

NESTING OF LONG-BILLED CURLEWS ON CULTIVATED FIELDS

BY JOHN S. SHACKFORD

During the spring and summer of 1986, I studied the distribution and breeding biology of five rare birds in the Oklahoma Panhandle: Ferruginous Hawk (*Buteo regalis*), Golden Eagle (*Aquila chrysaetos*), Prairie Falcon (*Falco mexicanus*), Mountain Plover (*Charadrius montanus*) and Long-billed Curlew (*Numenius americanus*). Long-billed Curlews are regular migrants through the western half of Oklahoma, and summer residents in the western two-fifths of the Panhandle as well.

Local farmers told me of finding curlew nests on cultivated land, but I was unsuccessful at verifying this. I did, however, gather circumstantial evidence. Between 20 April and 13 July 1986, I found 33 territories with either nests, chicks or agitated adult curlews at a total of 28 different sites. These 28 locations were in cultivated fields (14), native shortgrass prairie (13), and other grassland (1). The latter had been reseeded with non-native species. Most cultivated land was either fallow and plowed strictly for weed control or was planted to wheat (*Triticum aestivum*). The wheat fields variously contained growing plants, stubble or plowed stubble, depending on time of year.

Among the 28 locations with curlews, I found two nests, both in native prairie. At 13 locations, there were broods of young birds, seven of which were in cultivated fields (Fig. 1). Here, at least 18 chicks comprised eight broods. Six more broods at five other locations in native prairie totalled at least 12 chicks. I saw adult curlews that showed signs of agitation at 14 additional locations. Seven of these, (with probably



Fig. 1. Flightless young between two adults in wheat stubble in foreground; 13 June 1986; central Cimarron County. All photos by John S. Shackford



Fig. 2. Second known nest in a cultivated field; 27 May 1994; central Cimarron County. Nest contained four eggs.



Fig. 3. Recently-hatched chick in wheat stubble; western Texas County, Oklahoma; 25 May 1986.

eight broods), were on cultivated fields. Six others, (also with eight broods indicated) I found in natural prairie. Only one site (one brood), was in non-native grassland. Twenty-four of the sites (29 territories) were in Cimarron County and four others (four territories) in Texas County.

Although I did not see young curlews at any of the 14 locations where excited adults were present, there was little doubt that in each case, chicks, or perhaps older young, were nearby. This because adult curlews with nests nearby are quite stealthy and generally silent, and incubating birds flush only when nearly stepped upon. As soon as the young hatch, however, the adults become almost frantic, hovering overhead and giving distress calls to distract intruders who come too near the young. Other curlews from surrounding areas often fly in to join the din. This dichotomous behavior of adult curlews allows detection of young, even when they are not visible. In addition to the 28 probable breeding sites discussed above, I also suspected the presence of nests at several locations where I watched adult birds land quietly in fields of growing wheat, only to quickly disappear in the tall vegetation.

During 1993 and 1994, I conducted a study of agricultural fields as potential nesting sites for Mountain Plovers. This study took place not only in the Oklahoma Panhandle (primarily Cimarron County), but also in southwestern Kansas and southeastern Colorado. While engaged in this research, I also recorded valuable incidental data on Long-billed Curlews.

As Jack D. Tyler and I searched for Mountain Plovers on 27 May 1993 in several large, contiguous cultivated fields 7 km south and 1.5 km west of Keyes in Cimarron County, we noticed a pair of Long-billed Curlews flying not far away at 0800. Visually following them, we noted the spot where they landed, suspecting that they were near a nest. After a few moments, we drove directly toward the site.

Skies were mostly clear, the temperature near 55°F, and there was a west-southwest breeze of 20-25 km/hr. We were surrounded by flat, open wheat fields that had been plowed, but here and there, clumps of Mexican firebrush (*Kochia scoparia*), field bindweed (*Convolvulus arvensis*) or resprouted wheat interrupted the flat, monotonous countryside.

A short time earlier we had noticed a different pair of curlews half a mile to the northeast, and yet another of these large birds in aerial pursuit of a Chihuahuan Raven (*Corvus cryptoleucus*) or possibly an American Crow (*C. brachyrhynchos*). The

presence of these five curlews suggested the possibility of at least three nests nearby. The only other birdlife we noticed in this man-induced environment were numerous Horned Larks (*Eremophila alpestris*) and several Western Meadowlarks (*Sternella neglecta*). Although I found Mountain Plovers on these fields before and after this date, we saw none this day.

As we arrived at the place where the curlew pair had alighted, the female suddenly flushed from a nest virtually beneath our vehicle. Although we were driving very slowly and stopped almost immediately, a front wheel had already rolled through the nest, smashing the three eggs within. These had developed almost to the hatching point, but another egg six feet away that appeared to be addled was collected for the Cameron University Museum of Zoology in Lawton, Oklahoma. The highly vocal female bird (told by her longer bill and larger size) was very excited, repeatedly attempting to lure us away from the nest by feigning an injured wing as she ran along the ground.

The chances of a tire only 20 cm wide encountering a nest of similar dimension on this vast, open field of 64 ha (160 acres) would seem to be extremely slim. However, because we knew precisely where the adults had put down, we had approached the spot along a straight line-of-sight route. Nonetheless, both of us were genuinely surprised that the curlews had returned so directly to the nest. I was especially surprised because on many occasions while studying this species in 1986, adult curlews had been frustratingly wary in areas where I had suspected a nest.

Although the destruction of the nest was unfortunate, its "habitat" was of considerable ornithological interest. This was the first confirmed nesting of curlews in a cultivated field in Oklahoma and, to the best of our knowledge, no other exists elsewhere.

On 13 June 1994, a partly cloudy day with light winds and a temperature in the 70s, I found a second curlew nest on a cultivated field, also in Cimarron County. The location was 4 km north and 5.5 km east of Boise City. At 0900, as I was scanning a Mountain Plover study field with my 10x50 binocular, I noticed what appeared to be a curlew head near some low vegetation. Earlier, I had heard a few curlew vocalizations from this general direction. As I inspected the area more closely, I saw that it was indeed a curlew, because now visible were its back and long curved bill. This adult sat very low to the ground, as if on a nest. When I approached, the curlew flushed, revealing a nest with four large brown-splotched eggs. I photographed the nest, eggs, and surrounding habitat (Fig. 2).

The field had not been plowed within the preceding two weeks, and was essentially bare except for an occasional weed or two. When I returned on the evening of 18 June, it was being plowed, but on 11 July I found that plowing had ceased. The nest had been situated near the line where plowing was discontinued. Although I was not positive that the nest had actually been turned under, I found neither my marker, the nest, nor any curlews there during four subsequent visits (18 June; 11, 14 and 30 July).

During my studies of the Long-billed Curlew and Mountain Plover, it has been my observation that curlews found in cultivated fields tend to choose territories where some grassland is still present nearby. By contrast, many Mountain Plovers that I have observed on cultivated fields since 1992 have been some distance from native prairie. Thus, of the 14 cultivated areas where I found broods or evidence of curlew broods (agitated adults) in 1986, it is debatable as to how many of the broods actually originated from nests in cultivated fields rather than grassland. However, at least

two of these locations were far from grass of any type. The recently-hatched young curlew in Figure 3 was one such case. At a second location, the landscape was virtually devoid of grassland within the surrounding four square miles.

In November 1991, the Long-billed Curlew was downlisted from a Category 2 species to a Category 3C species by the United States Fish and Wildlife Service. This decision was based on the belief that the curlew population was not severely threatened and appeared to at least be maintaining itself. Part of any recent nesting success might be related to increased productivity on wheat fields. Because growing wheat is seldom tampered with in spring, except for isolated aerial crop-dusting, curlews nesting there stand a reasonable chance of success. Conversely, curlew nests on fallow land or in fields being prepared for planting, such as both nests found thus far, are vulnerable to plowing. Because such fields are plowed about every four to six weeks, and the incubation period is approximately 27-28 days (Graul, W. D., 1971, Observations of a Long-billed Curlew nest, *Auk* 88:182-184), birds would be hard-pressed to bring off a clutch between plowings. Further work on this subject is clearly warranted.

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OKLAHOMA COOPERATIVE FISH AND WILDLIFE RESEARCH UNIT, DEPARTMENT OF ZOOLOGY, OKLAHOMA STATE UNIVERSITY, STILLWATER, OKLAHOMA 74078, 19 AUGUST 1994.

GENERAL NOTES

Little Gull in Tulsa County, Oklahoma. — While studying birdlife at the Skiatook, Oklahoma, sewage ponds in southeastern Osage County on 27 March 1993, an unusual gull flew through our 25X spotting scope's field of view as we examined the assemblage of ducks on one of the ponds. We were soon able to locate it: an adult Little Gull (*Larus minutus*) in basic plumage. Several Ring-billed Gulls (*L. delawarensis*) and Bonaparte's Gulls (*L. philadelphia*) were also present.

Most prominent and distinctive of the Little Gull's plumage features was its dark gray (nearly black) underwing, accentuated by a brilliant white trailing edge. The bird's upperparts were pale gray, the tail white, and the head was white with a dusky black partial hood and black spot behind the eye. The bill was small and black, and when the bird stood on a plastic water barrier, its reddish legs and feet were visible. It was noticeably smaller than both the Bonaparte's and Ring-billed gulls nearby. In flight, the Little Gull's short rounded wings and buoyant, fluttery flight were diagnostic.

Altogether, we studied the bird for well over an hour between 0912 and 1100 (the bird left the area briefly at one point as did we) using a 10X40 binocular and a 25X60 spotting scope from a distance of less than 100 m. Light conditions were excellent.

This species was first recorded in Oklahoma by John G. Newell (*Bull. Oklahoma Ornithol. Soc.* 24:17-18, 1991) in December 1990 at Lake Hefner in Oklahoma County. A second and possibly a third sighting occurred near Fort Gibson, Cherokee County, in February 1992 (Withgott, J. H., 1992, *Bull. Oklahoma Ornithol. Soc.* 25:31-33), and Jeff Webster saw one at Lake Texoma in Marshall County during April of 1992 (Withgott, *op. cit.*). This species is considered casual in the immediate geographic region encompassing Oklahoma (American Ornithologists' Union, 1983, Check-list of North American birds, 6th ed., Lawrence, Kansas). For additional details of range and distribution, see Newell, *op. cit.* — Dan L. Reinking, *George M. Sutton Avian Research Center, P.O. Box 2007, Bartlesville, Oklahoma 74005-2007*, and Bonnie Gall, *Route 1, Box 576F, Bartlesville, Oklahoma 74003, 19 November 1993.*

Correction for purported Snow Bunting observation from McCurtain County, Oklahoma — On 20 December 1991, Elsie and Judy Logan observed and photographed a predominantly white sparrow-like bird feeding in the Wal-Mart parking lot at Broken Bow, McCurtain County, Oklahoma. The bird was associating more or less with a group of House Sparrows (*Passer domesticus*). After consulting their field guides, they concluded that it was a Snow Bunting (*Plectrophenax nivalis*). Some notes of the observation with two copies of a photograph were submitted to the Oklahoma Bird Records Committee (OBRC). Before evaluation by the OBRC, the record was prematurely published in *The Scissortail* (Grzybowski, J. A., and J. Loyd, 1992, Winter 1991-92 summary, Oklahoma Bird Records Committee, *The Scissortail* 42:27), newsletter of the Oklahoma Ornithological Society. The Logans also showed their photographs to almost 50 bird students in Texas, Oklahoma and Arkansas, all of whom agreed with their identification. With this level of confirmation, the record was formally published (Logan, E., 1992, Snow Bunting in McCurtain County, Oklahoma, *Bull. Oklahoma Ornithol. Soc.* 25:35).

Berlin Heck, manager of the Little River National Wildlife Refuge, after reading the note, realized that a possible error might have been made. In early December 1992, he had observed an albinistic House Sparrow near his office in the same Wal-Mart shopping center where the Logans had made their observation. The behavior of this individual was similar to that observed by the Logans in that it appeared to remain somewhat aloof from other House Sparrows and was more wary of humans. It perched in small shrubs around the buildings with other House Sparrows, and while on the ground always hopped rather than walked.

Heck contacted Grzybowski indicating the potential error and took photographs on 4 January 1993 to document the bird's identification as a House Sparrow. He submitted a set of these photographs to the OBRC. Though the bird now displayed even more white than earlier, basic patterns of brown and black feathers on the wings of the bird photographed by Heck matched those of the bird photographed by the Logans; the sparrow proved not to be a Snow Bunting, but a House Sparrow.

The errors that occurred in the identification of this bird and processing of this record were made for several reasons that are worthy of comment and evaluation. They demonstrate the need for carefully documenting unusual records, providing

seemingly unimportant details, and of maintaining a certain level of skepticism when identifying birds.

The plumage of the bird photographed by the Logans did approach that expected for a Snow Bunting in winter plumage as depicted in photographs and illustrations in at least two popular field guides. The most suspicious elements visible on the photograph were the conspicuous eye-line and the absence of warmness to the brown in the plumage on the head. However, both were perceived as anomalies of development and some double-imaging in the slightly blurred photos. The bird's bill was yellow, but the dark outline that a Snow Bunting would show was not discernible as present or absent in the photo because of the slight blur.

However, two points were made, either incorrectly or ambiguously. First, the legs were shadowed in the photos, and thus appeared dark, as in a Snow Bunting. The authors indicated that the legs were dark in their submitted documentation and publication, a point which must have been observed in error, or misinterpreted. The legs of House Sparrows are pale and flesh colored.

Second, mention in the submitted documentation that the bird separated from the flock of House Sparrows, with inference that it remained on the ground, were behaviors that might be expected for a different species. Because Snow Buntings are open country birds, they would not be expected to fly to perches. The bird was photographed alone on the ground. Thus, the separation seemed natural, and, with the implication that it remained on the ground, were supportive of the misidentification. However, the behavior section of the documentation was left blank. Also, reference to the bird's presence in a parking lot left ambiguous the openness of the habitat. The published account of the bird specifically mentioned that it perched on power lines and bushes, behavior totally atypical for a Snow Bunting.

The OBRC evaluated the initial submission at its meeting in January 1993 before Heck's photos were available, but already knew that a likely misidentification had occurred, and therefore deferred a decision. The consensus was that the photos and accompanying written comments alone could support the identification as a Snow Bunting. Although imperfect and interpreted from a slightly blurred photo, the likelihood of such a match in plumage by another species still seemed remote. However, Heck's photos left little doubt as to the bird's identity as a House Sparrow. The record was officially rejected by the OBRC at its March 1993 meeting.

The important point to be made is that anomalies in plumage can and do occur. Misidentifications of this sort are undoubtedly present in data files on birds. In documenting birds, seemingly unimportant details which are omitted or ignored may be critical in accurately assessing a bird's identity. If a bird has correctly been identified, all details should agree, including minor ones which may not involve key field marks or may appear to be only supplementary to identification. Incomplete or ambiguous information can lead to incorrect evaluations. To her credit, however, Logan provided a photograph which could be re-examined, and used the system properly in having the record evaluated. — Berlin A. Heck, *Little River National Wildlife Refuge, P.O. Box 340, Broken Bow, Oklahoma 74728*, and Joseph A. Grzybowski, *715 Elmwood Drive, Norman, Oklahoma 73072, 25 March 1993*.

First House Finch nests for northeastern Oklahoma. — On 15 May 1993, my parents Larry and Donna Coppedge showed me a small nest constructed in a hanging

flower pot at their residence in Chouteau, Mayes County, northeastern Oklahoma. The pot (26 cm in dia.) was suspended approximately 1.8 m above the ground, and contained several plantings of wandering jew (*Tradescantia* sp.) and spider plant (*Chlorophytum* sp.). The nest was well concealed among the vegetation in the pot, and contained four pale, bluish-green eggs marked with browns, all between 22 and 24 mm long. After examining the nest and eggs I waited for the return of the incubating female that had flushed upon my approach. Almost immediately, a pair of House Finches (*Carpodacus mexicanus*) arrived and landed in a nearby oak. The male chirped nervously from the tree as the female returned to the nest to resume incubation. This represents the first documented nesting of this species for this county and for this area of the state.

I monitored the nest periodically during the next few weeks. The male finch sang almost continuously from nearby trees while the female was incubating, and closely accompanied her any time she left the nest. Hatching began on or about 2 June, and by 5 June the nest contained four tiny hatchlings. Both parents diligently fed the young, although the male did so more often than the female. Both also frequented nearby feeders filled with standard seed mix. By 19 June the young were of considerable size. But a severe thunderstorm late on 23 June apparently prompted them to fledge, as powerful winds from the storm shook the hanging pot and nest. Although the pot did not fall, the nest was empty the next morning.

House Finches were not seen again until about a week later, on 29 June, when a pair of adults was found feeding three fledglings approximately 7 m up in an oak tree, only about 20 m from the flower pot nest-site. Since the pair nesting in the flower pot were the only House Finches I had previously seen in the area, I presumed that this was the breeding pair and three of their four young from the flower pot nest. The finches visited the nearby feeders often during July, usually staying together in a small group. These five were the only finches I saw in the area during this period, and I continued to observe them well into August.

I monitored the area closely during the spring of 1994 to determine if the House Finches would return to their previous nesting site. During the winter of 1993-94, the flower pot had been taken indoors but was placed back in its customary spot on 16 April 1994. A few House Finches were observed near feeders in the area during March and early April. Then, rather suddenly on 24 April, a pair of House Finches began construction of another nest in the flower pot. Whether or not these were the same parents from the 1993 nesting is conjectural. The female appeared to be the primary laborer on the nest, as she was seen carrying nest materials to the pot more often than the male. However, nest construction stopped about 28 April. Whether this was due to unseasonably cool weather at this time, to human disturbance or to some other factor I cannot say. The House Finches never returned to the unfinished nest, but at least two pairs of adults remained in the area. In May, I suspected that finches were nesting nearby and several times searched the surrounding area for nests, but without success. Then, on 11 June, I discovered an adult male feeding two fledglings not far from the flower pot. On 16 June, two adult males and an adult female with three fledglings came to the nearby feeder, and on 20 June I found four fledglings at the feeder accompanied at various times by two males and two females. In this situation it was not possible to ascertain whether or not only one pair or all four adults were feeding the young, or if the young were from single or multiple nests. These birds visited the feeder almost daily

during latter June, and I continued to observe them there periodically through July. There was usually a good deal of chatter and apparent infighting during feeder visits, especially between the adult males. Although adult females were present, I do not believe that any attempt at a second nest was made during either year.

In a recent study of nest-site selection, Graham (1988) concluded that House Finches might attempt to maximize nest concealment and protection from wind by utilizing dense vegetation. This also makes the nest less accessible to predators. The thick greenery found in flower pots or baskets might indeed promote nest concealment, while the suspended vessel might provide some protection from climbing predators. However, as apparently demonstrated by the 1993 nesting, hanging objects can be susceptible to strong winds. Despite this, a similar nest-site was reported by Mery (1991), who documented multiple House Finch nests in a hanging coconut shell in Elk City, Oklahoma. Other recent nest-sites in Oklahoma have been in dense woody plants such as pines (*Pinus* sp.) or eastern redcedar (*Juniperus virginiana*) (Tyler 1992a; Byre 1993).

Both the eastern and western populations of House Finches have recently moved into Oklahoma (Tyler 1992b); therefore, it is difficult to determine which population these House Finch nests represent. The most recent documented nests for the state are from southwestern and central Oklahoma (Tyler 1992a; Byre 1993), which were probably birds from the western population. The closest nesting of the eastern population was reported from Arkansas in 1991 (Purrrington 1991). Subsequently, the eastern population reached western Arkansas (Stedman 1993) and southeastern Oklahoma (Grzybowski 1993) in 1993, so the individuals I observed might in fact be from the eastern population. The species could now be breeding in scattered locations statewide. Although House Finches are becoming common in the state, it is still important to document the progress of new breeding activities for this species, as it has recently staged an unprecedented population increase and range expansion in the Great Plains.

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