

## SUCCESSFUL NESTING OF THE SHARP-SHINNED HAWK (*ACCIPITER STRIATUS*) IN A LONGLEAF PINE STAND IN SOUTHERN ALABAMA

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Very few data exist on Sharp-shinned Hawk (*Accipiter striatus*) nesting in the southeastern United States. According to Bildstein and Meyer (2000), the southernmost limit of the Sharp-shinned Hawk's breeding distribution is extreme northern Alabama and Georgia. However, a few recent records indicate the species may breed farther south (Kale and Maehr 1990, Bildstein and Meyer 2000). Shackelford *et al.* (1996) reported the species nesting in Texas and Louisiana. More recently, Stratford and Tucker (2002) reported a single nest found in southern Alabama, the southernmost record for this species in this State. The recent extension of breeding records in the Southeast might be a positive response to the restoration of Longleaf Pine (*Pinus palustris*) ecosystems (Stratford and Tucker 2002).

Here I report a Sharp-shinned Hawk nest in a Longleaf Pine stand in southern Alabama. This is the second record from south Alabama, and another important observation of the species breeding in the Longleaf Pine ecosystem. On 18 June 2002, while looking for passerine bird nests, I found a Sharp-shinned Hawk nest in a 10 ha Longleaf Pine patch on the property of the Solon Dixon Forestry Education Center, Covington County, Alabama (31°09'55"N, 86°43'2"W). This 10 ha Longleaf Pine stand is part of an experimental study on the consequences of fire and fire surrogate treatments in restoring Longleaf Pine ecosystem. The most recent prescribed fire occurred on 17 April 2002. Vegetation measurements showed that most of the trees were represented by young Longleaf Pine. For example, only 10% of the pines were between 9-15 in (23-38 cm) dbh, while the rest were below 9 in (23 cm) dbh. Some hardwood trees were present [e.g., Flowering Dogwood (*Cornus florida*), Southern Red Oak (*Quercus falcata*), Laurel Oak (*Q. laurifolia*), and Post Oak (*Q. stellata*)] and represented only 8% of the live trees. Up to 22% of the standing trees were dead and some were completely burned, including all tree or shrub species in the understory [e.g., Yaupon (*Ilex vomitoria*)].

The nest was located 56 ft (17 m) from the ground in a Longleaf Pine that was 9.5 in (24 cm) dbh and 62 ft (19 m) in height. The nest was against the trunk on a horizontal limb and faced southeast. The diameter of the nest was

approximately 18-22 in (45-55 cm) and was composed primarily of sticks or twigs that made a broad, flat platform that is characteristic for the species (Shackelford *et al* 1996, Bildstein and Meyer 2000, Stratford and Tucker 2002).

On the day I discovered the nest (18 June), I did not see any young, but the female was flying over the canopy, frequently giving “kek, kek, kek” calls. The male also gave a plaintive call. The nest was monitored every three days and on 21 June, four small hatchlings that were covered with white down were discovered. Numerous visits were made to the nesting area prior to the discovering date, and no sights or sounds of a Sharp-shinned Hawk were detected. This indicates that the parents were very quiet during the incubation period, which is characteristic of this species (Bildstein and Meyer 2000 and references therein). On 27 June, the young showed evidence of molting (i.e., brown feathers on the back). During subsequent visits, only the female was observed flying around and giving alarm calls. On 2 July, the female chased a Red-tailed Hawk (*Buteo jamaicensis*), while young were responding with alarm calls. On 4 July, five young were perched beside the nest, occasionally preening (Fig. 1). On 6 July, all five young were perched within 16 to 33 ft (5 to 10 m) from the nest, jumping and flying between the limbs of trees around the nest. On 9 July, all five young were observed flying or perched within 66 to 98 ft (20 or 30 m) from the nest. On 12 July, only one young was seen in the vicinity of the nest and the others are assumed to have fledged successfully.



FIGURE 1. A young Sharp-shinned Hawk next to nest (left), Solon Dixon Forestry Education center, Covington County, 4 July 2002 (photo by author).



After 4 July, the remains of suspected food items were found directly below the nest. The remains included the bill, wing bones and feathers of Northern Cardinal (*Cardinalis cardinalis*, n=6) and Eastern Towhee (*Pipilo erythrophthalmus*, n=4), a tail feather from a Great-crested Flycatcher (*Myiarchus crinitus*), and probably the wing bones of a Red-bellied Woodpecker (*Melanerpes carolinus*). An exoskeleton of a cicada was found in feces on the ground. Passerines, woodpeckers, and insects are usual components of the Sharp-shinned Hawk diet (Duncan 1980, Palmer 1988, Bildstein and Meyer 2000, Stratford and Tucker 2002).

This nest is the first record on the property of the Solon Dixon Forestry Education Center, but is in the same area where the species was seen on 17 May 2001 (W. D. Robinson, pers. comm.). Sharp-shinned Hawks are known to nest within the same area year after year (Bildstein and Meyer 2000), so possibly they have previously nested in the Solon Dixon Forestry Education Center area. Interestingly, the nest reported in this study was located about 7 mi (11 km) from the one found in Conecuh National Forest on 20 July 2000 by Stratford and Tucker (2002).

Finally, this nesting record in a Longleaf Pine ecosystem reinforces the idea that Sharp-shinned Hawks may react positively to Longleaf Pine habitat restoration (see Stratford and Tucker 2002). The species prefers to nest in conifers (Brown and Amadon 1989, Bildstein and Meyer 2000) and our report indicates that prescribed fires that eliminate hardwoods and a dense understory of shrubs creates suitable nesting habitat for the Sharp-shinned Hawk.

*2003 Nesting Season.*— A Sharp-shinned Hawk pair nested again in the same Longleaf Pine forest on the property of the Solon Dixon Forestry Education Center during the summer of 2003. The nest was located 650 ft (200 m) north of the nest described for the 2002 nesting season. However, on 21 June, cracked eggs with dead embryos were found on the ground below the nest. A severe rainstorm is suspected of causing the failure.

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