

1977

Red-cockaded Woodpecker Study

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The Center for Conservation Biology

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Recommended Citation

Byrd, M. A. 1977. Red-cockaded Woodpecker Study. CCBTR-77-03. Center for Conservation Biology Technical Report Series. College of William and Mary, Williamsburg, VA. 8 pp.

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PERFORMANCE REPORT

STATE: Virginia

PROJECT NUMBER: W-40-R-24

PROJECT TYPE: Research and/or Survey

STUDY NUMBER : VI

JOB NUMBER : VI-6

PROJECT TITLE: Endangered Species Investigations

PERIOD COVERED: July 1, 1976 to June 30, 1977

STUDY TITLE: Red-Cockaded Woodpecker Study

STUDY OBJECTIVES: To determine distribution and abundance of the red-cockaded woodpecker in Virginia.
To obtain information on behavior, food habits, nesting success, and limiting factors for the species in Virginia.
To make recommendations designed to maintain and increase this species in Virginia.

SUMMARY:

Extensive surveys in Sussex County, Virginia have revealed 29 sites with one or more cavity trees. Eleven additional sites have been located collectively in Surry, Isle of Wight, Prince George, Southampton, and Brunswick Counties. Two other sites have been located in the Virginia Beach-Suffolk area. Observations on breeding and other behavior have been made at three active nest sites in Sussex County. Habitat analysis studies were begun in all known active colony sites.

POPULATION SURVEYS:

Population surveys were begun (1) to verify the existence of each previously known red-cockaded woodpecker colony area in the state; (2) to search for suitable habitats for previously unknown colony sites, and (3) to determine activity at each located colony site.

Literature on this species in Virginia is very restricted, consisting of one paper published in 1957 and several short notes reporting observations of the species. The aforementioned paper reported 20 colony sites distributed in four counties; Southampton, Prince George, Greenville, and Sussex Counties. Other notes reported the occurrence of two colony sites in Brunswick County. Of the original 22 sites, more than half were lost through lumbering before 1965.

Preliminary contacts were made with county foresters in the counties in which cavity trees previously had been reported. These counties included Surry, Sussex, Isle of Wight, Southampton, Prince George, Greenville, and Brunswick. In addition, the foresters and/or wildlife managers of Gray Lumber Company, Union Camp Corporation, and Weyerhaeuser Company were contacted regarding their properties. As a result of these contacts, eight possible colony sites were reported. These sites were subsequently visited and found still to be present. Information on suitable habitat areas also was acquired from these sources. At least three colony sites were made known to us by local hunters.

During January, February, March, and April, each previously known or reported colony site was visited and marked. A search of the immediate area was made to

determine the number of cavity trees in the colony. The number of cavity trees at each site ranged from one to as high as 13 in one case.

After each known or reported colony site had been located, intensive searches were made in nearby areas that appeared to provide suitable habitat for the species. Any stand of pine which contained a number of old trees (70 to 100+ years) was considered suitable. Surveys were not restricted to these areas. Sussex County was selected in the current year for extensive coverage in view of previous reports of colonies in the county and the presence of relatively large acreage of mature timber.

The county was initially censused by a road survey technique in which all roads were travelled by foot or by car. Cavity trees were located from the road. Visibility into the woods was relatively high during the winter and a substantial number of new colony sites were located (see Table 1). Road surveys were continued into early April when visibility into the forest became poor.

Starting in early April, observations at colony sites were made to determine activity. If one red-cockaded woodpecker was sighted in the area of the cavity trees, the colony was considered active. Subsequent observations in active areas were made to determine whether nesting was in progress. Any area where woodpeckers were not seen during one or more extended observation periods was considered inactive. Observations have been made in all areas for several hours at least once during the nesting season.

Thus, most efforts during the past winter have been directed toward verification of the existence of known and reported colony sites and determination of activity at these sites. Extensive search for new colony sites has been conducted only in Sussex County. No observations to determine activity have yet been made in Southampton or Brunswick Counties. The survey in Sussex County, however, has been very productive. A substantial number of previously unknown colony sites has been discovered using the road survey technique (see Table 1). Similar intensive surveys in other counties will no doubt locate more sites.

Studies have, unfortunately, shown an apparent lack of nesting activity in active areas (i.e., birds observed). In Sussex County, nearly one half of the colony sites were shown to be active yet only three active nests were located. A number of birds were observed immediately after the fledging period in areas previously thought to be inactive, thus suggesting the possibility of nesting in cavity trees yet undiscovered. More extensive searches in these areas will be made in the winter of 1977-1978.

General survey objectives for 1977-1978 are as follows:

- (1) Continue road surveys during the winter months in other counties;
- (2) Conduct extensive foot surveys of suitable timber stands, particularly in areas which are active;
- (3) Conduct more prenesting observations in colony areas;
- (4) Collect quantitative data on population numbers.

BIOLOGICAL STUDIES:

Active nests were located in three areas of Sussex County. Two of these colonies were in areas where the timber had been selectively logged, thus facilitating observation of breeding behavior. Extended observations were made

in these two areas during the nesting season on behavior patterns of this woodpecker. Data have been gathered on foraging behavior, feeding rates, vocalization patterns, and interspecific and intraspecific interactions. Photographs of adults feeding young and of fledging young leaving the nest were obtained.

HABITAT STUDIES:

Studies were begun on an analysis of the vegetative structures of the habitat.

Critical habitat variables are being measured and analyzed to obtain information on principal habitat components for this species. Increment borings have been made of most known cavity trees to determine age of cavity tree and degree of infestation with red heart fungus.

TARGET DATE FOR COMPLETION: June 30, 1981

STATUS OF PROGRESS: On Schedule

SIGNIFICANT DEVIATIONS IN PROGRESS: None

RECOMMENDATIONS: Continue with Remaining Project Plans

COST THIS SEGMENT: FEDERAL: \$4170 STATE: \$3330 TOTAL: \$7500

PREPARED BY: Mitchell A. Byrd

APPROVED BY: R. H. Cross, Jr.
Chief, Division of Game

DATE: June, 1977

Chester F. Phelps
Executive Director

Table 1: Colony Sites of the Red-Cockaded Woodpecker in Virginia

County	Sussex	Surry	Isle of Wight	Prince George	Southampton	Brunswick	Va. Beach-Suffolk
Number of Colony Sites	29	1	2	1	2	3	2
Number of Sites Determined to be Active	15	*	2	1	*	*	*
Number of Sites Showing Nestling Activity	3	*	0	0	*	*	*
Number of Known Different Birds Observed in Each Area Before the Breeding Season	20	0	5	2	*	*	5

(Colony site is any area with one or more cavity trees.)

* No extended observations have yet been done in Southampton and Brunswick Counties or in the Virginia Beach-Suffolk area.

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Number of Sites Showing Nesting Activity	3	*	0	0	*	*	*
Number of Known Different Birds Observed in Each Area Before the Breeding Season	20	0	5	2	*	*	3

(Colony site is any area with one or more cavity trees.)

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