

## LONG DISPERSAL OF A RED-COCKADED WOODPECKER IN CENTRAL FLORIDA

Laura Lowery<sup>1</sup> and Jennifer Perkins<sup>2</sup>

<sup>1</sup>USDA Forest Service, Ocala National Forest, 17147 E. Hwy. 40  
Silver Springs, FL 34488

<sup>2</sup>Florida Fish and Wildlife Conservation Commission, 8864 CR 247  
Lake Panasoffkee, FL 33538

The Red-cockaded Woodpecker (*Picoides borealis*) is a cooperatively breeding bird that lives in family groups, or clusters, in mature pine forests of the southeastern coastal plain and piedmont. Generally, a Red-cockaded Woodpecker disperses a short distance to pair with a bird at a neighboring cluster. A long-distance dispersal of 90 km was reported in North Carolina (Walters et al. 1988) and seven shorter dispersals over 36 km were reported in Texas, Oklahoma, and Arkansas (Conner et al. 1997).

On 15 March 2002, an 86 km southwestward dispersal of a female Red-cockaded Woodpecker was confirmed in central Florida. This bird traversed large areas of unsuitable habitat, including highways, water, and urban development. The bird was from the Ocala National Forest's Paisley Woods subpopulation and moved to west of Inverness in the Citrus Tract of the Withlacoochee State Forest. The natal cluster, 267-7 was in Lake County northeast of Lake Dorr in banding block 290-0813 (29.02°N, 081.59°W). The bird was a breeder for one or two years at 267-5 (29.02°N, 081.57°W), a cluster 2 km east of the natal cluster, before dispersing to cluster 21 in the northeastern part of the Citrus Tract in banding block 284-0822 (28.75°N, 082.40°W). On 15 April 2002, she was incubating a clutch of three eggs in Citrus cluster 21.

This bird was banded as a nestling on 11 May 1995 in a drilled artificial cavity. Her father was a local bird. Her mother was translocated 28 November 1990 from Apalachicola National Forest in order to augment the local single male.

This bird dispersed about 2 km from her natal cluster to a neighboring cluster where she was first recorded on 8 November 1995. Her status was uncertain. She and her elder sister, hatching year 1992, were in the cluster through nesting season 1996, having replaced the female who was there in nesting season 1995. The Citrus Tract bird may have been the breeding female, a helper, or a persistent competitor with her elder sister. Based on the age of the birds, fifth-year versus second-year, the most likely assumption may be that the Citrus Tract bird was a female helper. In 1997, the Citrus Tract female may safely be assumed the breeder. She was incubating on 13 May and was the only female in the cluster. When the nest was checked again on 20 May, it had failed. There was no renesting. There was no nesting in 1998, although the behavior of the male and a new female on 2 June suggested the formation of a pair bond, and this pair nested successfully in 1999.

The Citrus Tract female was not seen in the Ocala National Forest after summer 1997. She may have spent some months or years floating and looking for a breeding opportunity within the Ocala population. It is not known how long it took her to arrive at the Citrus Tract, or what her reproductive success has been since arriving there.

In 1997, Paisley had three occupied clusters and Salt Springs Island, the nearest Ocala National Forest subpopulation, had four occupied clusters. The Salt Springs Island clusters are 35-40 km north of the Paisley clusters. There are two known cases of dispersals between the Salt Springs Island and Paisley subpopulations. The breeding male at 267-1 (the father of the current male at this cluster) was from Salt Springs Island. A hatching-year 1992 sister of the Citrus Tract bird dispersed from Paisley to Salt Springs Island in 1993, but was unsuccessful in acquiring breeding status.

Within the Ocala National Forest population, 14 km northward dispersals of females from Salt Springs Island to the Riverside Island subpopulation occur frequently. In 2001, four of Riverside Island's nine nesting females had been banded in Salt Springs.

The Central Florida dispersal has several factors in common with the case documented by Walters et al. (1988). Both birds were breeding females that dispersed from small populations following a nest failure, presumably in search of a new breeding opportunity. In both cases distances to the nearest occupied cluster were great, and the birds crossed unsuitable habitat. The length of the dispersals was probably because neither female found suitable occupied habitat closer, in the direction chosen.

This dispersal illustrates the potential for genetic exchange between distant populations of Red-cockaded Woodpeckers, which is magnified when translocated birds or their offspring leave the recipient site. The successful nesting of the Citrus Tract female, the offspring of an Ocala male and an Apalachicola female, has introduced genomes from both sites into the Citrus Tract subpopulation.

Distances were calculated from the hypotenuse of triangles composed of N-S distance calculated by  $111.325 \text{ km} * \text{latitude differences in degrees}$ , and E-W distance calculated by  $\cos(\text{average of latitudes}) * 111.325 \text{ km} * \text{longitude differences in degrees}$  (Kirven 1997).

#### LITERATURE CITED

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