

Kansas Ornithological Society

BULLETIN

PUBLISHED QUARTERLY

Vol. 14

March, 1963

No. 1

FORSTER TERNS BREEDING IN KANSAS

By J. R. ZUVANICH

Goss (1891) stated that the Forster Tern (*Sterna forsteri*) was a rare summer resident in Kansas, but was common in migration. Tordoff (1956) listed the bird as a transient, locally common in the eastern half of the state, its status in the west being unknown. Migration dates for Barton and Stafford counties and eastward in Kansas, according to Johnston (1960), are from April 9 to June 15 and from July 21 to November 1. However, one Forster Tern was recorded at the Cheyenne Bottoms Game Management Area, Barton County, on June 21, 1955, by Mosby and Lynn (1956). The species was also noted there on several occasions during June and July of 1961 by Zuvanich and Parmelee (unpublished notes). The following observations were made in conjunction with research under the direction of Dr. David F. Parmelee, Biology Department, Kansas State Teachers College.

On June 1, 1962, John Nilsen, Gary Jones, and I discovered five nests of Forster Terns in Pool 2 at Cheyenne Bottoms. These nests constitute the first record of Forster Terns breeding in Kansas.

Twenty nests were studied in Pool 2 from June 1 through July 5. They were approximately 1,000 yards out from the dyke road in the south section of the pool in an area 700 by 1,500 yards. Marvin Schwilling, Director of Cheyenne Bottoms, reported finding two nests in Pool 4, and Mr. and Mrs. Larry Nossaman of Great Bend, Kansas, discovered an additional nest in Pool 2.



FIGURE 1. Nest and eggs of the Forster Tern. Photographed June 30, 1962, at Cheyenne Bottoms, Barton County, Kansas, by John A. Knouse.



FIGURE 2. Forster Tern nesting in abandoned Pied-billed Grebe nest. Note grebe eggs (white) and six-inch ruler. Photographed June 23, 1962, at Cheyenne Bottoms, Barton County, Kansas, by J. R. Zuvanich.

The nests, constructed by the terns in 14 to 18 inches of water, were floating masses of vegetation similar to those described by Provost (1947). None were found on muskrat mounds or mud bars as noted respectively by Bent (1921) and Davis (1961), but three had been built on abandoned nests of Pied-billed Grebes (*Podilymbus podiceps*).

The floating platforms, composed of alga (*Mougeotia*), bladderwort (*Utricularia*), cattail (*Typha*), and other detritus, were solidly constructed, about 18 to 20 inches in diameter, and three to five inches thick. The nests proper were composed entirely of spike rushes (*Eleocharis*). They were six to seven inches in diameter, the nest cavities being four inches across and one-half to one and one-half inches deep (Fig. 1). One tern, however, simply laid its eggs in an abandoned Pied-billed Grebe nest already containing two eggs of the grebe (Fig. 2).

Eleven nests were surrounded by spike rushes, six were at the edge of small cattail stands, and three were within sparse stands of bull rushes (*Scirpus*).

The clutch-size was three eggs at 17 nests, two eggs at three nests.

Thirty-one eggs [(width 29.1–32.2 mm.) (length 40.6–46.5)] averaged 30.8 by 43.4 mm.

Five nests containing 14 eggs were destroyed. One was destroyed by a storm, the other four probably by predators, for the egg shells were found scattered about the nests.

Thirty-six eggs hatched. Five eggs that were pipped when last observed probably hatched. One egg failed to hatch and another was found floating beside the nest.

The newly-hatched chicks were quite active and after a drying-off period moved readily about the nest. During the first five days they remained in the immediate area of the nest; however, they swam five to ten yards from the nest when approached. One 17-day-old chick was collected approximately 45 yards from the nest.

The adults were relatively unaggressive when eggs were in the nest, but as young began to hatch, the parents became increasingly aggressive and dived continuously at my head. I was frequently struck by their feet, and on two occasions

(with chicks in the nest) the adult struck the back of my head with its bill and drew blood. Generally, one parent was more aggressive than the other. At one nest where both parents were collected the most aggressive bird was the male. Adults apparently defend the chicks until fledging time, for I was harassed by the adults in a nesting area containing 15- to 20-day-old chicks.

The relationship of Forster Terns and Black Terns (*Chlidonias niger*) at Cheyenne Bottoms is worthy of mention. Provost (1947) found that Forster Terns nested two weeks earlier than Black Terns. He also stated that Black Tern nests occurred sparingly at the edges of the Forster Tern colony. In 1962, I banded several small Black Tern chicks as early as June 12 and several small Forster Tern chicks on June 15, clearly showing that egg-laying in both species took place in May. Apparently the Black Terns did not nest at Cheyenne Bottoms before mid-June in 1961 (Parmelee, 1961). Both species nested throughout the area previously described as the Forster Tern colony. On two occasions, after Forster Tern nests had been destroyed, Black Terns utilized the floats and laid eggs.

Black Terns commonly alighted on Forster Tern nests containing eggs. If the bird were an immature (white-bellied, apparently non-breeding bird), the Forster Tern would ordinarily disregard its presence; however, if the visitor were a breeding adult (black-bellied) the Forster Tern would attempt to drive it away.

Forster Terns fed commonly along the shore line. Here they were regularly observed taking insects on the wing (usually flying into the wind) and making hurdling dives (7 to 15 feet), breaking the surface of the water for insect larvae and fish. In one nest containing Forster Tern chicks a minnow (*Pimephales* sp.) was found. Two carp (*Cyprinus carpio*) with bill marks were found floating near another nest containing chicks.

High water in the nesting area during July gradually raised the level of Pool 2 from a minus four inches to a plus 21 inches above full pool by July 21. No nests of Forster's Tern were destroyed, for they floated freely. Although the water rose above the spike rushes, I feel that a large percentage of the chicks were able to find adequate shelter in the cattails and bull rushes.

LITERATURE CITED

- Bent, A. C.
1921. Life histories of North American gulls and terns. *U. S. Nat. Mus. Bull.*, 113:345 pp.
- Davis, Donald G.
1961. Notes on a colony of Forster terns at Timnath Reservoir, Colorado. *Condor*, 63:341.
- Goss, Nathaniel S.
1891. History of the birds of Kansas. G. W. Crane & Co., Topeka, Kansas. 692 pp.
- Johnston, R. F.
1960. Directory to the bird-life of Kansas. *Univ. Kansas Mus. Nat. Hist., Misl. Publ.* 23:1-69.
- Mosby, Larry D., and William M. Lynn.
1956. Water birds resident in Kansas in summer, 1955. *Trans. Kansas Acad. of Sci.*, 58:455-458.
- Parmelee, David F.
1961. A nesting colony of black terns in Kansas. *Bull. Kansas Ornith. Soc.*, 12:25-27.
- Provost, Maurice W.
1947. Nesting of birds in the marshes of northwest Iowa. *The Amer. Midl. Nat.*, 38:485-503.
- Tordoff, H. B.
1956. Check-list of the birds of Kansas. *Univ. Kansas Publ., Mus. Nat. Hist.*, 8:307-359.

2715 S. Washington, Wichita, Kansas, August 8, 1962.

	Baldwin	Camp Naash	Chase County	Clay County	Fostoria	Halstead-Newton	Hays	Holton	Iola	Johnson County Wyandotte County	Junction City	Kingman County	Lawrence	Linn County	Manhattan	Olathe	Quivira N.W.F.	Topeka	Wichita	Total
Pied-billed Grebe	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	1
Great Blue Heron	-	-	-	-	-	-	-	-	-	-	-	3	-	-	-	-	-	-	-	3
Canada Goose	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	775
White-fronted Goose	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	775	-	-	775
Mallard	-	300	-	-	-	-	-	2	-	9,633	3,800	20	878	600	-	-	31,725	5	22	46,985
Gadwall	-	-	-	-	-	-	-	-	-	6	18	-	-	-	-	-	-	-	-	24
Pintail	-	-	-	-	-	-	-	-	-	1	4	-	-	-	-	-	40	-	-	45
Green-winged Teal	-	-	-	-	-	3	-	-	-	-	78	-	-	-	-	-	-	-	-	81
Blue-winged Teal	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Teal sp.	-	-	-	-	-	-	-	-	-	-	-	-	2	-	-	-	-	-	-	2
Shoveler	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	1
Redhead	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	1
Ring-necked Duck	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	1
Canvasback	-	-	-	-	-	-	-	-	-	2	-	-	1	-	2	-	-	-	-	2
Lesser Scaup	-	-	-	-	-	-	-	-	-	1	-	-	-	-	1	-	-	-	-	2
Common Goldeneye	-	-	-	-	-	-	-	-	-	1	-	-	-	-	100	-	-	-	-	102
Bufflehead	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	7	-	1	-	9
Hooded Merganser	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	5	-	-	-	6
Common Merganser	-	-	1	-	-	-	-	-	-	177	19	6	1	80	-	59	-	1	-	348
Sharp-shinned Hawk	-	-	-	1	-	-	-	-	-	-	1	1	1	1	-	1	-	1	-	3
Cooper Hawk	-	-	-	-	-	1	-	2	-	-	1	1	1	-	-	-	-	-	-	3
Red-tailed Hawk	32	1	1	3	11	16	2	8	1	17	18	4	69	30	2	20	3	21	9	268
Red-shouldered Hawk	-	-	-	-	-	-	-	-	-	2	2	4	2	5	1	1	10	3	4	8
Rough-legged Hawk	-	-	-	-	-	8	7	-	-	-	-	-	-	-	-	-	-	-	-	47
Ferruginous Hawk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3	-	-	3
Buteo sp.	-	-	-	-	3	1	-	-	-	-	-	-	-	-	-	-	-	-	-	4
Golden Eagle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7
Bald Eagle	-	-	-	-	-	1	-	-	-	-	1	-	-	3	-	2	-	1	-	7
Eagle sp.	-	-	-	-	-	-	1	-	-	-	-	2	-	1	-	47	-	-	-	51
Marsh Hawk	4	-	3	1	3	17	16	1	1	6	6	8	5	9	3	3	29	2	8	125
Prairie Falcon	-	-	-	-	-	1	-	-	-	-	-	1	-	-	-	1	-	-	-	4
Pigeon Hawk	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	2
Sparrow Hawk	3	1	4	-	2	13	4	2	1	10	14	2	7	2	4	5	4	16	9	113
Greater Prairie Chicken	-	-	-	-	21	3	-	-	-	4	4	-	-	-	-	-	-	-	-	25
Bobwhite	5	-	-	75	20	3	-	10	31	5	30	16	28	23	10	-	62	20	-	338
Ring-necked Pheasant	-	-	1	-	1	1	9	-	-	-	-	3	-	-	-	32	-	1	-	48
Virginia Rail	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	1
American Coot	-	-	-	-	-	-	-	-	-	-	-	8	2	1	-	-	-	-	-	12
Killdeer	-	-	-	-	-	-	2	-	-	2	1	8	4	-	2	1	-	-	-	33
Common Snipe	-	-	-	-	-	-	5	-	-	2	1	8	4	-	2	1	-	-	13	31
Herring Gull	-	-	-	-	-	-	-	-	-	2	4	-	-	-	-	10	-	-	-	10
Ring-billed Gull	-	-	-	-	-	-	-	-	-	2	7	-	-	-	1	-	-	-	-	10
Mourning Dove	148	-	9	1	4	6	4	2	12	95	64	-	22	4	5	13	3	44	-	436
Rock Dove	-	66	20	4	4	22	40	2	6	29	29	-	48	-	10	-	-	50	89	384
Barn Owl	-	-	-	-	-	-	1	-	-	1	-	-	-	1	-	-	-	-	-	3
Screech Owl	1	-	-	-	-	1	-	-	-	1	-	-	-	1	-	-	-	-	-	4
Great Horned Owl	4	-	-	5	6	4	-	-	-	2	6	4	7	1	-	-	-	-	-	4
Barred Owl	-	-	1	-	1	1	-	-	-	1	-	-	2	3	-	4	4	7	1	55
Long-eared Owl	1	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	8
Short-eared Owl	-	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Belted Kingfisher	-	-	2	-	3	3	2	-	1	4	2	-	-	-	-	-	-	-	-	2
Yellow-shafted Flicker	39	17	5	4	17	14	5	3	13	93	26	18	53	30	9	6	41	20	12	28
Red-shafted Flicker	2	-	2	-	1	-	8	-	-	1	2	5	2	-	2	-	16	1	4	46
Pileated Woodpecker	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	1
Red-bellied Woodpecker	33	11	12	6	14	6	-	2	7	45	10	4	41	30	17	20	-	14	4	276
Red-headed Woodpecker	11	24	-	-	-	-	-	3	7	43	-	-	36	58	-	-	-	5	-	180
Yellow-bellied Sapsucker	2	-	-	-	-	-	-	1	-	3	1	-	1	4	2	1	-	-	-	18
Hairy Woodpecker	4	-	-	3	1	4	1	1	1	16	2	3	5	5	3	0	-	2	16	74
Downy Woodpecker	20	4	6	14	9	22	4	7	7	63	8	7	36	19	14	20	1	15	19	295
Horned Lark	54	-	110	30	91	748	165	1	-	3	22	14	82	3	7	46	31	17	83	1,506
Blue Jay	73	14	6	13	21	39	1	8	10	173	8	21	90	62	25	35	2	29	19	649
Common Crow	129	6	8	45	42	586	9	5	7	53	232	38	159	49	91	53	275	58	104	1,946
Black-capped Chickadee	51	27	30	56	46	83	16	5	20	148	110	29	129	75	90	46	-	19	108	1,088
Tufted Titmouse	13	41	4	-	3	11	-	2	3	108	8	-	18	32	15	9	-	6	12	285
White-breasted Nuthatch	11	-	-	-	7	-	-	-	-	-	-	-	6	16	3	-	-	-	-	44
Red-breasted Nuthatch	-	-	-	-	-	-	1	-	-	-	1	-	-	-	-	-	-	-	-	3
Tree Creeper	3	-	3	4	-	11	2	-	-	5	3	-	15	1	12	2	-	4	18	85
Winter Wren	1	-	-	-	-	2	-	-	-	1	-	-	1	1	-	-	-	-	-	6
Bewick Wren	-	-	-	-	-	-	-	-	-	-	2	-	-	-	1	-	-	-	-	3
Carolina Wren	-	-	-	-	2	-	-	-	-	3	-	-	1	3	1	-	-	-	-	13
Mockingbird	18	-	-	1	-	2	-	-	-	9	1	1	19	14	1	6	-	-	-	81
Brown Thrasher	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	3
Robin	395	5	180	15	105	2	225	82	72	66	146	24	1,094	868	573	383	1	115	16	4,367
Hermit Thrush	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2
Eastern Bluebird	53	6	2	-	8	-	6	14	10	67	43	-	143	49	35	16	-	6	-	458
Mountain Bluebird	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	1
Townsend Solitaire	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	2
Golden-crowned Kinglet	6	-	4	8	-	9	13	2	-	27	1	-	11	3	2	5	-	7	16	114
Ruby-crowned Kinglet	-	-	-	-	-	1	-	-	-	-	1	-	-	-	-	-	-	-	-	1
Cedar Waxwing	7	10	1	10	-	300	-	-	-	8	28	45	10	1	-	-	-	-	-	12
Loggerhead Shrike	54	-	1	-	7	3	1	-	4	1	1	1	14	13	-	-	275	4	-	693
Starling	3,430	30	250	13	22	442	200	1,056	222	133	310	101	2,564	160	219	812	50	600	791	11,405
Orange-crowned Warbler	-	-	-	-	-	-	-	-	-	-	-	3	-	-	-	-	-	-	-	3
Myrtle Warbler	18	-	-	-	-	1	2	-	1	28	5	-	3	2	-	-	-	3	1	64
House Sparrow	226	135	76	300	508	380	150	20	250	5,131	272	97	1,127	204	490	1,166	4	450	1,406	12,392
Eastern Meadowlark	82	-	-	-	16	-	-	5	33	-	-	144	10	84	-	48	-	-	-	426
Western Meadowlark	20	-	-	80	157	210	-	-	-	-	217	-	12	-	-	4	116	11	-	827
Sturnella sp.	36	-	250	-	48	-	-	-	-	6	-	-	372	-	62	-	-	90	403	1,267
Red-winged Blackbird	153	-	20	-	-	28	5	-	-	1	251	1,196	6	655	12	64	2,001	3	6	4,401
Brewer Blackbird	12	-	-	-	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-	16
Rusty Blackbird	-	-	310	-	-	16	-	1	-	-	1	-	14	7	-	-	-	-	-	350
Euphagus sp.	200	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	200
Common Grackle	3	-	-	-	-	8	-	-	-	-	-	-	-	-	-	-	-	1	1,000	1,012
Brown-headed Cowbird	-	-	19	20	4	-	-	-	-	-	68	35	15	-	-	-	-	-	-	312
Cardinal	183	22	26	48	112	38	3	30	42	127	43	28	266	173	62	171	-	44	66	1,484
Evening Grosbeak	-	-	-																	

MIDWINTER BIRD COUNT FOR 1962

BY SANDRA L. LOVETT AND ERWIN E. KLAAS

Nineteen stations participated in the 1962 midwinter bird count of the Kansas Ornithological Society and reported 114,615 individuals of 113 species of birds. The total number of individuals seen represents an increase of 28,035 over the total for 1961 and an increase of 16 species. The increase in numbers is accounted for by an increase of 30,523 in numbers of waterfowl, principally mallards. Almost all stations reported an increase in numbers of species; the 70 species reported in Lawrence is one of the highest counts for any station in Kansas in recent years.

Species other than waterfowl showing a notable increase in numbers in 1962 are: Killdeer, Common Snipe, Mourning Dove, Yellow-shafted Flicker, Red-headed Woodpecker, Crow, Robin, Eastern Bluebird, Golden-crowned Kinglet, Cedar Waxwing, Myrtle Warbler, Red-winged Blackbird, Rusty Blackbird, Common Grackle, Pine Siskin, and Song Sparrow. Species showing a notable decrease in numbers are: Marsh Hawk, Long-eared Owl, Horned Lark, Red-breasted Nuthatch, Starling, and Evening Grosbeak. A species conspicuous because of its complete absence from the 1962 report is the Carolina Chickadee. Large numbers of Robins were reported by stations generally throughout the state, indicating an extensive migratory wave in Kansas in late December.

The most notable sightings were of the Pied-billed Grebe, Pigeon Hawk, Virginia Rail, Barn Owl, Hermit Thrush, Orange-crowned Warbler, House Finch, Pine Grosbeak, Savannah Sparrow, and Lark Sparrow. The occurrence of the Myrtle Warbler in such large numbers (64) in midwinter is also unusual.

A winter specimen of the Swainson Hawk (*Buteo swainsoni*) is needed in order to establish the validity of regularly reported sight-records. As stated in the report of last year, members of this species typically migrate to Central and South America in winter. Until a specimen is acquired, the species must be excluded from the list.

Baldwin (same as previous years).—December 28; 8½ hours (7:30 a.m. to 5:00 p.m.); miles: car 109, foot 9; observers: Amelia J. Betts (compiler), Mr. and Mrs. I. L. Boyd, Roger Boyd, Katharine Kelley, R. F. Miller, Fred Purvis, Dean Richards, Nancy Richards, Dave Ruhlen and Tom Ruhlen.

Camp Naish (3 mi. E Bonner Springs, Wyandotte Co.; 5% grassland, 40% brushland, 50% woodland, 5% lake or river).—December 29; 6 hours (7:00 a.m. to 2:00 p.m.); miles: foot 8; observers: Roger Beers, Norman Beers, Ron Bishop, Doug Coffin, Skip Doane, Bill Kerfoot, Rob McGee and Dan Michener (compiler).

Chase County (7½ mi. radius from a point in eastern Chase Co.; 65% grassland, 20% cultivated fields, 3% brushland, 10% woodland, 2% lake or river).—December 28; 7 hours (8:00 a.m. to 3:00 p.m.); miles: car 70, foot 4½; observers: Marc Marcellus and Edward J. Ryan (compiler).

Clay County (Clay Center to 10 mi. N along K-15; 15% cultivated fields, 50% brushland, 35% woodland).—December 26; 9 hours (8:00 a.m. to 5:00 p.m.); miles: car 3, foot 10; observer: Ted R. Anderson (compiler).

Fostoria (6 mi. radius centering 5 mi. W of Pottawatomie County State Lake #1; 50% grassland, 20% cultivated fields, 24% brushland, 5½% woodland, ½% lake or river).—December 31; 7½ hours (8:30 a.m. to 4:00 p.m.); miles: car 52, foot 2½; observers: Dan Hunt, Miss Latschar, Howard Webster, Mrs. Eunice Webster and Mrs. Mabel Willis (compiler).

Halstead-Newton (15 mi. diameter with center 3½ mi. NE Halstead; 10% grassland, 14% cultivated fields, 14% brushland, 26% woodland, 36% lake or rivers).—December 31; 8½ hours (7:30 a.m. to 5:30 p.m.); miles: car 175, foot 11½; observers: Roy Auernheimer, Joan Challans, Kent Challenger, John Christian, Jim Rich, Ruth Rose, Oliver Russ (½ day), Edna L. Ruth (compiler) and Howard Schrag.

Hays (same as previous year).—December 31; 9 hours (7:30 a.m. to 4:30 p.m.); miles: car 60, foot 7; observers: Charles Ely (compiler), Mrs. Clay Houston, Dianne Jones, Shelia Kraus, Mrs. Richard Mernis, Jill Roberts, Marvin Rolfs, Gerald Tomanek and Paul Ward.

Holton (same as previous years).—December 31; 8 hours (8:00 a.m. to 4:00 p.m.); miles: car 48, foot 5; observers: D. Eugene Enos (compiler) and Roy McKinsey.

Iola (5 mi. radius of Iola; 2% grassland, 4% cultivated fields, 40% brushland, 50% woodland, 4% lake or river).—December 28; 5½ hours (9:00 a.m. to 2: p.m.); miles: car 10, foot 2; observer: C. Ora Smith (compiler).

Johnson County and Wyandotte County (Wyandotte County Lake, Zarah fields, Camp Towanyak, Lake Quivira and Shawnee-Mission Lake; 15% grassland, 5% cultivated fields, 50% brushland, 20% woodland, 10% lake or river).—December 30; 10 hours (6:00 a.m. to 4:00 p.m.); miles: car 134, foot 21; observers: Felicia Bart, Elizabeth Cole, Jim Myers, Mary Louise Myers, Catherine Olson, Jim Rising (compiler), Carol Strohmeier, Bernice Tatum, Kay Wahl and Hester Wilson.

Junction City (7½ mi. radius from Junction City; 30% grassland, 2% cultivated fields, 8% brushland, 55% woodland, 5% lake or river).—December 30; 10 hours (7:00 a.m. to 6:00 p.m.); miles:

car 200, foot 8; observers: Willard Jones, Mr. and Mrs. Robert La Shelle, Jock La Shelle (compiler), Gene Lewis, Phil Marvin, Mr. and Mrs. Schifferdecker, Tom Shane, Mr. and Mrs. Ralph White, Mary White and Ed Verbeke.

Kingman County (Kingman Co. Game Management Area; 60% grassland, 2% cultivated fields, 8% brushland, 10% woodland, 20% lake or river).—December 27; 8½ hours (8:00 a.m. to 5:30 p.m.); miles: car 16, foot 4; observer: Byron Walker (compiler).

Lawrence (15 mi. circle).—December 23; 9 hours (8:00 a.m. to 5:00 p.m.); miles: car 122, foot 23; observers: Mrs. Ethan Allen, Roger Beers, Bert Chewning, Mrs. Bert Chewning (compiler), Mr. and Mrs. Marshall Faulh, Martha Faulh, Henry Fitch, John Fitch, Alice Fitch, Lenore French, E. R. Hall, Mrs. E. R. Hall, Roy Johnson, Richard Johnston, Janet Johnston, Regan Johnston, Charles Kerfoot, Bill Kerfoot, E. E. Klaas, Carol Martin, Ethel Martin, Robert McGee, Barbara Michener, Dan Michener, Mrs. John H. Nelson, Jon Standing and Woody Wright.

Linn County (center of 15 mi. circle 4 mi. NE Mound City; 10% cultivated fields, 30% brushland, 30% woodland, 30% lake or river).—December 30; 10½ hours (6:30 a.m. to 5:00 p.m.); miles: car 112, foot 17; observers: Marla Jo Babcock, John Carr, Mr. and Mrs. T. T. Concannon, Pat Concannon, Mr. and Mrs. Chas. E. Copple, Eunice Dingus (compiler), Wilson J. Dingus, Mr. and Mrs. Marshall Faulh, Martha Ellen Faulh and Mr. and Mrs. Frank Wood.

Manhattan (7½ mi. radius of K. State Campus; 40% grassland, 5% cultivated fields, 20% brushland, 10% woodland, 25% lake or river).—December 24; 9 hours (7:30 a.m. to 4:30 p.m.); miles: car 62, foot 5; observers: Doris Coppersmith, Alan Gentry, Merle Gentry, Katherine Geyer, Don Gier, H. T. Gier, E. R. Lewis (compiler), Eulalia Lewis, Paul Lewis, Timothi Lewis and Phil Marvin.

Olathe (same as previous years).—January 1; 8½ hours (7:30 a.m. to 5:00 p.m.); miles: car 73, foot 6; observers: Amelia Betts, Ivan L. Boyd, Margaret Boyd, Roger Boyd, Katharine Kelley, Mrs. Francis McKaughan, R. F. Miller and Ray Wackly (compiler).

Quivira National Wildlife Refuge (same as previous years).—December 21; 10 hours (7:30 a.m. to 5:30 p.m.); miles: car 144, foot 4; observers: Wayne E. Dale and Joshua J. Harman.

Topeka (Shawnee County centering on State House; 15% grassland, 5% cultivated fields, 20% brushland, 40% woodland, 20% lake or river).—December 29; 9 hours (7:30 a.m. to 4:30 p.m.); miles: car 212, foot 18; observers: John P. Atkinson, L. B. Carson (compiler), Alice Hartley, Grace Holcomb, Marvin Kuehn, Janice Miller, Mrs. Nyle Miller, T. W. Nelson, Orville O. Rice, Emma Thompson, Joyce Thompson and Harold Williams.

Wichita (same as previous years).—December 29; 9 hours (8:00 a.m. to 5:00 p.m.); miles: car 155, foot 17; observers: Ruth Abbott, A. W. Briggs, J. Walker Butin, E. L. Clark, Don E. Ferguson, Eunice Goode, A. L. Hickman, Carl S. Holmes (compiler), Dan Kilby, Danny Larson, Dean R. Love, Nathan H. McDonald, Sandra Ritter, Jennibelle Watson, Ralph H. Wiley and R. B. Wimmer.

Museum of Natural History, The University of Kansas, Lawrence, February 25, 1963.

Cuckoo Catches Turtle.—On June 14, 1962, while driving 1.9 miles north of Baldwin, Douglas County, Kansas, I noticed a juvenile box turtle, *Terrapene ornata* (Agassiz), starting across the highway heading west. I stopped and backed the automobile toward the spot where I had first seen the turtle, which was estimated to have been somewhere between 1.0 and 1.5 inches in shell length. When the car was still about 25 feet from the crawling turtle, a Yellow-billed Cuckoo, *Coccyzus americanus* (Linnaeus), suddenly darted out of the woods on the east side of the road and, ignoring the rapidly approaching vehicle and shouts from its occupants, touched down on the highway for an instant, picked up the turtle in its bill, and flew back into the woods, where it was soon lost from view. The incident was witnessed by Ben E. Kowing and Eric Shulenberg, who were with me at the time.

This species of cuckoo is normally insectivorous, but Bent (Bull. U. S. Nat. Mus., 176:61-62) mentioned the possibility that eggs or even nestlings of other birds are occasionally eaten. Bent also cited an instance of a frog being eaten and mentioned that small lizards might be included in the diet. Such predatory habits are reminiscent of those larger cuculids including the roadrunner (*Geococcyx*) and the Old World coucals (*Centropus*).—REX O. BARE, *University of Kansas Natural History Reservation, Lawrence, Kansas, June 29, 1962.*

NOTES AND NEWS

Members are urged to plan to attend the Annual Meeting of the KOS, to be held May 4 and 5, at The Museum of Natural History, The University of Kansas, Lawrence. This notice also constitutes a call for papers to be read at the meeting on May 4; please submit titles, approximate time required, and requirements for illustrations to R. F. Johnston at The Museum. Additional information and blanks for indicating attendance at the banquet and field trip will be sent to members in April.

Members of the Society interested in banding birds should see, or perhaps subscribe to, the international journal *The Ring*. The journal is presently published by the Polish Zoological Society and the subscription fee is \$1.50 per year. *The Ring* was started in 1954 and has since then published articles and notes by 180 authors from 54 countries. The section on recent literature has notices and reviews of papers and books of pertinence to bird banding. The Kansas Ornithological Society receives *The Ring* in exchange for the *Bulletin*, and members of the Society are welcome to borrow copies of *The Ring* from the editorial offices for examination at any time.

The Ring is edited by Dr. W. Ryzewski, Laboratory of Ornithology, Sienkiewicza 21, Wroclaw, Poland. Orders for *The Ring* are accepted by European Publishers Representatives Inc., Times Building, 1475 Broadway, New York 36, New York.

OFFICERS

President	Elizabeth Cole, 5535 Renner Rd., Shawnee 1, Kansas	
Vice-President	J. C. Johnson, Kansas State College, Pittsburg, Kansas	
Secretary	Amelia Betts, Baldwin, Kansas	
Treasurer	L. B. Carson, 1306 Lincoln, Topeka, Kansas	
Editor	Richard F. Johnston, University of Kansas, Lawrence, Kansas	
Assistant Editors	Abbott S. Gaunt, Erwin E. Klaas	
Regular Membership, \$2.00	Student Membership, \$1.00	Sustaining Membership, \$5.00

Dues payable January 1 to the Treasurer

Subscription to the Bulletin is included in any class of membership

Published March 22, 1963