

First Nesting Record for the Bald Eagle on the Savannah River Plant

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Documented occurrences of Bald Eagles (*Haliaeetus leucocephalus*) on the Savannah River Plant (SRP) have been uncommon but persistent since May 1959 (Norris 1963; Mayer, Hoppe and Kennamer 1985; Mayer, Hoppe and Kennamer 1986). The SRP is a 780 km² federal nuclear production facility located in Aiken, Barnwell and Allendale counties of South Carolina which has been closed to public access since 1952 (Langley and Marter 1973). A recent increase in the number of sightings of Bald Eagles on the SRP has been reported, with a total of 46 adult and 12 immature birds observed on the site between 10 September 1984 and 4 January 1986 (Mayer, Hoppe and Kennamer 1986). However, despite the increased sightings of this species and the presence of a substantial amount (approx. 5,353 ha) of the habitat suitable for Bald Eagle foraging and roosting on the site, there have been no Bald Eagle nesting activities documented for the SRP (Mayer, Hoppe and Kennamer 1985; Mayer, Hoppe and Kennamer 1986).

The number of active Bald Eagle nesting territories in South Carolina had increased from 3 in 1977 to 34 in 1985 (Murphy and Coker 1978; T.M. Murphy, Jr., pers. comm.). Of the 38 active nests located in the state prior to June 1986, 34 were located within the coastal zone. The four remaining nests were situated at inland locations (South Carolina Wildlife and Marine Resource Dept. pers. comm.).

During the first week in June of 1986, the presence of a Bald Eagle nest on the SRP was reported to the USFS Savannah River Forest Station (SRFS) by personnel from the University of South Carolina Archaeology Unit working on this federal facility. On 5 June 1986, the nest site was visited by personnel from both the South Carolina Wildlife and Marine Resources Department and SRFS to verify the report. During these site visits, one adult and one immature Bald Eagle were seen either flying above the site or perching next to the nest.

On 6 June 1986, Mayer and Brooks visited the site with another SRFS staff member. The site was an approximately 2.5 ha flooded beaver (*Castor canadensis*) pond in the bottomland portion of a drainage near the Par Pond Reservoir System on the SRP. The nest (Figure 1) was located in a 14 m tall live bald cypress (*Taxodium distichum*) situated in the central area of the open flooded portion of the shallow pond. The nest was constructed approximately 2.5 m below the top of the tree. The surface of the pond was almost completely covered with floating-leaved and emergent vegetation, indicating that the Bald Eagles were probably foraging elsewhere for food. The water level in the pond apparently was maintained by the active beaver colony at the site.

At that time, two immature birds were observed perching around the nest. No adult birds were seen. After about two hours of observation, an approaching helicopter caused the two immature birds to leave the nest and fly north away from the pond. The adult bird was observed later at the nest site and noted to have a patagial tag on its left wing. This indicates that the bird had been tagged as a fledgling in a nest somewhere along the South Carolina coast north of Charleston between 1978 and 1981 (T.M. Murphy, Jr. pers. comm.) The adult also

was observed to have a left leg band (T.M. Murphy, Jr. pers. comm.). An adult Eagle with an identical wing tag was seen on the Par Pond Reservoir in September of 1984 (Mayer, Hoppe, and Kenamer 1986).

This same location had been checked by Kenamer in September 1985 during a site-wide aerial search of the SRP for Bald Eagle nests. No nest was either observed in the field or later detected in the photographs of the site taken at that time, confirming that this was the first year for Bald Eagle nesting activity in that beaver pond.

Reports and sightings of the single adult and two immature birds at the nest site continued through August 1986. No birds were seen at the nest during September. The tagged adult bird was observed again at the nest site during October. Also during the month of October, both the immatures and the adult were seen at several locations on the SRP. From the end of October until the early part of January 1987, none of the birds were reported to have been observed anywhere on the plant site.



Fig. 1 Appearance of the SRP Bald Eagle nest during the 1986 nesting season. Note one of the immature birds (see arrow) partially concealed by foliage and perched to the left and above the nest. (Photo by J.J. Mayer)

During the middle of January 1987, two adult Bald Eagles were seen at the nest site. One of the birds was observed to have a patagial tag identical to the adult from the previous year. The other adult, somewhat larger in size than the marked bird, did not appear to have any wing tags or leg bands. Since Bald Eagle mated pairs tend to return to nests of the previous year (Sprunt and Chamberlain 1970), it is highly likely that this is the same pair of birds which initiated the nest in 1986. As of that observation, the birds had enlarged the nest from the previous year. During late January, one of the birds was seen to be sitting deep in the nest. On 17 March, two Bald Eagle chicks, estimated to be approximately two weeks old (T.M. Murphy, Jr. pers. comm.), were observed in the nest. Between then and 29 May, both immatures and one or both adult birds were seen in or next to the nest on several occasions. During that period, the adult Bald Eagles were observed bringing back and feeding both fish [usually largemouth bass (*Micropterus salmoides*)] and American Coots (*Fulica americana*) to the two immature birds. On 1 June, only one of the immatures was seen with the adults. These three individuals were observed through 17 August at the nest site. No sightings were reported from that date until late October.

On 23 October, both adult birds had returned to the site and were observed enlarging the nest. Based on the courtship behavior noted at that time, the smaller bird was determined to be a male and the larger bird a female (T.M. Murphy, Jr. pers. comm.)

In addition to being the first nesting record for this species on the SRP, this record is significant because it is the second most inland nesting site recorded in South Carolina and it is the most inland nesting site along the Savannah River Drainage (Georgia Dept. of Natural Resources pers. comm.; South Carolina Wildlife and Marine Resources Dept. pers. comm.). The next nearest Bald Eagle nesting site in South Carolina is 115 km to the southeast (South Carolina Wildlife and Marine Resources Dept. pers. comm. Chat 48:20), and in Georgia is 192 km to the east (Georgia Dept. of Natural Resources pers. comm.).

Based on a territory size of approximately one km in diameter, the Par Pond Reservoir System could potentially support as many as six nesting pairs of Bald Eagles (T.M. Murphy, Jr. pers. comm.). Since this impoundment has high densities of fish (Bennett and McFarland 1983) and is protected from public access (Dukes 1984), this locality could serve as an important sanctuary for future nesting efforts by this endangered species.

Acknowledgements.

We thank John G. Irwin, Michael B. Caudell and Thomas M. Murphy, Jr. for the information which they provided for this report, and Roger W. Pitts for initially leading JJM and FAB to the nest site. We are also grateful to I. Lehr Brisbin, Jr., and William D. McCort for critically reading this manuscript. This work was supported by Contract DE-AC09-76SROO-819 between the Institute of Ecology at the University of Georgia and the United States Department of Energy, and Cooperative Agreement DE-AI-09-76-SR00054-M-A052 between the United States Forest Service and the United States Department of Energy. The report was prepared with support provided by Law Environmental, Inc.

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