Niagara Peninsula Hawkwatch

Newsletter

Newsletter No. 2, February 1991

A Note From the President

HAWKWATCHERS WANTED - PLEASE HELP

Are strange things happening to you? Hands curling, as though around binoculars? Eyes elevating and looking east? Neck and foot muscles flexing as if to relieve a day's worth of standing at Beamer? Are strange code words - "Shin", "TV", "Tail", "RT", "Hempine" and others - popping up involuntarily in the middle of normal conversations? Do you have the feeling that spouses and others are regarding you strangely?

Relax, everything is normal. Traditionally, early February is when Hawkwatchers start experiencing the first signs of *Raptor-migrationitis*. It is a normal response to the fact that the hawks will start moving around the end of the month.

If the above describes you, there's something you can do about it. Signing up now for one or more days at Beamer will help relieve the symptoms. We have 92 days to cover, and lots of volunteer counters are needed. If you are new at hawkwatching, sign up as an assistant counter and work with someone who has had more experience.

Please check your calendars as soon as possible and then get in touch with Mary Ellen Foley. Write to her at 32 Maplewood Dr., St. Catharines, ON L2M 3P1, or give her a call at (416) 937-7671. If you can, please try to find some time in May. We know this is prime passerine season, but the hawks are still moving too.

Below you will find information on the activities planned for this season. I'm looking forward to seeing all of you again, and soon!

Bruce Duncan

1991 UPCOMING EVENTS

Friday, March 1

Official opening of the 1991 Spring Hawkwatch at Beamer Conservation Area.

Friday, March 29 (Good Friday) [Rain Date: March 30]

The Niagara Peninsula Hawkwatch's first open house at Beamer. We'll be open to the public and will feature Hawk I.D. for beginners, a show with live birds from the the University of Guelph's Wild Bird Clinic, and displays. Contact Bruce Duncan at (519) 622-4709 if you can help.

Saturday, April 6

NPH's first annual banquet. There are a limited number of tickets, so book early. Cost will be around $10 (a firm price will be known by the start of the Hawkwatch). Contact any Executive member for tickets. Location will be Stoney Ridge Winery's Puddicombe Farm near Winona. Jeff Dodge, Editor of *Hawk Migration Studies*, our special guest, will give a slide presentation on the Spring Hawk Flight at Braddock Bay, New York. There will be bucket raffles and a fine dinner to boot!

HAWK MIGRATION ASSOCIATION OF NORTH AMERICA RESEARCH AWARD

Applications for the annual HMANA Research Award are now being accepted. The award was established to encourage research on raptor migration. Innovative projects relevant to HMANA's interests, e.g. migration ecology and behavior, population monitoring, and conservation, will be favored.

Applicants should submit a short proposal, no longer than five pages, including the following information: location of the study site; background of the applicant and/or organizations involved; research objectives, methods and relevance to HMANA's interests; and a budget detailing how the funds will be used.

Annual awards total $2000 and up to three proposals may be funded each year. Proposals must be received before 15 June 1991. Send applications to: Laurie Goodrich, HMANA Research Award, Hawk Mountain Sanctuary, R.D. 2, Kempton, PA USA 19529.

NIAGARA PENINSULA HAWKWATCH MIGRATION CALENDAR FOR BEAMER CONSERVATION AREA

NOTES:

1) Species initials and Right (->) or Left (<-) arrow:

This combination indicates the start or end of the normal (at Beamer) migration period for that species. The same in **bold** type indicates the start or end of a noticeable peak period for that species. The box in which this combination is located indicates the day and month on which the period is likely to start.

2) A number, followed by species initials, followed by a slash (/) and a two-digit number:

This combination indicates the largest number (the first number) ever seen in one day of that species; the two-digit number following the / indicates the year in which this occurred. The box in which this combination is located indicates the day and month on which the event occurred. Example: 390 RS /90 in the March 15 box indicates that the highest number of Sharp-shinned Hawks recorded in one day was 390, seen on March 15, 1990.

TV - Turkey Vulture
OS - Osprey
BE - Bald Eagle
GE - Golden Eagle
NH - Northern Harrier
SS - Sharp-shinned Hawk
CH - Cooper's Hawk
NG - Northern Goshawk
RS - Red-shouldered Hawk
BW - Broad-winged Hawk
RT - Red-tailed Hawk
SW - Swainson's Hawk
RL - Rough-legged Hawk
AK - American Kestrel
ML - Merlin
PF - Peregrine Falcon
GF - Gyrfalcon

The following information is based on 15 years of data from the Beamer Hawkwatch:

Largest number of raptors in one season: 19,724 in 1985

MARCH

1 RT-> RL-> CH-> NG-> BE-> GE->	2 NH-> RS-> AK-> TV->	3	4	5	6	7
8 **RL->**	9 **RT->**	10 **AK->**	11	12	13	14 **RS-> NG->** 44 AK /90
15 **CH->** SS-> 390 RS /90	16	17	18 **BE->** 7 GE /86	19	20 **TV->**	21
22	23	24 11 NG /84	25	26 7 GE /88 748 TV /88	27 **NH->** OS->	28 2 PF /90
29	30	31				

Largest number of raptors in month: 5670 in March 1988
Largest number of raptors in one day in month: 2080 on March 26, 1988

APRIL

1	2	3 **<-RS**	4	5 ME-> PF-> 35 CH /88	6	7
8 706 RT /87	9	10 **<-RT SS->** BW->	11	12 **OS->**	13	14 9 OS /86
15 **<-TV**	16 **<-BE** 2 PF /90 26 NH /89	17 3 ME /88	18 1556 SS /76	19 **BW->**	20 1 GF /77	21 6007 BW /85
22 9 OS /88 1 SW /88 44 RL /90	23	24	25 **<-NG**	26	27	28 **<-AK** 3 ME /90
29 4 GE /83	30 **<-CH <-RL**					

Largest number of raptors in month: 15,012 in April 1984
Largest number of raptors in one day in month: 7007 on April 21, 1985

MAY

1	2	3	4	5 1 SW /89	6 **<-NH <-BW** <-BE <-PF	7
8	9	10 **<-OS**	11 **<-SS**	12	13	14
15 <-RL <-ME	16	17	18 <-NG	19	20	21
22	23	24 <-OS <-GE	25 <-RS	26	27	28
29	30	31 Hawkwatch ends				

Largest number of raptors in month: 2695 in May 1980
Largest number of raptors in one day in month: 1492 on May 4, 1989

EAGLES AT BEAMER 1975-1990

by Jim Dowall

In sixteen years of spring raptor observation, 1990 was the best year ever for eagles at Beamer Conservation Area. A total of 25 eagles were sighted; the ratio between Bald and Golden - 60% vs. 40% - was almost identical to the ratio for the entire 1975-90 history of the Hawkwatch, which is 59.6% vs. 40.4%. Annual results are shown in Table 1.

It is encouraging to note that, according to our results, eagle numbers have increased in recent years. They certainly were scarce during the early years of the Beamer Hawkwatch.

Table 1: ANNUAL OCCURRENCE

	BE	GE	UE*	TOTAL
1975	1	0	0	1
1976	2	2	0	4
1977	2	1	0	3
1978	1	3	0	4
1979	4	4	0	8
1980	8	3	0	11
1981	1	4	0	5
1982	8	4	0	12
1983	7	8	0	15
1984	5	6	0	11
1985	10	12	3	25
1986	14	7	3	24
1987	7	6	0	13
1988	16	3	2	21
1989	17	7	1	25
1990	15	10	2	27

* UE - unidentified eagle

The 1990 results are only for the conservation area itself. They do not include other eagles migrating through the general area which could not be seen from the conservation area - under certain weather conditions some eagles migrate over the Grimsby plain to the north, and it is likely that some migrate well south of the Beamer hawkwatch site. Semi-monthly numbers are given in Table 2.

Table 2: 1990 SEMI-MONTHLY OCCURRENCE

	BE	GE	TOTAL
Feb. 24 to end	1	1	2
March 1 to 15	11	2	13
March 16 to 31	43	19	62
April 1 to 15	29	23	52
April 15 to 30	26	25	51
May 1 to 15	5	7	12
May 15 to 31	0	1	1
	115	78	193*

* Dates for 5 other identified eagles not known

Most eagles migrated during the latter half of March and the first half of April. Up to the end of March, Bald Eagles far outnumber Golden (55BE vs. 22GE). From April 1 to the end of the season, the gap narrows considerably (60BE vs. 56 GE).

In the spring of 1990 eagles were seen on 14 separate days, with their distribution during watch hours as shown in Table 3. (All times are Eastern Standard Time.) The hour between noon and 1PM proved to be best, with 40% of the identified eagles seen in this period.

Table 3: 1990 HOURLY OCCURRENCE

E.S.T.	BE	GE	Total
8-9	0	3	3
9-10	0	0	0
10-11	2	1	3
11-12	1	1	2
noon-1	7	3	10
1-2*	1	0	1
2-3	3	0	3
3-4	1	1	2
4-5	0	1	1

* Two additional unidentified eagles were seen during this period

The age breakdown for identified eagles in 1990 was:

Table 4: 1990 AGE ANALYSIS

	BE	GE
Adult	7	5
Third Year	4	-
Second Year	2	-
Immature	-	3
Not Recorded	2	2

SIGNIFICANT OBSERVATIONS

Probably the most thrilling observation of eagles during the 1990 season occurred on April 23. Walter Klabunde made the following comment on the back of his summary sheet for the day, "All three Golden Eagles that passed over at 8:42AM were adults. The first preceeded the other two by about 150 yards, and circled two or three times as though waiting for the other two, which came over in formation, almost wing tip to wing tip with no other motion except smooth gliding. They were about 100 yards up and just slightly north of the lookout as they went by to the west."

It should be noted that Golden Eagles have been seen travelling together on other occasions. When one sees an adult Golden Eagle, it may pay to look for another a minute or two later. It would appear that in springtime some Golden Eagles migrate as bonded pairs.

Over the years, most of the excellent 'Eagle Days' at Beamer were days when large numbers of other raptors were migrating as well. Of identified eagles, 125 of 193 (65.3%) passed over on days of 200+ raptors. Of course, some eagles migrated on days when almost no other raptors were moving.

In future years it will be very interesting to monitor changes in the numbers and age differences of both eagle species. Let's look forward to many more exciting 'Eagle Days' at Beamer.

Table 5: NOTEWORTHY 'EAGLE DAYS'

DATE	BE	G	TOTAL RAPTORS	TOTAL SPECIES
17 April 1976	2	1	1222	12
30 March 1978	0	2	479	7
2 April 1980	0	2	69	8
20 March 1982	2	0	165	10
6 March 1983	2	0	87	5
29 April 1983	2	4	1849	13
1 April 1984	3	0	811	10
26 April 1984	0	2	3683	12
4 April 1985	2	3	657	13
18 March 1986	7	0	1079	11
12 April 1986	1	2	116	10
26 March 1988	7	1	2080	12
16 April 1990	6	0	713	12
23 April 1990	0	3	1108	11
28 April 1990	2	2	2113	12

TOWER? WHAT TOWER?

One of the principal reasons for organizing this group was to obtain opinions on the possibility of an observation tower at Beamer, and then to speak about it to the Niagara Peninsula Conservation Authority (NPCA) with the voice of consensus.

The many opinions on this issue voiced at the inaugural meeting of the Hawkwatch certainly indicated that reaching consensus will be difficult, but not impossible. A committee chaired by Bruce Mackenzie has been formed to work out all of the questions and act as our contact with the Conservation Authority.

Although the Authority indicated last year that a tower was one of the items being examined by their Foundation, there has not as yet been a commitment to it. It appears there will be no tower for 1991. Bruce has contacted the NPCA regularly and will continue to do so.

We'll keep you informed.

EDITOR'S CORNER

First, apologies to Treasurer Verne Evans for getting his name wrong in the last newsletter. The only explanation is that old favorite, 'Gremlins'. Verne was understanding, however - he used his real name when he signed the cheque reimbursing yours truly for the printing cost.

If you have any suggestions for articles, etc. in future issues, please drop me a line at P.O. Box 7230, Ancaster, ON L9G 3N6.

The next issue will be out as soon after the hawkwatch as possible. Please be sure to renew your dues at the appropriate time so you will get your copy. Get a friend to join too.

NIAGARA PENINSULA HAWKWATCH EXECUTIVE - 1990-91

HONORARY PRESIDENT - Walter Klabunde

PRESIDENT - Bruce Duncan

VICE-PRESIDENT - Mary Ellen Foley

SECRETARY - John Olmsted

TREASURER - Verne Evans

MEMBERSHIP - John Stevens

EDITOR - Mike Street

STATISTICS - Rob Dobos

RESEARCH - Brian Ratcliffe

EDUCATION/PUBLIC RELATIONS - Don Malena

TOWER/PLATFORM - Bruce Mackenzie

Correspondence should be addressed to:

The Secretary, Niagara Peninsula Hawkwatch, 32 Miles Court, Hamilton, ON Canada L8P 4G6

HAWKS AND THE WEATHER: 1990 SPRING MIGRATION

by Bob Curry

To many of us a major component of the rites of spring is the northward movement of diurnal raptors, in this area best observed as the birds move west along the Niagara Peninsula past Beamer Point. Even when there are setbacks in the vernal progression, the sight of hawks moving is reaffirmation that the bleak, dark days of winter are over and that another short summer awaits. Are the hawks inspired by southerly flows of warm air as much as the watchers, or do they push through regardless of the weather? This brief analysis investigates that question for the 1990 spring flight.

This is not a resume of rarity highlights, nor a summary of the big flight days. Rather, it is an attempt to relate raptor movements to weather conditions. Weather data used are the wind direction summaries from the monthly summaries in the Hawkwatch Newsletter (No.1, August 1990), and Monthly Meteorological Summaries from the Royal Botanical Gardens. A much more detailed and interesting correlation can and should be done using statistical techniques and more Beamer data that is collected but is not provided on these forms.

For analysis purposes all days in which steady precipitation or heavy overcast reduced movement and coverage to zero or nearly no birds were eliminated. This left 67 days. Of these, there were 33 in which over 100 migrating raptors were counted, a symbolic number which indicates to seasoned observers a reasonably good day.

I summarized the prevailing wind directions, to one of the eight cardinal points, for the 33 'good' days. On six days the winds at Beamer were summarized as variable; since I had no information on the number of hours the wind blew from a specific direction, I used the RBG data which indicate prevailing wind direction for each day. The RBG site is approximately 28 air kilometres WNW of Beamer and there is no question that wind and temperature conditions vary, sometimes significantly, between the two locations. On 20 of the 58 days for which specific wind direction is given for Beamer the wind direction was different at RBG. It seems reasonable to assume that some of the difference is attributable to counter error at Beamer as the RBG measures would be precise. Nevertheless, conclusions of this paper must be tempered by the distance and physiographic discrepancies, and make it all the more imperative that hourly wind direction and strength, temperature readings and other information be collected at Beamer and for future analyses.

I had felt that the best days at Beamer came on SE winds on the day prior to a warm front passage. The data for 1990, however, do not support this impression. Of the 33 'good' days, 21 or 64% experienced SW winds. This would indicate the movement of birds in the warm air mass after the passage of a front. And, in fact, readers will recall the major incursion of warm air into the north-eastern part of the continent accompanied by record high temperatures for the period 13-17 March, during which 2979 birds came through. A similar air mass and high pressure zone dominated southern Ontario from 23 to 30 April marked by record temperatures such as 30.9°C at the RBG on 26 April. The three biggest days of spring 1990 occurred in this second period on winds which, paradoxically, were not out of the SW. These were: 24 April - light N (2147 birds): 25 April - NW (1035); and, 28 April - light NE (2113). How may these seemingly unfavourable winds be rationalized? In fact, this was a large stable, modified tropical air mass with fair skies and, as the centre drifted slowly from W to E over southern Ontario resulted in light and variable winds. Such conditions were ideal for the major movement of Broad-winged Hawks into Ontario.

Using the combination of SW winds or higher than average temperatures and light winds (under 10 kph) from other quadrants, then on 26 of the 33 'good' days (79%) the Hamilton - Niagara area, at least, was in a warm tropical or modified tropical air mass. Clearly, the birds were moving in the fair conditions providing uplift and either with favourable winds or winds so light as not to be an impediment. As a further check on the importance of such conditions there were no ideal days with high temperatures, fair skies and SW or light winds on which fewer than 100 hawks were recorded. My unsubstantiated memory suggests that this has not always been the case in the past, so it is something for observers to note in 1991.

Hawkwatchers are not only interested in the total numbers of birds but particularly look forward to seeing some of the glamour species. What does this weather/flight condition analysis tell us about the likelihood of seeing them? I picked out a few examples from these data. In fact, only two of the 10 Golden Eagles came through on 'non-good flight days' as defined by warm temperatures and/or southwesterly winds. Similarly, and more surprisingly, all but one of the 15 Bald Eagles were on 'good flight days'. Such information could discourage the diehard watchers who hang on in poor weather and poor flights because 'eagles fly through anything'. Five of the six Peregrines flew by on SW winds and all the big Red-shoulderd days were on SW winds. Even most of the two larger accipiters which seem less dependent on lift and favourable winds passed on the good days.

Certainly the years of data of a more precise nature need to be examined in a more rigorous way, but this simple analysis of one year's results suggests that the origins, characteristics of temperature and wind strength of the air mass are most important to the migration of hawks past Beamer Point. In this regard it would be fascinating to select days with fair conditions and southerly winds but in which the air mass as defined by these characteristics was not of southern origin. But that is a topic for further investigation.

GOOD WEATHER

Comprehensive weather forecasts are available on the American PBS network [Channels 17 (Buffalo) & 54 (Erie)] at 7:45AM, Monday-Friday. Environment Canada provides an excellent local forecast tape 24 hours a day from the Hamilton Airport Weather Office at Mount Hope - call (416) 679-3361.