

1997 PEREGRINE FALCON REPORT

ACADIA NATIONAL PARK

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AUGUST 29, 1997

SUMMARY

For the first time on record, three pairs of Peregrine falcons (*Falco peregrinus*) successfully nested within Acadia National Park during 1997. One pair returned to nest at the Precipice Cliff on the Eastern face of Champlain Mountain for the sixth year in a row and fledged three eyases. A second pair nested for their third season on Beech Cliffs above Echo Lake and also fledged three young. This is the first year that this pair has produced more than one fledgling. Although a third pair had been seen in Acadia National Park in the vicinity of Jordan Cliffs during 1996, they did not nest until 1997. This pair of falcons hatched three eyases, and fledged two of them. Altogether, six adults nested and eight young Peregrine falcons were fledged in Acadia during the 1997 season.

An adult Peregrine falcon was first observed at the Precipice site on March 17. Both birds were seen together on April 9, when copulation was observed. The adult male wore leg bands, and was observed to have a metal band on the left and a dark band on the right leg, and is believed to be Ganesh, the male who has nested here since 1991. The female was unbanded. The trail was closed on April 14. Full incubation was definite by April 17, and the estimated hatching date was May 16, based on the age of the eyases at banding. Two eyases were first seen on May 26, and the third was first seen on June 2. The eyases were banded on June 12, and it was determined that there were two males and one female. Two of the eyases and possibly the third fledged on June 21, and all three were definitely flying by June 22. August 3 was the last day an immature falcon was observed at the Precipice Cliff during the interpretive program. A dawn to dusk watch of the Precipice Cliff conducted on August 11 revealed that no immature falcons were using the cliff and the trail was reopened on August 13.

The first observation of an adult Peregrine falcon at Beech Cliffs occurred on March 14, 1997 and both the male and female were seen together on April 1. The adult male is banded and has a red band on the left leg and metal or no band on the right leg. The female is probably unbanded, although there is a slight possibility that she has a dark band on the right leg. The trail was closed on April 14. Full incubation was definitely occurring by April 24. The estimated hatching date was May 24, based on field observations. Two eyases were first seen on May 28, and the third was not observed until June 22. Banding did not occur at Beech Cliffs, because of safety concerns for the banders and the eyases and inadequate amount of field time. All three eyases fledged on July 1. A dawn to dusk watch of the cliffs was first attempted on August 12, but canceled when an immature falcon was seen early in the day. A second dawn to dusk watch of Beech Cliffs took place on August 19. The dawn to dusk watch on August 19 revealed that no immature falcons were using the cliff and the trail was reopened on August 20.

The adult Peregrine falcons were first observed at the Jordan Cliffs site on April 5, and copulation was observed on that same day. The adult male has a metal band on the right leg, and the status of his left leg is unknown. The female has no bands. The trail was closed on April 14. Full incubation was definitely occurring by April 23. The estimated hatching date was May 27.

On June 4, an eyase was observed for the first time on Jordan Cliffs. On June 9, three eyases were observed. Banding occurred on June 13, and it was determined that the sex of all three eyases was male. Only two of the three eyases were banded, because the third young falcon fled from the scrape and fell. Both of the surviving eyases were raised successfully and fledged by July 6. August 7 was the last day an immature falcon was seen near Jordan Cliffs. A dawn to dusk watch of Jordan Cliffs was conducted on August 26 and revealed that no immature falcons were using the cliff and the trail was reopened on August 27.

This year, interpretation and biological monitoring at the Precipice site was undertaken by a full-time volunteer Peregrine falcon Interpretation and Monitoring Intern, who was provided a \$100.00 weekly stipend and housing in exchange for 40 hours of weekly work between May 12 and August 14, 1997. Biological monitoring at Beech Cliffs and Jordan Cliffs was conducted by Acadia National Park Wildlife Biologists, the Interpretation and Monitoring Intern, and other volunteers. A total of 238.5 hours were spent on sole-focus monitoring of the falcons during the 1997 season, and 262 hours were spent interpreting the site and the falcons from the Precipice parking lot. The interpretive program contacted 22,618 people in 1997.

The 1997 Peregrine falcon Program was an overwhelming success both biologically, and from the standpoint of serving park visitors. More Peregrine falcons were fledged here than in any year since the falcons returned to nest in Acadia National Park, and more visitors were contacted than in any other year the program has been presented.

BIOLOGICAL MONITORING

Prior to the arrival of the Peregrine falcon Interpretation and Monitoring Intern, the majority of biological monitoring was conducted by Bruce Connery, Biologist, Glen Mittelhauser, Biological Technician and Paul Super, Ranger and Training Instructor. Upon her arrival, Lisa Angelos took an active role in monitoring as well, focusing primarily on the Precipice site, while Bruce Connery and Glen Mittelhauser continued to monitor Beech Cliffs and Jordan Cliffs on a regular basis. Lisa Angelos also conducted some monitoring at Beech Cliffs and Jordan Cliffs as well. Throughout the season, other individuals assisted with monitoring to a lesser degree, including Friends of Acadia Intern Alex Wilke, Biological Technician John Zimmer, SCA Volunteer Justin Francese, and Volunteers Nikolai Maleshin and Ben Coolik.

During the 1997 season, 238.5 hours were spent on single-focus monitoring of the Peregrine falcons. The falcons at the Precipice were monitored for 104.27 hours, the Beech Cliffs falcons were monitored for 79.58 hours and the Jordan Cliffs falcons were monitored for 54.65 hours. The Precipice falcons were monitored more regularly than those at the other two sites, so that the intern providing the interpretive program would be as familiar with the behavior of this group of falcons as possible. This enabled her to find them on the cliff more easily, have a better understanding of their biology, and develop confidence in answering questions about their typical behavior for visitors. The time spent monitoring the Precipice falcons was in addition to the 262 hours spent watching them during the interpretive program. Transcriptions of the field

notes from monitoring at the Precipice, Beech Cliffs and Jordan Cliffs are attached in Appendices IV, V and VI, respectively.

The primary goals of the biological monitoring were to track the behavior and health of the falcons, and to determine if and when park management is needed to protect nesting falcons. A chart for recording the important dates and data about the falcons was developed this year, and served as a centralized information source of key information about the birds. This chart was kept posted in the Natural Resources Division, and pertinent information was updated on it as it was discovered by observers conducting the monitoring. The key information that monitoring was attempting to secure included nesting location, band information, dates of first breeding, dates of full incubation, hatching dates, dates eyases were first observed, number and age of eyases, fledging dates, and departure dates. Intern Lisa Angelos also went back through past reports and field notes in order to complete a chart of important dates and data for each year that falcons have nested naturally in Acadia National Park since 1991. Current and past charts summarizing this data are in Appendix VII. In order to obtain the necessary information about breeding biology, monitoring must be conducted more intensively at several key times throughout the season:

Mid March:	To determine when adult falcons return to the park
Early April	To observe courtship and breeding
Mid April	To determine scrape location and watch for start of full incubation
Mid-Late May	To watch for evidence of hatching
Late May	To initially observe eyases and determine number and age
Late June-Early July	To determine fledging dates
Early-Mid August	To estimate departure of the immature falcons
Early-Late August	To conduct a dawn to dusk watch to confirm departure of the immature falcons and determine if trails can be reopened

Precipice Site Observations and Behavior

The first Peregrine falcon was observed at the Precipice on May 17. Both adults were observed together on April 9 when they were seen entering the scrape and copulating. The pair is believed to be the same pair that has nested on the cliff since 1991, although full band readings were not possible this year. The band information that was observed was consistent with the falcons that have nested here in the past and it is assumed that the male is "Ganesh", a bird that was hacked on Jordan Cliffs in 1986 (Band Nos. Left: "816-75238", Right: "A59A"). The female bird is unbanded, as has been the case each year.

This year, the scrape was located in an abandoned raven nest low on the cliff face. During the early part of April, the falcons were frequently seen chasing ravens from the cliff. The ravens did not nest on the East face of Champlain Mountain this year. Although the nest site was low, it was not possible to observe the eggs in the nest from either the Precipice parking lot, or a higher vantage point on a rise across Schooner Head Road. Observations indicated that full incubation

may have begun by April 15, but was definitely occurring by April 17. Both the adult birds shared in incubation duties, and nest exchanges could frequently be observed. The first food was seen being brought to the nest by the adult female on May 18.

The hatching date was estimated to be May 16, based on the age of the eyases at banding. The first eyases were visible in the nest on May 26, when two were seen from Schooner Head Road. On June 2, the third eyase was seen for the first time. By the second week of June, the young falcons were visible from the Precipice parking lot, and visitors were able to see them through the telescopes. Both adult birds shared in the feeding of the young, although the adult female was observed at the nest site more frequently than the male. Observations of prey items brought to the cliff during the season included a robin, a tern, a black guillemot, a blue jay, a blackbird, and several unidentified small birds.

On June 12, the eyases were banded. The banding team consisted of Mike Amaral, an Endangered Species Specialist of the U.S. Fish and Wildlife Service, and Kevin Cadraro, a local climber. Nicoli Histrov of Natural Resource Management accompanied them to take photographs. Lisa Angelos, Bruce Connery, and Glen Mittelhauser also were on site and Paul Super provided interpretation during the event. The adult female bird was present on site during the banding, but the male was not. The banding team left the parking lot at 1:15 and by 1:40 they were close enough to disturb the female. She was calling and occasionally stooping on the intruders, but not aggressively. There were some unexpected aspects to the banding process. One of the young birds was quite far out of the scrape and moving away from the banding team as they approached. In order to ensure the safety of the juvenile, the banding team chose a different route to encourage the bird to move back to the nest crevice. This increased the time it took the banding team to approach the site. All three juveniles were banded successfully. They were determined to be 28 days old, and there were two males and one female. The band numbers were as follows:

Male Left: Black Sideways "U" over Red "8", Right: Metal "220640671"

Male Left: Black Sideways "V" over Red "8", Right: Metal "220662600"

Female Left: Black "E" over Red Sideways "X", Right: Metal "180738860"

A heavy rain on the team's descent increased the time they were on the cliff. Altogether, the female exhibited signs of disturbance for about 2.5 hours. Approximately 10 minutes after the banding team had completed their work, the male bird returned to the cliff and brought prey to the juveniles. The female returned to the nest within an hour after the banding was complete. Prey remains were collected from the nest site and consisted of several species including a pigeon, ruffed grouse, blue jay, robin, and an unidentified shorebird. These remains were sorted and will be analyzed and identified.

On June 21, two, possibly three, of the juvenile falcons took their first flight. All three were definitely in flight by June 22. In the week preceding fledging, the young birds had been seen moving farther and farther from the nest crevice, clinging to the rocks and flapping their wings. Once they had fledged, the juveniles were frequently observed flying over the cliff face together. They would often track one another in the air, flying close together. They also were often

observed coming together and touching talons in the air, presumably practicing the aerial food exchange maneuver. Early flights were quite successful, although the juvenile falcons did flap their wings more than the adults. They also did exhibit some trouble with landing during the first several weeks after fledging. They would sometimes approach a perch and then realize they had over or underestimated the distance and circle around for another approach before making a landing. Within a week after fledging, the young falcons were attempting to hunt for themselves. The first prey we observed caught by a young falcon was an American goldfinch, captured in Kent Field. Later in the season, a juvenile falcon was seen returning to the cliff with a kingbird. As the season progressed, the immature falcons were spending more and more time away from the cliff and were observed in Kent Field, on snags near Schooner Head Road, and at Beaver Dam Pond on the Park Loop Road. Whenever an adult falcon would return to the Precipice, it was met with begging calls and was chased by the juveniles. The adult birds spent little time at the cliff during the three weeks post-fledging.

On June 30 researchers from Petit Manan Island reported that an adult Peregrine falcon was visiting the island and eating seabirds on a daily basis, including terns and laughing gulls. The color band number on the left leg was read, and was consistent with Ganesh's left leg band "A59A". A few numbers on the metal band on the right leg also were read and were consistent with Ganesh's bands. We received no reports of the falcon preying upon the endangered Roseate Terns that nest on Petit Manan.

The last time an immature falcon was seen at the Precipice was August 3. During the week prior to that date, the adult birds had been frequenting the cliff more than they had in the preceding weeks. Food deliveries continued almost daily for the juveniles at the cliff until their departure. A dawn to dusk watch of the cliff had originally been scheduled for August 4, but was canceled when the juveniles were still seen receiving food at the cliff on August 3. There were no young falcons observed during the interpretive program conducted between August 4-8 and the adult birds were present daily at the cliff. A dawn to dusk watch was conducted on August 11, and confirmed that the juveniles were no longer using the cliff. The Precipice Trail was reopened on August 13.

Beech Cliffs Site Observations and Behavior

An adult Peregrine falcon, believed to be the female, was first observed at Beech Cliffs on March 14. Both the male and female falcons were seen together on April 1. Copulation was never directly observed. Both birds were associating with the 1996 scrape throughout early April and the Beech Cliffs trail was closed on April 14. The adult male is banded and has a red band on the left leg and metal or no band on the right leg. The female is probably unbanded, although there is a slight possibility that she has a dark band on the right leg.

Full incubation was definitely occurring by April 24. The estimated hatching date was May 24, based on field observations. This scrape, which the falcons have used since 1995, is harder to observe since it is partially obscured by a rock and we were unable to estimate hatching date

until eyases were seen. Two eyases were first seen on May 28, and the third was not observed until June 22. This is the first year that this pair has produced more than one offspring. The first prey was seen being brought to the scrape on June 8.

On May 4, the Southwest Harbor Police received a call that a Peregrine falcon with an injured wing was in the vicinity of Fernald Point. During 4 plus hours of observation at Beech Cliffs on May 5, we did not observe the male falcon. However, on May 6 we observed a male falcon perched on Beech Cliffs with a "messy" right wing. Although this falcon was preening its right wing often during our observation, the bird appeared to be overseeing the nest and was observed flying.

Parental care was not as consistent with this pair of falcons. Once the eyases hatched, the adult male was infrequently seen and the female was primarily responsible for the care of the young. Long periods of time would elapse where no adult birds were present at the site. During mid to late June, the monitoring team suspected that the adult male may not be returning to the site at all, and did not see him during regular observations. The lifeguard on site at Echo Lake Beach did report seeing two adult falcons in the area in mid-June. Although the presence of the adult birds was not as consistent as it was at the Precipice, it was apparently sufficient, since all three eyases survived and fledged.

Banding did not occur at Beech Cliffs, because the best climbing route to the nest scrape was untested and potentially dangerous. The sex and exact age of the eyases at Beech Cliffs has not been determined.

All three eyases fledged on July 1. Like the Precipice eyases, the fledglings were easily observed flying near the cliffs just after fledging, but were seen more infrequently as the season progressed and the birds became more comfortable about straying from their natal cliff. A dawn to dusk watch of the cliffs was first attempted on August 12, but was canceled when an immature falcon was seen early in the day. This was the last day that an immature falcon was observed at the cliff. A second dawn to dusk watch of Beech Cliffs was conducted on August 19 and no immature falcons were observed. The trail was reopened on August 20.

Jordan Cliffs Site Observations and Behavior

The fact that the Jordan Cliffs pair nested in 1997 makes this the first year on record that three pairs of Peregrine falcons have nested in Acadia National Park. The falcons were first observed on site on April 5 and were seen copulating on that day. The adult female is unbanded. The adult male has a metal band on his right leg and the left leg status is unknown.

The Jordan Cliffs trail was closed on April 14. Full incubation was definite by April 23. Both the male and the female shared in incubation. The estimated hatching date, based on the age of the eyases at banding was May 27. The first day that prey was seen being taken to the scrape was May 28. Two, possibly three, eyases were first observed on June 9.

Banding of the Jordan Cliffs eyases occurred on June 13. Again, the banding team consisted of Mike Amaral, Endangered Species Specialist for the U.S. Fish and Wildlife Service and Kevin Codraro, a local climber. Bruce Connery, Biologist accompanied them to assist. Glen Mittelhauser observed from a distant vantage point, provided directions to the scrape, and kept notes. Three young male eyases estimated to be 18 days old were found at the Jordan Cliffs site. Kevin Codraro approached the scrape first and was under constant attack by the adult female falcon. After seeing the eyases and noting that they were very young and unlikely to try and escape, the climber removed his pack and began to secure his own location by placing protection into the cliff. The three eyases were initially huddled together, but at this point, one chick ran off the scrape ledge and died from the fall. The climber immediately placed his jacket on the outside edge of the scrape encircling the remaining two eyases. Neither of these two chicks made any attempt to flee from the scrape. Biologists have experienced that eyases less than 20 days of age commonly remain in the scrape, regardless of disturbance or type of intrusion. The loss of the chick at Jordan Cliffs is extremely unusual, especially given the eyase's young age.

Approximately 235 chicks have been banded since 1990 when the current field-readable banding program was initiated, and this is the first mortality. The body of the juvenile was recovered and taken back to the U.S. Fish and Wildlife Service and will be incorporated into an educational display on Mount Desert Island. The other two eyases were banded successfully, and the female bird returned to the scrape shortly after the completion of the operation. The band numbers were:

Male: Left: Black Sideways "Y" over Red "C", Right: Metal "220640674"

Male Left: Black Sideways "Y" over Red "D", Right Metal "220640675"

Press releases were prepared for the local media by Bruce Connery of Natural Resource Management. David Manski of Natural Resource Management prepared a statement to be distributed to park personnel and Lisa Angelos explained the situation in the internal newsletter circulated throughout the park. During the interpretive program, Lisa Angelos answered visitor questions about the incident and discussed the merits of banding. Overall, visitors seemed to understand the necessity of banding, and realized that the risk was quite low. An editorial in support of Acadia National Park's efforts in protecting the falcons, including banding, appeared in the Bar Harbor Times. Although this was an extremely unfortunate happening, we tried to focus on the success of the falcons in the park during 1997. Even with this one mortality, more young falcons were fledged during 1997 than in years past. We were extremely pleased that the Jordan Cliffs pair was able to fledge more than one eyase in their first year of nesting.

The surviving eyases at Jordan Cliffs had taken their first flight by July 6, and may have been in flight on July 5. They were often seen flying nearby the cliffs. Many visitors also reported hearing the particularly vocal group of falcons from along the carriage road passing near Jordan Pond. Like the juveniles at the other two sites, these young birds began to stray farther from their home cliff within a few weeks of fledging. They were frequently sighted at Eagle Lake. The last time the juvenile falcons were seen at Jordan Cliffs was August 7. A dawn to dusk watch of the cliff was conducted on August 26 and revealed that no immature falcons were using the cliff and the trail was reopened on August 27.

VISITOR EDUCATION AND OUTREACH

A site-interpretation program was presented at the Precipice parking lot 7 days per week from 9 a.m. till noon beginning May 14, 1997 and ending August 8, 1997. This program was conducted to provide visitors with an opportunity to better understand, and if possible, to view the Peregrine falcons in their natural habitat. The Peregrine falcon Interpretation and Monitoring Intern, Lisa Angelos, had primary responsibility for this program, and she presented it 5 days per week from Saturday through Wednesday. Anne Smallidge, a volunteer and local resident of Seal Harbor, conducted the program on Thursdays. The program was presented on Fridays by Paul Super, Ranger and Training Instructor, until mid-June, when this duty was taken over by Jonathan Gormley, Ranger. Volunteers Nikolai Maleshin and Ben Coolik provided some much appreciated assistance with the program during the latter part of the season, by aiding the main interpreter in explaining concepts to large crowds of visitors, or recording the daily visitor statistics. Paul Super trained and supervised the intern and volunteers, as well as covered the program when Lisa Angelos was required to attend training programs.

This year's interpretive program was tremendously successful. During the 13 weeks from May 14 to August 8, 1997, 22,618 visitor contacts were made. This is the highest number of visitor contacts since the program was initiated in 1991 and represents a 38% increase over the 14,100 visitor contacts in 1996. Visitor contacts were higher despite the fact that total number of hours spent on interpretation were 262 in 1997, a 6% decrease compared to the 279 hours spent in 1996. In past years, including 1996, the program was sometimes lengthened on certain days, but this was not the case in 1997. The extremely high visitation rates are most likely attributable to the fact that the summer's weather was exceptionally good, and it rarely rained. The interpreters also made a strong effort to draw people in by greeting them personally, and making the program as interesting and informative as possible. The program was canceled only twice due to rain on May 16 and rain and illness on June 19.

On the 85 days on which the program was presented, an average of 262 visitors were served per day. The visitor contact pattern was similar to past years in that it remained relatively low until week 26, which began on June 22 and then increased steadily except for week 29. During that week, that began on July 13, lower visitor numbers were recorded, unlike past years. I explain this decrease by the activity of the falcons. The week of July 13 was one week following the fledging of the juvenile birds, and neither they nor the adult birds were spending much time around the cliff during week 29. People were not staying around the Precipice parking lot for long periods when they learned no falcons were visible and without large crowds already present, additional visitors were not as attracted to the site. During the first week of the program, visitation was lowest and averaged 22 contacts per hour. Visitation reached a high point during the last week of the program, with an average of 145 contacts per hour. Although the weekly trends were similar to past years, there were differences on a day to day basis. Typically, Mondays, Tuesdays and Saturdays have been among the lowest visitation days. In 1997, visitation rates were highest on Mondays and Tuesdays and lowest on Thursdays and Fridays. Saturday was the third highest visitation day in 1997. Overall park visitation statistics were not

collected by day of the week during 1997, so it is not possible to determine whether the increased visitation to the Peregrine falcon Interpretive Program on Mondays, Tuesdays and Saturdays reflects a change in the number of visitors to the park overall on those days of the week. Graphic representations of visitation statistics by day and by week are presented in Appendix I.

The Peregrine falcon Interpretive Program combined a number of elements. The interpreter presented information on the history of the falcons in Acadia National Park, the species in general, and the Endangered Species Act. Additionally, the interpreter was responsive to any questions from visitors, both concerning the falcons and other park resources. Besides conveying information verbally, the interpreter used several visual aids including pictures, graphs, and a string the length of a peregrine falcon wingspan. The most effective visual elements of the interpretive program were the falcons themselves. Whenever possible, the interpreter focused two telescopes on the falcons, described the location of the birds as they were in flight, and interpreted their behavior as it was occurring. The opportunity for a visitor to observe falcons in the wild, perhaps for the very first time, is an unmatched experience and possibly a highlight of their vacation. The interpreters' enthusiasm was contagious and seeing the birds themselves got visitors excited and involved. This year was a particularly good year for viewing. Since the Precipice falcons took over an abandoned raven nest low on the cliff face, the eyases were visible in the nest from the parking lot quite early in the season. Many visitors from the local area returned periodically throughout the season to watch the young birds develop and eventually take flight.

Part of the interpreters' job is to help individuals who had planned on hiking the Precipice Trail understand why trail closure is important and necessary to protect the endangered Peregrine falcons. This effort was very successful in 1997. People who had planned on hiking the trail were very receptive to the explanation provided, and no one attempted to proceed while an interpreter was present. Many potential hikers were very pleased by the opportunity to see the falcons through the telescopes. During the 1997 season, there were only three trail violations. On May 24, one person was found on the Precipice Trail and on July 17, 2 hikers were proceeding up the Precipice Trail. Both of these parties were issued violation tickets and fined. On June 9, one person was issued a warning notice for proceeding beyond the posted area on Beech Cliffs. The high level of adherence and respect given to posted closures by visitors is a good demonstration of the effectiveness of education efforts.

The Peregrine falcon Interpretive Program was described in the July/August issue of The Beaver Log. A sign, which was updated based on the current stage of the falcons' breeding season, was posted in the Precipice parking lot to inform visitors of their activity when an interpreter was not on site, and to provide the hours of the interpretive program. Visitors were also informed of the program by rangers on boat cruises, programs and hikes, as well as in the Visitor Center, Nature Center and at campgrounds. To facilitate the dissemination of information and keep the park staff informed, a one page newsletter, "The View from the Aerie" was produced by the Peregrine falcon Intern on a weekly basis. This newsletter (Appendix II) included information about the falcons activities over the previous week and a reiteration of the

interpretive program schedule. The newsletter was produced thirteen times during the 1997 season and was distributed to the Visitor's Center, Nature Center, Blackwoods and Seawall Campgrounds, the Fee Station, Friends of Acadia and all park divisions.

MEDIA COVERAGE

Peregrine falcons were mentioned on several occasions in the local media during the 1997 season. Written articles covered the general topic of Peregrine falcons as an endangered species in Maine, as well as specifically addressed the falcons residing within Acadia National Park. The Acadia falcons were also mentioned in a television news broadcast on Channel 5-Bangor including footage of the falcons and an interview with intern Lisa Angelos, as well as in several radio broadcasts of the "Acadia National Park Update" on 107.7 fm, and on the park information broadcast on 1610 radio am. Following is a list of the dates, sources, and titles of media coverage. Copies of the articles and transcripts of the radio broadcasts may be referred to in Appendix III.

02/27/97	The Bangor Daily News	"Audubon Wants Biologists to Decide Protected Species"
03/20/97	The Bar Harbor Times	"Falcons Spotted"
03/27/97	The Bar Harbor Times	Re: Presentation on Youth Programs
04/16/97	The Bangor Daily News	"Peregrine Falcons Return to Acadia National Park"
04/17/97	The Ellsworth American	"Acadia Trails Temporarily Closed"
04/17/97	The Bar Harbor Times	"Peregrine Falcons Favor Three Sites"
Mid-April	1610 Radio am	Information on Trail Closure-Broadcast throughout the season on this visitor information station
05/01/97	The Ellsworth American	"Committee Okays Additions to Endangered Species List"
05/01/97	The Bar Harbor Times	"Map O' Vacationland"-Cartoon
05/01/97	The Bar Harbor Times	"Peregrines Nest"
05/08/97	The Ellsworth American	"Bringing Back the Falcons Involves a Delicate Balance"
05/08/97	The Bar Harbor Times	"Peregrine Perils"
05/18/97	Acadia Weekly	"Trails Closed"-Similar information on the trail closures and pubic program appeared in weekly issues throughout the season
05/29/97	The Bar Harbor Times	"Acadia National Park"
06/01-07/97	107.7 fm-WMDI	"Acadia National Park Update"
06/12/97	The Bar Harbor Times	"Six Falcon Chicks Hatch in Acadia"
06/16/97	Channel 5 TV News-Bangor	Falcon Footage & Interview with Lisa Angelos
06/18/97	The Bangor Daily News	"Peregrine Chick Dies at Acadia"
06/19/97	The Bar Harbor Times	"Worth the Risk"-Editorial
06/19/97	The Bar Harbor Times	"Falcon Chicks Death is Biologist's Nightmare"
06/19/97	The Ellsworth American	"Falcon Falls From Cliff"

July/Aug	The Beaver Log	"Masters of Flight: The Wanderers Return"
July/Aug	Friends of Acadia Journal	"Jet Skis, Peregrines, Grants and Chairs"
07/03/97	The Bar Harbor Times	"State Adds 22 Species to Endangered Species List"
07/17/97	The Bar Harbor Times	"Russian Park Official to Talk on Steppes"
07/17/97	107.7 fm-WMDI	"Acadia National Park Update"
07/24/97	The Bar Harbor Times	"Acadia National Park"
08/07/97	The Bar Harbor Times	"Nature"
08/07/97	107.7 fm-WMDI	"Acadia National Park Update"
08/10/97	Acadia Weekly	"Peregrines Still in Control"

RECOMMENDATIONS

Although the 1997 season was tremendously successful, I do have several recommendations to make that I feel will help to improve overall the activities related to the falcons in the future.

Funding

My strongest recommendation is that a National Park Service seasonal position be created to be filled by someone with primary responsibility for Peregrine falcon interpretation and monitoring. The duties performed by the intern in 1997 required exceptional interpretation skills, as well as a background in biological sciences. The nature of the interpretation program is highly challenging, considering that visitors are constantly free to come and go, and the falcons are mobile as well. It takes dedication and skill to ensure that every visitor has a quality experience. The program is conducted at the highest visitor contact point in the park, reaching thousands of people each season. Sometimes, it is the only contact a visitor has with a park interpreter. It should be a priority to convey the National Park image by having an official National Park Service employee on site, and to compensate the interpreter fairly for their work.

Staffing

It was extremely helpful to occasionally have a second individual on site to help with explanations to visitors, keeping track of the falcons on the cliff, and tallying visitor statistics. This secondary position is one that I feel is appropriate to staff with a volunteer. There are many interested local residents who often come to the cliff to watch the falcons for their own enjoyment. Through watching over time, many of them have become extremely knowledgeable about the falcons behavior. These people are an invaluable resource that could potentially be drawn upon to assist the primary interpreter with duties during the program. I am certain that many of them would appreciate and enjoy an opportunity to take a more active role. A simple way to find out would be to place an advertisement in the local newspaper requesting assistance. The presence of a second person, especially during the last four weeks of the program when visitation is extremely high, would definitely improve the experience for visitors, by providing

them with a level of personalized attention that is not possible when one interpreter is serving between 400 and 600 people in three hours.

If possible, the interpretive program should be extended beyond noon whenever possible with available staff, since this is a very busy time of the day. On many occasions, I had to leave the Precipice parking lot with many visitors waiting in line who did not get a chance to view the falcons.

Record Keeping

Now that charts have been developed for centralizing important dates and data about the falcons, they should continue to be utilized on an annual basis. Having a single page, easily referenced chart for each year will be invaluable in the future and will eliminate the need to go back and review endless pages of field notes or read several reports to access information.

I have also created two tables that contain only banding information. One table deals with the falcons that were hacked in Acadia in the mid-1980s (Appendix VIII) and the other with those fledged naturally since the falcons returned to Acadia (Appendix IX). These tables should be updated with band numbers of new eyases banded each year. Additionally, as soon as information is available regarding the status of any of the birds, this should be added to the tables. Every few years, a concerted effort should be made to verify the status of the birds. This information can be obtained from a combination of sources, most notably, Mike Amaral, the Endangered Species Specialist for the U.S. Fish and Wildlife Service, and Patuxent Wildlife Research Center, which serves as the central information source on banded birds. During 1997, a letter was forwarded to Patuxent requesting any information on birds hacked in Acadia and a request was made to Mike Amaral via email to provide a summary of band information for eyases born in Acadia. Additionally, once a bird's location is established, a periodic check to the city or state in which it resides to check on current status is warranted. For example, a call to the New York City Parks Department confirmed that a bird hacked in Acadia in 1986 (Left Band Metal "987-82368", Right Band "B29B") continues to nest on the Cornell Medical Building and had two eyases hatch in 1997.

Equipment

Several improvements could be made to the equipment that is available to the interpreter during the public program. The signs that are posted in the Precipice parking lot to alert visitors to the availability of the telescopes for public use could be more practical. They are currently mounted on wooden stakes that need to be pounded into the very compacted ground. It is often difficult to secure them and they blow over easily in high winds. Also, they are too small to be easily read from a distance, and often visitors standing directly next to the signs don't notice them and ask what is going on and if they are allowed to look into the telescopes. I would suggest larger, more professional looking signs. At the very least, a mallet should be provided for pounding in the signs if they are to remain on stakes.

Visual aids are an integral part of the public program, especially if the falcons are not in view. They help people to understand what is being talked about and to visualize what they are looking for on the cliff. Currently, a book is frequently used to illustrate discussions. Snapshots and enlargements (up to 11 x 14) of photographs from the site are also used to some extent. While this is effective for small group interactions, it is very impractical for the large crowds that are typical later in the season. The photographs are too small for people to see, unless they are very close, and there is not enough time to walk them around to everyone. I think it would greatly enhance the public program to have several very large photographs or illustrations mounted to foam core board and laminated. These should be at least ½ poster size to make it possible to hold them up in front of crowds and effectively enable visitors to view them. Most important suggested subjects for these include: an adult bird perched, a juvenile bird perched, an adult and juvenile in flight, a scrape with eggs, a series of nestlings at various ages, a banding effort, a falcon stooping at prey, and a comparison of the Peregrine falcon with some other common raptors. Besides being more workable, this type of prop would present a more professional image than a dog-eared book.

Very simple visual aids can really benefit the program. A string the length of a peregrine wingspan was used this season to great effect and other props should be added, if possible. One possibility is a replica of a Peregrine falcon egg. Ranger Jonathan Gormley may be able to assist with this.

The tripods and telescopes are very important for allowing visitors to see the falcons. The chance to look through them is often the main reason that visitors stop at the Precipice parking lot. Currently, one Celestron scope and one Discovery scope are in use. The Celestron provides a clear image, but can be difficult to orient without practice. The Discovery scope is easy to orient, but has some problems, such as poor optics and the tendency to move easily in strong winds. One of the two tripods currently in use is extremely worn out and does not work properly. The mechanisms to tighten down the legs are no longer functioning properly and the tripod is not sufficiently stable. At the minimum, I would suggest replacing this tripod. Also, if possible, it would be wonderful to replace the Discovery scope with a newer one that is more stable and has clearer optics. In addition to aiding visitors, this would facilitate easier reading of band numbers on the birds. It would also be helpful to have a small Swiss Army knife with screwdrivers in the pack since sometimes it is necessary to retighten the screws on scope mounts, etc.

Communication

It would be helpful if a periodic meeting were scheduled among the various individuals who are conducting the interpretive program in a given season. Although essential information was communicated by the intern in written form to other interpreters, it is important for people with common goals to come together and meet to discuss problems and ideas. This is especially true for interpreters who are only on site once a week. For example, I only met Anne Smallidge once during the whole season, although she presented the program each Thursday and I communicated

with her in writing on a weekly basis. An occasional meeting would help all involved parties to feel they are an integral part of the program, and would provide a forum for expressing suggestions or communicating problems. This meeting need not take place often, just three or four times per season would be sufficient.

Public Relations

Although there was a lot of media coverage about the falcons during the 1997 season, much of it related to negative aspects such as the trail closures or the unfortunate banding accident at Jordan Cliffs. Since the media seems interested in reporting on the falcons, I recommend that more press releases dealing with the positive aspects be conveyed to the printed media especially. For example, the young falcons' first flights is one obvious story that could have been written.

Appendix IV Summary of Daily Observations: Precipice Peregrine Falcons, 1997

Appendix I: Graphs of 1997 Visitor Statistics

Figure 1: Weekly Visitors Per Hour, May to August 1997

Precipice Peregrine Falcon Program

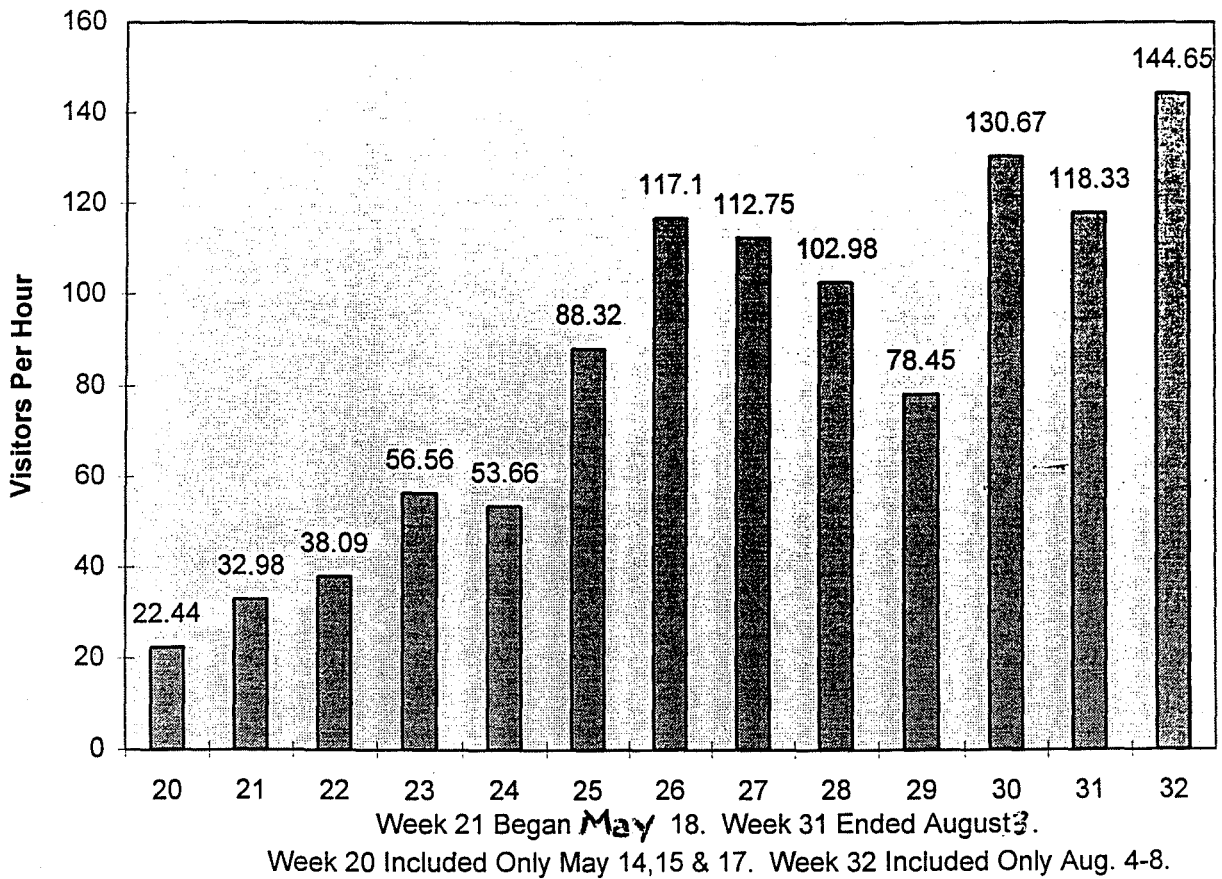
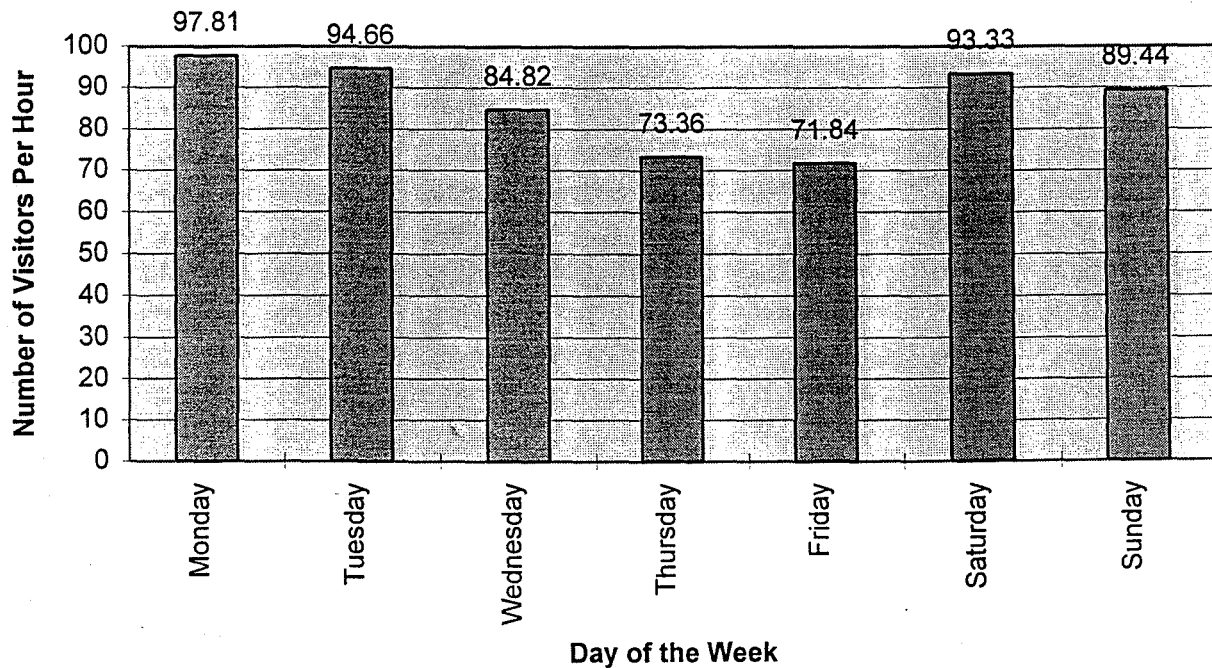


Figure 2: Average Number of Visitors per Hour by Day of the Week

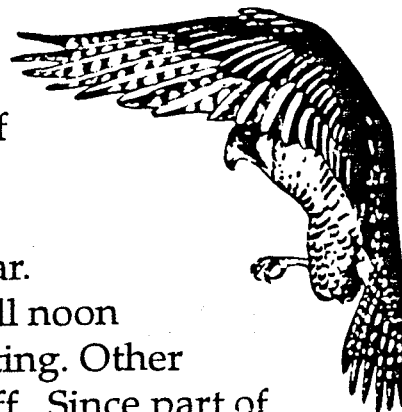
Precipice Peregrine Falcon Program



The View from the Aerie

May 20, 1997

Since this is the first of many times you'll hear from this season, I'd like to introduce myself to those of you who may not have met me. My name is Lisa Angelos and I'll be the Peregrine Falcon Monitoring and Interpretive Intern this year. You can find me at the Precipice from 9:00 a.m. till noon Saturdays through Wednesdays, weather permitting. Other folks will be covering the program on my days off. Since part of my job is to keep the staff informed of the activities of the peregrines, I would be happy to answer any questions and would welcome reports of interesting falcon behaviors that any of you may observe.



I am excited to report that the young falcons at the Precipice hatched on May 18, just one day earlier than was predicted. Although the young are not yet visible, and we don't know how many there are, the behavior of the parents indicated the hatching date. The parents have been more active, calling to one another and providing wonderful viewing opportunities as they exchange food mid-air. The female has been observed facing into the nest bobbing up and down as she feeds the young. The male is actively defending the cliff and was seen chasing both an Osprey and immature Bald Eagle out of the area this past week.

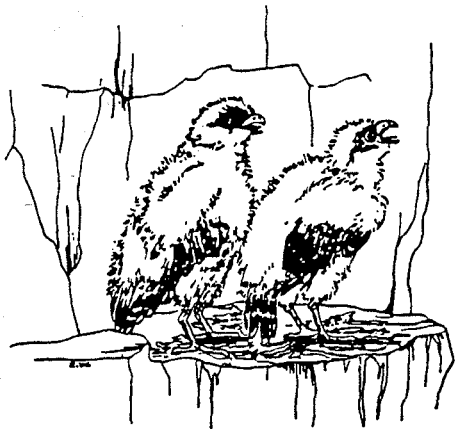
The Jordan Cliffs and Beech Cliffs pairs are still incubating eggs, which are expected to hatch May 25th and 26th, respectively. Bruce Connery reports that the Jordan Cliffs pair has been perching on the cliff regularly, making them fairly easy to see. The Beech Cliffs male is more reclusive, perhaps due to his recent injury. He is recovering, though, is flying well, and was even seen chasing another raptor. The female of the Beech Cliffs pair is easily observed on the nest as she incubates her eggs.

As a reminder, the males of all 3 pairs are banded. Partial information on the Precipice male's band leads us to believe this is again Ganesh. The identity of the other two males is not yet known. The female at Jordan Cliffs is definitely unbanded, and the status of the other two females is as yet unconfirmed.

--Lisa Angelos

The View from the Aerie

May 28, 1997



As of this writing, the eyases at the Precipice are 10 days old. On their eighth day, May 26, I got my first glimpse of white fluff and bobbing heads in the nest. I saw two nestlings, but at this time cannot be certain that there are not more. They are still very young and not too active yet, and the nest entrance is obscured by part of the raven nest they are using, as well as by the foliage of a small sapling. I can't adequately describe the excite-

ment I felt seeing the young falcons, and knowing that their destiny would be to help repopulate an endangered species. It is wonderful that Acadia National Park has been able to participate in the effort to reestablish these magnificent birds, and I feel proud to be part of it, even in a small way.

The holiday weekend increased visitation at the Precipice significantly and viewing opportunities were excellent. With the young over a week old now, the parents are free to perch away from the nest in more visible locations. The adult falcons were particularly cooperative over the past week, and on some occasions perched for over an hour at a time in a single location. The feeding of the young has also been a popular activity for visitors to observe, and I sensed that most people were genuinely excited to hear that the young had hatched. Soon they should be visible from the Precipice parking lot.

Speaking of hatching, the young at both Beech Cliffs and Jordan Cliffs have arrived over the past week! Feeding behavior was observed at both sites, and Bruce Connery caught the first glimpse of the young at Beech Cliffs today. As with the Precipice, only two eyases were observed, but there may be more. Time will have to tell. We expect the nestlings at all three sites to be banded with the cooperation of the U.S. Fish and Wildlife Service sometime in early June.

I learned a lot of new things this week at the Precipice, including that the first child born after the Mayflower landed in the new world was named Peregrine White, and that a falcon can indeed be mistaken for a cat! This was much to the chagrin of an alarmed visitor who was certain a feline was eating the young. I have to admit, they got me to look, but I was happy to report it was merely the parent perched on the nest's edge. I'd like to see you at the cliff—as you can see, you can never tell what you might hear or observe!

--Lisa Angelos

The View from the Aerie

June 4, 1997



This week has been a great one in terms of both weather and Peregrine Falcon viewing. As we enter June, the numbers of visitors coming out to the interpretive program at the Precipice has been increasing. Over the past week, very few of those visitors had to leave disappointed over not having been able to see a falcon. The adults have been perching quite regularly on the cliff face, often for long periods. The young are now two and a half weeks old. They have been gaining strength and becoming more active. As a result, they were visible from the parking lot for the first time on May 31,

during feeding. But that is not the only excitement. On June 2, I observed a third chick in the nest for the first time. I had only been seeing two, but on this particular morning, I set up my scope to focus on three very active chicks moving around on the nest!

Chicks are progressing in their stages of development at the other two sites as well. The two that hatched on Beech Cliffs are very physically active, and have been observed tossing, grasping one another's beaks, and opening their wings. Only one chick has been spotted at Jordan Cliffs, but the scrape there is difficult to see into, as it is partially obscured by a rock. Time will tell how many total offspring there are.

That time is actually soon approaching. It has been confirmed that the U.S. Fish and Wildlife Service will be visiting the park on Thursday and Friday, June 12th and 13th to band the youngsters from all three sites. At that time, we will get a definite confirmation of the number residing in each of the scrapes. Look for details on the schedule in the next newsletter, if you are interested in witnessing this event.

Visitors are not the only ones getting a chance to enjoy the beauty of the Peregrine Falcons. One of the birds from the Beech Cliffs pair apparently put on quite a show for Superintendent Haertel. The falcon was flying gracefully beside the window of his car as he was driving, giving him a particularly good view of the bird's fantastic aerial abilities. May you all have such encounters, and may the weather and falcon viewing opportunities hold for the coming week!

--Lisa Angelos

The View from the Aerie

June 16, 1997

As planned, on June 12th and 13th, Mike Amaral from the U.S. Fish and Wildlife Service visited Acadia to band the young Peregrine Falcons. Due to time constraints, he could visit only two of our three sites. Chicks were banded at the Precipice on the 12th and at Jordan Cliffs on the 13th. The Beech Cliffs site was not chosen for banding due to its relative difficulty to reach by climbing.

The banding team consisted of Mike Amaral who is a very experienced bander, a local climber familiar with the cliff, and a photographer. At the Precipice, the team used extra precautions since one chick was walking around outside the nest (an activity I often observe). The first approach was abandoned and another route selected to prevent the chicks from leaving the nest area. Three chicks, one female and two males, were banded and estimated to be 28 days old. The female was present and agitated during the process, a good demonstration of why we close the trail. Heavy rain slowed the team's descent, but contact was kept to a minimum. The female returned to the nest shortly afterward.

It is often my duty to inform the park staff of all of the good news about the falcons, but I'm afraid sometimes I must also share some unfortunate news. Three young chicks estimated to be 18 days of age were found at the Jordan Cliffs site. As the climber approached the scrape, he was under constant attack by the adult female falcon. After seeing the chicks and noting that they were very young and unlikely to try to escape, the climber removed his pack and began to secure his own location by placing protection into the cliff. The three chicks were initially huddled together, but at this point one ran off the scrape ledge and died from the fall. The climber immediately placed his jacket on the outside edge of the scrape encircling the remaining two chicks. Neither of these two chicks made any attempt to flee from the scrape. Biologists have experienced that chicks less than 20 days in age are less aggressive and more likely to remain in the nest or scrape, regardless of disturbance or type of intrusion. The loss of the chick at Jordan Cliffs is extremely unusual, especially given the chick's young age. Approximately 235 chicks have been banded since 1990 when the current field-readable banding program was initiated, and this is the first mortality. The other two chicks were successfully banded and the female bird returned to the nest shortly after the completion of the operation. All three chicks were male.

While we are, of course, saddened by the loss of the chick at Jordan Cliffs, we must remember the importance of banding in falcon recovery efforts overall. As noted, the risk of mortality is extremely low, and the information that can be gained from banding is very important. By being able to offer tangible evidence of the activities of particular birds via confirmed band readings, we are able to demonstrate the success of the falcons, and can justify continued protection efforts. For example, two female chicks banded at the Precipice in 1994 are now known to be raising chicks of their own at two sites in New England (Boston, Massachusetts and Slate, New Hampshire). This illustrates how the productivity of the Precipice pair (23 chicks since 1991) is important in establishing breeding pairs in New England and is assisting with the Peregrine Falcon recovery for the region.

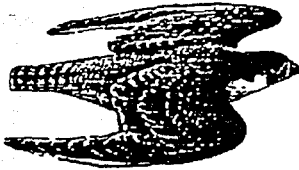
Remember the positive. Acadia National Park has three pair of falcons nesting here for the first time on record. As we go about our daily business, these birds are spending their energies high on the cliffs that surround us, raising seven young chicks that may some day have families of their own. Not bad for a species once totally absent from the Eastern United States. With our help, the falcons are at home in the Eastern skies again. If you get a chance, stop by for the interpretive program being conducted daily at the Precipice parking lot between 9 a.m. and noon and see for yourself.



Lisa Angelos

The View from the Aerie

June 24, 1997



I have lots of good news to report this week. The chicks at the Precipice are growing up so fast I can hardly believe it. In fact, they are so grown up, they have fledged! Two of the three chicks took their first flight on Saturday, June 21st. I didn't see the third fly until Sunday, although I expect it may have, since it was spending a lot of time staring over the cliff edge and looking ready to take off on Saturday. Based on the estimated age at the time of banding, the chicks

were 36 days old on the 21st. Visitation was at a record high for the season this weekend, exceeding 500 people both days. This was wonderful, since so many people got to watch the fledging. It was especially gratifying for repeat visitors who have watched the young develop from balls of fluff to fully feathered birds over the past five weeks.

I've heard lots of reports about clumsy young falcons, but these birds must have been practicing when I wasn't watching, because even the very first flights I observed were relatively graceful. The young falcons do flap their wings more than the adults, but other than that, they are doing quite a good job already. It is still easy to tell them apart from the adult birds due to a difference in size and coloration. The young are smaller, of course, and they have browner plumage on the head and breast where the adults would be bright white. Since flying, they have been spending virtually no time at the nest site, preferring to perch on obscure ledges high on the cliff face. Nonetheless, they have been quite visible. As soon as an adult enters the area, they call loudly and chase after it begging for food. At some points over the past few days, I've seen the two adults and all three chicks in the air at once. Quite a show! Although they are not yet hunting, the chicks are able to eat prey on their own. The adults typically will drop food off on a ledge somewhere on the cliff and fly off immediately, leaving the chick to enjoy its meal. The young birds will continue to associate with the cliff for several weeks, while they learn to fly more efficiently and to hunt for food. During this period, the adult birds will continue to supplement the chicks' diet.

I spent some time monitoring the Beech Cliffs birds this past weekend, which brings me to the next bit of good news. We had believed that there were only two chicks at this site, but I definitively spotted a third. All three look healthy and strong. This brings the grand total of chicks in Acadia to eight. The Beech Cliffs chicks are about a week behind the Precipice, in terms of development, and are expected to fledge in the first week of July. The Jordan Cliffs chicks are the youngest and will fledge last.

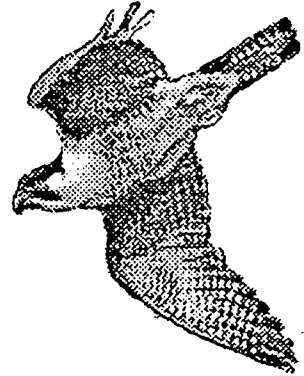
The interpretive program continues to be offered daily at the Precipice parking lot from 9 a.m. till noon. If you have a chance, come on down and enjoy the birds.

Lisa Angelos

The View from the Aerie

July 2, 1997

I have lots of news to report this week. As you know, the young falcons at the Precipice have been taking flight since the first day of summer, June 21. They seem to be doing quite a good job of things, considering how short a time they have been on the wing. Nonetheless, there are still differences between the way the young falcons and the adults behave in the air. First off, the young birds do flap their wings much more. And although they look graceful while in the air, landings still leave a lot to be desired. Often I will see one flying toward a rock or snag on the cliff, with talons extended, ready to land. Suddenly, the bird realizes the distance has been misjudged and will loop around for a few more approaches before finally getting it right. It has been a joy to watch them over the past week, as their skill level improves each day. They frequently fly together and have taken to tracking one another in the air, within a few feet of each other. They have been practicing the maneuver used in aerial food exchanges where talons are locked in the air. So far, no actual food has been passed between them or from the adults to the young, but they are testing out their abilities. The adult birds continue to bring food to the cliff for the young. There is no doubt when this is occurring, since often all three young birds will chase and call the parent incessantly, until the delivery is made. Today, for the first time, I saw two of the young birds attempt to hunt by pursuing some goldfinches in the meadow. A good effort was made, but alas, it was not successful. All in good time. Before we know it, these birds will be as accomplished as the adults in catching food.



Careful monitoring has been underway at both Beech Cliffs and Jordan Cliffs this past week. Concern had arisen that perhaps only the adult female bird was still returning to Beech Cliffs. Although the adult male bird has not been observed recently by the monitoring team, the lifeguards for Echo Lake have reported seeing both adults in the area later in the day. It is not only the Precipice chicks that are taking to the skies. Today, all three young birds at Beech Cliffs fledged. We anticipate the same will occur at Jordan Cliffs within the next week.

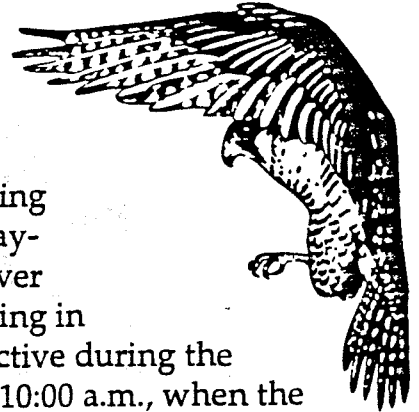
My final paragraph this week is dedicated to drama surrounding the Peregrine Falcons in the park. This week, Glen Mittelhauser of Resource Management received and responded to a few calls about the birds. One call was a report from Petit Minan that a male falcon, believed to be from the Precipice, had shown up on the island and was dining on terns. Close monitoring will be done to determine if it is indeed the Precipice male, and to judge effects on the terns. The other call was a report that a dead peregrine falcon was seen floating in Jordan Pond! Although we regret the demise of the Herring Gull Glen found when investigating, we are happy it was not a falcon that was discovered. For even more drama, come on out to the Precipice and watch awhile. The interpretive program continues to be offered from 9 a.m. till noon daily, weather permitting.

Lisa Angelos

The View from the Aerie

July 8, 1997

Another good week has already passed. Interesting things have been happening at the Precipice, and visitors have had ample opportunity to view the falcons. The young birds are spending a good deal of time soaring directly above the cliff and practicing their flying and hunting skills. They are also becoming more comfortable about straying a bit farther away from the cliff, sometimes flying off over the meadow directly across from the parking lot and perching in dead snags. During this past week, they have been most active during the later portion of my program, tending to lay low until after 10:00 a.m., when the cliff begins to warm up. Once they do come out, they often stay in the air for much longer periods of time than the adult birds. Their practice has paid off and one of the young falcons was observed successfully hunting for itself during the past week. Jonathan Gormley reports that once the bird caught its prey, it seemed unsure quite how to land with something in its talons! The bird eventually figured it out and enjoyed a tasty meal amidst the begging cries of its siblings. The young falcons are beginning to exhibit the same intolerance for other birds that the adults have. I have seen them ganging up on an immature bald eagle and chasing no less than five turkey vultures that arrived in a group one morning. This group got increasingly smaller as the falcons drove them off, one by one. The adult birds are still returning to the cliff and feeding the young birds, but are not seen nearly as often as they once were.



The Beech Cliffs young have been in the air for just a week now and visitors have reported them to be easily observable. Soon enough they too will be hunting. This week, the chicks fledged at Jordan Cliffs as well. All eight of the young birds have successfully crossed the hurdle of fledging! I've already seen a juvenile from Jordan Cliffs straying from the cliff and crossing the Park Loop Road near Eagle Lake.

If you get a chance to visit the Precipice for the interpretive program between 9:00 a.m. and noon daily (weather permitting), you may see a new face. Nikolai Maleshin will be assisting me on Mondays and Jonathan on Fridays. We will both appreciate having the help, and the extra eyes to keep track of the falcons. Both Nickolai and the visitors are already enjoying one another's company. Come on down and see us, and enjoy the beauty of the falcons in the air.

Lisa Angelos

The View from the Aerie

July 15, 1997



This week provided a few more challenges in Peregrine Falcon viewing. The Precipice birds are old enough now that they are spending more and more time away from the cliff, and are not as reliably seen. Nonetheless, many visitors still were able to get good looks at them, either in the air or in some of their more obscure perching places. Weather has much to do with the activity of the young birds, and the best time to see them is on a relatively cool, clear and windy

day. This is when the young birds are most likely to take to the air and put on some beautiful performances of their newly acquired skills. When they are not in flight, they are now commonly seen perching on dead trees at the far side of the meadow across from the parking lot.

The young birds at the other two sites are not straying as far from their home base yet, so they are often observable near their cliffs. This is especially true for the three young Beech Cliffs birds, which can be watched easily from the Echo Lake Beach. Also, the potential for an unexpected encounter with a falcon at other locations in the park increases each day. The birds have been reportedly seen near the Entrance Station, over Eagle Lake and along Ocean Drive near Thunder Hole. So, when you're out and about, keep your eyes and ears open and you may see a falcon.

The interpretive program is still being conducted at the Precipice from 9 a.m. till noon daily, weather permitting. Since the birds could potentially leave the cliff within the next few weeks, the time remaining is short. If you get a chance, come on down and see us and take a look at the falcons before they venture out on their own.

Lisa Angelos

The View from the Aerie

July 23, 1997

After last week, I thought perhaps my days of extensive Peregrine Falcon viewing at the Precipice were drawing to a close. This week proved me wrong. The weather was excellent all week, and the falcons were very present at the cliff. The juvenile birds are still spending a lot of time flying, and offering wonderful opportunities to appreciate their grace in the air. Over the past several days, they have also been perching on the cliff more than I have seen them doing for awhile. At one point, I had the scopes set on two birds perched in the same tree for over an hour! Life is good. This makes the visitors happy, and consequently makes my job much more fun. On Saturday, people also got what is a now a very rare chance to take good looks at the adult male falcon. He also decided to do me the favor of perching on the cliff for quite some time. As I've mentioned in the past, the adult birds are not spending too much time on the cliff these days, preferring to avoid the begging of their offspring. Having the male adult hang around for awhile was quite an unexpected treat, especially since this is the bird that is suspected to be showing up on Petit Minan on a daily basis to dine on assorted seabirds, notably Laughing Gulls. Several people were also able to observe the aerial food exchanges taking place between the adult bird and the young over the past few days. All of this was occurring during a week with high visitation, so lots of people could share in these experiences.



Even though the falcons have been very active at the cliff this week, the young birds are getting to the point where they may begin to consider leaving for the season. They have been in flight for over a month now, and could potentially be expected to depart after another week. We have scheduled the first dawn to dusk watch of the Precipice cliff for July 28 to determine the presence or absence of the young. We will continue this until a watch indicates that no young falcons are using the cliff. At that time the trail will be reopened. I will keep you posted on this situation. Similar watches will be conducted at the other two sites during early August.

My exciting viewing opportunities were not limited to the Precipice site this week. Volunteer Ben Coolik and I had a great time at Beech Cliffs getting a special glimpse into Peregrine Falcon behavior. The young birds there are very active right around the cliff. On one particular morning, we had the chance to see two of them land on the shoreline of Echo Lake, wade in to drink, and then bathe. They used their beaks to throw the water over their backs and then shook their feathers, repeating the procedure several times before their bath was complete. If you can't make it down to the Precipice for the interpretive program which continues to be offered from 9 a.m. till noon daily, perhaps you can visit the Beech Cliffs site or take a hike on Penobscot Mountain, where I hear the Jordan Cliffs birds are putting on a show for hikers.

Lisa Angelos

The View from the Aerie

July 30, 1997



As of this writing, all eight of the Peregrine Falcon juveniles are still residing in Acadia National Park. We had originally scheduled the first dawn to dusk watch of the Precipice cliff for Monday, July 28. It was apparent by the preceeding weekend that this was not yet necessary.

The young falcons were, and still are, associating closely with their home cliff. They continue to visit the Precipice on a daily basis, and are being observed flying together and perching on the cliff. A pattern of food drops from the adult birds was also observed on almost a daily basis this week, confirming that the young birds have not yet developed the independence necessary to set out on their own.

Although the birds are definitely still around, viewing opportunities have been somewhat erratic. Long periods of inactivity are often followed by several hours with the falcons present at the cliff. During times when they are present, they have been displaying a variety of behaviors including flying in tandem, exchanging food between adults and juveniles, plucking of prey, feeding, preening, and simply perching on the cliff. Visitation was high this week, and the continued presence of the falcons gave lots of people an additional memorable experience in the park.

Based on the assumption that the falcon observations will lighten in the coming week, we have tentatively rescheduled the first dawn to dusk watch of the Precipice cliff for Monday, August 4. If, for some reason, the young falcons are still being seen regularly, we will postpone the watch again. Continued monitoring will be carried out at Beech Cliffs and Jordan Cliffs to determine when the watches will be conducted at those locations as well. For now, the interpretive program continues to be offered in the Precipice parking lot from 9 a.m. till noon daily, weather permitting. If you haven't yet seen the young Peregrine Falcons, hurry on down for a last chance look before they're gone, if you can.

Lisa Angelos

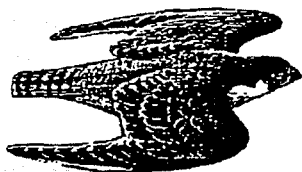
The View from the Aerie

August 6, 1997

In recent days, no young Peregrine Falcons have been observed near the Precipice during either the morning monitoring or the interpretive program. A dawn to dusk watch of the cliff is scheduled for Monday, August 11. This all day observation will confirm whether the young falcons have left Acadia for the season. Similar watches will likely be conducted at both Beech and Jordan Cliffs within the near future, although to date, young birds are still being observed at those sites.

Both the adult male and female falcons have been observed at the Precipice on a regular basis over the past week. As is typical of late season behavior when the young falcons are not frequently seen, the adult birds are returning to some of their favored perches on the cliff to enjoy some peace and quiet.

Based on the assumption that no young falcons will be observed on the cliff during the latter part of this week, the final date for the interpretive program in the Precipice parking lot is planned for Friday, August 8.



Lisa Angelos

The View from the Aerie

August 14, 1997



I can scarcely believe the entire season has come and gone, but I look at my calendar and alas, it is the case! The immature falcons that were raised at the Precipice were last observed in early August. A dawn to dusk watch of the cliff was conducted on August 11, confirming our suspicions that indeed the young falcons have set out to explore the world. I have to admit, I feel somewhat maternal toward them after watching them grow up, and find myself occasionally worrying about them out on their own. They seemed to be extremely healthy, and were receiving excellent parental care, right up until their departure. They had been receiving food dropoffs from the adult birds for the entire week preceeding their disappearance from the Precipice cliff. They are as well equipped as any falcons could be before setting off on their journey, and I am hopeful that we will some day hear reports of them nesting in territories of their own. Once it was determined that the immature falcons were gone, the closure signs were removed and the Precipice Trail was reopened on August 13. If you've been waiting all season, now is your chance to climb. The adults birds are still in the area, so don't be surprised if you find yourself face to face with a falcon!

The juvenile falcons at both Beech Cliffs and Jordan Cliffs are still associating with their cliffs at this time. They will likely be leaving Acadia after I do! A dawn to dusk watch was attempted at Beech Cliffs on August 12, but a juvenile was spotted early on, and the effort was discontinued. Bruce Connery and Glen Mittelhauser of Resource Management will be keeping an eye on the cliffs, and determining the most appropriate time to schedule the watches. Of course, the Beech Cliffs and Jordan Cliffs trails will remain closed until it is determined that the juvenile falcons have departed from those areas.

I have truly enjoyed my time in this beautiful place that some of you are lucky enough to call home. I am thankful for the wonderful opportunity that I have had to get a very intimate glimpse into the behavior and lives of the Peregrine Falcons. I wish Acadia National Park continued success in their efforts to protect these magnificent creatures. I've enjoyed the people here at Acadia as well as the birds. The ANP staff has been nothing but friendly, welcoming and helpful. I've enjoyed communicating with all of you and hope that you have enjoyed my weekly updates. I hope that, like the Peregrine Falcons, I too will some day return to Acadia.

Lisa Angelos

BANGOR DAILY NEWS • THURSDAY, FEBRUARY 27, 1997

Audubon wants biologists to decide protected species

By Andrew Kekacs
Of the NEWS Staff

Wildlife biologists, not legislators, should determine which animals are included on the state's list of threatened and endangered species, according to the Maine Audubon Society.

Renewing a 2-year-old battle over the state's endangered species act, Maine Audubon is strongly backing a proposal to let the commissioner of the Depart-

ment of Inland Fisheries and Wildlife decide whether a species is threatened with extinction in Maine.

The commissioner had that authority until 1995, when the Legislature gave itself the sole power to determine which creatures should be protected. At the time, legislators feared that environmental groups would use the state's endangered species act to restrict land use in Maine.

"When you look carefully at the

legislative debate [in 1995], over and over again they refer to economics," said Sandra Neily, a

Legislature has had authority since 1995

lobbyist for Maine Audubon. "That's not the way to set state policy [on endangered species.] A listing should be a scientific state-

ment about the health of the population."

The Audubon bill, LD 580, is sponsored by Rep. Robert F. Fisk Jr., R-Falmouth. Fisk wasn't available for comment Wednesday.

The Sportsman's Alliance of Maine will testify against the bill, according to George Smith, its executive director.

"We supported the move [in 1995] to allow the Legislature to have final authority over listing,

because it's really about more than just science," said Smith. "You have to weigh various economic and environmental issues, and we thought the Legislature is the appropriate place to do that."

Neily said opponents of the bill have no reason to fear that listing more creatures will cause economic hardship in Maine.

"You'll hear a lot about the spotted owl," she said, "but we've already had [a similar situation

See *Protection*, A4, Col. 1

Audubon wants biologist oversight of species list

Protection, from A1
with] bald eagles. There is nothing more difficult to protect, but no development was ever stopped and the economy was never affected [by Maine's efforts to protect eagles.]

Alan Hutchinson, leader of the endangered species program at the Department of Inland Fisheries and Wildlife, said his agency was remaining neutral on the Fisk proposal.

But IF&W has submitted its own bill, LD 789, which asks the Legislature to triple the number of creatures on Maine's endangered species list.

Among the 23 candidates for inclusion are the peregrine falcon,

the flat-headed mayfly, the lamp-mussel and the Atlantic puffin. The department also wants to change the classification of two animals already on the list — the roseate tern and Blanding's turtle — from threatened to endangered.

"We're talking about things that are extremely rare," said Hutchinson. "With just a little recognition, there's a good chance we can prevent them from disappearing."

Mayflies, mussels, moths and other invertebrates have never been included on Maine's endangered species list before, and SAM opposes their inclusion.

"We think IF&W is having a real problem in prioritizing its work," said Smith. "Just look at wild brook

trout. The department was forced to apply for a grant ... to find out if we have any genetically pure brook trout left. Here is one of our most majestic treasures, yet we have no idea if it is being affected by stocking. Instead, they want to spend time and money on insects."

According to Smith, there are 16,000 insect species in Maine. Some of their numbers are declining not from human impact, he said, but because they have lost the evolutionary race.

Maine Audubon, however, argues for the expanded list. "The listing protects these species from being killed or captured," said Jennifer Cost, a staff attorney. "The state is saying, after a care-

ful biological analysis, that these species need protection."

According to Hutchinson, Maine has successfully used education and cooperative agreements with landowners to protect declining species. "In the history of endangered species in Maine, there is no example where you see the kinds of things people are fearful of," he said. "In fact, the best way to prevent a [problem like the] spotted owl is to deal with these things ahead of time."

The Legislature's Inland Fisheries and Wildlife Committee will conduct a public hearing on both bills at 9:30 a.m. Friday in Room 113 of the State Office Building in Augusta.

Falcons spotted

by Anne Kozak

ACADIA NAT'L PARK — For the last few weeks, spotters have regularly seen two peregrine falcons and on occasion a third in the Precipice Trail area, said park naturalist Bruce Connery.

Peregrines have also been sighted near Echo Lake; however, Mr. Connery said it is still too early to tell whether they are the same peregrines or another pair.

Unofficial sightings of falcons began coming in last month.

Last year peregrines successfully nested at both sites. The pair at the Precipice had three chicks, all of which were banded, while the pair at Beech Cliff had at least one. When the chick at Beech Cliff was old enough to be banded, there were neither U.S. Fish and Wildlife Service personnel available nor were weather conditions favorable. As a consequence, park biologists did not determine the exact number of chicks.

Park officials have not formally closed the Precipice Trail as it is

■ see **FALCONS** page A3

FALCON ■ from page A1

inaccessible because of ice, and in part because the birds have not yet begun to exhibit mating and nesting behaviors. Once the pair does, the trail will be closed. Mr. Connery does not expect that to take place until more prey arrive in the area, sometime in April.

Many migratory peregrines pass through this area, said Mr. Connery, and the third bird could be migrating north. A feasibility study conducted in the mid-1980s before the park participated in the peregrine reintroduction program showed that

the area had enough available food for two nesting pairs.

Other peregrines have been sighted near the Hancock/Sullivan Bridge and at sites north of MDI. ■

THE BAR HARBOR TIMES, BAR HARBOR, MAINE, THURSDAY, MARCH 27, 1997



Heidi Doss

Heidi Doss, assistant environmental education coordinator, Acadia National Park, was the guest speaker at the Mount Desert Isle Chapter DAR March meeting. Ms. Doss spoke on the youth programs, past and future, and presented a video which included the young eagles and falcons.

Peregrine falcons return to Acadia National Park

Nesting, egg laying prompt closure of hiking trails

By Kathy Holliman
Of the NEWS Staff

ACADIA NATIONAL PARK — Peregrine falcons have returned to Acadia National Park again this year, prompting closure of three popular hiking trails in the park for several months.

Nesting peregrine pairs apparently have settled in for egg laying and chick raising on Champlain, Penobscot and Beech mountains and are actively defending their nesting territories, park biologists reported this week. To protect the birds from disturbance or harassment, the Precipice Cliff Trail on Champlain, Jordan Cliff Trail on Penobscot, and Beech Cliff Loop Trail will be closed to hikers until

mid- or late August.

Park officials will post signs and maps at trail heads, parking areas and visitor centers about the closures. The Beech Mountain trails that will remain open are Beech Cliff Ladder Trail, Canada Cliff Trail, Valley Trail and the Canada Cliff Climbing routes.

Deputy Park Superintendent Len Bobinchock said Tuesday the nesting pairs could lay eggs as early as next week. The trails must remain closed until the young birds are independent of their parents and nesting territories.

The falcons, nearly driven to extinction because of pesticides and habitat loss, have made a strong comeback in the eastern United

See Falcons, B6, Col. 1

Peregrine falcons prompt trail closure in Acadia

Falcons, from B1

States, including the three Acadia locations. The park was selected as a reintroduction spot for the birds in 1984, when young captive-bred peregrines were released from the cliff above Jordan Pond.

By 1991, the first pair of peregrines had successfully nested on Champlain Mountain, and have returned annually to raise young. In 1995, a second pair established a nest on Beech Cliffs, returning the following year to raise one chick. A third pair attempted to nest at Jordan Cliffs last year, but was unsuccessful. Twenty-one chicks have been raised in Acadia over the last six years.

The birds are particularly sensitive to human disturbance that comes from immediately above their nesting area or directed at the nest site. Harassment can lead to nest failure and loss of chicks.

This weekend, on April 19 and 20, a major portion of the paved Park Loop Road will be restricted to bicyclists and pedestrians. If the weather permits, all of the park's roads will be open to motor traffic beginning April 20. Bobinchock said he expects the carriage roads will be closed this weekend, and possibly into next week, due to the mushy surface of the roads.

THE ELLSWORTH AMERICAN, ELLSWORTH, MAINE, THURSDAY, APRIL 17, 1997

Acadia Trails Temporarily Closed

Acadia National Park: Several trails will be closed again this year to protect the nests of endangered peregrine falcons. The Precipice Cliff, Jordan Cliff and Beech Cliff Loop trails will all be closed until the young birds are hatched and ready to leave the nest, probably in mid- to late August.

Favor three sites Peregrine falcons

avor three falcons

■ see **FALCONS** page A3

avor three falcons

by ACADIA, Inc. to protect the rare and endangered peregrine falcon, the eastern screech owl, and the beechnose nuthatch. The Beech Mountain Precipice Trail on Penobscot Mountain, the Jordan Cliffs Trail on Beech Mountain, and the Champlain Trail on Penobscot Mountain are also on the list.

ALCONS ■ from page A1

have laid eggs," said resource management specialist Bruce Connelly, "but all three pairs are actively defending nest sites — a sure indication that they will nest in past years, the pair at the ledge as a nesting site. This year, however, the peregrines appear to be using different rock ledges as a nesting site. In past years, the peregrines appear to be using the same ledge over and over again," explained Mr. Connelly, "but this year, the peregrines have used different rock ledges as a nesting site. This year, however, the peregrines appear to be using the same ledge over and over again."

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raves
Beed

For the last two years, the patients, such as those built by eagles and ospreys, said Mr. Conney, although birds will not use a stick nest.

Research has shown that nesting falcons are particularly vulnerable to human disturbance immediately above the nest site. Continued disturbance and the associated human presence at the nest site may be detrimental to the birds' breeding success. Cliff have used an appropriate

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chicks." lead to

These trails will remain closed until late summer after sage and park

THE

biologists determine that human activity will not adversely affect the young birds.

Committee Okays Additions To Endangered Species List

BY MARY ANNE CLANCY

AUGUSTA—Despite the opposition of sportsmen and property rights advocates, a legislative committee has approved the addition of 21 new species to Maine's list of threatened and endangered species.

LD 598 has yet to go to a vote by the full Legislature, but the bill won a unanimous ought to pass as amended recommendation from the Joint Standing Committee on Inland Fisheries and Wildlife, according to Rep. Royce Perkins (R-Penobscot).

Perkins said the committee vetoed a related bill that would have returned the decision-making on endangered species to the IF&W. The department had endangered species act authority until 1995 when the legislature passed a law designating itself as the decision-making body.

Perkins said he and several other committee members had some serious questions about approving the 21 new species, but supported the bill after IF&W representatives agreed to return to the committee when they entered into landowner negotiations to protect a species.

Maine's endangered species law has never resulted in the type of controversy that accompanied federal efforts to protect the spotted owl, according to Alan Hutchinson, IF&W's Endangered Species Group Leader.

"We have 2,000 people in the state of Maine who have endangered species on their land—some of them for 15 years, now," said Hutchinson. "That is what we told the committee. We asked them to look at what we'd done in Maine for the last 20 years and explained that we'd devised a problem-solving approach."

Hutchinson said Maine last added species to the list in 1986 and that followed

an extensive two-year review by scientists throughout both Maine and the Northeast.

"We took a comprehensive look at all wildlife in Maine and weighed that against criteria to determine the possibility of extinction," he said. "That broad look gave Maine a 10-year period of stability."

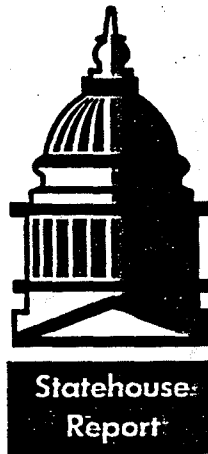
The department began preparing the present list of recommended additions five years ago, he said.

Among the 21 new species proposed for endangered listing are birds such as black terns, American pipits, and the Peregrine falcon. Insects proposed for threatened status include the Tomah mayfly, the Twilight moth and the Katahdin arctic butterfly.

Hutchinson said George Smith, the executive director of the Sportsman's Alliance of Maine, recommended the department not deal with anything but birds and mammals. That approach would have been "an evolutionary dead end," Hutchinson said.

When it comes to insects, Maine is actually witnessing evolution, as in the case of the Katahdin arctic butterfly, Hutchinson said. The parent population of the Katahdin arctic is up on Arctic tundras. Maine's butterfly is a subspecies that stayed on Katahdin when the glaciers receded 13,000 years ago. It is found nowhere else in Maine or New England, he said.

Perkins said SAM's objections to listing invertebrates was based on the fact that



most of the money for protecting endangered species comes from hunting fishing licenses. The organization wants the money to be spent on sport species.

One of Perkins' concerns is the variability of life stages of some of the species recommended for listing as threatened or endangered.

"When you put a fresh water mussel on the list that has a larval stage that is transported around by fish, you could be looking at restricting the tributaries where those fish are found," he said. "We have to be cautious about what we do and how it will affect the way that people can use the land."

Perkins said the department staff assured him that the intention was to protect the adult.

Perkins said he also questioned the need to put the species on what he sees as "a political list." The department staff gave him some very good answers, including the fact that some people have been stealing eggs, he said.

"We're trying to support people who are concerned about these species, things have to come back to us," he said. "I think that is the key."

Hutchinson said he believes the legislators should be proud of their decision, which was reached despite heavy pressure from SAM and property rights advocates.

Horror stories about the spotted owl and proposals to "take over the woods" led the legislature to take control of the state endangered species listing.

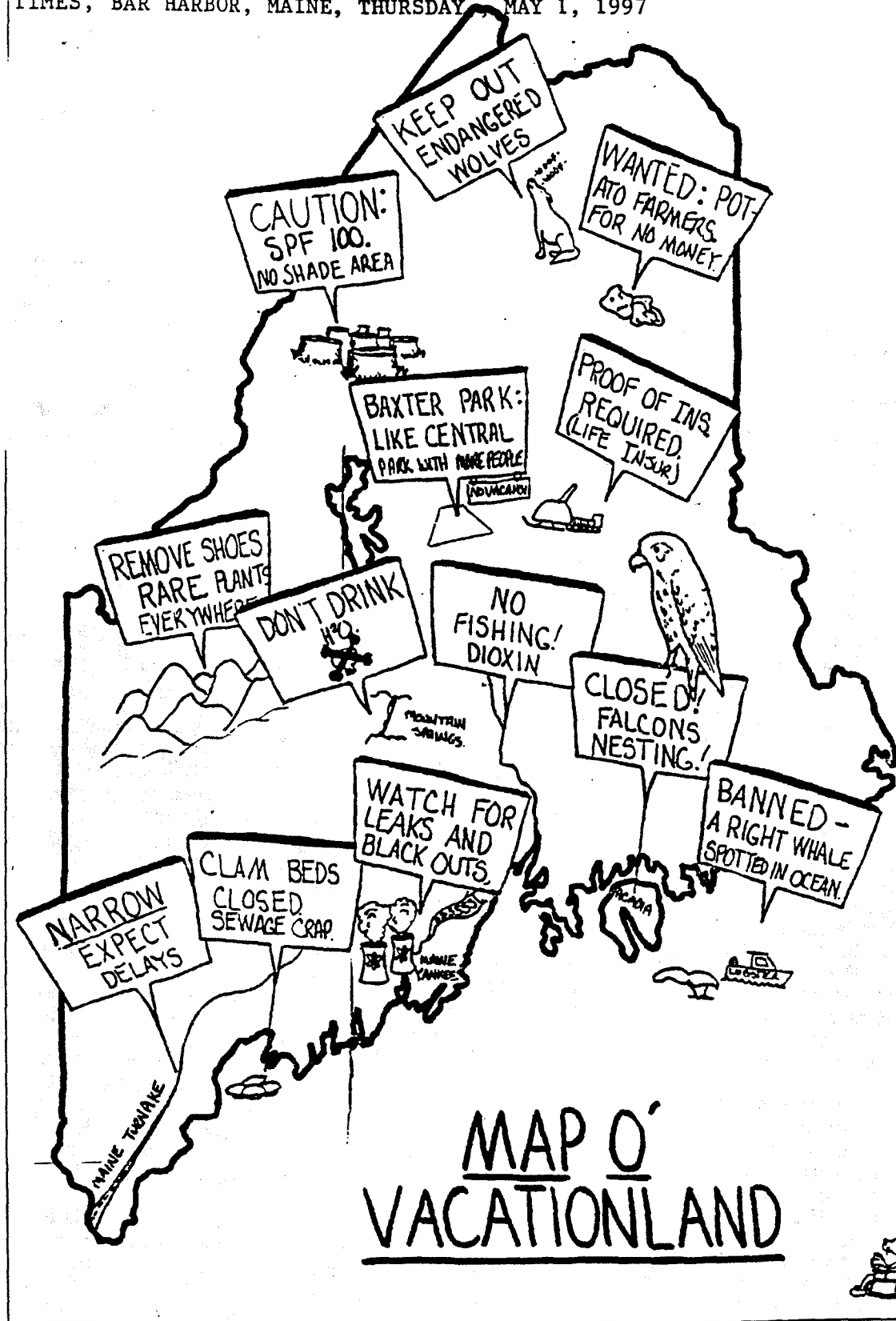
"We told them if anything was going to be Maine's spotted owl, it was the bald eagle," Hutchinson said. "The bald eagle has been on the state list since 1978 and it has never been a problem."

...e-year plan was to provide
 consistency for teachers, students
 and parents, and to avoid every
 type of upheaval that we
 are experiencing now.
 Laurel and Jay Robbins
 Somesville

Here we go again

the Editor:
 Today when I arrived home
 from work I received my copy of
 the April 24, 1997 *Bar Harbor*
Times, something I look forward to
 every week. I only got as far as
 page 6 where the letters to the
 editor and editorials were printed,
 and my reaction was one of "Oh
 here we go again." I got that
 feeling in the pit of my stomach
 that says something is not right
 here and I knew, without any of the
 hard facts before me, exactly what
 was happening.

I worked at Mount Desert
 Elementary School for 21 years as a
 teacher aide.



Proposed 1-2000 islandwide bus
 "road" project

HAUT
 SAND P.
 TO L.

THE BAR HARBOR TIMES, BAR HARBOR, MAINE, THURSDAY, MAY 1, 1997

ACADIA NATIONAL PARK

FEE STATION OPEN — Acadia National Park officials announced that the entrance station on the Park Loop Road will open on May 1. All federal passes and the Acadia annual pass may be purchased or obtained at the entrance station. The Acadia annual pass is \$20 and is good for a year from the date of purchase. The new, higher fee this year will be \$10 per car for four days.

PEREGRINES NEST — Resource management specialist Bruce Connery confirmed this week that three pairs of peregrines have nested in Acadia. The pair at the Precipice nested first — about 12 days ago — while the pairs at Jordan Cliffs and Beech Cliffs are approximately a week behind them. The hatching period, which is weather dependent, lasts about 33 days.

Bringing Back the Falcons Involves a Delicate Balance

BY ANNE PORTER

ACADIA NAT'L PARK— Once a natural part of the peregrine falcon's range, Maine is now home to only seven nesting pairs. Three of those seven pairs are raising families in Acadia National Park.

Naturalists know very little about most of the falcons that live here. They are shy, and easily disturbed by human contact, so the staffers at the park have kept their distance.

They know a little more, however, about one of the falcons which nests on the east face of Champlain Mountain, because he was released in the park as a chick.

Starting in 1984, naturalists used a process known as "hacking" to try to restore the peregrine falcon, which had completely disappeared from Maine in the 1960s. Peregrine falcons often return to nest in the same place they were raised, so naturalists hand-raised a number of chicks in strategically chosen spots around the state, hoping they would return and breed there.

One of the 24 birds released in 1986 was the male falcon who now spends his summers on Champlain Mountain. Many of the others never returned.

"Most of them we don't have any idea where they ended up," said Bruce Connery, a naturalist at the park.

The Champlain Mountain bird disappeared for a couple of years, then returned to the park in 1988. The next year, he was seen with a female falcon, and they both returned in 1990, but without nesting. Connery said he was not sure if the female was the same every year, but noted that falcons do often mate for life.

In 1991, they built a nest near the Precipice Cliff Trail and raised a family for the first time.

"We know he was a successful father in year five of his life," Connery said. Every year since then, he has returned to raise more chicks, 21 in all.

Some have been banded, so that naturalists can follow their fortunes. While none has yet returned to the park, one of his daughters turned up in Boston, where she built a nest on the Christian Science Monitor Building.

In the meantime, more falcons are beginning to nest in the park. Two years ago, a female with a Canadian band showed up on the western side of the island, near Beech Mountain. She returned last year with a male, but the male and their one chick disappeared soon after the chick hatched. Connery said a predator may have caught them, or the chick may have fallen from the nest. This year, a new pair has come back to the same area.

There is also a nesting pair at Jordan Cliff. They were spotted last year, but did not



A chick from an earlier brood at the Champlain nest site comes under careful scrutiny from researchers. Many of the chicks have been banded, so that their progress can be tracked.

nest. This year, Connery said, two of the three pairs have already laid eggs, and the third looks as if it is about to do so.

None of these birds belongs to the subspecies which was once native to Maine. That strain, ideally adapted to one small area, has been permanently lost. Instead, these birds are the result of a careful mix of genes from other American subspecies, in an attempt to come close to the original.

Observers, though, are cautiously hopeful that peregrine falcons are back in Maine to stay.

THE BAR HARBOR TIMES, BAR HARBOR, MAINE, THURSDAY, MAY 8, 1997

SOUTHWEST HARBOR

PEREGRINE PERILS — Police received a cell phone call Sunday from a concerned citizen who had come across an injured falcon while walking along Rocky Pasture Meadow on Fernald Point. Apparently the bird was sitting on a boulder by the side of the road and seemed to have an injured wing. Dispatchers notified Acadia National Park who sent ranger Rob Yates to the scene. As Ranger Yates approached, however, the bird took flight. It was later identified as the male of a pair of peregrine falcons nesting on Beech Cliffs. Since Sunday the male has been spotted at the nest sight, and does seem to be favoring a wing. "But he is tending to the nest and flying," says park interpretive ranger Paul Super.

EARLY SEASON

Ship Arrivals - At press time there was only one cruise ship scheduled to visit Bar Harbor in mid-June. On the 10th the *Regal Empress* will arrive at 9:00 AM and remain until 2:00 PM. This is her first visit of the 1997 season. Interested in the sea? The island's harbors offer many opportunities to see pleasure and working boats.

Holes in the Road - Plan for the construction on Route 3, near the head of the island. Take alternate routes when you can and allow for the inevitable delay. At the time we went to press, the plan calls for the area of construction to be **completely closed to all traffic on June 11 and 12**. Plan, Plan, Plan!

Trails CLOSED - Trails on Beech Mountain, Jordan Cliffs and the *Precipice Trail* on Champlain Mountain are closed until further

notice. The endangered peregrine falcons have returned to nest in these areas and the trails will be closed until they leave in midsummer. For those interested in these magnificent raptors, the park is planning to have staff available at the cliffs from 9:00 AM to Noon daily to answer your questions and help you get a long distance look.

New Businesses Everywhere - Check out the pages of the magazine, especially the *See & Do* section, and you will find a lot of great new opportunities to dine and be entertained.

Visit the Villages - The villages of the island each have a unique personality and all offer shops and restaurants worth visiting. Take the time to stroll through as many as possible. Check out page 29 for more details.

THE BAR HARBOR TIMES, BAR HARBOR, MAINE, THURSDAY, MAY 29, 1997

Acadia National Park

Joshua L. Jones, 26, of Blue Hill was summonsed by rangers on Saturday on a charge of violating a closed area. According to reports, Jones and a companion were spotted climbing on the Precipice Trail despite signs at the trailhead notifying visitors that the area is closed while endangered peregrine falcons nest nearby.

A man who rangers say was sitting around a campfire in Blackwoods Campground on Saturday smoking a marijuana cigarette was summonsed by rangers. Adam L. Walls, 20, was given a ticket on a charge of possession of a controlled substance. Rangers also confiscated the joint. ■

WMDI script 1

Good afternoon from Acadia National Park. This is Ranger _____ with an Acadia National Park update.

Learn more about your national park by joining a ranger for a hike, walk, talk, or boat cruise. Program schedules can be picked up at Thompson Island Information Center, Hulls Cove Visitor Center, and Park Headquarters. Programs will run throughout the season and into the fall.

The chicks have hatched! Join park staff at the Precipice Trail parking area any time from 9:00 am to 12:00 pm daily, weather permitting, to view one of Acadia's newest peregrine falcon families. Park staff have telescopes to help view the falcons close up, and lots of great information about the falcons' natural history and conservation. A ranger's tip: the lighting for viewing the nesting cliff is best before 11:00 am.

Curious about what role fire plays in the park? How the park tracks air quality and manages its natural resources? Visit the Nature Center at Sieur de Monts Spring where exhibits explore these questions and more. The Nature Center is open Saturday through Wednesday in June, from 9:00 am to 5:00 pm. No admission fee is charged.

Visit our site on the Internet at [www \(dot\) nps \(dot\) gov \(slash\) acad](http://www.nps.gov/acad).

Week of June 1 -7, 1997

kcb

Six falcon chicks hatch in Acadia

by Anne Kozak

ACADIA NAT'L PARK — Park officials said this week that three pairs of endangered peregrine falcons, nesting at the Precipice, on Jordan Cliffs and on Beech Cliff, have all successfully hatched a total of six chicks.

Three chicks have been observed at the scrape, or nesting site, on the

Precipice, two on Beech Cliff and one on Jordan Cliffs. Whether there is more than one chick on Jordan Cliffs will not be determined until U.S. Fish and Wildlife Service workers attempt to band the chicks on June 12 and 13. The scrape at Jordan Cliffs is partially obscured by a rock and difficult to see into.

This is the seventh consecutive year that chicks have hatched at the

Precipice and the third consecutive year for the peregrines at Beech Cliff.

Peregrine intern Lisa Angelos said that the chicks at both the Precipice and Beech Cliff sites have been very active, tousling, grasping at one another's beaks and moving their wings.

Chicks can only be banded during a short time window, said resource management specialist Bruce

Connery. Before they are 20-23 days old, they are too small and shortly after they are too aggressive.

Banding allows wildlife specialists to track the birds so that in addition to learning more about them specialists know how to help them in the event of an environmental catastrophe.

Limited isolated contact with the chicks does not place them at risk, ■ see **FALCONS** page A5

FALCONS ■ from page A1

said Mr. Connery. The advantage of banding chicks so they can be traced far outweighs the minimal risk.

Repeated contact, however, increases the risk exponentially. To protect the birds and to ensure the success of the nesting effort, the park has closed the Precipice Trail, Jordan Cliffs Trail and Beech Cliff Loop Trail. They will remain closed until mid-August when the chicks have successfully fledged.

Historically, peregrines nested in Acadia. In the mid-1950s, nesting efforts began failing because the shells of the hatched eggs were too thin — a result attributed to peregrines' ingesting DDT through the food chain.

In 1983, Acadia joined the Peregrine Reintroduction Program — a program where chicks were hatched in captivity and brought to various release sites at about five weeks of age. Between 1984 and 1986, 22 of

the 23 chicks sent here were released successfully.

The sighting of an immature male in 1987 in the area of the release site prevented the park from releasing chicks that year.

To aid visitors in learning more about the reintroduction program and peregrines in general, the park has an interpreter with a spotting scope in the parking lot at Precipice each day from 9 a.m. to 12 p.m. ■

Peregrine chick dies at Acadia

Falcon falls to death during banding program

By Kathy Holliman
Of the NEWS Staff

ACADIA NATIONAL PARK — Despite a successful history of placing identification bands on peregrine falcon chicks hatched on mountaintops in Acadia, park staff reported this week that one young bird fell to its death when surprised by a rock climber assisting with the banding.

Park biologist Bruce Connery said Tuesday that a chick younger than 3 weeks old exhibited unusual behavior when it moved away from its siblings on Jordan Cliffs at Penobscot Mountain and ran off the ledge. It is the first death associated with banding in the New England region since the U.S. Fish and Wildlife Service began its current color field-readable banding program in 1990. Approximately 235 peregrines have been banded in that time.

Connery said three peregrine pairs had taken up residence on Champlain, Penobscot and Beech mountains this spring. Each established a "scrape," or cliffside nest, for their eggs and a total of eight hatched in recent weeks.

Like all peregrines, the birds chose some of the most precipitous and scenic spots available — such as the 300-foot sheer face of rock at Penobscot Mountain's Jordan Cliffs. Kevin Cadraro, a rock climber, rappelled down the cliffs last Thursday, preparing the way for the USFWS biologist who is responsible for placing the identification bands on the young birds.

As Cadraro approached the scrape, he realized the chicks were younger than 20 days old. Since such young peregrines tend to be

See Chicks, B4, Col. 1

Peregrine chick dies at Acadia

Chicks, from B1

less aggressive and unlikely to break away from their nest even when startled, Cadraro removed his pack and began to place protection devices into the cliff, making the descent safer for biologist Mike Amaral.

While descending the rope and placing the protective gear into the rock, the climber was under constant attack by the mother bird. Although the three chicks on Jordan Cliffs huddled together during the climber's descent, one male ran off the ledge when Cadraro started placing the gear. Immediately, the climber placed his jacket at the outside edge of the ledge to keep the other two birds safe. They were then successfully banded, and the female adult returned to her nest.

Banding is considered a vital step in the recovery efforts for the endangered falcons. The species was nearly driven to extinction because of pesticides and habitat loss, but recovery efforts have been promising, particularly at Acadia. Through banding, biologists can track the success of nesting pairs and their offspring.

Because of identification bands, biologists know that two female chicks raised by the Champlain Mountain pair in 1994 are now raising chicks of their own at two New England locations — a ledge at the Christian Science Church in Boston and at Devils Slide in Slate, N. H. The Champlain pair have produced 23 chicks since 1991.

Connery said the best time to band a peregrine chick is when the birds are not yet 4 weeks old. Three chicks banded last week at the Precipice on Champlain Mountain were about 28 days old. During that climb, the adult female peregrine was agitated and present during the whole process that took place during a heavy rain storm.

No attempt was made to band the chicks at Beech Cliffs, as the climb was judged to be too difficult in bad weather.

The hiking trails in the areas near the peregrine families will remain closed until the young birds

Editorials

Worth the risk

We join U.S. Fish and Wildlife and Acadia National Park officials in lamenting the death of a falcon chick during banding operations recently.

But all must understand that by their very nature, such important endeavors often carry certain dangers to both people and animals. The results, however, are worth the risk.

So far during research at Acadia and elsewhere around New England, humans have willingly placed themselves at considerable risk and discomfort, including hanging from cliffs while being bombarded by parent birds, to help ensure the restoration of these raptors to something approaching their former range. The knowledge gleaned from the banding operation is vital for tracking short-term nesting success, keeping tabs on natural migrations and movements, and ensuring that the gene pool of the species retains sufficient depth to secure these birds' survival long after human intervention ceases to be necessary.

While it was human folly through the use of DDT that nearly killed the falcons off, they would not have made such huge strides toward comeback were it not for efforts such as those at Acadia which include handling the chicks.

While the accident is regrettable, it is just that — an accident. It should not discourage those involved nor deter the continued pursuit of the reintroduction program's worthy goals.

Falcon chick death is biologist's nightmare

by Anne Kozak

ACADIA NAT'L PARK — A biologist's nightmare is how Mike Amaral, with the U.S. Fish and Wildlife Service, described last Friday's attempt to band three peregrine chicks at Jordan Cliffs. One chick wandered off the ledge and died

during the operation.

Of the 235 chicks that Mr. Amaral has banded as part of the Peregrine Reintroduction Program in the Northeast, only one has died. That chick was an 18-day-old male at the nest site or scrape on Jordan Cliffs.

"Anyone who works with wildlife always knows there is risk," said Mr.

Amaral. "There is risk to the birds and risks to human health as we put ourselves in life-threatening situations dangling in the air near these scrapes."

Generally, younger birds are more sedentary and easier to approach. Birds under 20 days of age are expected to remain in the

■ see CHICKS page A4

CHICKS ■ from page A1

nest site regardless of the disturbance or type of intrusion, said Bruce Connery, a resource management specialist at Acadia.

On Thursday, Mr. Amaral and a technical climber had banded two males and one female at the Precipice — birds estimated to be between 26-28 days old. In addition to contending with a sudden deluge of rain that lengthened the banding attempt from two to four hours, the researchers also had to deal with adventurous birds that seemed likely to leave the nest.

The first approach to the nest was abandoned and a second chosen. The Precipice site has trees in front of it that provided some protection for the climbers.

At Jordan Cliffs, however, the lone tree near the scrape provided little protection from the parents. While the climber was descending, the adult female made a number of swoops at him. Because of the age of the chicks

and the assumption that young chicks were less likely to attempt leaving the nest, Mr. Amaral instructed his assistant to secure the location so the two would be protected while banding and weighing the birds.

Although Mr. Amaral assumes full responsibility, the accident in part can be attributed to the nest site, which he described as being somewhat marginal.

It has a downhill and outward slope. In two strides the chick was over the edge.

Knowing that birds sometime choose a less-than-desirable site in their first nesting effort did not eliminate the knot in Mr. Amaral's stomach — a knot that lasted for most of the trip back to his office in Concord, N.H.

The lost chick was recovered and will be tested for the presence of pollutants.

Within an hour, the adult birds

were back caring for the two remaining chicks, said Mr. Connery. On the first swoop in, they appeared to be checking the status of the chicks and on the second swoop they brought food from a nearby cache.

Because of rainy weather and the potential for lightening, the researchers decided not to attempt banding the two chicks on Beech Cliffs.

Given that there are risks — although relatively small — to banding, why is such importance placed on the practice? As both Mr. Connery and Mr. Amaral pointed out, banding allows researchers to track birds, to know their rates of survival, to determine their success at breeding and to assess the effectiveness of resource management efforts.

In the Great Lakes area, where 90 percent of peregrine chicks have been banded, nesting results show that

certain lineages are more successful and more productive. "This is valuable information," said Mr. Amaral. "An unmarked bird is just another peregrine. You don't know if it's a different bird or the one you saw last year."

The male at the Precipice was a bird reintroduced here that returned and attempted to nest in 1989 and 1990. Since 1991, the pair at the Precipice have produced 23 chicks. To date all have fledged successfully.

Of the four birds banded at the Precipice in 1994, the two females have successfully nested this year — one at the Christian Science Church in Boston and one at Devils Slide in Slate, N.H.

"This is positive news, knowing that the two females made it to adulthood and are part of the breeding stock in New England," said Mr. Connery.

The fate of the two males banded

that year is unknown. Wildlife biologists estimate that in the first year of a peregrine's life the mortality rate is 50 percent. They fly into cliffs, land on electric lines, get into scrapes with adult peregrines and are attacked by owls.

Banding gives information about how well the site is managed, explained Mr. Connery. In part, success is gauged on the number of additional sites birds establish.

The peregrines introduced here beginning in 1984 were raised in captivity and eggs were donated to the project from a number of different falconers. This, as well as placing eggs in a number of areas, increases genetic variability — a factor that ensures long-term viability of peregrines.

With Acadia a notable exception, reintroduced peregrines in the Northeast have not been as successful as have birds introduced

into other areas.

For the birds to be removed from the federal or state endangered list there have to be a certain number of active pairs successfully breeding. Once the birds reach this threshold they must be able to maintain it for an additional five years, explained Mr. Connery.

In Maine, for example, the specified number of breeding pairs is 15 and the number of requisite birds per nest is one. Of seven sites, last year only five had chicks and two of those sites were in Acadia.

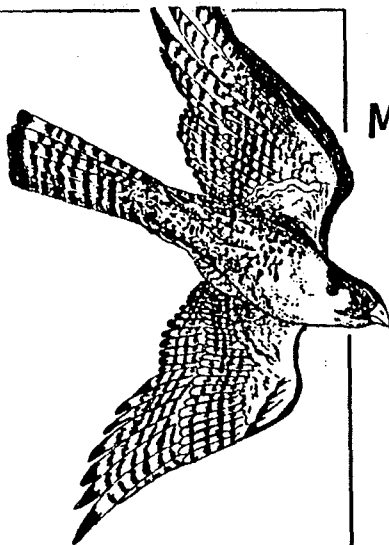
Mr. Connery attributes the success of management efforts here to closing trails and to the support of the community.

"The park puts up the signs closing trails," he said, "but people — those dealing with tourists and those living here, particularly climbers — ensure that the reasons for the closure are understood." ■

THE ELLSWORTH AMERICAN, ELLSWORTH, MAINE, THURSDAY, JUNE 19, 1997

Falcon Falls From Cliff

Acadia Nat'l Park: One of the eight peregrine falcon chicks hatched in the park this year ran off a ledge and fell to its death during banding earlier this week. The chick, one of three at the Jordan Cliffs site, was frightened at the sight of a climber who was preparing the way for the banders. Naturalists say it is very unusual for a chick that young to be able to jump out of the nest. The chicks are banded after they are approximately four weeks old to allow scientists to follow their migrations and learn more about the endangered falcons.



Eventually they will learn to fly like their parents, who circle and turn with barely a movement of the wings; truly, masters of flight!

Masters of Flight: The Wanderers Return

The peregrine falcons are back, and this year there are three pairs! Each year since 1988, a pair of falcons has called the cliffs on the east side of Champlain Mountain home. A chick hatched by this pair in 1994 returned to Acadia in 1995 to start nesting by Echo Lake. Now this year a third pair is raising their nestlings overlooking Jordan Pond, the first time ever in our history that three pairs of peregrine falcons have nested in Acadia National Park. The eggs in all three nests of this endangered species hatched by late May, keeping their parents busy catching the medium-sized birds they eat.

Around the Fourth of July, all of the young birds will take their first flights. Biologists refer to their first flight as fledging. If you are lucky enough to observe these initial flights, you are in for a great show. Watch as they attack and chase each other, their parents, and passing birds, while they learn vital hunting skills. The young birds, called fledglings, start out as eager, but clumsy, fliers, nearly constantly beating their wings to stay aloft. Eventually they will learn to fly like their parents, who circle and turn with barely a movement of the wings; truly, masters of flight!

Throughout July and August, the fledglings will continue to grow and to rely on the adults for food. Near the middle of August, the fledging period will be over as the the young peregrines become independent enough to leave the nesting area and begin life on their own.

The Precipice and Jordan Cliffs Trails and a loop trail at the top of Beech Cliffs will remain closed until the immature falcons no longer utilize these cliffs as a home base. Until then, a ranger or volunteer will be at the Precipice parking area with telescope for a close-up look at the falcons, from 9:00 a.m. until 12 noon daily, weather permitting.



Pets on leashes of 6' or less are allowed in the park — except Sand Beach, Echo Lake Beach, and trails with cliff ladders. Pets are not allowed in the park buildings or the Acadia Wild Gardens, except for service and seeing eye dogs.

For
Lee
Judd
Jew

Jet Skis, Peregrines, Grants and Chairs

The Maine Legislature recently failed to pass a measure to regulate Maine's Great Ponds, defined as natural freshwater bodies of 10 acres or more, or manmade (dammed) ponds of 30 acres or more. A section of the bill dealt with Mt. Desert Island. It would prohibit jets skis on seven Great Ponds lying completely within Acadia National Park: Upper and Lower Hadlock, Witch Hole, Aunt Betty's, Bubble and Round ponds, and Lake Wood.

The current ten-horsepower limitation on combustion engines on Eagle Lake and Jordan Pond would remain (jet skis range from 60 to 120 horsepower, and can attain 65 mph). Great Ponds lying partly within the park (e.g., Long Pond, Echo Lake) or entirely outside the park (e.g., Somes Pond) would be largely unaffected under the bill—they would receive no protection. The jet ski measure will be revisited in the next legislative session. The Friends board has taken an unequivocal position against jet skis on park ponds. Write us with your opinion.

Lift your eyes to the hills, specifically to Jordan Cliffs, Beech Cliffs, and the Precipice, and you'll likely see three families of peregrine falcons in full glory.

One of Acadia National Park's great successes is the reintroduction of these once doomed predators. Park staff have done an excellent job of protecting these creatures. The public has largely cooperated in closures of nearby trails during nesting. The U.S. Fish and Wildlife Service, the park, on-site interpreters and local rock climbers have combined forces to give Acadia's falcons the best shot at higher survival rates.

Remarkably, in seven years of banding and censusing, only one falcon has been killed. A chick died this year during a crucial banding attempt, despite all efforts made to prevent injuries, as biologist and climber risked themselves to rappel to an aerie. Overall the species has gained, and the Acadia ecosystem is more complete now, thanks to the peregrines and their protectors.

Their continuing recovery—eight chicks fledged this year alone—means numerous opportunities to view nature's fastest bird of prey and listen to the piercing cries of the young as they first find wing, tussle for food, test their vectors, assert aerial supremacy and claim whole Acadian promontories as their terra firma.

Friends of Acadia's donations to the park and communities have risen steadily. In 1995, we granted \$147,000. Last year, the number jumped 68 percent, to \$247,000. The target for 1997 is \$437,000, up 77 percent. Friends strives to finance crucial projects that simply would not get done without private contributions. We also advocate for the park's rightful share of federal funds and for its general protection. Finally, we speak for users in the continual betterment of park operations. Our three-part program—making select grants, defending the park against threats, influencing park management—is unique among the 140 friends groups serving America's 374 national parks.

In August, Linda W. Lewis relinquished the chairmanship of Friends of Acadia after three years of outstanding service. Linda has guided the organization's growth and enabled its current trajectory, toward becoming one of Maine's strongest conservation organizations. As chair she earned a reputation as a diplomat, problem solver, spokesperson par excellence, and unstinting donor of time, funds and wisdom. We staff say a heartfelt thanks for her robust good leadership. Linda will continue as a board member, supporting the new chair, Lee Judd, who previously served, with distinction, as treasurer. We welcome him.

Whether defending Acadia against the new menace of jet skis, providing seed monies to help care for falcons, or engaging in large-gift philanthropy to fund park projects that would not get done otherwise Friends of Acadia relies on your dues and other contributions. The very best volunteer leaders donate their time to this important effort. We thank them. We thank you.

Ken Olson

— W. Kent Olson, President



George DeWolfe photo

"One of A-N-P's
greatest successes
is the reintrod-
of peregrine
falcons"

State adds 22 species to endangered, threatened list

by Earl Brechlin

AUGUSTA — From a rare butterfly found only on the barren, windswept summit of Katahdin to rare offshore seabirds, a total of 22 new species were added to the official Maine endangered and threatened species list this month.

Two species, the Roseate Tern and Blanding's Turtle, were downgraded from threatened to endangered, meaning they face imminent danger of extinction.

Changes to the list were effected by vote of the Legislature during the

spring session. Officials termed some of the listings "housekeeping measures" designed so that Maine's list mirrored the federal endangered and threatened species list.

New species on the endangered list in Maine include Least and Black terns, Flat-headed Mayfly, the Ringed Boghaunter (a dragonfly found only on one pond in York County) and four butterflies or moths including Clayton's Copper, Edwards' Hairstreak, Hessel's Hairstreak and the Katahdin Arctic Butterfly, which is found only on the highest summits of Katahdin in Baxter

State Park in northern Maine.

Peregrine falcons were also added to the endangered list. According to Inland Fisheries and Wildlife Department Director of Wildlife Ken Elowe, peregrines were on the list two years ago, when any species found in Maine and listed federally as endangered was automatically listed by the state. A year ago the Legislature abolished the automatic listing. Although region-wide federal wildlife officials have upgraded peregrines to threatened status, the small number in

■ see LIST page A4

LIST ■ from page A1

Maine prompted the endangered designation, Mr. Elowe explained. This year, three pairs of peregrines have successfully nested in Acadia National Park.

By creating its own list, Maine hopes to focus the public's attention, and public policy, on species on the brink.

"The list's biggest impact is what it stands for," Mr. Elowe said. "Listing a species on the list intends to show which critters are rare, and that we have enough evidence to see that they fit the criteria as endangered or threatened."

Other birds already on the Maine endangered list include the Golden Eagle, Piping Plover, Sedge Wren, American Pipit and Grasshopper Sparrow. Blanding's Turtle joins two other reptiles including the Box Turtle and the Black Racer, a snake.

Previously, only two birds, the Bald Eagle and Roseate Tern, were listed as threatened. The Roseate Tern's fortunes waned, dropping it to the endangered list. Five other birds, including the Razorbill, Atlantic Puffin, Harlequin Duck, Arctic Tern and Upland Sandpiper were added to the threatened list.

One mammal, the Northern Bog Lemming, is on the threatened list. Both the Spotted Turtle and the Loggerhead Turtle remain listed as threatened.

One fish, the Swamp Darter, remains on the list as do two mollusks, the Tidewater Micket and Yellow Lampmussel.

The Tomah Mayfly, Pygmy Snaketail Dragonfly and the Twilight Moth and Pine Barrens Zancolnatha (butterfly) are also listed as threatened.

Although the federal endangered list includes several species that once called Maine home, they will not be listed in the state until more evidence of their existence or return can be documented, according to Mr. Elowe.

One popular example is the Gray Wolf.

"We will wait until we have enough information before making any changes," Mr. Elowe said.

Another is the Eastern Cougar or mountain lion. Many Maine residents have reported seeing mountain lions, but officials, waiting for conclusive proof, remain unconvinced.

Other mammals on the federal list but not on Maine's include the Right Whale, Humpback Whale, Finback Whale, Sperm Whale and Sei Whale.

While presence of an animal, reptile, bird or insect from the endangered species can hold up the permitting process for developers, keeping a formal list also can help speed development decisions, Mr. Elowe said.

"The state is saying this is the list so that the public knows what it is dealing with," he continued, noting that unless an official Maine or federally listed species is found a project can proceed. ■

WMDI script 13

Greetings from Acadia National Park. This is Ranger ____ with an Acadia National Park update.

This year, Acadia National Park is host to three out of only four peregrine falcon nests in all of Maine. Join a park naturalist at the Precipice parking area, off of Park Loop Road, daily from 9-noon, weather permitting, for a unique opportunity to view these falcons in flight. All 8 of the young peregrines have started to fly, but they still need safe cliff areas for resting or receiving food from their parents as they learn to hunt on their own. Please respect trail closures which protect these endangered species and choose from a variety of alternative hikes located around the park.

To learn more about protecting endangered species and park resources, visit the Nature Center at Sieur de Monts Spring, located off Route 3 and Park Loop Road. The Nature Center is open daily 9:00am to 5:00pm.

Tune in for our next Acadia National Park update. I'm Ranger ____ for the Bridge one-oh-seven-seven.

July 17, 1997

kcb

Russian park official to talk on steppes

by Anne Kozák

ACADIA NAT'L PARK — From mid-April until the end of summer, wildflowers are so abundant in the 12,000-acre Zapovednik Reserve southwest of Moscow that the color changes every 10 to 14 days.

And it was the changing color — from the yellow of the primroses and spring adonis to the violet of the iris to the pink of the rose daphne to the blue of the sage and to the white of the dropwort (*Filipendula*) — that first entranced Nikolai Maleshin, the reserve's superintendent.

Tonight (Thursday) at 7:30, Mr. Maleshin will show slides of the reserve and discuss the ecology of the Steppes at the Gilley Museum

in Southwest Harbor.

Created in 1935 to preserve the 2-meter-deep unplowed black soil of the Steppes, the reserve's natural landscape is unique in the world. In 1979 UNESCO designated it a biosphere reserve.

Mr. Maleshin, who had not taken any vacation in four years, pooled his accumulated time to study in the United States. He spent the first six weeks with The Nature Conservancy of Indiana working on two reforestation projects at Fish Creek and Pigeon River in northeastern Indiana.

The reserve consists of seven noncontiguous regions, with the distance between the first and seventh areas about 200 miles. Between the various regions are villages, roads

and agricultural and industrial activities. Although each region is buffered by a 1 to 3 kilometer zone, it is still hard to protect the reserve from poachers, pollutants and chemicals, said Mr. Maleshin.

In addition to learning conservation techniques for protecting sensitive areas, Mr. Maleshin also wants to learn more about educating the public about the features of a reserve or national park.

At Acadia, he is working as a volunteer in the interpretive division,

and one of his assignments is to talk about the peregrine reintroduction project to visitors stopping by the Precipice parking lot.

"My reserve is home to 1,200 species of vascular plants and many animals," said Mr. Maleshin. "Although we have only 10,000 visitors a year, we have no experience with visitor needs and services. I need to know how to give these visitors enjoyment and how to share with them knowledge about nature — the plants, animals and ecosystems of the reserve." ■

Acadia National Park

Four Bar Harbor juveniles were summonsed and others warned July 19 on charges of entering a closed area. According to ranger reports, the youths were found at the Lakewood swimming hole in violation of the 10 p.m. closure.

Lawrence P. Minsky, 24, of Milton, Mass., was summonsed by rangers on July 20 on a charge of possession of a controlled substance. According to reports, Minsky and several companions were spotted smoking marijuana at the Seawall Campground.

Darcie Brown, 20, of Bar Harbor was summonsed by rangers on July 18 on a charge of possession of a controlled substance. She was reportedly spotted on the Lurvey Spring Road near Southwest Harbor smoking marijuana, rangers said.

Two Maryland women were summonsed last week after being caught hiking in the area of Champlain Mountain closed to protect endangered peregrine falcons nesting in the area. Katherine Bevens, 19, and Holly West, 36, were charged with entering a closed area at the Precipice. According to ranger reports both women admitted to knowing the area was off limits to visitors.

Two park visitors last week were summonsed on charges of illegal parking. James Williams Jr., 19, no given address, was charged on July 21 for parking in a tow-away zone at Sieur de Monts. James Augustine, 18, of Bangor was charged with violating parking rules on the Cadillac Mountain Summit Road. ■

WMDI script 19 288-4377

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Tune in for our next Acadia National Park update. I'm Ranger ____ for the Bridge one-oh-seven-seven.

7 August 1997

kcb

Ruth Gortner Grierson 244-3742

Peregrines are in the news these days and the nesting birds on this island have provided bird enthusiasts with great entertainment in recent weeks. A friend of mine who has been visiting the Precipice watching area almost every day for weeks has great tales to tell of this crow-sized falcon's daily activities. The bird's long, pointed wings and long, narrow tail identify it as one of the streamlined hawks known as falcons. These birds are built for speed and not for soaring, as are the red shouldered and red tailed hawks, two buteos seen locally.

The peregrines' wing beats are quick and suggest the rowing beats in the flight of the common pigeons so familiar to everyone. When peregrines are seen sitting in a tree or on the edge of a cliff, which is quite possible considering the nesting activity and young birds on the island, the bird's distinctive face pattern is noticeable. On the adults heavy black markings on the side of the cheek below the eye look a bit like black mustaches. Young peregrines are browner and heavily streaked below.

Even though here on Mount Desert Island we may get used to seeing peregrines as they nest and raise their young or fly about catching food, in many other parts of the country this bird is a rare sight. Each week I hear of peregrine sightings, but this week my son had the best. As part of the COA summer program, he was leading a group of adults up one of the local mountains. During the climb they saw a peregrine attacking a turkey vulture. The group was fascinated to watch as the falcon dove at and attacked the very large vulture with its six-foot-plus wingspread. The vulture had wandered into the falcon's territory and was being told in bold actions to leave. In order to evade the falcon's attacks the vulture sometimes had to flip over and show that it was ready to fight with its talons. The falcon did finally drive the larger bird off.

Turkey vultures, themselves, are interesting to see, but it has only been in



recent years that they have been seen regularly and in numbers over the island. In the early 1900s turkey vultures bred only as far north as New Jersey, but by 1950 they had reached Massachusetts. In 1972, when my family arrived on MDI, these big birds of prey were seen between Ellsworth and Bangor but rarely over the island. Now turkey vultures are a familiar sight in the air over MDI and frequently seen alongside the road in groups of six to 12 as they eat some dead mammal they have found. The Lucerne Inn area, though, is the place to see 40 or more birds overhead at one time. Four of these bizarre-looking bald-headed birds of prey were reported this week near a small pond on Eagle Lake Road. The caller said they were on the ground near a pond.

Turkey vultures favor soft, ripe carrion for food — living creatures are not often disturbed, although weak or half-dead individuals may sometimes be set upon and killed. Vultures are the chief gluttons of the bird world.

A friend was out birding this past week and told me about finding a winter wren in the second growth woods near the Tarn. These very small, restless, brown birds are not visible for long, no matter where you find them, and they move about quickly with a noticeable bobbing action. If you get a glimpse of such a bird, look for a very short tail and dark brown barring on the belly. One ornithologist I knew referred to this bird as a barred, brown ping pong ball. They forage on the ground near brush piles, in tree foliage and near rotting logs, where they find spiders and insects to eat. The winter wren has a tinkly, bubbling, astonishingly loud and varied song.

Bunchberry flowers have already changed from the miniature white dogwood blooms to bright red berries. You may still find blossoms now and will do so even on into early fall, but the main blooming period has passed. Asters are starting to bloom, and mixed flocks of woodland birds are being seen now that the feverish nesting duties of many species are over. In these wandering feeding flocks you will find nuthatches, chickadees, brown creepers, some warblers and perhaps another one or two species. Watch for them as you walk the trails and carriage roads.

Yellow spatterdock and large white water lilies dominate our shallow fresh water ponds. Along the water's edge or in the exposed muddy margins of many a pond you can find water lobelia and pipe wort growing. These last two flowers are small and inconspicuous, but a close look reveals two interesting blossoms. Pipewort has grass-like leaves and very small white, button-shaped heads at the top of a slender stalk. White or pale blue water lobelia blossoms grow along a tall stalk, and although tiny by comparison, look much like the lobelia growing in cultivated gardens.

THIS WEEK

Ship Arrivals - The cruise ship *Westerdam* is scheduled to spend the day anchored at Bar Harbor on Thursday, August 17th. Visit the island's many harbors and to experience a traditional view of summer island life.

Take Advantage of the Opportunities! - Just do it! Summer is on the way out and the activities are already becoming fewer. Take advantage of a beautiful day and get out there and enjoy Acadia.

Peregrines Still in Control — Trails CLOSED - Trails on Beech Mountain, Jordan Cliffs and the *Precipice Trail* on Champlain Mountain are **closed until further notice**. The endangered peregrine falcons are nesting in these areas and the trails will be closed until their chicks are fully fledged and leave in midsummer. Interested in

these magnificent raptors? The park is planning to have staff available at the cliffs from 9:00 AM to Noon daily to answer your questions and help you get a long distance look.

Carriage Roads - These magnificent and recently restored byways offer car-free pleasures for those on foot, bicycle, or in a horse drawn carriage. What, you didn't bring your bike or horse — see the *See & Do* section, it has the answers.

Rules of the Road - Please follow the rules so that everyone enjoys their visit to Acadia. If you are biking, stay on the main roads or the designated carriage roads, **do not attempt to bike the foot trails**. Parking in designated areas only is the way to ensure a safe and carefree visit. Thanks!

aF=adult female, aM=adult male, ad=unidentified adult, IMM=immature, iF=immature female, iM=immature male, PT=perch on tree, PL=perch on ledge, FT-DA=direct in air food transfer, SI=stoop on intruder, CI=chase intruder, SP=stoop on prey, OOS=out of sight, EAT=eating

Note: Although Peregrine falcons typically nest in a scrape, this year they are using an abandoned Raven's nest. Therefore, in the following transcription, the nesting area is referred to as "the nest."

<u>DATE</u>	<u>TIME</u>	<u>ACTIVITY</u>
3/17	1031	ad circled twice & PL 2/3 up cliff face
	1033	CI (Raven), SI (Raven)
	1042	ad OOS to South
3/29	1121	ad PL near top of cliff
	1122	ad calling
	1131	ad calling, circling in 8's
	1140	ad calling, SP or SI, flew OOS to S
4/09	1230	ad calling, but OOS
	1236	ad calling, flying N, circled & PL
	1259	ad circled again calling, then PL
	1242	ad calling and SI (Raven), then PL
	1246	Raven joined by a second Raven, ad calling
	1248	ad flies from perch & enters old Raven nest
		2nd ad appears from Raven nest area, flies N and PL near Ravens
	1250	Ravens fly N, both ad CI (Ravens), interaction continues for 4 min.
	1251	aF PL, aM lands on aF, copulation
	0130	aF flies to Raven nest
04/10	0133	aM approaches from S, brings prey to aF, aM stays in Raven nest
		aF flies N, then PL EAT
	0134	aM flies OOS, aF PL
	0755	ad (perhaps aF) PL
	0814	Crows fly over unchallenged, ad still PL
04/11	0811	aF perched in live pine tree 200 m S of major cliff area
04/15	1100	ad CI (Ravens)
	1106	aF and aM CI (Ravens), then aF enters old Raven nest, aM PL
	1129	aF CI (Raven)
	1130	aF CI (Raven)
	1131	aF SI (Raven), drives it away, enters above Raven nest
	1218	aM PL, aF assumed to be in Raven nest
04/17	0741	aM and aF PL above Raven nest
		aM banded Metal on Left Leg, Dark on Right Leg
	0746	aF settles onto Raven nest
	0845	aM flying S, PL near trees
	0923	Nest exchange, aM on nest, aF flew out
	0945	aF CI (Raven)
	1003	aF PL
	1016	aF flew S and OOS

Appendix IV: Summary of Daily Observations: Precipice Peregrine Falcons, 1997
(continued)

<u>DATE</u>	<u>TIME</u>	<u>ACTIVITY</u>
04/17	1131	ad SI (Raven)
	1136	aF and aM CI (Ravens)
	1137	ad landed on Raven nest, other ad still CI (Raven)
	1230	ad still on nest, other OOS
	0123	Nest exchange
	0130	ad CI (Ravens)
	0145	1 ad still incubating, other PL. Full incubation starts today.
04/29	0900	both aM and aF OOS
05/05	0755	ad incubating on nest
05/05	0824	ad (aF?) flew off nest and went E OOS
	0827	ad (aF?) flew in from E and landed on nest
	0842	aF and aM flying in front of cliff, wings ok on both
	0850	1 ad OOS to S
	0900	1 ad PL
	0922	1 ad flying around, then PL again
	1003	aM and aF CI and SI (Immature Bald Eagle)
	1005	1 ad PL, 1 ad on nest
05/14	0730	No PERE visible, after official monitoring (during program) it was discovered aF had been on the nest all morning
05/18	0730	aF flew from nest, circled and returned to nest
	0800	aF flew S, PL momentarily, then flew N, SP
	0802	aF returned to nest, bobbing as if feeding, estimated hatch date
	0803	aF OOS in nest, aM still OOS
05/19	0630	aM flies in calling, aF calls and flies out of nest, both OOS behind treeline
	0632	aF returns to nest, aM PL, aF bobbing into crevice to feed
	0635	aF sits on nest, aM vocalizing, but now OOS
	0715	aF moves to edge of nest crevice, fluffs breast feathers
	0716	aF faces nest crevice, tail bobbing as if feeding
	0718	aF sits on nest
	0830	aM flies in, calls aF off nest, FT-DA small unidentified songbird
	0832	aF PL EAT, aM PT
	0833	aF flies to nest with prey, aF faces crevice bobbing as if to feed, still no IMM visible
	0834	aM PL, aF sits on nest
05/22	0545	aF on nest, aM OOS
	0750	aF flew off nest and OOS
	0800	ad brings prey (medium sized unidentified songbird) to nest, EAT doesn't appear to feed
	0810	ad sits on nest
05/26	0545	2 IMM visible in nest, aF and aM OOS
	0605	IMM moving around in nest area, active
	0630	IMM OOS
	0729	1 IMM visible and moving
	0801	aF flew to nest from S, facing inward, stayed < 30 sec., then flew OOS to S

Appendix IV: Summary of Daily Observations: Precipice Peregrine Falcons, 1997
(continued)

<u>DATE</u>	<u>TIME</u>	<u>ACTIVITY</u>
05/27	0547	2 IMM visible, aM and aF OOS
	0629	aF flew in from S with prey (large white & black bird, possibly tern), PL on S side of nest crevice away from chicks, plucked prey, possible feeding although IMM not visible
06/01	0635	aF flew OOS to S
	0545	Precipice fogged in, all PERE OOS
	0615	ad calling in fog
	0655	still periodic calling from ad in fog, all OOS
06/02	0530	2 IMM visible, aF PL and aM OOS
	0544	3rd IMM seen, definite confirmation, all 3 awake & active
	0549	aF calls
	0552	1 IMM comes to nest edge and flaps wings for the first time
	0600	3 IMM moving, active, preening
	0630	3 IMM sleeping, aF still PL
	0645	Calling, aM suspected to be in area, but still OOS
	0655	3 IMM active again, 1 opens wings and topples forward
	0700	3 IMM OOS again, aF still PL, alert and looking around
	0710	aF preening
06/02	0725	aF flew to S till OOS
	0750	aM flew to nest with unidentified prey, fed 3 IMM EAT
	0753	aF lands on nest, seems surprised by aM, flies off till OOS
	0800	aM done feeding, flies S till OOS, aF still OOS, 3 IMM active
06/03	0700	1 IMM visible, aM and aF OOS
	0712	2 IMM visible
	0725	aM flew to nest with a blackbird, fed mainly 2 IMM
	0730	aM flew out of nest with remains of blackbird till OOS behind trees. 3 IMM still picking at remnants of prey
06/07	0735	3 IMM sleeping, aF and aM OOS
	0600	3 IMM visible, noticeably larger and more developed, still mostly downy, but beginning to develop feathers
	0647	3 IMM throwing back heads, putting up beaks, begging
		aM and aF OOS
	0651	3 IMM sleeping
	0700	aM flies in from S with medium sized white prey (sm. gull or tern?), feeds 2 IMM, then flies S and PL. 1 IMM picks at prey.
	0715	3 IMM sleeping
	0718	2 IMM active, looking around, flapping wings, aM flew OOS below trees
	0725	2 IMM awake, 1 asleep, 1 goes to edge to eliminate
	0740	3 IMM visible, asleep
	0745	1 IMM active again
	0753	ad (aF?) flew to nest and fed from prey cached in scrape
	0755	ad flew out OOS, 3 IMM active
	0757	aF returned & fed again (perhaps she retrieved food from cache on cliff?)
06/08	0805	aF left nest with prey. Looked like ½ of a Robin. Cached on cliff near top to the left of the lone pine. aF PL, 3 IMM active, aM OOS
	0630	2 IMM visible, asleep, aM and aF OOS
	0705	1 IMM awake, tail feathers starting to come in
	0753	3 IMM active, alert, aM and aF still OOS

Appendix IV: Summary of Daily Observations: Precipice Peregrine Falcons, 1997
(continued)

<u>DATE</u>	<u>TIME</u>	<u>ACTIVITY</u>
06/09	0550	3 IMM asleep, aM and aF OOS
	0615	3 IMM active. More feather development on wings, feet large
	0630	1 IMM on ledge calling. 2 IMM are larger than the third-possibly 2 iM, 1 iF
	0645	3 IMM asleep
	0655	All 3 IMM awake and active
	0800	3 IMM still active, aM and aF still OOS
06/12	0100	Arrive to observe banding. Mike Amaral is the biologist. Kevin Cadraro is the local climber. Nicoli to take pictures
	0115	Banding team leaves parking lot
	0140	Team close enough to disturb aF, she is calling, aM OOS
	0400	During banding process, aF is perched nearby calling, occasionally SI, but not aggressively. Disturbance time is about 2.5 hours
	0409	aM flew to nest with prey, flew out immediately
	0421	Climbers down. Chick age estimated to be 26 days, 2 iM, 1 iF Band Nos: iF Left: Black "E" over Red Sideways "X", Right: Metal "180738860" iM Left: Black Sideways "U" over Red "8", Right: Metal "220640671". iM Left: Black Sideways "V" over Red "8", Right: Metal "220662600"
06/14	0602	3 IMM visible on ledge outside nest area, aM PL
	0622	1 chick on edge flapping wings, then scrambled back to nest
	0623	aM OOS
	0630	aF flew in from S with unidentified prey. Fed 3 IMM for 30 minutes!
	0702	aF flew N, circled to S and PT
	0705	aM OOS, 2 IMM climbed back out of nest to ledge
	0730	3 IMM back in nest
06/14	0737	1 IMM on edge flapping wings, aF still PL, aM still OOS
06/15	0600	3 IMM visible. Now have more feathers than down. aF PT
	0625	aF OOS
	0632	2 IMM way out on rocks outside nest, walking and flapping
	0719	all 3 IMM walking on rocks and flapping wings
	0725	3 IMM back in nest, active
	0740	aF and aM OOS
06/16	0615	aF PT
	0621	aF flew N and PL
	0625	2 iM in nest, iF walks out carefully on rock ledge
	0640	aF flew toward S, OOS
	0653	iF walks to very edge, wraps talons around rock and flaps wings juvenile brown plumage on breast & head, little down
	0710	iF picking at lichen with beak, 2 iM OOS in nest
	0714	iF biting leaves on the sapling in front of the nest
	0720	iF returns to nest, all IMM OOS
	0722	iF back out of nest, flapping vigorously & then returns to nest
	0800	2 IMM visible, aF and aM still OOS
06/21	1130	2 IMM fledged

Appendix IV: Summary of Daily Observations: Precipice Peregrine Falcons, 1997
(continued)

<u>DATE</u>	<u>TIME</u>	<u>ACTIVITY</u>
06/23	0600	2 IMM PL
	0641	1 IMM preening, other flapping wings. 3rd IMM, aF and aM are still OOS
	0655	2 IMM still PL
	0740	3rd IMM visible in nest
	0745	ad PL next to IMM, then OOS behind vegetation
	0900	all 3 IMM flying
06/28	0700	2 IMM flying, heading S along cliff calling, aM and aF OOS
	0716	1 IMM flying in circles over Kent Field & parking lot, calling
	0717	1 IMM PL, then takes flight. 2 IMM flying in the same pattern and very near to one another, head S till OOS
07/02	0610	iF and iM flying together, looping around practicing
	0615	iF and iM PL
	0630	iF and iM flying again, chasing one another, 2nd iM appears from perch in same area and joins them
	0645	2 IMM OOS, 1 PL
	0735	Perched IMM calling
	0745	Calling from Kent Field. aF flies in with 2 IMM chasing, flew OOS behind band of trees
	0746	aF PL, IMM calling
	0800	IMM still OOS, aF still PL, no sign of aM
	07/03 0240	iF in view, cliff foggy
	0300	iF flew N to join other IMM begging calls, all 3 IMM seen flying, then OOS over top of mountain
07/03	0325	All OOS, very foggy top half of mountain
	0340	iF flying
	0350	3 IMM flying
	0355	3 IMM PL, but OOS. No aF or aM seen
	07/05 0716	2 IMM rise above cliff from W side, flying
	0720	2 IMM fly to Kent Field
	0727	2 IMM return to cliff, then OOS behind W side
07/05	0743	1 IMM visible on S end of cliff, calling, then PT
	0750	1 IMM visible in and out of view on S end, 2nd IMM still PT
		3rd IMM, aM and aF still OOS
	07/07 0600	No PERE in view
	0800	Still no PERE
07/08	0727	1 IMM flew in from S, then OOS behind trees. Others calling, but OOS
	0745	1 IMM flew to PT carrying prey. Sits on branch hunched over prey, but doesn't eat, others calling loudly but OOS
	0810	2nd IMM PT (same tree) calling, 3rd IMM calling OOS
	0815	IMM with prey picks it up in beak and lets it dangle - identified as a Kingbird, repositions under talons, but doesn't eat. Others still calling
	0816	Bird with prey continually repositioning and plucking, while siblings continue beg
to	0831	IMM with prey EAT, 2 other IMM calling, aM and aF still OOS

Appendix IV: Summary of Daily Observations: Precipice Peregrine Falcons, 1997
(continued)

<u>DATE</u>	<u>TIME</u>	<u>ACTIVITY</u>
07/12	0600	iF and iM flying
	0612	iF PL
	0637	iF flew N, PL, other 2 IMM OOS
	0703	3 IMM in flight
	0714	iF PT, iM's circling
	0720	3 IMM flying, then OOS to W side of cliff
	0750	3 IMM visible flying on S side of cliff. 3 IMM flying together, circling and rising, practicing aerial food exchange maneuver.
	0800	2 IMM flew E over Kent Field, 1 OOS behind W side of cliff
	0803	2 IMM returned from field, flew along cliff face
	0805	2 IMM out over Kent Field, 1 SP
	0820	3 IMM on S end of cliff soaring, touching talons, but no food exchanged
	0826	All PERE OOS
07/13	0632	Calling from Kent Field. 3 IMM returning to N end of cliff, 1 PL, 1 PT, 1 OOS
	0647	1 IMM flying, then PL. Other 2 IMM OOS.
	0652	Perched IMM flies over W side of cliff OOS
	0700	Calling, but no PERE visible
	0712	Calling from Kent Field, 1 IMM briefly visible in flight
	0720	1 IMM PT on S end of cliff-didn't see it fly in, preening
	0805	All OOS, 1 IMM calling from Kent Field
	0810	2 IMM perched in large snag in Kent Field near Schooner Head Road
	0820	2 IMM CI (Cormorant), circled around and flew OOS
07/14	0600	No PERE visible
	0745	None visible on Schooner Head Road
	0810	None visible at Beaver Dam Pond
07/15	0612	2 IMM calling on S end of cliff, OOS
	0617	1 IMM PL
	0635	Perched IMM flew over Kent Field till OOS
	0642	2 IMM in flight above cliff, flew to S end then OOS
	0711	Brief glimpse of 1 IMM flying E over Schooner Head Road
07/19	0612	iF PL
	0632	2 IMM flying together, iF PL, iM PL briefly, then OOS
	0647	iF flew to triangular rock at top of rockslide area, just S. EAT something that must have been cached.
	0655	iF preening
	0710	iF flew OOS, No PERE visible
07/20	0600	1 IMM PL, preening
	0700	aM flew in from N, PL, IMM calling, then in flight and OOS behind W side of cliff
	0715	aM still PL, preening, others OOS
	0743	aM flew S, then behind W face, all OOS
07/21	0643	1 IMM PL
	0645	Perched IMM flew out over Kent Field, 2nd IMM calling from field
	0648	2 IMM in flight over field, calling
	0650	1 IMM OOS, 1 PT near Schooner Head Road
	0700	Perched IMM calling
	0706	Perched IMM flew to NE, all PERE OOS
	0713	Calling from Kent Field, but still OOS

Appendix IV: Summary of Daily Observations: Precipice Peregrine Falcons, 1997
(continued)

<u>DATE</u>	<u>TIME</u>	<u>ACTIVITY</u>
	0722	Still periodic calling, but OOS
07/26	0700	Calling from Kent Field, 2 IMM seen flying along treeline near Schooner Head Road till OOS
	0725	Calling from the field, but still OOS
07/27	0651	1 IMM flew from N to S end of cliff, then OOS
07/30	0600	No PERE
	0745	All still OOS
	0815	1 IMM seen flying before program, then active on and off through noon
08/03	0745	1 IMM PT near Schooner Head Road
	0815	All OOS. Note: 3 IMM present later in the day during program
08/04	0630	aM flew in from S, PL
	0742	aM flew OOS to S, No IMM seen

Appendix V: Summary of Daily Observations: Beech Cliffs Peregrine Falcons, 1997

aF=adult female, aM=adult male, ad=unidentified adult, IMM=immature, iF=immature female, iM=immature male, PT=perch on tree, PL=perch on ledge, FT-DA=direct in air food transfer, SI=stoop on intruder, CI=chase intruder, SP=stoop on prey, OOS=out of sight, EAT=eating

<u>DATE</u>	<u>TIME</u>	<u>ACTIVITY</u>
03/14	0801	ad PL, appears large (aF?)
03/17	0802	ad flies in from S, PT
	0819	ad OOS to the S
03/28	0713	large ad, PL
04/01	0743	ad PL near top, small (aM?)
	0745	ad PT, much larger (aF?)
	0753	smaller ad SP OOS, larger ad calls, circles and PL
04/03	0751	aM PL, flies down and calls
	0753	aF calling, PT, flies out and circles and PL, aM OOS to the S
	0806	aM visible near the cliff, aF flies and PL near where male is circling
	0807	aM flies and PL, aF EAT
	0814	aF PT
	0819	Both ad perched
04/12	1000	ad circling and repeatedly PT
04/15	0740	aF PT
	0816	aF moves to a different branch, PT, aF: no band on right leg
	0829	aF still PT, napping
04/16	0832	both adF and adM fly out of 95/96 scrape, fly in "8's" in front of the cliff., both ad calling, 1 ad PL in scrape for a moment, then PT
	0836	aF (?) PT, large bird appears to have no bands, preening for 19 minutes
	0837	aM flies out of veg, PT same tree as aF
	0923	aF flies S OOS
	0925	aM flies S OOS
	0931	aF returns, flies in front of scrape, then PT, has no prey
	0959	aF still PT, aM still OOS
04/17	0803	ad PT
	0811	another ad spotted in same tree, obscured by vegetation
	0833	Wailing calls, one ad displays legs-no bands, unable to determine sex
	0915	Both ad still PT
04/21	0901	ad PL, some preening, squatting instead of normal erect perching position
	0922	ad scratching, stretching, no bands obvious
	0931	ad flew, circled gaining altitude, then OOS to S
	1043	immature Bald Eagle flew in from E, ad CI and SI several times over 3 minute conflict, both OOS to NW. ad returned to cliff from SE and OOS
04/22	1030	1 ad circling, then OOS to S
	1100	observer notices that sticks have been pushed out of 95/96 scrape
	1141	both ad OOS
04/23	0856	ad PL flies out from 95/96 scrape, 2 slow loops around cliff, then PL in 95/96 scrape
	0900	another ad flying near top of cliff, loops around cliff and PL
	0907	ad leaves perch, flies S, turns and gains altitude, flies NE OOS
	0910	assume 1 ad still in scrape

Appendix V: Summary of Daily Observations: Beech Cliffs Peregrine Falcons, 1997
(continued)

<u>DATE</u>	<u>TIME</u>	<u>ACTIVITY</u>
04/24	0800	ad observed sitting on nest, may have been there since 0730 when observer arrived, but only visible from a new location
	0946	aM flies off nest, aF settles onto nest, aM calling as he flies off
	1045	aF still on nest-today is best guess for start of full incubation
04/26	0930	ad incubating
04/29	0750	no ad seen, too windy for scopes
04/30	0756	back of ad just visible in scrape
	0825	ad repositioning in scrape
05/05	0815	ad incubating, 2nd ad OOS
	0850	ad in scrape repositions
	0931	ad still incubating, changes orientation to face NW
	0958	ad appears to be rolling eggs, now faces W
	1038	ad appears agitated by maintenance saw noises, stays on nest
	1214	ad repositions, faces E
	1234	ad still on nest, other ad still OOS
05/06	0616	possibly ad on nest
	0653	ad flies in from S, past scrape and PT, no movement in scrape
	0654	perched ad OOS
	0740	ad visible in scrape, other assumed to still be PT it wasn't seen flying
	0806	aM flies off perch, aF still on nest, aM observed to have some "messy" feathers on upper right wing
	0830	aF out of scrape, flying around
	0835	aF back to scrape, on nest, aM bands: Right: Silver or Nothing, Left: Red
05/09	0616	ad on nest, no other birds visible
	0634	ad on nest calling
	0636	ad flying from tree to scrape, settles in and sits on nest, original bird on nest OOS
	0722	aM found PL, resting, aF still on nest
	0817	aM flies off ledge, PT directly above scrape
	0827	aM flew and PL, aM appears to have Metal band on Right
	1000	aM still PL, aF still incubating
05/12	0604	ad incubating facing E, other ad OOS
	0654	ad moves and faces S, checks eggs
	0729	incubating bird changes position and faces N, calls twice, other ad still OOS
05/19	0732	ad incubating, facing S, other ad OOS
	0753	2nd ad calling from S, another raptor (falcon flying pattern) approaches from SE, calling ad CI, then PT OOS to S
	0755	observer moves till perched bird is visible
	0757	perched ad flies further S, OOS
	0805	incubating ad changes position, other ad OOS
	0835	only incubating ad visible
	0836	ad incubating
05/21	0854	ad flew out of scrape, then back to incubate
	1145	aF on nest all morning-shifting around, repositioning and (nest repairs?)-lots of twig pulling and repositioning., hatching expected any day
05/22	0850	ad incubating
	1030	ad still incubating, other ad not observed

Appendix V: Summary of Daily Observations: Beech Cliffs Peregrine Falcons, 1997
(continued)

<u>DATE</u>	<u>TIME</u>	<u>ACTIVITY</u>
05/27	0816	ad in scrape, sitting back from normal position-to the S
	0832	ad looking into nest area, bends over for few seconds, then scans skies
	0848	ad moves farther into scrape, facing NW-does not seem to be sitting as low on nest
	0901	ad definitely not sitting down fully on nest
	0917	ad changes position, faces NE, continues to sit in a hunched squat-scanning and dozing
	0928	ad appears to be moving something in scrape, busy about 30 sec.
	0942	ad stoop up and preened under wing and on breast, ad facing W again scanning
	0945	ad sitting now, not squatting, 2nd ad not observed after several cliff scans probably some of eggs have hatched
	05/28	0545 aF in scrape, aM OOS
	0612	aF preening
	0615	aF alert, looking around
	0630	aF stands and looks into scrape, then settles back in
	0648	aF looks down into scrape, head out of view
	0649	aF still in scrape, head visible now, still no sign of aM
	0705	aF quite alert, looking around and skyward
	0715	aF preening while sitting on nest
	0717	aF turns and faces into scrape, still preening and turning around to look behind her
	0725	aF facing outward again, still in scrape, aM still not present
	0735	aF took flight, aM not in sight, scrape left unattended
	0745	still no ad present
06/04	0746	two IMM observed, standing erect, playing with each other
	0755	IMM OOS
	0813	IMM visible, quiet, interacting with each other, flapping wings, definitely have second down
06/08	0830	IMM occasionally visible, no ad present
	1050	ad wailing, glides into scrape with prey, apparently begins feeding, IMM OOS
	1108	ad faces beach, IMM OOS
	1110	ad faces into scrape and begins feeding again
	1114	ad flies S, PT OOS
06/09	1130	all PERE OOS
	0739	ad in scrape with back to beach, bobbing motion with occasional head raising
	0756	ad leaves with prey (big prey item), circles several times to gain altitude, then lands 200 m to the S and caches prey in junipers and blueberries on ledge
		ad flies N and PT OOS
	0759	1 IMM positively observed, 2nd likely

Appendix V: Summary of Daily Observations: Beech Cliffs Peregrine Falcons, 1997
(continued)

<u>DATE</u>	<u>TIME</u>	<u>ACTIVITY</u>
06/22	0600	1 IMM visible, other PERE OOS
	0625	1 IMM preening
	0630	2nd IMM visible , both awake, not too active
	0642	ad flew past scrape and into fog zone
	0643	2 IMM more active, calling, 1 IMM flapping wings
	0640	3rd IMM definitely confirmed , all 3 IMM sitting up in scrape, turning their heads, aM and aF OOS
	0700	3 IMM settling in, asleep, aF and aM still OOS
	0730	3 IMM awake, walking around scrape, flapping wings
	0740	3 IMM calling
	0750	3 IMM picking at cached food in the scrape, saw a few brownish feathers-may be a Robin
	0755	aF flew in calling, Great Blue Heron in the air, but aF ignores
	0800	3 IMM calling, but aF doesn't go to the scrape, PL to the right of scrape
	0810	aF still not in scrape, 3 IMM still calling, still no sign of aM
06/24	0600	3 IMM visible, awake, aF and aM OOS
	0621	IMM calling
	0630	IMM calling
	0645	only 2 IMM visible, aF and aM still OOS
	0705	1 IMM preening
	0715	aF flew in from the N carrying prey, dropped it off in the scrape-prey is some kind of large white chick, same size as the IMM, aF PT to the south of scrape, doesn't feed the IMM, 3 IMM calling and EAT
	0730	3 IMM still EAT and calling, aF still perched
	0735	aF flew off to the S till OOS, 3 IMM quite, no sign of aM
	0738	1 IMM on scrape edge, flapping vigorously, other 2 IMM EAT
	0740	3 IMM calling
	0745	3 IMM quiet, all 3 awake and walking around scrape, aF and aM OOS
06/25	0600	3 IMM visible, 2 on rock E of scrape, no ad present
	0625	IMM more active, preening
06/25	0632	IMM calling
	0633	aF drops off prey, IMM calling and EAT
	0634	aF PT S of scrape
	0642	aF flies OOS to S
	0645	3 IMM calling loudly, 1 IMM flaps wings
	0647	1 IMM PL to E of scrape, biting a rock, other 2 IMM OOS
	0648	3 IMM calling
	0651	2nd IMM in view, at edge of scrape flapping
	0655	3rd IMM comes to front of scrape, also flapping, then PL
	0710	3 IMM still active
	0712	3 IMM calling loudly, aF flies in with medium sized grayish brown songbird, leaves prey and PT, 3 IMM EAT, aF preening, possible dark band on Right Leg-grey blue???-not a great look
	0730	aF flew S, OOS, 3 IMM active, 2 PL, 1 in scrape
	0745	1 IMM asleep on rock, 2nd awake on rock, 3rd in scrape, all moving around and calling occasionally, aF and aM OOS
06/25	0315	2 IMM PL at edge of scrape, turning brownish, getting flight feathers Note: Lifeguard saw the 2 ad birds, 1 ½ weeks ago

Appendix V: Summary of Daily Observations: Beech Cliffs Peregrine Falcons, 1997
(continued)

<u>DATE</u>	<u>TIME</u>	<u>ACTIVITY</u>
06/27	0800	3 IMM visible, vigorously flapping wings, aF and aM OOS
	1045	No ad observed all morning, 3 IMM active since arrival of observers
06/29	0600	2 IMM PL outside scrape, 3rd IMM, aF and aM all OOS
	0620	3rd IMM visible, all 3 alert and PL, feather development looks almost complete
	0630	1 IMM calling very loudly
	0631	3 IMM flapping wings, hopping in and out of scrape, 1 IMM picking at leftovers in the scrape-mainly a large bone and feathers
	0635	1 IMM walking quite far out on ledge and picking at lichen
	0645	all 3 IMM PL outside scrape, walking, flapping and preening
	0650	3 IMM call loudly, but no ad in sight
	0700	1 IMM picking at a bone if found in the scrape
	0715	all 3 IMM PL, still no sign of aF or aM
	0745	3 IMM a little less active now, all 3 just roosting, no sign of aM or aF
07/01	unknown	All 3 IMM fledged
07/02	0800	2 IMM visible, PL and calling loudly, no evidence of down
	0810	1 IMM OOS to bushes
	0830	IMM in bushes, flew S halfway across cliff
	0850	2nd IMM flew S, PL, calling, aM and aF not seen
07/22	0615	IMM calling, all PERE OOS
	0617	1 IMM flew near water along shoreline
	0618	1 IMM PT, 2nd IMM spotted in same tree, both calling
	0622	1 IMM flew down to shore
	0623	2nd IMM flew to shore
	0624	1 IMM drinking, walked into water to bathe
	0627	Bathing bird hopped up onto a rock, 2nd IMM walked into the water and bathed, threw water over its back with beak
	0629	IMM from rock flew along shoreline, up cliffside and OOS behind trees
	0630	2nd IMM flew, PL briefly near scrape, then PT
	0631	IMM in tree preening
	0644	Perched IMM flew along shoreline and returned to the tree we had originally seen them in, calling, all others OOS
	0650	Canoeist paddling toward perched IMM, IMM calling. Canoeist came to shore and informed observers he saw 2nd IMM perched in the tree behind the first, its OOS from shore
	0700	Perched IMM flew OOS to the S, right overhead on the beach
	0710	IMM called from area canoeist mentioned, but its still OOS
	0712	Calling again, but OOS
	0714	IMM flew from suspected area, headed N, circled back and PT, calling
	0720	Perched IMM took a hop to a nearby snag, PT
	0723	IMM flew SE over the beach, PT OOS on far side of large pine, calling
	0726	IMM flew W over beach & PT along shore
	0728	calling from shore from area other 2 had been seen earlier, 3rd IMM flew S over meadow behind beach
	0732	IMM PT on W shore calling & visible
	0733	IMM flew S over meadow
	0735	Calling from meadow, the 2 IMM that headed that way still audible, but OOS
	0738	2 IMM seen flying together briefly in meadow

Appendix V: Summary of Daily Observations: Beech Cliffs Peregrine Falcons, 1997
(continued)

<u>DATE</u>	<u>TIME</u>	<u>ACTIVITY</u>
	0740	1 IMM PT, then flew OOS
	0745	All PERE OOS, 1 IMM still calling in meadow
07/22	0200	1 ad and 1 IMM flying near scrape, possibly another IMM nearby
07/23	0630	No PERE visible
	0800	All PERE still OOS
07/29	0615	All PERE OOS
	0800	Still OOS
08/02	0600	All PERE OOS
	0745	Still OOS
08/06	0615	All PERE OOS
	0800	Still OOS
	0831	ad or IMM approaches from S, calling, PT with back to observer
	0839	ad or IMM changes position-buff colored breast with few to no bandings visible
	0845	ad or IMM still PT
08/12	0445	All PERE OOS
	0515	PERE perched at nest site
	0550	PERE flew OOS
	0831	ad PERE flew over cliff area and PT
	0836	IMM PERE flies in and starts harassing ad PERE. Both fly OOS
	0846	ad PERE flies in and PT
	0935	ad PERE flies to another tree and PT
	1000	ad PERE still PT. Observer leaves
08/19	0445	All PERE OOS
	0929	All PERE OOS
	1200	All PERE OOS
	0305	All PERE OOS
	0430	All PERE OOS
	0737	All PERE OOS

Appendix VI: Summary of Daily Observations: Jordan Cliffs Peregrine Falcons, 1997

aF=adult female, aM=adult male, ad=unidentified adult, IMM=immature, iF=immature female, iM=immature male, PT=perch on tree, PL=perch on ledge, FT-DA=direct in air food transfer, SI=stoop on intruder, CI=chase intruder, SP=stoop on prey, OOS=out of sight, EAT=eating

<u>DATE</u>	<u>TIME</u>	<u>ACTIVITY</u>
04/05	1100	aF flew from N end of cliff, briefly PL above raven nest, then flew S OOS
	1120	aM flies in from S, PL, preening
	1130	aF and aM copulate , aM flies away toward S, aF flies and PL then joins aM in S and both OOS
04/12	1120	aF flying, then OOS to the S
	1123	aF back to scrape (by Northern Cedar) PL, calling, facing into scrape, aM flies off scrape, OOS
	1125	aF PL above S end of tumbledown, aF appears not to be banded
	1128	aF preening, 90% certain unbanded
	1205	aF PL, catnapping
	1220	aF still PL, aM still OOS
04/14	0100	ad PL, S end of main cliff
04/15	0937	aF and aM SI (Crow)
	0944	aF and aM PL, both in vicinity of round pine, 1 OOS
	0959	visible ad flew S till OOS
04/16	0842	ad PT S of scrape
	0930	aF and aM PL in scrape and exchanged food, aF flew PL and EAT, aM flew and PT
	0955	aF finished EAT, PL on 3 different ledges, then PT
	1018	aM flew OOS
	1022	aF flew to scrape, then OOS
	1023	aF flew off scrape, then PL
	1034	aF CI and SI (Turkey Vulture)
	1043	aF PL
04/21	0825	ad PL at scrape, settles down
	0830	ad flying back and forth adjacent to cliff
	0844	ad flies out of scrape
04/22	0756	aM flying, PL
	0801	aM flies OOS, aF flies out of scrape-was on the nest
	0806	aF returns to scrape, settles in
	0927	aM calling from cliff, aF still at scrape
	1010	aF still at scrape, no nest exchange observed yet
04/23	0852	ad repositioning on scrape
	0914	1 ad flies in, 1 ad from scrape flies to meet it, didn't see if there was a food exchange
	0918	1 ad back in scrape, 1 ad PT
	1006	Nest exchange
	1030	1 ad still in scrape, definite start of full incubation
04/30	0955	ad seen over pond, SP (small unidentified bird), flies N then OOS
05/05	1115	ad incubating
	1125	ad repositioning
	1222	ad repositioning
	0110	ad repositioning
	0150	ad still incubating, 2nd ad not seen

**Appendix VI: Summary of Daily Observations: Jordan Cliffs Peregrine Falcons, 1997
(continued)**

<u>DATE</u>	<u>TIME</u>	<u>ACTIVITY</u>
05/08	0748	aF PL at scrape
	0905	aM flies in from N, nest exchange, aF PL
	1006	aM PT, Metal Band on Right Leg, Left Unknown
	1110	aM flies off
	1141	aM PL
05/08	1230	aM to scrape, aF flies off and PL, aF Right & Left Leg Unbanded
05/21	1022	ad incubating
	1039	ad calling, 2 Turkey Vultures in area, so ad stops calling
	1043	ad alert, looking around
	1100	ad walking around scrape, checking eggs
	1104	2nd ad PL near scrape, potentially drops off prey
	1115	ad in scrape moving, appears to be arranging or pulling something
	1130	ad in scrape incubating
	0922	ad in scrape attending to something, doesn't seem to be feeding
05/22	0925	ad sitting on scrape
	0929	ad up again, head down, tail bobbing
	0933	ad sitting on scrape
	0958	2nd ad calling, but OOS, ad on scrape interested, but doesn't move
	1014	2nd ad wailing, PL near scrape, hobbles into scrape OOS, head bobbing, 1st ad leaves scrape
	1016	ad not on scrape calling
	1030	2nd ad returns to scrape, wailing, wings partially extended in aggressive fashion, 1st ad leaves scrape, 2nd ad settles in
	0919	ad in scrape
05/23	0936	ad PL briefly, flies toward water calling
	0938	ad returns to scrape and walks OOS, head occasionally visible
	0942	ad still in scrape
	0545	ad (aF?) in scrape, aM OOS
05/24	0600	ad still in scrape, alert, looking around
	0634	ad stands and fluffs feathers
	0705	cliff obscured by fog, no PERE visible
05/25	0830	ad repositioning in scrape
	1002	ad flew out of scrape
	1003	ad flew back to scrape and settled in
	1037	ad still incubating
05/27	0758	ad flew out of scrape
	0759	ad PL in scrape with prey, took into scrape and plucked, fed to chicks, although they are OOS
	0815	ad done feeding, settles in to scrape\
	0745	ad at scrape
06/04	0813	ad flew off scrape and PL, calling, 1 IMM seen
	0820	ad back at scrape, standing nearby
	0800	1 IMM visible, ad occasionally calling nearby, but OOS
06/09	0857	2 or possibly 3 IMM visible, ad PL

**Appendix VI: Summary of Daily Observations: Jordan Cliffs Peregrine Falcons, 1997
(continued)**

<u>DATE</u>	<u>TIME</u>	<u>ACTIVITY</u>
06/13	0800	Banding team (Mike Amaral, Kevin Codraro, Bruce Connery heading up Jordan Cliffs)
	0847	Climbers above scrape on cliff
	0910	First ropes lowered
	0915	Climbers start down, ad immediately flies off scrape calling and SI
	0919	Kevin Codraro at scrape ledge, 1 IMM runs out of nest and falls-mortality
	0923	Mike Amaral at scrape ledge
	0932	2 IMM banded, 20-21 days old Band Numbers: iM Left: Black Sideways "Y" over Red C, Right: Metal "220640674", iM Left: Black Sideways "Y" over Red "D", Right: Metal "220640675"
	1002	aF perched at scrape ledge
	1005	Climbers and equipment are out of area
	1014	ad back at scrape
06/16	1210	2 IMM at scrape
	1219	ad at the scrape
	1223	ad flies out of the scrape
06/30	0845	2 IMM roosting near scrape ledge, 1 IMM EAT
	0857	ad calling but OOS
	0903	2 IMM PL in shade
07/01	1207	2 IMM at scrape
	1213	1 IMM PL on right of scrape
	1225	IMM on ledge has some down around top of head
07/05	1230	All PERE OOS
07/06	0700	aM PL with prey (small unidentified songbird), IMM calling loudly, but OOS
	0705	aM PT with prey EAT, IMM calling, still OOS
	0720	2 IMM flying
	0730	2 IMM PL, aM still PT EAT and preening
	0900	1 IMM in scrape
07/22	1000	2 IMM and 1 ad flying above cliff, noisy
08/07	0855	2 IMM flying above cliff, noisy
	0935	2 IMM still flying above cliff, noisy

**Appendix VI: Summary of Daily Observations: Jordan Cliffs Peregrine Falcons, 1997
(continued)**

<u>DATE</u>	<u>TIME</u>	<u>ACTIVITY</u>
08/26	0505	PERE calling from cliff (possibly 2)
	0532	single PERE calling from cliff
	0604	PERE flies off cliff and SP, OOS
	0606	aM PERE flies to cliff PL (banded on right leg)
	0619	aM PERE PL
	0730	aM PERE still PL
	0812	aM PERE PL
	0816	aM PERE PL
	0825	aM PERE PL
	0840	aM PERE OOS
	0905	aM PERE PT
	0933	aM PERE PL
	0941	aM PERE SP, OOS
	0231	ad PERE flies in and PL
	0315	ad PERE PL
	0320	ad PERE alarm call given 2 times
	0322	Both PERE adults now visible. Female eating.
	0327	aF PERE SP, OOS, aM PERE still visible
	0649	aM flies OOS
	0702	aM PERE flies and PL
	0703	aF PERE flies in and PL
	0730	Observer leaves.

Appendix VII.

1997 PEREGRINE FALCON IMPORTANT DATES AND DATA

	Precipice	Jordan Cliffs	Beech Cliffs
Date of first breeding activity	4/9 COPULATION; BOTH BIRDS IN OLD RAVENS NEST	4/12 BIRDS HANGING OUT ON NEST LEDGE	4/16 BOTH BIRDS CIRCLE IN FRONT OF CLIFFS
Date of initiation of full incubation	4/15 POSSIBLE START (WATCHED 1 HR) 4/17 DEFINITE START (WATCHED 5 HRS)	4/22 POSSIBLE START (WATCHED 2HRS 14 MIN) 4/23 DEFINITE START (WATCHED 2 HRS)	4/23 POSSIBLE START (WATCHED 1 HR) 4/24 DEFINITE START (WATCHED 3 HRS)
Estimated hatching date (33 days from full incubation)	MAY 19TH	MAY 25TH	MAY 26TH
Estimated hatching date (based on observations)	MAY 18TH (POSSIBLY 17TH)	MAY 24 (BEST GUESS) FEEDING OBSERVED 5/28	MAY 24 (BEST GUESS) CHICKS OBSERVED 5/28
Hatching date (estimated from age of chicks at banding)	MAY 16TH	MAY 27TH	NOT BANDED
Dates young first observed	5/26 2 CHICKS OBSERVED 6/2 3 CHICKS OBSERVED	6/4 1 CHICK OBSERVED 6/9 3 CHICKS OBSERVED	5/28 2 CHICKS OBSERVED 6/23 3 CHICKS OBSERVED
Age of chicks at banding	28 days on 6/12	18 to 19 days on 6/13	NOT BANDED
Number of young	3	3 (2 FLEDGED)	3
Est. fledging date (40 days from hatch)	June 25th	July 6th	July 7th
Dates of first flight	June 21st: 2 definite June 22nd: all three definite	July 6th: Both. July 5th: Possible	July 1st: All three
Est. nest departure (5 weeks from fledge)	July 26th	August 10th	August 5th
Date chicks last observed	August 3rd	August 7th	August 12th
Adult ♂ bands observed	LEFT: BANDED RIGHT: BANDED	LEFT: UNKNOWN (RED?) RIGHT: METAL	LEFT: RED RIGHT: METAL OR NO BAND
Adult ♀ bands observed	LEFT: NO BAND RIGHT: NO BAND	LEFT: NO BAND RIGHT: NO BAND	LEFT: UNKNOWN RIGHT: dark blue/gray? or unbanded
Bands on Young	MALE LEFT: BLACK SIDEWAYS "U" OVER RED "8" RIGHT: METAL "220640671"	MALE LEFT: BLACK SIDEWAYS "Y" OVER RED "C" RIGHT: METAL "220640674"	NOT BANDED
Bands on Young	MALE LEFT: BLACK SIDEWAYS "V" OVER RED "8" RIGHT: METAL "220662600"	MALE LEFT: BLACK SIDEWAYS "Y" OVER RED "D" RIGHT: METAL "220640675"	NOT BANDED
Bands on Young	FEMALE LEFT: BLACK "E" OVER RED SIDEWAYS "X" RIGHT: METAL "180738860"	MALE MORTALITY @ 18 DAYS NOT BANDED	NOT BANDED

Appendix VII (continued).

1996 PEREGRINE FALCON IMPORTANT DATES AND DATA

	Precipice	Jordan Cliffs	Beech Cliffs
Date of first breeding activity	3/28 2 adults observed at the cliff together, no recorded sighting of copulation.	Adult male and female present on site, but no nesting occurred.	4/10-Copulation.
Date of initiation of full incubation	Insufficient observation notes to estimate.		5/14 for sure, but insufficient notes to document if earlier.
Estimated hatching date (33 days from full incubation)	Full incubation not adequately recorded.		Full incubation not adequately recorded.
Estimated hatching date (based on observations)	5/22-1st date food was brought to scrape.		5/31-based on estimate of 5-8 days age of chicks on 1st observation 6/6.
Hatching date (estimated from age of chicks at banding)	5/18		N/A-Not banded.
Dates young first observed	5/31		6/6-Estimated to be 5-8 days old.
Age of chicks at banding	24 days-estimate		N/A-Not banded.
Number of young	3: 2 ♂, 1 ♀		1
Est. fledging date (40 days from hatch)	6/27		7/10
Dates of first flight	6/28-All 3		7/28
Est. nest departure (4 weeks from fledge)	7/26		8/25
Date chicks last observed	8/12		7/28. Note: 3 Aug. watches on 8/5, 8/6 and 8/7 saw no chick. No observations from fledge to 8/5.
Adult ♂ bands observed	LEFT: Color not seen RIGHT: Black or silver		LEFT: Unknown. RIGHT: Unbanded.
Adult ♀ bands observed	LEFT: No band RIGHT: Unrecorded		LEFT: RED "V" over "9" RIGHT: METAL
Bands on Young	FEMALE LEFT: BLACK "6" OR "7" OVER RED "9" RIGHT: METAL "98763766"		N/A-CHICK NOT BANDED.
Bands on Young	FEMALE LEFT: BLACK "9" OVER RED "A" RIGHT: METAL "98763767"		
Bands on Young	MALE LEFT: BLACK "D" OVER RED "9" RIGHT: METAL "220640660"		

Appendix VII (continued).

1995 PEREGRINE FALCON IMPORTANT DATES AND DATA

	Precipice	Jordan Cliffs	Beech Cliffs
Date of first breeding activity	4/3-Copulation	Site not active.	Not observed.
Date of initiation of full incubation	4/24? - Listed in field notes as assumed date "nesting began"		Insufficient observation notes to estimate.
Estimated hatching date (33 days from full incubation)	5/27		Full incubation date unknown.
Estimated hatching date (based on observations)	5/30		6/28
Hatching date (estimated from age of chicks at banding)	N/A-Not banded.		N/A-Not banded.
Dates young first observed	6/13 - 1 seen 6/17 - all 3		7/5-Estimated to be 8 days old.
Age of chicks at banding	N/A-Not banded.		N/A-Not banded.
Number of young	3		1
Est. fledging date (40 days from hatch)	7/9		8/7
Dates of first flight	7/4 - 1 7/11 - other 2		7/31
Est. nest departure (4 weeks from fledge)	8/1 - 1 8/8 - other 2		8/28
Date chicks last observed	8/4		9/12 - Last recorded observation. No monitoring conducted after this date.
Adult ♂ bands observed	LEFT: POSSIBLY A BAND. RIGHT: BAND SEEN, BUT NO DESCRIPTION.		LEFT: NO BAND. RIGHT: NO BAND.
Adult ♀ bands observed	LEFT: UNKNOWN. RIGHT: NO BAND.		LEFT: ORANGE OR RED BAND. RIGHT: GREEN BAND.
Bands on Young	Not banded due to scheduling conflict with USFWS.		N/A-Not banded.
Bands on Young	N/A-Not banded.		
Bands on Young	N/A-Not banded.		

Appendix VII (continued).

1994 PEREGRINE FALCON IMPORTANT DATES AND DATA

	Precipice	Jordan Cliffs	Beech Cliffs
Date of first breeding activity	3/29-Both adults present, possible courtship, 4/5-Attempted copulation.	Site not active.	Site not active.
Date of initiation of full incubation	Insufficient field notes to estimate.		
Estimated hatching date (33 days from full incubation)	Full incubation unknown.		
Estimated hatching date (based on observations)	5/22-1st prey taken to scrape.		
Hatching date (estimated from age of chicks at banding)	5/22 or 23		
Dates young first observed	6/2		
Age of chicks at banding	22-23 days on 6/13		
Number of young	4: 2 ♀, 2 ♂		
Est. fledging date (40 days from hatch)	7/1 or 7/2		
Dates of first flight	6/29 - 2 ♂s 7/2 - 1 ♀ 7/4 - 2nd ♀		
Est. nest departure (4 weeks from fledge)	7/27 - 2 ♂s 7/31 - 1 ♀ 8/2 - 2nd ♀		
Date chicks last observed	8/9 - for 2 8/12 - for all		
Adult ♂ bands observed	LEFT: Unknown. RIGHT: DARK BAND.		
Adult ♀ bands observed	LEFT: NO BAND. RIGHT: NO BAND.		
Bands on Young	Awaiting data from Mike Amaral, USFWS		
Bands on Young			
Bands on Young			
Bands on Young			

Appendix VII (continued).

1993 PEREGRINE FALCON IMPORTANT DATES AND DATA

	Precipice	Jordan Cliffs	Beech Cliffs
Date of first breeding activity	4/16-Probable copulation.	Site not active.	Site not active.
Date of initiation of full incubation	Insufficient observations recorded to estimate.		
Estimated hatching date (33 days from full incubation)	Full incubation date unknown.		
Estimated hatching date (based on observations)	5/20		
Hatching date (estimated from age of chicks at banding)	5/22 (If chicks age was 21 days at banding)		
Dates young first observed	5/23-1, maybe 2 6/2-other 2		
Age of chicks at banding	3 weeks+ on 6/12		
Number of young	4		
Est. fledging date (40 days from hatch)	7/1		
Dates of first flight	6/29-2 ♂s 7/1-1 sex uncertain 7/3- 1 ♀		
Est. nest departure (4 weeks from fledge)	6/27-2 ♂s 7/29-1 sex uncertain 7/31- 1 ♀		
Date chicks last observed	7/30-all 4 last seen 8/10-last chick seen		
Adult ♂ bands observed	LEFT: DARK BAND RIGHT: DARK BAND.		
Adult ♀ bands observed	LEFT: NO BAND. RIGHT: NO BAND.		
Bands on Young	FEMALE LEFT: BLACK "O" OVER RED "T" RIGHT: METAL "98763733"		
Bands on Young (Note: Banded as Female, but sex not certain per banding team.)	FEMALE LEFT: BLACK "O" OVER RED "S" RIGHT: METAL "98763734"		
Bands on Young	MALE LEFT: BLACK "D" OVER RED "O" RIGHT: METAL "81690588"		
Bands on Young	MALE LEFT: BLACK "U" OVER RED "O" RIGHT: METAL "81690589"		

Appendix VII (continued).

1992 PEREGRINE FALCON IMPORTANT DATES AND DATA

	Precipice	Jordan Cliffs	Beech Cliffs
Date of first breeding activity	3/20-Copulation.	Site not active.	Site not active.
Date of initiation of full incubation	4/26? Both adults going to "triangle ledge"		
Estimated hatching date (33 days from full incubation)	5/29		
Estimated hatching date (based on observations)	6/3? First time food brought to scrape		
Hatching date (estimated from age of chicks at banding)	N/A-Not banded.		
Dates young first observed	6/5 - 1? 6/10 - 2 or maybe 3 6/12 - 3 for sure		
Age of chicks at banding	N/A - Not banded.		
Number of young	3		
Est. fledging date (40 days from hatch)	Using 5/29 hatch date 7/8		
Dates of first flight	7/3 - 1 7/17 - First recorded observation of other 2 flying		
Est. nest departure (4 weeks from fledge)	7/31 - 1 8/14 - other 2		
Date chicks last observed	8/17 - last recorded observation. No monitoring conducted after this date.		
Adult ♂ bands observed	Not recorded in field notes.		
Adult ♀ bands observed	Not recorded in field notes.		
Bands on Young	N/A-Not banded.		
Bands on Young	N/A-Not banded.		
Bands on Young	N/A-Not banded.		

Appendix VII (continued).

1991 PEREGRINE FALCON IMPORTANT DATES AND DATA

	Precipice	Jordan Cliffs	Beech Cliffs
Date of first breeding activity	3/29-Copulation.	Site not active.	Site not active.
Date of initiation of full incubation	5/10-Best estimate based on information in field notes.		
Estimated hatching date (33 days from full incubation)	6/12		
Estimated hatching date (based on observations)	6/9 (Chicks observed 6/19 described as fluffy, active, moving around scrape-likely to be 10 days old)		
Hatching date (estimated from age of chicks at banding)	N/A-Not banded.		
Dates young first observed	6/19		
Age of chicks at banding	N/A-Not banded.		
Number of young	3		
Est. fledging date (40 days from hatch)	7/19		
Dates of first flight	6/30-2 7/1-3rd chick		
Est. nest departure (4 weeks from fledge)	7/28-2 7/29-3rd		
Date chicks last observed	8/8 or 8/9		
Adult ♂ bands observed	LEFT: Unknown. RIGHT: DARK BAND.		
Adult ♀ bands observed	Not recorded.		
Bands on Young	N/A-Not banded.		
Bands on Young	N/A-Not banded.		
Bands on Young	N/A-Not banded.		

Appendix VIII.

BAND INFORMATION FOR EYASES HACKED IN ACADIA AT JORDAN CLIFFS

Nickname	Year	Left Band Number	Right Band Number	Sex	Status	Source of Info
Homer	1984	Yellow "28"	Black Anodized "816-67427"	M		
Cirus	1984	Black Anodized "816-67428"	Yellow "29"	M		
Althea	1984	Yellow "68"	Black Anodized "987-73345"	F		
Maggie	1984	Black Anodized "987-73346"	Yellow "90"	F		
Betty	1984	Yellow "91"	Black Anodized "987-73347"	F		
Jan	1984	Black Anodized "987-73348" (Green Tape)	Yellow "92"	F		
Gapper	1984	Yellow "93"	Black Anodized "987-73349" (Blue Tape)			
Tundra	1985	Blue "23"	Metal "816-67485" (Green Tape)	F	Found dead 8/9/85-Boothbay Harbor, ME	Patuxent Wildlife Research Center
Tiny	1985	Metal "816-67486"	Blue "24"	M		
Arrow	1985	Metal "816-67487"	Blue "25"	M		
#87	1985	Blue "87"	Metal "617-22677"	F		
Flee	1985	Metal "617-22678" (Orange Tape)	Blue "151"	F		
CAC	1985	Blue "152"	Metal "617-22674" (Orange Tape)	F		
Rush	1986	Black Anodized No. "B57B"	Metal "987-82362" (Black Tape)	F		
Rory	1986	Metal "987-82368" (Pink Tape)	Black Anodized No. "B29B"	F	Cornell Medical Building-Staten Island. Actively nesting in 1997.	New York City Parks Department
Rita	1986	Black Anodized No. "B58B"	Metal "987-82369" (Orange Tape)	F	Seen alive 4/89-Long Island, Huntingdon Station. Not still there in 1997.	Patuxent Wildlife Research Center, New York City Parks Department.
Champ	1986	Metal "987-82370" (Lime Tape)	Black Anodized No. "B50B"	F		
Flee	1986	Metal "816-75237" (White Tape)	Black Anodized No. "A62A"	M		
Ganesh	1986	Black Anodized No. "A59A"	Metal "816-75238" (Pink Tape)	M	Actively nesting in Acadia National Park since 1991.	Direct observation.
Shiva	1986	Metal "816-75239"	Black Anodized No. "A65A"	M		
Curly	1986	Black Anodized No. "A71A"	Metal "816-75240" (Lime Tape)	M		
Larry	1986	Black Anodized No. "A72A"	Metal "816-75241"	M		
Mo	1986	Metal "816-75242"	Black Anodized No "A63A"	M		

Appendix IX.

BAND INFORMATION FOR EYASES BORN IN ACADIA

Location	Year	Left Band Number	Right Band Number	Sex	Status	Source of Info
Precipice	1991	Not Banded	Not Banded			
Precipice	1991	Not Banded	Not Banded			
Precipice	1991	Not Banded	Not Banded			
Precipice	1992	Not Banded	Not Banded			
Precipice	1992	Not Banded	Not Banded			
Precipice	1992	Not Banded	Not Banded			
Precipice	1993*	Black "O" over Red "T"	Metal "98763733"	F		
Precipice	1993	Black "O" over Red "S"	Metal "98763734"	F (?)		
Precipice	1993	Black "D" over Red "O"	Metal "81690588"	M		
Precipice	1993	Black "U" over Red "O"	Metal "81690589"	M		
Precipice	1994	Black "V" over Red "9"	Metal "220625977"	M		
Precipice	1994	Black "G" over Red "O"	Metal "220625978"	M		
Precipice	1994	Black "I" over Red "H"	Metal "987-63743"	F	1996 & 1997: Nesting at Christian Science Church Admin.. Bld., Boston, MA	Mike Amaral
Precipice	1994	Black "I" over Red K"	Metal "987-63744"	F	1997 (possibly 1996), Nesting at Devil's Slide, Stark, NH.	Mike Amaral
Precipice	1995	Not Banded	Not Banded			
Precipice	1995	Not Banded	Not Banded			
Precipice	1995	Not Banded	Not Banded			
Beech Cliffs	1995	Not Banded	Not Banded			
Precipice	1996	Black "6 or 7" over Red "9"	Metal "98763766"	F		
Precipice	1996	Black "9" over Red "A"	Metal "98763767"	F		
Precipice	1996	Black "D" over Red "9"	Metal "220640660"	M		
Beech Cliffs	1996	Not Banded	Not Banded			
Precipice	1997	Black Sideways "U" over Red "g"	Metal "220640671"	M		
Precipice	1997	Black Sideways "V" over Red "g"	Metal "220662600"	M		
Precipice	1997	Black E over Red Sideways "X"	Metal "180738860"	F		
Beech Cliffs	1997	Not Banded	Not Banded			
Beech Cliffs	1997	Not Banded	Not Banded			
Beech Cliffs	1997	Not Banded	Not Banded			
Jordan Cliffs	1997	Black Sideways "Y" over Red "C"	Metal "220640674"	M		
Jordan Cliffs	1997	Black Sideways "Y" over Red "D"	Metal "220640675"	M		
Jordan Cliffs	1997	Not Banded	Not Banded	M	Mortality at 18 days, during banding effort	