Underwood

Mecklenberg County: count date 30 April, 124 species, 5,993 individuals, 28 participants in 10 parties, 74.00 party-hours.

Weather: Sunny, light winds, high temperature around 80°F.

Compiler: Jeff Lemons (birdsalot@gmail.com)

Participants: Larry and Louise Barden, Robert Bustle, Ron Clark, Susan Ellerman, Jan and Phil Fowler and daughter, Sharon Freedman, Bob and Nancy Haussler, Carol Horton, Ken Kneidel, Dennis Lankford, Jeff Lemons, Jill Palmer, Taylor Piephoff, John Scavetto, Lauren Schnexeider, Dean and Vivian Sprehe, Will Stuart, Chris Talkington, Steve Tracy, Judy Walker, Harriet Whitsett, David and Marcia Wright

Exclusives: Western Sandpiper, Rusty Blackbird

Notes: The Charlotte Spring Bird Count was held Sat. April 30. This was six days later than the 2010 count. The group managed to locate 124 species on count day plus four count week birds (White-rumped Sandpiper, Semipalmated Sandpiper, Bay-breasted Warbler, Snowy Egret). Many groups noted a lack of new migrants and very few tanagers but as a group a nice selection was found. There were very few lingering ducks, with only Ruddy Duck and Blue-winged Teal located plus a handful of shorebirds, with Solitary Sandpiper being the most numerous.

Highlights included: Nineteen warbler species plus one during count week were located vs. 20 warblers in 2010; Grasshopper Sparrows from two separate locations: Pineville and Renaissance Golf Course; a pair of Horned Larks exhibiting aggressive behavior (the date is within the Breeding Bird Atlas Safe Dates indicating probable breeding); a Eurasian Collared-Dove sitting on nest in Pineville; Common Raven at the Vulcan Quarry; seven Yellow-crowned Night-Herons on nests; and Cliff and Bank Swallows. Thanks to all who participated. It was a great count and a beautiful day.

Jeff Lemons

Forsyth County: count date 7 May, 125 species, 4,751 individuals, 40 participants, 71.50 party-hours.

Weather: 60–85°F, clear.

Compiler: Chuck Thompson (cosmo6190@yahoo.com)

Participants: Kim Brand, Howard Coston, Phil Crisp, Doug Demarest, Patty Demarest, David Disher, Susan Disher, Cynthia Donaldson, Gardner Gidley, Margaret Gidley, Bill Gifford, Lucy Gifford, Jim Grizzard, Mary Grizzard, John Haire, Bill Hammond, Elaine Hammond, John Hammond, Susan Hammond, Marbry Hopkins, George Hough, Liza Hough, Royce Hough, Bill Jackson, Ray Kandt, Marilyn McDonald, Tom McKay, Ron Morris, Paul Powers, Jeremy Reiskind, Gene Schepker, Lois Schneider, David Shuford, Miles Silman, Mark Simpson, Allison Sloan, Chuck Thompson, Cindy Thompson, Katherine Thorington, Marilyn Westphal

Exclusives: Philadelphia Vireo, Sedge Wren, Gray-cheeked Thrush

Notes: Number of participants, party hours, and individual bird count were less than average, while species count was average, and party-hours were above average. The most unusual species found this year included Sedge Wren and Philadelphia Vireo. Three additional species were found during count week, bringing the species count for the period to 128.

Chuck Thompson

Greensboro: count date 7 May, 124 species, 7,837 individuals, 34 participants, 106.83 party-hours.

Weather: Low 46°F–High 72°F, wind 0–10 mph, mostly sunny.

Compiler: Elizabeth Link (elzlink@yahoo.com)

Participants: Carolyn Allen, Joyce Bartlett, John Bowles, Louise Brown, Stephen Bryant, Dennis Burnette, Sue Cole, Scott DePue, Judi Durr, Tom Gaffney, Herb Hendrickson, Amelia Kane, Margaret Kane, Martin Kane, Craig Lawrence, Jane Lewis, Elizabeth Link, Henry Link, Clarence Mattocks, Gregg Morris, Lynn Moseley, Jean Murdick, Gayle Nadel, Lane Oldham, Danny Royster, Wallace Sills, Lou Skrabec, Lauren Spence, Jim Strickland, Emily Talbert, David Trask, Emily Tyler, Ann Walter-Fromson, George Wheaton, Melissa Whitmire

Exclusives: American Wigeon, Pectoral Sandpiper

Notes: The weather was perfect for this year's count, with mild temperatures and lots of sun. However, the exceptional weather did not lead to an exceptional count. The count date was later than usual, and as warbler migration seemed to have peaked at least a week before, warbler numbers were lower than usual. Our species count was within the average range for the last ten years (low of 114 species in 2004, and high of 136 species in 2005), helped in part by the number of lingering waterfowl, including American Wigeon, Blue-winged Teal, Red-breasted Merganser, and a female Hooded Merganser with four recently-hatched young. Pectoral Sandpiper, Grasshopper Sparrow, and Bobolink were among species located that don't always appear for our count. The number of Yellow-crowned Night-Herons was down, due to the apparent failure of one colony—we now have only a

single nest known to be in the count circle, in a different location from the colony that failed.

Elizabeth Link

Southern Pines: count date 1 May, 133 species, 6,290 individuals, 21 participants, 69.56 party-hours.

Weather: 50–75°F, partly cloudy, wind ESE at 1–7mph.

Compiler: Susan Campbell—susan@ncaves.com

Participants: Rex Badgett, Brady Beck, Carol Bowman, Susan Campbell, J. H. Carter III, Bob Ganis, Chris Ganis, Tom Howard, Alicia Jackson, Linda Jones, Matthew King, Marjorie Ludwig, David McCloy, Carolyn McDermott, Jeff Marcus, Dan Pieroni, Jessie Schillaci, Bruce Sorrie, Lowell and Susan Strine, Cassie Willis

Exclusives: Mute Swan, Common Nighthawk, Lark Sparrow

Notes: We had nice weather and a good mix of remnant wintering birds as well as early breeders and migrants. The grebes, siskins and Red-breasted Nuthatch were rather late winter holdovers. Mississippi Kite is a frequent migrant here but a first on a spring count. Caspian Tern was definitely our biggest surprise. Due to a number of folks with conflicts, effort was down this year but we did well nonetheless.

Susan Campbell

Chapel Hill: count date 7 May, 118 species, 8,856 individuals, 41 participants, 128.80 party-hours.

Weather: low 55°F, high 74°F; wind WSW 5 mph; mostly cloudy, no rain.

Compiler: Will Cook (cwcook@duke.edu)

Participants: Sam Baron, Thierry Besançon, Betsy Bogle, Chuck Byrd, Catherine Carter, Bob Chase, Mary Chase, Will Cook, Anson R. Cooke, Tom Driscoll, Maurice Graves, Steven Graves, Perry Haaland, Rachel Harden, Nancy Hinrichs, Carl Hintz, Loren Hintz, Bo Howes, Dietrick Kessler, Betty King, Jay Linke, Ken Lundstrom, Marty McClelland, Robert Meehan, Marge Miles, David Murdock, Lynn Ogden, Jane Oliver, Candace Owens, Deane Paul, Harriet Sato, Bev Scalise, Chad Schoen, Doug Shadwick, Darryl Spancake, Shelley Theye, Pam Timmons, Ginger Travis, Amalie Tuffin, Phil Warren, and Bob Winstead. Feeder watchers include Florence McCachren, Carolina and Harry Pederson, Joan Redmann, and Jerrold and Joan Walecka.

Exclusives: none

Notes: The Chapel Hill spring count on May 7 was a fairly uneventful one, with a low 118 species, well below the 10-year average of 124 species. Observer effort was also well below average at 128.8 party-hours (average 153.1), and so the number of individual birds counted was a low 8856 (average 10,994). The number of birds per party-hour was near normal (68.8, average 71.9). The 13-year periodical cicadas were out, but not loud enough to affect the bird counting.

The one outstanding rarity of the count this year was King Rail: Ginger Travis and Marty McClelland heard two calling from the rushes at the south end of University Lake, which they covered by kayak. This is only our second for the count, with the first only in 2008, though they have nested at Mason Farm. Will Cook and Catherine Carter found a few good birds at the southwest Durham wastewater plant, including both Greater and Lesser Yellowlegs, Least Sandpipers, and our only Savannah Sparrows of the count. Other goodies included a Hermit Thrush (Shelley Theye) and 3 lingering Pine Siskins (Robert Meehan). Yellow-crowned Night-Herons used to be rare on the count, but lately they're being found in increasing numbers as more are breeding near impoundments on the outer fringes of Jordan Lake. This year Betty King's party and Chuck Byrd both got 5 at two different heronries and Will Cook had a flyby far from water in suburban Chapel Hill. Northern Bobwhite is still barely clinging on, with this year's count doubling last year's one individual.

We set a few record highs: the total of 11 Yellow-crowned Night-Herons handily beats the old record of seven set in 2008, Cliff Swallows are thriving at Jordan Lake (39 this year, 26 in 2001), and Song Sparrows continue to colonize suburban streams (69 this year, 59 in 2007). The totals for Mallard and Green Heron were the highest in 10 years.

There were no big misses but many low counts. Unusually scarce species included Wood Duck (lowest since 1990), Double-crested Cormorant (1995), Bald Eagle (1997), Eastern Kingbird (1974), House Wren (1996), Blue-gray Gnatcatcher (1996), Brown Thrasher (1997), Northern Parula (2000), Yellow-rumped Warbler (2000), Yellow-throated Warbler (2001), Prothonotary Warbler (1999), Ovenbird (1999), Hooded Warbler (1994), Summer Tanager (1999), Eastern Towhee (1999), Common Grackle (1974). The species with the most precipitous decline was Bald Eagle, with 54 in 2009, 37 last year, and just 8 this year.

Team honors: Doug Shadwick and Thierry Besançon, covering the northern reaches of Jordan Lake at New Hope Creek, got the top species count with 81, edging out Will Cook's Mason Farm team with 80. Once again Tom Driscoll and Bo Howes counted the most individual birds, 1262, followed by Pam Timmons and Perry Haaland at Dairyland Road with 1046.

Thanks to our dedicated crew of 41 field counters and seven feeder watchers!

Charles W. "Will" Cook

Jordan Lake: count date 8 May, 133 species, 7,644 individuals, 44 participants in 19 parties, 119.33 party-hours.

Weather: Low 55, high 70°F; wind calm to light and variable, overcast with light rain first half of morning.

Compiler: Norm Budnitz (rbudnitz@gmail.com)

Participants: Barbara Beaman, Elizabeth Bishop, Todd Bishop, Stephen Buczynski, Norm Budnitz, Chuck Byrd, Carl Chelette, Barbara Coffman, Patrick Coin, Will Cook, Anson Cooke, Dwayne Cooke, Tom Driscoll, Lyle Estill, Martha Girolami, Perry Haaland, Walton Haywood, Carol Hewitt,

Carl Hintz, Loren Hintz, Bo Howes, Betty Kingsley, Gene Kingsley, Beth Mancuso, Phil Manning, Marty McClelland, Steve McMurray, Melinda Meade, Kyle Mills, Mickey Mills, Rick Payne, Carl Rothfels, Harriet Sato, Lois Schultz, Mike Schultz, Doug Shadwick, Pam Timmons, Ginger Travis, Andy Upshaw, David Van Ness, Millicent Van Ness, Phil Warren, Carol Williamson, Rouse Wilson

Exclusives: none

Notes: May 8, 2011, was a cool and somewhat wet spring day, with temperatures ranging from 55°F in the morning to 70°F in the afternoon. The skies were overcast for most of the day, with light to moderate rain in the early morning. Winds were calm to light and variable. And Brood XIX of the 13-year cicadas was putting on quite a show. At times during the day they could be accused of trying to restrict the audio portion of our program!

Because there were a number of other events going on that day (Carolina Bird Club meeting, Mother's Day, rain), our participation was a bit low. However, those who didn't make it out missed seeing some very nice birds. Forty-four observers (not much lower than our 10-year average: 47) in 19 parties (10-year average: 22) tallied 7,644 individual birds (mean 8,270)—a little low, but not drastic. But this is what made the day interesting for many of us: We identified 133 species, well above our 10-year average of 125, our highest species count since 2002 when we also had 133. And this was with just 119 party hours in the field, well below our average of 141. Fewer observers in fewer parties and less cumulative time in the field usually mean lower numbers of species and individual birds, as seemed to be the case last year. But that was not the case this year. Read on for some of the highlights, more or less in phylogenetic order.

Ring-necked Duck, 4: ties the record from 2002—Carol Williamson and Carl Chelette; Will Cook and Carl Rothfels.

Common Merganser, 2: ties the record from 2005—Perry Haaland and Pam Timmons.

Peregrine Falcon, 1: third sighting in the history of the count—Lois and Mike Schultz.

King Rail, 4: found again by kayak—Marty McClelland and Ginger Travis. One wonders how many more are out there in places we never get to.

Lesser Yellowlegs, 8: recent record (208 in 1979 when the lake was being filled)—Lois and Mike Schultz.

Semipalmated Sandpiper, 4: first sighting in 10 years—Lois and Mike Schultz.

Wilson's Snipe, 1: second sighting in 10 years—Norm Budnitz and Gene Kingsley.

Caspian Tern, 1: third sighting in 10 years—Lois and Mike Schultz.

Yellow-bellied Sapsucker, 1: second sighting in 10 years—Anson Cooke, Dwayne Cooke, and Harriet Sato

American Pipit, 1: first spring sighting since 1979 (when lake was being filled)—Will Cook and Carl Rothfels.

Blackburnian Warbler, 1: first since 1997—Carol Williamson and Carl Chelette.

As seems to be the case every year, we generated a few new record numbers for some species: Red-headed Woodpeckers, 36 (previous high was 32 in 2010); Fish Crows, 58 (57 in 2010); Northern Mockingbird, 169 (157 in 2003); Cedar Waxwing, 366 (209 in 1999); and Chipping Sparrows, 223 (222 in 2010).

This year, a record low number of Wood Thrushes—19—was reported. This is not only way below the 10-year average of 60, but is way below the previous low count of 30, taken in 1977, the first year of the count, when only 24 people in 11 parties were counting. Other people throughout North Carolina have reported anecdotally similar low numbers of Wood Thrushes this spring. Breeding Bird Surveys in eastern North America have noted on-going declines of this species for more than a decade.

On a happier note, I believe we have a new record for number of species seen by one party. My data in electronic format only go back to 1998, and I have not delved into the hard-copy older data, but I believe the count of 95 species seen by Will Cook and Carl Rothfels sets a new record. The previous high of 93 species was seen by Ricky Davis in 2009, and he was freelancing, finding birds in many count areas, and therefore many habitats, all over the count circle. Congratulations, Will and Carl. Thank you all for counting.

Norm Budnitz

Durham: count date 1 May, 115 species, 6,124 individuals, 17 participants in 12 parties, 72.50 party-hours.

Weather: Temperature 55–74°F, skies clear, wind east 5–10mph.

Compiler: Mike Schultz (ross.gull@frontier.com)

Participants: Brian Bockhahn, Brian Bomberg, Norm Budnitz, Will Cook, Tom Driscoll, Cynthia Fox, Gene Kingsley, Tom Krakauer, Robert Meehan, Stephen Ruezynski, Lois Schultz, Michael Schultz, Doug Shadwick, Deck Stapleton, Amalie Tuffin, Edith Tatum, Scott Winton

Exclusives: American Bittern

Notes: This year's count was held on May 1st, the latest date ever in our history. The results varied from our norm as one might expect, with better numbers of summer residents, especially flycatchers, and far fewer Yellow-rumped Warblers. Our total species was a surprisingly low 115, down from an average of 120. Our effort in terms of hours and miles was at the lower end of our normal, so this may have had more to do with it than anything else. Wood Thrushes have been of special interest lately, and this year's count of 27 is nearly 50% below average for us, but not a record low. The numbers for the past few years, however, have been showing a steady steep decline.

Michael Schultz

Wake County: count date 14 May, 109 species, 3,211 individuals, 26 participants in 12 parties, 47.00 party-hours.

Weather: Nice weather throughout the day. Temperatures 55–75°F with increasing breezes to 5–10 mph and partly cloudy skies.

Compiler: John Connors (John.Connors@ncmail.net)

Participants: Julie Angerman-Stewart, Joe Bearden, Karen Bearden, Erla Beegle, Tom Bobalek, Brian Bockhahn, Sherree Brasher, Halbert Carmichael, John Connors, John Dole, Lena Gallitano, Diane Hardy, Sue Harvey, Lily Ivanov, Mark Johns, Will Kimler, Jim Mulholland, Monica Nees, Ed Owens, Louise Romanow, Annie Runyan, Patricia Savage, Clyde Smith, Bill Swallow, Erik Thomas, Mary Waller

Exclusives: none

Notes: Some interesting observations include: Common Loon (1) at Lake Wheeler; Great Egret (12) at three locations, which further begs the question are they nesting nearby; Hooded Merganser (1) at Lake Benson; Ring-necked Duck (2) at Yates Mill Pond. Most remarkable were Mississippi Kites (2) seen by John Connors flying above fields near Yates Mill Pond, and a Northern Harrier (1) seen by Jim Mulholland at the Mid-Pines fields. A Bobwhite (1) was heard by John Dole nearby. Encouraging was the number of Loggerhead Shrikes (9)—all separate adults—found at Lake Benson, Mid-Pines, Prairie Ridge and the NCSU Vet School. Tree Swallows were found at Lake Wheeler and Falls Lake; 17 species of warblers were found including: Yellow (4), Chestnut-sided (3), Magnolia (3), Black-throated Blue (7), Yellow-rumped (1), Black-and-white (5), American Redstart (16), and Northern Waterthrush (2). This is good diversity for so late in migration. A Kentucky Warbler was found on territory along Swift Creek below Lake Wheeler dam. Most wheat at Mid-Pines had been harvested and Bobolinks had disappeared, but Savannah Sparrows (6) remained on site. Grasshopper Sparrow (1) was found at Mid-Pines, and the Field Sparrow (7) population at Anderson Point seems to be growing.

Significant misses include: Nightjars continue to be difficult to find—no Common Nighthawks have been seen in downtown Raleigh this season. Local breeders not found include: Prairie Warbler and Prothonotary Warbler. Falls Lake was included in this year's count, but Lake Raleigh, Lake Johnson and Walnut Creek were not. Umstead State Park had limited coverage.

Cliff Swallows continue nesting in northern Wake County along Neuse River bridges and have colonized bridges adjacent to Anderson Point. Great Blue Heron colonies seem to be thriving, though no active colonies are easily visible along count routes. Great Egret populations continue to expand. Purple Martin colony at University Club is near capacity; Prairie Ridge colony has increased, while that at the NC Museum of Art is empty. Anderson Point colony has not re-established. Meadow habitat at Prairie Ridge and Anderson Point continues to progress; Field Sparrows have begun using both sides, and Eastern Meadowlarks are well established at PR.

John Connors

Falls Lake: count date 27 April, 121 species, 5,621 individuals, 10 participants in 8 parties, 63.25 party-hours.

Weather: Mostly cloudy, rain at midday, temperature 64–76°F.
Compiler: Brian Bockhahn (birdranger248@gmail.com)

Participants: Herb Amyx, Brian Bockhahn, Ed Corey, Deborah Robertson, Jeri Smart, Josh Southern, Sterling Southern, Deck Stapleton, Brian Strong, Patty Tice

Exclusives: Northern Shoveler

Notes: The eighth Falls Lake Spring Bird Count was held on April 27, 2011 under mostly cloudy skies with midday rain and temperatures 64–76°F. Ten observers in 8 parties tallied a record-setting 121 species, one more than our previous record in 2007 and that was with 19 observers! We also tallied a record-high 5,621 birds, which means we worked harder and smarter!

First records: Northern Shoveler at Rollingview; Dark-eyed Junco near the dam; 2 Grasshopper Sparrows along Camp Kanata Road.

Second records: female Red-breasted Merganser off Sandling Beach; Great Egret at Rollingview; Common Tern off Rollingview perched on buoys;

Third records: Pied-billed Grebe in Wake Forest; Laughing Gull at Highway 50 boat ramp; Blackpoll Warbler at Sandling Beach; three parties reporting Pine Siskin.

Misses: second time missing Chuck-will's-widow; third time we've missed Yellow-billed Cuckoo; first time missing Purple Martin and third time missing American Redstart!

Many thanks to everyone who volunteered to count!

Brian Bockhahn

Kerr Lake: count date 28 April, 111 species, 3,109 individuals, 13 participants in 8 parties, 41.75 party-hours.

Weather: Cloudy, moderate winds and mild temperatures. 74–78°F.

Compiler: Brian Bockhahn (birdranger248@gmail.com)

Participants: Brian Bockhahn, Adam D'Onofrio, Bryce and Lori Fleming, Paul Glass, Fred Lobdell, Carol Mauzey, Grace McCrowell, Paul Scharf, Harry and Sandra Shoffner, Clyde Smith, and Deck Stapleton

Exclusives: none

Notes: The eighth Kerr Lake Spring Bird Count was held on April 28, 2011 under cloudy skies with some moderate winds and mild temperatures, 74–78°F. Twelve counters in eight parties recorded 111 species and 3109 individuals. We found many good birds, but with some misses the 111 ties our record low from the first year of the count! This shows that Kerr Lake always puts up big numbers!

First records: 1 Merlin near the Kerr Lake Dam; 1 Horned Lark in farm areas around Palmer Springs.

Second records: 1 Laughing Gull reported from Henderson Point and 1 below the dam, same bird?

Fourth records: 1 Greater Yellowlegs and 2 Least Sandpipers from a farm pond in Middleburg that's becoming infamous for shorebirds; 1 Bobolink in Palmer Springs.

Misses: Bonaparte's Gull, Caspian Tern, Yellow-billed Cuckoo, Ruby-crowned Kinglet, Palm Warbler, Louisiana Waterthrush and Rose-breasted Grosbeak.

Many thanks to everyone who volunteered to count!

Brian Bockhahn

Raven Rock State Park: count date 30 April, 113 species, 4,656 individuals, 16 participants in 10 parties, 75.50 party-hours.

Weather: Temperature 46–77°F, wind east 0–5mph, morning and afternoon sunny, water open.

Count circle center at junction of NC 210 and SR 1434.

Compiler: Erik R. Thomas (erthomas@ncsu.edu)

Participants: Jim Bateson, David Brown, Stephen Buczynski, David DuMond, Paul Hart, Tom Howard, Bobby Lutfy, Tim McGreal, Jeff Mielke, Larry Rose, Karin Reese, Kevin Reese, Mitch Reese, Erik Thomas, Amber Williams, Sandra Williams.

Exclusives: none

Notes: The total of 113 species was a little higher than last year's 110. Good finds included Blackburnian Warbler by Tim McGreal, a Magnolia Warbler by Paul Hart, and Veeries by David Brown and David Dumond. Three different parties reported Bobolinks.

Coast

Onslow County: count date 30 April, 151 species, 6,634 individuals, 22 participants in 11 parties, 70.25 party-hours.

Weather: A pleasant spring day, temperature 55–78°F, skies clear, wind from southeast at 7 to 13mph.

Compiler: Andy Webb (andywebb2008@live.com)

Participants: Clancy Ballenger, Rich Boyd, Susan Boyd, Jim Craig, Wade Fuller, John Fussell, Al Gamache, Buddy Garrett, Barbara Gould, Martin Korenek, Jim O'Donnell Sr., Dick Parmore, Steve Shaffer, Mark Shields, Bruce Smithson, Kelly Tingle, Tim Trott, Jake Vitak, Andy Webb, Elizabeth White, Amy Williamson, and Kelly Zivicki

Exclusives: Northern Gannet, Brown Pelican, Great Cormorant, Snowy Egret, Tricolored Heron, Cattle Egret, White Ibis, Clapper Rail, Black-bellied Plover, Wilson's Plover, Piping Plover, American Oystercatcher, Black-necked Stilt, Willet, Whimbrel, Marbled Godwit, Ruddy Turnstone, Red Knot, Sanderling, Dunlin, Short-billed Dowitcher, Royal Tern, Sandwich Tern, Forster's Tern, Least Tern, Black Skimmer, Saltmarsh Sparrow, Seaside Sparrow, Painted Bunting, Boat-tailed Grackle

Notes: The 16th annual Onslow County Spring bird count was held Saturday April 30, 2011. It was a very pleasant spring day, with great

weather for birding. The temperatures ranged from a low of 55 to a high of 78, which was slightly above average temperatures for this date, visibility was unrestricted and skies were mostly clear. The wind was from the southeast at 7 mph occasionally gusting to 13 mph.

There were 22 observers in 11 parties who tallied 6,634 individual birds (count mean 7,086), and 151 species (count mean 152), during 70.25 party hours in the field. There was one species located that was a first for this count.

The most interesting find was a Horned Grebe found by John Fussell, Barbara Gould, and Tim Trott at Bear Island. This species is not unusual for Onslow County, but this was the first recorded on count day. Other good finds included Northern Harrier, Merlin, Marbled Godwit, American Woodcock, and Saltmarsh Sparrow. Most abundant species on the count were Laughing Gull (280) and Mourning Dove (265) which were no surprise. We had count highs for Wild Turkey with (23), both Turkey (162) and Black Vultures (13), Sandwich Tern (213), Great Crested Flycatcher (124), Blue Jay (87), American Crow (124), Northern Mockingbird (134), Northern Cardinal (178), Common Grackle (228), Orchard Oriole (62), and House Finch (37). Some notable misses were Red-breasted Merganser, Little Blue Heron, Eurasian Collared-Dove, Great Horned Owl, Common Nighthawk, Blue-headed Vireo, and Louisiana Waterthrush.

All in all it was a great day to be birding with a great team of birders. Onslow County is a large geographical area and the challenge is getting enough birders in the field to obtain adequate coverage. I would like to thank Jake Vitak, a park ranger at Hammocks Beach State Park, for providing coverage and transportation via boat and ATV, and Marty Korenek and his team of three that provided coverage, although sparse, at Camp Lejeune.

Thanks for counting.

Andy Webb

Table 1. 2011 spring counts in North Carolina

species	date	Trans	Bals	Hend	Bunc	Mrs	Bl	Grdr	Hang	Ired	Meck	Fors	Grbr	SoPt	ChH	Jord	Durh	Wake	Falls	Kerr	RaRo	Onsl	total	per party-hour		
		5/7	5/21	5/14	5/15	5/28	5/13	5/4	5/1	4/30	5/7	5/7	5/1	5/7	5/8	5/1	5/14	4/27	4/28	4/30	4/30	mtus		plid	coast	
Canada Goose		76		95	83			2	16	40	287	116	585	200	304	155	192	123	95	74	128	85	2656	0.89	2.55	1.21
Mute Swan														8									8	0.00	0.01	0.00
Wood Duck		1		6	7						8	10		25	18	16	35	16	10	8	28	9	197	0.05	0.19	0.13
American Wigeon													2										2	0.00	0.00	0.00
American Black Duck													9									6	15	0.00	0.01	0.09
Mallard		5	1	66	59					9	125	67	155	66	106	66	21	89	23	5	25	15	903	0.43	0.84	0.21
Blue-winged Teal											2	1	cw				2						5	0.00	0.01	0.00
Northern Shoveler																			1				1	0.00	0.00	0.00
Ring-necked Duck												1				4		1					8	0.00	0.01	0.03
Lesser Scaup														3								1	4	0.00	0.00	0.01
Bufflehead																1		1		4			5	0.00	0.01	0.00
Hooded Merganser		1												2				1					4	0.00	0.00	0.00
Common Merganser													5			2							7	0.00	0.01	0.00
Red-breasted Merganser													4						1				5	0.00	0.01	0.00
Ruddy Duck											1			3								85	89	0.00	0.00	1.21
Northern Bobwhite					5						1	6		19	2	2	2	1	1	3	3	12	57	0.02	0.04	0.17
Ruffed Grouse			6		2		3	2															13	0.04	0.00	0.00
Wild Turkey		4	3	1	30		5		1		cw	1	1	7		1	7		12	10	21	23	127	0.14	0.07	0.33
Common Loon												1		1		1		1	5	1		2	12	0.00	0.01	0.03
Pied-billed Grebe														1					1	1		3	6	0.00	0.00	0.04
Horned Grebe														1								1	2	0.00	0.00	0.00
Northern Gannet																						40	40	0.00	0.00	0.57
Double Crested Cormorant		1								9	1	8	32	7	51	404	309	14	97	178	47	76	1234	0.00	1.28	1.08
Great Cormorant																						1	1	0.00	0.00	0.01
Brown Pelican																						57	57	0.00	0.00	0.81

species	Trans	Bals	Hend	Mis Bunc	Bl	Grdfr	Hang	Ired	Meck	Fors	Grbr	SoPi	ChHI	Jord	Durh 1	Wake	Falls	Kerr	RaRo	Onsl	total	mtus	pled	coast
American Bittern																					1	0.00	0.00	0.00
Great Blue Heron	11		1	4				3	26	18	136	17	85	126	80	32	48	22	18	13	640	0.05	0.68	0.19
Great Egret														5	1	12	1		1	42	62	0.00	0.02	0.60
Snowy Egret									cw											23	23	0.00	0.00	0.33
Tricolored Heron																				3	3	0.00	0.00	0.04
Cattle Egret																				27	27	0.00	0.00	0.38
Green Heron	1		3	5				18	6	15	8	16	5	4	7	5			7	11	111	0.03	0.10	0.16
Yellow-crowned Night- Heron								8	5				11								24	0.00	0.03	0.00
White Ibis																				85	85	0.00	0.00	1.21
Black Vulture	8	3	3	1		2	18	15	16	30	8	63	53	87	3	18	59	5	13	405	0.06	0.42	0.19	
Turkey Vulture	33	18	19	45		20	24	25	46	37	58	90	147	81	15	49	57	85	162	1011	0.44	0.79	2.31	
Osprey	3	1					1	3			9	1	11	40	20		21	10	3	34	157	0.01	0.13	0.48
Mississippi Kite										cw		1				2					3	0.00	0.00	0.00
Bald Eagle											2	3	8	31	8	1	14	6		6	79	0.00	0.08	0.09
Northern Harrier				1											1	1				1	4	0.00	0.00	0.01
Sharp-shinned Hawk	3	2		1		1					2			1			1	1	1	1	14	0.02	0.01	0.01
Cooper's Hawk	1		1			1		8	4	6	3	2	2	1	2	3	3	2	1	1	39	0.01	0.04	0.01
Accipiter sp.											1			2							3	0.00	0.00	0.00
Red-shouldered Hawk	8	1		1		1	9	20	17	30	15	42	12	22	12	7	2	20	19	238	0.04	0.23	0.27	
Broad-winged Hawk	4	10			7			13		cw	2	1		1		1	1	7	2	48	0.07	0.03	0.03	
Red-tailed Hawk	7	7	5	5			4	15	26	27	13	21	21	12	21	12	8	2	8	5	198	0.08	0.19	0.07
Buteo sp.														2							2	0.00	0.00	0.00
American Kestrel								2	1	1	6	2	2	1	2				*		15	0.00	0.02	0.00
Merlin																		1		1	2	0.00	0.00	0.01
Peregrine Falcon		2												1				1			3	0.01	0.00	0.00
Falco, sp													1								1		0.00	0.00
Clapper Rail																				11	11	0.00	0.00	0.16
King Rail													2	4							6	0.00	0.01	0.00
American Coot														2						3	5	0.00	0.00	0.04
Black-bellied Plover														2						100	100	0.00	0.00	1.42

species	Trans	Bals	Hend	Mts Bunc	Bl	Grdfr	Hang	Ired	Meck	Fors	Grbr	SoPl	ChHl	Jord	Durh	Wake	Falls	Kerr	RaRo	Onsl	total	mtus	pled	coast
Wilson's Plover																				15	15	0.00	0.00	0.21
Semipalmated Plover																				187	189	0.00	0.00	2.66
Piping Plover																				5	5	0.00	0.00	0.07
Killdeer	1		7	9				8	35	30	39	29	36	20	19	9	21	17	54	53	387	0.06	0.35	0.75
American Oystercatcher																				10	10	0.00	0.00	0.14
Black-necked Stilt																				1	1	0.00	0.00	0.01
Spotted Sandpiper	2		1	2					10	54	19	8	18	44	2	12	5	3	10	5	195	0.02	0.21	0.07
Solitary Sandpiper			2	1					17	47	34	7	15	9	10	12	1		8	5	168	0.01	0.18	0.07
Greater Yellowlegs											2	2	4					1		30	39	0.00	0.01	0.43
Willet																				38	38	0.00	0.00	0.54
Lesser Yellowlegs			1					8	3	7			1	8						10	38	0.00	0.03	0.14
Whimbrel																				22	22	0.00	0.00	0.31
Marbled Godwit																				1	1	0.00	0.00	0.01
Ruddy Turnstone																				2	2	0.00	0.00	0.03
Red Knot																				24	24	0.00	0.00	0.34
Sanderling																				181	181	0.00	0.00	2.58
Semipalmated Sandpiper									cw					4		3				22	29	0.00	0.01	0.31
Western Sandpiper									1												1	0.00	0.00	0.00
Least Sandpiper									24	23	7		10	7		31		2	32	69	205	0.00	0.15	0.98
White-rumped Sandpiper									cw												0	0.00	0.00	0.00
sandpiper sp.														7							7	0.00	0.01	0.00
Pectoral Sandpiper											3										3	0.00	0.00	0.00
Dunlin																				98	98	0.00	0.00	1.40
Short-billed Dowitcher																				50	50	0.00	0.00	0.71
Wilson's Snipe												1		1							2	0.00	0.00	0.00
American Woodcock						1		1				2								3	7	0.00	0.00	0.04
Bonaparte's Gull														4						6	10	0.00	0.00	0.09
Laughing Gull																	15	2		280	297	0.00	0.02	3.99
Ring-billed Gull								10	4	14				41	110	12	1995	137		95	2418	0.00	2.58	1.35
Herring Gull																	6			49	55	0.00	0.01	0.70
gull sp.														1							1	0.00	0.00	0.00

species	Trans	Bals	Hend	Bunc	Mis	Bl	Gdrfr	Hang	Ired	Meck	Fors	Grbr	SoPi	ChHl	Jord	Durh	Wake	Falls	Kerr	RaRo	Onsl	total	mtus	pled	coast	
Least Tern																					189	189	0.00	0.00	2.69	
Caspian Tern													1		1						1	3	0.00	0.00	0.01	
Common Tern																			1		35	36	0.00	0.00	0.50	
Forster's Tern																					38	38	0.00	0.00	0.54	
Royal Tern																					202	202	0.00	0.00	2.88	
Sandwich Tern																					213	213	0.00	0.00	3.03	
Black Skimmer																					41	41	0.00	0.00	0.58	
Rock Pigeon	3		19	52					8	55	25	41	7	9	23	20	73	13	25	15	14	402	0.24	0.35	0.20	
Eurasian Collared-Dove										1											2	3	0.00	0.00	0.00	
Mourning Dove	45	11	85	95	1	10	6	70	179	85	241	219	192	164	142	116	98	95	239	265	2358	0.83	2.04	3.77		
Yellow-billed Cuckoo		4	6	3	1					6				22	27	18	9			10	9	115	0.05	0.10	0.13	
Black-billed Cuckoo		1		1																	2	2	0.01	0.00	0.00	
Eastern Screech-Owl					1	1			1				2		1				2	4	5	17	0.01	0.01	0.07	
Great Horned Owl					1				1		2	1		1	1			3	2	6	18	0.00	0.02	0.00		
Barred Owl		2		1	1	2		3	3	7	5	3	8	5	16	6		9	3	6	1	81	0.02	0.08	0.01	
Northern Saw-whet Owl		3			3	2																8	0.03	0.00	0.00	
Common Nighthawk												cw	37									37	0.00	0.04	0.00	
Chuck-will's-widow									1					48		2			1	8	35	95	0.00	0.07	0.50	
Eastern Whip-poor-will	2								1		1		12	7	2				2	2	1	2	32	0.01	0.03	0.03
Chimney Swift	8	39	19	64	10	8	2	12	235	169	152	200	125	90	52	79	23	7	76	40	1410	0.49	1.35	0.57		
Ruby-throated																										
Hummingbird	14	4	4	8	4	4	1	6	17	19	7	14	46	10	22	14	11	4	10	3	222	0.13	0.20	0.04		
Belted Kingfisher	1		2	1				1	8	1	9	10	10	8	6	5	11	2			1	76	0.01	0.08	0.01	
Red-headed Woodpecker									25		8	25	15	36	11	4	14	6	2	40	186	0.00	0.16	0.57		
Red-bellied Woodpecker	43	2	23	27			3	10	77	62	93	103	188	97	101	57	42	22	56	39	1045	0.32	1.01	0.56		
Yellow-bellied Sapsucker	1	3		2		1		1	1					1							10	0.02	0.00	0.00		
Downy Woodpecker	18	8	12	12	3	2	1	4	43	32	33	27	55	24	41	25	20	6	11	7	384	0.18	0.36	0.10		
Hairy Woodpecker	1	13	3	4	4	2	1		11	2	3	5	9	9	7	4	10	5	3	1	97	0.09	0.08	0.01		
Red-cockaded																										
Woodpecker													12								2	14	0.00	0.01	0.03	
Northern Flicker	1	4	7	15						5	11	21	19	17	14	27	9	12	7	1	11	181	0.09	0.16	0.16	

species	Trans	Bals	Hend	Bunc	Mis	Bl	Grdfr	Hang	Ired	Meck	Fors	Grbr	SoPl	ChH	Jord	Durh	Wake	Falls	Kerr	RaRo	Onsl	total	mtus	pled	coast
Pileated Woodpecker	12	12	7	22	4	2	2	5		2	5	4	29	21	19	12	8	12	8	13	17	214	0.21	0.15	0.24
Eastern Wood-Pewee	2	17	6	15	7	2	2			16	8	8	51	35	65	14	17	8	2	22	31	326	0.16	0.27	0.44
Acadian Flycatcher	7	6	17	4	14			3		8	4	4	23	64	9	18	25	20	14	20	14	274	0.17	0.23	0.20
Alder Flycatcher		11			1																	12	0.04	0.00	0.00
Willow Flycatcher	1		8	2																		11	0.04	0.00	0.00
Least Flycatcher		16																				16	0.05	0.00	0.00
Eastern Phoebe	24	7	11	24	2	1	10	5	51	25	20	47	57	47	41	19	17	10	21			439	0.26	0.40	0.00
Great Crested Flycatcher	5	1	3	7			11	3	39	42	246	81	97	74	43	74	43	85	124			978	0.09	0.92	1.77
Eastern Kingbird	5		5	5				15	15	20	26	161	21	66	27	23	21	32	60	63		565	0.05	0.54	0.90
Loggerhead Shrike												3					9			13		25	0.00	0.03	0.00
White-eyed Vireo	10		9	1					10	4	5	62	23	21	35	2	27	33	32	17		291	0.07	0.28	0.24
Yellow-throated Vireo				3				1		1	2	10	13	13	9	2	12	12	5	10		93	0.01	0.09	0.14
Blue-headed Vireo	17	105	3	39	54	17	2	4				6	3	2	8			8	3			271	0.78	0.04	0.00
Warbling Vireo				2																		2	0.01	0.00	0.00
Philadelphia Vireo											1											1	0.00	0.00	0.00
Red-eyed Vireo	50	111	43	143	28	21	110	12	65	66	84	76	222	209	199	81	104	141	87	34		1886	1.66	1.49	0.48
Blue Jay	41	22	47	62	7	19	4	19	61	88	164	130	160	107	87	45	23	38	95	87		1306	0.66	1.13	1.24
American Crow	234	102	133	175	16	32	37	59	175	171	276	281	249	261	170	97	99	84	233	124		3008	2.39	2.39	1.77
Fish Crow			1					1	27	22	25	77	68	58	21	32	39	22	7	30		430	0.00	0.44	0.43
Common Raven	1	24	2	11	1	10	1	4	3	2												59	0.16	0.01	0.00
Crow sp.												20		6					10			36	0.00	0.04	0.00
Horned Lark								53	2			19						1	10			85	0.00	0.09	0.00
Purple Martin	21		10	4				37	2	13	542	78	57	37	18	35		24	108	178		1164	0.11	1.06	2.53
Tree Swallow	60		23	17		3	10	2	5	17	54	2	13	38	13	3	33	20	1	2		316	0.37	0.22	0.03
Northern Rough-winged Swallow	21		48	27		10		3	91	56	68	33	59	55	33	26	48	28	35	18		659	0.35	0.59	0.26
Bank Swallow			2						1	2	2	9										16	0.01	0.02	0.00
Cliff Swallow			6						30	181	6		39	111	15	10	31	29		4		462	0.02	0.50	0.06
Barn Swallow	184	1	50	75		7	6	72	58	110	96	51	79	140	62	90	58	36	102	215		1492	1.06	1.06	3.06
swallow sp.														38								38	0.00	0.04	0.00
Carolina Chickadee	47	20	41	66	8	11	12	16	134	101	160	109	295	133	174	119	115	38	78	42		1719	0.67	1.63	0.60

species	Trans	Bals	Hend	Mis Bunc	Bl	Grdr	Hang	Ired	Meck	Fors	Grbr	SoPi	CHH	Jord	Durh	Wake	Falls	Kerr	RaRo	Onsl	total	mtus	pled	coast
Black-capped Chickadee		25																			25	0.08	0.00	0.00
chickadee sp.		1																			1	0.00	0.00	0.00
Tufted Titmouse	72	26	37	74	2	14	28	25	73	118	155	136	416	297	197	127	129	74	80	56	2136	0.83	2.03	0.80
Red-breasted Nuthatch	4	72		11	50	20															158	0.51	0.00	0.00
White-breasted Nuthatch	21	7	5	7	2	1	4	4	14	12	32	23	48	12	22	32	11	6	5	1	269	0.15	0.25	0.01
Brown-headed Nuthatch								2	47	19	58	72	83	64	37	34	46	8	21	44	535	0.00	0.55	0.63
Brown Creeper		25		5	24	4															58	0.19	0.00	0.00
Carolina Wren	45	5	74	59			11	10	141	108	159	106	391	200	197	112	58	49	79	37	1841	0.64	1.79	0.53
House Wren	23		5	5		1			7	33	20	2	15	3	11	9	2			1	137	0.11	0.11	0.00
Winter Wren	7	16		2	30	14															69	0.23	0.00	0.00
Sedge Wren										1											1	0.00	0.00	0.00
Marsh Wren																				1	3	0.00	0.00	0.01
Blue-gray Gnatcatcher	19		28	27			6	11	106	67	44	94	198	132	197	65	146	61	48	33	1282	0.26	1.30	0.47
Golden-crowned Kinglet	8	100		15	87	39															249	0.82	0.00	0.00
Ruby-crowned Kinglet		2					2		4	3				1	3						18	0.01	0.02	0.00
Eastern Bluebird	37	1	33	65		2	3	42	68	52	156	161	259	166	98	56	96	91	128	86	1600	0.46	1.52	1.22
Veery		147	1	17	78	29				5	1	1	2	1	3						289	0.89	0.02	0.00
Gray-cheeked Thrush										1											1	0.00	0.00	0.00
Swainson's Thrush					5		2		4	9	7	1	9	2	3	2					44	0.02	0.04	0.00
Hermit Thrush		17		6	26	7							1		1						58	0.18	0.00	0.00
Wood Thrush	9	5	4	29	3	6	1	5	10	35	32	13	62	19	27	11	22	23	9	11	336	0.19	0.30	0.16
American Robin	132	98	121	230	41	39	4	58	427	332	476	57	323	61	122	82	52	65	108	34	2862	2.18	2.40	0.48
Gray Catbird	38	75	7	15	17	10	1	6	62	51	105	35	85	22	82	19	20	1	33	8	692	0.53	0.58	0.11
Northern Mockingbird	31	1	64	73			6	39	223	58	189	243	221	169	78	57	40	52	198	134	1876	0.57	1.74	1.91
Brown Thrasher	27	6	21	22			3	7	39	36	48	51	59	36	41	19	17	13	31	27	503	0.26	0.44	0.38
European Starling	101	6	115	146		1		99	267	265	445	97	228	122	132	123	53	95	207	177	2679	1.21	2.37	2.52
American Pipit														1						3	4	0.00	0.00	0.00
Cedar Waxwing	46	29	140	611	23	2		49	416	165	328	293	58	366	82	46	51	83	64	27	2879	2.79	2.22	0.38
Ovenbird	16	119	6	75	13	16	45	4	16	15	42	83	67	62	16	29	58	31	16	6	729	0.95	0.47	0.23
Worm-eating Warbler	1		2	9			9		2	1	1	1	1				1				32	0.07	0.01	0.09
Louisiana Waterthrush	6	1	3	1	1	1			1	2	2	4	9	1	5	6	2		8		53	0.04	0.04	0.00

species	Trans	Bals	Hend	Bunc	Mis	Bl	Grdr	Hang	Ired	Meck	Fors	Grbr	SoPl	CHH	Jord	Durh	Wake	Falls	Kerr	RaRo	Onsl	total	mtus	pled	coast
Northern Waterthrush			11					2											3			51	0.04	0.04	0.00
Black-and-white Warbler	10	48	12	50	21	10		40		8	5	13	34	31	15	18	5	8	6	20	2	356	0.63	0.18	0.03
Prothonotary Warbler										2	4	3	6	23	32	22		14	13	13	36	168	0.00	0.15	0.51
Swainson's Warbler	3		1							2			1								3	10	0.01	0.00	0.04
Nashville Warbler									1													1	0.00	0.00	0.00
Kentucky Warbler	1			1								1	2	7	3	4	1	1	1	3	4	29	0.01	0.03	0.06
Common Yellowthroat	12	27	25	10	6	6		8	53	54	42	39	95	56	109	32	40	30	29	28	701	0.28	0.65	0.40	
Hooded Warbler	24	23	13	58	5	7	18	1	1	4	1	29	29	25	23	1	33	15	27	10	347	0.48	0.21	0.14	
American Redstart	6	7	12	22	3	2		2	33	35	46	10	43	21	22	16			2	14	296	0.17	0.27	0.00	
Cape May Warbler	14							1	10	10	2			1		cw					39	0.05	0.03	0.00	
Cerulean Warbler				8																	8	0.03	0.00	0.00	
Northern Parula	23	22	11		9		8	1	43	56	51	23	72	44	76	13	39	17	52	36	596	0.24	0.54	0.51	
Magnolia Warbler	4		1			1				1	1	1	1	1	3		3	2	1	1	20	0.02	0.02	0.00	
Bay-breasted Warbler		1										1									2	0.00	0.00	0.00	
Blackburnian Warbler	7	45	5	41	61	4			2	1	cw			1						1	168	0.53	0.01	0.00	
Yellow Warbler	8		3	11		1		1	3	7	3	3	7	21	2	4	7	2		2	85	0.08	0.07	0.00	
Chestnut-sided Warbler	75	366	4	22	49	18			1	5	2			1	3		3				549	1.75	0.02	0.00	
Blackpoll Warbler	12	1	2	7		2	1		1	29	16	1	6	18			2	1			99	0.08	0.08	0.00	
Black-throated Blue Warbler	17	150	3	57	73	61	30		33	69	37	21	68	22	33	7	16	3	12		712	1.28	0.36	0.00	
Palm Warbler	2	1								1	1							2			7	0.01	0.00	0.00	
Pine Warbler							18	5	28	25	39	131	127	137	107	47	75	39	53	35	866	0.06	0.90	0.50	
Yellow-rumped Warbler	7			3	1	2	43	9	42	26	17	32	16	23	23	1	78	94	24	8	449	0.18	0.43	0.11	
Yellow-throated Warbler	6			1						1		29	13	37	22		51	23	26	19	228	0.02	0.22	0.27	
Prairie Warbler								2		3	1	82	27	60	35		22	19	29	59	339	0.00	0.31	0.84	
Black-throated Green Warbler	21	135	12	28	135	7	41			1	3				4						388	1.24	0.01	0.00	
Canada Warbler	4	134		32	67	49	1			1	5										293	0.94	0.01	0.00	
Wilson's Warbler										1	1										2	0.00	0.00	0.00	
Yellow-breasted Chat	4		6	2					11	6	7	11	40	50	32	2	12	23	20	39	265	0.04	0.24	0.56	
Eastern Towhee	85	225	97	105	48	51	6	15	104	100	115	106	180	101	125	40	58	33	38	33	1665	2.02	1.13	0.47	

species	Trans	Bals	Hend	Bunc	Mis	Bl	Grdfr	Hang	Ired	Meck	Fors	Grbr	SoPl	CHH	Jord	Durh	Wake	Falls	Kerr	RaRo	Onsl	total	mtus	pled	coast
Bachman's Sparrow																					20	0.00	0.01	0.16	
Chipping Sparrow	12	3	6	44		3	3	18	20	47	17	51	219	174	223	54	65	106	104	96	39	1304	0.29	1.31	0.56
Field Sparrow	4	2	16	16			1		19	15	7	26	18	10	16	14	7	15	15	11		212	0.13	0.19	0.00
Vesper Sparrow									4													4	0.00	0.00	0.00
Lark Sparrow													2									2	0.00	0.00	0.00
Savannah Sparrow				1					25	32	7	6	9	2	10	3	6	18	6	9	9	143	0.00	0.15	0.13
Grasshopper Sparrow			2						20	7	11	3	5			4	2	2	6	2		64	0.01	0.07	0.00
Saltmarsh Sparrow																					2	2	0.00	0.00	0.03
Seaside Sparrow																					5	5	0.00	0.00	0.07
Fox Sparrow																							0.00	0.00	0.00
Song Sparrow	136	14	98	158		19	17		1	39	22	80	6	69	4	25	7	4		2		701	1.45	0.29	0.00
Swamp Sparrow	1		2							3	4			6	1	6		5	2	1		31	0.01	0.03	0.00
White-throated Sparrow	5							1	10	44	16	14	42	9		62	1	43	33	14		294	0.02	0.32	0.00
White-crowned Sparrow	3									6						4						13	0.01	0.01	0.00
Dark-eyed Junco	17	354	13	70	125	101									20			1			701	2.23	0.02	0.00	
Summer Tanager			1						2	20	1	4	67	71	116	64	40	69	48	55	32	590	0.00	0.62	0.46
Scarlet Tanager	19	49	11	40	9	5	13		1	6	16	29	5	44	32	23	4	11	18	5		340	0.48	0.22	0.00
Northern Cardinal	109	12	112	131	2	3	24		54	306	238	407	319	688	358	312	217	184	80	176	178	3910	1.29	3.71	2.53
Rose-breasted Grosbeak	6	58	5	15	1	11	1			2	8	2	2		2	2	1	1		3	1	121	0.32	0.03	0.01
Blue Grosbeak			4						19	14	13	12	94	38	77	29	22	22	24	55	42	465	0.01	0.47	0.60
Indigo Bunting	79	106	81	109	56	3	3		22	70	84	65	123	184	225	209	39	57	66	75	45	1701	1.43	1.35	0.64
Painted Bunting																					18	18	0.00	0.00	0.26
Bobolink	52		5	1					80		32	20		47	51			1	1	90		380	0.19	0.36	0.00
Red-winged Blackbird	106		74	92			1		28	45	67	71	62	99	98	31	16	48	11	54	152	1055	0.89	0.70	2.16
Eastern Meadowlark	13		16	14					27	8	4	16	79	12	35	54	13	6	17	47	17	378	0.14	0.35	0.24
Rusty Blackbird										1												1	0.00	0.00	0.00
Common Grackle	40		46	78			2		29	380	185	386	131	134	260	215	84	44	72	218	228	2532	0.54	2.37	3.25
Boat-tailed Grackle																					137	137	0.00	0.00	1.95
Brown-headed Cowbird	35		25	28			1	10	14	134	66	83	99	157	97	79	29	68	93	74	66	1158	0.32	1.10	0.94
Orchard Oriole	1	1	6	8					5	11	20	10	33	19	55	23	3	11	10	32	62	310	0.05	0.26	0.88
Baltimore Oriole	1		1	16					1	3	20	8	1	1	3					1		56	0.06	0.04	0.00

species	Trans	Bals	Hend	Bunc	Mt	Bl	Grdfr	Hang	Ired	Meck	Fors	Grbr	SoPi	ChHl	Jord	Durh	Wake	Falls	Kerr	RaRo	Onsl	total	mtns	pied	coast
House Finch	23		21	21		2	3	18	140	73	138	39	198	96	57	76	32	24	60	37	1058	0.23	1.06	0.53	
Red Crossbill		2				32																34	0.11	0.00	0.00
Pine Siskin	6	2		7	21	25			7				37	3				20				128	0.20	0.07	0.00
American Goldfinch	74	21	62	73	9	10	12	51	159	162	281	81	304	151	189	61	106	58	33	5	1902	0.85	1.82	0.07	
House Sparrow	8		24	12		1		9	48	13	23	15	65	24	44	11	25	4	32	92	450	0.15	0.35	1.31	
total species	109	84	100	111	60	71	59	82	124	125	124	133	118	133	115	109	121	111	113	151	231				
total individuals	2787	3196	2381	4148	1342	786	685	1403	5993	4751	7837	6290	8856	7644	6124	3211	5621	3109	4565	6634	87363				
# participants	21	20	14	17	10	6	10	7	28	40	34	21	41	44	17	26	10	14	16	22	418				

cw: count week

Column key for Table 1:

Trans	Transylvania	Meck	Mecklenburg County	Falls	Falls Lake
Bals	Balsam Mountains	Fors	Forsyth County	Kerr	Kerr Lake
Hend	Henderson County	Grbr	Greensboro	RaRo	Raven Rock
Bunc	Buncombe County	SoPi	Southern Pines	Onsl	Onslow County
Bl Mt	Black Mountains	ChHl	Chapel Hill	mtns	mountains
Grdfr	Grandfather Mountain	Jord	Jordan Lake	pied	piedmont
Hang	Hanging Rock	Durh	Durham	coast	coast
Ired	Iredell County	Wake	Wake County		

Table 2. Summary of party hours and miles

	party-hours			canoe/ kayak/ boat	night	feeder watch
	total	on foot	by car			
Transylvania	56.00	8.00	48.00			12.00
Balsam Mtns	70.50	60.25	15.75		1.50	
Henderson	41.25	16.25	25.00			
Buncombe	69.50	28.00	41.50		0.30	
Black Mtns	30.25	20.75	9.50		1.50	
Grandfather	32.00	ND	ND		2.50	
Hanging Rock	6.00	5.00	1.00			
Iredell	30.00	5.00	25.00		1.00	3.00
Mecklenberg	74.00	63.50	10.50		1.50	
Forsyth	72.00	67.00	5.00			
Greensboro	106.83	81.33	25.50			
Southern Pines	69.56	31.00	38.56		4.75	8.50
Chapel Hill	128.80	105.80	19.00	4.00	2.50	19.00
Jordan Lake	119.33	76.00	31.83	11.50	2.75	16.00
Durham	72.50	62.00	10.50		2.00	
Wake	47.00	44.00	3.00		2.00	
Falls Lake	63.25	55.50	7.75		2.75	
Kerr Lake	41.75	32.50	9.25		1.25	
Raven Rock	75.50	43.50	32.00		1.20	
Onslow	70.25	24.75	41.50		5.00	
total	1276.27	830.13	400.14	15.50	32.50	58.50

	party-miles			canoe/ kayak/ boat	night
	total	on foot	by car		
Transylvania	273.00	11.00	262.00		1.00
Balsam Mtns	220.90	46.70	180.40		10.00
Henderson	226.55	13.05	213.50		
Buncombe	331.00	20.00	311.00		3.00
Black Mtns	51.20	22.70	33.50		10.00
Grandfather	49.80	9.90	39.90		2.50
Hanging Rock	37.00	17.00	20.00		
Iredell	50.00	2.00	48.00		
Mecklenberg	295.00	43.50	251.50		
Forsyth	115.00	40.00	75.00		
Greensboro	396.00	84.10	311.90		
Southern Pines	399.40	21.50	377.90		
Chapel Hill	196.75	72.50	118.50	5.75	0.75
Jordan Lake	199.10	56.30	135.80	7.00	16.00
Durham	91.15	49.25	41.90		
Wake	103.50	36.50	67.00		5.00
Falls Lake	104.50	41.50	63.00		4.00
Kerr Lake	102.10	21.50	80.60		1.00
Raven Rock	397.90	31.50	366.40		10.00
Onslow	416.00	19.50	378.50		30.00
total	4055.85	660.00	3376.30	12.75	93.25