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REVIEW OF PROVEN, PROBABLE, AND POSSIBLE BREEDING RECORDS OF THE DICKCISSEL IN GEORGIA AND THE CAROLINAS

Douglas B. McNair

The ecology of the Dickcissel (*Spiza americana*) in Georgia and the Carolinas is poorly known (Sprunt and Chamberlain 1949; Burleigh 1958; Pearson et al. 1959; Gross 1968; Fretwell 1986). I examine herein breeding records of the Dickcissel in these states and search for patterns in their breeding distribution and abundance, sex-ratios, breeding phenology, habitats used, associated breeding species, and other information to advance our knowledge of Dickcissel ecology. Data from the non-breeding season are too scant to merit further examination at this time.

METHODS

Breeding records of Dickcissels through 1989 are listed by state. States are subdivided by physiographic or geographic region. Whenever possible, the county location is given. Not all Dickcissel breeding records list each breeding site within a locality separately. Hence, I first analyzed the distribution and abundance of Dickcissels in the three states by county to present general patterns. Then I analyzed Dickcissel distribution and abundance by year in rough chronological order, with frequent reference to differences between states or regions.

Dickcissels maintain exclusive individual breeding territories yet may form discrete "colonies" in favorable habitats at a single locality. Insofar as possible, I have listed each "colony" at a single locality separately, but was not able to do so for some records because the observer(s) did not separate the information as such. I have summarized data from different years for many of the older accounts, e.g., Loomis (1885, 1891), Murphey (1937). Fortunately, all except one breeding record from the 1980s are listed separately, allowing me to analyze records by year.

Dickcissels in Georgia and the Carolinas may arrive on breeding territories as early as late April, but the Dickcissel is also a spring transient from late April through May (Burleigh 1958; reports in *Oriole*, *Chat*, and *American Birds*). I have not listed possible breeding records of Dickcissels from late April through May unless one or more of the following conditions were met: 1) details of breeding behavior were given; 2) the report was within two years before or after a probable or proven record at the same site;

3) a report was from a nearby site in the same year; or 4) the report was from an established historical locality, e.g., Richmond County, Georgia. The great majority of reports eliminated from late April through May were of single males seen on one day only. I have also eliminated all reports of Dickcissels after early August.

Elucidation of breeding patterns may also be complicated by the difficulty of determining reliable sex-ratios for unmarked populations, because of the disparity in detectability of males and females. Prior to the nestling stage of the reproductive cycle, females may be very elusive (Patterson 1984, McNair 1990b). Also, females may renest following a failed attempt, but they usually leave (Zimmerman 1982), which would further skew the sex-ratio toward males. Furthermore, male Dickcissels unlike females, are conspicuous throughout the reproductive cycle because singing is their major activity. With these caveats in mind, I have given the observed sex-ratio to be the maximum number of either sex detected on any one date at a locality for the period delineated.

I use the European Ornithological Atlas Committee (EOAC) standard series of categories of breeding evidence (*Ibis* 121:549; letter-codes used listed in Table 1 of this paper). Codes for proven breeding consist of two letters, to distinguish them from the others.

RESULTS

Distribution and Abundance. - Breeding records of the Dickcissel in Georgia and the Carolinas are listed and detailed in Table 1. Georgia breeding records are from 19 counties: twelve in north Georgia (i.e., Appalachian Plateau, Ridge and Valley, and Piedmont), concentrated in Clarke, DeKalb, and Murray counties (and surrounding areas of the last county), and seven in the Coastal Plain, concentrated in Houston (and surrounding areas) and Richmond counties. With the exception of Houston County, the areas of concentrated records are from population or academic centers of the state.

South Carolina has Dickcissel breeding records from 14 counties, seven from the Piedmont, concentrated in Anderson County (near Clemson University), and seven from the Coastal Plain, concentrated in Lexington and Richland counties in the largest metropolitan area of the state, and also in rural Marlboro County. The confirmed breeding record at Mount Pleasant, Charleston County, in 1988, is the only coastal breeding record from any of the three states with the exception of the probable breeding record from mainland Dare County, North Carolina, also in 1988 (Table 1).

North Carolina has breeding records from 8 counties, including one possible record at Henderson County in the Blue Ridge in early August (Pearson et al. 1959), the only breeding record from this physiographic province in any of the three states. Breeding records from four Piedmont counties exist, concentrated in Wake County (and at nearby Jordan Reservoir), a population and academic center, and in Cleveland County (and adjacent York County, S.C.), primarily a rural area though near Charlotte. Breeding records exist for three counties from the Coastal Plain, all since 1983.

Table 1. Proven, probable, and possible breeding records of the Dickcissel in Georgia and the Carolinas.

Locality	Habitat	Breeding Evidence	Date	Sex-Ratio (M/F)	Reference
		GEORGIA			
		North Georgia			
Indian Springs, Butts Co.		T[1], spec. coll. USNM 32423 (F) USNM 32424 (M)	June 1847	Pair	Burleigh 1958
Rising Fawn, Dade Co.	Clover field	T	1883	Pair	Howell 1909
Clarke Co.	Oat and alfalfa fields; ditches	NE[2]-4, 29 May 29 May 1925	24 April -	6M;2F	Burleigh 1927
Near Atlanta, DeKalb Co.	Vetch field	NE-5, coll.	25 May 1947	Pair; F coll. UGAMNH 3500	Griffin 1947
Athens, Clarke Co.	Grain fields	T	18-31 May 1947	3M;2F	Odum 1947
Athens, Clarke Co.	Oat and vetch fields	NE-4, 8 May	8-25 May 1950	2 pairs	Johnston 1950
Panthersville, DeKalb Co.	Old field-grasses, clover, kudzu, weeds	NE-4, 9 June	19 May- 9 June 1951	5M;3F	Parks 1951
Panthersville, DeKalb Co.	Same as above	T	Summer 1952	"Several" pairs	Aud. Field Notes 6:279
Near Chickamauga, Walker Co.	Red clover, barley and hay fields; ditch; honeysuckle thicket	NY[3]-5	24-26 May 1953	3 pairs	Hight 1953
Near Dalton, Murray Co.	66 ha field, mainly *Lespedeza*; ironweed, blackberries	NE-4; NY	26 June- 10 August 1955	9M;2+F	Hamilton 1956
Near Dalton, Murray Co. (and Gordon Co.)	Same as above	2 "colonies"	1956-1962 earliest arrival 5 May		Hamilton and Hamilton 1960; Hamilton 1978
Near Athens, Clarke Co.	Wheat field	S[4]	1 May 1963	2-3M	Kale 1963
Near Athens, Clarke Co.	Camphor weed; other forbs. Field 0.3-1.5 m high	2 Juv[5]: 14 July	19 May - 14 July 1963	3 Pairs	Kale 1963
Gordon Co.	Fescue field; other grasses. Field 0.3-0.61 m	T	3-19 June 1978	2M;1F	Hamilton 1978

Table 1. Continued

Locality	Habitat	Breeding Evidence	Date	Sex-Ratio (M/F)	Reference
Gordon Co.	-	H[6]	June 1979	1	Breeding Bird Survey, unpubl.
Greene Co.	-	H	June 1987	1	Breeding Bird Survey, unpubl.
Near Duluth, Gwinnett Co.	-	T	15 May - late June 1988	2M	Am. Birds 43:89; D. Parks *in litt.*
Near Athens, Oglethorpe Co.	-	H	4 June 1988	1M	Am. Birds 43:89; D. Parks *in litt.*
Summerville, Chattooga Co.	20 ha vetch and johnson grass fields; dry creek bed and hedgerow	T, B[7]; FY[8], 20-26 June	12 May - 26 June 1988	5M;2+F	Brown 1988
Hart, Hart Co.	-	S	4 June 1989	4M	Am. Birds 44:77
		Coastal Plain			
Richmond Co.	Hay fields along Savannah River Valley	"once common"	Pre-1937	-	Murphey 1937
Augusta, Richmond Co.	Thickets with Trumpet Vines	7 nests; earliest - 16 May latest - 27 June All with 3 fresh eggs	1945	?	Burleigh 1958
Augusta Richmond Co.	Same as above	T	1946	2 Pairs	Odum 1947
Augusta, Richmond Co.	Same as above	NY	15 June 1947	4M;2+F	Odum 1947; Denton 1966
Near Elberta, Houston Co.	Moist cultivated fields	S	11 May 1952	3M	Whitney 1953
Near Elberta, Houston Co	2 ha legume field, 0.61 m high	T	10 May - 7 June 1953	2M;1F	Whitney 1954
Eufaula NWR, Georgia	-	S	12 July 1974	1M	Am. Birds 28:891
Augusta, Richmond Co.	Field of grasses and buttercups along Savannah River Valley	S	20-21 May 1978	2M	Waters 1978
Near Henderson, Houston Co.	-	T	31 May - 8 June 1980	Pair	Oberle 1983
Near Plains, Sumter Co.	Abandoned field; hedgerow	S	25 June 1983	1M	Oberle 1983

Table 1. Continued

Locality	Habitat	Breeding Evidence	Date	Sex-Ratio (M/F)	Reference
Near Dublin, Laurens Co.	New field; hedge	6 Juv: 2 June-late June	17 May - 23 June 1984	4 Pairs	Patterson 1984
Near Dublin, Laurens Co.	Field; weedy area	4 Juv: 30 June-15 July	17 May - 15 July 1984	2 Pairs	Patterson 1984
Near Vienna, Dooly Co.	-	H	24 June 1984	1	Oriole 49:54
Morgan, Calhoun Co.	-	FY	25 June 1989	Pair	Am. Birds 44:77
		SOUTH CAROLINA			
		Northwest Piedmont			
Near Townville, Anderson Co.	Field of grasses and forbs, 1 m high	T	11-28 July 1974	6M;1F	LeGrand 1974
Pendleton, Anderson Co.	Field	B, 27 May	May-14 June 1975	Pair	Chat 40:21
Near Pendleton, Anderson Co.	Field	T	Mid to late May 1976	3M;1F	Chat 41:16
N. Anderson Co.	Field	S	1977	1M	Chat 45:110
Near Easley, Pickens Co.	Field	S	15 June - July 1977	1M	Chat 42:19
Near Pendleton, Anderson Co	Field	1 Juv: 4 July	June - 4 July 1979	Pair	Chat 44:25
N. Anderson Co.	Field - same site as in 1977	S	14 June 1981	1M	Chat 45:110
Near Townville, Anderson Co.	Field of grasses and weeds; scattered shrubs	T	23 May - 5 June 1982	3M;1F	Chat 46:108
Near Townville, Anderson Co.	Field - 2 km from above site	S	23 May - June 1982	1M	Chat 47:32
Townville, Anderson Co.	Field	2 Juv: 27 July	June - July 1986	6M;2F	Chat 51:82
Near Townville, Anderson Co.	Field	S	Late April - early May 1988	6M	Chat 53:49
Near Townville, Anderson Co.	-	T	15-27 May 1989	5M;1F	Chat 54:48
		Piedmont (Remainder)			
Near Chester, Chester Co.	"Partially cleared grain fields"	"Common though local"	1883-1884 1891	?	Loomis 1885,

Table 1. Continued

Locality	Habitat	Breeding Evidence	Date	Sex-Ratio (M/F)	Reference
Winnsboro, Fairfield Co.	Natural meadows	?	1906	?	Wayne 1910
York Co.[a]	Field	S	5 June 1928	1M	Smyth 1930
York Co.	-	?	13 July 1944	1	Sprunt and Chamberlain 1949
Spartanburg Spartanburg Co.	Pasture	T, FY	20 May 1956 later	5M;1F	Cannon 1956
N. York Co.	-	NE, 1 July	28 June - 1 July 1988	3 Pairs	Chat 53:77
Saluda Co.	Old field	NE	June 1988	1F(only); M never seen	Chat 54:48; T. Kalbach, *in litt.*
Saluda Co.	Old field	S	12-13 May 1989	1M	Chat 54:48
		Coastal Plain			
Aiken Co.	Hay fields along Savannah River Valley	"Once common"	Pre-1937	?	Murphey 1937
Columbia, Richland Co.	Rye and vetch field in young pecan orchard	NE-5; "colony" of about 50 birds	25-26 May 1928	?	Smyth 1930
Columbia, Richland Co.	Same as above	H, T	18 May - 1 June 1929	1;13	Smyth 1930; Sprunt and Chamberlain 1949
Near Cayce, Lexington Co.	Field	NY-5; 3 Juv	Late April - summer 1980	2 Pairs	Chat 45:83 and 49:26
Near Cayce, Lexington Co.	Same as above	H	18 May 1981	1F	Am. Birds 35:931 and Chat 49:26
Near Cayce, Lexington Co.	Same as above	4 Juv: 27 July	8 June - 27 July 1984	3M;2F	Chat 49:26
Near Saint Matthews Calhoun Co.	4 ha old wheat and kudzu field	T	9 May - 6 June 1984	6M;4F	McNair 1990b
Mt. Pleasant, Charleston Co.	Mixed clover, 0.1-0.6 m high; scattered shrubs	NE-5, 22 May	Early May - June 1988	Pair	Beckett 1990
Marlboro Co.	2.5 ha *Lespedeza* pasture	2 Juv: 23 June-20 July	10 June - 20 July 1988	3M;2F	McNair 1990b
Marlboro Co.	*Lespedeza* pasture	2-3 Juv: 24 July	11 June - 29 July 1988	3M;2F	McNair 1990b
Marlboro Co.	*Lespedeza* pasture and grasses	S	16 June 1988	1M	McNair 1990b

Table 1. Continued

Locality	Habitat	Breeding Evidence	Date	Sex-Ratio (M/F)	Reference
Marlboro Co.	Shrubby pasture and Rubus grassland	S	24 June 1988	1M	McNair 1990b
Darlington Co.	Old field; ditches;hedges with *Rubus*	4 Juv: 18 June 18 June 1989	7 May -	2 Pairs	McNair 1990a
Marlboro Co.	*Lespedeza* pasture, grasses and forbs	S	21 May - 1 July 1989	1M	McNair 1990b
Marlboro Co	*Lespedeza* pasture and grasses	T	14 May - 18 July 1989	Pair	McNair 1990b
		NORTH CAROLINA			
NC	-	?	Pre-1870	-	Simpson & Simpson 1983
		Mountains			
Hendersonville, Henderson Co	-	S	6 August 1928	2M	Pearson et al. 1959
		Piedmont			
Raleigh, Wake Co.	Wheat field	T	19 May 1928; 1929	Pair	Pearson et al. 1959
Near Winston-Salem, Forsyth Co.	Wheat field	NE-4, 4 June	22 May - 8 June 1955	Pair	Simpson 1955
Near Lake Raleigh, Wake Co.	4 ha *Lespedeza* and *Festuca* pasture	2 nests successful	Late May - mid July 1964	3 Pairs	Fretwell 1967
Near Lake Raleigh, Wake Co.	Same as above	H	1 day in 1965	1M	Fretwell 1986
Near Winston-Salem, Forsyth Co.	Field	S	10-24 May 1973	1M	Chat 37:89
Jordan Reservoir	Field	S	20 June - 4 July 1980	2M	Am. Birds 34:887
Jordan Reservoir	Field - different site from above	4 Juv	22 June - 4 July 1980	Pair	Am. Birds 34:887
Jordan Reservoir	-	H	7 June 1981	1	Am. Birds 35:931
Kings Mountain, Cleveland Co.	Field	S	26 May - 17 June 1983	3M	Chat 47:112
Raleigh, Wake Co.	Field	T	12-15 May 1984	4	Chat 48:102
Near Kings Mountain, Cleveland Co.	Field	H	11 May - June 1986	1M	Chat 51:82

Table 1. Continued

Locality	Habitat	Breeding Evidence	Date	Sex-Ratio (M/F)	Reference
Lake Raleigh, Wake Co.	Field	1 Juv	10 May - early July 1986	2 Pairs	Chat 51:82
Near Raleigh, Wake Co.	-	H	29 May 1988	1M	Chat 53:49
		Coastal Plain			
Halifax Co.	Fallow fields - 3 sites	T	19 May - 10 July 1983	4M;1F	Am. Birds 37:979
Near Goldsboro, Wayne Co.	-	S	7-21 June 1988	4M	Chat 53:77
Dare Co. (mainland)	-	S	13 June - early July 1988	4M	Chat 53:77

1 T means Permanent Territory presumed through registration of territorial behavior (song, etc.) on at least two different days a week or more apart at the same place (Letter-code from EOAC; see Ibis 121:549.

2 NE means Nest containing eggs.

3 NY means Nest with Young seen or heard.

4 S means Singing male(s) present in the breeding season.

5 Juv means Juvenile(s) or FL (recently Fledged young).

6 H means Species observed in breeding season in possible nesting Habitat.

7 B means Building nest.

8 FY means Adults carrying Food for Young.

9 Sprunt and Chamberlain (1931) state the male Dickcissel was found beside Route 1 near the NC state line, which would be in Marlboro County, SC.

Pre-1900 Records

Prior to 1870, Gross (1968) and Fretwell (1986) state the Dickcissel nested on the East Coast from Massachusetts to South Carolina, but that by 1884 these populations were practically extirpated. I am unaware of any firm evidence of breeding in the Carolinas prior to 1870, though Gross (1968) and Fretwell (1986) overlooked one probable breeding pair in the Piedmont of Georgia at Butts County in June 1847 (Burleigh 1958). Audubon (1838) stated Dickcissels "are rarely observed to pass over South Carolina", an assessment which agrees with Coues' (1868) similarly undetailed observations over two years at Columbia. Similarly, the Dickcissel was on the pre-1870 North Carolina species list of M.A. Curtis but no breeding evidence was documented (Simpson and Simpson 1983).

Dickcissels did breed in South Carolina at Chester County during the late 19th century. In 14 years of observations, principally within 8 km of the town of Chester, Loomis (1885, 1891) found Dickcissels "common though local" in "partially cleared grain fields" only in 1883 and 1884. In 1883, one probable breeding pair was also found in the Appalachian Plateau within Georgia at Dade County (Howell 1909). No other 19th century breeding records exist in Georgia and the Carolinas, except for Murphey's (1937) observations over about 50 years at Richmond County, Georgia, and Aiken County, S.C., where Dickcissels were "once common" in hay fields along the Savannah River Valley in the Upper Coastal Plain (excluding Sandhills) prior to 1937.

1900 - 1937 Records

In the Great Flight of 1928 (Gross 1968), Dickcissels were confirmed breeding below Columbia, Richland County, S.C. (Smyth 1930), and possibly nested at York County, S.C. (Smyth 1930), and Raleigh, Wake County and Hendersonville, Henderson County, N.C. (Pearson et al. 1959). In 1929, one pair of Dickcissels probably nested in Raleigh at the same site (Pearson et al. 1959), and up to thirteen were present at the same site below Columbia (Smyth 1930, Sprunt and Chamberlain 1949), but the outcome of breeding is unknown.

Otherwise, except for Murphey (1937) and the Dickcissel records cited above in 1928 and 1929, only two other breeding localities are known in Georgia and the Carolinas prior to 1937, both in the Piedmont. R.H. Phillips (*in* Wayne 1910) reported Dickcissels breeding in "natural meadows" at Winnsboro, Fairfield County, S.C., in 1906. I have not found an extant nest record card (egg set data slip) for Dickcissel by Phillips, but all his documented nest records are reliable. Burleigh (1927) confirmed breeding at Clarke County, Georgia, in 1925.

1938 - 1970s Records

Again, in the Savannah River Valley in the Upper Coastal Plain below Augusta, Richmond County, Georgia, Dickcissels were confirmed breeding from 1945 to 1947 and possibly nested between 1936 and 1945 and after 1947 (Odum 1947; Burleigh 1958; Denton 1966). Dickcissels may have possibly nested at this locality in 1978 (Waters 1978).

In Georgia, a spate of detailed Dickcissel breeding records (over 10), many confirmed, exist from the late 1940s to the early 1950s, especially in North Georgia from the Piedmont, Ridge and Valley, and Appalachian Plateau (the latter in Walker County, Hight 1953; see Table 1 for a complete list of references). Otherwise, only four breeding records, none of confirmed breeding, exist for Georgia from the mid 1960s through the 1970s.

In the NW Piedmont of South Carolina, Dickcissels have been recorded during the breeding season in at least 11 years since 1974 (Table 1), all in Anderson County except for one unmated male near Easley, Pickens County, in 1977 (H.E. LeGrand, Jr., pers. comm.). Dickcissels have perhaps nested in Anderson County every year since 1974 and for years prior to 1974, when systematic ornithological surveys were renewed in earnest (H.E. LeGrand,

Jr., pers. comm.). Otherwise, only six breeding records of Dickcissel exist in the Carolinas from 1929 through the 1970s, all from the Piedmont, three confirmed records from 1955 to 1964 (Simpson 1955, Cannon 1956; Fretwell 1967), one possible record in South Carolina in 1944 (Sprunt and Chamberlain 1949), and two possible records in North Carolina in 1965 and 1973 (Table 1).

1980s Records

Just over half of all Dickcissel breeding records in Georgia and the Carolinas occurred during the 1980s (Tables 1, 2). Only eleven breeding records are from Georgia, fewer than reported in either South or North Carolina during this period (Table 2). Only five reports are from North Georgia, with four of possible breeding records and the other was confirmed at Summerville, Chattooga County, in 1988 (Brown 1988). The remaining six reports are from the Upper Coastal Plain, with breeding confirmed at two sites near Dublin, Laurens County, in 1984 (Patterson 1984).

Outside Anderson County, only three Dickcissel breeding records exist from the Piedmont during the 1980s in South Carolina, with confirmed breeding in Saluda and York counties in 1988 (Table 1). Otherwise, all other 12 breeding records in South Carolina during this decade are from the Coastal Plain (excluding Sandhills), with breeding confirmed in the Upper Coastal Plain in Lexington, Darlington, and Marlboro counties (see Table 1). Breeding also almost certainly occurred in the Upper Coastal Plain of South Carolina in Calhoun County (McNair 1990b). Post and Gauthreaux (1989) erroneously stated that Dickcissels nested at Columbia, Richland County, in 1981 (Post, pers. comm.).

In North Carolina, eight of thirteen breeding records during the 1980s are from the Piedmont where breeding was confirmed at two localities (Table 1). The first Coastal Plain breeding record ever to occur in North Carolina was in Halifax County in 1983 at three sites where breeding was probable (Table 1). Dickcissels possibly nested at two localities in 1988, in Wayne and Dare counties (Table 1).

The 45 Dickcissel breeding records in Georgia and the Carolinas during the decade of the 1980s are categorized by year and state (Table 2). Dickcissels occurred in every year except 1985. Excluding Anderson County, S.C., in 1982, when one probable and one possible breeding record occurred, no other breeding Dickcissels were discovered in either the Carolinas or Georgia that year, and, in 1981 and 1987, only possible breeding Dickcissels were found in the Carolinas and Georgia. Thus, no Dickcissels were proven to breed in Georgia and the Carolinas during these four years and they were otherwise scarce or absent except at Anderson County, S.C.

In contrast, 1988 was clearly a flight year for this species with five confirmed breeding records in the Carolinas and one in Georgia, four large "colonies" of singing males in all three states, and other possible breeding records from both Georgia and the Carolinas. 1984 was a modest flight year in all three states, with five of the six records of proven or probable breeding from Georgia and South Carolina, as was 1989 in Georgia and South Carolina which had several proven breeding records. Proven or probable

Table 2. Dickcissel breeding records by year during the decade of the 1980s in Georgia and the Carolinas.

Year	State			
	Georgia	South Carolina	North Carolina	Total
1980	1	1	2	4
1981	-	2(1)[a]		3
1982	-	(2)	-	2
1983	1	-	4	5
1984	3	2	1	6
1985	-	-	-	0
1986	-	(1)	2	3
1987	1	-	-	1
1988	3	8(1)	3	14
1989	2	5(1)	-	7
Total	11	21	13	45

a Records in parentheses are from Anderson County, SC. See text for explanation.

breeding pairs were also discovered in all three states in 1980, 1983, and 1986.

The greatest documented number of Dickcissels of any locality in Georgia and the Carolinas, a "colony of about 50 birds", was below Columbia, Richland County, S.C., in the Upper Coastal Plain (Smyth 1930). A large unknown number of Dickcissels occupied the Savannah River Valley, Richmond County, Georgia and Aiken County, S.C., also in the Upper Coastal Plain (Murphey 1937; Burleigh 1958; Denton 1966). Loomis (1885, 1891) stated the Dickcissel was "common though local" in the Piedmont at Chester County, S.C. Other than the large documented number or suggestive assessments of Dickcissel breeding abundance above, the largest documented numbers at a given locality were of nine males and at least two females near Dalton, Murray County, Georgia, in the Ridge and Valley in 1955, and an undocumented number of birds there and in adjacent Gordon County from 1956 to 1962 (Hamilton 1956, 1978; Hamilton and Hamilton 1960). All above records occurred in these three major physiographic provinces prior to 1963. Since 1963, the greatest number of males present at any locality is six, with an equal or lesser number of females, in the Piedmont and Coastal Plain of all three states, and the Ridge and Valley of Georgia.

Reoccupation of the same breeding sites has occurred at least one consecutive year, at about 13 localities (Table 1) in all three major physiographic provinces in Georgia and the Carolinas (excluding the Blue Ridge), with the records occurring over many years. Four sites in Georgia and South Carolina have been reoccupied after an interval of two to four years (op. cit).

Sex-ratios. - Seventy-one Dickcissel breeding records gave sex-ratio (M/F) information, and of these, 26 (37%) records were of males only, the predominant number (16) being single males. Since 1963, male only records are significantly more frequent than expected compared to the pre-1963 period (Chi-square, $p < 0.01$), but not so when the periods of 1963-1979 and the 1980s are compared (Chi-square, $p > 0.50$). Nineteen records had greater numbers of males than females, including localities with the greatest number of males (e.g., Dalton, Murray Co., GA; see Table 1). Twenty-five localities had from one to four pairs present. One locality had only one female present, at a reoccupied site the next year in Lexington County, S.C. (Table 1). Sex-ratios at the remaining localities were unknown.

Breeding Phenology. - Breeding Dickcissels occasionally arrive on territory in late April (Burleigh 1927; several other records in Table 1), but usually do not arrive until early to mid-May (Table 1). Males frequently sing until mid-July, at the time nestlings from late nests are ready to fledge, and occasionally through early August (Hamilton 1956; Pearson et al. 1959).

Dates of nests with eggs, uncorrected for stage of incubation, range from early May to 18 July, peaking from late May through mid-June. Clutch size (n = 13) ranges from 3 to 5, with a mean and mode of 4. Nests with young, two with five and four with one young, have been found from late May to early July. Juvenile Dickcissels at breeding localities have been discovered from early June to 27 July.

Females may arrive later than males on breeding territories in Georgia and the Carolinas (McNair 1990b). Both sexes may appear late in the breeding season, from 11 to 28 July 1974 in Anderson County, S.C. (LeGrand 1974), or disappear for unknown causes in the breeding season, e.g., Laurens County, Georgia (Patterson 1984).

Habitat. - The majority of useful habitat information is from Georgians and in McNair (1990a, 1990b) (see Table 1). Dense level to gently rolling fields are of varying species complexity and age (1-6 years). Fields usually contain forbs, legumes [especially alfalfa (*Medicago* spp.), clover (*Trifolium* spp.), vetch (*Vicia* spp.), and *Lespedeza* spp.], and grasses (including grains). Fields may border shrubby ditches, hedges, and thickets and contain some taller shrubs or young trees interspersed alone or in small clumps in the fields or in higher vegetation. Habitat may frequently be tangled with honeysuckle (*Lonicera japonica*), trumpet vine (*Campsis radicans*), kudzu (*Pueraria lobata*), and *Rubus* spp. to form a very dense matted ground cover and, with *Rubus* spp., rather impenetrable vegetation. Smyth (1930) had a large number of Dickcissels breeding in a rather unusual habitat, a rye (*Lolium* spp.) and vetch field in a very young pecan (*Carya illinoiensis*) orchard. Height of the vegetation in the fields averages about 1 m, ranging from 0.3 to 1.7 m high. Complex old fields of 2 to 4 ha can support 2-4 pairs of breeding Dickcissels (Whitney 1954, Fretwell 1967, McNair 1990a, 1990b). Birds disappear when fields are mowed, even when higher vegetation such as hedges and thickets may remain (Burleigh 1927, Hamilton and Hamilton 1960, Kale 1963, Hamilton 1978, and many others).

Nests with eggs or nestlings are usually very difficult to find in the dense ground cover; almost all useful information is from Georgia from the late 1940s to the early 1960s. Nests range in height from 0.15 to 0.91 m above ground (n = 14). Nests described have been primarily in vetch (Smyth 1930, Griffin 1947) and in thickets covered with honeysuckle, trumpet vine, or kudzu (Johnston 1950, Parks 1951, Hight 1953). One nest was found 0.25 m high in a blackjack oak (*Quercus marilandica*) (Hamilton 1956).

The major foods of Dickcissels during the breeding season are grasshoppers, especially nymphs (Hamilton 1956, Fretwell 1967, Gross 1968, McNair 1990b), caterpillars (Hight 1953, Kale 1963, Fretwell 1967), and seeds (Hamilton 1956).

Associated Species. - Associated species sharing breeding habitat with Dickcissels in the northeast Upper Coastal Plain of South Carolina are listed in McNair (1990a, 1990b). Below Columbia, Indigo (*Passerina cyanea*) and Painted (*P. ciris*) buntings, Blue Grosbeak (*Guiraca caerulea*), and American Goldfinch (*Carduelis tristis*) shared breeding habitat with Dickcissels (Smyth 1930). In Georgia, both Parks (1951) and Whitney (1954) found Red-winged Blackbird (*Agelaius phoeniceus*) nests in old fields occupied by breeding Dickcissels. Parks only found one other species, the Eastern Meadowlark (*Sturnella magna*), in shared habitat and Whitney found none, but with Grasshopper Sparrow (*Ammodramus savannarum*) occupying adjacent tall-grass pasture (see McNair 1990a, 1990b). Kale (1963) also found several pairs of Red-winged Blackbirds in or along the edge of an old field occupied by Dickcissels, as well as several pairs of Grasshopper and Field (*Spizella pusilla*) sparrows and one pair each of Blue Grosbeak, Indigo Bunting and Eastern Bluebird (*Sialia sialis*). Hamilton (1956) found a nest of the Blue Grosbeak and several nests of Grasshopper Sparrows in old fields dominated by *Lespedeza* but did not indicate what other species occupied this habitat other than the Dickcissel.

DISCUSSION

Distribution and Abundance. - Analyses of Dickcissel breeding records by county within Georgia, South Carolina, and North Carolina, or by year in rough chronological order in all three states, indicate that Dickcissels are approximately twice as numerous and widely distributed in the former two states as in North Carolina, with proven or probable breeding records from every major physiographic province except the Blue Ridge. The only proven or probable breeding record from Georgia and the Carolinas prior to 1883 is an 1847 record from Georgia (Burleigh 1958). Dickcissels may have been more numerous breeders during this period, however, as no systematic ornithological surveys were conducted by anyone in Georgia and the Carolinas prior to the 1880s, at which time Dickcissels were found breeding at several localities in Georgia and South Carolina, in the Upper Coastal Plain and Piedmont. Despite the thorough survey work of T.D. Perry (McNair 1986), A.T. Wayne (1910), J.T.P. Smithwick (1897), and others during the last two decades of the 19th century and well into the first quarter of the 20th century on the Coast and Lower Coastal Plain of Georgia and the Carolinas, Dickcissels were not discovered breeding in this region until the flight year of 1988, about 100 years later, convincing evidence that Dickcissels are very rare breeding birds on or near the coast, regardless of uneven observer distribution and effort over the years.

Elsewhere in Georgia and the Carolinas, the demise of oology during the first third of the 20th century may be a factor to account for the paucity of Dickcissel breeding records, except in the Savannah River Valley (Murphey 1937) and during the Great Flight of 1928. Conversely, Dickcissels may otherwise have been genuinely scarce.

Uneven observer distribution and effort, however, is likely responsible for a scarcity of Dickcissel breeding records in certain states or regions during specific time periods. Georgia has very few records from the mid-1960s until the 1980s, when Dickcissels were breeding fairly regularly since the mid-1970s in Anderson County, S.C., on the Georgia border, and when Dickcissels were fairly widely distributed breeders west of Georgia in Alabama (Imhof 1976; Breeding Bird Survey data, pers. exam.). Georgia had many Dickcissel breeding records from the mid-1940s to the early 1960s, however. Except for Anderson County, S.C., I am uncertain if Dickcissels may have been more widely distributed in the Piedmont and Upper Coastal Plain of the Carolinas until the 1980s.

In the 1980s, however, Dickcissels are known to be more widely distributed and abundant in Georgia and the Carolinas than at any time in the past. Though Dickcissels may be absent some years, proven and probable breeding records exist from more than half the years in this decade, which is consistent with Fretwell's (1986) assessment of the Dickcissel's current North American breeding distribution. However, Dickcissels are even now a very rare or rare and sporadic breeder in Georgia and the Carolinas, still primarily found in the Ridge and Valley of Georgia and the Piedmont and Upper Coastal Plain of all three states.

Mulvihill (1988) convincingly documented an invasion of Dickcissels to SW Pennsylvania during the summer (primarily mid-June to mid-July) of 1988, where they are not within their current normal breeding range. He believes this facultative migration was in response to drought in the mid-western states. The invasion of 1988 to Georgia and the Carolinas was far more modest. In the 1980s, I could not detect a relationship between Dickcissel "invasion" years and any component of weather from late April through July in Georgia and the Carolinas (McNair, unpubl.). I did detect an apparent consistent relationship between Dickcissel invasion years in our region and weather (drought) in the Great Plain and mid-western states. However, these preliminary interpretations are muddled by low sample sizes and normal though sporadic occurrence of Dickcissels in Georgia and the Carolinas. That their sporadic occurrence in our region may be partially explained by drought within or near the center of the Dickcissel's breeding range is plausible (see Mulvihill 1988). However, the Great Flight of 1928 (Gross 1968) is not correlated with drought in the Great Plain and mid-western states (USDA, Weather Bureau 1929). The weather from April through July in this region was generally cool and wet; only July was warmer than normal but had normal rainfall. Analyses of Dickcissel invasions at a larger scale in response to drought, or another environmental perturbation, is warranted.

Sex-ratios. - Male Dickcissels are far easier to detect than females during the breeding season. Regardless of this bias, males probably outnumber females at many breeding localities (Table 1); some observers have assiduously searched for females at specific sites and still found them less numerous than males.

Fretwell (1986) listed Dickcissel sex-ratio data for breeding localities in North America based on the alarm call given by the male with a mate, as was the case for many localities cited in this study, and had skewed sex-ratios in favor of males at the periphery of the Dickcissel's breeding range, which agrees with the overall pattern in Georgia and the Carolinas. Zimmerman (1966), in prime habitat near the center of the Dickcissel's breeding range in Kansas, had an equal sex-ratio in a marked population. The evolutionary significance of the skewed sex-ratio distribution in Dickcissels is unknown, but it is significant for Fretwell's (1986) hypothesis. He predicts an increasingly male-biased sex-ratio in Dickcissels, first manifested at the periphery of the breeding range, due to reduced female survivorship during winter, following loss of winter habitat. The evidence for an increase of skewed sex-ratios which favor males in Georgia and the Carolinas is equivocal, and difficult to interpret because of sampling bias. Nevertheless, Dickcissel breeding records have been increasing, not decreasing, during the past decade at the periphery of their breeding range in Georgia and the Carolinas.

Breeding Phenology. - Males are known to arrive about a week earlier than females at breeding localities in Arkansas, Kansas, and Illinois (Meanley 1963, Schartz and Zimmerman 1971), a pattern not evident from Georgia and Carolina data except in McNair (1990b), probably because of inadequate survey work early in the breeding season or inadequate documentation in published records. Both sexes of Dickcissels may not arrive in Georgia and the Carolinas until late in the breeding season (LeGrand 1974), but this pattern is rare and its significance for our region questionable (but see Mulvihill 1988). Fretwell (1986) speculated that sudden late appearances of females in suitable habitat during the breeding season may indicate the ability to raise another brood within the same year at a different locality. However, while female Dickcissels often leave prime habitat after nest failure, they do not after successfully raising a brood (Zimmerman 1982). In any case, Fretwell (1986) presents no data that females may arrive much later in the breeding season than males. In addition, Dickcissels are only known to raise a single brood (Zimmerman 1982). Fretwell (1967) claimed that a female raised two broods at the same locality near Lake Raleigh, N.C. in a xxiLespedezaxxr and xxiFestucaxxr pasture, but the bird was not marked.

Habitat. - In Arkansas, Meanley (1963) stated that breeding Dickcissels were a species of the "briar patch" along roadsides, a component of old field habitat also used in Georgia and the Carolinas. Old fields, or habitat containing an old field component, are the habitats preferred by breeding Dickcissels regardless of vegetation. Near the center of their breeding range in Kansas, Dickcissels prefer old fields over prairie grasslands because the former habitat contains greater vegetation volume and heterogeneity, more forbs, less grass, greater height (> 1 m), and dense ground cover (Zimmerman 1982), microhabitat characteristics apparently favored by Dickcissels in Georgia and the Carolinas, e.g., McNair (1990a, 1990b). Audubon (1838) observed that Dickcissels are absent from sandy soils; this may be due to reduced vegetation volume and less dense ground cover. Significantly, Dickcissels are not known to breed in the Sandhills of Georgia and the Carolinas, despite a good number of breeding records elsewhere in the Upper Coastal Plain, and such a breeding record in the Sandhills would

be especially significant.

Few Dickcissel breeding sites are reoccupied for any length of time. This suggests that breeding habitats may be transitory at the same locality, that few Dickcissels may survive to return to them if habitats are still suitable for breeding, that juvenile Dickcissels may not return to their natal territories, or that Dickcissels, in general, may exhibit low site fidelity. Sporadic Dickcissel breeding records over 100 years in Georgia and the Carolinas does indicate continued availability of suitable habitats somewhere in each of these three states. Changes in farming and other land-use practices affecting early seral stage vegetation, particularly old fields, and how these changes may affect Dickcissel breeding populations are undocumented, other than disappearance of breeding populations when old fields are mowed. The largest "colonies" of breeding Dickcissels occurred before 1963, which suggest that the size of suitable habitats at specific localities was sometimes greater then, e.g., the 66 ha plot in Hamilton (1956).

Associated Species. - In Kansas, Schartz and Zimmerman (1971) only had the larger Red-winged Blackbird share breeding habitat with Dickcissels; this was the most frequent associated species in Georgia and the Carolinas. Schartz and Zimmerman saw infrequent aggressive interactions between the two species. Long et al. (1965) watched blackbirds occasionally chase male Dickcissels, as I did (McNair 1990b). The only other significant larger associated species in Dickcissel breeding habitat is probably the Blue Grosbeak (McNair 1990a, 1990b; this paper), which like the blackbird, may behave aggressively toward Dickcissels (and the reverse) because of limited competition over nest-sites and food. Red-winged Blackbirds settle on breeding territories prior to Dickcissel arrival and the Blue Grosbeak also usually arrives earlier, so neither species apparently prevents Dickcissels from settling on overlapping territories in breeding habitat.

Conclusion. - Breeding Dickcissels in Georgia and the Carolinas are found in very restricted habitats, primarily old fields, with very specific microhabitat characteristics. They share these habitats with few other bird species, none of which are known to prevent Dickcissels from establishing territories and nesting successfully. As long as suitable habitat continues to be available, Dickcissels will probably continue to be very rare or rare and sporadic breeding birds in Georgia and the Carolinas. Nevertheless, the breeding ecology of Dickcissel populations in Georgia and the Carolinas is still poorly understood, partly because females can be elusive, and adequate surveys are required to learn much more.

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LITERATURE CITED

Audubon, J.J. 1838. Dickcissel. Pages 579-580 *in* Ornithol. Biog. No. 4.

Beckett, T.A. 1990. Dickcissel found breeding in coastal South Carolina. Chat 54:35.

Brown, D.A. 1988. Nesting Dickcissels in Chattooga County, Georgia. Oriole 53:34-35.

Burleigh, T.D. 1927. Three interesting records for 1925 from the Piedmont region of northeastern Georgia. Wilson Bull. 39:15-19.

_____. 1958. Georgia birds. Univ. Oklahoma Press, Norman.

Cannon, G. 1956. Dickcissels at Spartanburg, S.C. Chat 20:60-61.

Coues, E. 1868. Synopsis of the birds of South Carolina. Proc. Boston Soc. Nat. Hist. 12:104-127.

Denton, J.F. 1966. The migration and abundance of blackbirds, tanagers and fringillids in Richmond County, Georgia. Oriole 31:43-46.

Fretwell, S.D. 1967. Nesting success of Dickcissels breeding in North Carolina. Chat 31:85-88.

_____. 1986. Distribution and abundance of the Dickcissel. Pages 211-242 *in* Current Ornithology, Vol. 4, R.F. Johnston (ed.). Plenum Press, New York, N.Y.

Griffin, W.W. 1947. The Dickcissel breeding near Atlanta. Oriole 12:34.

Gross, A.O. 1968. Dickcissel. Pages 158-191 *in* A.C. Bent, Life histories of North American cardinals, grosbeaks, buntings, towhees, finches, sparrows and allies. U.S. Natl. Mus. Bull. 237.

Hamilton, A.P. 1978. Dickcissels in summer in Gordon County, Georgia. Oriole 43:65.

Hamilton, A., and R.E. Hamilton. 1960. Checklist of birds of the Dalton, Georgia area with occurrence extremes. Oriole 25:13-23.

Hamilton, R.E. 1956. Dickcissels nesting in Murray County. Oriole 21:30-31.

Hight, G.L., Jr. 1953. Dickcissels in the Rome region. Oriole 18:34.

Howell, A.H. 1909. Notes on the summer birds of northern Georgia. Auk 26:129-137.

Imhof, T.A. 1976. Alabama birds. Univ. Alabama Press, University.

Johnston, D.W. 1950. Spring notes from the Athens area. Oriole 15:34-36.

Kale, H.W., II. 1963. Dickcissels again breed near Athens, Georgia. Oriole 28:50.

LeGrand, H., Jr. 1974. Dickcissel colony in Anderson County, S.C., in summer. Chat 38:95.

Long, C.A., C.F. Long, J. Knops, and D.H. Matulionis. 1965. Reproduction in the Dickcissel. Wilson Bull. 77:251-256.

Loomis, L.M. 1885. Supplementary notes on the ornithology of Chester County, South Carolina. Auk 2:188-193.

_____. 1891. A further review of the avian fauna of Chester County, South Carolina. Auk 8:167-173.

McNair, D.B. 1986. Past breeding distribution of eleven species in Georgia based on nest records from egg data slips. Oriole 51:28-31.

_____. 1990a. Dickcissels breed in Darlington County, South Carolina. Chat 54:36-37.

_____. 1990b. Dickcissels breed in Marlboro County, South Carolina. Chat 54:37-40.

Meanley, B. 1963. Nesting ecology and habits of the Dickcissel on the Arkansas Grand Prairie. Wilson Bull. 75:280.
Mulvihill, R.S. 1988. The occurrence of Dickcissels (*Spiza americana*) in western Pennsylvania during the 1988 nesting season - its possible bearing on the species unusual history in eastern North America. Pennsylvania Birds 2:83-87.
Murphey, E.E. 1937. Observations on the bird life of the Middle Savannah Valley,1890-1937. Contrib. Charleston Mus. 9.
Oberle, M. 1983. Dickcissel near Plains, Georgia. Oriole 48:42-43.
Odum, E.P. 1947. Dickcissel at Athens. Oriole 12:34-35.
Parks, R.A. 1951. The Dickcissel nesting near Atlanta. Oriole 16:39-40.
Patterson, T.K. 1984. Dickcissels breeding in Georgia Coastal Plain. Oriole 49:42-44.
Pearson, T.G., C.S. Brimley, and H.H. Brimley. 1942. Birds of North Carolina. Revised 1959 by D.L. Wray and H.T. Davis. N.C. Dept. Agric., Raleigh.
Post, W., and S.A. Gauthreaux, Jr. 1989. Status and distribution of South Carolina birds. Contrib. Charleston Mus. 18.
Schartz, R.L., and J.L. Zimmerman. 1971. The time and energy budget of the male Dickcissel (*Spiza americana*). Condor 73:65-76.
Simpson, D.C. 1955. Breeding Dickcissels at Winston-Salem. Chat 19:68-69.
Simpson, M.B., and S.W. Simpson. 1983. Moses Ashley Curtis (1808-1872): contributions to Carolina ornithology. North Carolina Hist. Rev. 60:137-170.
Smithwick, J.W.P. 1897. Ornithology of North Carolina. Bull. 144, N.C. Agric. Expt. Sta. Pages 193-228.
Smyth, T. 1930. The Dickcissel (*Spiza americana*) in South Carolina. Auk 47:421-422.
Sprunt, A., Jr., and E.B. Chamberlain. 1931. Second Supplement to Arthur T. Wayne's Birds of South Carolina. Contrib. Charleston Mus. 6.
_____. 1949. South Carolina bird life. Univ. South Carolina Press, Columbia.
U.S. Dept. Agri., Weather Bureau. 1929. Report of the chief of the Weather Bureau 1928-1929. 250 pp. Gov. Print. Off., Wash., D.C.
Waters, A.R. 1978. Dickcissels in Augusta. Oriole 43:64.
Wayne, A.T. 1910. Birds of South Carolina. Contrib. Charleston Mus. 1. 254 pp.
Whitney, N.R., Jr. 1953. A Dickcissel record for Houston County. Oriole 18:9.
_____. 1954. Further notes on the Dickcissel in Houston County. Oriole 19:35-36.
Zimmerman, J.L. 1966. Polygyny in the Dickcissel. Auk 83:534-546.
_____. 1971. The territory and its density dependent effect in *Spiza americana* Auk 88:591-612.
_____. 1982. Nesting success of Dickcissels (*Spiza americana*) in preferred and less preferred habitats. Auk 99:292-298.

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GENERAL NOTES

TUNDRA SWANS NEAR GRIFFIN - On Sunday 31 December 1989 Paul Raney and I were on a whirlwind tour of the Metropolitan Atlanta area, looking for waterfowl on area reservoirs and lakes. We were aware of several rare to accidental sightings in the area the previous week, birds apparently brought down by an arctic cold front that plunged temperatures to the near zero mark around Atlanta. So at Paul's suggestion, we decided to "go the extra mile" and check the Griffin Reservoir in Spaulding County.

Upon arriving, we found this site quite productive for several species of ducks. But in addition, when we checked a corner of the reservoir not visible from the road, we found 9 large birds near the opposite bank, approximately 400 m from our location. A quick glance through our binoculars yielded the unmistakable conclusion that we were looking at swans. "But," said Paul skeptically, "Are they wild?" As we were setting up our spotting scopes, we each thought the birds would turn out to be escaped Mute Swans (*Cygnus olor*).

What we observed were 9 birds, 4 adults and 5 immatures, the latter evidenced by their gray necks. The younger birds had pinkish bills, and the adults had black bills. We were concerned with the low light conditions of this overcast day, and the distance of the birds from our optical equipment, that we might be missing the orange bills of adult Mute Swans. Yet we could see no "knob" at the base of the bills of the adults, as the Mute Swan would have. Further, when the birds swam, their necks were held in almost a perfectly straight line, perhaps tilted back at a 5-10 degree angle, but nevertheless straight. At times while preening or foraging, the birds would bring their necks into an "S" configuration, but never while swimming. We concluded we were looking at a small flock of Tundra Swams (*Cygnus columbianus*).

Our conclusion was reinforced when on the way to another area lake we passed a farm with several domesticated Mute Swans on a small lake. We quickly stopped the car and viewed these birds through our telescopes, for a contrast with the Tundra Swans we had just left. The orangeish bill of the Mute Swan was self-evident, even in the overcast light conditions. Additionally, the knobby bill created a sharp angle with the forehead line, contrasting with the less pronounced forehead-mandible angle of the Tundra Swan. The Mute Swan also appeared a chunkier bird with a thicker neck than the Tundra Swan. At this time we had no doubt as to our earlier most fortunate sighting.

We found out how fortunate indeed, when several observers made the trip to the Griffin Reservoir the next day only to find no trace of any of the swans we had observed 24 hours earlier.

Joel R. Hitt, 2685 Briarfield Way, Lawrenceville, GA 30243.

WHITE-FRONTED GOOSE SIGHTING IN CLAYTON COUNTY - On 26 December 1989 at about 0900 I entered the E.L. Huie Land Application Facility in Clayton County in eager anticipation of what unusual birds might have been driven there by the bitter cold wave which had swept through the South on Christmas Day. The Atlanta area temperature for the previous two days had been as low as 8 degrees F but it was now in the twenties and a clear day.

As I pulled up to the east side of the northwest pond, I noticed two distinctive birds sitting on the far side at the edge of that pond among a large group of Canada Geese (*Branta canadensis*). Upon closer inspection these two birds turned out to be Greater White-fronted Geese (*Anser albifrons*). I initially viewed them from a distance of approximately 100 m with aus Jena Notarem (10X42) binoculars, but upon realizing what I was probably looking at, I used my Celestron C-90 spotting scope which gave excellent views of the geese. I was able to observe quite well the orange-yellow bills with their distinctive white band at the base. The color of the bill indicated they might be of the Greenland race (*A.a. flavirostris*) rather than the more expected *A.a. frontalis* subspecies from NW North America. I also noted the dark patches across the belly.

The next day I returned with my wife and another couple and we were able to again observe the two geese in the same pond at distances of 50 m. The geese were seen at this same place for a few days but then moved to a pond about two miles away where they were last seen on 18 February 1990 by Patrick Brisse.

The Annotated checklist of Georgia birds (Haney, J.C., *et al.*, 1986, GOS Occ. Publ. No. 10) describes the species as being a "rare winter visitor and resident, primarily in the coastal plain". This was the first record for the Atlanta area. To see them in Atlanta was indeed a Christmas present brought by the extreme cold wave which was unique in an otherwise mild winter.

Ellery McClintock, 4712 Pool Road, Winston, GA 30187.

WHITE-WINGED SCOTER AT SWEETWATER CREEK STATE PARK - Chris Geller left a message on the Atlanta Audubon Society Hotline on 28 December 1989 reporting a White-winged Scoter (*Melanitta fusca*) at the Sweetwater Creek State Park in Douglas County.

Arriving at the reservoir on 30 December at about 1300, I readily found a dark waterfowl about 80 m north of the main parking lot. The humped scoter bill, two white spots on the head, and white wing patches were prominent even with the scoter at rest. The bird was viewed both with 8.5X binoculars and a spotting scope.

Many observers saw the scoter as it remained about the reservoir until at least 3 March 1990. This appears to be the fourth record for Atlanta of a species listed in the *Annotated checklist of Georgia birds* (Haney, J.C., *et al.*, 1986, GOS Occ. Publ. No. 10) as being a rare winter visitor inland.

Paul Raney, Jr., 504 Harvest Grove Lane, Conyers GA 30208.

WINTER SPECIMENS OF THE BROAD-WINGED HAWK IN GEORGIA AND SOUTH CAROLINA: SOME CORRECTIONS - Two Broad-winged Hawks (*Buteo platypterus*) have been collected in Georgia during the winter. An immature female was obtained on 29 December 1902 at St. Mary's, Camden County, by I.F. Arnow. We examined the specimen, which is in the University of Georgia collection (UGAMNH 533). The first winter specimen from Georgia was an immature male collected on 20 February 1901, in Richmond County by E.C. Morris, who gave it to E.E. Murphey (ChM 52.117.942). This record has been incorrectly cited in Burleigh (1958) and Haney *et al.* (1986), as both give the collection date as 20 February 1935. It is easy to understand the source of this error by reading the original reference to the record (Murphey 1937). Murphey does not specifically state that the specimen was collected in 1901, but the manner in which the account is written leads the reader to believe that it was collected in 1935: "Earliest specimen taken September 19th, one observed at close range January 1st, 1935. An adult female taken February 20th, Richmond County, Georgia". The final sentence refers to the 20 February 1901 specimen, which we confirmed from the specimen label. The specimen was acquired by the Charleston Museum in 1952, but the specimen was misidentified during the accessioning process, and was placed among the Red-shouldered Hawk (*B. lineatus*) series. Burleigh possibly was unable to examine the specimen and the accompanying data because of the misidentification.

We know of no winter specimens for South Carolina. Wayne (1910) and Sprunt and Chamberlain (1949) state that A.T. Wayne collected a bird on 15 January 1889. However, this specimen is not in any of the known repositories of Wayne's specimens. Although Wayne lists this hawk among his notebook entries for 15 January 1889, unlike all the other entries, he did not determine the sex of the bird, nor assign a collection number to it. These omissions suggest that the bird was misidentified or lost.

LITERATURE CITED

Burleigh, T.D. 1958. Georgia birds. University of Oklahoma Press, Norman.

Haney, J.C., P. Brisse, D.R. Jacobson, M.W. Oberle and J.M. Paget. 1986. Annotated checklist of Georgia birds. Georgia Ornithological Society, Occ. Publ. No. 10.

Murphey, E.E. 1937. Observations on the bird life of the middle Savannah valley. Contrib. Charleston Museum IX.

Sprunt, A. Jr. and E.B. Chamberlain. 1949. South Carolina bird life. Contrib. Charleston Museum XI.

Wayne, A.T. 1910. Birds of South Carolina. Contrib. Charleston Museum I.

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OWL NEST FAILS STRUCTURALLY - On 11 January 1990, in a suburban yard in Decatur, DeKalb County, Georgia, the nest of a Great Horned Owl (*Bubo virginianus*) ruptured so massively in its center that the two eggs then in incubation fell to the ground. The nest, about .5 m in diameter, was made of small sticks and owl down. It rested on the branch of a pine tree about 25 m. above the ground. Both eggs were broken in the fall. The chicks inside were nearly ready to hatch, being described by another observer as having well-formed beaks and some feathering. The nest remained on the branch, but its center was a sizable hole.

These owls or others had been in the neighborhood for at least twelve years previously, and had successfully raised one or two chicks half a dozen times. This particular nest had been used two years ago, producing at that time one chick. Last year they used a nest across the street from this one. There are in fact many suitable nests in the area, which has many large pine trees containing old nests. Several such nests are within sight of this failed one.

There are two questions: why the nest failed, and why the owls did not choose a stronger one initially. Wind did not blow the nest down, and the eggs did not seem to have been damaged by predators (raccoons frequent the area, and crows mob the owls daily). Possibly the weight of an adult simply forced the eggs through a flimsy bottom.

Anselm Atkins, 2525 McKinnon Dr, Decatur, GA 30030

BLUE JAY ATTACKS STUNNED FINCH - It is well known that the Blue Jay (*Cyanocitta cristata*) occasionally eats the eggs and young of other birds. Surely it must be a rare sight, however, to see one attack and attempt to eat an adult bird. On 13 January 1990, around 1100, at this registered FeederWatch station in Decatur, DeKalb County, Georgia, a bird struck a window 5 m. from the feeder and fell to the ground, stunned. This is a fairly common occurrence at this station. The observer immediately went to the window and saw, on the ground, a Blue Jay vigorously attacking a female plumaged Purple Finch (*Carpodacus purpureus*). Jays had not been common at the feeder lately, none having been there at all that day; so it is not known where this one had been when the finch hit the window. The jay kept after the finch with its beak. The finch tried to burrow into the leaves. The jay several times got the finch in its beak, but the latter always shook loose. After 20 seconds the jay gave up, uttering a loud squawk as it flew. The finch slowly recovered, flying away about an hour later.

Anselm Atkins, 2525 McKinnon Dr., Decatur, GA 30030

AN INTERIOR WINTER RECORD FOR INDIGO BUNTING - On 19 February 1990 I received a call from John Yarbrough of Gainesville asking for help in identifying a bird which had been visiting his feeder. From his description I envisioned some escaped exotic species such as White-headed Munia (*Lonchura maja*).

On 22 February 1990 I was able to stop by his house in Hall County and enjoy a cup of coffee while watching his feeder. His "strange" bird soon appeared and turned out to be an albinistic Field Sparrow (*Spizella pusilla*). Mr. Yarbrough seemed rather shocked at my casual interest in his mystery bird and my rather enthusiastic interest in another rather nondescript visitor to his feeder which also appeared while I was there. This second bird was a female plumaged Indigo Bunting (*Passerina cyanea*). In addition to the overall brownish plumage, the bird had a slight bluish wash on the tail, shoulder and flank. In this pluamge the species is extremely difficult to correctly identify as to age and sex.

I returned to Mr. Yarbrough's house on 24 February and observed the bird again. I returned three or four more times during the next two weeks but never observed the bird again. The *Annotated checklist of Georgia birds* (Haney, J.C. *et al.*, 1986, GOS Occ. Publ. No. 10) lists the Indigo Bunting as "rare to accidental in winter on the coastal plain" with no winter records listed for the Piedmont. This was certainly my first winter record ever for Georgia.

John Paget, 1530 Vine Street, NE, Gainesville, GA 30501.

FROM THE FIELD

August - November 1989

As anticipated, birding picked up appreciably with the advent of the fall migration. However, time afield along the coast proved far more productive than forays inland. Even Georgia's close brush with Hurricane Hugo failed to result in any extralimital sightings. This extremely damaging storm passed just north and east of Georgia.

Abbreviations used include: AASMW - Atlanta Audubon Society Migration Walks, ACGB - Annotated Checklist of Georgia Birds, AP - Ash Pond, Plant Scherer, Monroe County, ELHLAF - E.L. Huie Land Application Facility in Clayton County, JIBS - Jekyll Island Banding Station, MBBT - Merry Brothers Brick and Tile Company in Augusta, MIP - Macon Industrial Ponds, OCNAS - Ocmulgee Chapter of the National Audubon Society, and WMA - Wildlife Management Area.

SPECIES ACCOUNTS

PACIFIC/ARCTIC LOON - On 19 November Paul Sykes located a bird at Tybee Island that field marks suggested was an Arctic Loon. The field separation of Arctic and Pacific Loons is currently a hot topic of investigation and more technical information should be available in the future. The Arctic Loon is rarely seen in North America outside of western Alaska. The Pacific Loon, on the other hand, has been recorded along the East Coast and is on Georgia's hypothetical list.

COMMON LOON - Peggy Jones reported a single bird apparently stranded on a pasture pond near Milan, Telfair County, on 18 August to Donnie Screws. The loon had arrived at the pond about two months earlier and found the pond too small to permit a takeoff.

PIED-BILLED GREBE - A young bird seen by a number of observers in early Setpember up to 10 September at the ELHLAF represents the first nesting of the species in the Atlanta area (*fide* Terry Moore).

HORNED GREBE - Numbers of this species appeared to be down this fall. The greatest numbers reported inland were nine at Lake Juliette on 22 November (Terry Johnson).

EARED GREBE - The only birds sighted were at Lake Juliette. The OCNAS spotted one on the AP on 16 September and Mike Chapman and Terry Johnson saw what was perhaps the same bird on 30 September. Single birds were seen on 6 and 20 October and 18, 20 and 22 November with two birds being seen on 10 November (Terry Johnson).

AMERICAN WHITE PELICAN - Seven of these rare visitors were seen by Helen Ogren at Andrews Island near Brunswick on 15 October.

DOUBLE-CRESTED CORMORANT - Twenty were observed at the ELHLAF on 29 October. This is an unusually high number for this inland location (*fide* Terry Moore).

AMERICAN BITTERN - A solitary bird was an unusual find for Ann and Vernon Waters at the MBBT ponds on 25 November.

GREAT EGRET - Ten of these uncommon visitors to the Piedmont were seen by Patrick Brisse at the ELHLAF on 1 October. Two birds were seen at this same location on 8 October (AASMW). Francis Michael saw a very late bird at the Conyers Monastery on 27 November.

TRICOLORED HERON - This species was reported from the MIP on 26 August and again on 2 and 19 September for a rare inland sighting (*fide* Ken Clark).

REDDISH EGRET - An immature seen on the South Beach at Jekyll Island by Bruce Dralle and Phyllis Bowen on 24 September constituted the only sighting reported.

CATTLE EGRET - A very late bird was seen at the MBBT ponds on 11 November by Ann and Vernon Waters.

BLACK-CROWNED NIGHT-HERON - A rare summer sighting in the Atlanta area was an immature reported by Dale Hardee at the ELHLAF on 9 August.

WHITE IBIS - At the MIP six immatures were seen on 12 August by Ty Ivey and Ken and Arlene Clark and on 8 August, the same observers saw four adult birds at the same place.

Kathy Matthews made an unusual sighting of an immature along Georgia Highway 19 near Blairsville and Vogel State Park on 19 August (*fide* Terry Johnson). Immatures often wander far into the interior of the state after the breeding season.

ROSEATE SPOONBILL - Two sightings, both at Andrews Island, near Brunswick were reported. Bruce Dralle found 15 between 18 and 20 August while Helen Ogren observed one on 15 October.

WOOD STORK - Five reports of this endangered species were received. Eight adults were spotted at the MIP by Ty Ivey and Ken and Arlene Clark on 12 August and Ty Ivey reported 10 from the same area on 2 September. Wayne Thomaston sighted a single bird near Bolinbroke in Monroe County in early August (*fide* Terry Johnson). Wood Storks were also seen at the MIP on 19 September (Jerry and Marie Amerson). Eight birds were observed by Gloria and Tom Justice near the Crawford and Monroe County lines on 5 November (*fide* Ken Clark).

SNOW GOOSE - All birds sighted were blue phase individuals. A single bird took up residence at a lake on the Emory University campus 14-30 November (*fide* Terry Moore). Two birds were seen intermingling with a flock of Canada Geese on the Rum Creek WMA on 18 and 22 November (Terry Johnson).

NORTHERN PINTAIL - In recent years the continental population of this species has plummeted. An unusually high number of nine were seen at Lake Juliette on 20 November (Terry Johnson). Earlier in the summer, Patrick Brisse found a single female at Peachtree City Lake on 12 August and 23 September. What was almost certainly the same bird was also seen earlier in the summer.

NORTHERN SHOVELER - A very early bird was seen at the MIP on 2 September by Ty Ivey. Another early bird was found at the ELHLAF by Patrick Brisse on 1 October.

GADWALL - Bruce Dralle found three early arrivals at Andrews Island between 18 and 20 August. This species is not noted in the ACGB as ever summering in Georgia.

CANVASBACK - An early arrival was found at the MIP by Marie and Jerry Amerson on 21 October.

SURF SCOTER - A female-plumaged bird was sighted at Jekyll Island by Dale Hardee and Bruce Dralle on 22 October.

COMMON GOLDENEYE - This species is always a good find. Hugh Garrett, Francis Michael and Terry Moore found a single bird at ELHLAF on 19 November.

TURKEY VULTURE - In excess of 300 birds were observed by members of JIBS passing over Jekyll Island on 21 October (*fide* Terry Moore).

AMERICAN SWALLOW-TAILED KITE - Seven birds were observed by Terry Johnson, Kathy Darley, Eva Persons and Dan Forster near Brent in Lamar County on 14 August. Terry and Angela Johnson found one bird at this same location on 16 August.

MISSISSIPPI KITE - Extremely rare in the Atlanta area, two birds were seen by Francis Michael at the Conyers Monastery on 19 August.

BALD EAGLE - Efforts to restore the Bald Eagle seem to be paying off. Nine sightings of this endangered species were reported. An immature bird was seen at the Clark Hill WMA on 2 August (Dwight Harley). Donna, Angela and Terry Johnson along with Bill Leverett spotted an adult at the Rum Creek WMA on 27 August. Kathy Darley found an adult at the Rum Creek WMA eagle nest on 7 November. Bob Humphries and Milton Hopkins watched an adult near Ray on 21 September. Two adults were observed apparently migrating with a flock of Turkey Vultures over Jekyll Island on 21 October (Terry Moore). Patrick Brisse spotted an adult at Darien on 28 October. A single bird was observed at Lake Juliette on 11 November (*fide* Terry Moore). Another bird was seen in Harris County by Roger Birkhead on 23 August (*fide* Sam Pate). An adult was reported at Lake Juliette on 5 October (Terry Johnson).

BROAD-WINGED HAWK - Three rather late sightings were reported. Francis Michael saw a flock of 10 at the Conyers Monastery on 3 October. Peggy Moore spotted 5 birds in north Fulton County also on 3 October. Terry Johnson and Mike Chapman saw one individual over the Rum Creek WMA on 30 October.

PEREGRINE FALCON - Patrick Brisse saw a single bird over downtown Atlanta on 29 August. This bird was probably one of the birds released during a joint Georgia Department of Natural Resources, Zoo Atlanta and Georgia Power hacking project. Peggy Moore saw a bird in north Fulton County on 24 September. A bird was seen near Dawsonville by Frank McCamey on 6 October. Jerry and Marie Amerson spotted a bird near Adrian on 12 November. Members of the Augusta Audubon Society were treated to the sight of a falcon spooking 15 Fish Crows along the Augusta levee on 7 October (*fide* Ann Waters).

KING RAIL - A party led by Dick Lux was entertained by a bird found at the MBBT ponds on 5 November.

AMERICAN COOT - This rare Georgia breeder nested for the first time in Atlanta with one adult raising 3 young at the ELHLAF during August and September. By 30 September only one young was seen with the adult (Patrick Brisse). Paul Raney saw 2 adults and a half grown young at Griffin Reservoir on 27 August for another nesting record.

SANDHILL CRANE - Over the Atlanta area a total of 9 reports were received totaling 450+ birds between the dates of 3 and 29 November (*fide* Terry Moore). Five of the reports occurred between 13 and 19 November with 19 November being the peak count with 290+ birds.

BLACK-BELLIED PLOVER - This species is considered to be a rare transient in the interior of the state. Clarence Belger in the company of Ann and Vernon Waters observed a single bird at MBBT ponds on 25 November.

LESSER GOLDEN-PLOVER - Two sightings were reported of this rare fall migrant. Terry and Donna Johnson found one bird at the Plant Scherer Ash Pond on 8 September. Another individual was observed 20-25 September at the ELHLAF by Lloyd Snider, Patrick Brisse and Bruce Hallett.

PIPING PLOVER - Only two reports of this threatened species were received. Two birds were seen by Bruce Dralle between 18-20 August on Jekyll Island. Ann and Vernon Waters found one bird on Tybee Island on 28 October.

KILLDEER - A melanistic form was observed by a party led by Ty Ivey at the MIP on 21 August. Since this form has perhaps never been documented before, a note detailing this observation would be quite appropriate for *The Oriole*.

BLACK-NECKED STILT - Six birds were observed between 18-20 August at Andrews Island by Bruce Dralle.

GREATER YELLOWLEGS - A rather late bird was found near Covington on 6 November (Paul Raney).

LESSER YELLOWLEGS - This species stayed at the ELHLAF rather late with 12 on 8 October (AASMW) and two on 28 October (Patrick Brisse). One bird was still there on 24 November (Terry Miller) and on 26 November (Bruce Dralle *et al.*). Paul Raney had an additional bird at Covington from 11 to 17 November.

WHIMBREL - A good count of 21 was made on St. Simons Island by Bruce Dralle between 18-20 August.

MARBLED GODWIT - From late September through the first three weeks in October, as many as 8 birds were seen on Jekyll Island (*fide* Terry Moore).

SANDERLING - This species is unusual inland in the state. A bird was found by Paul Raney at Covington on 23 September. Five individuals were found at the Rum Creek WMA on 8 September (Terry Johnson). Single birds were also seen at the Rum Creek WMA on 16 and 18 September by Terry Johnson and at the ELHLAF on 26 September by Carolina Lane.

WESTERN SANDPIPER - This species was recorded by Ken and Arlene Clark and Ty Ivey at the MIP on 12 August. Terry Johnson and Kathy Darley found the species at the Plant Scherer Ash Pond on 24 August. One individual was observed off the levee near Augusta on 16 September by Clarence Belger and Ann and Vernon Waters.

WHITE-RUMPED SANDPIPER - One bird was found at the ELHLAF on 7 October by Patrick Brisse and was seen again the next day during an AASMW.

BAIRD'S SANDPIPER - Five reports were received of this rare species. Three birds were found at Jackson's Pasture near Dublin by Hunter Patterson on 12 August. Bruce Dralle found a bird on Jekyll Island on 19 August. Joe Greenberg's class along with Peggy and Terry Moore found an individual at Andrew's Island on 14 October. Another bird was seen during a AASMW at ELHLAF on 3-4 September. Jerry and Marie Amerson and Ty Ivey found a single bird at the MIP on 10 September.

DUNLIN - Quite rare in the Atlanta area, the species was observed by Patrick Brisse at the ELHLAF on 28 October. Ty Ivey and others found a bird at the MIP on 2 September.

STILT SANDPIPER - The species was found at the ELHLAF between 13 August and 24 September (*fide* Terry Moore). The largest number seen at any one time was three on 17 September.

BUFF-BREASTED SANDPIPER - Patrick Brisse found two birds at the ELHLAF on 3 September. John Paget found an individual at the Gainesville Airport on 22 September. The first sighting of the species at the Plant Scherer Ash Pond was made by Terry Johnson, Dan Forster and Kathy Darley on 8 September.

SHORT-BILLED DOWITCHER - An surprising number was observed between 12 August and 5 September at the ELHLAF (m.ob.). The peak number was 11 on 3 and 4 September (Patrick Brisse and AASMW).

WILSON'S PHALAROPE - A single bird was discovered at Jackson's Pasture near Dublin on 12 August by Hunter Patterson.

RED-NECKED PHALAROPE - Peggy and Terry Moore found a bird at Andrews Island on 14 October.

LAUGHING GULL - Ty Ivey and Jerry and Marie Amerson spotted this rare inland visitor at the MIP on 10 September.

FRANKLIN'S GULL - What was perhaps the sixth Georgia sighting of this species was made by Paul Sykes, Bill Blakeslee, Dale Hardee and Terry Moore at Jekyll Island on 8 October (*Oriole* 54:47-49).

LESSER BLACK-BACKED GULL - A few adults were regularly seen at the JIBS from late September to 21 October (*fide* Terry Moore).

GREAT BLACK-BACKED GULL - There are indications that this species may be summering along the Georgia coast. Bruce Dralle saw a bird between 18-20 August at St. Simons Island.

CASPIAN TERN - One bird was observed at Lake Tobesofkee by Paul Hoinowski on 25 August. Two birds were seen at the Plant Scherer Ash Pond on 30 September (Terry Johnson).

SANDWICH TERN - A very unusual inland sighting of this bird was made by George Reeves at the MBBT ponds on 23 September (*fide* Ann Waters). Ann Waters and others reported finding six individuals on 28 October at Tybee Island.

COMMON TERN - John Paget made a rare inland sighting of this species at Lake Lanier on 15 August.

FORSTER'S TERN - Four were found at the MIP by Ty Ivey, Ken and Arlene Clark on 12 August. Two individuals were reported by John Paget at Lake Lanier on 15 August. One bird was seen at Sweetwater Creek State Park in Douglas County by Paul Raney on 15 October. Ann and Vernon Waters and others watched three birds at the MBBT ponds on 12 September. Four terns were seen on both 16 and 30 September at the Plant Scherer Ash Pond (Terry Johnson).

LEAST TERN - Ken and Arlene Clark and Ty Ivey found this rare inland visitor at the MIP on 12 August.

BLACK TERN - Forty birds were seen at the Plant Scherer Ash Pond by Terry Johnson and Kathy Darley on 21 August. John Paget viewed 14 birds at Lake Lanier on 15 August. Two individuals were found at the ELHLAF by Francis Michael and Joel Hitt on 31 August. Twenty birds were counted at Callaway Gardens by Peggy and Fred Spencer on 16 August (*fide* Sam Pate).

BLACK-BILLED CUCKOO - A bird was seen in Forsyth County on 19 August by Jack Carusos and John Paget. Paul Hoinowski and others found a bird at the MIP on 9 September. The species was also recorded by members of the Ocmulgee Audubon Society on Sapelo Island 6-8 October (*fide* Ken Clark).

YELLOW-BILLED CUCKOO - A record total of 12 was banded between 25 and 30 September at the JIBS (*fide* Terry Moore).

COMMON NIGHTHAWK - The greatest number reported during the period was 500+. These birds were seen over north Fulton County on 27 August by Peggy and Terry Moore.

RUFOUS HUMMINGBIRD - A bird took up residence at the feeder of Rosemary and Bubba Evans in Smarr on 4 November and stayed through the remainder of the month. The bird was captured and banded by Bob and Martha Sargent. Two other birds were banded in the Atlanta area by the Sargents during the period.

YELLOW-BELLIED FLYCATCHER - Reports of this rare migrant were up this season. Bruce Dralle found one bird near Darien on 20 August. Francis Michael reported finding single birds at the Conyers Monastery on 19 August and 14 September and two birds on 20 September. Chuck Hunter spotted another individual in Decatur on 4 September.

WILLOW FLYCATCHER - A bird was banded at the JIBS on 13 October (*fide* Terry Moore).

LEAST FLYCATCHER - A total of four individuals were banded at the JIBS as follows: one on 25 September, two on 27 September, and one on 11 October (*fide* Terry Moore).

GRAY KINGBIRD - Two adults and two immatures were seen by Bruce Dralle on Jekyll Island on 19 August.

RED-BREASTED NUTHATCH - Six sightings of this irregular visitor were received. Birds were seen at Jekyll Island, Lawrenceville, Piedmont National Wildlife Refuge, and

Columbus (*fide* Terry Moore).

WHITE-BREASTED NUTHATCH - This bird is rare in central Georgia. Marie and Jerry Amerson and Ty Ivey found one bird at the MIP on 10 September. Marie and Jerry Amerson later found two birds at the Ocmulgee National Monument on 19 September.

BLUE-GRAY GNATCATCHER - A late bird was seen by Joe Greenberg's class at the Rum Creek WMA on 11 November.

VEERY - A good count of five birds was made during a AASMW in the Fernbank Forest on 9 September.

CEDAR WAXWING - A rare summer sighting was made on 19 August in Forsyth County by John Paget and Jack Carusos.

BREWSTER'S WARBLER - Amazingly, two birds were seen at the Fernbank Forest during a AASMW on 23 September. Patrick Brisse saw a single bird on 8 October in Stone Mountain.

LAWRENCE'S WARBLER - A bird was seen at the Fernbank Forest on 16 September by participants in the AASMW.

NASHVILLE WARBLER - Three sightings were made of this rare to uncommon fall migrant. John and Kate Swiderski found a lone bird at Cartersville on 4 September. Nancy Iha sighted a bird at Marietta on 17 September. John Paget discovered an individual in Gainesville on 6 October.

AMERICAN REDSTART - A record 52 were banded at the JIBS on 28 September (*fide* Terry Moore).

PROTHONOTARY WARBLER - A very late bird was banded on 28 September at the JIBS (*fide* Terry Moore).

CONNECTICUT WARBLER - Four of these rare fall migrants were banded at the JIBS. Single birds were banded on the following dates: 28, 29 and 30 September, and 12 October (*fide* Terry Moore).

COMMON YELLOWTHROAT - A record one day total of 125 was banded at the JIBS on 25 September (*fide* Terry Moore).

LARK SPARROW - Members of the Ocmulgee Audubon Society observed this rare species on Sapelo Island on 5 August (*fide* Ken Clark). Ken Clark and Arlene Clark and Ty Ivey found a bird at the MIP on 12 August and Ty found another immature at the same place on 25 November.

LINCOLN'S SPARROW - Single birds were banded on 15 and 23 October near Dawsonville by Frank McCamey.

LAPLAND LONGSPUR - George Reeves and Ann and Vernon Waters found an immature with six Water Pipits in a plowed field at the MBBT ponds on 23 November.

YELLOW-HEADED BLACKBIRD - Jackie Dilworth of Atlanta hosted a male at her feeder from 26 to 30 September (*fide* Terry Moore).

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