

Barrier Island Hack Site Proves Successful in Gulf Islands Bald Eagle Restoration

By Ted Simons

Gulf Islands National Seashore is participating in a cooperative program to re-establish Bald Eagle populations in the Southeastern United States. The birds once ranged from Texas to the Carolinas, and bred as recently as the late 1940s on the Seashore's barrier islands in Mississippi. Unfortunately, eagle populations have declined in recent years to about 25 percent of their historic levels, owing to the combined effects of pesticides, habitat loss, and illegal poaching.

The restoration program is employing the ancient falconer's technique known as hacking in an attempt to re-establish a breeding population of Bald Eagles in the vicinity of the Seashore's Horn Island wilderness area, and at three other sites in the Southeast. The project is unique in its attempt to determine if egg removal from wild nests, captive rearing, and hacking, can be combined to restore populations of the endangered Southern Bald Eagle to their former levels. The effort is divided into three major phases, requiring the cooperation of a variety of state, federal, and private agencies.

In the first phase, eggs are removed from a healthy eagle population in Central Florida. Research over the last two years has demonstrated that if eggs are removed from eagle nests early in incubation, breeding eagles will "recycle" and lay a second clutch. In this way biologists can effectively double the productivity of the donor population in Florida.

Fifty-two eggs have been removed from 25 nests over the past two years. Twenty-one of the 25 donor pairs recycled, and their overall breeding success did not differ significantly from control pairs. All four recycling failures occurred at nests in which eggs were taken after the median date of egg laying. Thus it appears that the short-term impact of egg removal on the donor population will be minimal if eggs are removed early in the season. The long-term effect of

egg removal on the productivity and survival of donor birds and their offspring is not known. If the hacking program continues, this question will be examined as part of a concurrent long-term eagle population study in Florida.

In the second phase, the eggs are taken to the Sutton Center in Oklahoma, hatched in the laboratory, and hand reared for two months. Extreme precautions are taken during this phase to keep the birds from imprinting on their foster parents. In fact, the young eagles never see human during their two months at the Sutton Center.

The final phase of the project involves distribution of the birds to release sites in Georgia, Alabama, Oklahoma, and Gulf Islands. From the 52 eggs removed over the past two years, 41 nestlings have been distributed to the hack sites; this is a considerably higher rate of productivity than normally occurs in a wild population. The young eagles are placed on an artificial nest atop a 30-foot-high hack tower at the release sites, and allowed to fledge naturally at about 12 weeks of age.

Horn Island was chosen as a hack site this year because of its protected status as a National Seashore and a wilderness area, the historic evidence of nesting in the area, and the desire to evaluate the influence of an island hack site on the dispersal of young birds. In the wild, young eagles often spend a month or more with their parents after they fledge, gradually learning the skills they will require when they are on their own. Unfortunately, many of the birds hacked from mainland sites in other areas dispersed rapidly away from the hack sites, often leaving the area within several days of their release. It was hoped that the geography of Horn Island (12 miles long, 1/2 mile wide and 8 miles offshore) would encourage the young eagles to stay in the area and make a gradual transition to



A free-flying eagle returns to the hack tower to feed. A gradual transition to independence is essential to a successful hacking effort. All four eagles hacked in the park this year remained on Horn Island for over 2 1/2 months after leaving the nest.

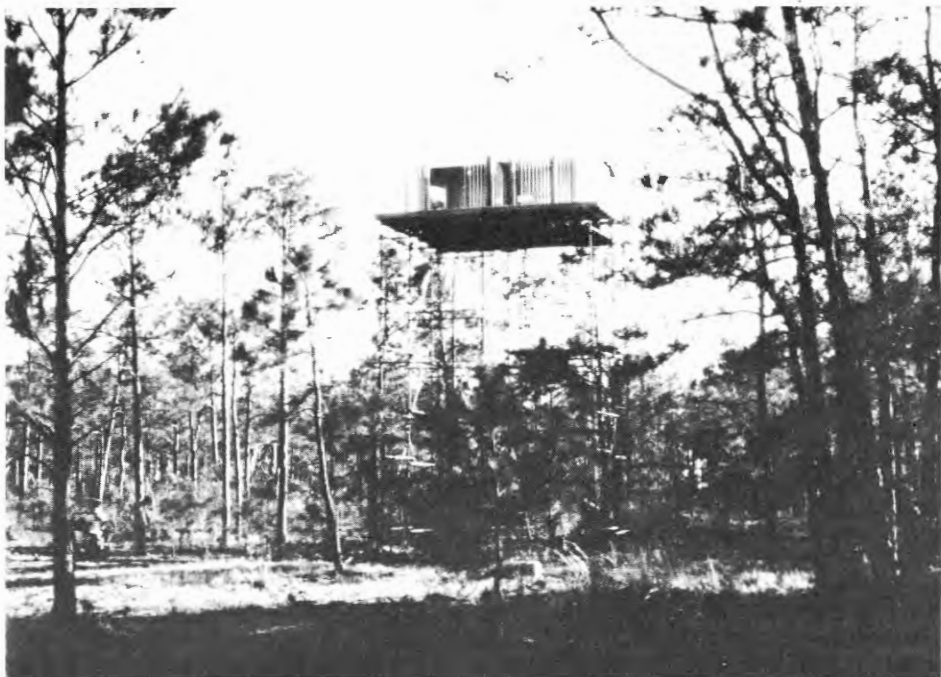
independence.

The hunch appears to have been correct. The four birds hacked this past winter were monitored with radio telemetry after their release, and all four remained on the island for over 10 weeks. The four birds departed (apparently as a group) on May 26th, presumably following their instinctive urge to migrate north for the summer. The skills and the social bonds developed during their long stay on the island should increase the likelihood that the birds will return to the area three to four years from now when they reach breeding age. The re-establishment of a breeding eagle population in the area is, of course, the ultimate objective of the program, but it is clear that an effort much larger than the present experimental project will be required if that goal is to be realized.

With that in mind, representatives from all of the hacking projects, the State of Florida, the Sutton Center, the U.S. Fish and Wildlife Service, and private and corporate sponsors met at the Seashore's William M. Colmer Visitor Center in mid-June to discuss the future of the program. Results of the two-year experimental phase of the project presented at the meeting indicated clearly that the methods will work. And, although funding is a major obstacle to continuance of the program, conference participants unanimously agreed that the effort should be expanded and continued for another five or six years.

Assuming the funding obstacles can be overcome, current plans call for hacking up to 100 birds a year in the Southeast for the next five years. In order to maximize the size of the breeding cohort returning to the release areas, a rotating schedule will be followed with each hack site participating in a mass release of 50-60 birds during one year of the five year program, and smaller releases during the remaining four years. If that goal can be accomplished, Southern Bald Eagle populations should be well on their way to recovery.

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Horn Island hack tower. An observation room behind the nest cages was constructed so that volunteers could feed and observe the birds without being seen by the young eagles.