

Sharp-shinned Hawks Nesting in the Pineywoods of Eastern Texas and Western Louisiana

Clifford E. Shackelford,¹ Daniel Saenz, and Richard R. Schaefer

Wildlife Habitat and Silviculture Laboratory,* Southern Research Station,
USDA Forest Service, Nacogdoches, Texas 75962

ABSTRACT.—While monitoring the Red-cockaded Woodpecker (*Picoides borealis*) in eastern Texas and western Louisiana, the authors incidentally found nesting pairs of Sharp-shinned Hawks (*Accipiter striatus*). All nesting pairs were located in similar stands with an overstory of either longleaf pine (*Pinus palustris*), or a mix of loblolly (*P. taeda*) and shortleaf pine (*P. echinata*). Most of these areas were maintained by frequent prescribed burning and had an open understory of little bluestem (*Schizochyrium scoparium*). Four of the five areas with hawk nests were on national forests and are managed for the endangered Red-cockaded Woodpecker. The fifth area was on private timber industry land managed for timber production. These probably constitute the first confirmed nests ever of this species in the pineywoods region of eastern Texas and the first in many decades in the pineywoods region of western Louisiana.

Introduction

Records of nesting Sharp-shinned Hawks (*Accipiter striatus*) in the forested regions of eastern Texas and western Louisiana are noteworthy, because nesting records of this species are sparse in these areas (Lowery 1974; Oberholser 1974; T.O.S. 1995). Records of nesting in this species are also rare throughout the entire southeastern United States (Meyer and Mueller 1982; James and Neal 1986; Mitchell and Pitts 1992).

In addition, Oberholser (1974) reports no summer or nesting records of Sharp-shinned Hawks in the "Pineywoods" region of Texas. The Pineywoods occurs in the eastern portion of the state and is dominated by loblolly (*Pinus taeda*), shortleaf (*P. echinata*), and longleaf (*P. palustris*) pines (Gould 1969; Correll and Johnston 1970). The Texas Breeding Bird Atlas (in prep.) also failed to record nesting Sharp-shinned Hawks. In Louisiana, records of nesting are said to occur "sparingly ... and date back many years" (Lowery 1974). In addition, no recent sightings of nesting Sharp-shinned Hawks in Louisiana appear in Lowery's revised "Louisiana Birds" (J. Van Remsen, Jr., in prep.).

We located five nesting pairs of Sharp-shinned Hawks when adults vocalized with a constant "kik kik kik" and circled low overhead. On one occasion an individual hawk stooped on the second and third authors. Pairs use these vocalizations when alarmed and near the nest (Oberholser 1974), while migrants and winter residents, by our experience, are virtually silent.

¹ Current address of senior author: Texas Partners In Flight, Texas Parks and Wildlife Department, 4200 Smith School Road, Austin, Texas 78744.

² In cooperation with the College of Forestry, Stephen F. Austin State University, Nacogdoches, TX 75962, U.S.A.

Table 1. Sharp-shinned Hawk nest habitat data from the pineywoods of Texas and Louisiana.

Habitat variable	Location of nest				
	Louisiana ^a	Louisiana ^b	Texas ^c	Texas ^d	Texas ^e
DBH of nest tree (cm)	44.0	24.0	38.0	36.0	43.0
DBH of stand (cm)	39.4 (1.29) ^f	23.8 (2.11) ^f	38.6 (1.21) ^f	39.6 (1.44) ^f	48.8 (2.22) ^f
Height of nest (m)	15.0	15.0	16.0	18.0	24.5
Canopy height of stand (m)	18.0 (1.10) ^f	18.0 (0.84) ^f	20.0 (0.95) ^f	19.0 (0.71) ^f	28.0 (0.37) ^f
Basal area of stand (m ² /ha)	19.6 (0.93) ^f	17.3 (0.60) ^f	19.1 (0.71) ^f	24.6 (2.34) ^f	18.6 (0.94) ^f
Canopy closure (%)	65.0	75.0	65.0	75.0	80.0
Dominant canopy species (pine)	Longleaf	Loblolly- Shortleaf	Longleaf	Longleaf	Loblolly- Shortleaf

^a Vernon Ranger District, Kisatchie National Forest, Vernon Parish, LA. (1992)

^b International Paper, Inc., Bienville Parish, LA. (1995)

^c Ebenezer area, Angelina National Forest, Jasper Co., TX. (1994 and 1996)

^d Upland Island Wilderness Area, Angelina National Forest, Jasper Co., TX. (1994)

^e Norwood area, Angelina National Forest, San Augustine Co., TX. (1996)

^f Mean (SE), $n = 5$.

We located the initial pair and their nest in the Vernon Ranger District of the Kisatchie National Forest, Vernon Parish, Louisiana (31°00'N, 93°06'W) on 11 May 1992. Two downy-white nestlings were seen from the ground on 23 June 1992.

Two years later in the 1994 breeding season, we located two more breeding pairs about 50 km apart in the Angelina National Forest, Jasper County, Texas. One pair and their nest were located on 10 May 1994 near the community of Ebenezer, Texas (31°04'N, 94°09'W). A second pair was observed in the Upland Island Wilderness Area of the Angelina National Forest (31°03'N, 94°20'W) on 19 May 1994. No nest was found on four visits to this area, although the adults consistently vocalized and circled the observers during all of our attempts to locate a nest. On 7 July 1994, this pair and at least one juvenile were observed in a tree 5 m from a stick nest that was similar to the other Sharp-shinned Hawk nests observed. This nest was less than 50 m from where we always observed the pair and was likely the nest used by the Upland Island pair.

The first nest that was found outside of a longleaf pine forest was in the 1995 breeding season when a pair was found incubating on 6 May 1995 in a mixed loblolly-shortleaf pine forest. The structure of the forest was very similar regardless of the species of dominant canopy pine (Table 1). This pair was located on a private tract belonging to International Paper, Inc. in the western part of Bienville Parish, Louisiana (32°20'N, 93°06'W).

The final pair was discovered when a male vocalized and circled overhead on 17 May 1996 near the community of Norwood in the Angelina National Forest, San Augustine Co., Texas (31°25'N, 94°11'W). A nest was found four days later with an incubating female. This nest was found in an open, mature mixed loblolly-shortleaf pine forest maintained with prescribed fire for the Red-cockaded Woodpecker (*Picoides borealis*), which nested less than 100 m away.

Time constraints precluded us from collecting more detailed information on the actual breeding activities at each nest. We could not, therefore, determine when eggs hatched or when nestlings fledged. All nests were located in forests with similar habitat characteristics (Table 1). Three nests were located in national for-

ests dominated by **longleaf** pine savannah, which is a fire-climax community with a **longleaf** pine overstory, a sparse midstory, and an understory dominated by little **bluestem** (*Schizachyrium scoparium*). The other two nests were located in mixed loblolly-shortleaf pine forests; one on national forest land and the other on private timber company land. All five forests can collectively be classified as open, mature pine forests. Canopy hardwood species were not present in any of the areas, probably due to a history of prescribed fires and, in some cases, mechanical hardwood removal.

All of the nests, except the Upland Island nest, were in pine stands that are burned regularly, providing habitat for the endangered Red-cockaded Woodpecker, threatened Bachman's Sparrow (*Aimophila aestivalis*), and sensitive American Kestrel (*Falco sparverius*). The Upland Island Wilderness Area was formerly managed using prescribed fire, but the designation as a wilderness area in 1985 prohibited continued use of prescribed fire in the area.

The forest type (Table 1) where the nests were located could be important for nesting Sharp-shinned Hawks in this region, and perhaps throughout the southeast. A pair of Sharp-shinned Hawks returned in May 1996 and nested 25 m from the Ebenezer nest of 1994 and was presumably the same pair.

Collectively, we have spent hundreds of field hours in other forest types in the area (mixed pine-hardwood forests and bottomland hardwood forests), but have not found Sharp-shinned Hawks in late spring or summer. This species may nest regularly in open mature stands of pines in eastern Texas and western Louisiana. If this forest type appeals to nesting Sharp-shinned Hawks, then management of the Red-cockaded Woodpecker should benefit this hawk as well. Additional observations are needed to determine their nesting abundance and habitat preference.

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Literature Cited

- Correll, D. S., and M. C. Johnston. 1970. Manual of the vascular plants of Texas. Texas Research Foundation, Renner, Texas.
- Gould, F. W. 1969. Texas plants—a checklist and ecological summary. Tex. Agr. Exp. Sta. Bull. MP-585.
- James, D. A., and J. C. Neal. 1986. Arkansas Birds: Their Distribution and Abundance. Univ. Arkansas Press, Fayetteville, Arkansas.
- Lowery, G. H. 1974. Louisiana birds. La. Wild Life and Fisheries Commission. Louisiana State Univ. Press, Baton Rouge, Louisiana.
- Meyer, K. D., and H. D. Mueller. 1982. Recent evidence of Sharp-shinned Hawks breeding in North Carolina. Chat 46:78–80.
- Mitchell, S., and I. Pitts. 1992. Observations on nesting Sharp-shinned Hawks in Greenville County, South Carolina. Chat 56:45–51.
- Oberholser, H. C. 1974. Sharp-shinned Hawk. Pp. 214-216 in The Bird Life of Texas. Vol. I. Univ. of Texas Press, Austin, Texas.
- Texas Ornithological Society. 1995. A checklist of the birds of Texas, 3rd edition. Printed by Capital Printing, Inc. Austin, Texas.

