

BLACK-CAPPED CHICKADEE IN OKLAHOMA

BY JOHN S. SHACKFORD AND SEBASTIAN T. PATTI

On the morning of 29 December 1985, while participating in the Kenton, Oklahoma, (Black Mesa) Christmas Bird Count in northwest Cimarron County, the junior author and Lawrence Smith found a Black-capped Chickadee (*Parus atricapillus*) at a feeder behind the Laurance Regnier ranch house 4½ miles south of Kenton. The species is common around Patti's home near Chicago, Illinois, and it was he who first noticed the bird. Both observers carefully noted that it lacked a light superciliary stripe when compared to several Mountain Chickadees (*P. gambeli*) also frequenting the feeder. More importantly, they twice heard a whistled two-note "fee-beee," a call not ordinarily given by the closely related Carolina Chickadee (*P. carolinensis*). That species has a call consisting of four notes (see, e.g., Pough 1946, but also Robbins *et al.* 1986). A few hours afterward, Wallace Champeny and George Neavoll also observed the bird at the feeder, but did not hear the distinctive "fee-beee" call.



BLACK-CAPPED CHICKADEE

Both photos taken by John S. Shackford on 30 January 1986 in Cimarron County, Oklahoma, 4½ miles south of Kenton.

A month later, on the afternoon of 30 January 1986, the senior author and Jack D. Tyler, aware of the earlier sighting, found the chickadee in the same place and captured it with a mist-net. After measuring, banding, and photographing the bird (Figs. 1 and 2), they released it. The wing chord measured 67mm, the tail 63. Band number 1590-88320 was placed on the chickadee's left leg. At about 1030 the next day, Tyler and Shackford again saw the bird (with band) at the feeder. Subsequently, Laurance Regnier and his wife Carrie saw it from time-to-time until at least 10 February.

Although Shackford and Tyler listened carefully for the diagnostic "fee-beee" call, they heard only the regular "chick-a-dee-dee-dee" song, which seemed (to Shackford) slightly more languid than a typical Carolina's. The relatively longer tail of *atricapillus* is frequently used to aid in differentiating it from *carolinensis*. Information presented by Robbins *et al.* (1986) indicate that chickadees with a tail/wing ratio of 93% or higher are Black-caps, while those with ratios of 88% or below are Carolinas. The tail/wing ratio of the Kenton bird (94%) falls well within the range for *atricapillus*.

For *P. carolinensis*, there is but one specimen known from the Oklahoma Panhandle: on 13 May 1961, J. David Ligon collected a male (UOMZ 4889) five miles northeast of Guymon in Texas County. There are also recent sight records at the easternmost end of the Panhandle. Along Kiowa Creek 10½ miles south and 2 east of Gate in Beaver County, Shackford saw what he took to be three family groups on 22 June 1985; the next day he observed five birds together, plus a singleton. At the same place on 2 February 1986, Shackford, Lawrence E. Dunn, and Jack D. Tyler saw at least 33 birds (Shackford field notes). However, this species has never been found as far west as Cimarron County.

George M. Sutton (1967) stated that, of over 100 chickadee specimens amassed in a "determined effort" to obtain a Black-cap in Oklahoma, "only one can conceivably be called *atricapillus*, and this bird does not represent the species unequivocally." The specimen (UOMZ 2553, male, testes somewhat enlarged) is in the University of Oklahoma collection and was taken 28 April 1956 at Doby Springs in Harper County, near the east end of the Panhandle, by C. A. Ely. Its tail/wing ratio (93.2%) falls within the range of *atricapillus* (tail 62, wing 66.5). Also according to Sutton (1967) its wings show the "white or nearly white secondary edgings of *atricapillus*." W. A. Lunk of the University of Michigan carefully identified this bird as *P. atricapillus septentrionalis*. In September 1986, Shackford examined the specimen and found the whitish feather edgings somewhat subdued (possibly due to fading with age) when compared to photographs of the Kenton bird. A recent study by Robbins *et al.* (1986) of hybrid chickadees in southwest Missouri suggests that the O.U. specimen may need to be critically re-examined. If it proves to be a hybrid, the Kenton bird would be the first *bona fide* record for *P. atricapillus* in Oklahoma. The latter bird is the first from the state for which all crucial field marks, measurements, and calls have been documented: (1) the "fee-beee" call, (2) an appropriate tail/wing ratio, (3) very white or whitish feather edgings on wings and tail (Figs. 1 and 2) as opposed to gray or grayish edges in *P. carolinensis*, and (4) black at lower edge of bib less sharply defined than in *P. carolinensis* (Fig. 2).

Interbreeding between *P. atricapillus* and *P. carolinensis* does occur else-

where (Brewer 1963, Johnston 1971, Robbins *et al.* 1986). Dr. Max Thompson has assembled a fine series of some 30 putative hybrid specimens at Southwestern College in Winfield, southeastern Kansas, that show considerable individual variation. All were collected along a 15-mile stretch of the Arkansas River northwest of Winfield along the interface of the two species' ranges. Multivariate comparisons in Kansas by Rising (1968) suggest that these two species may produce a viable F2 generation. If so, the two species may yet be taxonomically "lumped" (see also Braun and Robbins 1986, Mack *et al.* 1986).

Although the relationships between the two species in Oklahoma are still unclear, we now know that at least an occasional Black-cap wanders into western sections of the state in winter. We have yet to determine how often or exactly where this takes place, the numbers of birds involved, or the extent of their sojourn here. Further study of these closely related parids is needed.

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PILEATED WOODPECKER IN WOODWARD COUNTY, OKLAHOMA

BY VERNON N. POWDERS

The Pileated Woodpecker (*Dryocopus pileatus*) is a resident principally of heavy woods in eastern sections of Oklahoma, but has been seen westward to Alfalfa, Major, Canadian, Caddo, Comanche, Stephens, and Jefferson counties. The westernmost record for breeding is from Stephens County (Sutton, G. M., 1974, A check-list of Oklahoma birds, Stovall Mus. Sci. & Hist., Univ. Oklahoma Press, Norman, p. 23), and the species is considered rare along this edge of its

range (Sutton, G. M., 1967, Oklahoma birds, Univ. Oklahoma Press, Norman, p. 303). There is a record for southwestern Major County: on 6 April 1955, J. L. Steele, Jr. saw a single bird among cottonwoods along the North Canadian River near Chester (McGee and Neeld, 1972, Bull. Oklahoma Orn. Soc. 5:5).

On 14 December 1985, while deer hunting from a tree stand about eight feet from the ground, I noticed a large bird that flew in typical woodpecker "undulating" fashion through the mixed woods and landed about 10 feet up in a dead American elm (*Ulmus americana*). I knew that it was some kind of woodpecker, for it immediately began to hammer loudly on the tree. The bird was nearly crow-sized, had a blackish back, and its brilliant crimson crest extended forward all the way to the bill. There was no doubt that it was a male Pileated Woodpecker. I watched it for approximately 30 minutes (1630-1700) through 7x35 binoculars. As the bird left the elm tree, its wings flashed white and it gave the typical Pileated call. The location was 3½ miles west and ¼ mile north of Mooreland, Woodward County, Oklahoma, on State Highway 50B, or 1 mile east of Boiling Springs State Park.

On 23 February 1986, at about 1100 and in the same general location described above, the author and his father, V. L. Powders, saw possibly the same bird fly through a small grove of black locust trees (*Robinia pseudoacacia*) and into some large cottonwoods (*Populus deltoides*). Both sightings occurred about 1 mile northeast of the North Canadian River, a richly wooded area conspicuous for its many large cottonwood trees, some dead but still standing. Numerous American elm, green ash (*Fraxinus pennsylvanica*), chittumwood (*Bumelia lanuginosa*), hackberry (*Celtis* sp.), mulberry (*Morus* sp.), oak (*Quercus* sp.), black locust, and soapberry (*Sapindus drummondii*) trees complemented this riparian forest. Farmland was intermixed with these bottomland woods along their margins.

This constitutes a new county record and an extension of the Pileated Woodpecker's range about 20 miles westward or about 30 miles northwestward up the North Canadian River in Oklahoma. This species should be looked for in other areas of western Oklahoma amongst big timber bordering major rivers and their tributaries. An interesting note is the fact that, of the scores of persons who attended the fall field meeting of the Oklahoma Academy of Science at Boiling Springs State Park during late September 1985, not a single one reported seeing a Pileated Woodpecker.

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GENERAL NOTES

Albinistic Blue Jay in Grady County, Oklahoma.—In early May of 1982 I was informed by Mrs. Mildred Looney that a white Blue Jay (*Cyanocitta cristata*) was frequenting her back yard in Chickasha, Grady County, central Oklahoma. When I went to the alley behind Mrs. Looney's house, I found the strange bird almost immediately. During the next several weeks, it was also observed by Jeanne Mather, Derald and Mary Swineford, and Maude and Dana Dews. On 21 May 1982 photographs were taken. That same day, it visited a

nest built in a mulberry tree (*Morus rubra*). Because of the nest site and thick foliage, the jay's exact activity at the nest could not be determined. Whenever anyone approached the tree, the bird flew off. Later in the month, however, the white jay was seen in the company of several young Blue Jays, all of normal color. It is assumed that they fledged from the aforementioned nest.

The albino Blue Jay we often observed perched on power lines in the alley, in various back yards bordering the alley, or flying back to its home territory from a park in the adjacent block. The last time one of us saw it was on 11 January 1983, when Jeanne Mather watched it flying across a nearby street with several other Blue Jays. The maximum distance separating all our sightings was only about 300 yards.

Except for dark feathers on the crest, face and throat, where there are black lines in normally colored individuals, this Blue Jay's plumage was virtually pure white. Its eyes and bill were the usual black color. Because of the presence of some pigmentation and eye color, this bird would be classified as an imperfect albino (O. S. Pettingill, Jr., 1970, *Ornithology in the laboratory and field*, Burgess Publ. Co., Minneapolis, Minnesota, p. 252). Allaire (1977, *Aberrant pigmentation in Kentucky birds, The Kentucky Warbler* 53 (1):13-16) included only one record of a partially albinistic Blue Jay. Gross (1965, *The incidence of albinism in North American birds, Bird-Banding* 36(2):67-71) reported 22 cases of some form of albinism in this species.—Charles M. Mather, *Box 82517, University of Science and Arts of Oklahoma, Chickasha, Oklahoma 73018, 12 May 1986.*

Loggerhead Shrike takes American Goldfinch.—On the afternoon of 20 January 1985, I noticed a lack of activity near the thistle and sunflower feeders in our yard near Ada, Pontotoc County, south-central Oklahoma. This was puzzling, for on previous days at least 10 species of birds had frequented the feeders, including a dozen or so Pine Siskins (*Carduelis pinus*) and thrice as many American Goldfinches (*C. tristis*). Upon closer inspection, I discovered the reason: a Loggerhead Shrike (*Lanius ludovicianus*) was perched on one of the feeders, effectively warding off the other birds. The weather had been typical for January: cloudy days with highs in the mid 20's (°F) and nighttime lows near zero. There was no snow on the ground.

At 1500 the following afternoon (temperature about 23°F), I looked out the kitchen window and, to my dismay, saw that a shrike had pinned an American Goldfinch to the ground. The smaller bird was still alive, though struggling frantically. I tapped the window loudly, attempting to frighten the shrike away, but without success. Hoping to save the goldfinch, I ran out the back door and around to the feeders. When I arrived, however, neither bird was anywhere to be seen. Whether the goldfinch escaped or not I cannot say. During the next two weeks, I did not see the shrike again.

A. C. Bent (1950, *Life histories of North American birds*, U. S. Natl. Mus. Bull. 197, Wash., D. C., pp. 136, 138) stated that sparrows and warblers probably make up the bulk of small birds taken by shrikes. He listed several species known as prey, but not *C. tristis*. Furthermore, Bent quoted S. D. Judd (1898, *Biol. Surv. Bull.* 9, pp. 15-26), who concluded that "birds make up only 8 percent

of the food for the year" after analyzing a large series of shrike stomachs.—Margurete Dirck, Box 2696, Ada, Oklahoma 74820, 2 February 1985.

Notes on a population of Bell's Vireos in Oklahoma County, Oklahoma.—Several of us have maintained a banding station periodically during the past nine years on the north shore of Lake Overholser (known locally as the "cofferdam area") in northwest Oklahoma City, Oklahoma County, Oklahoma. It is bounded on the east by the North Canadian River, by old U.S. Highway 66 to the north, and the Canadian County line marks its westward extent. Although our purpose was to band migrants and summer nesting species, we paid special attention to the Bell's Vireo (*Vireo bellii*). The swampy habitat here was ideally attractive to this species. Most of the dense woody vegetation was either situated low over the water or growing nearby, with stands of cattails (*Typha latifolia*) randomly interspersed. The more common species included black willow (*Salix nigra*), Cottonwood (*Populus deltoides*), red mulberry (*Morus rubra*), green ash (*Fraxinus pennsylvanica*), persimmon (*Diospyros virginiana*), buttonbush (*Cephalanthus occidentalis*) and roughleaf dogwood (*Cornus drummondii*). In many places, wild grape (*Vitis* sp.) entangled with the latter two species formed ideal nesting sites.

There was concern that nest parasitism by Brown-headed Cowbirds (*Molothrus ater*) might eventually eliminate the local nesting populations of this vireo as has apparently happened with the Black-capped Vireo (*V. atricapillus*) elsewhere. Moreover, the area was often disturbed. It had at various times been a trash dump and a receptacle for waste water-softening chemicals from the city. Off-road vehicles and bulldozers had destroyed sections of the vegetation as well. Eventually, the study site became incorporated into the Stinchcomb Wildlife Refuge and was secured with gates.

The banding program was begun in 1977 by Warren D. Harden of Norman, Oklahoma, and John S. Shackford of Oklahoma City. Several other persons, working as sub-banders under Harden's permit, later joined this effort, including Wesley Isaacs, Carolyn Gritzmaker, Patti Muzny, Euelda Sharp, Lori MacIvor, Neil Garrison and me. In 1977 Harden and Shackford banded 38 Bell's Vireos, and in 1978, 27. Because of a lack of activity on the part of the banders, only 14 were banded in 1979 and just one in 1980. In subsequent years, results were variable. For example, in 1981 we banded 18 birds, but only seven in 1982, and none in 1983.

On 20 May 1983, I received a Master Banding Permit (No. 21741), but not until 1984 did I begin to band birds in earnest. This I did each Saturday from daylight until 1030. In 1984 and 1985, the majority of banding that took place at the cofferdam was done by me and my faithful assistant, Wesley Isaacs. During the 1984 nesting season alone, we banded 36 Bell's Vireos. Of interest was one recaptured vireo (No. 1480-67216), which I first banded on 29 July 1978. This bird had been recaptured several times during the in-between years and Lori MacIvor had placed a red plastic band on its right leg. In 1984 no nest was found, but approximately 50% of the vireos netted and banded that year were hatching-year birds.

In 1985 the nesting season began the last part of April or in early May. I

started netting then and captured 11 vireos that we had banded in previous years. We also netted 25 unbanded birds during 1985, again making a total of 36 Bell's Vireos caught. The first "new" bird was banded on 4 May 1985 (No. 1700-99155). It mated with one of the recaptures (No. 1670-83714) and they built a nest within arm's length of one net, yet so concealed that it was found strictly by accident on 27 May. It was 32 inches up in the low fork of a roughleaf dogwood intertwined with wild grape and concealed under dense foliage. The nest contained four white eggs with some minute speckling on the larger ends. All the eggs hatched, but one young died in the nest. Whether or not the other three fledged we cannot say.

Due to heavy rains, it was not possible to band during latter September, and the last Bell's Vireo I heard was on the 14th. The latest date on which a bird was recaptured was 30 September 1978 (No. 1480-67215). This date is quite late, as the latest recorded for Oklahoma by G. M. Sutton (1974, A check-list of Oklahoma birds, Stovall Mus. Sci. & Hist., Univ. Oklahoma, Norman, p. 34) was 29 September. We found no evidence of cowbird parasitism.—Hubert R. Harris, 4907 N. Willow, Bethany, Oklahoma 73008, 14 November 1985.

First winter sighting of the Lazuli Bunting in the Texas Panhandle.—

During the early afternoon of 3 December 1984, I arrived at the Hugh Currie ranch house on the Prairie Dog Town Fork of the Red River in upper Palo Duro Canyon, east-central Randall County, Texas. The temperature was around 40°F, the sky very overcast and the wind moderate from the southwest. A deep ravine some 10 yards wide and 30 yards long runs from the house to the creek and carries the overflow from a small lake. The ravine is overtopped by large cottonwoods (*Populus* sp.) and cedars (*Juniperus* sp.), thus providing a very quiet and secluded haven. The western slope is brushy, with grasses on the upper reaches. I entered the stand of cedars at the southeastern end, from which point I had a clear but protected view up and down the ravine. I soon became aware of a great deal of avian activity, and before eventually leaving that one spot, had seen 18 different species of birds, plus 24 others nearby.

My attention became drawn to a small, sparrow-sized individual that was flying up from the ground repeatedly, alighting on the upper ends of long stalks of grasses, weighting them down, and stripping their seed heads. The bird's throat and head were a bright azure-blue, its back a darker blue. Of the two white wing bars, the upper was most prominent. Except for a suffusion of cinnamon on the chest, the underparts were white. I could see immediately that it was an adult male Lazuli Bunting (*Passerina amoena*), but one either in eclipse plumage or a bird of the previous year that had not yet molted into full plumage. Many light brown or cinnamon feathers were noticeable on its crown, nape and back (see Bent, A. C., 1968, Bull. U.S. Natl. Mus. 237:124). Later in the afternoon, I skirted the western side of it and again saw the male bird as it flushed from the tall grass.

The Lazuli Bunting is rarely reported in the Texas Panhandle past September. The latest date on record is a bird seen near this same location on 24 October 1963 by Peggy Acord. G. M. Sutton (1974, A check-list of Oklahoma

birds, Stovall Mus. Sci. & Hist., Univ. Oklahoma, Norman, P. 42) gives the latest date in Oklahoma as 10 October. Its known winter range lies from southern Baja California, southern Arizona and Chihuahua south to Guerrero and central Veracruz (1983, American Ornithologists' Union Check-list of North American birds, 6th ed., p. 675). H. C. Oberholser (1974, *The bird life of Texas*, Vol. 2, Univ. Texas Press, Austin, p. 865) cites three winter sightings, one each in McLennan, Bexar, and Hidalgo counties, all far south of the Panhandle.—Kenneth D. Seyffert, 2206 S. Lipscomb St., Amarillo, Texas 79109, 25 October 1985.

Nesting of Lark Bunting in Harper and Beaver counties, Oklahoma.—During late May or early June of 1965, my sons Eddie and Larry and I discovered four different Lark Bunting (*Calamospiza melanocorys*) nests within a quarter-mile diameter in one of our pastures 5½ miles north of Gate, in Beaver County, Oklahoma. This place lies less than a half mile from the Cimarron River. The habitat was the same at all nests: principally grammas (*Bouteloa* spp.) and buffalograss (*Buchloë dactyloides*) interspersed with yucca (*Yucca* sp.), sandsage (*Artemisia filifolia*), and assorted forbs, notably Indian blanket (*Gaillardia pulchella*). Each nest contained either four or five eggs. I later saw adults with immature birds, so at least some nests were successful.

I came upon a single nest with five eggs in Harper County during the 1979 breeding season (last part of May to early June). It was nestled in a clump of grama grass in open pastureland 2½ miles west and 6 miles north of Rosston. On a later date, I noticed three or four fledglings in the grass near the nest.

J. D. Tyler (1985, *Bull. Oklahoma Orn. Soc.* 18:25-28) summarized Oklahoma records for this species, and there is apparently no previously published nesting record for Beaver County. Harper County was listed among the counties for which breeding is known, based on the following statement in George M. Sutton's Summary of Bird Records at the University of Oklahoma's Stovall Museum: "Has nested some years near Rosston (L. E. Dunn)," but details need to be on record.—Laurence E. Dunn, *Gate, Oklahoma 73844, 22 July 1986.*

Wood Stork in Oklahoma City, Oklahoma County, Oklahoma.—From 14 August through 3 September 1985, an immature Wood Stork (*Mycteria americana*) was repeatedly observed in the Rose Lake area of far western Oklahoma City, Canadian County, central Oklahoma. Rose Lake, centering at the intersection of Northwest 63rd and Sara Road, is an area of low-lying fields and pastures, approximately 160 acres in extent, which is subject to periodic inundation by the nearby North Canadian River. Often, after heavy spring rains, a network of shallow lakes and ponds develops here which sometimes persists far into the summer. Such was the case in 1985.

The Wood Stork was first sighted by Fran Lower and Jean Pasternik around 0700 on 14 August (weather cloudy with intermittent light rain, air temperature 75°F) in a small pond. About two hours later, unaware of the earlier sighting, I also discovered the bird, still in the same general area, but in a much larger lake. Its "fuzzy" (partially feathered) head and massive, pale-colored, curved bill led me to immediately identify it as an immature Wood Stork, a species I

had seen at the Corkscrew Swamp in Florida the previous year. Also present were perhaps 1000 other wading birds, including herons, egrets, a few shorebirds and seven American White Pelicans (*Pelecanus erythrorhynchos*). It was the largest concentration of wading birds which I have ever seen in the area. After observing and photographing the Wood Stork for several minutes, I notified John and Dorothy Newell and Brooks and Thula Parkhill of it, who soon arrived and confirmed my identification. The bird, which was only a short distance from us, seemed at ease and unwary as it probed the shallow waters or simply stood immobile. We observed it for about two hours.

During the next three weeks, Rose Lake became a mecca for birders from around the state, as word of the rare sighting spread. The Wood Stork was seen almost daily, sometimes west of Sara Road, sometimes at a wooded pond north of 63rd Street, but rarely more than ¼ mile from the intersection of these two roads. On two occasions it was seen to capture and, with great difficulty, swallow large fish. When feeding, it associated closely with other wading birds, but at other times either preened or stood unmoving. Occasionally, it perched in a tree. Once, as I watched it feeding, it spread first one wing, and then the other, apparently to shade the water.

By early September, a period of hot and dry weather had almost completely evaporated the shallow playas comprising Rose Lake. Sightings of the Wood Stork became less frequent as its habitat shrank daily. It was last seen on 3 September by John Newell.

The Wood Stork is a rare bird in Oklahoma and has not previously been recorded in Canadian County (D.S. Wood and G.D. Schnell, 1984, Distributions of Oklahoma birds, Stovall Mus. Sci. & Hist., Univ. Oklahoma, Norman, p. 16). G. M. Sutton (1974, A check-list of Oklahoma birds, Stovall Mus. Sci. & Hist., Univ. Oklahoma, Norman, pp. 4-5) records that non-breeding individuals have been reported from 1 May to 27 September westward to Alfalfa, Oklahoma, and Cleveland counties.—Mitchell Oliphant, 3116 North Virginia, Oklahoma City, Oklahoma 73118, 21 September 1985.

A covey of Northern Bobwhites rescued from drowning.—On 15 October 1982, Jerry Stewart of rural Sulphur, Oklahoma, and a friend were trolling for fish near the middle of the Lake of the Arbuckles in Murray County, south-central Oklahoma, when they spied a small object bobbing up and down in the water. When they got closer, they saw that it was a Northern Bobwhite (*Colinus virginianus*), so near drowning that only its head remained above the surface. As they were scooping up this hapless bird in a dip net, they spotted another quail floating in the lake, then another, and still another, until altogether 18 birds were rescued.

The fishermen placed the bedraggled quail in the boat's live well and quickly made for shore. They reported their experience to Dick Blasdel, District Game Ranger at the lake, who assisted in releasing the quail. A few of the drenched birds made vain efforts to fly, but soon all of them scrambled off into the nearby woods, seemingly none the worse for wear after their bizarre ordeal.

Not being strong fliers, bobwhites ordinarily manage to avoid vast expanses of water. George M. Sutton, ornithologist at the University of Oklahoma, was

amazed by this occurrence; in all his years of studying birds, he had never heard of such a happening. The only explanation he could tender was that the quail might have been so frightened, possibly by a predator, that they flushed straight away from shore, but soon became so exhausted that they were forced to "settle down" in the water instead of on dry land.

Northern Bobwhites have been known to swim considerable distances on occasion. W. R. Heard (Wils. Bull. 72:201, 1960) discovered a covey of 28 birds swimming well out from shore in Lake Carl Blackwell, Payne County, Oklahoma, on 13 October 1958. At about 0700, he found them swimming weakly toward the south bank, six or seven hundred feet away. Only 18 made land on their own. The remaining 10 were floating quietly with their heads just above water, too exhausted to continue. Heard rescued these 10, but later found three of them at the same place, apparently having died from overexertion and exposure. P. A. Stewart (1976, Wils. Bull. 88:662) reported a case in North Carolina in which eight young bobwhite chicks swam about 0.5m across a water-filled ditch following the hen, which had flown over it.—Jamie Petitti, *Naturalist, Chickasaw National Recreation Area, Sulphur, Oklahoma 73086, 15 April 1985.*

On the importance of cold fronts to migrating birds.—During the afternoon of 11 September, 1975, I searched my backyard at 1416 Huntington Way in Norman, Oklahoma, for birds but found only a female Northern Cardinal (*Cardinalis cardinalis*) in heavy molt, feeding a juvenile. Skies were clear with an afternoon high of 92°F.

At midday on 12 September I returned home from work in cold, drizzly weather (daytime high of 62°F) to find my backyard alive with birds. Sensing the rarity of the occasion, I erected four mist nets (each 12m long and 2.6m high with 36mm mesh size) in my backyard in an "L" configuration, the shorter leg adjacent to the east fence and the longer paralleling the south fence. This south leg consisted of two nets placed end-to-end and a third above the west net, making it twice as high.

Cool, wet weather continued through 15 September with overcast skies, rain, and high temperatures between 55° and 70°F, thereafter abating gradually to clear skies and a high of 91°F on the 18th. I left the nets spread in the yard most of the daylight hours from noon on 12 September until midday on 18 September, at which time the number of captures fell off drastically as the weather cleared (Table I).

Since during this period I captured several species of birds that I had never before seen in my yard, my results seem to indicate (1) that numerous species and many individual birds were forced to ground by inclement weather, and (2) that despite the great numbers of birds present in an area during migration, often within sight of ardent birdwatchers, most are never detected.

Notice from Table 1 that the number of migrants through my yard rose abruptly with the onset of extremely unsettled atmospheric conditions, then dropped almost as dramatically when the weather cleared. From this experience, one can begin to appreciate the significant influence exerted on migrating birds by the passage of a frontal system.—Warren D. Harden, 2409 Butler Drive, Norman, Oklahoma 73069, 16 September 1985.

TABLE 1. Birds netted in Norman, Cleveland County, central Oklahoma, 12-18 September 1975 by Warren D. Harden

SPECIES	SEPTEMBER							TOTALS
	12	13	14	15	16	17	18	
1. Yellow-billed Cuckoo (<i>Coccyzus americanus</i>)			1					1
2. Olive-sided Flycatcher (<i>Contopus borealis</i>)				1				1
3. Yellow-bellied Flycatcher (<i>Empidonax flaviventris</i>)			1	1				2
4. Traill's Flycatcher (<i>E. traillii</i> or <i>alnorum</i>)			1	1	1			3
5. Least Flycatcher (<i>E. minimus</i>)	1	8	4	10	1		1	25
6. Blue Jay (<i>Cyanocitta cristata</i>)		1	1					2
7. Carolina Chickadee (<i>Parus carolinensis</i>)		2			3			5
8. Ruby-crowned Kinglet (<i>Regulus calendula</i>)	1					1		2
9. Gray Catbird (<i>Dumetella carolinensis</i>)			1	1				2
10. Northern Mockingbird (<i>Mimus polyglottos</i>)			2					2
11. Brown Thrasher (<i>Toxostoma rufum</i>)				1				1
12. Bell's Vireo (<i>Vireo bellii</i>)	1			1				2
13. Solitary Vireo (<i>Vireo solitarius</i>)		3		3	2			8
14. Warbling Vireo (<i>Vireo gilvus</i>)			2	5	1	1		9
15. Tennessee Warbler (<i>Vermivora peregrina</i>)				1				1
16. Nashville Warbler (<i>V. ruficapilla</i>)		3	7	12	5			27
17. Yellow Warbler (<i>Dendroica petechia</i>)	4	30	12	16	1	1		64
18. Black-and-White Warbler (<i>Mniotilta varia</i>)				2				2
19. Mourning Warbler (<i>Oporornis philadelphia</i>)	3	5			1			9
20. Common Yellowthroat (<i>Geothlypis trichas</i>)				2				2
21. Wilson's Warbler (<i>Wilsonia pusilla</i>)		2	2	1	1			6
22. Northern Cardinal (<i>Cardinalis cardinalis</i>)		1	1	2	1			5
23. Dickcissel (<i>Spiza americana</i>)						1		1
24. Orchard Oriole (<i>Icterus spurius</i>)			3					3
25. Northern (Baltimore) Oriole (<i>Icterus galbula</i>)		4	8	2	1			15
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