

ORNITHOLOGICAL LITERATURE

Rainfall, El Niño, and Reproduction of Red-cockaded Woodpeckers. Richard. C. Conner, Daniel Saenz, Richard R. Schaefer, James R. McCormick, D. Craig Rudolph, and D. Brent Burt. *Southeastern Naturalist* 4: 347- 354.

The Red-cockaded Woodpecker inhabits mature and open pine forests of the southeastern United States. The species breeds cooperatively, with males from previous nests remaining with their parents and assisting them in raising subsequent broods. From earlier observations of Red-cockaded Woodpeckers and from studies of other bird species, the authors suspected that weather conditions associated with El Niño events (i.e., change in sea surface temperature in the equatorial Pacific Ocean, which has wide-ranging effects on weather patterns) affected reproduction in the Red-cockaded Woodpecker. This study tests those suspicions by examining relationships among May precipitation levels (main period when nestlings are being fed), El Niño events, offspring production, and food delivery rates to nestling Red-cockaded Woodpeckers. The research was conducted in national forests in eastern Texas and west-central Louisiana. Food provisioning data were collected during a four-year period from 30 woodpecker groups and were related to precipitation and productivity data collected during the same period. In addition, associations between offspring productivity, precipitation levels in May, and El Niño events were investigated over a 20-year period. The study found that heavy rains did indeed reduce food delivery to nestlings and that the number of hatchling deaths tended to be greater during those years when May precipitation levels were high. The study also found that over a 20-year period, fewer young tended to be produced during those springs with high precipitation levels and that the years of high precipitation were associated with El Niño events. The authors suggest that their research indicates that global climate change, the El Niño events associated with that change, and the increase in precipitation in the Southeast related to the El Niño events, could make it more difficult for the Red-cockaded Woodpecker, an endangered species, to increase in number and recover from the threat of extinction. — TMH.