

almost entirely dark green, appearing black when viewed at certain angles in the subdued ambient light. The face and remiges were noticeably darker than the rest of the body. Fran noted red plumage on the legs as the bird extended them in landing. The long pointed tail and wings were noted as the bird flew about and perched in a grove of mature Wax Myrtle (*Myrica cerifera*).

We first noticed the bird because of its raucous, screeching vocalizations, usually uttered during short flights. Clearly a strong flier, the solitary bird permitted us to approach no closer than 75 to 100 yards before taking wing. We watched the parrot for approximately 30 minutes with 10X binoculars during midday on 30 December 1977. The sky was overcast with intermittent light rain; the temperature was in the mid-40s. The site was the parking lot adjacent to the boat slips at the U.S. Coast Guard Station at the north end of Pea Island, Dare County, N.C.

The illustration in Forshaw and Cooper's *Parrots of the World* (1973) left little doubt that we had seen a Nanday Conure (*Nandayus nenday*). Further, the observed field marks matched well with a study-skin specimen in the scientific collection of the North Carolina Museum of Natural History (NCSM 5755).

Lisk and Crabtree (Am. Birds 28:11) document the occurrence of this conure, also known as the Black-hooded Parakeet, as a feral species in southern California and give strong circumstantial evidence of breeding there in the early 1970s. Several reports from the New York-New Jersey area indicate considerable nesting success of the Nanday Conure. A Brooklyn, N.Y., population grew from 8 in 1976 to 19 in 1978, including 2 immature birds (Am. Birds 35:2).

The North Carolina sighting documented here is unquestionably a bird of pet-trade origin, having been seen during the period when the species was breeding successfully in New York. Observers should be aware that temperate coastal areas appear to prolong survival of many non-native species introduced in the eastern United States by various means, both accidentally and deliberately.

Flying Squirrel Found Dead at Red-cockaded Woodpecker Cavity

J.H. CARTER III

P.O. Box 891

Southern Pines, N.C. 28387

14 January 1982

Red-cockaded Woodpeckers (*Picoides borealis*) are known for excavating nest and roost cavities in living pine trees and for maintaining resin wells around the cavities. Various researchers have speculated that resin flow functions as a deterrent to potential predators and cavity competitors. Southern Flying Squirrels (*Glaucomys volans*) are major users of Red-cockaded Woodpecker cavities (Dennis 1971, Carter 1974, Jackson 1978), and they are not necessarily deterred by fresh, sticky resin (Dennis 1971). On 18 May 1974, I discovered a dead flying squirrel in the entrance tunnel of a Red-cockaded Woodpecker cavity. The cavity was in a second-growth Longleaf Pine (*Pinus palustris*) in an open, mature Longleaf Pine stand on the Fort Bragg Military Reservation, Hoke County, N.C. The cavity had been classed as active on 9 February 1974, with no plate, much fresh chipping, and much resin flow. It was 4.6 m high, and faced SSW. On 3 June 1974 the cavity showed additional fresh chipping by the Red-cockaded Woodpecker.

The squirrel was badly decomposed, and the entire ventral surface was mired in resin. The tail and hind legs protruded from the cavity entrance. When the squirrel was removed, some matted, shredded vegetative matter was found in the entrance tunnel where the head had been. Flying squirrels construct their nests from such material. The

squirrel appeared to have been entering the tunnel with nesting material when it became stuck.

This is apparently the only record of a flying squirrel being found stuck in the resin around a Red-cockaded Woodpecker cavity. An Eastern Bluebird (*Sialia sialis*) and a probable Pine Warbler (*Dendroica pinus*) have been found stuck in the resin flow on a cavity tree (Dennis 1971), and a Red-cockaded Woodpecker has been found stuck in sap in the entrance tunnel to its cavity (Locke, Conner, and Kroll 1979). In the latter case, the authors felt that the entrance tunnel was atypical in shape, allowing resin to pool on its floor. Though the shape of the tunnel was not specifically noted in my observation, the fact that the squirrel's entire ventral surface was fairly stuck to the tunnel floor suggests that sap had pooled there to some extent. I cannot state with absolute certainty that the squirrel died as a result of being mired in the sap, or that it was alive when it became stuck. It is possible that the squirrel died in the cavity and was left in the tunnel by another animal trying to eject it. However, the squirrel's posture in the tunnel left the impression that it died while struggling to enter the cavity.

LITERATURE CITED

- Carter, J.H., III. 1974. Habitat Utilization and Population Status of the Red-cockaded Woodpecker in South-Central North Carolina, M.S. Thesis, Dept. Zoology, N.C. State Univ., Raleigh.
- Dennis, J.V. 1971. Species using Red-cockaded Woodpecker holes in northeastern South Carolina. *Bird-Banding* 42: 79-87.
- Jackson, J.A. 1978. Competition for cavities and Red-cockaded Woodpecker management. Pages 103-112 in *Endangered Birds, Management Techniques for Preserving Threatened Species* (S.A. Temple, ed.), Univ. Wisconsin Press, Madison.
- Locke, B.A., R.N. Conner, and J.C. Kroll. 1979. Red-cockaded Woodpecker stuck in cavity entrance resin. *Bird-Banding* 50: 368-369.

Mortality Rates in Nesting Purple Martins

JOSHUA A. LEE
5104 Newcastle Road
Raleigh, N.C. 27606

Breeding individuals of the California Condor (*Gymnogyps californianus*), particularly pairs foraging together, reportedly gain first access to available food (C.B. Koford, *The California Condor*, Dover Press, New York, 1966). Thus Koford reasoned that the reproducing segment of the population was the most fit in terms of ability to garner and hold resources. One could further hypothesize that the effective portion of a given population of organisms—the breeders—are the most fit from a physical and psychological standpoint. Further, it is likely that survival during the breeding season is high for those individuals gaining access to the resources required for reproduction.

The Purple Martin (*Progne subis*) seems ideally suited for use in testing such an hypothesis. The birds nest in colonies near human habitation, and they are site-tenacious once a pair selects a nesting compartment. I have constructed a table that records the mortality of nesting birds in my martin colony in Raleigh, N.C., from 1959 through 1979. Causes of mortality are given where appropriate, and mortality was assumed when one, or more, of a pair disappeared after nesting had commenced. Thus the estimates given are maximum estimates. Observations cover only the period when the birds were nesting. Information on parental survival during the period of post-nesting care of the young is not available.

Total mortality for the 21-year period was 12 birds for an average mortality rate of 2.3%, very low considering the early arrival of adult birds, usually in March, the toll of territorial combat, indulged by both sexes, and the stresses from rearing large broods.