

/

VERMONT BALD EAGLE RESTORATION INITIATIVE
Annual Report to Vermont Fish & Wildlife Department
December, 2005



Steve Costello, CVPS

Submitted by: Margaret Fowle, Wildlife Biologist
National Wildlife Federation
Northeast Natural Resource Center
58 State Street
Montpelier, VT 05602



THE VERMONT BALD EAGLE RESTORATION INITIATIVE 2005 REPORT

ABSTRACT: The National Wildlife Federation's Northeast Natural Resource Center (NWF), in partnership with Outreach for Earth Stewardship (OFES), the Vermont Fish and Wildlife Department (VFWD), Central Vermont Public Service (CVPS), U.S. Senator James Jeffords, and the U.S. Fish and Wildlife Service (USFWS), coordinated the second year of its 3-year bald eagle translocation and education project in the Lake Champlain Basin of Vermont. Eleven eaglets from Maryland, Maine, New York, and Massachusetts were cared for and released from a hack box at the Dead Creek Wildlife Management Area in the spring and summer of 2005. Approximately 50 volunteers helped feed and monitor the eaglets during the hacking season, totaling 1,500 hours of donated time to the project.

INTRODUCTION

The bald eagle (*Haliaeetus leucocephalus*) has returned to many parts of its former range, and its re-establishment as a breeding species in the northeastern United States appears secure. Efforts to restore bald eagle populations to North America have been extremely successful, thanks to the ban on DDT, extensive reintroduction programs, and the protection of critical breeding and wintering habitat (USFWS 1999). When the Vermont Bald Eagle Restoration Initiative began, Vermont was the only state in the Northeast and in the contiguous U.S. that did not have confirmed bald eagle nesting pairs.

Bald eagles are currently listed as threatened under the federal Endangered Species Act, and on July 6, 1999, the USFWS proposed that they be removed from the federal list of endangered and threatened species. Presently, the delisting proposal is still pending because of uncertainty regarding the level of protection that will remain in effect under the Bald and Golden Eagle Protection Act.

The State of Vermont currently lists the bald eagle as a state-endangered species, under the protection of the Vermont Endangered Species Act. Historical information on bald eagles in Vermont is limited, however; eagles were considered rare summer residents in the early 1900s, and were reported to have nested on Lake Bomoseen in the central part of the state in the 1940s

(Laughlin and Kibbe 1985).

Currently, bald eagles are known to nest in every state and Canadian province bordering Vermont. Increases in the breeding populations of eagles in states neighboring Vermont bode well for the establishment of breeding eagles in Vermont. In fact, two pairs of eagles built nests within the Vermont border in 2005; these sites were in the Connecticut River valley, but neither pair appeared to lay eggs. To best prepare for the eventual establishment of a breeding population of bald eagles in Vermont, NWF, in partnership with VFWD, OFES, USFWS, Audubon Vermont, and the Audubon Society of New Hampshire drafted the *Vermont Bald Eagle Recovery Plan*. The plan outlines the objectives and action items (including a translocation project in Lake Champlain) needed to establish a viable breeding population of bald eagles in the state.

In both 2003 & 2004, the USFWS, through appropriations bills sponsored by U. S. Senator James Jeffords, was given \$99,000 (totaling \$198,000) for a bald eagle recovery initiative in the Lake Champlain region of Vermont. A total of \$189,000 was granted to the VFWD. Over the course of two years, the sum of \$132,350 has been awarded to NWF and its collaborators through a contract with the VFWD. NWF has coordinated the translocation project in partnership with USFWS, OFES, VFWD, and CVPS since 2003.

Our objectives for the second year of the translocation project were the following:

- (1) Maintain and enhance partnerships.
- (2) Improve and repair hack site at the Dead Creek Wildlife Management Area.
- (3) Coordinate efforts to successfully raise and release up to 12 eaglets at the hack site, in cooperation with USFWS, OFES, VFWD, and CVPS, including securing sources of eaglets, securing an adequate food supply, protecting the hack site from predators and human disturbance, recruiting and training volunteers and seasonal staff in eaglet care, and monitoring eaglets after fledging.
- (4) Work with partners to further develop an educational campaign and media strategy to educate public about bald eagles as a flagship endangered species and top predator in the Lake Champlain Basin, including working with CVPS to update its website with live camera links to the hack box.

METHODS and RESULTS

Vermont Bald Eagle Recovery Plan

The *Vermont Bald Eagle Recovery Plan* is currently being reviewed by the VFWD. The Scientific Advisory Group on Birds accepted the plan in 2005 and recommended that it be

submitted to the Endangered Species Committee for approval.

Partnerships

We maintained key partners in the project and further refined each collaborator's role in carrying out the necessary tasks for the translocation program. As in 2004, NWF was the primary contractor with VFWD for the project, and coordinated overall efforts of each partner, including improving the hack site, working with VFWD to communicate with the media and general public and secure food for the eaglets, working with USFWS to secure sources of eaglets, working with CVPS on the website and web camera improvements and/or updates, and collaborating with OFES and VFWD to care for the eaglets. OFES worked with VFWD and NWF in the direct care of the eaglets, including recruiting and training volunteers. All partners participated in media events, and OFES, NWF, and VFWD staff gave several educational presentations throughout the year.

NWF distributed contract funds to OFES for staff time, supplies for bald eagle care, and educational programs. CVPS contributed in-kind staff time and equipment for website design, hack box construction, and live cameras in the hack boxes.

Hack Box Design and Improvements

Each compartment of the hack box is 8' x 8' x 6' and stands 20 feet off the ground on the telephone poles. The backs and half of the sides are solid and the fronts and half of the sides have bars so the birds can see their surroundings. The doors on the front of the box are removable. The telephone pole supports each have predator-proof metal flashing. An easy food-drop system minimizes human contact with the eaglets, and each box is equipped with a one-way glass window so caretakers can see in the box without the eaglets seeing them. Nests and perches were installed inside each of the three compartments, and water dishes and feeding trays were provided. Access to the boxes was by ladder up to a narrow platform behind the boxes, and we installed a pulley system for bringing food and water to the platform.

The hack box used in 2004 was improved in several areas for 2005. Primarily, we worked with VFWD to upgrade the hoisting system for placing eagles in the box, improve the safety of the walkway at the back of the hack site, improve the safety of the guy wires for released eagles at the front of the hack site, construct a platform at the front of the box for perching and feeding when doors are open, and improve the door removal system for releasing the eagles. VFWD staff coordinated these efforts in the spring of 2005.

Eaglets

M. Amaral collaborated with C. Koppie and G. Therres from Maryland to capture eaglets from wild nests, and worked with T. Ricardi from Massachusetts and P. Dubacher from New York to donate eaglets hatched in their rehabilitation facilities.

Six 6-8 week-old eaglets were taken from wild nests with more than one chick in Maryland in early May. The first group arrived by car at the hack site on 4 May, and the second arrived by plane on 6 May. Both groups of eaglets were transferred to the hack site immediately after arrival.

Three 7-week-old eaglets, 2 of which were hatched at Tom Ricardi's facility in Massachusetts, and one which was orphaned in Maryland and cared for at Tom Ricardi's were driven to Vermont in mid-June. Two of these eaglets were placed in the boxes, but one of the chicks hatched at the facility had been injured when captured. The chick returned to Tom Ricardi's and was released from there in the fall of 2005.

Two 7-week old eaglets from Peter Dubacher's Berkshire Bird Paradise in New York State arrived in Vermont on 28 June.

An orphaned eaglet from Maine was transferred to Avian Haven, a rehabilitation facility in Maine, before being transported to the Dead Creek Hack site on 9 July.

Each eaglet was banded with a USFWS standard aluminum band on the left leg and a black alphanumeric band on the right leg (see Table 1).

Eaglet Care

Eaglets were fed and cared for by an extensive network of volunteers, a paid night-time attendant, and a seasonal on-site staff person hired by VFWD. S. Palmer from OFES was the seasonal night-time attendant, and A. Alfieri was the seasonal coordinator. S. Palmer prepared each daily feeding for the volunteers, fed the eaglets after dark, and spent the nights in a trailer, donated by Pete's RV Center, near the hack site. A. Alfieri coordinated volunteer schedules, worked with the night attendant to insure there was an adequate food supply, monitored daily eaglet behavior and health, worked closely with OFES and NWF staff to coordinate release and arrival dates, and filled in any on-site scheduling gaps as needed.

Fifty volunteers assisted with the daytime feedings and general care of the eaglets. These volunteers were trained by E. Cecchini, A. Alfieri, and S. Palmer during three training sessions in early and mid-April. Trainings focused on eagle biology and development, minimizing contact with and disturbance to the eagles, and following procedures. Each volunteer received a training manual and was given training in emergency response protocol. Feeding schedules changed as the eaglets' needs changed, so there was a great need for regular communication with volunteers. Volunteers were notified by email, notes at the Dead Creek WMA office (where the food, feeding logs, phone, etc were stored), and by phone. To ensure no feedings were missed, each volunteer was required to call the eagle phone when he/she arrived at the site before feeding and before leaving the site after feeding. NWF and OFES ensured that one staff person or experienced volunteer was on call 24-hrs a day to help with any emergencies.

The hack box doors were opened for the Maryland eaglets on 2 June, for the Massachusetts eaglet and Maryland orphan on 21 June, and for the New York eaglets and Maine orphan on 9 July, 2005. The last eaglet fledged on 3 August. Once the doors were open, volunteers helped monitor the eaglets with spotting scopes and binoculars from a blind located 0.25 miles from the hack box. S. Palmer fed the birds at night on the platform at the front edge of the box and on a feeding platform set in a field in front of the hack box. Volunteers reported their observations in a monitoring log.

Food Supply

B. Mann and A. Alfieri from VFWD worked with the local fish hatcheries and game wardens to ensure there was a steady supply of fish and roadkill for the eaglets. Fish were also donated by a local bait shop in New York State. Food was stored in freezers at the Dead Creek WMA headquarters.

Post-fledging Mortality

Three eagles have been recovered since the translocation project began. The first was found on 25 December, 2004 in St. Johnsbury. The bird was weak but not emaciated, and died in transport to Tufts Wildlife Clinic. No cause of death was determined. Two eagles from 2005 were found dead after fledging. The first was recovered in a field near the hack site on 29 June. It was in good condition and was later necropsied to find a tracheal infection. The second eagle was found hit by a train along the Hudson River between Albany and New York City. She had apparently been feeding on carrion on the railroad tracks.

We expect approximately 50% mortality in the first year after release. The fact that all three birds were in good condition is a positive sign. Moreover, the eagle that was hit by a train had migrated to known wintering eagle habitat.

Outreach, Education, and Media

Several events were held to inform and educate the public about eagle conservation and how eagles are connected to the Lake Champlain ecosystem. Programs were given by M. Fowle and E. Cecchini. A. Alfieri gave on-site educational programs about the project at the DCWMA viewing area.

Media interest continued in 2005, with several local TV and newspapers attending events when the eagles arrived in Vermont and were released from the hack site.

As in 2004, CVPS donated its educational website (www.cvps.com/eagles) with links to live cameras on the eaglets and information on eagle natural history and conservation. This website was again extremely well received.

We revised our joint NWF, OFES, VFWD, USFWS and CVPS brochure. Partners distributed the brochure on site and at any media and educational events.

Volunteer Recognition Event

The hard work and dedication of volunteers, corporate sponsors, and project staff was recognized at an end of the season celebration in early September. About 60 people attended the event at Shelburne Farms, and each volunteer or sponsor received a t-shirt and certificate of appreciation for their efforts in the project.

2005 Budget

We estimated that approximately \$49,000 of in-kind donations was given to the project in 2005, in addition to approximately \$19,000 in volunteer time. In-kind donations easily matched and exceeded the \$45,000 budget for the 2005 hacking season. Without these contributions, we would not have been able to carry out the project so successfully.

DISCUSSION

Highlights from 2005

The overall success of the second year of this restoration project continued to be tremendous on many levels. First and foremost, all eleven eaglets fledged successfully. Staff and volunteers who cared for the eaglets were exceptionally dedicated and enthusiastic, and we would not have been as successful without them.

Secondly, the public interest in and support for the project continued to be remarkable. In general, the public showed great enthusiasm for restoring eagles to Vermont, and the eagle webcam continued to be extremely popular. The media's interest also reflected this enthusiasm, with most local networks and newspapers attending major events.

Having a full-time seasonal staff person on-site during the hacking season proved to be a positive addition to the project. Although many members of the partnership continued to work outside of their regular working hours to meet the demands of the project, much of the workload from 2004 was relieved.

Improvements to the hack site were essential in ensuring that the placement and releases of the eaglets went smoothly and were relatively stress free for the birds. The donation of soft crates by Pet Gear Inc. was also extremely valuable in reducing stress to the eaglets during transport and placement in the boxes.

In addition, the partnership itself continued to be strong. Perhaps the greatest asset of the project

is that it brings partners together from all types of organizations – non-profit, state, governmental, and corporate. Very few wildlife conservation projects in Vermont have been able to bring so many different entities together.

Challenges from 2005

Timing was probably the greatest challenge in the 2005 season. The seasonal staff person was hired only weeks before the first eaglets arrived, M. Fowle returned from maternity leave shortly before the hacking season began, and there was little time for training of volunteers, preparing the hack site, and setting guidelines for communication between partners and the seasonal coordinator.

The project continued to demand a great deal of time from staff who are responsible for many other aspects of their jobs and home life, but the work went smoothly overall, and all 11 eaglets were successfully released.

General Strategies for 2006

In general, we plan to carry out the project in 2006 much in the same way we did in 2005, including re-hiring A. Alfieri as the seasonal coordinator for VFWD, using volunteers to help care for the eaglets, and maintaining the core partnership for the project. We anticipate that this last year will be the smoothest of all, with two years of experience behind us. We plan to continue to increase our educational efforts in the region.

VFWD’s 2006 contract with USFWS requires that we use telemetry devices on at least 5 eaglets. We are researching the options for a system that will provide us with the most useful data.

Table 1. Band Numbers of eaglets released at Dead Creek Wildlife Management Area, 2005.

State of Origin	USFWS Band #	Alphanumeric Band #	Band Return
Maryland	629-50018	7/K	
Maryland	629-50023	7/M	
Maryland	629-50024	7/N	Deceased – VT 6/29/05
Maryland	629-50025	7/P	
Maryland	629-50477	7/U	
Maryland	629-50476	7/R	
Maryland	629-50489	5/Z	
Massachusetts	629-50488	6/D	Deceased – NY 10/1/05
New York	629-50490	7/V	
New York	629-50491	6/E	
Maine	629-50492	7/S	

ACKNOWLEDGEMENTS

We'd like to give a special thank you to U.S. Senator James Jeffords & his Natural Resources Coordinator Tom Berry, who sponsored this project and provided the bulk of the funding. We'd also like to thank our numerous sponsors for their generous support of the project: Central Vermont Public Service, Champlain Valley Telecom, IBM, Interactive Media, Kehoe Conservation Camp, Dave Kynor, Jeff Nadler, Norm's Bait and Tackle, Omya Corporation, Pete's RV Center, Pet Gear Inc., and Shelburne Farms.

Staff from each of the project's core partners gave a tremendous amount of time and effort to the project in 2005. For NWF: Kathy Wohlfort and Steve Wright; OFES: Eveleen Cecchini, Craig Newman and Sean Palmer; CVPS: Steve Costello, Jim Allen, BJ Lewis, Jan Coolidge, Joe Dicton, Tim Millard, Dan O'Hara, Matt Pennington, Jeff Ploof, Cody Racette, and Marie Spanos; VFWD: Amy Alfieri, Lil Lumbra, Brad Mann, John Mlcuch, Steve Parren, and David Sausville, and Vermont State Fish Hatcheries and Game Wardens; USFWS: Michael Amaral and Tony Tur.

A special thanks to our eaglet donors and project advisers, who shared their expertise and eagles: Peter Dubacher, Craig Koppie, Peter Nye, Marc Payne, Tom Ricardi, Glenn Therres, and Charlie Todd.

We can't thank our eaglet caretakers & other volunteers enough for their dedication and enthusiasm: Connie Belkovicz, Micky Billings, Tim Bird, Jim Bodette, Sarah Bowering, Mary Jane & Michael Broughton, Nancy Carey, Terry Cecchini, Peggy Chatelain, Ernest Clifford, Anne Crocker, Barbara Deal, Mike Eling, Joel Fearon, John & Pam Freilich, Jim, Karen & Jeffrey Gallot, Andrew Gergely, Connie Gilbert, Melissa Green, David Gusakov, Scott Hicks, Cindy Hooley, Linda & Paul Horn, Joan Janzen, Steve Ingbar, Sam Kayhart, Susan Keniston, Mary Kerr, Hannah Magoun, Maura McClure, Mary Merges, Lois Meyers, Dean & Lisa Percival, Don & Nancy Perdue, Martha Perkins, Kris Pierce, Carol Place, Mona Richardson, Louise Ricard, Elizabeth Anne Rotax, Crystal Thompson, Rebecca Trudeau, Mary Van Tol, Bill & Liz Wisell, and Fern Wyman.

Thanks to our veterinarians Dr. Steve Metz and Dr. Dan Hament and the Tufts University Wildlife Clinic.

LITERATURE CITED

Laughlin, S.B., and D. P. Kibbe, eds. 1985. The atlas of breeding birds of Vermont. University Press of New England, Hanover, NH. 456 pp.

U.S. Fish and Wildlife Service. 1999. Endangered and threatened wildlife and plants; proposed

rule to remove the bald eagle in the lower 48 states from the list of endangered and threatened wildlife. Federal Register 64(128): 36454-36464.