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CONTENTS

BIRDS OF LAURENS COUNTY, GEORGIA

Thomas K. Patterson and J. Hunter Patterson.....25

FALL SHOREBIRD COUNTS AT EUFAULA NATIONAL WILDLIFE REFUGE—1978

Brent Ortego, D. Mark Brown, and Dan Combs.....39

LOCATION AND FATE OF OYSTERCATCHER NESTS ON SAPELO AND CABRETTA ISLANDS

Lawrence Kilham.....45

RARE SIGHTINGS AT EUFAULA NATIONAL WILDLIFE REFUGE

Brent Ortego.....47

GENERAL NOTES.....50

FROM THE FIELD.....57

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BIRDS OF LAURENS COUNTY, GEORGIA

Thomas K. Patterson and
J. Hunter Patterson

Laurens County, the third largest in area in the state, lies in the Upper Coastal Plain of central Georgia, and is divided into eastern and western sections by the Oconee River. Lying only 50 km below the Fall Line, the northern portion of the county contains deciduous and mixed forests, and gently rolling hills. The southern half is marked by coniferous forests and agricultural fields. The river, its tributaries, and the associated flood plains provide an added dimension to the ecology of the county.

The birds of the county were apparently unreported prior to 1969 when Hunter Patterson began recording his observations. However, records were not kept continuously until September 1974, when T. K. Patterson began keeping records. We have taken part in the annual Audubon Christmas Bird Count in Dublin since its beginning in 1976, and participated in the U. S. Fish and Wildlife Service Breeding Bird Census in 1977 and 1979. These efforts have contributed to our knowledge of the area birdlife.

Most of the observations and most of the records presented are from three areas in the northern half of the county. Hunger and Hardship Creek, in the northern part of Dublin near the authors' home, provides a convenient flood plain habitat. Chappell's Mill, in the northwest, offers deciduous forest and a small lake. In the northeast, three separate locations have been significant to the records: Ben Hall and Thundering Springs Lakes, the county's largest impoundments, attract migrant waterfowl; Buckeye Marsh, when winter and spring rains are adequate, produces records of transient and breeding marsh birds; and Jackson's pasture, with its natural depressions and "wet weather" ponds, provides habitat for transient shorebirds. Two other sites are mentioned in the species records. Bracewell's pond, in East Dublin, is a breeding area for Cattle Egrets (*Bubulcus ibis*) and a roost for other large waders. Fuqua heronry, 7 km south of Dublin, serves as a breeding site for a number of heron species.

One decade is a relatively short period of observation; consequently, this listing of species should be considered only as a foundation. The river and the southern and western sections of the county have been

observed only periodically. In recent years, priority has been given to the shorebird and waterfowl migration; and the reporting of transient passerines has suffered proportionately. Consequently, some species may be unlisted or underrepresented in the records; and the reporting of relative abundance of some species may be questionable.

In listing the birds of Laurens County, we followed the species order and nomenclature used in the *Annotated Checklist of Georgia Birds* (Denton et al. 1977). The indication of relative abundance of the species, although based on our own experience and records, is in harmony with that used in the cited work. In the records, a *resident* is either a migratory or a sedentary species which is present in the county year-round; a *transient* is a species which passes through the county on its way to or from its breeding grounds; a *migrant* is a species in which a few of its members remain in the county to become "winter residents" or "summer residents"; and a *visitor* is a species whose presence is without sufficient duration or regularity for it to be regarded as a seasonal resident. Arrival and departure dates of transients and migrants are presented when sufficient data exists to make these meaningful. Residents and summer residents may be assumed to breed, and specific breeding data are included for the less common breeding birds. Where specific data are omitted for these uncommon residents, summer presence of females and singing males is implied. Photographic records of species considered to be rare and of evidence of breeding are indicated by an asterisk(*). Accounts of a few species have been published previously in short articles and notes, which are referenced following the scientific name of the species. All data are from our own observations from February 1969 through August 1979, except as otherwise noted in the records.

Common Loon *Gavia immer*. A rare and irregular transient: 16 Apr 1971, 24 Apr 1977, 25-27 Nov 1977, 25 Nov - 16 Dec 1978.

Red-throated Loon *Gavia stellata*. (1976c). A record of a single bird on 2 Nov 1975.

Horned Grebe* *Podiceps auritus*. A rare fall transient and winter visitor, 21 Nov (1976) - 29 Jan (1977).

Pied-billed Grebe *Podilymbus podiceps*. (1976a). A common winter resident; an uncommon summer resident. Nests with young* located in years 1971, 1975-1979.

Double-crested Cormorant *Phalacrocorax auritus*. An uncommon spring and summer visitor, 6 Apr (1979) - 8 Sep (1974).

American Anhinga *Anhinga anhinga*. (1977; 1979d). A fairly common summer resident; uncommon in winter. Presence in significant numbers in Fuqua heronry on 24 Jun 1979 in mid-afternoon suggests breeding.

Great Blue Heron *Ardea herodias*. (1977; 1979d). A fairly common resident, less common in winter. Nests with young* at Fuqua heronry on 24 Jun 1979. The white morph*, *A. h. occidentalis*, (1978d) was accidentally in the area in January 1978.

Northern Green Heron *Butorides striatus*. (1976a). A common summer resident, 8 Apr (1978) - 2 Oct (1977). Nest with young* at Ben Hall Lake on 19 Jul 1975.

Little Blue Heron *Florida caerulea*. (1977; 1979d). A common summer resident, 16 Mar (1971) - 30 Sep (1978). Nests with young at Fuqua heronry on 24 Jun 1979.

Cattle Egret *Bubulcus ibis*. (1976a; 1977; 1979d). An abundant summer resident, 12 Mar (1977) through September. Lingers occasionally into December in small numbers. Nests with young* at Bracewell's Pond and at Fuqua heronry.

Great Egret *Casmerodius albus*. (1977; 1979d). A fairly common summer resident, April into October; and a winter visitor. Nests with young at Fuqua heronry on 24 Jun 1979.

Snowy Egret* *Egretta thula*. An uncommon visitor in summer, 10 Apr (1977) - 15 Oct (1978).

Louisiana Heron *Hydranassa tricolor*. (1977). An uncommon late summer and fall visitor, 14 Aug (1976) - 12 Oct (1975).

Black-crowned Night Heron *Nycticorax nycticorax*. Single birds were noted on 24 Apr and 28 May 1977 at Bracewell's Pond.

Yellow-crowned Night Heron *Nyctanassa violacea*. Irregular and uncommon in summer, 10 May (1971) - 13 Sep (1978). One winter record on 29 Dec 1978.

Least Bittern *Ixobrychus exilis*. (1976a). A fairly common summer resident, 29 Apr (1971) through June. No records past June, probably due to the retiring nature of the species. Nests with young* located at Buckeye Marsh in years when marsh water level is adequate, 1971, 1975, 1978.

American Bittern *Botaurus lentiginosus*. A fairly common spring and fall migrant; rare and irregular in winter.

Wood Stork *Mycteria americana*. (1977). A fairly common, but irregular, visitor in late summer and fall, 13 Jul (1971) - 28 Sep (1976). In some years, present in June in small numbers.

Glossy Ibis* *Plegadis falcinellus*. (1978d). A single record of a bird on 7-10 May 1978.

White Ibis *Eudocimus albus*. (1977; 1979d). A fairly common summer resident, 15 Apr (1979) - 2 Nov (1975). Nests with young* located at Fuqua heronry on 24 Jun 1979.

Canada Goose* *Branta canadensis*. A single record of a small flock on 5 Dec 1971. Other reports of this species suggest that it is more common in migration than this one record would indicate.

Greater White-fronted Goose* *Anser albifrons*. (1979b). Four birds observed on 17 Feb 1979.

Snow Goose* *Chen caerulescens*. Small numbers of the blue form were recorded on several occasions in the winter of 1978-79 from 15 Dec to 17 Feb.

Mallard *Anas platyrhynchos*. (1978a). A common migrant and winter resident. Rare and irregular in summer. A molting adult with nine downy young was noted on 15 May 1977.

- American Black Duck* *Anas rubripes*. Records on 17 Feb and 9 Mar 1979. Possibly the species could be more commonly observed in the river flood plain.
- Gadwall* *Anas strepera*. An uncommon migrant and winter resident, 11 Nov (1978) - 24 Mar (1977, '79).
- Common Pintail *Anas acuta*. An uncommon migrant and rare winter resident, 17 Sep (1977) - 25 Feb (1978).
- Green-winged Teal *Anas crecca*. (1978a). A common migrant in fall, uncommon in spring, 17 Oct (1976) - 26 Mar (1977). Rare in winter.
- Blue-winged Teal *Anas discors*. (1978a). A very common spring and fall migrant, 13 Aug (1978) - 10 May (1978). Rare in winter.
- American Wigeon *Anas americana*. (1978a). A common migrant and fairly common winter resident, 9 Sep (1978) - 9 Apr (1978).
- Northern Shoveler *Anas clypeata*. A regular fall and spring migrant in small numbers, 15 Sep (1978) - 8 Mar (1975). Rare in winter.
- Wood Duck *Aix sponsa*. (1978a). A fairly common resident, more numerous during migration and in winter. Adults with young recorded annually.
- Redhead *Aythya americana*. A regular fall migrant in small numbers, rare in winter and in spring migration; 29 Oct (1978) - 18 Mar (1978).
- Ring-necked Duck *Aythya collaris*. (1978a). A common winter resident; 17 Oct (1976) - 24 Apr (1971).
- Canvasback *Aythya valisineria*. An irregular fall migrant in small numbers, rare in winter and in spring migration; 11 Nov (1978) - 11 Mar (1971).
- Lesser Scaup *Aythya affinis*. A fairly common fall migrant, uncommon in winter and in spring migration; 8 Nov (1976) - 12 Mar (1977).
- Common Goldeneye *Bucephala clangula*. Only two records of this rare transient, 6-15 Dec 1970 and 10 Dec 1978.
- Bufflehead *Bucephala albeola*. Uncommon in fall migration, 4 Nov (1978) - 1 Jan (1976).
- Ruddy Duck *Oxyura jamaicensis*. A fairly common fall transient, 30 Oct (1976) - 21 Dec (1977).
- Hooded Merganser *Lophodytes cucullatus*. (1978a). A fairly common winter resident, 22 Nov (1977) - 24 Apr (1971).
- Red-breasted Merganser *Mergus serrator*. A regular fall transient in small numbers, 13 Nov (1976) - 28 Dec (1975). One spring record: an unusually late individual on 27 May 1979.
- Turkey Vulture *Cathartes aura*. A common resident.
- Black Vulture *Coragyps atratus*. A common resident.
- Mississippi Kite *Ictinia mississippiensis*. An uncommon summer resident, 30 Apr (1979) - 11 Sep (1971), more frequently noted in the August post-breeding dispersal. In 1969-1972, presence throughout the summer in the Hunger and Hardship Creek area suggested that breeding was probable. In recent years, such summer presence has been noted in the Turkey Creek flood plain.

- Sharp-shinned Hawk *Accipiter striatus*. An uncommon winter resident, 3 Oct (1970) - 27 Mar (1977).
- Cooper's Hawk *Accipiter cooperii*. We have only fall and winter records of this species, 10 Oct (1976) - 6 Mar (1976).
- Red-tailed Hawk *Buteo jamaicensis*. A fairly common resident, more common in winter.
- Red-shouldered Hawk *Buteo lineatus*. A fairly common resident, more common in winter. Nesting record*: in the Hunger and Hardship Creek area from nest building on 26 Feb 1977 to departure of the young on 31 May 1977.
- Broad-winged Hawk *Buteo platypterus*. A fairly common spring and fall transient. Possibly a summer resident, breeding in small numbers.
- Northern Harrier *Circus cyaneus*. A fairly common winter resident, 24 Sep (1976) - 24 Apr (1971).
- Osprey *Pandion haliaetus*. An uncommon transient in spring, 12 Mar (1977) - 19 Jun (1976). Irregular in fall, 12 Oct (1975) - 7 Nov (1977).
- American Kestrel *Falco sparverius*. A common migrant and winter resident, 30 Jul (1977) - into April.
- Common Bobwhite *Colinus virginianus*. A common resident.
- Wild Turkey *Meleagris gallopavo*. D.O.R. records only. Reports from farmers and hunters indicate that the species is uncommon and local in and near the flood plains of the river and its tributaries.
- Sandhill Crane *Grus canadensis*. Rarely observed in spring and fall migration. Three records: a single grounded bird on 16 Nov 1975, three on the ground on 17 Mar 1979, and a small overflying flock on 8 Mar 1978.
- King Rail *Rallus elegans*. (1976a). A fairly common summer resident, 24 Apr (1971) - 6 Sep (1975). Adults were flushed from nests with eggs* at Buckeye Marsh in 1971 and 1975.
- Virginia Rail *Rallus limicola*. An uncommon spring transient, 27 Mar (1977) - 8 May (1971). One fall record on 16 Oct 1971.
- Sora *Porzana carolina*. A fairly common spring transient, 6 Mar (1976) - 14 May (1971).
- Purple Gallinule *Porphyryla martinica*. (1976a). A fairly common summer resident, 19 May (1979) - 31 Aug (1979). Nests with young* have been noted in Jackson's Pasture and Buckeye Marsh; and adults with downy young* have been observed at Bracewell's Pond in recent years.
- Common Gallinule *Gallinula chloropus*. (1976a). A fairly common summer resident; uncommon in winter. Adults with young are commonly seen each year at Bracewell's Pond.
- American Coot *Fulica americana*. An abundant winter resident, 25 Sep (1976) - 27 Apr (1975). Rare in summer at Bracewell's Pond, non-breeding.
- American Avocet *Recurvirostra americana*. (1974). A single bird was recorded on 2 Sep 1974.

- Semipalmated Plover *Charadrius semipalmatus*. An uncommon transient in spring, 22 Apr (1978) - 19 May (1979); and in fall, 8 Aug (1971) - 15 Sep (1978).
- Killdeer *Charadrius vociferus*. A common winter resident; uncommon in summer, breeding. An adult was observed incubating* on 10 May 1977.
- Lesser Golden Plover *Pluvialis dominica*. (1978a). Two spring records: four birds on 13 Mar 1977; five on 8, 9 Apr 1978.
- Upland Sandpiper* *Bartramia longicauda*. (1978a). A fairly common spring transient, 31 Mar (1979) - 29 Apr (1979); less common and irregular in fall, 6 Aug (1978) - 4 Sep (1978). Quite possibly, the deeper pasture grasses in late summer obscure the bird's presence.
- Greater Yellowlegs *Tringa melanoleuca*. (1978a). A common transient in spring, 24 Feb (1979) - 15 May (1977); and in fall, 26 Jul (1971) - 18 Dec (1978).
- Lesser Yellowlegs *Tringa flavipes*. (1978a). A common spring and fall transient: 17 Feb (1979) - 29 May (1971); 21 Jul (1979) - 22 Nov (1976).
- Solitary Sandpiper *Tringa solitaria*. (1978a). A common transient in spring, 21 Mar (1978) - 14 May (1977); and in fall, 18 Jul (1976) - 31 Aug (1979).
- Spotted Sandpiper *Actitis macularia*. (1978a). A common spring and fall transient: 8 Apr (1971) - 29 May (1971); 24 Jul (1977) - 25 Sep (1971).
- Wilson's Phalarope* *Steganopus tricolor*. (1978b; 1978d). Three records of this species: a single bird on 28, 29 Aug 1977; three birds on 7-10 May 1978; and a single on 2 Sep 1978.
- American Woodcock *Philohela minor*. An uncommon resident recorded primarily in November and December. No breeding data.
- Common Snipe *Capella gallinago*. A common migrant and winter resident, 4 Sep (1978) - 16 Apr (1977).
- Short-billed Dowitcher* *Limnodromus griseus*. (1978b). An individual was recorded on 28, 29 Aug 1977; a pair, identified by the call note, was in Jackson's Pasture on 25 Aug 1979.
- Long-billed Dowitcher *Limnodromus scolopaceus*. A single bird, distinguished from *L. griseus* by its call, was noted on 10 Aug 1978.
- Semipalmated Sandpiper *Calidris pusilla*. (1978a). A fairly common and regular spring transient, 3 May (1977) - 9 Jun (1979); less common in fall, 3 Aug (1970) - mid-September (1978).
- Western Sandpiper* *Calidris mauri*. Three birds were noted with other "peeps" on 2, 4 Sep 1978.
- Least Sandpiper *Calidris minutilla*. (1978a). A common spring and fall transient; 20 Feb (1971) - 26 May (1979), 21 Jul (1977) - 30 Sep (1978). One winter record, 29 Jan 1977.
- White-rumped Sandpiper* *Calidris fuscicollis*. (1978a). A rare but, apparently, regular spring transient, 7 May (1977, '78) - 27 May (1979).

- Pectoral Sandpiper *Calidris melanotos*. (1978a). A common spring and fall transient; 26 Feb (1977) - 8 May (1971), 27 Jul (1975) - 14 Oct (1978).
- Dunlin *Calidris alpina*. A single bird of this species was noted on 9 Oct 1977.
- Stilt Sandpiper* *Micropalama himantopus*. (1978a; 1978b). An erratic and rare spring and fall transient. Records of single birds on 2 Apr 1977, 28, 29 Aug 1977, and 5 Sep 1977.
- Buff-breasted Sandpiper* *Tryngites subruficollis*. (1979c). A single bird was noted on 29, 30 Apr 1979.
- Ruff *Philomachus pugnax*. (1978). One record: a single bird, 18-20 Dec 1976.
- Herring Gull *Larus argentatus*. Single birds on 26 Nov 1976, and on 13 Dec 1978, the latter an observation of Paul Riddle.
- Ring-billed Gull *Larus delawarensis*. Records of this species on 7 Dec 1974, 28 Nov 1977, and 17 Feb 1979.
- Laughing Gull *Larus atricilla*. Four birds were observed by Paul Riddle on 29 Apr 1979.
- Bonaparte's Gull *Larus philadelphia*. Three records: 23 Dec 1975, 28 Aug 1976, and 24 Mar 1979.
- Forster's Tern *Sterna forsteri*. A pair of these birds was noted flying over a pond on 12 Aug 1978.
- Common Tern *Sterna hirundo*. A single bird was recorded after a hurricane moved inland on 18 Sep 1971.
- Black Tern *Chlidonias niger*. An erratic and uncommon transient in August. One spring record: 10 May 1978.
- Rock Dove *Columba livia*. A common resident.
- Mourning Dove *Zenaida macroura*. A common resident; abundant in winter.
- Common Ground Dove *Columbina passerina*. An uncommon resident. Adult observed incubating* on 5 May 1972.
- Yellow-billed Cuckoo *Coccyzus americanus*. A common summer resident, 21 Apr (1979) - into October.
- Common Screech Owl *Otus asio*. A fairly common resident. Young in nest* observed on 3 Jun 1979.
- Great Horned Owl *Bubo virginianus*. An uncommon resident. No breeding data.
- Barred Owl *Strix varia*. A common resident. Adult observed with juveniles annually in Hunger and Hardship Creek area.
- Short-eared Owl *Asio flammeus*. A single record of a bird flying about Buckeye Marsh on 5 Mar 1979.
- Chuck-will's-widow *Caprimulgus carolinensis*. A common summer resident, 15 Apr 1978 into September.
- Whip-poor-will *Caprimulgus vociferus*. Only a single record of this transient, 9 Oct 1970.
- Common Nighthawk *Chordeiles minor*. An uncommon summer resident, 9 May (1970) - 16 Oct (1970). Fairly commonly seen in migration.

Chimney Swift *Chaetura pelagica*. A common summer resident, 24 Mar (1979) - 16 Oct (1970).
 Ruby-throated Hummingbird *Archilochus colubris*. A common summer resident, 24 Mar (1979) - 16 Oct (1970).
 Belted Kingfisher *Megaceryle alcyon*. A fairly common resident.
 Common Flicker *Colaptes auratus*. A common resident.
 Pileated Woodpecker *Dryocopus pileatus*. A fairly common resident.
 Red-bellied Woodpecker *Melanerpes carolinus*. A common resident.
 Red-headed Woodpecker *Melanerpes erythrocephalus*. A fairly common resident.
 Yellow-bellied Sapsucker *Sphyrapicus varius*. Common in winter, 30 Oct (1970) - 18 Mar (1977).
 Hairy Woodpecker *Picoides villosus*. An uncommon resident.
 Downy Woodpecker *Picoides pubescens*. A common resident.
 Red-cockaded Woodpecker *Picoides borealis*. A rare resident. A nest cavity and two adults were located in August 1977. No evidence of breeding in 1978; and the cavity tree was inactive in Spring of 1979. Two other colony areas which have been investigated were inactive.
 Eastern Kingbird *Tyrannus tyrannus*. A common summer resident, 2 Apr (1977) - 11 Sep (1976).
 Scissor-tailed Flycatcher *Muscivora forficata*. (PCR 1975). Paul C. Riddle observed this species on 8 Apr 1975.
 Great Crested Flycatcher *Myiarchus crinitus*. A common summer resident, 7 Apr (1979) - 18 Sep (1976).
 Eastern Phoebe *Sayornis phoebe*. A common winter resident, 2 Oct (1976) - 5 Mar (1977).
 Acadian Flycatcher *Empidonax virescens*. A common summer resident, 7 Apr (1979) - 15 Oct (1970).
 Eastern Pewee *Contopus virens*. A fairly common summer resident.
 Tree Swallow *Iridoprocne bicolor*. An uncommon spring and fall transient, and a rare and irregular winter visitor.
 Bank Swallow *Riparia riparia*. One record: a small group on 18 Sep 1971.
 Rough-winged Swallow *Stelgidopteryx ruficollis*. A common summer resident, 11 Mar (1971) - 18 Sep (1971).
 Barn Swallow *Hirundo rustica*. (1976b). The species, formerly, a common spring and fall transient, was first observed nesting* in the summer of 1975 at Ben Hall Lake. One winter record: a single bird at Chappell's Mill on 25-27 Dec 1970.
 Cliff Swallow *Petrochelidon pyrrhonota*. A single record on 18 Sep 1971, following a hurricane which moved in from the southeast.
 Purple Martin *Progne subis*. A common summer resident, 14 Feb (1979) - into September.
 Blue Jay *Cyanocitta cristata*. A common resident.
 American Crow *Corvus brachyrhynchos*. A common resident.
 Fish Crow *Corvus ossifragus*. Uncommon summer resident; less common in winter. No breeding data.

Carolina Chickadee *Parus carolinensis*. A common resident.
 Tufted Titmouse *Parus bicolor*. A common resident.
 White-breasted Nuthatch *Sitta carolinensis*. This rare, local resident has only been recorded once: a pair was frequently observed from 1 Nov 1969 to 15 Feb 1971, often at a feeder at the authors' home.
 Red-breasted Nuthatch *Sitta canadensis*. An irregular winter resident in small numbers, 20 Oct (1977) - 10 Apr. (1977).
 Brown-headed Nuthatch *Sitta pusilla*. A common resident.
 Brown Creeper *Certhia familiaris*. An uncommon winter resident, 1 Nov (1969) - 28 Feb (1977).
 House Wren *Troglodytes aedon*. An uncommon winter resident, 10 Oct (1977) - 9 Feb (1977).
 Winter Wren *Troglodytes troglodytes*. An uncommon winter resident, 23 Oct (1970) - 4 Apr (1970).
 Carolina Wren *Thryothorus ludovicianus*. A common resident.
 Marsh Wren *Cistothorus palustris*. A rare, or rarely seen, spring and fall transient. One winter record: 25 Dec 1971.
 Sedge Wren *Cistothorus platensis*. Records on 8 May, 8 Oct, and 25 Dec 1971.
 Northern Mockingbird *Mimus polyglottos*. A common resident.
 Gray Catbird *Dumetella carolinensis*. A fairly common permanent resident.
 Brown Thrasher *Toxostoma rufum*. A common resident.
 American Robin *Turdus migratorius*. A fairly common resident, particularly in populated areas. Common to abundant in winter.
 Wood Thrush *Hylocichla mustelina*. A common summer resident, 26 Mar (1977) - 7 Oct (1971).
 Hermit Thrush *Catharus guttatus*. A fairly common winter resident, 27 Dec (1969) - 16 Apr (1970).
 Swainson's Thrush *Catharus ustulatus*. Only three fall records of this transient: 24 Sep and 2 Oct 1970, 7 Oct 1971.
 Gray-cheeked Thrush *Catharus minimus*. A single record: 7 Oct 1971.
 Veery *Catharus fuscescens*. An uncommon spring and fall transient.
 Eastern Bluebird *Sialia sialis*. A common resident, more numerous in winter.
 Blue-gray Gnatcatcher *Poliophtila caerulea*. A common summer resident; rare in winter.
 Golden-crowned Kinglet *Regulus satrapa*. A fairly common winter resident, 30 Oct (1976) - 16 Mar (1976).
 Ruby-crowned Kinglet *Regulus calendula*. An abundant winter resident, 10 Oct (1977) - 26 Mar (1977).
 Water Pipit *Anthus spinoletta*. A common to abundant winter resident, 11 Oct (1975) - 6 May (1979).
 Cedar Waxwing *Bombycilla cedrorum*. A common winter resident, 1 Nov (1969) - 16 May (1979).
 Loggerhead Shrike *Lanius ludovicianus*. A common resident.

European Starling *Sturnus vulgaris*. A common resident; abundant in winter.

White-eyed Vireo *Vireo griseus*. A common summer resident; rare in winter.

Yellow-throated Vireo *Vireo flavifrons*. A fairly common summer resident, 22 Mar (1977) - 20 Oct (1977).

Solitary Vireo *Vireo solitarius*. An uncommon winter resident, common in migration; 25 Sep (1976) - 11 Apr (1971).

Red-eyed Vireo *Vireo olivaceus*. A common summer resident, 10 Apr (1979) - into Oct.

Philadelphia Vireo *Vireo philadelphicus*. A single record of this transient: 3 Oct 1970.

Black-and-white Warbler *Mniotilta varia*. A common spring and fall migrant; an uncommon winter resident, 12 Sep (1970) - 5 Apr (1975).

Prothonotary Warbler *Protonotaria citrea*. A common summer resident, 31 Mar (1979) - into September.

Swainson's Warbler *Limnithlypis swainsonii*. A fairly common summer resident in its habitat.

Worm-eating Warbler *Helmitheros vermivorus*. An uncommon spring and fairly common fall transient.

Golden-winged Warbler *Vermivora chrysoptera*. Records on 18 Apr 1970, and 22 Sep 1971.

Blue-winged Warbler *Vermivora pinus*. A single record of this rare transient on 23 Sep 1970.

Tennessee Warbler *Vermivora peregrina*. Fall records only of this uncommon transient, 23 Sep (1970) - 18 Oct (1977).

Orange-crowned Warbler *Vermivora celata*. An uncommon migrant, less common as a winter resident, 1 Oct (1970) - 17 Apr (1970).

Northern Parula Warbler *Parula americana*. A common summer resident, 10 Mar (1979) - 18 Oct (1970).

Yellow Warbler *Dendroica petechia*. A 10 Oct 1976 record only of this transient.

Magnolia Warbler *Dendroica magnolia*. Two spring records: 13 Apr 1977, 22 Apr 1979; uncommon fall transient in October.

Cape May Warbler *Dendroica tigrina*. An uncommon spring transient, 16 Apr (1978) - 16 May (1976). Fall records on 5 Oct 1970 and 3 Oct 1976.

Black-throated Blue Warbler *Dendroica caerulescens*. A single record on 2 May 1971.

Yellow-rumped Warbler *Dendroica coronata*. A common fall migrant and winter resident, abundant in spring migration; 14 Oct (1978) - 27 Apr (1970).

Black-throated Green Warbler *Dendroica virens*. Two fall records: 25 Oct 1970, and 18 Oct 1977.

Cerulean Warbler *Dendroica cerulea*. Two fall records: 11, 22 Sep 1971.

Yellow-throated Warbler *Dendroica dominica*. A common summer resident, 2 Mar (1971) - 2 Oct (1976). A single bird of the species was

present at our feeder through most of the winters of 1977-78 and 1978-79.

Chestnut-sided Warbler *Dendroica pensylvanica*. Two fall records: 2, 3 Oct 1970, 13 Oct 1971.

Blackpoll Warbler *Dendroica striata*. A common spring transient, 22 Apr (1979) - 25 May (1977).

Pine Warbler *Dendroica pinus*. A common resident.

Prairie Warbler *Dendroica discolor*. A common summer resident, 4 Apr (1970) - 3 Oct (1976).

Palm Warbler *Dendroica palmarum*. A common spring and fall migrant; an uncommon winter resident, 4 Sep (1977) - 8 Apr (1971).

Ovenbird *Seiurus aurocapillus*. Only three records of this transient: 17 Apr 1970, 6 May 1979, 18 Aug 1978.

Northern Waterthrush *Seiurus noveboracensis*. Three records: 16 Apr 1977, 24 Sep 1977, 18 Oct 1970.

Louisiana Waterthrush *Seiurus motacilla*. A fairly common summer resident, 18 Mar (1977) - into September.

Kentucky Warbler *Oporornis formosus*. A fairly common summer resident, 17 Apr (1979) - into September.

Common Yellowthroat *Geothlypis trichas*. A common resident, less common in winter.

Yellow-breasted Chat *Icteria virens*. An uncommon summer resident.

Hooded Warbler *Wilsonia citrina*. A common summer resident, 26 Mar (1977) - into September.

Wilson's Warbler* *Wilsonia pusilla*. (1979a). One record of this rare transient, 24-31 Mar 1979.

Canada Warbler *Wilsonia canadensis*. A single record on 11 Sep 1971.

American Redstart *Setophaga ruticilla*. A common transient in spring and fall.

House Sparrow *Passer domesticus*. A common resident.

Bobolink *Dolichonyx oryzivorus*. A fairly common spring transient, 24 Apr (1970) - 16 May (1970), although not recorded in some years. One fall record: an individual was observed in late Sep 1978 by W. Dopson.

Eastern Meadowlark *Sturnella magna*. A common resident.

Red-winged Blackbird *Agelaius phoeniceus*. A common resident; abundant in winter.

Orchard Oriole *Icterus spurius*. A common summer resident, 3 Apr (1970) - 18 Sep (1971).

Northern Oriole *Icterus galbula*. Uncommon in winter in populated areas, at feeders, 3 Nov (1970) - 28 Mar (1976).

Rusty Blackbird *Euphagus carolinus*. A fairly common winter resident.

Brewer's Blackbird *Euphagus cyanocephalus*. Uncommon and irregular in winter.

Common Grackle *Quiscalus quiscula*. A common resident.

Brown-headed Cowbird *Molothrus ater*. Common to abundant in winter; now a fairly common summer resident. On 6 Jun 1969, a

- Northern Parula Warbler was observed feeding a young cowbird. The Carolina Chickadee and the Carolina Wren have subsequently been noted to be hosts.
- Scarlet Tanager *Piranga olivacea*. Two records: 3 Oct 1970, 3 May 1976.
- Summer Tanager *Piranga rubra*. A common summer resident, 1 Apr (1978) - 7 Oct (1971).
- Northern Cardinal *Cardinalis cardinalis*. A common resident.
- Rose-breasted Grosbeak *Pheucticus ludovicianus*. A single record on 25 Sep 1971.
- Blue Grosbeak *Guiraca caerulea*. A common summer resident, 23 Apr (1978) - into September.
- Indigo Bunting *Passerina cyanea*. Common summer resident, 24 Apr (1977) - 18 Oct (1970).
- Painted Bunting* *Passerina ciris*. (TKP 1975). A regular summer resident in small numbers, 25 Apr (1977) - through July. Adults observed feeding young.
- Evening Grosbeak *Hesperiphona vespertina*. An erratic winter resident; common in some years, absent in others.
- Purple Finch *Carpodacus purpureus*. A common winter resident, 13 Nov (1976, '77) - 28 Mar (1978).
- House Finch *Carpodacus mexicanus*. A single record at a feeder on 21 Feb 1979.
- Pine Siskin *Carduelis pinus*. An erratic winter resident; common in some years, absent in others.
- American Goldfinch *Carduelis tristis*. A common winter resident, 25 Nov (1977) - 4 Apr (1970).
- Rufous-sided Towhee *Pipilo erythrophthalmus*. A common resident.
- Savannah Sparrow *Passerculus sandwichensis*. A common winter resident, 16 Oct (1971) - 5 May (1979).
- Grasshopper Sparrow *Ammodramus savannarum*. Only two records of this migrant and rare winter resident: 16 May 1971, 27 Nov 1976.
- Vesper Sparrow *Pooecetes gramineus*. A fairly common winter resident, 22 Nov (1970) - 21 Mar (1970).
- Bachman's Sparrow *Aimophila aestivalis*. An uncommon summer resident. Singing males have been noted at several locations. Winter status is not known.
- Northern Junco *Junco hyemalis*. A common winter resident, 4 Nov (1976) - 26 Mar (1977).
- Chipping Sparrow *Spizella passerina*. Common winter and an uncommon summer resident. Nest with eggs found on 28 May 1969.
- Field Sparrow *Spizella pusilla*. Common winter and an uncommon summer resident.
- White-crowned Sparrow *Zonotrichia leucophrys*. A rare winter resident, 27 Nov (1976) - 13 Feb (1977).
- White-throated Sparrow *Zonotrichia albicollis*. A common winter resident, 24 Oct (1976) - 2 May (1971).
- Fox Sparrow *Passerella iliaca*. A fairly common winter resident.

- Lincoln's Sparrow *Melospiza lincolni*. A single bird of this species was regularly observed at the same location in January and February 1979.
- Swamp Sparrow *Melospiza georgiana*. A common winter resident, 24 Oct (1976) - 2 May (1971).
- Song Sparrow *Melospiza melodia*. A common winter resident, 12 Sep (1970) - 21 Mar (1970).

ACKNOWLEDGEMENTS

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LITERATURE CITED

- Denton, J. F. et al. 1977. Annotated checklist of Georgia birds. Georgia Ornithol. Soc., Occas. Publ. No. 6.
- Patterson, J. H. 1978. Winter observation of a Ruff in Laurens County, Georgia. Oriole 43:15-16.
- Patterson, T. K. 1974. American Avocet sighted near Dublin. Oriole 39:46.
- _____. 1975. Observations of the Painted Bunting in Dublin, Georgia. Oriole 40: 44-46.
- _____. 1976a. Breeding records of some pond and marsh birds in Laurens County, Georgia. Oriole 41:8-13.
- _____. 1976b. Barn Swallow nesting extends from Piedmont region into Upper Coastal Plain. Oriole 41:39-40.
- _____. 1976c. Fall interior record of Red-throated Loon. Oriole 41:41-42.
- _____. 1977. Population of an egret roost in East Dublin, Georgia. Oriole 42:26-29.
- _____. 1978a. Spring transient wildfowl and shorebirds in the Upper Coastal Plain. Oriole 43:6-10.
- _____. 1978b. Wilson's Phalarope in Laurens County. Oriole 43:21.
- _____. 1978c. Great White Heron in the Upper Coastal Plain of Georgia. Oriole 43:39-40.
- _____. 1978d. Glossy Ibis and Wilson's Phalaropes observed in Laurens County. Oriole 43:65-66.
- _____. 1979a. March record of the Wilson's Warbler in the Georgia Coastal Plain. Oriole 44:14-15.

- _____. 1979b. White-fronted Geese seen near Dublin. Oriole 44:15.
- _____. 1979c. Spring record of a Buff-breasted Sandpiper near Dublin. Oriole 44:53.
- _____. 1979d. Heronry located in Laurens County, Georgia. Oriole 44:55.
- Riddle, P. C. 1975. Scissor-tailed Flycatcher sighted in Laurens County. Oriole 40:15.
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FALL SHOREBIRD COUNTS AT EUFAULA NATIONAL WILDLIFE REFUGE — 1978

Brent Ortego, D. Mark Brown, and Dan Combs

We conducted 14 weekly counts of shorebirds during 22 July to 19 August and 24 September to 26 November 1978 at Eufaula National Wildlife Refuge (ENWR), Alabama - Georgia, as part of the International Shorebird Survey.

ENWR is 80 km S of Columbus and 12 km N of Georgetown, Georgia. The 4500 ha refuge occurs on both sides of the Chattahoochee River and includes portions of Walter F. George Reservoir. During fall 1978, 400 ha of mudflats, sandbars and wet marshes were available for shorebird use in or near the refuge, but only 161 ha along the river were known to be used by them.

METHODS

Each count was started at daylight; wetland habitats were searched by car, boat, and on foot from Rood Creek south to Soapstone Creek. Shorebirds were observed and identified with spotting scopes (15-60x60) and binoculars (7x35 and 7x50).

This study was conducted in conjunction with an Auburn University research project on Canada Geese (*Branta canadensis*). Funds for transportation and a 9.8 hp Mercury outboard motor were provided by the Auburn University Agricultural Experiment Station. The 4.3 m semi-v-bottomed boat used was provided by ENWR and logistic assistance by Dr. James Earl Kennamer.

Nomenclature of birds used in this paper follows the style of the Georgia Ornithological Society Checklist Committee (1977, *Annotated Checklist of Georgia Birds*, Georgia Ornithological Society, Occasional Publication No. 6).

RESULTS AND DISCUSSION

From 22 July to 26 November 1978, we identified 6,719 shorebirds representing 28 species (Table 1) utilizing 161 ha (108 in Alabama and 53 in Georgia) of mudflats, sandbars and marshes. Peak counts of shorebirds occurred in September and November when there was an abundance of exposed mudflats and sandbars. During July and August, the reservoir was 0.3 m below full pool level and exposed five percent of the shorebird habitat that was later available from September-November. Counts during this early period averaged 78 individuals and 8 species. From September-November the reservoir was 1.6 m below full pool level. Counts during this period of lower water level averaged 640 individuals and 11 species.

During fall 1977, Ortego conducted 30 shorebird counts from 12 July to 19 November at this same location. There was no variation in the

Table 1. (Continued)

Species	J-22	A-5	A-13	A-19	S-24	S-30	0-7	O-14	O-21	O-28	N-5	N-12	N-18	N-26
Pectoral Sandpiper <i>Calidris melanotos</i>	5	17	28	8	187	109	51	11	6	14	23	7	10	
Dunlin <i>Calidris alpina</i>								30		285	313	170	156	148
Stilt Sandpiper <i>Microgalana himantopus</i>								6						
Buff-breasted Sandpiper <i>Tryngites subruficollis</i>		1	1		3									
Total = 6704	69	56	110	76	1059	436	330	395	191	942	772	837	704	727

J = July, A = August, S = September, O = October, N = November

availability of shorebird habitat and counts during periods of non-inclement weather were about the same (\bar{x} = 160 individuals and 5 species per day) during each month, although the abundance of each species varied with the date.

Disregarding time of season, the abundance of shorebirds increased with the amount of mudflats and sandbars exposed during fall 1978.

Habitat Use

During the fall low-water period, several long sandbars and ridges, and broad expanses of mudflats were exposed. There was a non-random use of the entire surface of these areas by feeding shorebirds.

The four species of plovers observed tended to feed on the higher exposed non-vegetated (vegetation less than 4 cm) sites. They occurred in loose flocks of up to 15 individuals with members rarely closer than 1 m to each other.

Tringa spp. Yellowlegs and Solitary Sandpipers (*T. solitaria*) used soft mucky areas in sloughs and the ends of indentations in broad expanses of mudflats mostly for feeding. They did most of their feeding while wading and seemed to feed on surface prey.

Wilson's Phalaropes (*Steganopus tricolor*) used the same areas frequented by yellowlegs.

Common Snipe (*Capella gallinago*) used shallow marshes for feeding in early fall. After the marshes dried in October, snipe were observed feeding along the water's edge in sloughs surrounded by tall vegetation (greater than 1 m) and on mudflats near the shoreline.

Limnodromus spp. Dowitchers were observed wading on shallow flats in areas protected from strong winds.

Calidris spp. This large group of species primarily fed at the water's edge wherever saturated soil occurred. Least Sandpipers (*C. minutilla*) fed mostly on mud flats above the water line, whereas Semipalmated Sandpipers (*C. pusilla*) used exposed mud as often as submerged areas, and Dunlins (*C. alpina*) primarily fed while wading. Most Dunlins were found on ridges more than 100 m from vegetated (greater than 1 m tall) shorelines. Pectoral Sandpipers (*C. melanotos*) fed on higher sites more often than most *Calidris* sp. They frequently visited grassy (2-8 cm) areas adjacent to mudflats. They were also frequently observed feeding at the water's edge near the end of indentations in large mud flats.

Rare Occurrences

Marbled Godwit (*Limosa fedoa*). This large, brown shorebird with a two-toned decurved bill was observed feeding in a marshy slough by Ortego on 13 August. Cinnamon wing linings were observed when the bird was flushed.

Red Phalarope (*Phalaropus fulicarius*). A very white Sanderling-type bird was observed flying by Ortego and Combs on 5 November. It landed

in the water at 10 m and started wading toward them. The bill was about as long as the head, it was dark with a faint yellowish base, and tapered from an approximate 4 mm base to a 2 mm tip. The head had a black cap and a small, dark eye stripe. The light gray back had two dark stripes, not light gray on a dark back as in the Northern Phalarope. The legs were yellow, and the white underside had a faint pink spot just below the chin. The bird came as close as 3 m before flushing. Long white wing stripes were observed during flight.

Red Knot (*Calidris canutus*). Two plump shorebirds about the size of a dowitcher were observed on 24 September by Ortego. One of the birds was approached to 5 m. A dark bill the same length as the head, green legs, white belly and a light gray back with a white rump speckled with gray feather tips were noted.

Baird's Sandpiper (*Calidris bairdii*). Three individuals were observed on 19 August and scattered groups of 2-5 birds were observed on 24 September by Ortego. Every bird was 50 percent larger than nearby Least Sandpipers. They had buffy cheeks and breast, black legs, short straight black bills, and conspicuous white eye lines. Most birds had a scaly back pattern, and several were observed to have wing tips that extended beyond the tail.

Buff-breasted Sandpiper (*Tryngites subruficollis*). Several individuals were observed by Ortego on 5 August, 13 August, and 24 September feeding on short grass (less than 4 cm tall) mudflats. One more bird was observed by Brown and Ortego on the upper dry portions of a 15 ha mudflat on 28 October. Each bird had a buffy breast and belly, conspicuous white eye rings, brown back feathers with most having silver margins, a dark bill and yellow legs.

CONCLUSION

During fall, numerous shorebirds fly south over Alabama and Georgia. When suitable habitats are available, like those present at ENWR during fall 1978, many will land to feed, rest, and to seek shelter from inclement weather. Quite a variety of species can be observed at ENWR from a car or on foot during suitable water and weather conditions. If observations of more species and numbers of shorebirds are desired, more shorebird habitats can be reached by traveling up and down the Chattahoochee River by boat.

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LOCATION AND FATE OF OYSTERCATCHER NESTS ON SAPELO AND CABRETTA ISLANDS

Lawrence Kilham

American Oystercatchers (*Haematopus palliatus*) are particular as to where they make their nests, mere scrapes in the sand, as my wife and I found in April of 1978 and 1979 on Sapelo and Cabretta Islands, while staying as guests of the Marine Institute of the University of Georgia. The islands are so close as to form an almost continuous beach 10 km in length. In both years all of the nest scrapes, 6 in 1978 and 5 in 1979, with one exception, were located at the ends of the combined islands where the land is in a state of flux due to the erosive effects of wind and high tides. All of the nests were in the backshore, or "swash" as we termed it. This is an area of shifting sands lying between ordinary high tide levels and dunes anchored by sea oats (*Uniola paniculata*). The oystercatchers limited their nesting to areas where the swash was unusually broad (16-30 m), seeking small elevations where sand was caught by broken stalks of cord grass (*Spartina alterniflora*). The general sites were the same in both years with three pairs at the south end of Sapelo and two near the north end of Cabretta. A single exception was a pair that made scrapes by a bend in Nanny Goat Beach where the swash was broader than elsewhere in 1978. By the following year it had been narrowed by erosion and did not attract oystercatchers.

Nesting times were different in the two years. In 1978, the only pair to lay eggs in April was on Cabretta, with three eggs by 23 April. Four of the five pairs in 1979 were incubating three eggs by 15 April and the fifth pair had one egg on 27 April. One of these nests was destroyed by 20 April. It was at the extreme end of Sapelo where hundreds and often thousands of birds, including Brown Pelicans (*Pelecanus occidentalis*), Royal Terns (*Sterna maxima*), Black Skimmers (*Rynchops niger*) and shore birds, rested at high tide, often well into the swash. It seemed possible that in the turmoil of so many birds surrounding them and given to sudden fly ups, the oystercatchers may have exposed their eggs to the predation of gulls, chiefly Ring-billed (*Larus delawarensis*) and Laughing Gulls (*L. atricilla*), that always rested among the other birds. The other four nests in 1979 were all destroyed in the spring tides of 24 and 25 April, tides accompanied by strong onshore east winds.

A question is why oystercatchers make scrapes in the swash, an area subject to inundation by spring tides, and not in the dunes located a short distance away. The answer, I think, lies in their nesting strategy. Instead of being grass-colored and blending in with their nest sites like their associates, the Willets (*Catoptrophorus semipalmatus*), their bold black and white patterns offer no camouflage. Once we knew where a nest was, it was easy to locate the incubating bird 400 m away. But, whereas Willets leave their nests only when approached closely, oystercatchers leave when an enemy, or a potential one, is hundreds of meters away. A

predator, therefore, is highly unlikely to see a bird actually leave its nest. All it sees is a pair of oystercatchers walking about or resting on the sand, as they have been doing for months before eggs were laid. We found the birds on their nesting territories in January. As the time of egg-laying approached, they often rested not on one leg as do most shorebirds, but belly flat on the sand, looking as though on a nest. They may do this anywhere on their sizeable territories. We found this made it confusing, initially, as to which of the many spots where they came to rest was the actual nest. By watching every day, however, we came to see where one or the other of a pair rested persistently. In order to make their nesting strategy a success, oystercatchers have to have long unobstructed views in as many directions as possible. These they can have in the swash where it is broad enough, as at the south end of Sapelo and the north end of Cabretta.

Teal (1959), in his list of summer birds at Sapelo, stated that he had not known oystercatchers to be successful in raising young there. As Kale et al. (1965) said of Royal Terns, it may be that oystercatchers do not nest well as the Georgia coast has the highest tidal range of any sector along the southeast coast. It should be pointed out, however, that if oystercatchers are long-lived birds and re-nest after a first nest is destroyed, they may be able to maintain their numbers on such places as Sapelo and Cabretta. More observations on the nesting of the eastern race of *H. palliatus* are needed.

LITERATURE CITED

- Kale, H. W., G. W. Sciple, and I. R. Tomkins. 1965. The Royal Tern colony of Little Egg Island, Georgia. *Bird-Banding* 36:21-27.
- Teal, J. M. 1959. Birds of Sapelo Island and vicinity. *Oriole* 24:1-14, 17-20.
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RARE SIGHTINGS AT EUFAULA NATIONAL WILDLIFE REFUGE

Brent Ortego

While conducting research on Canada Geese (*Branta canadensis*) at Eufaula National Wildlife Refuge (ENWR), Alabama - Georgia, from 1977-79, I observed an Eared Grebe (*Podiceps nigricollis*) on 22 March 1979, a Leach's Storm-Petrel (*Oceanodroma leucorhoa*) on 7 October 1978, a total of 38 Baird's Sandpipers (*Calidris bairdii*) on five dates from 1977-79 (1977 - 2 on 14 May; 1978 - 2 on 13 May, 3 on 19 August, 27 on 24 September; 1979 - 4 on 4 May), and a Groove-billed Ani (*Crotophaga sulcirostris*) on 18 November 1978.

I saw the Eared Grebe at 10 m swimming within 2 m of a Horned Grebe (*Podiceps auritus*) on the Georgia side of the refuge. The Eared Grebe had a large white spot behind each eye, a flat-topped head held erect with a brownish neck and dull cheek. In contrast, the Horned Grebe had a much whiter breast, ventral neck, and cheeks, and a smaller speculum.

Mark Brown and I found the dead Leach's Storm-Petrel in Alabama, 25 m from the edge of a peninsula that extended into a bend of the Chattahoochee River (Fig. 1). We identified the bird as a storm-petrel (*Hydrobatidae*) by its single tubular nostril, forked tail, white rump, and black feet, and distinguished it from the similar Harcourt's Storm-Petrel (*Oceanodroma castro*) by its deeply forked tail (more so than Harcourt's), gray stripe bisecting the white rump (absent in Harcourt's), and dark-shafted white rump feathers (Harcourt's are light-shafted). The specimen (A-326) is in the Auburn University Vertebrate Zoology Museum, Auburn, Alabama.

All individual Baird's Sandpipers observed by me were larger than nearby Least Sandpiper's (*Calidris minutilla*). They each had black legs, broad eye stripes, buffy breast and cheeks, scaly backs, and a white rump bisected by a dark stripe, and on most of them the wing tips were observed to extend beyond their tails.

The 1977 and May 1978 sightings were of birds feeding within a spike-rush (*Eleocharis baldwinii*) marsh on the Alabama side (Imhof 1977, *American Birds* 31:1010-1013; 1978, *American Birds* 32:1017-1021). When the birds flushed, they flew to the Georgia side of the Refuge. The fall 1978 sightings were of birds in groups of 2's and 3's scattered over 5 km² of exposed mudflats in Alabama and Georgia. The 1979 observation was of birds feeding in a drained waterfowl impoundment.

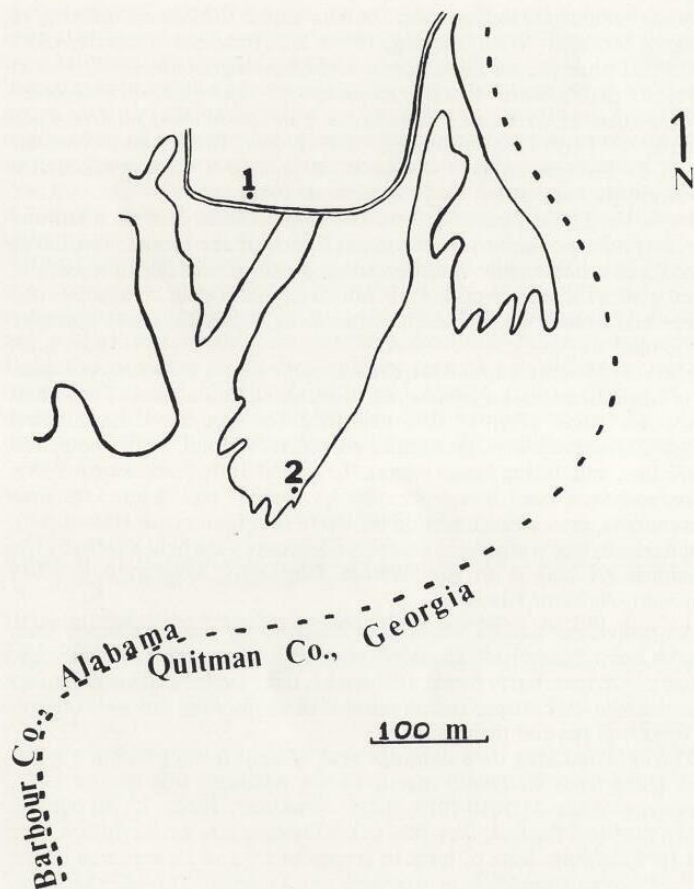


Fig. 1. Location of (1) Groove-billed Ani and (2) Leach's Storm-Petrel sightings at Eufaula National Wildlife Refuge, 1978 (shoreline _____, dike =====, state boundary -----).

Brown and I photographed the Groove-billed Ani while it perched in a black willow (*Salix nigra*) thicket (Fig. 1). This black, long-tailed bird had prominent, longitudinal horny grooves on an immense, parrot-like bill. The bill lacked the humped, high ridge that is characteristic of the similar Smooth-billed Ani (*Crotophaga ani*).

DISCUSSION

ENWR occurs on a northern portion of the Walter F. George Reservoir. The reservoir is part of a N-S network of reservoirs that connects Columbus, Georgia, with the Gulf of Mexico. The Walter F. George Reservoir occupies a narrow floodplain (less than 4 km wide) and is bordered by high, forested bluffs along most of its length. Birds flying over the floodplain usually fly between the bluffs while going up or down the river. Such a flight would carry a bird repeatedly over the winding stream channel of the Chattahoochee River, which is the border of Alabama and Georgia at ENWR and is all within Georgia above and below the reservoir.

None of the species reported is on the 1977 checklist of Georgia birds (Denton et al. 1977, *Annotated Checklist of Georgia Birds*, Georgia Ornithological Society, Occasional Publication No. 6) and they do not meet the criteria established for this Official List (Denton et al. 1975, *Oriole* 40:41). They should be considered for placement on the Hypothetical List because it is very likely that the Leach's Storm-Petrel and Groove-billed Ani flew over Georgia before they were found (Fig. 1), and the Eared Grebe and Baird's Sandpipers were observed in Georgia.

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GENERAL NOTES

GROUNDINGS OF COMMON LOONS IN GEORGIA — Williams (1973, *Wilson Bull.* 85:230) reported observations of the northward migration of Common Loons (*Gavia immer*) from northern Florida near the Gulf of Mexico during early morning hours of the last 2 weeks in March and the first half of April. He cited the relative scarcity of surface records of loons south of Ohio as indicative that the birds do not normally alight during the first day of migration. This note describes surface observations of 3 Common Loons believed to have been grounded by severe weather.

In the afternoon of 13 April 1979, 2 Common Loons were found by residents of Walton County. One was discovered on a road shoulder 5.4 km northeast of Monroe; the other was found in a field 6.7 km southeast of the same city. We received a third report of a Common Loon found in a field near Jackson in Henry County about 1730 EST on 16 April. The finder reported that this bird's toe nails were bleeding, indicating that it had struggled considerably.

Although the 3 birds were apparently in good physical condition, they were unable to fly when found; each was down in an area with no surface water available for take-off. Two were released on farm ponds. One of these, placed on a pond on 16 April, remained until 20 April before departing. We transported the third loon to Clark Hill Reservoir for release.

A probable explanation for the 3 coincidental strandings within such a short period is that the birds were grounded by inclement weather during migration over the state. Patterson (1978, *Oriole* 43:43-53) suspected similar groundings occur with migrating Sandhill Cranes (*Grus canadensis*) in Georgia. The U.S. Weather Bureau, Athens, reported severe weather on the morning of 13 April, with a line of thunderstorms passing through the area around 1145. That station recorded wind gusts of 39 km/hr and rainfall of 8.53 cm for that day. A tornado warning was issued for the Henry County area on the evening of 12 April.

Judging by the coincidental discoveries of these 3 birds, the number of grounded Common Loons was possibly much higher. The lack of mobility of a grounded loon would make detection difficult.

Tip Hon, Department of Natural Resources, Game and Fish Division, Social Circle, Georgia 30279.

HOODED MERGANSER NESTS IN WOOD DUCK BOX — Hooded Mergansers (*Lophodytes cucullatus*), traditionally tree cavity nesters in swamps, river bottoms, and near wooded ponds and lakes, are known to readily accept artificial nest boxes designed for Wood Ducks, (McGillvrey 1966; Odom 1971; Strong 1972; Hester and Dermid 1973). Breeding has been recorded in all states east of the Great Plains as far south as Florida (Bellrose 1976). However, breeding records for Hooded Mergansers in

Georgia are sparse. Bellrose (1976) stated that they are "possible summer residents" in Chatham County. Odom (1971) reported one Hooded Merganser nesting in a Wood Duck box on the Piedmont National Wildlife Refuge in Jones County.

Because of this scarcity of nesting records for Hooded Mergansers in Georgia, I felt it important to report a recent nesting attempt at the Albany Nursery Wildlife Management Area, located in Dougherty County approximately 10 miles west of Albany.

During Wood Duck nest box checks on 22 February 1979, 5 eggs were found that were assumed to be Wood Duck eggs. On 22 March the box was again checked and found to contain 14 eggs. The hen was not seen.

The nest box was checked on 26 March with the main objective of capturing and banding the incubating hen. However, the "Wood Duck" hen turned out to be a Hooded Merganser hen, which was captured, banded, and returned to the nest.

On 3 April a progress check was made. In addition to the incubating hen, a large, gray rat snake (*Elaphe obsoleta spiloides*) was coiled in the bottom of the box. It had swallowed 5 of the eggs. The hen was sitting on top of the snake in an apparent attempt to continue incubation of the eggs. She reluctantly flushed, and the snake was removed from the box. A check the following day showed the hen incubating the 9 remaining eggs.

Twelve days later, on 16 April, a final check was carried out. Another gray rat snake was in the box, but the hen was gone. The snake had swallowed 2 unbroken eggs, which were suspected to be infertile. Apparently the hen had hatched a portion of the eggs because small chips of egg shell and 4 inner shell membranes were found, indicating that at least 4 of the eggs had hatched.

LITERATURE CITED

- Bellrose, F.C. 1976. Ducks, geese, and swans of North America. Stackpole Books, Harrisburg, Pa. 543 pp.
- Hester, F. E. and J. Dermid. 1973. The world of the Wood Duck. J. B. Lippincott Co., Philadelphia. 160 pp.
- McGillvrey, F. B. 1966. Second nestings of the Wood Duck. *Auk* 83:303.
- Odom, R.R. 1971. Nest box production and brood survival of Wood Ducks on the Piedmont National Wildlife Refuge. Proc. 24th Ann. Conf. Southeastern Assoc. Game and Fish Commissioners: 108-117.
- Strong, L. 1972. Utilization of artificial nesting structures by Hooded Mergansers in Mississippi. *Mississippi Kite* 11:23-24.
- Steven W. Ruckel, Department of Natural Resources, Game and Fish Division, 2024 Newton Road, Albany, Georgia 31701.*

ANALYSIS OF BARN OWL PELLETS FROM WORTH COUNTY, GEORGIA — On 28 February 1977, Charles Erwin collected 27 whole pellets and some fragments from beneath the roost of a Barn Owl (*Tyto alba*) in Worth County, Georgia (see Crawford 1977, *Oriole* 42:69-70). Erwin said the roost-site was in a pine lot of about 1 acre surrounded by 3 large fields about 1 mile southwest of Doles. Erwin gave the pellets to me for analysis.

Remains of the following mammals were identified from the pellets (numbers are individuals with the percentage of the total in parentheses): Hispid Cotton Rat (*Sigmodon hispidus*), 25 (43%); Least Shrew (*Cryptotis parva*), 12 (20.6%); House Mouse (*Mus musculus*), 9 (15.5%); Short-tailed Shrew (*Blarina brevicauda*), 4 (6.8%); Marsh Rice Rat (*Oryzomys palustris*), 1 (1.7%); Eastern Mole (*Scalopus aquaticus*), 1 (1.7%); and (almost certainly) Oldfield Mouse (*Peromyscus polionotus*), 1 (1.7%). The remains of 5 birds were also present: 2 (3.4%) were almost certainly Red-winged Blackbirds (*Agelaius phoeniceus*) but I could not identify the other 3 (5%) beyond noting that they were small fringillids and probably sparrows.

In a more extensive survey of Barn Owl pellets from areas north of Worth County, French and Wharton (1975, *Oriole* 40:6-10) also found *Sigmodon* and *Cryptotis* to be the most frequent prey species, but they did not record *Scalopus*. The bird species they found to be most common was also the Red-winged Blackbird. Golley (1962, *Mammals of Georgia*, Univ. of Georgia Press, Athens) had no records from Worth County for any of the mammals listed above, except for *Sigmodon* and it was not vouched by a specimen. I am grateful to Charles Erwin for making the pellets available to me.

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ROSEATE TERN SIGHTED ON JEKYLL ISLAND¹ — On 10 September 1977, my wife Pat and I were birding along the Jekyll Island causeway, when we were approached by three other birders. They asked if we had seen the Roseate Terns (*Sterna dougallii*) on the south beach of Jekyll Island. My wife and I proceeded to the south beach where we saw a large group of gulls, terns, and skimmers. We approached to within 50 yards of the group, sat on the sand, and began scanning the group with a 25X scope. There were good numbers of Forster's, Sandwich, Royal, and Caspian Terns, which were easily distinguished by the usual marks. There were also a few Common Terns. After awhile, I found a tern which I identified as a Roseate Tern. Its bill was all black, the tail extended well beyond the wing tips, and the black cap covered the back of the head (indicating winter plumage). The bill and tail distinguished the bird from the Common Terns, the black cap distinguished it from the Forster's Terns, the bill (no yellow tip), tail, and cap (not crested) distinguished it from Sandwich Terns, and the bill and size obviously

distinguished the bird from Royal and Caspian Terns.

I turned the scope over to my wife, but the birds flew at that moment. Luckily, they settled back at the same spot. After several minutes, my wife located the same bird or another Roseate Tern, which she identified by the same marks described above. I then looked through the scope at the bird she had been looking at and confirmed her identification.

Jean H. Bevis, 3519 Peppermint Court, Tucker, Georgia 30084.

¹This appears to be a new state record.—Ed.

SPRING RECORD OF BUFF-BREASTED SANDPIPER NEAR DUBLIN — The *Annotated Checklist of Georgia Birds* (1977, Georgia Ornithological Society, Occasional Publication No. 6) lists the Buff-breasted Sandpiper (*Tryngites subruficollis*) as a rare fall transient in the state. Apparently, the species has not been reported in Georgia during spring migration.

Late in the afternoon on Sunday, 29 April 1979, I observed a single Buff-breasted Sandpiper on the mudflats at the edge of a natural pond in a large pasture in the northeastern section of Laurens County, Georgia. I had entered the pasture to determine if there were any lingering Upland Sandpipers (*Bartramia longicauda*) in the area where I had recorded unusual numbers two weeks earlier. Having found three of the species in the interior of the pasture, I returned to the pond to investigate for other shorebirds.

The buffy-breasted bird, judged to be about the size of a Pectoral Sandpiper (*Calidris melanotos*) in comparison with the six smaller Least Sandpipers (*Calidris minutilla*) feeding nearby, remained still and erect as I observed with binoculars and scope from 25 m. For 20 minutes, I noted the field marks and behavior of the bird as it flew and fed in the pasture and at the pond's edge. When I departed, the bird was again on the mudflats. I considered it unusual that it apparently preferred the company of the Least Sandpipers to that of the Upland Sandpipers which were in drier habitat some 600 m to the west. On the following afternoon, Paul Riddle and I found the bird feeding in the pasture about 40 m from where I had found it the day before. The Least Sandpipers were again on the mudflats. Together, we pursued the bird for three-quarters of an hour, during which time I photographed it several times using a 400 mm lens from distances of 10 to 15 m.

The face of the bird was buffy and unmarked, except for an indistinct eye-ring. The dark, straight bill, unlike that of either a plover or a sandpiper, was thin and relatively short. The buffy breast was unstreaked and unspotted. The body feathers were medium and dark brown, with very light-colored edging, giving the bird a marbled appearance. The legs were yellow, appearing orange-yellow in the bright sunlight. The wings extended well beyond the short tail. In flight, the bird was brownish above. The flight feathers were noticeably darker, and there was a dark stripe

from the lower back through the tail. From underneath, the body and the undertail coverts contrasted with the white underwings.

The bird was easily approached. It would run through the pasture as we followed, taking flight only when our pace closed the distance too greatly. On occasion, it flew twisting and turning in its snipe-like flight to the far reaches of the pasture, out of sight, only to return a few seconds later. Often the bird would assume a very upright posture, extending its neck in the fashion of an Upland Sandpiper. On the mudflats, it walked along the shore picking at small grassy areas with its bill, in the same manner that it fed in the pasture. It never probed. Only on one occasion did it wade into the water, and that before flushing when pressed too closely.

The weather on both days was clear and cool. A mild frontal system had passed through the previous Thursday, bringing moderately heavy general rainfall to the area.

Thomas K. Patterson, 1409 Edgewood Drive, Dublin, Georgia 31021.

WILSON'S PHALAROPE AT ROME, GEORGIA—On the afternoon of 2 May 1979 I found a Wilson's Phalarope (*Steganopus tricolor*) at the southern end of Paris Lake, on the campus of Floyd Junior College south of Rome, Georgia. The bird was in female plumage and there could be no mistaking its identity. It came quite close to me while it was probing the mud at the edge of the water. After observing it carefully, I brought George Dorsey to the site to confirm the identification. The bird was still present, but it had moved into the marshy area adjacent to the lake, where it was continuing to probe the mud. It displayed very little fear at our presence. As far as we know this is a first record for this bird in Floyd County, and since this species has not been commonly observed in Georgia, it seems significant to report it.

Lenn Sisson, Route 1, Kingston, Georgia 30145.

BARN SWALLOWS NESTING IN IRWIN COUNTY—Barn Swallows (*Hirundo rustica*) have been noted singly and in small numbers during the latter part of summers for many years over fields at the farm near Osierfield, Irwin County. Consequently, breeding of the species in this area has been suspected for some time.

On 21 May 1979, I noted several adults flying back and forth both over and under a concrete bridge on Georgia Route 32 approximately 5 km west of the Coffee-Irwin county line. This bridge spans Hunter's Creek and is approximately 36 m in length. Two active Barn Swallow nests were located, each containing three or four young. Both nests were over creek water and built on the vertical sides of the bridge's middle concrete runners approximately 3.5 and 4 m above the water.

Another similar bridge over the Satilla River on this same route about 0.5 mile west did not have swallows nesting under it.

From close observation of a number of bridges in the following weeks, and noting adult swallows feeding on the wing and perching on lines near bridges, I concluded that such presence was almost a sure indication of nesting.

Milton N. Hopkins, Jr., Route 5, Fitzgerald, Georgia 31750.

HERONRY LOCATED IN LAURENS COUNTY, GEORGIA—Late in the afternoon of 20 June 1979, I observed herons and egrets entering a wooded area just south of Interstate 16 and between Georgia Highway 19 and the Oconee River in Laurens County. Suspecting that the area held a heronry as well as a roost, I arranged for a mid-morning aerial observation of the location on 23 June. From the air, I could see that the area contained a rather large wooded pond, and that there were, indeed, breeding waders in the trees.

On 24 June, Milton Hopkins, Jr., William Dopson, Jr., and I investigated the area. The 15 hectare natural depression had relatively little open water. Black Gum (*Nyssa silvatica* var. *biflora*) provided an overstory from the water's edge toward the center of the pond for about 40 m, out to a water depth of 0.5 m. These trees provided nesting sites for most of the Cattle Egrets (*Bubulcus ibis*) and a few White Ibis (*Eudocimus albus*). From a sampling of the area, nest density was determined to be over 5000 nests/ha; and the area appeared to be at least 0.5 ha in size. There were three distinct areas of nesting in the Black Gums. About one-third of the area contained nests with young which were three to four weeks old; another one-third held nestlings which were less than one week old; and the remaining section contained incubating adults.

In the open water area, which was only slightly over 0.5 m in depth, Duckweed (*Lemnaceae*), Water Lilies (*Nymphaea odorata*) and *Hydrocotyle* provided the surface vegetation. Nests of Cattle Egret, White Ibis, Little Blue Heron (*Florida caerulea*), and Anhinga (*Anhinga anhinga*) could be seen in the Button Bush (*Cephalanthus occidentalis*) and the small Pond Cypress (*Taxodium ascendens*). Higher, in the taller Pond Cypress trees, full-sized young of the Great Egret (*Casmerodius albus*) and Great Blue Heron (*Ardea herodias*) were seen in their nests.

Unfortunately, our investigation was abbreviated by heavy showers, and we were not able to cover the entire nesting area. However, our estimate was that 90% of the nesting birds were Cattle Egrets, 8% were about equally divided between the Little Blue Herons and White Ibis, and the remaining 2% were Anhingas, Great Egrets, and Great Blue Herons.

The heronry is on the old Fuqua estate, now subdivided among heirs, and lies 7.2 km at 167° from the courthouse in Dublin.

A Cattle Egret rookery has been previously reported from the county (Patterson 1976, *Oriole* 41:8-13). This rookery has since expanded to an estimated 1500 nests and remains active. However, no other large waders have nested successfully in this rookery.

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FROM THE FIELD

The format of this informal column precludes presentation of detailed accounts of rare birds. Records listed here are largely unchecked and their appearance in this column should not be considered to constitute scientific publication. They are intended primarily to bring interesting sightings to the attention of the membership and to alert others to look for unusual species in the areas indicated.

NORTH GEORGIA

Whistling Swans were reported all across the state during the winter of 1978-1979. One was seen by Augusta Auduboners on 13 January. Two were found in Rome on 5 February: one immature at Paris Lake, and one adult at Padgett Lake, reported by George Dorsey. At Merry Ponds in Augusta, Clarence Belger saw Merlin, Lesser Yellowlegs, Dunlin, and Least Sandpiper on 18 December, and a Western Sandpiper on 16 January. Augusta Auduboners listed a (Long-billed) Marsh Wren on a 13 January field trip.

A Golden Eagle made news in Atlanta when Ann Forster recorded the first one seen in the area flying high over the Georgia Tech campus on 8 November. Other sightings from the Atlanta area included a Yellow-crowned Night Heron in Doraville by Frank McCamey 7-14 November, a Common Goldeneye on Lake Lanier 16 January by Van McWorter, and Black Ducks on Lake Eleanor 11 January by Bill Ritson.

Terry Johnson found a Peregrine Falcon in Monroe County on 19 October. George Dorsey from Rome reported Snow Goose (Blue Morph) and Bufflehead on 5 February, and Redhead and Canvasback on 11 February. Sandy Pangle found 7 Red Crossbills along Forest Service Road 18, Cohutta Ranger District, Chattahoochee National Forest in Murray County.

Sandhill Crane news: Bayard Cole saw 50 flying over Marietta on 20 November; Sally Rogers saw perhaps the same flock, the same day, over the Upper Flint River near Atlanta. Sally Putnam watched 38 flying over Decatur 21 November. One was seen passing over Grant Park in Atlanta on 7 January by Howard Hunt for an unusual winter record. Donald and Linda Coker saw 45 cranes passing over northwest Whitfield County on 1 March. David, Delano, and Doris Crowe reported 75 flying over their home in the same area on 4 March.

(Compiled by Harriett G. DiGioia, U.S. Forest Service, 401 Old Ellijay Road, Chatsworth, Georgia 30705.)

SOUTH GEORGIA

Whistling Swans also visited south Georgia during the winter of 1978-79. Brent Ortego noted an immature at Eufaula National Wildlife Refuge, near Columbus, throughout December and January and Angus Gholson saw 4 on 17 January on Lake Seminole (Decatur and Seminole Counties). Leon Neel saw 11 Double-crested Cormorants in Thomas County on 20 March and Ortego saw one on 10 February at Eufaula. Neel saw a Horned Grebe in Thomas County on 23 December and Tom Patterson recorded one in Laurens County during 10-17 December. Patterson also had a pair of Common Loons present in Laurens County beginning in early December and lingering to the 17th. Patterson apparently noted the beginnings of the early shorebird migration on 17 February when he saw a Lesser Yellowlegs; on 24 February he saw 2 Greater and one Lesser Yellowlegs. He also saw a Herring Gull on 13 December and a Ring-billed Gull on 17 February. Patterson's Ring-billed sighting is perhaps correlated with Ortego's count of 1680 Ring-billed Gulls at Eufaula on 10 February. Ortego also counted 230 Bonaparte's Gulls at Eufaula on 28 January and he saw one Forster's Tern there during 14 January-18 February. Some other of Ortego's records from Eufaula are: Reddish Egret (one dark-phase immature 12 November-10 February), White-fronted Geese (14 on 10 February), Bufflehead (62 on 14 January), Bald Eagle (2 adults from 1 December-3 February, and 2 immatures all winter) and Long-billed Dowitchers (6 on 10 February).

Few exciting passerine records were noted this winter; it was not an "invasion year" by irruptive species (Patterson saw only one Pine Siskin all winter), but a couple of sightings deserve notice: Leon Neel had an adult male Indigo Bunting at his Thomas County feeder on 19 December and Patterson recorded Laurens County's first House Finch at his feeder (a female on 21 February).

(Compiled by Robert L. Crawford, Tall Timbers Research Station, Route 1, Box 160, Tallahassee, Florida 32312.)

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