

## TENACITY OF NESTING RED-COCKADED WOODPECKERS AFTER FELLING OF THE CAVITY TREE

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**Abstract.**—The tenacious behavior of Red-cockaded Woodpeckers (*Picoides borealis*) towards their cavity trees is well documented. A nestling Red-cockaded Woodpecker was observed to survive the felling of its cavity tree. The nestling subsequently fledged from the downed cavity. This observation suggests some Red-cockaded Woodpeckers will continue nesting efforts after a severe disturbance.

### TENACIDAD POR PARTE DE INDIVIDUOS DE *PICOIDES BOREALIS* LUEGO DE CAERSE EL ÁRBOL EN DONDE ANIDAN

**Síntesis.**—Se ha documentado muy bien la tenacidad por parte del carpintero *Picoides borealis* hacia el árbol en donde han construido su cavidad de anidamiento. Se encontró que un pichón del carpintero antes mencionado sobrevivió la caída del árbol. Subsecuentemente el ave logró abandonar su nido. Estas observaciones sugieren que algunos de estos carpinteros continúan con su esfuerzo de anidar luego de disturbios severos.

The tenacity of Red-cockaded Woodpeckers (*Picoides borealis*) towards cavity trees and the cluster is well documented (Harlow 1983, Jackson 1983, Lay 1973, Nesbitt et al. 1983). Some Red-cockaded Woodpeckers will continue to use a cavity for both roosting and nesting after the cavity tree has died (Hooper 1982, Patterson and Robertson 1983). R. G. Hooper (pers. comm.) observed that Red-cockaded Woodpeckers have a strong affinity for their clusters of cavity trees and individual cavity tree location, even after all of the cavity trees in clusters had been removed. After Hurricane Hugo destroyed 87% of all active cavity trees on the Francis Marion National Forest (Hooper et al. 1990), we repeatedly observed Red-cockaded Woodpeckers roosting in dead, leaning, and downed cavity trees during post storm monitoring efforts. Here we report that a nestling Red-cockaded Woodpecker survived the felling of its nest tree. The bird fledged from the downed cavity tree, which lay in a horizontal position beneath a pile of woody debris.

On 4 Jun. 1990, an active Red-cockaded Woodpecker cavity tree on private land in Berkeley County, South Carolina, was discovered to have

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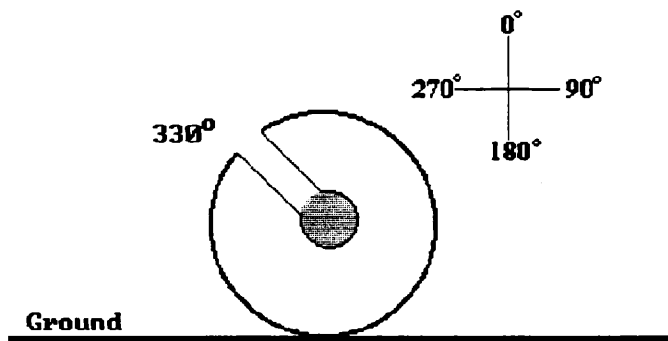


FIGURE 1. Cross-sectional orientation of felled red-cockaded woodpecker cavity tree and cavity.

been illegally felled. Initial attempts to locate the downed cavity tree were unsuccessful. This cavity tree, having survived Hurricane Hugo, was the only one remaining in a Red-cockaded Woodpecker cluster located on both private land and the adjacent Francis Marion National Forest (FMNF). Two Red-cockaded Woodpeckers occupied this cluster on 18 Oct. 1989, 28 d after Hugo. Two artificial cavities as described by Allen (1991) and Taylor and Hooper (1991) were installed on 1 Jan. 1990 to supplement the one surviving cavity tree. When the cavity tree surviving Hurricane Hugo was discovered to have been felled, plans were made to install additional artificial cavities in the cluster on 7 Jun. 1990. At 0900 hours on the same day, while preparing to install artificial cavities, two adult Red-cockaded Woodpeckers were seen fluttering over a pile of logging debris. Beneath the debris we discovered a log with a Red-cockaded Woodpecker cavity. The log containing the cavity was lying in a horizontal position on the ground, with the entrance tunnel facing upward, at approximately 330 degrees (Fig. 1). A male nestling Red-cockaded Woodpecker, about 23 d old (Ligon 1971), was in the cavity. The adults continued to feed the nestling by first landing on the debris and then hopping down to the cavity entrance. At 1100 hours, the nestling emerged from the cavity and was fed by the adults until 1530, when the adults and fledgling flew from the area.

The felled cavity tree discovered on 4 Jun. 1990 was obviously felled before that day but we do not know when. Thus, the adults feeding the nestling on 7 Jun. 1990 had been feeding the nestling in the felled cavity for at least 4 d. The log containing the nest cavity was felled and pushed into a pile of debris about 15 m from the stump with additional debris being piled over the entrance to the cavity. The nestling woodpecker survived these events. Fortunately, the entrance tunnel came to rest in a near vertical position where access by the adults was possible despite layers of logging debris around and above the cavity entrance.

The literature and earlier observations indicate that Red-cockaded Woodpeckers have a strong affinity for their colony sites and individual

cavity trees. Our observations corroborate earlier studies and suggest that some Red-cockaded Woodpeckers will persist with efforts to raise young under extremely adverse conditions.

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