

FIRST SWAINSON'S WARBLER NEST DOCUMENTED
IN OKLAHOMA SINCE 1917

MIA R. REVELS

Department of Biology, Northeastern State University, Tahlequah, OK 74464

E-mail: revels@cherokee.nsuok.edu

Swainson's Warbler (*Limnothlypis swainsonii*) was first documented breeding in Oklahoma in Delaware County in 1914 by Albert J. B. Kirn (Nice 1931). Kirn (1918) also reported finding 6 nests in Washington County in 1917. Since then, no Swainson's Warbler nests have been reported in Oklahoma, although Carter (1965) observed an adult feeding a fledgling in 1961. The paucity of nesting records reflects both the scarcity of Swainson's Warblers in Oklahoma and the difficulty of locating their nests (Fig. 1).

Oklahoma is at the northwestern edge of the breeding range of the Swainson's Warbler (Brown and Dickson 1994), and its distribution within the state has greatly decreased since first documented. Currently, Swainson's



Fig. 1. Adult Swainson's Warbler brooding in McCurtain County, Oklahoma, 23 May 2002. While not the first Swainson's Warbler nest located, this one illustrates typical cryptic characteristics. Photograph by Mia R. Revels.

Warblers are reported regularly only in McCurtain County in southeastern Oklahoma. Heck (2001) provided a thorough history of Swainson's Warblers in Oklahoma.

Swainson's Warblers are cryptic both in appearance and behavior. Both sexes have drab coloration and spend most of their time in shady, densely vegetated areas of bottomland hardwood forest. Whereas the nests of many songbirds can be located by using cues provided by the adult birds (Martin and Geupel 1993), Swainson's Warblers are difficult to see and follow through the dense vegetation they inhabit. In fact, this habitat has been described as "impenetrable" by many researchers (e.g., Brewster 1885, Brooks and Legg 1942, Meanley 1971, Simpson and Stephens 1994).

In 2001, I began a project to investigate the breeding biology of the Swainson's Warbler on the Little River National Wildlife Refuge, McCurtain County, Oklahoma. While conducting this study, I documented the first Swainson's Warbler nest in Oklahoma since 1917.

During a systematic search of dense vegetation, I located a Swainson's Warbler nest on 30 April 2001. This area was chosen for nest searching because an adult Swainson's Warbler had responded to song playback near the nest site on 16 April, and the habitat appeared appropriate (Meanley 1971, Brown and Dickson 1994). The nest was located 1.3 m from the ground in red maple (*Acer rubrum*) and willow oak (*Quercus phellos*) branches that had broken and were partially dead and was placed in the dead part of the branches where they interlaced over a moist, low area. There were no eggs in the nest, and no adults present, but the nest appeared complete. It looked like a large clump of leaves from the side, but viewed from the top contained a small, neat cup (5.2 cm diameter, 4.5 cm depth). On 10 May, an adult Swainson's Warbler was present on the nest. When checked later that same day, no adult was present, and the nest contained 4 small, solid white eggs. The nest was monitored daily from a distance with binoculars to determine activity. At 1500 h on 20 May, there were 3 newly hatched nestlings and 1 egg. On 22 May, there were 4 2-day-old nestlings present. When the nest was checked on 25 May, it was intact but empty. There were no adults in the immediate vicinity. The nest was depredated sometime between 22 and 25 May when the nestlings were 2-5 days old.

It is not surprising that this nest was located, because Swainson's Warblers have been reported on the Little River National Wildlife Refuge regularly over the past 10 years (Heck 2001). Since locating this nest, 33 more Swainson's Warbler nests have been located on the Little River National Wildlife Refuge in 2001, 2002, and 2003. These nest sites and the surrounding habitat will be described in a later publication (Revels and Adams in prep). Information regarding the nesting habitat selected by Swainson's Warblers in Oklahoma will provide valuable data so that managers can preserve existing habitat and create new habitat for one of the state's rarest species.

Acknowledgments.—I thank the United States Fish and Wildlife Service, Little River National Wildlife Refuge, Sutton Avian Research Center, and Northeastern State University for providing funds and other support. I thank D. Weidenfeld for bringing the project to my attention. M. Adams, R. Perry, N. Shelton and D. Youngman provided field and technical assistance. This manuscript was improved by comments from M. Adams and B. Heck and anonymous reviewers. I especially thank Berlin Heck, who was responsible for the initiation of this project and remains its staunchest supporter.

Literature Cited

- Brewster, W. 1885. Swainson's Warbler. *Auk* 2:65–80.
- Brooks, M., and W. C. Legg. 1942. Swainson's Warbler in Nicholas County, West Virginia. *Auk* 59:76–86.
- Brown, R. E., and J. G. Dickson. 1994. Swainson's Warbler (*Limnothlypis swainsonii*). In *The Birds of North America*, No. 126 (A. Poole and F. Gill, eds.). Academy of Natural Sciences, Philadelphia and American Ornithologists' Union, Washington, D.C.
- Carter, W. A. 1965. Ecology of the summer nesting birds of the McCurtain Game Preserve. Ph.D. Dissertation, Oklahoma State University, Stillwater.
- Heck, B. A. 2001. History and status of the Swainson's Warbler in Oklahoma. *Bulletin of the Oklahoma Ornithological Society* 34:1–11.
- Kirn, A. J. B. 1918. Observations of Swainson's Warbler. *Oologist*. 35:97–98
- Martin, T. E., and G. R. Geupel. 1993. Nest-monitoring plots: methods for locating nests and monitoring success. *Journal of Field Ornithology* 64:507–519.
- Meanley, B. 1971. Natural history of the Swainson's Warbler. *North American Fauna* 69, U.S. Department of Interior, Washington, D.C.
- Nice, M. M. 1931. The birds of Oklahoma. *Publications of the University of Oklahoma Biological Survey* 3:1–22.
- Simpson, M. B., and L. D. Stephens. 1994. The discovery of the nest of Swainson's Warbler, *Limnothlypis swainsonii*. *Archives of Natural History* 21:1–6.

Received 3 March 2003, accepted 5 May 2003.

NOTES

Possible sighting of a Black-chinned Sparrow in Oklahoma. — On 21 June 2001, while conducting the Felt Breeding Bird Survey (BBS) route (67-034) in Cimarron County about 24 km W of Boise City, Oklahoma, I saw a small, rather slender bird that appeared to be a Black-chinned Sparrow (*Spizella atrogularis*). I observed the bird for about 30 sec as it perched on a telephone wire and sang once in the northeast quarter of section 13-T3N-R2E. It then flew north for about 100 m into the southeast quarter of section 12-T3N-R2E and landed

halfway down a large yucca (*Yucca glauca*), where I lost sight of it. Habitat was native prairie pasture with a frequent scattering (perhaps every 8–10 m) of large yuccas. Because I was in the middle of a BBS route and because the bird had landed on private property, I did not pursue it further.

I first saw the bird shortly after 0800 h at Stop 21 on the Felt BBS route. Just as I began my 3 min survey at this stop, I saw 2 birds sitting, in side profile, on a telephone wire to my west about 35–45 m. Using a 10 x 50 binocular, I noted that the larger bird was a Mourning Dove (*Zenaida macroura*). As I focused on the smaller, closer bird, I noted that most of the anterior part of the bird, at least to the bend of the wing, was an even medium gray. Clearly, it was not a normal-plumaged Lark (*Chondestes grammacus*), Cassin's (*Aimophila cassinii*), or Grasshopper (*Ammodramus savannarum*) sparrow, or a female Lark Bunting (*Calamospiza melanocorys*), the common small species expected on this route.

The shape and posture of the bird suggested that it was a sparrow, but because of the medium gray on the anterior one-third of the bird, I needed to rule out a junco (*Junco* spp.). I began carefully checking the bird for sparrow-like vs. junco-like traits. It was considerably smaller and less husky than a Lark Bunting and appeared even somewhat less robust than a junco. Other characters I observed appeared to rule out the 2 North American species of junco, the Yellow-eyed Junco (*Junco phaeonotus*) and all populations of the Dark-eyed Junco (*Junco hyemalis*). The underside of the bird anteriorly was gray, with no definite white area at or near the junction of the breast, sides, and belly; brown did not occur on the side in this same area of the ventral surface; wing was brown or brownish, not slate gray; gray on the anterior one-third of the bird was a medium gray, with a slightly bluish cast, not slate gray. I did not see white in the tail while the bird was resting, flying, or landing, and the bird did not have any bright rufous on the mantle. The bill was short and relatively thick, consistent with sparrow bills.

Behaviorally, the bird, with head thrown back, sang a song that may have included a trill (I could see the open bill quiver as the bird sang). Upon landing, the bird did not make the rather headlong dart into vegetation that I usually associate with juncos; instead it slightly broke its flight with a few slowing wing strokes, but not nearly as pronounced as the same behavior in the Grasshopper Sparrow. Thus, color on the posterior two-thirds of the body, and the overall size, proportions, and behavior fit "sparrow" much more readily than "junco."

If the bird was a junco, it would have been out of its normal breeding range and breeding habitat; the closest to Oklahoma of any form of breeding junco, the Gray-headed population of the Dark-eyed Junco, is about 120 km W in New Mexico (Sibley 2000). Furthermore, Sibley (2000:500–502) stated that all forms of the Dark-eyed Junco "nest in coniferous woods," while the non-migratory Yellow-eyed Junco "is found in open coniferous and mixed woods." Based on its singing, this bird appeared to be a male. Because of the lateness of the observation (21 June), this bird most likely was not migrating; assuming the

bird was healthy, as it appeared to be, it was quite possibly on, or searching locally for, a breeding territory. To my knowledge, yucca pasture on native prairie is not a breeding habitat for any junco, while Tenney (1997) lists yucca as one habitat component for Black-chinned Sparrow in old Mexico.

After reviewing field guides, it became apparent that Black-chinned Sparrow closely fit the description of the bird I had seen—the only North American sparrow that did. Moreover, at least 2 authors commented on the junco-like appearance of this sparrow species. Robbins et al. (1983:338) stated that the “gray head and breast make it appear junco-like,” and Peterson (1960:261) noted that the species is “a very different, somewhat junco-like sparrow.” Having already purposely evaluated the bird for sparrow-like vs. junco-like characteristics as I was observing it, I now strongly suspected that I had seen a Black-chinned Sparrow. I returned that evening and on two other dates during that breeding season, but I never found the bird again. Consulting the literature later, I also noted that Rising (1996) indicated juncos were the only similar species to the Black-chinned Sparrow.

In the first issue of the *Bulletin of the Oklahoma Ornithological Society*, Weske (1968) stated that the nearest active birders to the Black Mesa country of Cimarron County, Oklahoma, were A. J. Krehbiel and his associates of Clayton, New Mexico, 11 miles (18 km) from the nearest corner of the Oklahoma Panhandle. Mr. Krehbiel had kept records on the birds of Clayton for > 20 yr, and his list included “15 species that have never, so far as I know, been seen in Oklahoma.” One of those species was the Black-chinned Sparrow; no additional data were given (Weske 1968). The next closest report I can find to Oklahoma was on the Logan BBS Route (N.M.-112) in New Mexico, where one Black-chinned Sparrow was observed in 1992 and 1993. That location is about 130 km SSW of the SW corner of the Oklahoma Panhandle and about 160 km SSW of Stop 21 on the Felt BBS route.

The question arises as to whether the anterior gray on the bird was the result of partial melanism, adventitiously acquired coloration, such as the oiling or wetting of plumage, or hybridization, perhaps between a junco and a sparrow. On the anterior one-third of the bird, the gray feathers appeared to have a bluish cast to them; in partial melanism, one would normally expect to see gray or black with no hint of blue. I also believe that it is relatively unlikely that melanism would coincide almost precisely to the gray found on a Black-chinned Sparrow. The anterior feathers appeared to have normal loft, not what one usually sees in cases of adventitiously acquired coloration (matting of feathers turned dark by oil or water). Regarding a junco-sparrow hybrid, Tenney (1997) stated that White-throated Sparrow (*Zonotrichia albicollis*) x Slate-colored Junco hybrids were “rare but recurrent [and] may have plumage pattern surprisingly similar to that of Black-chinned Sparrow.” I assume that such hybrids usually select breeding territories within the breeding range and habitat of 1 of the 2 parent species, but the bird I observed was far out of the range and habitat of both. Furthermore, I assume that size and proportions of

such hybrids are between the 2 parent species, which would be slightly larger than the Field Sparrow (*Spizella pusilla*)-sized bird I saw. I cannot completely rule out hybridization, adventitiously acquired coloration, or melanism, but each of these, after careful consideration, appears improbable.

Tenney (1997) reported that populations of the Black-chinned Sparrow in central and northern California "may be expanding northward" and also stated the species "may be increasing in New Mexico (BBS unpubl. data)." Perhaps the species also is moving northward in the eastern part of its range in New Mexico and Texas. If so, birders in or visiting Cimarron County, Oklahoma, should be particularly vigilant in attempts to verify sightings of the Black-chinned Sparrow.

Literature Cited

- Peterson, R. T. 1960. Birds of Texas. Houghton Mifflin Co., Boston, Massachusetts.
- Rising, J. D. 1996. The Sparrows of the United States and Canada. Academic Press, New York, New York
- Robbins, C. S., B. Bruun, and H. S. Zim. 1983. Birds of North America. GoldenPress, New York, New York.
- Sibley, D. A. 2000. National Audubon Society's The Sibley guide to birds. Knopf, New York, New York.
- Tenney, C. R. 1997. Black-chinned Sparrow (*Spizella atrogularis*). In The Birds of North America, No. 270 (A. Poole and F. Gill, eds.). The Academy of Natural Sciences, Philadelphia, Pennsylvania, and the American Ornithologists' Union, Washington, D.C.
- Weske, J. 1968. Birds to be looked for in the Black Mesa Country. Bulletin of the Oklahoma Ornithological Society 1:9-10.

Received 1 April 2003; Accepted 18 April 2003.

JOHN S. SHACKFORD, 429 East Oak Cliff Drive, Edmond, OK 73034-8626; e-mail: johnsshack@aol.com

EDITORIAL

In 1997, Charles L. Brown from the University of Tulsa became Editor of the *Bulletin of the Oklahoma Ornithological Society*. For the past 6 years, Charles and his associate editors served key roles in the Oklahoma Ornithological Society and devoted considerable time and attention to dissemination of information on the birds of Oklahoma through the *Bulletin*. We know that such a contribution requires a great deal of energy and dedication, and it is greatly appreciated by all members of the Society.

We are pleased to assist the Society and join the fine list of editors who have served before us. Certainly, without the foresight, editorial expertise, and financial support of George M. Sutton, one of Oklahoma's pioneer ornithologist, and Jack Tyler, Editor for 22 years from 1975 to 1997, the *Bulletin* would not have achieved the wide appeal it enjoys. When "Doc" Sutton created the *Bulletin* in 1968, he wanted it to appeal to all "birders" in Oklahoma and encouraged contributions from everyone involved with birds, whether professional or lay. He felt that individual interest and involvement fostered an appreciation of birds in our State and elsewhere, and he wanted the *Bulletin* to be a cornerstone of that appreciation.

In that spirit and as new editors, we encourage all members of the Society and readers of the *Bulletin* to consider submitting, for example, your unusual records and observations of bird life in Oklahoma and results of specific studies on life history, ecology, and behavior. We have added a new section for Opinion pieces to draw attention to issues of concern and provide a forum for comments on previously published articles in the *Bulletin*. We would be happy to respond to any questions or concerns about publishing in the *Bulletin* and look forward to receiving your manuscripts. We will do our utmost to maintain both the high standards established by our predecessors and the breadth of contributions already published in the *Bulletin*.—Bryan R. Coppedge (bcoppedg@tulsacc.edu), Jeffrey F. Kelly (jkelly@ou.edu), and David M. Leslie, Jr. (cleslie@usgs.gov).

INSTRUCTIONS TO AUTHORS

The *Bulletin of the Oklahoma Ornithological Society* encourages submissions of original papers from lay and professional "birders" on species occurring in Oklahoma during some part of the year. Suitable topics for papers are not restricted to studies conducted in the State if they are judged to be of interest to the *Bulletin's* readers. The *Bulletin* seeks papers on all aspects of ornithology, such as the status of species in the State, unusual occurrence records, studies of behavior and ecology, population changes, conservation status, and history of ornithology in Oklahoma. Claims of "first records" of species in the State must be reviewed by the Society's Bird Records Committee for verification before acceptance and publication. "Possible sightings" of a species in the State without a first-record claim do not have to be reviewed by the Committee and will be considered for publication to encourage the ornithological community in Oklahoma to pursue further documentation of the record.

Three types of articles are published: Regular Articles that include multiple observations or syntheses of existing information, Notes that report single events, and Opinion contributions that highlight issues of particular relevance to ornithologists in Oklahoma or provide a counter viewpoint on a recently published article in the *Bulletin*. Regular Articles are relatively long submissions

that generally have the standard sections of a scientific publication (i.e., Introduction, Methods, Results, Discussion, Acknowledgments, and Literature Cited). Common problems in preparing such a paper include failure to concisely state the objectives and relevance of the contribution in the Introduction, vague or incomplete descriptions of methodology, duplication of material presented in tables and figures in the text of the Results, and citation of literature in the text without inclusion in the Literature Cited (and vice versa). Generally, only Regular Articles include tables and figures. Submission of high-quality photographs and original artwork (black-and-white preferred but color prints can be accommodated) that support unusual records and ornithological events is encouraged.

Notes and Opinion contributions have no internal headings, but if > 3 references are used, a Literature Cited section should follow the note. If ≤ 3 references are used, the complete citation of each should be given parenthetically in the text at first mention (e.g., Arterburn, J. W. 2002. First record of the Mew Gull for Oklahoma. *Bulletin of the Oklahoma Ornithological Society* 35:1-2); thereafter, only the author and year are given (e.g., Arterburn 2002). All reference citations, including journal titles, should be spelled out in full.

It is important to study a recent issue of the *Bulletin* for matters of format, manuscript organization, and style conventions. In brief, all measurements are metric; dates are given in the international style (e.g., 18 December 1987); use arabic for all numbers (e.g., 4 birds, 1630 h, 2.4 cm, and 3 g); and common names of birds are capitalized with the scientific name given in italics at first mention. Submissions will be peer-reviewed by the editors and outside reviewers. If a submission is judged to be acceptable after peer review, an editor will assist authors with the revision process; authors will have the opportunity to approve any final editorial changes before publication.

Manuscripts can be submitted either electronically (preferred) or in hard copy to Co-editor Bryan R. Coppedge at bcoppedg@tulsacc.edu or Science and Mathematics Division, Tulsa Community College, West Campus, 7505 West 41st Street, Tulsa, OK 74107-8633. For electronic submissions, attach manuscript files to an e-mail message, provide text (including tables) and figures in separate files, and indicate what software was used to prepare the files. Hard-copy submissions should be sent in triplicate and typed double-spaced with a font size of 12. Use 3-cm margins and no hyphenation at the end of lines for both means of submission.

The *Bulletin of the Oklahoma Ornithological Society* (ISSN 0474-0750) is published quarterly in March, June, September, and December in Norman, Oklahoma. Co-editors are Bryan R. Coppedge (to whom manuscripts should be directed), Science and Mathematics, Tulsa Community College, 7505 West 41st Street, Tulsa, OK 74107-8633; Jeffrey F. Kelly, Oklahoma Biological Survey and Department of Zoology, University of Oklahoma; and David M. Leslie, Jr., United States Geological Survey, Oklahoma State University. Subscription is by membership in the Oklahoma Ornithological Society: \$5 student, \$10 regular, \$15 family, \$15 or more sustaining, per year; life membership, \$200. Direct questions regarding subscription, replacement copies, back issues, or payment of dues to Don Glass, OOS Membership/Circulation Chair, P.O. Box 2931, Claremore, OK 74018; e-mail: dglass@rsu.edu.