

TRAPPING AND BANDING OF RAPTORS

EASTERN SHORE OF VIRGINIA
NATIONAL WILDLIFE REFUGE
WISE POINT

SEPTEMBER 11, 1989

TO

NOVEMBER 11, 1989

BY

REESE F. LUKEI, JR.



This project was operated at Wise Point on the Eastern Shore of Virginia National Wildlife Refuge under Special Use Permit #40502 issued to Dr. Mitchell A. Byrd, Professor of Biology, The College of William and Mary, Williamsburg, Virginia. The daily operation of the banding site was operated by volunteer Reese F. Lukei, Jr., 1046 Azalea Court, Virginia Beach, Virginia 23452, phone 804-340-5948, federal banding permit #21524-B.

The purpose of the project was to trap and band raptors (hawks and falcons) during their fall migration. This is the continuation of a project that has been undertaken at this location for several years. The project is funded through the Virginia Non-game Wildlife Program and administered and supervised by Dr. Mitchell A. Byrd.

The Eastern Shore of Virginia NWR is a significant site for this activity because of its location at the southern tip of the Eastern Shore of Virginia. The raptors and other birds migrating south during the fall months follow the Atlantic coastline and upon reaching the open water at the mouth of Chesapeake Bay, pause and wait for favorable winds before crossing the Bay. This is very similar to the situation at Cape May, New Jersey. As a result, a large number of raptors are present from about September 10 through November 1 of each year.

Two types of trapping equipment are used to catch the raptors. Mist nets are very fine nylon nets, 40 feet long, seven feet high, with four pockets or envelopes, that are held in place with 3/4 inch metal poles. Three of these nets are used, with the two outside nets set at about a 30 degree angle with the third net in the middle. The other type of trap is a bow net, which is an aluminum metal frame about four feet in diameter, covered loosely with cotton crab netting, which folds in half and is activated by hinged springs. The release of the net is controlled by a pull line from a blind. These nets are placed on the ground between the three mist nets.

Pigeons and brown-headed cowbirds are used as lures. The cowbirds are used under U.S. Fish and Wildlife permit #PRT-688032. The lure birds are placed in leather or cloth harnesses which are attached to dacron fish line that runs along the ground between the blind and wooden lure poles placed beyond the far ends of the mist nets. These lines are pulled to allow the lure birds to fly, thus attracting the raptors to the banding site.

The blind is a wooden structure ten feet long, four feet wide and seven feet high, with open windows on all sides for viewing. There is a door on each end. It will accomodate four people comfortably, but can hold five persons.

The blind site is at location A on the enclosed map #1. The blind faces NNE and is arranged as shown on map #2. The site was in operation daily from September 11, 1989 through November 11, 1989 except for a few days of rainy weather. The nets were opened about sunrise each morning and closed near sunset each evening.

The bands that are used are furnished by the USF&WS Bird Banding Laboratory. They are aluminum and are numbered according to size. The sizes used and raptors applied to during this project were as follows:

<u>Size #</u>	<u>Raptor</u>
2	Male Sharp-shinned hawk
3	Female Sharp-shinned hawk
3B	Female Sharp-shinned hawk
	Male and Female American Kestrel
	Male Merlin
3A	Female Sharp-shinned hawk
4	Female Merlin
	Male Cooper's hawk
	Male Northern Harrier
5	Female Cooper's hawk
	Female Northern Harrier
6	Male Peregrine
7A	Female Peregrine
	Red-tailed hawk
7B	Red-tailed hawk
	Rough-legged hawk
7D	Red-tailed hawk

The raptors that are usually trapped and banded are as follows:

American Kestrel - *Falco sparverius*
Merlin - *Falco columbarius*
Peregrine Falcon - *Falco peregrinus*
Sharp-shinned Hawk - *Accipiter striatus*
Cooper's Hawk - *Accipiter cooperii*
Northern Harrier - *Circus cyaneus*
Red-tailed Hawk - *Buteo jamaicensis*

The raptors that are rarely trapped and banded are as follows:

Red-shouldered Hawk - *Buteo lineatus*
Broad-winged Hawk - *Buteo platypterus*
Rough-legged Hawk - *Buteo lagopus*

The raptors that are observed but not trapped are as follows:

Bald Eagle - *Haliaeetus leucocephalus*
Osprey - *Pandion haliaeetus*
Black Vulture - *Coragyps atratus*
Turkey Vulture - *Cathartus aura*

The results of trapping and banding for 1989 are summarized as follows:

<u>Raptor</u>	<u>September</u>	<u>October</u>	<u>November</u>	<u>Totals</u>
American Kestrel	44	11	1	56✓
Merlin	227	57	1	285✓
Peregrine	4	21		25✓
Sharp-shinned	101	263	41	405✓
Cooper's	25	91		116✓
Northern Harrier	1	6	2	9✓
Red-tailed	7	10	7	24✓
Rough-legged ¹		<u>1</u>		<u>1</u> ✓
Total banded	409	460	52	921
Foreign retraps	<u>2</u>	<u>3</u>		<u>5</u>
Total trapped and banded	<u>411</u>	<u>463</u>	<u>52</u>	<u>926</u>
Days nets were open	18	29	7	54
Hours nets were open	164	250	47	461

The age and sex of the raptors that were banded are summarized as follows:

<u>Raptor</u>	Not Sexed: ²		Male		Female		TOTAL	
	<u>HY</u>	<u>AHY</u>	<u>HY</u>	<u>AHY</u>	<u>HY</u>	<u>AHY</u>	<u>HY</u>	<u>AHY</u>
American Kestrel			26		30		56	
Merlin			120	8	136	21	256	29
Peregrine			15		10		25	
Sharp-shinned			171	3	221	10	392	13
Cooper's			71	5	33	7	104	12
Northern Harrier			5		4		9	
Red-tailed	22	2					22	2
Rough-legged					<u>1</u>		<u>1</u>	
Totals	<u>22</u>	<u>2</u>	<u>408</u>	<u>16</u>	<u>435</u>	<u>38</u>	<u>865</u>	<u>56</u>

HY - Hatch Year bird

AHY - After Hatch Year bird

- 1 - This is only the second Rough-legged Hawk to be trapped in southeast Virginia. The other was trapped by Paul Baker in 1986 at Fisherman Island NWR. Trapped and banded October 26, 1989, band #877-83066.
- 2 - The Bird Banding Laboratory does not allow sexing of Red-tailed Hawks in the field because of overlap in size of each sex.

Raptors that were trapped at Wise Point and had been banded at other locations (referred to as foreign retraps) were:

<u>Date</u>	<u>Specie</u>	<u>Sex</u>	<u>Age</u>	<u>Band #</u>
9-13-89	Merlin	Male	HY	1333-47770
9-23-89	Merlin	Male	HY	1373-95360
10-06-89	Cooper's	Male	HY	614-75053
10-13-89	Merlin	Female	HY	614-57786
10-24-89	Cooper's	Male	HY	614-54824

Cooper's Hawk #614-54824 was banded at Fisherman Island NWR by Paul Baker earlier the same day.

In addition to these raptors, Cooper's Hawk #614-77538 which was banded by me at Wise Point on 10/11/89 was retrapped by me on 10/24/89.

Comparative data from the years 1985-1988 as provided by Rudy Cashwell who operated the Wise Point banding site during those years is as follows:

<u>Raptor</u>	<u>1989</u>	<u>1988</u>	<u>1987</u>	<u>1986</u>	<u>1985</u>
American Kestrel	56	13	30	12	6
Merlin	285 30.1	184 32.1	232 39.3	324 36.9	88 16.6
Peregrine	25	11	13	16	5
Sharp-shinned	405 44.0	307 53.5	271 45.9	494 56.7	356 67.2
Cooper's	116 12.6	51 8.9	33 5.6	25 2.8	64 12.1
Northern Harrier	9	6	10	5	3
Red-tailed	24	2	1	3	8
Rough-legged	1				
Broad-winged			1		
Total banded	921	574	591	879	530

Observations

Of particular interest during the fall migration is the Peregrine Falcon, an endangered specie. I kept a record of all sightings during the season. Over 300 sightings were made. The highest numbers were seen on 9/30 (12), 10/2 (11), 10/6 (23), 10/15 (17), 10/16 (27), and 10/17 (14). Only a few adults were seen, and some of these sightings were probably the adults from Fisherman Island. They appear to be using the marsh (B on Map #1) to hunt on an irregular basis. I observed other Peregrines also using this marsh area. Most of the passage Peregrines came from the north and appeared to be following U.S. Route 13 as a flight guide. At least 75% of the Peregrines took this route. Most of the other Peregrines would appear over the east end of the tree line (C on Map #1) and fly south along the Intercoastal Waterway.

Bald Eagles were observed on 24 of the 54 days the site was in operation. Most of these sightings were of two immature eagles, sometimes separate and sometimes together. They would appear at the tree line, usually at the west end, then fly along the tree line then south to the east side of Fisherman Island. On several occasions one of the immature eagles appeared to get up from the mid-point of the tree line. On two occasions I saw both adult and immature eagles get up from the west end of the marsh.

The Rough-legged Hawk that was trapped on 10/26 was flying with a second Rough-legged. They were last seen flying together on 11/1.

Records were kept by me of the times at which all the raptors were trapped. Generally there are raptors present most of the day, but the various specie are active and therefore trapped at different times of the day. Those that were trapped in sufficient numbers to obtain reliable data were:

Sharp-shinned	294 of 405	between 0700 and 1100 EDT
Cooper's	75 of 116	between 0900 and 1400 EDT
American Kestrel	48 of 56	between 0900 and 1600 EDT
Merlin	139 of 285	between 1500 and 1800 EDT
Red-tailed	20 of 24	between 1100 and 1500 EDT

Many other species of birds use the areas within sight of the blind site at Wise Point. The marsh (B on Map #1) seems to be especially attractive. On a daily basis the marsh is used by Great Blue Heron, Common Egret, Cattle Egret, Green-backed Heron, Tricolored Heron, Snowy Egret, Osprey, and Belted Kingfisher. The Osprey, after catching a fish in the bay, often flies to a stump on the marsh edge to feed.

The shrubs surrounding the blind site are heavily used by passerines for feeding and rest. That, of course, also makes the area attractive to sharp-shinned and Cooper's hawks.

A rare sighting of a Scissor-tailed Flycatcher was made on 11/1. At 0850 the Scissor-tailed flew in with several other passerines. It sat in the top of a small Cherry tree about 100 feet east of the blind until 0910 when I lost sight of it. This bird is common in the Everglades and Keys of Florida.

Recommendations

As mentioned on page one, Wise Point is an area of significance to the raptors using the Atlantic Flyway. The project of banding raptors at this location should continue in future years. Therefore, the area should be managed for this purpose. Of concern, is the growth of trees, especially pine. This area was created when the spoil from the digging of the Intercoastal Waterway was dumped there. The growth of shrubs and trees has reached a point where pine have begun to take over. If this is allowed to continue, then the shrubs will eventually be lost and the value to the migrating passerines and raptors will also be lost. This to a great extent has already happened. The Kiptopeke Beach banding site, three miles north, is another example of where this has occurred.

Before next fall the selective cutting of pines should be accomplished in order to provide better growth opportunities for the shrubs and to increase sight lines from the blind of incoming raptors.

With the probable closing of the small bird banding station at Kiptopeke Beach, consideration should be given to moving this project to Wise Point or to an area on the Refuge. As mentioned in my observations, passerines are using this area in great numbers.

From my observations, the marsh (B on Map #1) is a very valuable area on the Refuge and should be managed for the birds and other wildlife that use it on a daily basis.

Acknowledgements

My thanks to Dr. Mitchell Byrd for allowing me to operate the Wise Point banding station; to Rudy Cashwell for his assistance in clearing and setting up the site and his assistance on those days when he could help band; to Paul Baker who kept me supplied with cowbirds; to Refuge Manager Sherman Stairs and Assistant Manager Mike Bryant for their interest in the project and permitting me to stay on the Refuge, which cut down on a lot of travel; and to my wife, Melinda, who not only assisted in the banding (I caught a Peregrine every day she was there), but kept things going at home for the two months I was gone.

CHESAPEAKE BAY

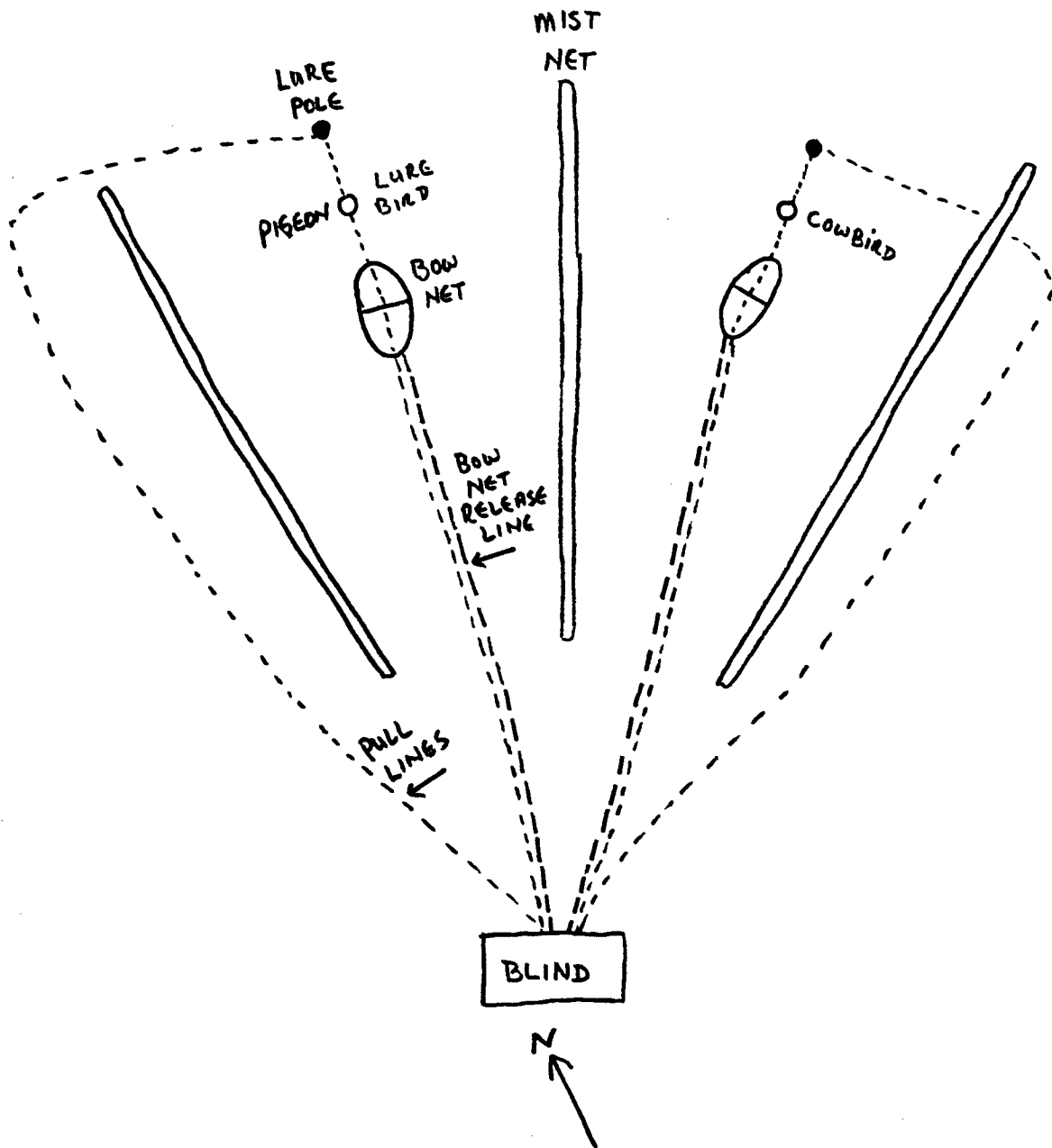


CHBT

- (A) WISE POINT BLIND SITE
- (B) MARSH
- (C) TREE LINE

- P---Parking
- C---Family Cemetery
- MO---Marsh Overlook
- G---WWII 16" Gun Emplacement
- - - Wildlife Trail

MAP # 1



BANDING SITE ARRANGEMENT

MAP #2