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## An assessment of the Bald Eagle breeding population along Hyco Lake in North Carolina: 2001 breeding season

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AN ASSESSMENT OF THE BALD EAGLE  
BREEDING POPULATION ALONG HYCO LAKE IN  
NORTH CAROLINA: 2001 BREEDING SEASON



CENTER FOR CONSERVATION BIOLOGY  
COLLEGE OF WILLIAM AND MARY

Study  
Conducted for



**CP&L**

A Progress Energy Company

# AN ASSESSMENT OF THE BALD EAGLE BREEDING POPULATION ALONG HYCO LAKE IN NORTH CAROLINA: 2001 BREEDING SEASON

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&  
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College of William and Mary



The Center for Conservation Biology is an organization dedicated to discovering innovative solutions to environmental problems that are both scientifically sound and practical within today's social context. Our philosophy has been to use a general systems approach to locate critical information needs and to plot a deliberate course of action to reach what we believe are essential information endpoints.

## **BACKGROUND**

Historically, the Bald Eagle was a common breeding species along major river systems, lakes and coastal areas throughout much of North America. The widespread use of persistent pesticides for crop management in the region resulted in dramatic declines over a 30-40 year period. By the late 1960's, most breeding populations had been decimated by eggshell thinning and associated low productivity. Concern for these populations prompted the elevation of the Bald Eagle to endangered status and led to a national effort to restore historic populations. Since the nationwide ban on many persistent pesticides in 1972, many populations have experienced gradual recoveries in both productivity and total numbers. The state of North Carolina has seen an increase from no breeding pairs in the late 1960's to approximately 20 pairs as of 2000. With recent increases in Bald Eagle populations, contemporary surveys are necessary to track breeding and successful reproduction.

The objectives of the eagle survey on Hyco Lake were (1) to document the status, distribution and productivity of nesting pairs in association with CP&L reservoirs and associated river corridors and (2) to increase our understanding of Bald Eagle natural history in interior regions of North Carolina.

## **METHODS**

### **Waterways**

The survey of Hyco Lake included all open water above the dam and the forested lands within 1 km below the dam.

### **Nest Survey**

All major waterways and tributaries associated with the study system were surveyed for breeding Bald Eagles. A high-wing Cessna 172 aircraft was used to systematically overfly the land surface at an altitude of approximately 100 m to detect eagle nests. Survey flights were flown by systematically moving between the shoreline and a distance of approximately 1 km to cover the most probable breeding locations for Bald Eagles. In addition to nest searches, any incidents of Bald Eagle sightings were recorded. The survey was conducted on 11 March, 2001.

## **SURVEY FINDINGS**

No Bald Eagles or Bald Eagle nests were observed within the Hyco Lake system. In general, current habitat conditions along the majority of the shoreline do not meet the requirements for breeding Bald Eagles. The upper reaches of the reservoir along the southern shoreline have limited nesting substrate due to recent and ongoing timber harvests or are highly disturbed with dense development. Extensive timber harvests along the northwestern shoreline in recent years have left no trees of suitable stature to support an eagle nest structure. For the near future, the greatest potential for nesting is along the northeastern shoreline and within the forests below the dam. These areas contain trees of sufficient age and size to support nest structures. The proximity of potential nest trees to the outflow of the reservoir makes this location the most likely place for a new territory to be formed. Surveys conducted in the near future should focus on the northeast shoreline and the areas immediately above and below the dam.