

BULLETIN OF THE OKLAHOMA ORNITHOLOGICAL SOCIETY

VOL. 34

JUNE 2001

No. 2

Bull. Oklahoma Ornithol. Soc. 34:5–11, 2001
© Oklahoma Ornithological Society 2001

History and status of the Swainson's Warbler in Oklahoma

By BERLIN A. HECK

The Swainson's Warbler (*Limnothlypis swainsonii*; Fig. 1) was first reported breeding in Oklahoma in 1914 in Delaware County. Since then it has been found in small numbers, with no records of nesting, in 10 Oklahoma counties: Cherokee, Comanche, Delaware, Johnston, Mayes, McCurtain, Payne, Rogers, Tulsa, and Washington. The range of the Swainson's Warbler has declined in Oklahoma, and it currently is found regularly only in McCurtain County in the southeastern part of the state (Oklahoma Bird Records Committee 2000). It is believed to nest in this area, although the last nest reported in Oklahoma was in Washington County in 1917.

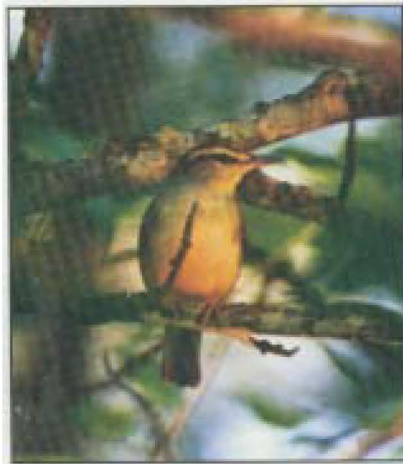


Fig. 1. Swainson's Warbler (*Limnothlypis swainsonii*) at the Little River National Wildlife Refuge, McCurtain Co., Oklahoma. Photographed by Steve Metz on 5 May 1998.

SIGHT RECORDS

The Swainson's Warbler was first reported in Oklahoma by Albert J. B. Kirn in 1914 after he found birds nesting along Little Caney River north of Copan, Washington County (Nice 1931). He reported that "a few [were] found nesting in suitable places in the woods" (Kirn 1916). During the season of 1917, he found six different nests in a strip of woods 1 km long and a little over 1 km in width (Kirn 1918). In a 1920 letter to Margaret Nice, Kirn stated, "I have seen quite a number of them and watched them and heard them sing - they are a deep shady woods bird frequenting places about like where you would look for Wood Thrushes tho' always where there is small undergrowth and not far from a stream" (Kirn, unpubl. letter to M. Nice).

Kirn moved from Oklahoma in 1917 (Messerly 1998), and there were no further reports of the Swainson's Warbler in the state until May 1939 when O. W. Letson reported a single bird in Tulsa County (Letson and Letson 1952). In 1950 and 1951, there were 12 reports of the species from 27 April to 8 July in Mohawk Park, Tulsa County. No nests were found, and in each case only one bird "was recorded in moist woodland in the middle of the park" (Letson and Letson 1952). From May 1951 to June 1976, there were 15 reports of the Swainson's Warbler from eight counties, with three birds reported on two occasions in Delaware County, two birds reported on two occasions in Delaware and McCurtain Counties, and "several" reported once in McCurtain County (Baumgartner and Baumgartner 1992).

Although no Swainson's Warbler nests have been reported in the state since 1917, a possible nesting in McCurtain County on the McCurtain Game Preserve (now McCurtain County Wilderness Area) was recorded when an adult was observed feeding one young on 26 July 1961 on the ground in cane thickets along the river bottom. A pair of adults was seen near the same location on 30 June 1962 (Carter 1965). This river bottom area was inundated in 1969 with construction of Broken Bow Lake. From July 1978 until May 1988, there was no report of the Swainson's Warbler in Oklahoma. Forestry practices such as clearcutting of bottomland hardwood habitat and conversion to pine plantations by timber companies, plus other land alterations during this period, destroyed the known locations for the species in McCurtain County (J. Grzybowski, pers. comm.).

In 1986, the newly formed Oklahoma Bird Records Committee (OBRC) began reviewing reports of rare bird sightings in the state. Since then, seven of the 11 OBRC records for the Swainson's Warbler were from Little River National Wildlife Refuge (LRNWR), which includes nearly all of the bottomland hardwood habitat remaining along the Little River in southern McCurtain County. File records at LRNWR list 36 reports of the Swainson's Warbler from June 1992 through 2000. Six of the reports came from informal breeding bird surveys contracted with the Indian Nation Audubon Society of Muskogee from 1994 to 1997. Seven of the reports are

from a study completed by a volunteer cooperater in July 1997, and 23 reports are from an unpublished study contracted by the LRNWR (Ingold 1998). Robert Bastarache (pers. comm.) conducted breeding bird surveys in bottomland hardwood areas in the Ouachita National Forest in southern McCurtain County and located two singing Swainson's Warblers in June 1997 and one singing bird in June 1998.

Matthew Cole reported that he and Steve Larrabee observed one Swainson's Warbler at the Tishomingo National Wildlife Refuge in Johnston County in May 1997. He described the habitat as cottonwood/willow forest that was regularly flooded and had a lot of debris (M. Cole, pers. comm.). Michael Schummer observed two Swainson's Warblers in May 2000 in the same area where Cole found one in 1997. Schummer's report was accepted by the OBRC (J. Arterburn, pers. comm.).

BREEDING HABITAT

Sutton (1967) described Swainson's Warbler habitat in McCurtain County in 1955 and 1956 as well shaded, wet bottomland woods. From 1992 to the present, I have found Swainson's Warblers each year at LRNWR always in a low wet area, near a stream or beaver pond with a canopy of hardwood trees (*Quercus* spp. and *Carya* spp.), sweetgum (*Liquidambar styraciflua*), and bald cypress (*Taxodium distichum*). The understory is often composed of greenbrier (*Smilax* spp.), grape (*Vitis* spp.), giant cane (*Arundinaria gigantea*), and American hornbeam (*Carpinus caroliniana*). The birds are often found at the edge of low, bottomland hardwood areas, adjacent to stands of pine trees (*Pinus taeda*), which were planted about 15 years earlier. Ingold (1998) described vegetation in the Swainson's Warbler habitat he surveyed on LRNWR as comprised of 20 different tree species with a total density of 471 trees/ha. He also found 19 different species of saplings and giant cane at 36% of the sites he surveyed.

SPECIMENS

Kirn apparently collected four sets of Swainson's Warblers eggs in Oklahoma (E. Messerly, pers. comm.). One of these sets, at the Museum of Vertebrate Zoology, University of California, Berkeley (MVZ 10984), consists of 3 eggs collected on 20 June 1917 (C. Cicero, pers. comm.) and is the only set with Kirn's data slip intact. The eggs were taken from a nest being incubated by the female, and was described on the data slip as of half-decayed leaves, neatly lined with fine grass items and placed near the top of a small bush in a shady place in the woods about 0.67 m from the ground. The nest was not concealed. This set of eggs is consistent with a nest documented in Nice (1931).

The remaining three egg sets are at the Corpus Christi Museum of Science and History in Corpus Christi, Texas (J. Deisler-Seno, pers. comm.).

The Museum received their collection of Kirn's eggs from the Natural Science for Youth Foundation in Austin, Texas, on 14 November 1969 (J. Deisler-Seno, pers. comm.). Egg set CCM70-E-0411, dated 27 June 1914, consists of two Swainson's Warbler eggs. The Museum tag originally showed four eggs, but the "4" on the tag is scratched out and a note, "2 eggs checked. D.S. 1-14-87" written beside it. Messerly (pers. comm.) states that the set mark, "1/4", on the remaining eggs in this set indicates that the set originally contained four eggs. Nice (1931) documents a nest containing four eggs that Kirn found on this date. Egg set CCM79-E-0814, dated 2 June 1917, consists of two eggs, one of a Swainson's Warbler that is broken and one labeled "cowbird." The set mark, "1/4", on these eggs also indicates that this set originally contained four eggs (Messerly, pers. comm.). This egg set is similar to a nest documented in Nice (1931) on the same date, but Nice states that the set contained 2 Swainson's Warbler eggs and 2 Brown-headed Cowbird (*Molothrus ater*) eggs. Egg set CCM79-E-0815, dated 1 June 1913, consists of three eggs, one of a Swainson's Warbler and two of a Brown-headed Cowbird. If this egg set was collected in Oklahoma and the date of 1913 is accurate, it would indicate that the first record for the Swainson's Warbler in Oklahoma is one year earlier than generally assumed. Kirn was living in Oklahoma in 1913 at the same location where his other egg collections were made. The only data for this egg set is printed on the eggs, and according to Deisler-Seno (pers. comm.), the markings on the eggs are similar to those on egg sets known to have been collected by Kirn.

Five museum skins of Swainson's Warbler are known from Oklahoma, all in the Oklahoma Museum of Natural History (OMNH) at the University of Oklahoma (J. Grzybowski, pers. comm.). Based on the described sites, all were collected in what is now Little River National Wildlife Refuge, McCurtain County: OMNH 1983, a male, was collected 9.6 km southwest of Broken Bow on 18 April 1955 by G. M. Sutton; OMNH 1966, a male, was collected 9.6 km southwest of Broken Bow on 19 April 1955 by G. M. Sutton; and OMNH 13401-13403, all males, were collected 7.2 km east and 4.8 km north of Idabel on 6 July 1978 by D. S. Wood.

CURRENT STATUS

The range of the Swainson's Warbler in Oklahoma has greatly decreased since the bird was first documented in the state. This decline has resulted principally from the alteration and destruction of bottomland hardwood areas in the eastern part of the state. The bottomland hardwood ecosystem of Oklahoma was once extensive, consisting of an estimated 2.2 million acres. By the early 1980's, approximately 85% of those bottomland hardwoods had been destroyed, leaving only about 330,000 acres (Brabander et al. 1985). Since 1990, there are no known records for the Swainson's Warbler in Oklahoma except from McCurtain and Johnston Counties. Most of these records are from the 5358-ha LRNWR, which

includes primarily bottomland hardwood floodplain forest. Habitat for this warbler is abundant on the LRNWR, and the population is believed to be stable at present, but there has been no research to ascertain its current population status there or elsewhere in Oklahoma. There are no plans for commercial hardwood timber harvest, livestock grazing, or other disruptive practices on LRNWR in the near future (U. S. Fish and Wildlife Service 1998).

The U. S. Forest Service owns approximately 11,250 ha of bottomland hardwood forest in southern McCurtain County between the Little River and the Red River. Swainson's Warblers have recently been documented in the Red River watershed by Robert Bastarache (pers. comm.). This area is subject to habitat alteration and disturbance in the form of timber harvest and livestock grazing, either of which could be detrimental to the Swainson's Warbler. Changes in water regimes in existing Swainson's Warbler habitat would also likely have detrimental effects. According to the U. S. Fish and Wildlife Service (1998), the U. S. Army Corps of Engineers is studying the feasibility of a navigation channel on the Little River, involving construction of a series of locks and dams that would inundate a great amount of Swainson's Warbler habitat in LRNWR. They also report that in 1988 the Bureau of Reclamation concluded a three-year study of hydropower potential in southeastern Oklahoma. Three sites were identified for potential dam construction that could affect Swainson's Warbler habitat on the LRNWR.

Reports of Swainson's Warblers at Tishomingo National Wildlife Refuge in Johnston County during the breeding season should be investigated to verify if a breeding population exists there. It is unlikely that the species occurs regularly anywhere else in Oklahoma, because the large, brushy, wet areas with abundant switchcane that are needed for Swainson's Warblers have no known economic benefits. Such areas are not normally found on privately owned lands.

Public lands can be managed to preserve and promote Swainson's Warbler habitat. Eddleman et al. (1980) and Hamel (1980) suggested habitat management guidelines for Swainson's Warblers, such as maintenance of canebrakes, selective cutting if necessary, promoting of dense, woody understory in wet areas, and control of disturbance during the breeding season. The Oklahoma population of the Swainson's Warbler, at the western extreme of its current range, is very small and obviously in great risk of extirpation (Partners in Flight 1998; Natureserve 2000). However, with all known populations inhabiting federal lands (National Wildlife Refuges and National Forests), adequate habitat can be maintained through research and management programs. A study at LRNWR has been funded for 2001 (M. Williams, pers. comm.), which will assess population status and habitat needs. A similar study is scheduled on U. S. Forest Service lands (R. Bastarache, pers. comm.). The Swainson's Warbler in Oklahoma today is dependent on proper management of public lands, and its future

is threatened by water development projects that would destroy its remaining habitat in Oklahoma.

ACKNOWLEDGMENTS

I thank John S. Tomer and Emma H. Messerly for encouragement and help with the first draft of the manuscript. Messerly also provided unpublished information concerning the work of A. J. B. Kirn. Carla Cicero and J. Deisler-Seno provided data regarding museum collections of Swainson's Warbler eggs from Oklahoma. Joseph Grzybowski and James Arterburn provided records from the Oklahoma Bird Records Committee, and Grzybowski obtained information on museum skins. Charles R. Brown helped organize and edit the manuscript. Robert Bastarache, Matt Cole, Michael Schummer, and Mark Williams provided unpublished information regarding Swainson's Warblers. I thank Steve Metz for use of his photograph.

LITERATURE CITED

- Baumgartner, F. M., and A. M. Baumgartner. 1992. Oklahoma bird life. Univ. Oklahoma Press, Norman.
- Brabander, J. J., R. E. Masters, and R. M. Short. 1985. Bottomland hardwoods of eastern Oklahoma: a special study of their status, trends and values. U. S. Fish and Wildlife Service.
- Carter, W. A. 1965. Ecology of the summer nesting birds of the McCurtain Game Preserve. Ph.D. dissertation. Oklahoma State Univ., Stillwater.
- Eddleman, W. R., K. E. Evans, and W. H. Elder. 1980. Habitat characteristics and management of Swainson's Warbler in southern Illinois. *Wildl. Soc. Bull.* 8:228-33.
- Hamel, P. B. 1980. Guidelines for management of wood warblers (Parulidae) on the Francis Marion National Forest. Unpublished Final Report to U. S. Forest Service Supervisor's Office, Columbia, South Carolina.
- Ingold, J. L. 1998. Unpublished Final Report, Swainson's Warbler, Little River National Wildlife Refuge.
- Kirn, A. J. B. 1916. Nesting birds, Copan, Washington County, Oklahoma. *Oologist* 33:203.
- Kirn, A. J. B. 1918. Observations of Swainson's Warbler. *Oologist* 35:97-98.
- Letson, O. W., and E. Letson. 1952. New and unusual birds for Tulsa County, Oklahoma. *Proc. Oklahoma Acad. Sci.* 33:136-137.
- Messerly, E. H. 1998. Albert J. B. Kirn and his work in Oklahoma. *Bull. Oklahoma Ornithol. Soc.* 31:9-20.
- NatureServe 2000. An online encyclopedia of life. Version 1.0. Association for Biodiversity Information, Arlington, Virginia.
- Nice, M. M., and L. B. Nice. 1924. The birds of Oklahoma. *Univ. Stud. No.* 20.

- Nice, M. M. 1931. The birds of Oklahoma, rev. ed. *Publ. Univ. Oklahoma Biol. Surv.* 3:1–155.
- Oklahoma Bird Records Committee. 2000. Date guide to the occurrences of birds in Oklahoma. Third ed. Oklahoma Ornithological Society, Tulsa.
- Partners in Flight. 1998. PIF priority scores website, version 98.1. Colorado Bird Observatory, Brighton, Colorado.
- Sutton, G. M. 1967. Oklahoma birds. Univ. Oklahoma Press, Norman.
- U. S. Fish and Wildlife Service. 1998. Little River National Wildlife Refuge comprehensive conservation plan. U. S. Fish and Wildlife Service, Albuquerque, New Mexico.

109 KAYE DRIVE, BROKEN BOW, OK. 74728. Received 25 January 2001, accepted 16 April 2001.

Bull. Oklahoma Ornithol. Soc. 34:11–12, 2001
© Oklahoma Ornithological Society 2001

Changes to the Oklahoma Ornithological Society Check-list of Oklahoma Birds resulting from the Forty-second Supplement to the American Ornithologists' Union Check-list of North American Birds

Compiled by JOSEPH A. GRZYBOWSKI and JEFFREY A. COX
for the OKLAHOMA BIRD RECORDS COMMITTEE,
OKLAHOMA ORNITHOLOGICAL SOCIETY

The American Ornithologists' Union recently published the Forty-second Supplement to its Check-list of North American Birds (*Auk* 117:847–858, 2000). Several taxonomic and nomenclatural decisions published in the supplement affect the Oklahoma Ornithological Society Check-list of Oklahoma Birds (2nd edition; 1999). These changes are:

1. The common name of Oldsquaw (*Clangula hyemalis*) is changed to Long-tailed Duck to conform to worldwide use.

2. The Sage Grouse was split into two species. *Centrocercus urophasianus* is retained under the common name of Greater Sage-Grouse, while the Gunnison Sage-Grouse is given specific status as *Centrocercus minimus* (Bradbury and Vehrencamp, 1998). Early records of sage-grouse for the Oklahoma panhandle are believed to be the Gunnison Sage-Grouse (Young et al., *Wilson Bull.* 112: 445–453, 2000).

3. North American populations of the Black-billed Magpie are now considered to constitute a species distinct from the Old World species *Pica pica*. The North American populations of Black-billed Magpie are assigned the scientific name *Pica hudsonia* (Sabine, 1823).

4. The specific name of the Black-capped Chickadee is changed from *atricapillus* to *atricapilla* to agree in gender with its recently re-assigned generic name of *Poecile*.