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## History and present status of the Red-Cockaded Woodpecker in Maryland

William J. Devlin, James A. Mosher and Gary J. Taylor

**METHODS** 

IN AN EFFORT TO ascertain the present status of the Red-cockaded Woodpecker and the availability of suitable habitat, a study was initiated in 1977. Based on descriptions of Red-cockaded Woodpecker habitat (Steirly 1957, Sprunt and Chamberlain 1949, Sutton 1967. Mengel 1965, Hopkins and Lynn 1971, and Thompson and Baker 1971). we established the following criteria for defining suitable habitat: 1) loblolly pine woods averaging at least 40 years old, 2) low stem density (104.3  $\pm$  46.9/ha) and 3) woods of more than 16.2 ha. All areas meeting these criteria based on a preliminary search (primarily by surface vehicle but also interrogating state foresters) of the four southern counties of Maryland's Eastern Shore (Dorchester, Wicomico, Worcester, and Somerset) were plotted on U.S.G.S. 7½ minute topographical maps and were systematically searched for both individual birds and evidence of the species' activity (Ligon 1970, Carter 1974, Jones and Ott 1973, and Jackson 1977). Searches were conducted from March 1977 to December 1978. In all, 730 ha of potential habitat was groundsearched. The habitat was evaluated using methods described by James and Shugart (1970), with 28 tenth-acre circles studied.

#### RESULTS AND CONCLUSIONS

THE SEARCHES WERE negative. No Red-cockaded Woodpeckers were seen or heard, nor were any of the excavations in live pines attributed to the recent activity of the Red-cockaded Woodpecker. Several old cavities, some of which had been enlarged by Pileated Woodpeckers (*Dryocopus pileatus*) may have originally been excavated by the Red-cockaded Woodpecker. Other healed-over cavities could have also been the work of Red-cockaded Woodpeckers, but there was no evidence of recent activity.

Habitat measurements revealed that the areas searched were denser, younger and had a greater percentage of hardwoods than areas in the species' normal range containing active colonies (Thompson and Baker 1971, Devlin 1979). However, several of these areas did fall within the ranges of active Redcockaded Woodpecker habitat as described in the literature with respect to the habitat parameters we measured (Devlin, Mosher and Taylor, in preparation).

It is our assessment that the Redcockaded Woodpecker is at best a vagrant in Maryland. This presumption is based on the infrequency and erratic nature of the reported sightings, the lack of sightings by the 75,000 to 100,000 birders and outdoor enthusiasts who visit the Blackwater Refuge annually and the absence of any evidence of the species during our searches. The marginal habitat suitability also supports this presumption.

THE RED-COCKADED WOODPECKER (Picoides borealis) is a Federally listed endangered species inhabiting the southeastern, open, old-age pine-oak woods. The species' population decline has been attributed to the loss of preferred habitat. The older, diseased woodlands which are the permanent residence of this species, are uneconomical to maintain. The population decline is especially evident along the edge of the species' range of which Maryland has historically been the northeastern limit.

The Red-cockaded Woodpecker was first reported in Maryland by Frank Smith in Gum Swamp, Dorchester County on June 2, 1932 (Figure 1). He recorded sightings of individuals and small flocks in the area until September 30, 1933 (Stewart 1958). The next sighting occurred approximately 100 km to the east on Assateague Island, where Brooke Meanley observed a fledgling on June 9, 1939 in a pine stand (*Pinus taeda*) (Meanley 1943).

A series of sightings occurred in the

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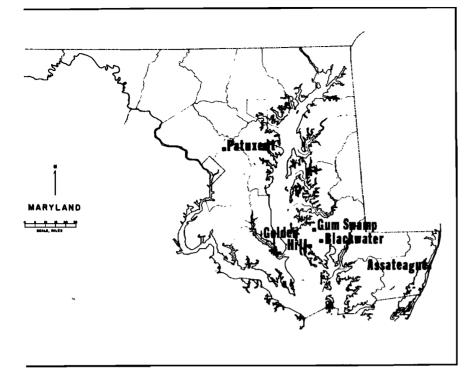


Figure 1. The location of Red-cockaded Woodpecker sightings in Maryland between 1932 and 1976.

late 1950s near Golden Hill, Dorchester County as reported by Stewart (1958). A single woodpecker was sighted October 8, 1955 by Phyllis Hurlock and two birds were observed September 20, 1956 by Paul Springer. On May 30, 1958, the first and only known active nest cavity was found by Robert Stewart and Brooke Meanley. The nest was typical; it was located in a live pine, 90 years old and infected with heart rot (Fomes pini). Sap was flowing from around the cavity and the bark had been chiseled off from an area within 15 cm of the nest hole. The last observation of the nesting pair was made on June 24, 1958. The nesting success was unknown (C. S. Robbins pers. comm.). Unfortunately, the area was clear-cut in the early 1960s and the nest tree was removed. A single bird was sighted 14 km to the ENE on the Blackwater Nat'l Wildlife Refuge during the 1958 Christmas Bird Count, December 31, 1958 (Robbins 1959).

Sixteen years passed before the next Maryland sighting. Two birds were observed by Brooke Meanley and Matt Perry in a stand of short-leaf pine (*P. echinata*) on May 11, 1974 on the Patuxent Wildlife Research Center in the Baltimore-Washington metropolitan area approximately 100 km NW of Golden Hill. (Meanley 1975).

A series of sightings was reported in 1976 on the Blackwater Nat'l. Wildlife Refuge, Dorchester County. The Refuge includes Gum Swamp, the site of the original observations. Guy Willey and other refuge personnel reported sighting three to nine birds from March 26 to Ju-

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ly 9, 1976. The sightings were made in the eastern and central portion of the Refuge, but none were reported in the western portion which encompasses Gum Swamp. Numerous possible cavities were also reported during the same period (Willey, unpubl. notes).



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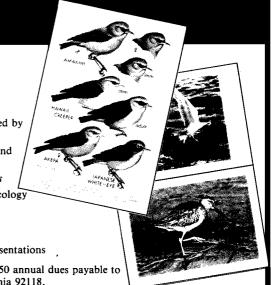
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