

1991

## Peregrine Falcon Investigations

M. A. Byrd

*The Center for Conservation Biology*

K Terwilliger

*The Center for Conservation Biology*

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PERFORMANCE REPORT

STATE: VIRGINIA

PROJECT TITLE: NONGAME & ENDANGERED SPECIES INVESTIGATIONS      PROJECT NO: EW-2-3

STUDY TITLE: PEREGRINE FALCON INVESTIGATIONS      STUDY NO: IV

JOB TITLE: PEREGRINE FALCON STUDIES      JOB NO: A-D

DURATION: JULY 1, 1990 - JUNE 30 1991

SUMMARY:

Six pairs of peregrines produced eggs at tidewater sites. Four pairs were successful and produced 12 young, three of which subsequently disappeared. Eight unhatched eggs were collected for pesticide analysis.

Twenty three of 25 birds released at five hack sites fledged successfully. One young disappeared prematurely and one was apparently killed by a mammalian predator.

Cliff site monitoring resulted in the identification of several subadult and adult peregrines in the Shenandoah National Park, George Washington National Forest, and Jefferson National Forest.

Three hundred and fifty five peregrines were observed from two stations on the Eastern Shore during the fall migration.

JOB IV-A OBJECTIVE: To census migrant peregrines in the fall and to locate wintering birds.

Fall Migration

Two stations to monitor peregrine falcon and other raptor movements during the fall migration were operated at Fisherman Island and Wise Point for a total of 112 man days during the months of September, October, and November. A total of 355 falcons was observed.

The presence of both resident adults and immature birds at Fisherman Island compounds the problem of making accurate assessments of transient peregrines. Fifty five peregrines were observed at Fisherman Island with peak counts of 33 between September 30 and October 13.

At Wise Point, enumeration of transient peregrines can be more exact. Data for the highest eight flight days are presented in Table 1.

Table 1. Peregrine falcons sighted at Wise Point on peak flight days.

<u>Date</u>	<u>Number of Peregrines Sighted</u>	<u>Peregrines Trapped</u>	<u>Percentage Trapped</u>
10-03	16	4	25
10-04	39	11	28
10-06	22	2	9
10-07	9	1	11
10-09	17	6	35
10-10	13	4	31
10-11	27	3	11
10-12	12	1	8
	155	32	21

#### Wintering Populations

No peregrines were found on any bridges during the winter. Birds consistently were seen through the winter at Craney Island, Fisherman Island, and Assateague Island. It appears that all of the nesting birds on the coast are permanent residents. The numbers of reports of birds on the coast continued to increase. There were no reports of wintering birds in the mountains.

**JOB IV-B OBJECTIVE:** To introduce captive-reared peregrine falcons at mountain hack sites as recommended by the Eastern Peregrine Falcon Recovery Team.

Five peregrine falcon hack sites were operated in the mountains of Virginia in the summer of 1991. Two sites were operated at Hawksbill Mountain, and one site at Franklin Cliffs, Shenandoah National Park, Page County. One site was located at High Knob in Rockingham County and one site at Elliott Knob in Augusta County.

#### Hawksbill Mountain

Hawksbill Mountain has been used quite successfully in the past for hacking. In 1991, four birds, 3 females and one male were released at the site. A few days later, a female hatched at a natural site in downtown Baltimore was hacked at this site. There were no unusual events and all five birds fledged and

dispersed successfully. In July, three additional birds, two females and one male, were released at Hawksbill. All three fledged successfully but one female was killed by a mammalian predator on the first night. A subadult male from the 1990 Hawksbill release appeared at both this site and the Franklin Cliffs site. It appeared more interested in social interaction than in aggression.

#### Franklin Cliffs

Franklin Cliffs is located off the Skyline Drive in Shenandoah National Park. Six peregrines, four males and two females were released there in July. There were no unusual events associated with the release. All six young fledged and were flying well. On the third day, one male disappeared and was presumed lost. It conceivably followed a subadult male which appeared at the site and was unable to return.

#### High Knob

High Knob has been used several times in the past for releases. It is an excellent site for peregrine releases and success there has been high in the past. In July, eight peregrines, 6 males and 2 females, were released at High Knob. All eight have fledged successfully.

#### Elliott Knob

Elliott Knob was used as a peregrine release site for the first time in 1991. Three falcons, two females and a male were released there in July. All three fledged successfully but have not dispersed at this time.

Subadult peregrine falcons were seen in the vicinity of all hack sites which were used in 1991.

#### Eastern Population

The established population of peregrines in Tidewater Virginia was monitored for nesting success. Pairs were observed at former hacking towers at Fisherman, Cobb, Metomkin, Wallops, Assateague, and Great Fox Islands. In addition, a pair was observed at the Dominion Towers Building in downtown Norfolk as well as on a ship in the James River Reserve Fleet. A pair also was located on the abandoned Coast Guard Tower on Hog Island.

The male of the pair at Great Fox Island was apparently lost in early April. The pair at Hog Island did not lay eggs as in past years. In view of observations, it is clear that this pair suffers a great deal from human disturbance.

Pairs at both Cobb Island and Wallops Island laid complete clutches which failed to hatch.

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Successful pairs produced young as follows:

James River Fleet	- 3 young
Fisherman Island	- 4 young
Metomkin Island	- 3 young
Assateague Island	- 2 young

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Total	12 young
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Young from the nesting site at the James River Reserve Fleet presumably were taken as all three disappeared at 28-30 days of age.

The net production of young, therefore, was only nine young, approximately one half of the natural production from 1990.

**JOB IV-C OBJECTIVE:** To monitor likely potential nest sites on cliffs through the various mountain ranges in the state to locate active breeding pairs.

A volunteer effort was organized to monitor cliff sites in Shenandoah National Park, the George Washington National Forest, and the Jefferson National Forest. All work was coordinated with the U.S. Forest Service and the National Park Service. A list of approximately 50 potential cliff nest sites was developed. Volunteers were recruited to monitor as many sites as possible.

In addition, a helicopter survey was flown on two days in May in southwest Virginia in an effort to locate active peregrine cliff sites. This proved to be a very successful technique. In addition, project personnel spent fifteen days walking to likely cliffs.

These activities resulted in reports of adult or subadult peregrines from several locations in the Shenandoah National Park and the George Washington National Forest. The helicopter survey resulted in the location of one cliff site in Lee County in the Cumberland Gap National Historical Park which appeared to be supporting an active pair of falcons. This activity was not confirmed on the ground. No active breeding pairs were confirmed on the ground.

**JOB IV-D OBJECTIVE:** To evaluate additional mountain release sites for future releases of peregrine falcons.

All sites used for hacking in 1990 were visited during the early spring and deemed acceptable for use in 1991. In addition, Elliott Knob in Augusta County was again visited and designated

an acceptable site. Old Rag Mountain and Franklin Cliffs in Shenandoah Park were both evaluated as acceptable sites.

All sites visited were subsequently used successfully for hacking except Old Rag, which was not needed for hacking in 1991.

<u>PREPARED BY:</u>	Mitchell Byrd Karen Terwilliger
<u>TARGET DATE FOR COMPLETION:</u>	Continuing
<u>STATUS OF PROGRESS:</u>	On schedule
<u>SIGNIFICANT DEVIATIONS:</u>	None
<u>RECOMMENDATIONS:</u>	Continue study
<u>COST THIS SEGMENT:</u>	\$21,412 total \$16,059 federal \$ 5,353 state
<u>APPROVED BY:</u>	Bob Duncan Wildlife Div. Chief  Jerry Sims PR Coordinator