

SOUTHEASTERN BREEDING RANGE OF THE BROWN-HEADED COWBIRD

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Records have accumulated in recent years which attest the belief that the Brown-headed Cowbird (*Molothrus ater*) is extending its breeding range southward and eastward in the Gulf and Atlantic coastal plain area. An adult male cowbird was taken from a net set beside Lake Alice, Gainesville, Florida, on July 7, 1958. A female cowbird in heavily streaked juvenal plumage was taken from the same set on July 28, while three other cowbirds, females or juveniles of undetermined sex, were seen nearby. The female was preserved and given to the Florida State Museum (Accession Number 3670). Dissection showed an ovary which measured 3 mm. long.

The presence of these juveniles in Florida at this early date is believed to constitute evidence that cowbirds breed farther southeast than the fifth edition of the A. O. U. Check-list indicates. Burleigh apparently suspected a southeastern breeding population, for he commented on the difficulty of reconciling the numerous early-summer sight records of immature birds with the relatively late southward migration of the northern breeding population (Georgia Birds, p. 600, 1958). Howell listed such early-summer sight records made by Stoddard July 14, 1930 at Pensacola and July 29, 1927 in Wakulla County (Florida Bird Life, p. 435, 1932). Similar records were made by Craighill in June of 1936, 1937 and 1938 in Dare County on the North Carolina coast (Grey and Murray, *Auk*, 58: 102, 1941). Still others are on file in the Bird Distribution Office of the Fish and Wildlife Service, including Florida records for July 23, 1950 at Jacksonville, by W. Y. Gary and for July 31, 1926 in Pasco County by A. B. Cannon.

Cowbirds ordinarily have been considered winter visitors in the southeast coastal plain. McClanahan listed the species as an irregular winter resident from November 13 to March in the Gainesville area (*Proc. Fla. Acad. Sci.*, 1: 101, 1936) and Sprunt cited the cowbird as "an irregular visitant in all parts of the State from midsummer to April but with no record of breeding" (Florida Bird Life, p. 446, 1954). Howell considered the bird an "irregular winter resident" in Alabama, though occasional in summer (Birds of Alabama, p. 205, 1928). In coastal South Carolina the cowbird was designated as "common only in the winter months of January and February" but was "present from June 25 to March 19" (Sprunt and Chamberlain, South Carolina Bird Life, p. 506, 1949). Brimley reviewed scores of migration records from 1885 to 1941 at Raleigh, North Carolina, and tabulated the species as a winter visitor from early September through April (Pearson, Brimley and Brimley, Birds of North Carolina, p. 404, 1942).

The known and suspected southeastern breeding range of the cowbird (as of June, 1959) is plotted in Figure. 1. Evidence for recent extension of breeding range is annotated below. Records cited are grouped by numbered areas which conform with the map numbers

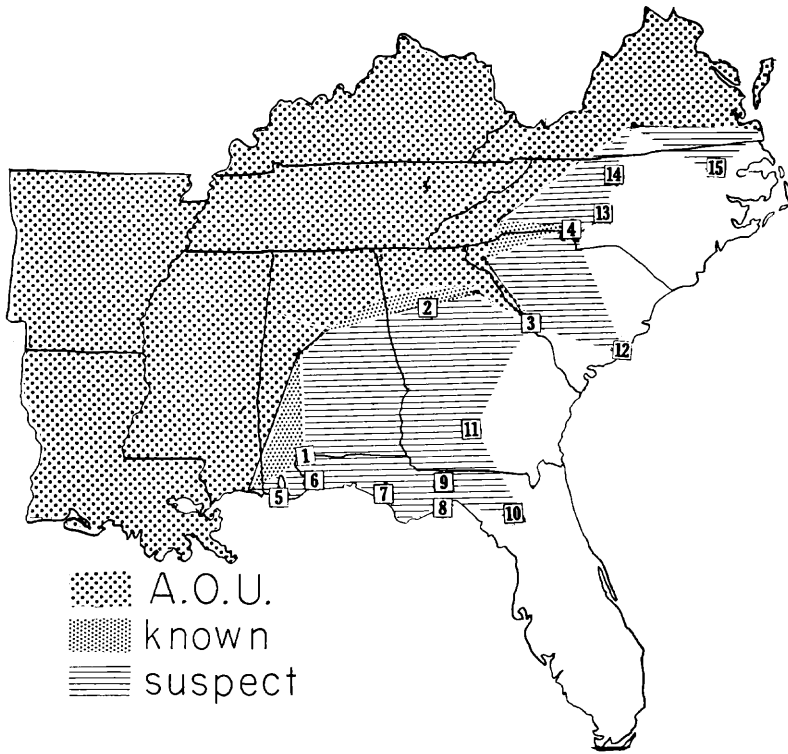


Figure 1. Extension of breeding range of Brown-headed Cowbird in southeastern United States. Numbers refer to annotated list in text

used in Figure 1. Literature published since 1952 supplied the principal data, but a few pertinent earlier references were included. Information from the files of the Bird Distribution Office of the Fish and Wildlife Service also was incorporated. We are grateful to Dr. Oliver L. Austin, Jr., for assistance in the field, to Chandler S. Robbins for help with the literature and to Dr. Lucille F. Stickel for reviewing the manuscript.

ANNOTATED LIST OF DISTRIBUTION RECORDS

Records cited are grouped by areas numbered in conformity with Figure 1.

1. Florida, Escambia County, five miles south of Bratt, June 8, 1957. Female cowbird collected by Weston, McMillan and Monroe, and now in the collection of the University of Louisville, "had ovaries in breeding condition, enlarged eggs measuring 20, 8 and 5 mm." (Monroe, *Florida Naturalist*, 30: 124, 1957). This bird "contained eggs in advanced stages of development. The largest would have been laid the next day had the bird lived" (Newman, *Audubon Field Notes*, 11: 412-413, 1957).
2. Georgia, Fulton and Dekalb Counties.
 - a. Fulton County, five miles from Atlanta, May 1949.

"... on May 19 ... the nest of a pair of Hooded Warblers contained

- one young warbler, one young Cowbird and one unhatched egg . . . On May 24 both birds left the nest and the Cowbird was collected" (Parks, *Oriole*, **15**: 8-9, 1950).
- b. Fulton County, five miles from Atlanta, May 27, 1950.
". . . a young Cowbird . . . was hardly more than three or four days out of the nest and was being fed by a pair of White-eyed Vireos" (Parks, *Oriole*, **15**: 32, 1950).
- c. DeKalb County, Decatur, June 7, 1958.
Hooded warbler nest with one warbler egg and one cowbird egg found by Parks (Chamberlain, *Audubon Field Notes*, **12**: 405, 1958). Near this nest ". . . another of the Warbler's eggs was found. On the following day I found the female incubating" (Parks, *Oriole*, **23**: 48-49, 1958).
3. Georgia-South Carolina, Middle Savannah Valley.
- a. Georgia, Richmond County, Augusta, May 1958.
Hooded warbler nest with two warbler eggs and one cowbird egg found by Denton (Chamberlain, *Audubon Field Notes*, **12**: 405, 1958). ". . . on May 18 all three eggs had hatched" (Denton, *Oriole*, **23**: 38, 1958).
- b. Middle Savannah Valley.
"It [cowbird] returns to this region in July and August" (Murphey, *Contr. Charleston Museum*, **9**: 53, 1937).
4. North Carolina, Mecklenburg County.
- a. Charlotte, July 11, 12, 1958.
". . . the Norwoods watched a Red-eyed Vireo feeding a cowbird just out of the nest" (Chamberlain, *Audubon Field Notes*, **12**: 405, 1958).
- b. Mint Hill, July 7, 1956.
". . . flock of about 22, chocolate-brown heads of males very conspicuous" (Norwood, *Chat*, **20**: 83, 1956).
5. Alabama, outer coast.
- a. Mobile County, Dauphin Island, June 15, 1956.
Adult cowbirds seen by Imhof (Newman, *Audubon Field Notes*, **10**: 390, 1956).
- b. Baldwin County, Fort Morgan, June 12, 1955.
Adult cowbirds seen by Stevenson (Newman, *Audubon Field Notes*, **10**: 390, 1956).
6. Florida, Escambia and Santa Rosa Counties.
- a. June, 1957.
Single cowbirds, "the first ever observed there in that month, were noted by several observers in the northeastern part of the state at various localities right down to the coastal woods" (Newman, *Audubon Field Notes*, **11**: 412-413, 1957). [See also Monroe, *Florida Naturalist*, **30**: 124, 1957].
- b. May 17-July 31, 1958.
". . . the presence of Brown-headed Cowbirds at several points (Weston and Monroe) . . . indicates last year's first breeding specimen for Florida was no fluke" (Newman, *Audubon Field Notes*, **12**: 421, 1958).
- c. Pensacola, July 12, 26, 1956.
". . . an immature on July 12 was so totally unafraid of humans that it allowed itself to be caught by hand in the open (Monroe) and a flock of 50 birds, mostly young ones, was seen on July 26 (Weston), much the earliest date for so large a group" (Newman, *Audubon Field Notes*, **10**: 390, 1956).
- d. Pensacola, May 10, 1957.
". . . the female member of a pair of Brown-headed Cowbirds . . . 'had the skulking actions of a breeding bird' (Monroe)" (Newman, *Audubon Field Notes*, **11**: 356, 1957).
7. Florida, Bay County, Panama City, June 8, 1958.
Cowbirds seen by Olson (Newman, *Audubon Field Notes*, **12**: 421, 1958).

8. Florida, Franklin and Wakulla Counties.
 - a. Alligator Point, July 5, 1957.
". . . The collecting of an immature cowbird . . . is an interesting corollary of the first evidence of its breeding in the state, as the date is far in advance of any other in Florida" (Stevenson, *Audubon Field Notes*, **11**: 401, 1957).
 - b. St. Marks Light, August 8, 1955.
Cowbirds seen by Stevenson *et al* (Stevenson, *Audubon Field Notes*, **9**: 374, 1955).
9. Florida, Leon County.
 - a. "Cowbird . . . was common up to 1893, since which time I have never seen a single specimen, although I have made every effort to find it" (Williams, *Auk*, **21**: 457, 1904).
 - b. Lake Jackson, August 9, 1925.
". . . Stoddard saw a flock of 15 or more, in dull plumage, on or around cattle" (Williams, *Auk*, **45**: 169, 1928).
 - c. Tallahassee, July 19, 1955.
". . . Early Brown-headed Cowbirds were encountered (15 females and/or immature males)" (Stevenson, *Audubon Field Notes*, **9**: 374, 1955).
10. Florida, Alachua County, Gainesville.
 - a. July 7, 1958.
Adult male specimen taken by Webb and Wetherbee (this paper).
 - b. July 28, 1958.
Juvenile female specimen taken and three females or male juveniles seen by Webb and Wetherbee (this paper).
11. Georgia, Tift County, Tifton.
 - a. July 13, 1942.
Species recorded (Norris and Hopkins, *Oriole*, **18**: 8, 1953). Sixty birds estimated by William Griffin, Milton Hopkins, Jr., and Robert Norris according to records in Bird Distribution Office of Fish and Wildlife Service, Patuxent Wildlife Research Center, Laurel, Maryland.
 - b. July 26-August 6, 1944.
400 birds estimated July 26, species became common August 6 according to Willard Gauding, Jr., from records in Bird Distribution Office of Fish and Wildlife Service, Patuxent Wildlife Research Center, Laurel, Maryland.
12. South Carolina, Charleston County, Charleston. July 8, 1957.
". . . presence of several immature cowbirds . . . suggests breeding" (Sprunt, *Chat*, **21**: 90, 1957).
13. North Carolina, Stanly County, Albemarle, June 27, 1957.
". . . Norwood found 7 male Brown-headed Cowbirds in a barnyard . . . in company with a large flock of Common Starlings" (Chamberlain, *Audubon Field Notes*, **11**: 399, 1957).
14. North Carolina, Guilford County.
". . . June 5 is the latest date on which an adult has been seen. Young have been seen" (Dawley, *Chat*, **18**: 39, 1954).
15. North Carolina, Edgecombe County, Rocky Mount.
 - a. July 18, 1954.
". . . scores of immature Brown-headed Cowbirds, associated with a few adults and House Sparrows (Joyner)" (Chamberlain, *Audubon Field Notes*, **8**: 340, 1954).
 - b. June-July, 1956.
". . . about 6 male Brown-headed Cowbirds were seen June 28; on July 15 at nearby Old Town, a 'large flock' of both sexes as well as immature birds appeared (Joyner)" (Chamberlain, *Audubon Field Notes*, **10**: 378, 1956).

SUMMARY AND CONCLUSION

Adult and young cowbirds observed and collected near Gainesville, Florida, in July, 1958 constitute the southeasternmost record of suspected breeding. The known and suspected extension of breeding range

in recent years is reviewed and mapped. Evidence for the known extension consists of a collected nestling specimen, a collected adult specimen with eggs ready to be laid, two observations of eggs being incubated and three of nestlings being fed. Suspected extension is based on 26 early-summer sight records and three juvenile specimens collected in July.

We believe that our records and those in the literature are best interpreted as extensions of the breeding range. It is possible, however, that some records could reflect periodic but poorly understood early summer movements of the species southward and eastward from breeding areas. Extensive banding of nestlings could show definitely whether such movements regularly occur.

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GENERAL NOTES

Analysis of Chimney Swift Returns at Kent, Ohio, 1956-1959¹.—The annual study of Chimney Swifts (*Chaetura pelagica*) roosting and nesting on the campus of Kent State University at Kent, Ohio, has been continued for a total of 16 years. This report will summarize the returns over the past four years.

Swifts began returning to the campus on April 26, 1956. That year there were 48 returns from the following banding year-groups: 1947 (2); 1949 (4); 1950 (2); 1951 (4); 1952 (3); 1953 (10); 1954 (10); 1955 (13). Twenty-two were known males; 14 were known females. The remainder have not yet had their sex determined. A total of 36 of these took part in nesting on the campus. Including all birds, newly banded as well as returns, there were 17 pairs and 2 threesomes, each in a separate air shaft of which there were 86 available to the birds. Two air shafts, inconvenient to reach, were not included in the study that year. Twenty birds were first recaptured in 1956 in air shafts where they had formerly nested; three others were taken from shafts in which they had formerly been visitors with a nesting pair. Nine were first recaptured that year from a former roosting shaft. Eight were also first taken from those shafts in which they had originally been banded, but only two of them had been banded as juveniles.

Ten birds returned with their former mates, and these five pairs continued as mates nesting in the same air shafts which each pair occupied in 1955. Six birds on the other hand returned with their former mates, but each obtained a new mate. Two continued to nest in the same shaft with the new mate while four of them nested in a different shaft with the new mate in 1956. Four swifts came back without their previous mates, but they nested again in the same shaft with a new mate, while four others without their former mates acquired a new mate and nested in a new shaft. One bird returned to continue as an all-season visitor with the same pair as in 1955, while another former visitor returned to become a mate in the same shaft it had occupied

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