

THE ORIOLE

A Quarterly Journal of Georgia Ornithology; Official Organ of the
Georgia Ornithological Society



VOL. XXXIV

SEPTEMBER, 1969

NO. 3

THE ORIOLE

EDITOR

Leslie B. Davenport, Jr., Biology Department, Armstrong State College, Savannah, Ga. 31406

EDITORIAL COMMITTEE

J. Fred Denton; George A. Dorsey; Milton N. Hopkins, Jr.; Harold C. Jones; Richard H. Peake, Jr.

THE ORIOLE is mailed to all members of the Georgia Ornithological Society not in arrears for dues. Classes of membership are as follows:

Regular — \$3.00 Library — \$2.00 Sustaining, Garden Club — \$5.00; Life — \$50.00;
Patron — \$100.00

Inquiries concerning back issues of THE ORIOLE or OCCASIONAL PAPERS OF THE G. O. S. should be directed to the Business Manager.

All dues should be remitted to the Treasurer of the Society: Robert Overing, Rt. 2, Chapin, S. C. 29036.

CONTENTS

SUMMARY OF CHRISTMAS BIRD COUNTS ON SAPELO ISLAND, 1958-68

R. E. Hamilton33

A COMPILATION OF TEN YEARS OF CHRISTMAS BIRD COUNTS IN GEORGIA

Robert E. Cook45

GENERAL NOTES55

NEWS AND COMMENTS60

GEORGIA ORNITHOLOGICAL SOCIETY Founded December 13, 1936

Mrs. E. O. Mellinger, President

L. A. Wells, Vice-President

C. William Dopson, 2nd Vice-President

Mrs. Norene Boring, Secretary

Robert Overing, Treasurer

W. P. Kellam, Librarian

Business Manager: T. McRae Williams, 755 Ellsworth Drive, N. W. Atlanta, Georgia 30318.

THE ORIOLE

A Quarterly Journal of Georgia Ornithology; Official Organ of the
Georgia Ornithological Society

VOL. XXXIV

SEPTEMBER, 1969

NO. 3

SUMMARY OF CHRISTMAS BIRD COUNTS ON SAPELO ISLAND, 1958-68

R. E. HAMILTON

A summary of Christmas Bird Counts on Sapelo Island, Ga., for the 11-year period 1958-1968 appears in accompanying tables. One hundred eighty-two species and an estimated 104,245 individual birds were recorded. Yearly counts ranged from 92 to 155 species, with the high count in 1967 ranking fifteenth among the 839 counts from 50 U. S. states and Canada published by the National Audubon Society in co-operation with the United States Fish and Wildlife Service.

Georgia's mainland is separated from the Atlantic ocean by a chain of barrier islands scattered along nearly 150 miles of coastline. Sapelo, with St. Catherine's to the north and St. Simons to the south, is one of six larger islands best known as the Golden Isles. Between mainland and islands is a vast expanse of rich marsh, threaded by tidal rivers and and creeks. The Savannah, Ogeechee, Altamaha, Satilla, and St. Marys rivers feed the salt marshes, but no major stream flows through Sapelo Sound to the north or Doboy Sound to the south of Sapelo.

Due east of the town of Meridian, Sapelo Island is about 12 miles long and two to four miles wide, with an area of approximately 15,000 acres. With a wide beach on the ocean side, sand dunes, marsh, several fresh-water ponds, mud flats, pasture, fields formerly cultivated, drainage ditches, and pine and oak forests, Sapelo provides diverse habitats for many species of birds.

Sapelo can be reached only by boat or small plane. Privately owned since Colonial days, like most of Georgia's barrier islands, until the major portion was purchased in 1968 by the state, Sapelo can be visited only by invitation or after securing permission. The late R. J. Reynolds, Jr., last of the private owners, set up the Sapelo Island Research Foundation, which owns about 4,000 acres on the southern end of the island, and the University of Georgia established its Marine Biological Institute

there. The remainder of Sapelo belongs to the state and will be used by the Game and Fish Commission to propagate and study wild animals.

The University of Georgia sponsors the Sapelo count and without its assistance and the facilities made available by the Marine Institute the count could not be taken. There are no public facilities on the island.

TABLE 1: SUMMARY.—The count reported for each of 182 species is tabulated in 11 columns headed 1958 through 1960. The next column shows the number of years in which the individual species has been reported in Christmas counts. The last column at the right gives the total individuals of the species reported in the 11 Christmas counts. These last two columns give a general idea about whether a species is always, usually, occasionally, or rarely seen, and of its relative abundance. However, two examples illustrate the advisability of checking the first 11 columns. The Common Egret was reported in each of 11 counts, with nine to 166 individuals, and a total of 469 individuals. Bonaparte's Gull also was seen in each of 11 counts with individuals totaling 5,045. But 5,000 were reported in 1964 and only 45 in the other 10 years.

The abundance of shore and water birds is one reason Sapelo is excellent territory for the Christmas Bird Count. Twenty-one ducks have been recorded, but the range has been from six to 19 from year to year during the summary period. Sparrows also are abundant, with 14 species appearing in the summary, including two Ipswich, one Henslow's, and one Lincoln's. Always in evidence are Myrtle Warblers, with 150 to 2,100 on each count and a total of 8,531 for the period. Nine warblers, including one Parula and one Yellow-breasted Chat, have been recorded.

Woodpeckers are common, with five of the seven species on the list reported each year, and the calls of the Red-bellied Woodpecker and Yellow-shafted Flicker are heard constantly in wooded areas.

Prior to 1966 neither the Blue Jay nor the Tufted Titmouse, both common on the mainland a few miles away, were recorded on Sapelo Christmas Bird Counts. In 1966, 1967, and 1968 Jays were found up and down the island, but the Titmouse still has not been sighted on Sapelo.

Chachalacas were introduced by the late Howard Coffin, who owned the island prior to Reynolds. They have been recorded in six years. Bobwhite and Turkeys have been seen in only three of 11 years.

Red-tailed, Marsh, and Sparrow hawks are recorded on almost every count, and the Bald Eagle has been seen in six of 11 years. Sharp-shinned,

TABLE 1. ELEVEN YEAR SUMMARY OF CHRISTMAS BIRD COUNTS ON SAPELO ISLAND, GEORGIA 1958-68.

Species	58	59	60	61	62	63	64	65	66	67	68	No. Yrs. Seen	TOTAL Indiv. uals
1 Common Loon					1	14	1	1	1	2		6	20
2 Red-throated Loon					2			8	1	2		5	14
3 Horned Grebe	2	2	2	3	16	21	17	6	28	4	3	11	104
4 Pied-billed Grebe	1	1	1	3	7	14	14	1	18	14	5	10	65
5 Brown Pelican	1	12	13	108	5	4	6	10	1	86		10	246
6 Gannet					4				1	1		3	6
7 Dbl.-crst. Cormorant	84	95	75	90	357	85	90	130	50	420	89	11	1565
8 Anhinga				2							2	2	4
9 Great Blue Heron	11	8	2	13	40	28	20	18	19	29	17	11	205
10 Green Heron		1	1				1	2	2	1	3	7	11
11 Little Blue Heron	2		2	6	30	10	9	10	21	10	10	10	110
12 Cattle Egret							2					1	2
13 Common Egret	28	10	9	19	70	166	51	38	19	36	23	11	469
14 Snowy Egret	2	6	1	10	103	63	11	24	36	32	28	11	316
15 Louisiana Heron	4		5	4	28	15	14	9	10	9	15	10	113
16 Blk.-crn. Night Heron	2				23	15	1	1	2	2	1	8	47
17 Yel.-crn. Night Heron										1		1	1
18 White Ibis									2			1	2
19 American Bittern					1		1					2	2
20 Mallard	30	6	12	7	16	6	3	2	19	20	5	11	126
21 Black Duck	23		6	9	105	77	1	47	16	19	58	10	361
22 Gadwall	4				22	32	62	9	59	4		7	192
23 Pintail			5		6	30	1		3	8		6	53
24 Green-winged Teal			2		4	14	1		4	8	12	7	45
25 Blue-winged Teal			1		1	2	1		2	1		6	8
26 American Widgeon	15		1		2	26	2	10	15	10	50	9	131
27 Shoveler						9				3		2	12
28 Wood Duck		4			10	3		2	4	2		6	25
29 Redhead								12	4	2		3	18

Species	58	59	60	61	62	63	64	65	66	67	68	No. Yrs. Seen	TOTAL Indiv-vid-uals
30 Ring-necked Duck	32	1	1	1	7	4	6		2	8	25	10	87
31 Canvasback	4	1	1	8	3	51	27	1	52	1		10	149
32 Greater Scaup									2	2		2	4
33 Lesser Scaup	60	500	3125	164	1026	667	3000	2400	10076	6	51	11	21,075
Scaup (sp.)									511				511
34 Common Goldeneye						1				2		2	3
35 Bufflehead	14	6		2	23	30	17	30	33	30	30	10	215
36 Oldsquaw						1		15	1		3	4	20
37 White-winged Scoter							6					1	6
38 Surf Scoter									2	1		2	3
39 Common Scoter													
40 Ruddy Duck	6	1	9		230	6		10	8	7	21	6	282
41 Hooded Merganser	39	2	16	29	17	81	5	13	12	21	2	9	141
42 Common Merganser		2	6		2	1			27	18	38	11	285
43 Red-breast, Merganser	4	8	65	65	169	41	21	5	65	45	27	10	450
44 Turkey Vulture		30	29	39	25	60	48	37	4	24	27	10	323
45 Black Vulture	1	2	3	3	19	44	49	16	35	101		10	273
46 Sharp-shinned Hawk					1	1		1		1		4	4
47 Cooper's Hawk		2			2			1		2		4	7
48 Red-tailed Hawk	3	1	1	2	13	16	5	8	6	9	5	11	69
49 Red-shouldered Hawk						1	1			2		3	4
50 Bald Eagle			1	1		1	1		1		1	6	6
51 Marsh Hawk	1	2		1	6	9	6	4	2	2	11	10	44
52 Osprey			1							1		1	1
53 Peregrine Falcon				1						3		2	4
54 Pigeon Hawk													
55 Sparrow Hawk	5	6	5	6	11	15	12	12	9	28	47	11	156
56 Bobwhite					15	10			1			3	26
57 Turkey	33		3	2								3	38
58 Chachalaca	4	6			2	4	2	1				6	19

59 King Rail				4	2	3	4	7	10	8	9		8	47
60 Clapper Rail	12	20	5	18	33	18	19	50	26	27	22		11	250
61 Sora				3		3							2	6
62 Virginia Rail	1			4	1		1			4			5	11
63 Common Gallinule	25		20	46	9	9	12	8	13	17	10		10	189
64 American Coot	100	50	33	30	128	34	68	4	106	12	3		11	568
65 Am. Oystercatcher	29	30	2	9	52	16	6	3	103	33	6		11	289
66 Semipalmated Plover	46	100	10	1	29	5	3	12	5	67	20	81	11	374
67 Piping Plover	2	3			4	2	2	3	8	3	4		9	31
68 Killdeer	8		4	10	44	14	4	4	10	13	24		10	135
69 Am. Golden Plover						1				1			2	2
70 Black-bellied Plover	2	66	35	52	66	48	72	28	117	107	102		11	695
71 Ruddy Turnstone	8	45	50	5	44	20	5	7	37	31	100		11	352
72 Am. Woodcock	1				1	4		1	2	7	4		7	20
73 Common Snipe	3	2	4	3	4	18	3	3	2	10	3		11	55
74 Long-billed Curlew									6				1	6
75 Whimbrel									6	3			2	9
76 Spotted Sandpiper	2	2	2	2	6	15	1	3	3	5	3		11	44
77 Willet		10	38	4	41	12	25	60	108	39	261		10	598
78 Greater Yellowlegs		2	2	5	26	12	43	2	5	5	4		10	106
79 Lesser Yellowlegs						1	6	1	1				4	9
80 Knot			2500			30	66	110	23	20	15		7	2764
81 Least Sandpiper	3	6	25	2	12	2	37	20	17	13	2		11	139
82 Dunlin	60	2000	502	240	835	267	111	15	513	367	680		11	5590
83 Long-billed Dowitcher					61	30	2		47				4	140
Dowitcher (sp.)										25			25	25
84 Short-billed Dowitcher		25		4									2	29
85 Semipalmated Sandpiper	14	50		41	27	25	9		15	20	175		9	376
86 Western Sandpiper		2	400		106			8	19	52	225		8	833
87 Marbled Godwit	2	50		21	20			20	20	52	88		4	72
88 Sanderling	60	6	50	21	120	16	32	30	52		260		11	735
89 Am. Avocet					1								1	1
90 Pomarine Jaeger							1						1	1

Species	58	59	60	61	62	63	64	65	66	67	68	No. Yrs. Seen	TOTAL Indiv. uals
Jaeger (sp.)					3		2		1	1			2
91 Grt. Bk.-backed Gull													5
92 Herring Gull	35	25	125	175	206	42	127	140	224	221	473	11	1793
93 Ring-billed Gull	45	60	225	400	725	391	207	61	111	161	385	11	2771
94 Laughing Gull	2	2	6			15	29	1	10	21	4	9	90
95 Bonaparte's Gull	1	2	4	3	1	6	5000	1	11	15	1	11	5045
96 Forster's Tern	500	100	3	27	15	57	325	7	32	65	49	11	1180
97 Common Tern	8											1	8
98 Royal Tern	9	25		43	29	30	1		5	66	12	9	220
99 Caspian Tern	5			1	18	9	30	1	16	31	3	9	114
100 Black Skimmer	45	150	10	1	250	51	263	60	105	138	30	11	1103
101 Mourning Dove	7	49	15	60	430	112	166	154	106	231	256	11	1580
102 Ground Dove		3		9	7	6	8		15		3	7	51
103 Screech Owl				1	1	1	1	1	3	8	1	7	16
104 Great Horned Owl	2			3	2	1	1	5	5	4		8	23
105 Barred Owl										4		1	4
106 Whip-poor-will					2				1	1	1	4	5
107 Belted Kingfisher	5	6	8	5	15	20	12	19	16	19	19	11	144
108 Yellow-shafted Flicker	4	29	20	40	98	101	138	67	68	65	138	11	768
109 Pileated Woodpecker	12	1	8	1	11	12	5	6	2	12	8	11	78
110 Red-bellied Woodpecker	7	8	3	4	26	29	14	23	15	45	23	11	197
111 Red-headed Woodpecker	1		6		11		1		27	3	11	7	60
112 Yel.-bellied Sapsucker	1	2	2	11	25	13	11	5	9	10	17	11	106
113 Hairy Woodpecker	1	2	1	4	5	5	7	13	15	17	7	11	77
114 Downy Woodpecker	3	3	8	3	10	4	4	6	6	13	12	11	72
115 Eastern Phoebe													
116 Tree Swallow	30	50	300	170	17	275	1200	900	812	88	25	11	3867
117 Blue Jay									24	14	71	3	109
118 Common Crow	35	20	60	21	80	60	30	16	11	46	10	11	389
119 Fish Crow		1	200	3	14	18		8	47	77	292	9	660

120 Carolina Chickadee	17	24	3	14	12	23	19	31	22	53	18		11	236
121 Red-brst. Nuthatch					1	1				1	7		2	8
122 White-brst. Nuthatch					2	3	1	6	13	64	8		3	3
123 Brown-headed Nuthatch	2		2			1	1	1	1	1			9	101
124 House Creeper	5	5	2	5	8	3	4	20	2	12	8		5	5
125 House Wren													11	74
126 Bewick's Wren	2												1	2
127 Winter Wren		2							2	6	1		4	11
128 Carolina Wren	14	8	8	5	24	20	9	29	26	58	17	11	218	
129 Long-bil. Marsh Wren	8	16	9	3	28	17	4	5	1	7	3	11	101	
130 Short-bil. Marsh Wren					1	1		5	7	25	3		6	42
131 Mockingbird	5	12	10	16	47	40	22	20	28	52	39	11	291	
132 Catbird	1	1		4	7	2	1	7	29	14	12	10	78	
133 Brown Thrasher	3	2	8	8	41	12	8	13	35	11	23	11	164	
134 Robin		75	25	16	87	52	225	220	31	20	22	10	773	
135 Hermit Thrush	2	6	6	7	28	10	12	4	10	4	14	11	103	
136 Eastern Bluebird	30	13	15	5	14	26	75	49	46	70	38	11	381	
137 Blue-gray Gnatcatcher				1	1	1			1	2			5	6
138 Gold-crwnd. Kinglet		8			3		1		8	6	1	6	27	
139 Ruby-crwnd. Kinglet	12		25	13	38	51	31	33	111	116	71	10	501	
140 Water Pipit		3		2	15	8			1	5		6	34	
141 Cedar Waxwing				10	18	20			1	44	2	6	95	
142 Loggerhead Shrike	3	3	8	7	18	20	17	10	6	12	18	11	122	
143 Starling	17	40	150	14	44	78	60	34	15	67	44	11	563	
144 White-eyed Vireo						4			1	2		3	7	
145 Yellow-throated Vireo										1		1	1	
146 Solitary Vireo	1			3	1					1	2	5	8	
147 Black & White Warbler					2	5				3	2	4	12	
148 Orange-crowned Warbler	1			1	11	7		1		1		6	22	
149 Parula Warbler												1	1	
150 Myrtle Warbler	260	150	500	1021	1750	217	223	700	1167	2100	443	11	8531	
151 Yellow-thrt. Warbler	2	2	2	2	1	6	2	1	2	13	2	10	33	
152 Pine Warbler	14	1	1	1	30	25	48	30	73	132	57	11	412	
153 Palm Warbler	12	55	50		9	29	32	5	1	47	1	10	241	

Species	58	59	60	61	62	63	64	65	66	67	68	No. Yrs. Seen	TOTAL Indiv. uals
154 Yellowthroat	3	1	5	5	7	27	9	30	29	60	5	11	181
155 Yellow-breasted Chat										1		1	1
156 House Sparrow	5								5	2	10	4	22
157 Eastern Meadowlark	107	100	40	40	206	224	101	70	117	160	239	11	1404
158 Red-winged Blackbird	275	150	5000	500	3027	222	139	300	682	920	210	11	11425
159 Rusty Blackbird					1		10				10	3	21
160 Boat-tailed Grackle	2		1055	411	1038	542	1049	111	54	1170	156	10	5588
161 Common Grackle	4				50	220	250	25	3	75	10	8	637
162 Brown-headed Cowbird								2		46	20	3	68
163 Cardinal	30	500	100	107	174	125	93	54	76	103	67	11	1429
164 Evening Grosbeak											6	1	6
165 Purple Finch					1	1			2	1	2	5	9
166 Pine Siskin										1		1	1
167 American Goldfinch		6	30	50	118	47	17	70	59	124	132	10	653
168 Rufus-sided Towhee	8	15	8	45	55	57	20	24	104	68	65	11	469
169 Ipswich Sparrow									1		1	2	2
170 Savannah Sparrow	12	75	212	416	269	170	143	100	21	108	13	11	1539
171 Henslow's Sparrow										1		1	1
172 Sharp-tailed Sparrow		8	1	3	9		5		1	1		7	28
173 Seaside Sparrow	3	50	3	6	12	30	10		4	26		9	144
174 Vesper Sparrow			2	13	23	8	3	3	29	14	2	9	97
175 Slate-colored Junco					18	7	12	2	12	31	141	7	223
176 Chipping Sparrow		10		2	6	26	45	9	4	50	35	9	187
177 Field Sparrow	2	2	3	39	4	26	9	22	6	52	2	11	167
178 White-thrt. Sparrow	45		150	51	430	174	140	66	139	79	809	10	2033
179 Fox Sparrow			2		8	4	1		11	4	61	7	91
180 Lincoln's Sparrow													
181 Swamp Sparrow	20		1	13	9	35	13	45	54	51	42	1	1
182 Song Sparrow	15	40	40	39	185	43	20	72	42	128	44	11	283
TOTAL SPECIES	100	92	97	105	136	134	122	114	144	155	127		
TOTAL INDIVIDUALS	2492	5499	15105	5004	13984	6300	14525	6991	16775	10072	7498		104245
NUMBER OBSERVERS	3	3	3	4	9	13	12	10	12	12	11		

Cooper's, and Red-shouldered Hawks, the Osprey, Peregrine Falcon, and Pigeon Hawk appear in the summary in one to four years.

TABLE 2 records for each year the number of observers, total species, total individuals, and the weather, along with period totals, range, and average where they possibly may be meaningful.

For 1958 through 1961 observers numbered three the first three years and four in 1961. Total species ranged from 92 to 105 and averaged 98.5. Total individuals were 28,100 and the average was 7,025. The high of 105 species was recorded in 1961 with clear skies, temperature 30 to 50 degrees, and wind 0 to 3 mph.

From 1962 through 1968 the number of observers ranged from nine to 13, averaging 11.9. Total species ranged from 114 to 155 and averaged 133.1. Total individuals were 76,145 and the average was 10,877.8. The high of 155 species in 1967 was recorded on a clear day, temperature 50 to 72 degrees, and wind 5 to 15 mph. The second highest species count, 144 in 1966, was recorded on a rainy day, with temperature 33 to 56 degrees, and wind 2 to 15 mph.

The number of species and the average number of individuals reported increased when the number of observers went up from three or four to an average of 12. However, a study of the weather (precipitation, temperature, and wind) reveals no correlation between weather conditions and number of species or individuals reported. It is suggested that in the future the weather for the week prior to count day be recorded to determine what effect bad weather for several days immediately before the count has upon number of species and individuals recorded. In 1964 there was a great concentration of birds on and flying above Sapelo Sound. When bad weather drives offshore birds into bays and sounds, the number of species and particularly the number of individuals could be affected.

TABLE 2.—OBSERVERS, SPECIES, INDIVIDUALS, and WEATHER

Year	Ob- ser- vers	Total Spe- cies	Total Indi- viduals	A.M.	Weather P.M.	Tem- pera- ture	Wind M.P.H.
1958	3	100	2,492		Rain	40-55	10
1959	3	92	5,499		Rain-Fog	45-55	5-15
1960	3	97	15,105		Clear	50-55	5-15
1961	4	105	5,004		Clear	30-50	0-3
1962	9	136	13,984		Clear	42-65	5-20
1963	13	134	6,300		Cloudy-Overcast	37-58	1
1964	12	122	14,525		Clear-Cloudy	56-76	3-15
1965	10	114	6,991		Clear-Cloudy	50-72	5-15
1966	12	144	16,775		Rain	33-56	2-15
1967	12	155	10,072		Clear	36-57	3-5
1968	11	127	7,498		Rain-Clear	55-72	5-18
TOTALS	92		104,245				
RANGE	3-13	92-155	2,492-16,775				0-20
AVERAGE	8.36	120.54	9,476.82				

TABLE 3 shows the number of individual species seen from one to 11 years. Fifty-six species have been recorded on each count, 81 in at least 10 years, and 18 have been seen only one year in the 11. A total of 123 species was recorded in six or more years and 59 species five or fewer years.

TABLE 3.—NUMBER OF YEARS INDIVIDUAL SPECIES SEEN

No. Years	No. Species
11	56
10	25
9	12
8	5
7	11
6	14
5	6
4	10
3	12
2	13
1	18
TOTAL NO. SPECIES SEEN	182

Of the 18 species reported in only one year, 10 were of a single individual: Yellow-crowned Night Heron, Peregrine Falcon, American Avocet, Pomarine Jaeger, Yellow-throated Vireo, Parula Warbler, Yellow-breasted Chat, Pine Siskin, Henslow's Sparrow, and Lincoln's Sparrow.

A study of total individuals reported in the 11 years shows that 45 species were in the one to 10 bracket, 51 in the 11 to 100 bracket, and in the one to 900 range there were 164 species. Eighteen species with individual totals above 900 were: Black Skimmer 1,103, Forster's Tern 1,180, Eastern Meadowlark 1,404, Cardinal 1,429, Savannah Sparrow 2,083, Double-crested Cormorant 1,565, Mourning Dove 1,580, Herring Gull 1,793, White-throated Sparrow 2,083, Knot 2,764, Ring-billed Gull 2,771, Tree Swallow 3,867, Bonaparte's Gull 5,045, Boat-tailed Grackle 5,568, Dunlin 5,590, Myrtle Warbler 8,531, Red-winged Blackbird 11,425, and Lesser Scaup 21,075.

In the 1967 Christmas Bird Count in the United States and Canada Sapelo's 155 species ranked fifteenth in the list of 20 counts recording 150 or more species. Observers for these 20 counts ranged from the low of 12 on Sapelo to the high of 88 at West Palm Beach, Fla., and Tomales Bay, Calif. Corpus Christi, Texas, had only 13 observers in recording 164 species, but all other counts in this list had 20 or more, the

average being 47.1 observers. (Audubon Field Notes, April 1968, Vol. 22, No. 2.)

The number of observers for the Sapelo Island count is limited by the facilities (housing, food, vehicles for transportation) that can be made available by the Marine Institute on Sapelo.

It should be noted that, generally, the observers never or only rarely visit Sapelo except for the Christmas Bird Count, and therefore have no opportunity for regular observation. (Dr. Peter Hyppio, horticulturist for R. J. Reynolds, Jr., on Sapelo, was an observer for two years, 1962-63. John M. Teal (1958) and Richard Williams (1959) are listed as "University of Georgia Marine Institute." John and Mildred Teal are authors of a book about Sapelo, "Portrait of an Island.") Several observers have been University of Georgia students who have taken courses involving visits to the Marine Institute on Sapelo. Herman Coolidge, the late Ivan Tompkins, Louis Schweizer, and L. B. Davenport are experienced observers from the Savannah area. But the statement holds that a party, nine to 13 in recent years, arrives on Sapelo on a Friday, takes the Christmas count on Saturday, and returns to the mainland and their scattered homes on Sunday. For other Christmas Bird Counts with which the writer is familiar at least a part, and usually a majority, of the observers are local residents working in territory in which they have made observations throughout the year. There are exceptions, such as Cocoa, Fla., and others, which annually attract birdwatchers from other areas for the Christmas Bird Count.

The schedule for the 1969 count, which has been changed to Sunday, is: Boat leaves dock on mainland for Sapelo at 12 noon and 5:00 p.m. December 27, Christmas Bird Count on December 28, boat leaves Sapelo Marsh Landing at 7:45 a.m., 9:00 a.m., and 5:00 p.m. on December 29.

Sapelo count observers and the number of times they participated during the 1958-68 period were: Anne P. Hamilton 7, R. E. Hamilton 7, Herman Coolidge 6, Virginia Baker 6, Wilson Baker 6, Milton Hopkins Jr. 6, Louis Schweizer 6, Herbert W. Kale 5, William Dopson Jr. 5, L. B. Davenport 5, Ivan R. Tompkins 3, Ronald Pulliam 3, T. M. Rial 3, Peter Hyppio 2, Richard Peake 2, and the following one each: Eugene Odum, Edward J. Kuenzler, John M. Teal, Wyatt W. Anderson, Richard Williams, John P. Anderson, John Drury Simpson, Alan Craig, Jean Craig, Charlotte Kale, William Post Jr., George W. Sciple, James E. Smith, Samuel W. Austin, Milton Hopkins III, Alma Cooke, Katherine Swanberg, John Skene, James P. Kilgo, and J. H. Schnell.

704 Greenwood Drive, Dalton, Georgia 30720.

A COMPILATION OF TEN YEARS OF CHRISTMAS BIRD COUNTS IN GEORGIA, 1958-67

ROBERT E. COOK

In a study concerning the ecological interrelationships of wintering species of birds in Georgia, I have recently compiled data from the annual Christmas counts conducted in that state. These data were used to gain knowledge of the relative abundance of species within broad ecological categories. If the ecological importance of a species is directly related to its abundance within a particular habitat, data from Christmas counts should yield an indication of abundant and very abundant species, and help eliminate rare and uncommon species of little ecological importance.

The data were compiled by summing the number of individuals in each species cited for each year between 1958 and 1967 by parties conducting Christmas counts in Georgia. The data were taken from the *Audubon Field Notes*, volumes 13 through 22. Table 1 shows the location and years of each count in Georgia. Table 2 presents the totals for each species each year; these totals were rounded to the nearest 10 individuals. Those species that had fewer than 10 individuals cited during the ten year period were not listed. Individual totals with fewer than 5 individuals in one year are represented by a dash, while a blank indicates no individuals were cited. Table 3 lists those species considered to be ecologically important during the winter in Georgia.

TABLE 1. CHRISTMAS COUNT LOCATIONS AND YEARS
IN GEORGIA

	1958	1959	1960	1961	1962	1963	1964	1965	1966	1967
Adel				x	x					
Athens								x	x	x
Atlanta	x	x	x	x	x	x	x	x	x	x
Augusta					x		x	x	x	x
Barnesville									x	x
Brunswick			x	x						
Calloway		x	x	x	x	x	x	x	x	x
Columbus	x	x	x	x	x	x	x	x	x	x
Dalton	x	x	x	x	x	x	x	x	x	x
Demorest			x	x						
Milledgeville		x	x	x	x	x	x		x	x
Okefenokee	x	x	x	x	x	x	x	x	x	
Rome	x	x	x	x	x	x	x	x	x	x
Sapelo Island	x	x	x	x	x	x	x	x	x	x
Sherwood Plt.	x	x	x	x	x	x	x	x		
Thomasville				x	x	x		x		x
Total	7	9	11	13	12	10	10	11	11	11

TABLE 2. CHRISTMAS COUNT TOTALS FOR GEORGIA BIRD SPECIES, 195 8-67.

Common Loon	1961	—	10	—	10	—	1967	—
Red-throated Loon	1961	—	—	—	—	—	1966	—
Horned Grebe	1961	10	20	20	10	40	1965	10
Pied-billed Grebe	1961	80	90	100	120	100	1964	20
Brown Pelican	1961	20	110	—	10	—	1963	100
Double-crested Cormorant	1961	100	130	360	90	50	1962	10
Anhinga	1961	30	350	20	10	60	1961	—
Great Blue Heron	1961	40	100	100	70	70	1960	10
Green Heron	1961	—	10	—	—	—	1959	—
Little Blue Heron	1961	260	80	60	50	30	1958	—
Common Egret	1961	130	220	140	210	50	1960	10
Snowy Egret	1961	100	20	110	60	40	1959	10
Louisiana Heron	1961	50	10	30	20	10	1958	—
Black-crowned Night Heron	1961	—	160	40	40	10	1960	—
Yellow-crowned Night Heron	1961	10	—	—	—	—	1959	—
American Bittern	1961	10	10	—	10	—	1958	10
Wood Ibis	1961	160	340	110	130	40	1960	10
White Ibis	1961	30	90	100	20	110	1959	10
Canadian Goose	1961	40	730	250	610	200	1958	10
Mallard	1961	320	530	150	140	60	1960	10
Black Duck	1961	90	—	30	30	10	1959	10
Gadwall	1961	10	—	—	—	60	1958	10

Pintail	30	—	50	—	10	40	10	20	10
Green-winged Teal	10	150	40	50	100	—	70	10	50
Blue-winged Teal	—	60	—	10	10	—	20	—	—
Woodduck	100	360	570	720	190	480	100	150	120
American Widgeon	20	110	10	90	60	70	90	150	60
Shoveler	—	20	—	—	10	—	20	—	10
Redhead	—	—	—	—	—	—	20	—	—
Ring-necked Duck	200	400	320	1380	1160	1830	370	1380	220
Canvasback	10	10	10	10	60	40	10	60	20
Lesser Scaup	70	540	3150	1640	1120	770	3070	2560	10230
Common Goldeneye	—	—	—	10	—	—	—	10	10
Oldsquaw	—	—	—	—	—	—	20	—	—
Common Scoter	—	—	—	—	230	10	10	10	10
Ruddy Duck	20	10	100	10	20	90	10	—	20
Hooded Merganser	40	20	30	110	40	110	10	30	60
Common Merganser	—	—	—	—	—	10	—	10	—
Red-breasted Merganser	—	10	10	130	170	40	20	30	70
Turkey Vulture	210	300	370	490	340	270	190	170	100
Black Vulture	590	590	590	670	650	150	120	110	100
Goshawk	—	—	—	—	10	10	—	—	—
Cooper's Hawk	10	10	10	10	10	10	10	10	10
Red-tailed Hawk	10	20	30	40	60	60	40	60	70
Red-shouldered Hawk	30	50	60	40	60	60	40	40	30
Marsh Hawk	10	10	20	30	30	40	20	30	20
Sparrow Hawk	30	50	60	100	70	70	60	70	80

Chachalaca	10	360	260	760	370	380	460	700	270
Bobwhite	100	220	40	80	90	10	—	—	—
Turkey	50	130	20	40	40	40	30	20	—
Sandhill Crane	220	30	20	10	—	10	10	10	10
King Rail	—	—	—	—	—	20	50	30	30
Clapper Rail	10	20	30	40	30	20	—	—	10
Virginia Rail	—	—	—	—	—	—	—	—	—
Sora	—	—	10	10	—	—	—	—	—
Purple Gallinule	30	30	60	10	10	10	20	10	20
American Coot	200	120	1290	400	330	350	240	1770	1220
American Oystercatcher	30	30	—	10	50	20	—	100	30
Semipalmated Plover	50	100	50	40	30	10	10	70	20
Piping Plover	—	—	—	—	—	40	—	10	—
Killdeer	400	170	200	350	330	260	380	330	540
Black-bellied Plover	—	70	80	70	70	70	30	120	110
Ruddy Turnstone	10	50	50	10	40	20	20	20	30
American Woodcock	—	—	—	10	10	20	20	20	30
Common Snipe	190	40	80	60	70	40	70	50	40
Spotted Sandpiper	—	—	—	—	10	20	—	—	10
Willet	—	10	40	10	40	30	60	110	40
Greater Yellowlegs	—	—	—	10	30	40	10	10	10
Knot	—	—	—	—	30	70	110	20	20
Least Sandpiper	—	10	30	—	—	50	20	20	10
Dunlin	60	2000	770	260	840	110	20	510	370
Short-billed Dowitcher	30	20	—	—	—	—	—	—	—

Long-billed Dowitcher	10	50	220	60	30	30	50	30	30
Semipalmated Sandpiper	—	400	250	30	100	10	20	20	50
Western Sandpiper	—	50	10	20	20	30	20	20	90
Marbled Godwit	60	10	60	70	120	20	30	50	220
Sanderling	40	100	350	730	220	50	170	400	160
Herring Gull	50	90	850	1140	1090	430	490	850	160
Laughing Gull	—	—	10	—	20	30	—	10	20
Ring-billed Gull	—	—	10	30	—	10	—	10	20
Bonaparte's Gull	500	100	70	60	20	60	30	30	70
Forster's Tern	10	30	40	40	30	30	10	10	70
Royal Tern	10	—	—	—	20	10	—	20	30
Caspian Tern	50	150	90	—	250	50	—	20	30
Black Skimmer	1400	1280	840	1400	1170	900	60	110	140
Mourning Dove	10	10	10	30	100	20	1050	1360	760
Ground Dove	—	—	10	—	—	20	20	20	10
Barn Owl	—	10	10	—	—	—	—	10	10
Screech Owl	10	—	10	10	10	10	10	20	10
Great Horned Owl	—	—	10	10	10	10	30	20	10
Barred Owl	—	20	10	10	10	10	20	10	10
Belted Kingfisher	30	50	80	90	70	60	80	100	60
Yellow-shafted Flicker	150	230	300	350	530	380	380	420	330
Pileated Woodpecker	50	60	90	60	90	80	70	70	60
Red-bellied Woodpecker	90	120	220	180	200	240	250	250	250
Yellow-bellied Sapsucker	20	40	30	50	90	100	60	40	40
Hairy Woodpecker	20	10	30	40	40	30	40	50	40

Downy Woodpecker	80	70	120	90	140	140	150	170	180	150
Red-cockaded Woodpecker		—	10	20	30	10	20	20	20	10
Eastern Phoebe	50	40	100	70	110	60	80	100	80	70
Horned Lark	20	20	40	50	110	90	50	80	120	30
Tree Swallow	40	180	1020	4640	30	780	1220	1120	1350	90
Blue Jay	300	540	720	840	900	1060	770	630	1180	1120
Common Crow	4350	1020	1020	740	1850	780	770	560	1340	930
Fish Crow		10	350	130	20	30	10	60	80	80
Carolina Chickadee	180	270	450	370	330	370	410	650	580	560
Tufted Titmouse	140	200	370	330	380	440	570	400	640	420
White-breasted Nuthatch	40	40	70	50	60	80	70	80	90	40
Red-breasted Nuthatch		—	—	10	—	—	—	—	—	—
Brown-headed Nuthatch	50	220	220	110	130	170	140	170	250	320
Brown Creeper	10	10	30	30	20	50	40	40	60	40
House Wren	10	20	40	20	20	10	10	30	—	20
Winter Wren	—	10	20	30	20	30	40	20	30	30
Bewick's Wren	—	10	10	10	—	—	—	10	10	—
Carolina Wren	110	210	230	190	270	270	330	370	450	480
Longbilled Marsh Wren	10	20	10	10	30	20	10	10	—	10
Short-billed Marsh Wren	—	—	—	—	—	—	—	10	10	30
Mockingbird	210	410	550	370	950	650	410	540	750	530
Catbird	10	40	90	40	70	30	20	30	40	20
Brown Thrasher	40	140	90	110	230	180	140	160	290	150
Robin	5100	2320	4950	18440	4680	8730	870	2160	17050	750
Hermit Thrush	10	20	30	30	80	50	40	60	70	50

Bluebird	250	350	340	300	520	500	440	530	460	250
Blue-gray Gnatcatcher	10	—	—	—	—	—	10	—	—	10
Golden-crowned Kinglet	20	100	70	70	110	50	120	170	200	310
Ruby-crowned Kinglet	60	110	330	290	480	310	320	440	620	790
Water Pipit	200	420	170	320	240	260	120	80	120	30
Cedar Waxwing	410	1620	1230	1040	470	1230	600	840	1230	430
Loggerhead Shrike	40	60	100	140	120	80	110	110	160	90
Starling	5830	3800	221930	304980	3103800	3986100	3311410	7750	3011000	3410970
White-eyed Vireo	—	—	—	—	—	10	10	—	10	—
Solitary Vireo	—	—	—	10	—	—	—	—	—	—
Black-and-White Warbler	10	10	10	10	—	10	—	—	10	10
Orange-crowned Warbler	—	10	10	10	10	10	—	10	10	10
Myrtle Warbler	440	1430	2360	2300	2660	950	700	1630	5920	2810
Yellow-throated Warbler	—	10	—	10	—	10	—	—	—	10
Pine Warbler	70	210	410	340	410	90	190	370	190	300
Palm Warbler	20	70	70	30	50	50	90	20	10	70
Yellowthroat	10	20	40	60	60	60	30	80	50	80
House Sparrow	520	700	1610	1150	1870	1640	820	1540	2440	1510
Eastern Meadowlark	1820	2190	2450	2360	1720	2340	1850	1730	2630	1280
Red-winged Blackbird	48600	53800	368730	518340	7158660	1216500	6035010	14890	3407200	4510600
Baltimore Oriole	—	—	—	10	20	20	—	40	—	10
Rusty Blackbird	52460	61480	780	51540	675650	150750	500340	1930	541850	400600
Brewer's Blackbird	10050	10120	620	6350	3930220	100100	1000040	2440	70500	200090

Boat-tailed Grackle	—	1290	890	1040	540	110	50	1170
Common Grackle	330	2350	144290	300460	3569280	6470	2103350	2219320
Brown-headed Cowbird	60	40	285690	17500	1640840	1510	903330	500250
Cardinal	490	1230	940	1990	1330	1410	1680	1010
Evening Grosbeak	30	160	40	80	120	10	270	240
Purple Finch	—	10	—	20	10	200	40	10
Pine Siskin	320	580	770	800	990	20	1260	910
Rufous-sided Towhee	220	650	650	990	1060	360	680	520
Savannah Sparrow	—	20	—	—	—	—	—	—
Grasshopper Sparrow	—	10	—	—	10	10	—	—
Henslow's Sparrow	10	50	—	10	10	10	—	—
Sharp-tailed Sparrow	90	70	140	220	150	200	310	200
Seaside Sparrow	—	—	—	—	—	—	—	—
Vesper Sparrow	920	2250	2580	2370	4640	1880	4330	2480
Bachman's Sparrow	630	740	1270	630	1070	860	1250	870
Slate-colored Junco	760	970	990	1220	920	850	1430	1680
Chipping Sparrow	930	1740	1570	1350	2690	1960	20	10
Field Sparrow	30	30	60	60	80	2300	3160	2400
White-crowned Sparrow	260	130	170	190	420	80	110	50
White-throated Sparrow	430	460	830	940	950	320	500	390
Fox Sparrow	—	—	—	—	—	780	1230	810
Swamp Sparrow	—	—	—	—	—	20	—	—
Song Sparrow	—	—	—	—	—	—	—	—
Lapland Longspur	—	—	—	—	—	—	—	—

TABLE 3. ECOLOGICALLY IMPORTANT WINTER RESIDENT SPECIES IN GEORGIA

Common Loon	Ground Dove
Horned Grebe	Screech Owl
Pied-billed Grebe	Great Horned Owl
Brown Pelican	Barred Owl
Double-crested Cormorant	Belted Kingfisher
Anhinga	Yellow-shafted Flicker
Great Blue Heron	Pileated Woodpecker
Little Blue Heron	Red-bellied Woodpecker
Common Egret	Red-headed Woodpecker
Snowy Egret	Yellow-bellied Sapsucker
Louisiana Heron	Hairy Woodpecker
Black-crowned Night Heron	Downy Woodpecker
White Ibis	Red-cockaded Woodpecker
Canadian Goose	Eastern Phoebe
Mallard	Horned Lark
Black Duck	Tree Swallow
Gadwall	Blue Jay
Pintail	Common Crow
Green-winged Teal	Fish Crow
Woodduck	Carolina Chickadee
American Widgeon	Tufted Titmouse
Ring-necked Duck	White-breasted Nuthatch
Canvasback	Brown-headed Nuthatch
Lesser Scaup	Brown Creeper
Ruddy Duck	House Wren
Hooded Merganser	Winter Wren
Red-breasted Merganser	Carolina Wren
Turkey Vulture	Long-billed Marsh Wren
Black Vulture	Mockingbird
Cooper's Hawk	Catbird
Red-tailed Hawk	Brown Thrasher
Red-shouldered Hawk	Robin
Marsh Hawk	Hermit Thrush
Sparrow Hawk	Bluebird
Bobwhite	Golden-crowned Kinglet
Turkey	Ruby-crowned Kinglet
Sandhill Crane	Water Pipit
King Rail	Cedar Waxwing
Clapper Rail	Loggerhead Shrike
Purple Gallinule	Starling
American Coot	Myrtle Warbler
American Oystercatcher	Yellow-throated Warbler
Semipalmated Plover	Pine Warbler
Killdeer	Palm Warbler
Black-bellied Plover	Yellowthroat
Ruddy Turnstone	House Sparrow
American Woodcock	Eastern Meadowlark
Common Snipe	Red-winged Blackbird
Willet	Rusty Blackbird
Least Sandpiper	Brewer's Blackbird
Dunlin	Boat-tailed Grackle
Semipalmated Sandpiper	Common Grackle
Western Sandpiper	Brown-headed Cowbird
Sanderling	Cardinal
Herring Gull	Purple Finch
Laughing Gull	Pine Siskin
Bonaparte's Gull	Rufous-sided Towhee
Forster's Tern	Savannah Sparrow
Royal Tern	Vesper Sparrow
Black Skimmer	Slate-colored Junco
Mourning Dove	Chipping Sparrow

Field Sparrow
White-throated Sparrow
Fox Sparrow

Department of Biology
Yale University
New Haven, Connecticut 06520

Swamp Sparrow
Song Sparrow

GENERAL NOTES

FLICKER NESTING IN THE GROUND—My sister, Mrs. Thomas S. (Emily) Ford of Atlanta, informed me of a nest of the Yellow-shafted Flicker (*Colaptes auratus*) in a hole in the ground on the lawn around a country cottage belonging to her husband's family. The cottage is on a tract of land in southern Fulton County, near Palmetto, Georgia. On June 23, 1969, she conducted me to see this nest. It had been excavated in the ground of the open grass-lawn, about fifty-six inches from the rear corner of the cottage. According to Mrs. Croft, a neighbor, the pair of birds had made attempts at digging nesting holes at two other places nearby, some days before they established this nesting site, but had abandoned their work at both the previous excavations. Mrs. Croft had seen all this while she was working in the garden adjacent to the lawn.

The hole I examined had been excavated perpendicular to the surface of the ground to a depth of eleven inches. At the top, the rounded opening was about six inches at its narrowest diameter, and six-and-a-half inches at its widest diameter, according to my pocket tape-measure. It contained three grayish-pink young birds that had not yet developed any growth of feathers, although they were several days old. There were also two empty egg shells in the bottom of the hole with the young birds. No nesting material was in the hole, the young birds lying directly upon bare earth in the bottom.

The lawn about the cottage was not large. It extended about twenty feet to the road at the side of the house where the nest was located. The vegetable garden was back of the house, and beyond this were young trees, almost all pines of perhaps 20-25 years of growth. The rest of the surroundings was rather open, unused farm land, somewhat hilly, with very young pines in a few thickets. A small, artificial lake was located beyond the pines back of the garden. There did not seem to be any dead trees in the neighborhood, nor any very large living trees.

I wanted to be positive that the nest really belonged to the Flicker, so I stood a good way apart, and watched it until the female came to the nest, which she was quite reluctant to do while I was there. She flew from tree to tree in the pines back of the garden, watching me apprehensively, and I became quite weary of waiting before she finally went to the nest.

Mrs. Ford wrote me later that she and Mr. Ford visited the country place on June 24, the day after my observation, and that in the night there had been a rain which had left puddles in the road. She said that the interior of the nesting hole appeared to be quite dry, however, and

that the young birds were in good condition. While the Fords were picking beans from the garden, the parent Flicker behaved in much the same manner as had been my experience. Before they left the garden, the young birds were making quite an outcry for food, but the parent bird would not go to the nest while humans were near.

A nest in the ground is not unique for this species of bird. There have been other reports of such nesting sites, but they seem to be rather few.—George A. Dorsey, Darlington School, Rome, Georgia 30161.

SECOND FLICKER NEST ON GROUND IN WHITFIELD COUNTY—Between 10 and 20 June 1969 James O. Hart, assistant manager of the Cohutta National Fish Hatchery at Cohutta, Georgia, watched a pair of Yellow-shafted Flickers (*Colaptes auratus*) excavating a cavity at the base of a utility pole at the hatchery. After two weeks of digging in hard clay, scattering the dislodged earth for 15 or 20 inches around the excavation, the flickers had formed a cavity 10 inches wide and 16 inches deep. The nest was immediately next to the pole, so that the pole formed a part of the wall of the nest. The walls were vertical, not sloping, with a slight overhang of carpet-like grass lending privacy to the nest. Pole and nest were two feet back from a hatchery pond on a grassy bank two feet above the pond's water level.

Within a week five eggs were laid and the female began brooding. A thunderstorm flooded the nest and the clutch was abandoned. In a few days five more eggs were laid and were later found broken and scattered over the ground as though a predator had disturbed the nest. The flickers made a third and successful nest in the dead portion of a yellow poplar (*Liriodendron tulipifera*) tree nearby.

The depth of this nest is noteworthy. The several other ground nests of flickers described in the literature were shallow depressions in either sand or clay. The nest described by Wray (1965) at the electric substation in Wake County, N. C., was a "saucer-like" depression in sand and gravel. Accompanying pictures showed a depth of about 3 inches. Another nest found at an electric sub-station at Attleboro, Mass., by Kinsey (1966) was "just a hollow scooped out in the gravel". Still another nest in sand, the first ground nest of flickers in Whitfield county, was described by the writer in a general note in *The Oriole* (1965) with citations of four other shallow ground nests of this species.

Also noteworthy is the fact that, unlike the nests cited in the literature, the nest at the fish hatchery was in an area of thick-turfed grass rather than in bare sand or gravel.

LITERATURE CITED

- Hamilton, A. P. 1965. Flicker Nesting on Sand Pile. *Oriole* 30:111-112.
 Kinsey, K. B. 1966. Another Flicker Nest on the Ground. *Chat* 30:28.
 Wray, D. L. 1965. Ground Nest of a Yellow-shafted Flicker. *Chat* 29: 111-113.
 —Anne P. Hamilton, 704 Greenwood Drive, Dalton, Ga. 30720, and James O. Hart, Cohutta National Fish Hatchery, Cohutta, Ga., 30710.

EVIDENCE OF EXTENSION OF THE BREEDING RANGE OF THE EASTERN PHOEBE IN GEORGIA—My notes refer to reports of first observations of nests of the Eastern Phoebe (*Sayornis phoebe*) from three locations in the lower piedmont of western Georgia during the nesting seasons of 1962, 1963, and 1966. The first was by Grace Whiteman at West Point, the second by Mildred Pierce at Waverly Hall, and the third by the writer about 20 miles northwest of Columbus.

During 1969 I first noted this phoebe singing on April 9 at a private lake on the north outskirts of Columbus and then observed it intermittently through May 30. Wilson Baker of Tall Timbers Research Station found a recently used phoebe nest under a nearby concrete foot bridge on June 3.

During the same month James Miller found two phoebe nests under a bridge on Old River Road about six miles northwest of Columbus. A few days later Sam Pate was able to photograph a bird on one of these nests.—L. A. Wells, 322 Cascade Road, Columbus, Ga. 31904.

NESTING OF THE PHOEBE AND BARN SWALLOW IN RICHMOND COUNTY, GEORGIA—On April 26, 1969, Lee and W. A. Gibbs, leading a group attending the GOS meeting in Augusta, discovered a Phoebe (*Sayornis phoebe*) nest on the Interstate Highway 20 bridge where it crosses the Augusta Canal and Savannah River in the northern part of Richmond County. At this time a bird was sitting on the nest, but the contents could not be determined because of its height from the ground. When the site was next visited on June 7, the birds had apparently left the immediate vicinity.

A previously unreported Phoebe nest in which the adults were feeding well grown young was found under the U. S. Highway 378 bridge over Soap Creek northeast of Lincolnton, Lincoln County, in June 1954. The above nest in Richmond County along with the report (Jones, J. W. 1963. *Oriole* 28:58) of its nesting in Harris County extends the Phoebe's

breeding range within the state to the Fall Line. However, near the southern edge of its range the breeding population is small and nesting is apparently erratic.

During June and July 1968, I noted Barn Swallows (*Hirundo rustica*) on several occasions flying beside and under the I-20 bridge over the Savannah River as I crossed it. Although these swallows were undoubtedly nesting there then, this was not confirmed until the next summer.

When the GOS group visited the bridge on April 26, 1969, many birds were flying about and under the bridge apparently preparing to nest. One bird was actually seen carrying nesting material. The breeding of these birds at this site was investigated further by C. E. Case and me on June 7, 1969. On that date seven occupied nests were observed under the Georgia end of the river bridge. Altogether about 15 pairs seemed to be nesting on this bridge, some nearer the South Carolina end. In addition at least two pairs were nesting under the west end of the bridge over the canal.

These observations extend the breeding range of the Barn Swallow southeastward 18 miles to the Fall Line at Augusta. Previously they had been reported nesting on the Clark Hill Dam in 1966 and 1967 (Denton, *Oriole* 32:32-33). J. Fred Denton, 529 Henderson Drive, Augusta, Georgia 30904.

A CATTLE EGRET NESTLING WITH AN ABNORMAL BILL

—In the course of assisting with banding and examining over 1,700 herons in company with Squadron Leader Philip G. Murton, R.A.F., I encountered only one instance of abnormality in physical development of nestling birds. This was a nestling Cattle Egret (*Bubulcus ibis*) approximately two weeks old.

The young heron was photographed on June 15, 1968, at the "Abbeville" rookery located 3.5 miles ESE of Abbeville, Dodge County, Georgia. Its development at the time was about the same as its nest mate's despite the fact that its maxilla protruded from its base to the right of the head at a right angle with respect to the position of its lower mandible. Since the rhamphotheca of the maxilla was decidedly deformed it would seem to follow that the underlying bony structure had given rise to part or most of this deformity. Threlfall (1968) has described a Herring Gull (*Larus argentatus*) chick with a similar deformity although in that case both mandibles were deformed. In the case of this heron nestling the lower mandible appeared normal.

During the early nest life of this species food from the parent birds is usually regurgitated directly into the buccal cavity of the young and the misshapen bill of this individual probably presented no problem in its getting nourishment. Otherwise the bird seemed to be in good health, so it was banded, but its survival when it became dependent on itself for food getting would seem to be in jeopardy.

The deformed bird was not seen on several subsequent trips to the rookery. Pomeroy (1962) has suggested that passerines with abnormal bills adapt their behavior more readily than many non-passerines, and are thus more likely to survive and be recorded than are non-passerines.

LITERATURE CITED

- Pomeroy, D. E. 1962. Birds with Abnormal Bills. *British Birds*, 55:49-72.
- Threlfall, William 1968. A Herring Gull chick (*Larus argentatus*) with an abnormal bill. *The Auk*, 85 (3):506-508.
- Milton Hopkins, Jr., RFD 5, Box 113, Fitzgerald, Georgia.

