Hawk Cliff Raptor Banding Station

Annual Newsletter 2007

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Affiliated with the Ontario Bird Banding Association

2007 Annual Newsletter

Project Summary

The primary objective of the **Hawk Cliff Raptor Banding Station** is to trap and band raptors during their fall migration at Hawk Cliff in order to add to the body of scientific knowledge. With that as a base, we undertake a number of projects that compliment that primary objective.

During fall banding, we undertake a project to colour band the Peregrine Falcons that we trap. Colour bands allow reliable identification of an individual bird, from a distance, giving a higher rate of information return than birds with traditional bands alone.
As well, we have undertaken a Saw-whet Owl banding program to monitor their fall migration at Hawk Cliff.

In the fall, we support an education program, whereby we show captive birds to the public during two weekends in September. We explain how to identify one from the other, their individual characteristics, and their benefits. We also explain the advantages and benefits of the banding program.

Through the summer, several members monitor American Kestrel nest box trails and undertake banding of the young from the nest.

Members also provide expertise and banding services to the Ontario Ministry of Natural Resources for the Peregrine Falcon nest in London, Ontario.

With the support of the Ontario Ministry of Natural Resources, members band raptors released from rehab and hacking programs.

Coordinator: Cyril Crocker

Marshall Field: 1919-2007
Bob Hubert

Marshall with Golden Eagle- photo by Bob Hubert

Marshall Field was a life-long naturalist. As a young man he was an avid hunter but his interests gradually changed. In 1941 Marsh, Don Young, Fred Bodsworth, Ron Brooman and Bill Stewart began the St. Thomas Nature Club, an organization that flourished until most of its members enlisted in World War II. During the war, while stationed at Bagotville, Quebec, Marsh made his first serious observations of birds. Although he had no binoculars he watched every aspect of various species and observed their size, flight patterns and colour and became familiar with their songs. In 1951 Marsh and his colleagues formed the St. Thomas Field Naturalists Club.
Marsh was able to obtain his Master Banding Permit in 1945 and actively held it until 2005. The first bird he banded under his Master Permit was a black-capped chickadee. He continued to band at Hawk Cliff as a sub-permittee until his death in 2007.

It was in 1951 that Marshall began to develop his keen interst in hawk migration at Hawk Cliff. He viewed the large flights of hawks with the hope of luring them down to capture and band them. Marsh made a few amaturish attempts using a wire cage with a trap door with a pigeon in a lower compartment for a lure. Needless to say, none of these attempts were successful and the hawks continued on their migration route without bands.

The idea of setting up a permanent hawk-banding station at Hawk Cliff was stimulated by two major factors. John Roberts and Bill Wasserfall paid a visit to the well-established raptor banding station at Cedar Grove, Wisconsin and in the spring of 1969, Marsh visited Derby Hill on the south-east corner of the south shore of Lake Ontario. Marsh was informed that Jim Greer and Stan Temple from Cornell University were operating a hawk-banding station nearby. Marsh took a close look at the trapping equipment being used at Derby Hill.

During the summer of 1969 Marsh, along with John Roberts and Bill Wasserfall, started formulating plans to establish a raptor banding station at Hawk Cliff under the guidance of the Point Pelee Hawk Banding Committie of the Ontario Bird Banding Association. Marsh approached Steve Ivan, owner of the farm east of the Hawk Cliff road, for permission to establish the station on his property. Permission was granted and on Labour Day an 8 foot by 16 foot banding cabin was erected and was ready for use three days later. One of Marsh's prime objectives in establishing this station was to try to tie in migration data at Hawk Cliff with established accipiter banding at Point Pelee. It was important to determine whether it was possible to catch numbers of at least a few species of hawks. Marsh's goal was to improve methods of catching hawks other than accipiters and to learn more about the migration.

Jim Greer had warned Marsh that there would be many frustrations and disappointments before the new banding station would operate effectively. This was due to some of the trapping devices. An early prototype of a bow net used a commercial rat trap on either side but the springs were too weak to pull the netting over with any force. If a red-tailed hawk was trapped, the hawk could lift the front

Marshall Field-continued

of the trap and escape. The large mesh mist nets being used were only effective with no wind. The 1969 season ended on October 15 after many frustrations although 202 raptors had been banded by three banders.

The following season began and a new trapping station was started on October 3, 1970. It was located about 500 feet northwest from station #1. It was a 4 foot by 4 foot frame covered with canvas leaving little room for one person to operate. The location showed promise and could double the numbers of #1 station on a good day. The problem with the location was the field it was in. The area where the bow net was placed became very muddy after a rainfall making it impossible to trap hawks. A new 4 foot by 8 foot station was built in a drier location but covering the same area as the temporary blind. This became station #4. Station #5 was a 4 foot by 8 foot building that was constructed to replace the makeshift station nearer the cliff edge. It was hoped this new location would have good potential for American Kestrels and Northern Harriers. Considerable time was spent remodeling a larger building at the station #3 location on the Water Resources property.

In 1971 Marshall received a Master Permit #10305 from the Canadian Wildlife Services. This was when Marsh officially became the first Hawk Cliff Raptor Banding Station coordinator. Prior to this we had been banding under a permit issued to Point pelee.

In 1975 and 1976 seven stations were operating. In 1977 an eigth one was temporarily added but was discontinued after one year. In 1979 six stations were in operation and this number continues to this day.

Marshall's love and admiration for bald eagles also claimed many hours of studies and planning to try to bring the bald eagles' numbers back to the level before their decline. During this decline the bird was placed on the Ontario's Endangered Species List in 1973. In the spring of 1983, Marsh located a nest in Elgin County with one recently hatched eagle. Marsh received permission from the landowner to study the nest's characteristics while the eaglet was banded. Marsh worked diligently with the Ontario Ministry of Natural Resources as they studied the return of the bald eagle. After a severe wind storm an eagle's nest was severely damaged so Marsh designed and helped to install a successful artifical nesting platform in the tree. There are now four successful nesting platforms in use in Southern Ontario.

Marsh was a founding member of the Ontario Bird Banding Assoiciation. From 1965 to 1976 he was frequent contributor to the OBBA's annual reports. In 1990 Marsh was a founding member of the Heritage Tree Foundation for Elgin County. In 2003 Marsh received the Jeanette Dean Award, presented by the OBBA. In 2004 he received a Certificate of Appreciation, from the Canadian Wildlife Service, for his 58 year contribution to banding and bird conservation.

Marsh's vision and leadership have affected the lives of many. His contributions to the better understanding and love of our natural world will not be forgottton. He will be missed by family and friends and especially by the banders of the Hawk Cliff Raptor Banding Station.

So long Marsh and Thank You.

Season Summary

2007 will go down as one to remember. Compared to the last five years hawk numbers were up considerably, thanks to seasonable northerly winds. It was our second-best year for both Red-tailed hawks and Northern Harriers and another year of records and firsts.

Record
It was a record year for banding Golden Eagles-three.

Longevity Record
In February we received a return on a Northern Harrier we banded in October 1972 and found in Troy, Ohio on December 31, 2005-*see article further on in this newsletter*. This bird, banded as a hatching year female, lived for 33 years, 2 months, a record for this species and, according to Birds Studies Canada, the eighth oldest bird on record for North America.

Firsts
Station #3 proved that Golden Eagles could be caught using a hawk net with very little damage to the net or retaining poles.
Station #3 was our first banding station to catch and band two Golden Eagles in one season.

Monthly Summary

September
This September was our best since 2002 with 1,257-banded (*2.24 birds per hour*). This was due, in part, to a large migration of Northern Harriers and a return to normal Sharp-shinned hawk numbers. Wind direction was the major contributor as most days this month had winds from a northerly direction.
Wind direction percentages were as follows: Northerly- 41.7%, Westerly- 20.8%, Southerly- 20.8%, and Easterly- 16.7%

October
Again, this year, October numbers were down with 530-banded (*0.99 birds per hour*). The highlight of the month was our first Golden Eagle of the season. Ron Ridout, of Bird Studies Canada was visiting and mentioned he would love to see and photograph a Golden. He had spent most of the day at Station #3 but later decided to visit Don Fowler at Station #5. A few minutes after getting there his wish was rewarded.
Red-tailed hawks and Northern Harriers moved through in respectable numbers. The decrease in banded birds was a result of the winds coming mostly from a southerly direction. Hawks were moving through but they remained high and inland.
Wind direction percentages were as follows: Southerly- 36%, Westerly- 28%, Northerly- 20%, and Easterly- 16%.

November
November proved to be a very good month for us with 323-banded (*1.14 birds per hour*). Typically, November is a wind-down month but this year it was quite the opposite and proved to be one of the best.
Station #3 broke a record with catching and banding two Golden Eagles in two consecutive weekends. No other banding station has ever done this. Station #3 also proved that a Golden Eagle could be caught in a hawk net, which, up to now was thought to be impossible, as these nets could never hold an eagle coming in. Warm weather lasting well into November and wind direction accounted for the good numbers for this month.

Wind direction percentages were as follows: Northerly- 37.9%, Westerly- 31%, Southerly- 17.2%, and Easterly- 13.8%.

December
December ended up being our best on record. Our total of 116-banded (*0.81 birds per hour*), blew away our ten-year average, (50). Most were banded in the first two weeks with the last two weeks slowing considerably. Northern Harriers and Red-tailed hawks moved through in respectable numbers accounting for 90.5% of the total banded. North winds were very prominent this month. Wind direction percentages were as follows: Northerly- 52.6%, Westerly- 21.1%, Easterly- 21.1% and Southerly- 5.3%.

Species Summary

Falcons

These birds tend to migrate through hugging the shoreline and at very low altitudes. Station 5, our lake station, bands the majority of falcons due to its location right on the lake edge.

American Kestrel
Another disappointing year. The American Kestrel numbers are in a serious decline in Eastern North America. Our total of 335 is still below our ten-year average of 498. Kestrels are early migrants with the majority, (90%), moving through in September. Station 5 banded 80% of our total.

Merlin
We did slightly better; this year banding 59 compared to 2006 but still remained above our 10-year average of 51. Like the American Kestrel, the major flight of Merlins move through in September (85%).
Station 5 banded 58% of our total.

Peregrine
This year we banded 6, which is a 33% drop from 2006 but is above our 10-year average of 5. Station 5 banded all of them.

Accipiters

The vast majority migrate over a stretch of forest running east and west for a few miles. We call this stretch of forest *Accipiter Ally*. Typically, Stations 1 and 4 band the majority of these birds because of their proximity to this forest but this year stations 3 and 5 did equally as well. Station totals are as follows: Station 1-25%, Station 3-20%, Station 4-20%, Station 5-21%.

Sharp-shinned hawk
Sharp-shinned hawk numbers returned to what we are accustomed. Our 1,040 is our best since 2000 but still slightly below our 10-year average of 1,057. The majority of Sharp-shinned hawks (62%) migrate through in September and October.
Stations 1, 3, 4 and 5 had close to equal percentages.

Coopers hawk
Our total of 100, this year, was not as good as 2006 with 111 but much better than 2004 and 2005 and is slightly below our 10-year average of 113. Almost 50% of our total, (48) were banded in September.
Station 1 banded 25% of our total followed by Station 5-23% and Station 3-22%.

Goshawk
These birds are very unpredictable when it comes to migrating through Hawk Cliff. Our best years were 1981 and 1995 when we banded 48 each year. This year we banded 7, less than 50% of our 10-year average of 15.
Stations 3 and 7 failed to band any this year.

Buteos

Broad-winged hawk
It is not unusual for us not to catch and band a broad-winged hawk but this year we managed to band two. These birds migrate through Hawk Cliff at very high altitudes and are very seldom down low enough to attract them. Our 10-year average is 1.
Bob and Gary Hubert at station 1 banded both of them.

Red-shouldered hawk
The population seems to be stabilizing after many years in decline. This year we banded 6, which was 2 less than last year but matched our 10-year average.
Stations 5 banded 4 while stations 4 and 1 each banded 1.

Red-tailed hawk
This was our best year since 2002 and the third best year in our history. Our total for the previous three years was 473 in total and we came very close to matching those three years in just one year banding 461. Our 10-year average is 322.
Station 1 banded 31% of our total this year followed by station 3- 22% and station 5- 20%.

Rough-legged hawk
This bird does not migrate through this area in large numbers hence our banding totals are very small. We managed to band 6 this year which is much better than in 2006 and is above our 10-year average of 2. Our record for a single season is 10 back in the years 1991 and 1994.

Northern Harrier
This was a banner year for Northern Harriers. Our total of 220 far exceeded our 10-year average of 142 and was our second best year in history. Northern Harrier migration never dwindled from the onset. September was our best month with 126 banded, (57%) and as usual, station 5 banded the vast majority with 78% of our total.

Eagles
Bald and Golden Eagle sightings increased again this year. We had a record breaking year banding three Golden Eagles collectively and Station 3 setting a record banding two of them one week apart. Station 3 also experienced a first for us, when it caught one of these eagles in a hawk net. We thought it could not be done successfully without severely damaging the net and or the poles but we were proven wrong. The hawk net did sustain a few minor holes and was repaired easily.

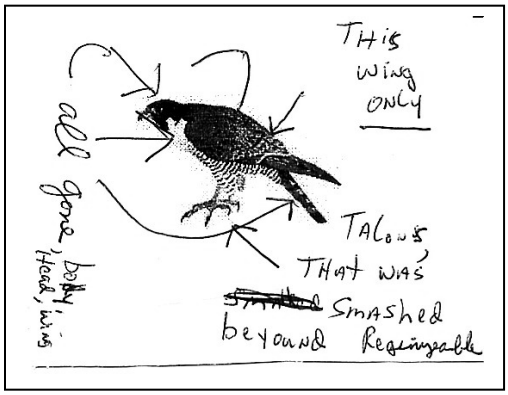
Golden Eagle with Porcupine Quills

HYM Golden eagle with porcupine quills
photo: Pat Fowler

On November 10th station #3 caught its first Golden Eagle of the season. When we were putting the band on the bird we noticed what we thought were pin feathers above its left eye. On further investigation we were astonished to discover that these were not pin feathers but porcupine quills (spines). They were embedded in the left eyebrow, the lore and the chin. They were sticking out about ½ inch and there was no sign of infection which led us to believe that this had happened recently.
We carefully and successfully removed all of the quills prior to releasing the bird. We did not disinfect the affected area due to the proximity to the eye. We are hopeful the bird suffered no ill effects.

Longevity Record

A return on a Northern Harrier that is astonishing. Bob Hubert banded this bird, as a HYF (#0695-01059), on October 9, 1972. On December 31, 2005, Ronald Quillen of Troy, Ohio found it dead on the road. Mr. Quillen had run out of gas and found the carcass. Not much was left of it except a skeleton, one wing and the talons. With one wing intact, this bird was a recent fatality. This bird had lived for 33 years, 2 months. According to Bird Studies Canada, this is the eighth oldest bird on record, for North America, and according to the USGS Longevity Records, is the oldest Northern Harrier on record.
The previous record was 16 years, 5 months.



Sketch sent by Ronald Quillen
using HCRBS Logo

Population Bottlenecks and the Conservation of Birds

Project conducted by: Christine Debruyne and Sophy Allen
School of Biological Sciences, University of Canterbury, Christchurch, New Zealand
In co-operation with the Ontario Ministry of Natural Resources (Pud Hunter) and the Hawk Cliff Raptor Banding Station.

Project

Translocation, or the movement of a number of individuals to a more 'suitable' (normally a predator-free) location, is used commonly by conservation biologists in New Zealand to save endangered species from extinction. Whilst this has been a very successful strategy in many cases (e.g. Black Robin, Kakapo), a central question remains: how many individuals should be translocated? If too few are used (termed a population bottleneck), individuals are forced to mate with relatives and this may lead to physical abnormalities, infertility, and greater susceptibility to disease in their offspring (collectively termed inbreeding depression). The overall objective of our project is to determine the minimum threshold needed to found a new population and yet avoid inbreeding depression.

During the 1860s- 1880s, Acclimatization Societies in New Zealand introduced a variety of bird species, mainly from the UK. As different numbers of individuals were released in different species, the severity of the population bottleneck they each passed through also varied (from as few as 7 birds in the Cirl Bunting to over 800 in the Blackbird). Likewise, approximately 100 House

Sparrows and 100 European Starlings has also been introduced into the Eastern United States and over the following decades managed to spread, established populations throughout North America. This provides us with an ideal study system to examine how the size of a population bottleneck affects the fitness of a population and so ultimately aid in the management of new Zealand's native species.

Our goal is to determine possible reasons for decreased fitness levels in introduced avian populations. This will be done by examining various morphological and physiological abnormalities, such as differences in deviations from symmetry in bilaterally symmetrical body parts (Christine's work), blood parasite loads, and condition of the immune system (Sophy's work). Fieldwork is being conducted during the breeding and autumn seasons at Kowhai Bush in the Kaikoura District (NZ), Rye Bay Ringing Observatory in Southern England (UK), and Hawk Cliff Raptor Banding Station in Port Stanley, Ontario (CA). Birds are caught using mist-nets and ground traps and measurements and samples are taken.

During the month of November at Hawk Cliff, we sampled a total of 35 House Sparrows (24 males, 11 females- most of unknown age), and 38 Starlings (23 males, 15 females- 12 adults, 23 juveniles, 3 of unknown age), Analysis of our results is currently underway to examine any differences in fitness levels between all of our study areas.

This study may provide a foundation for future research on translocation and reintroduction of endangered avian species. Continued examination of the many biological and environmental aspects of fitness levels in birds will contribute to the determination of the critical number of individuals needed to avoid inbreeding depression for a population that passes through a bottleneck.

Observation Summary

Species	**August**	**September**	**October**	**November**	**December**
Turkey Vulture	0	237	20,156	915	3
Osprey	2	183	24	0	0
Bald Eagle	1	243	122	32	12
Golden Eagle	0	0	64	83	3
Northern Harrier	8	1,229	771	107	111
Sharp-shinned	8	9,441	6,971	226	3
Coopers	1	188	311	133	3
Northern Goshawk	0	0	23	9	2
Red-shouldered	0	1	640	490	12
Broad-winged	0	41,010	7	0	0
Red-tailed	3	47	3,297	7,655	475
Rough-legged	0	0	10	26	59
Swainson's	0	0	0	0	0
American Kestrel	59	3,655	724	5	2
Merlin	0	192	66	7	0
Peregrine falcon	0	30	118	0	0
Total	**82**	**56,456**	**33,304**	**9,688**	**685**

September, October and November observation results are from the ***Hawk Watch*** totals of the **Hawk Cliff Foundation.** August and December results are observations from the banding stations only.

Hawk Watch totals printed by permission of the Hawk Cliff Foundation (www.**ezlink.ca**/~thebrowns/HawkCliff)

Banding and Highlights of Hawk Cliff from 1998 – 2007

Bob Hubert, Cyril Crocker

1998

There are six banding stations operated by seventeen licensed banders.

American Kestrel
There were 789 American Kestrels banded at Hawk Cliff in 1998. This exceeded the previous five year average of 677.

Merlin
This year set a new record for the number of Merlins banded since we started 30 years ago. Our previous record of 60 banded in 1995 was surpassed this year with 64.

Northern Harrier
176 Harriers were banded and 1393 were observed by banders. As in the past, the lake station operated by Don Fowler caught a significant amount more than any other station. He banded 128 of the 176.

Golden Eagle
There were 40 Golden Eagles observed this year although only one was caught and that was by Paul Leverton at station #4.

On October 4, 1998 a television crew from the Life Channel working on a Wild By Nature program with host Michael Runtz, visited the banding station. The five members of the crew did an excellent job of filming the operation without disturbing any hawks or interfering with banding.

1999

This year we began a project to color band Peregrine Falcons with the co-operation of the Ontario Ministry of Natural Resources, (Pud Hunter- Aylmer District).
Don and Sheila Fowler along with Russ Chantler of the HCRBS assisted in banding young Peregrine Falcons from the nest on the Canada Trust Tower in downtown London, Ontario.

The Canadian Wildlife Service was taking blood samples from banded hawks. The blood will be used for toxicology analysis.

2000

Pam Martin's CWS team returned to Hawk Cliff to take blood samples from individual hawks.

This was our second year of Peregrine Falcon color banding and four were banded.
Don Fowler at station #5 caught a young female Peregrine Falcon that was wearing a satellite transmitter. It had originally been released near Toronto and was caught in a pigeon pen in Kitchener. She was picked up by the Peregrine Foundation and kept for a while. They fitted it with a transmitter and brought it to Hawk Cliff to be released. On release, the bird flew west then turned around and flew back east along the cliff edge and right into one of Don's mist nets. Don was not too impressed as it came from behind and put a big hole in his net. She was taken to McKeever's Owl Foundation for rehabilitation.

Our one-day migration record was broken on September 16. All the right conditions prevailed and 100,694 hawks were counted with 99,201 of them being Broad-winged hawks. This shattered our previous record of 70,000.

2001

We mourned the loss of one of our original members, Lawrence Saunders, who passed away in the fall.

A young Bald Eagle caught on October 13 appeared listless and regurgitated a thick bloody substance. It was taken to Ross Snider at the Tamarack Raptor Rehabilitation Centre, but died the next day. Autopsy results from the University of Guelph determined the eagle was suffering from avian pox, a mosquito transmitted disease common in Bald Eagles. It causes difficulties with vision and eating and quite often results in death due to starvation.

2002

Sharp-shinned numbers still in decline. Our banding numbers are the lowest in twenty years. Merlins numbers way up. The 71 we banded this year is the best in history for our station.

2003

Jim Izawa began his Saw-Whet Owl banding project with the help of Eric Machell.

2004

Unfavorable winds took a toll on our banding totals. Our 1,398 is far from our ten-year average of 2,450.
Marshall Field received a Certificate of Appreciation from the Canadian Wildlife Service for his dedication to banding.

2005

We mourned the loss of Dolly Field the wife of Marshall Field. Although not a bander, she was our first secretary and managed the band inventory. She was a staunch supporter of our program to the very end.
Canadian Wildlife Service begins study on reproduction and health of the American Kestrel in agro ecosystems. This study was conducted during the summer on nestling kestrels from our nest boxes in area #1.
Another year of decline in banding totals. Sharp-shinned, Red-tailed and American Kestrels have experienced the largest decline.

Sharp-shinned:	10-year average	1,307	Red-tailed: 10-year average		374
	2004-2005 average	568		2004-2005 average	217
American Kestrel:	10-year average	611	All Species: 10-year average		2,450
	2004-2005 average	338		2004-2005 average	1,437

2006

We were saddened by the sudden death of Bruce Duncan, a long-term bander at Hawk Cliff.
A slight increase in numbers this year, compared to the last two, but still well below our average. Above average rain outs and unfavorable winds were the main contributors to another disappointing year.
Between the doom and gloom, we did manage to set a record by catching three eagles, one bald and two golden. On September 27 we caught a previously banded HY bald eagle, a first for us, which originally was banded as a nestling in Germfask, Michigan earlier that year.

2007

Finally, after three years of disappointment, the weather co-operated and our numbers increased dramatically. We set another record this year banding three Golden Eagles. It was our second-best year, in our history, for both Red-tailed hawks and Northern Harriers.
The most exciting news was the return on a female Northern Harrier that lived an astounding 33 years and 2 months, a record for the species and the eighth oldest bird found in North America.
All this excitement was over-shadowed by the death of our founding father Marshall Field.

Banding Summary 1998-2007

Year	Kestrel	Merlin	Peregrine	Sharp-shin	Coopers	Goshawk	Harrier	Broad-wing	Red-tail	Red Shoulder	Rough-leg	G. Eagle	B. Eagle	Saw-Whet Owl	Total
1998	789	64	3	1482	98	8	176	2	281	5		1			2909
1999	607	53	2	1970	150	15	175		386	13	1	1			3373
2000	436	38	4	1179	88	12	76		166						1999
2001	643	39	4	1016	166	22	103		384	9	1		1		2388
2002	561	71	6	991	106	20	182		599	4	3	1			2544
2003	585	38	1	1020	126	16	147		378	6	3	1		32	2353
2004	292	28	6	561	91	16	88		289	3	2	1		21	1398
2005	384	66	5	573	89	10	164	2	145	6	7		1	22	1474
2006	419	51	9	745	111	1	117		139	8	1	2			1603
2007	335	59	6	1040	100	7	220	2	461	6	4	3		1	2244
Total	5051	507	46	10577	1125	127	1448	6	3228	60	22	10	2	76	22285

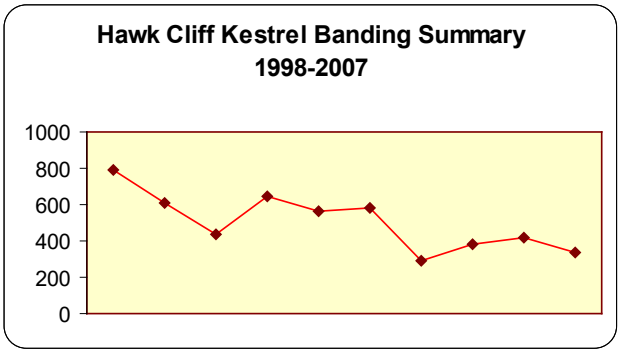
Eye close-up of light morph Rough-legged hawk.
photo: Pat Fowler

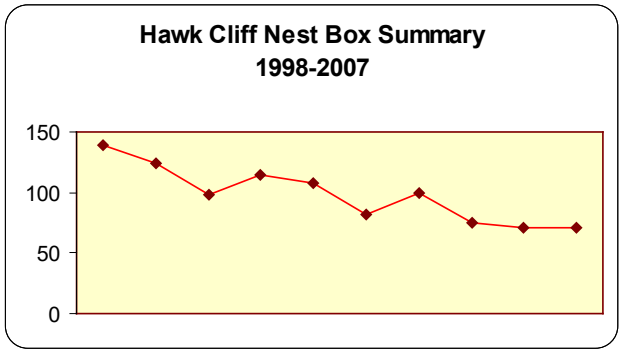
American Kestrel Nest Box Trail

Another disappointing year for our American Kestrel nest box program. Our total for this past year remained the same as 2006 but Area #1 had a disastrous year. Areas #3 and #4 did a little better.
Typically Area #1 averages 75 banded young but this past year saw that drop to less than half.

American Kestrel Nest Box Trail									
			Nestlings Banded			AHY Banded		Returns	
Banders	Area	Boxes	Male	Female	Total	Male	Female	Male	Female
Crocker	#1	30	19	15	34		1		
Izawa	#3	16	10	9	19				
Fowler	#4	22	9	9	18	1	3		1
Total Banded		**68**	**38**	**33**	**71**	**1**	**4**		**1**
% of total banded were male young **53.5%**						% of total banded were female young **46.5%**			

American Kestrel numbers are in a serious decline across their historical range in north-eastern Unites States and eastern Canada. Studies are underway to try to understand the reason(s) behind this. Here in this area of Ontario, we have noticed fewer kestrels returning from their wintering grounds. This is the major contributor to loss of nestling production and fall migration numbers. The reason could be, as numbers decline, kestrels do not need to migrate as far north to find suitable nesting sites.
The two charts below show the decline in fall migration numbers versus nestling production over the past ten years.





2007 Foreign Recoveries, Foreign Retraps, Returns and Repeats
By Sheila Fowler

Foreign Recoveries

Northern Harrier	HY	F	**12-31-05**	found dead, band with skeleton near Troy, Ohio	
695-01059	50		**10-09-72**	Bob Hubert	400-0841
Sharp-shinned Hawk	HY	F	10-08-06	found dead, Amicalola Falls, Georgia	
1583-85102	00		09-09-06	Charlie Fowler	343-0841
1583-85207	HY	F	10-31-06	found dead, Greenwood Cemetary, Tennesee	
	00		09-16-06	Cyril Crocker	363-0872
1583-85008	AHY	F	11-22-06	found dead, near Perrysburg, Ohio	
	00		11-05-06	Dave Vanseader	413-0833
1333-32941	HY	F	12-15-06	found dead, near Rogersville, Alabama	
	00		09-20-06	Don Fowler	344-0871
1212-55221	HY	M	03-09-07	struck object, dead, near La Salle, Ontario	
	13		11-09-06	Sheila Fowler	431-0795
1583-85001	HY	F	12-22-07	found dead, near Oberlin, Ohio	
	00		09-01-06	Dave Vanseader	411-0821
Cooper's Hawk					
745-76694	HY	F	12-04-06	found dead, near Port Rowan, Ontario	
	00		10-05-06	Bob Hubert	423-0802
745-77834	HY	F	01-18-07	found dead, near Goshen, Indiana	
	00		10-27-06	Charlie Fowler	412-0854
1204-20116	HY	M	03-20-07	found dead, Brownstown Township, Michigan	
	00		09-22-99	Bob Hubert	420-0831
1204-30367	HY	M	04-04-07	found dead, 10160 Milton-Potsdam Rd, Ohio	
	00		10-07-04	Bob Hubert	395-0842
1204-31722	HY	M	07-15-07	struck by car, dead, White's Rd & Ward, Ontario	
	14		11-05-06	Charlie Fowler	440-0773
Red-Tailed Hawk					
1387-13283	HY	U	01-18-07	dead on road, near London, Ontario	
	45		10-21-90	Janet Snaith	430-0811
1807-98352	HY	U	02-22-07	found dead, near Lowbanks, Ontario	
	00		10-30-02	Sheila Fowler	425-0792
1207-01037	HY	U	03-03-07	found dead, Interlachen, Florida	
	00		10-05-06	Eric Machell	292-0815

Red-Tailed Hawk-*continued*

1177-25994	ASY	U	03-24-06	struck by car, dead, near Komoka, Ontario	
	14		01-27-06	Charlie Fowler	425-0812
1807-11408	HY	U	04-20-07	found dead, McFadden Line exit, Ontario	
	00		11-04-95	Marshall Field	455-0792
1687-04820	HY	U	05-02-07	found dead, skeleton, near Cambridge, Ontario	
	50		11-08-03	Bob Hubert	451-0750
1177-33076	HY	U	05-05-07	found dead, near Rutledge, Tennessee	
	00		08-29-06	Don Fowler	362-0833
1207-31524	HY	U	05-08-07	found dead, 3 Pennsylvania	
	00		09-27-97	Marshall Field	401-0793
	03		01-13-99	previously caught due to injury	
1177-33081	HY	U	08-13-07	struck by car, dead, near London, Ontario	
	14		10-16-06	Don Fowler	430-0811
1177-33111	HY	U	09-21-07	found dead, near Detroit, Michigan	
	00		10-05-06	Charlie Fowler	421-0830
1807-11494	HY	U	-- -- 95	found dead, near Tecumseh, Ontario	
	00		11-03-95	Gary Hubert	421-0825

Rough-Legged Hawk

1687-11208	HY	M	02-12-07	dead on highway, near Dunedin, Ontario	
	45		12-09-06	Don Fowler	441-0801

American Kestrel

1523-84283	HY	F	01-08-07	found dead, near Abita Springs, Louisiana	
	00		09-21-06	Don Fowler	303-0900
2003-45352	HY	M	02-07-07	found dead, near Columbia, Mississippi	
	00		09-25-04	Charlie Fowler	310-0895
1523-84210	HY	F	05-10-07	drowned, near Millbrook, Ontario	
	17		09-08-06	Don Fowler	440-0782

Foreign Retraps

Northern Harrier

1204-30405	AHY	M	04-03-07	retrapped, alive & released near Alcona, Ont.	
	89		12-24-04	Charlie Fowler	500-0914

Sharp-shinned Hawk

1333-32857	SY	F	10-18-05	retrapped, alive & released at tip, LPBO, Ont.	
	89		10-08-05	Gary Hubert	423-0800
1333-32866	HY	F	10-20-05	struck wires, alive & released, Leamington, Ont.	
	54		10-16-05	George Prieksaitis	415-0823

Sharp-shinned Hawk-*continued*

1212-65123	HY	M	10-01-06	retrapped, alive & released, Springville Marsh	
	89		09-24-06	Charlie Fowler	SNP, Ohio 405-0832
1152-42338	AHY	M	11-06-06	retrapped, alive & released, Old Cut, LPBO, Ont.	
	89		10-23-02	Jim Izawa	423-0802
1333-32587	SY	F	03-23-07	injured, alive & released, Cogdell, Georgia	
	03		10-01-06	Eric Machell	310-0824
1583-85427	HY	F	04-19-07	retrapped, alive & released, Payne Beach Rd.	
	89		10-31-06	Bob Hubert	New York 432-0774

Cooper's Hawk

745-76755	HY	F	04-23-07	retrapped, alive & released, Payne Beach Rd.	
	89		09-23-05	Jim Izawa	New York 432-0774

Red-Tailed Hawk

1387-44259	HY	U	03-13-07	retrapped, alive & released, State Park, Mich.	
	89		11-17-01	Bob Hubert	430-0822
1387-46804	AHY	U	07-26-07	struck by car, alive in captivity, near Aumond,	
	14		01-24-03	Charlie Fowler	Quebec 463-0754

American Kestrel

2003-45571	HY	M	02-28-07	injured, alive & released, near Panama City,	
	03		10-08-05	Charlie Fowler	Florida 300-0853

Certificate of Appreciation

(banded birds retrapped at Hawk Cliff)

Sharp-shinned Hawk

1583-83581	HY	F	09-26-06	banded near Clear Creek, Ontario
	89		09-29-06	retrapped by Charlie Fowler
1063-05419	HY	M	09-26-06	banded at Prince Edward Point B.O.,Ontario
	89		10-15-06	retrapped by Charlie Fowler
1533-01159	HY	F	09-17-06	banded at Long Point B.O., Ontario
	89		09-23-06	retrapped by Don Fowler

Cooper's Hawk

1204-21014	HY	M	10-18-01	banded at Holiday Beach Migration Obs., Ont.
	89		10-20-07	retrapped by Cyril Crocker

American Kestrel

1523-81252	L	F	06-18-03	banded at Waterloo, Ontario
	89		05-22-06	retrapped by Charlie Fowler
2003-37731	HY	M	08-31-06	banded near Burlington, Ontario (Bronte)
	89		10-12-06	retrapped by Bob Hubert

We have not received Certificates for five other foreign retraps:
3- Red-Tailed hawks and 2- Sharp-shinned hawks.

Returns

(Hawk Cliff banded birds)

There was one American Kestrel banded as a nestling female on June 10, 2006 which was retrapped on May 19, 2007 in another nest box.
There were three Sharp-shinned hawks which returned to Hawk Cliff to be retrapped. One was from 1999, one from 2005 and the other from 2006.

Repeats

We banded and then retrapped five Sharp-shinned hawks, six Red-tailed hawks, one American Kestrel, one Northern Harrier and one Cooper's hawk.

Acknowledgments

The Hawk Cliff banding Station is a volunteer organization that relies heavily upon the generosity of a number of individuals and organizations in order to carry on our projects.

Hosts

We are very grateful for the following landowners for their generosity. Each year they allow us to use their property to conduct our banding and other programs.

Mr. and Mrs. Steve Ivan
Mr. and Mrs. Bob Ward
Lake Huron and Elgin Area Water Supply (Andrew Henry- Manager)

Banders and Volunteers

Don and Sheila Fowler
Charles and Pat Fowler
Gary Hubert
George Prieksaitis
Dave VanSeader
John Lemon
Marshall Field
Bill Read
Jim and Sam Izawa
Bob Hubert
Eric Machell
Russ Chantler
Jesse Pakkala
Cyril Crocker
Ron Ridout

Supporters

Pud Hunter- Ontario Ministry of Natural Resources

The Canadian Wildlife Service

Friends of the Environment Foundation

St.Thomas Field Naturalist Club
We would like to thank the club and its members for their continued financial support. As well, we thank the club, especially Al Hurst, for assisting us with our Hawk Cliff Weekends.

Hawk Cliff Foundation

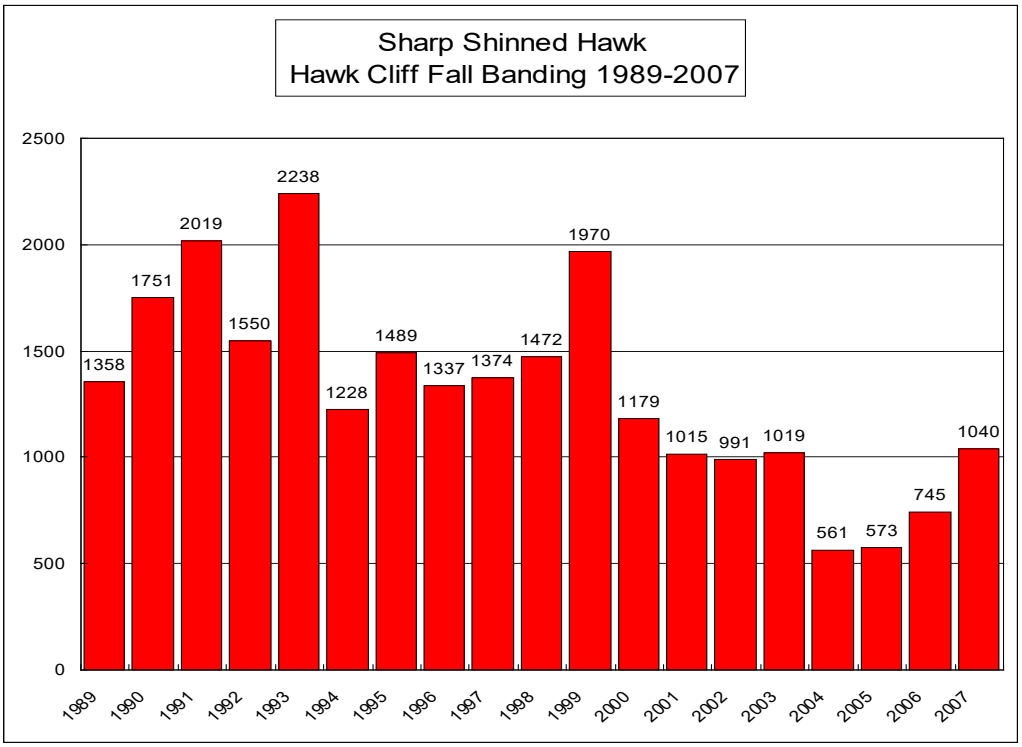
Thanks to the Hawk Cliff Foundation and its members for their financial support of our banding programs as well as permission to print their 2007 Hawk Watch totals.

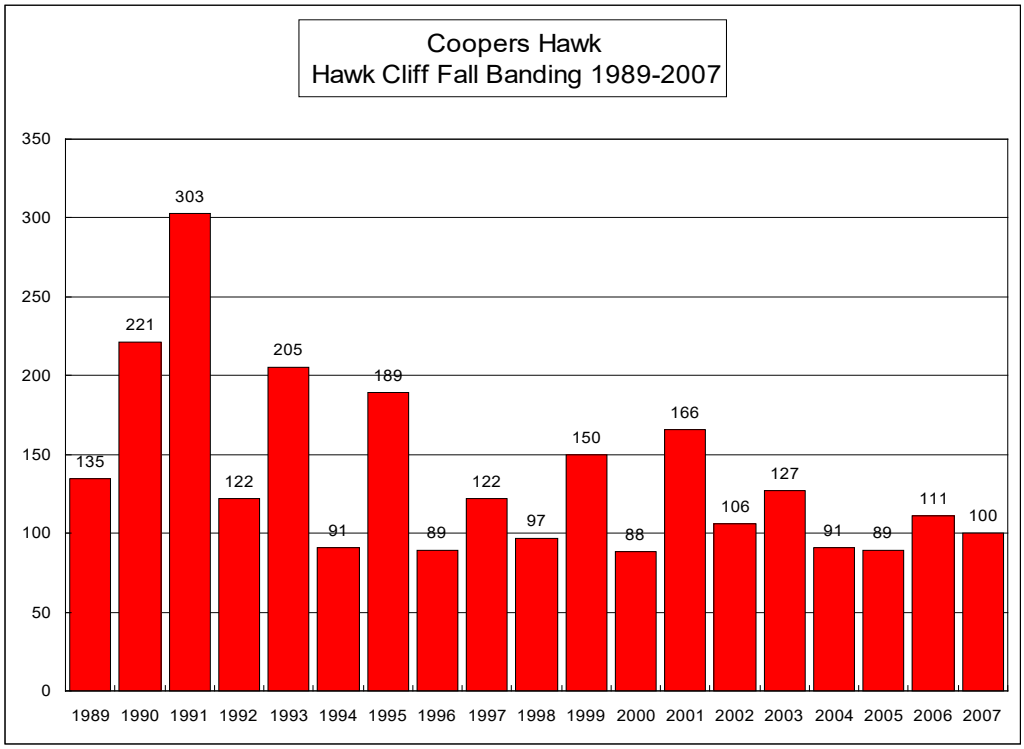
Sheila Fowler
On behalf of the members of The Hawk Cliff Raptor Banding Station, I would like to thank Sheila for an outstanding job as Secretary/ Treasurer, co-coordinating the band inventory, recording the recoveries, repeats and retraps.

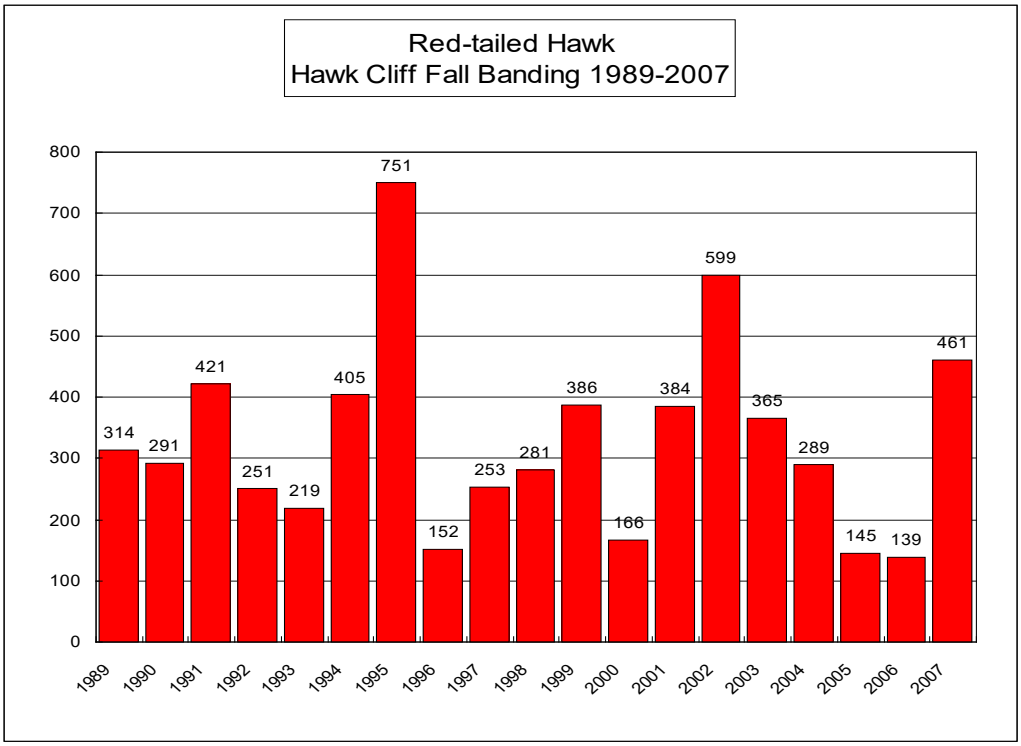
Contributions

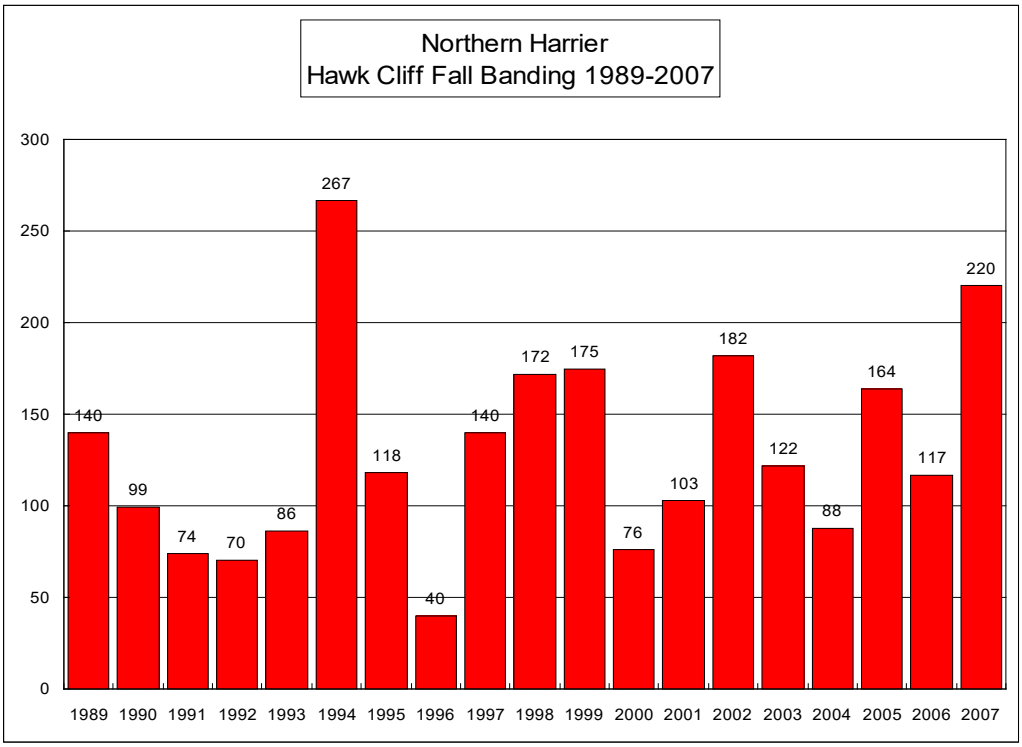
Thanks to the following for their contributions to this newsletter and donations in 2007.

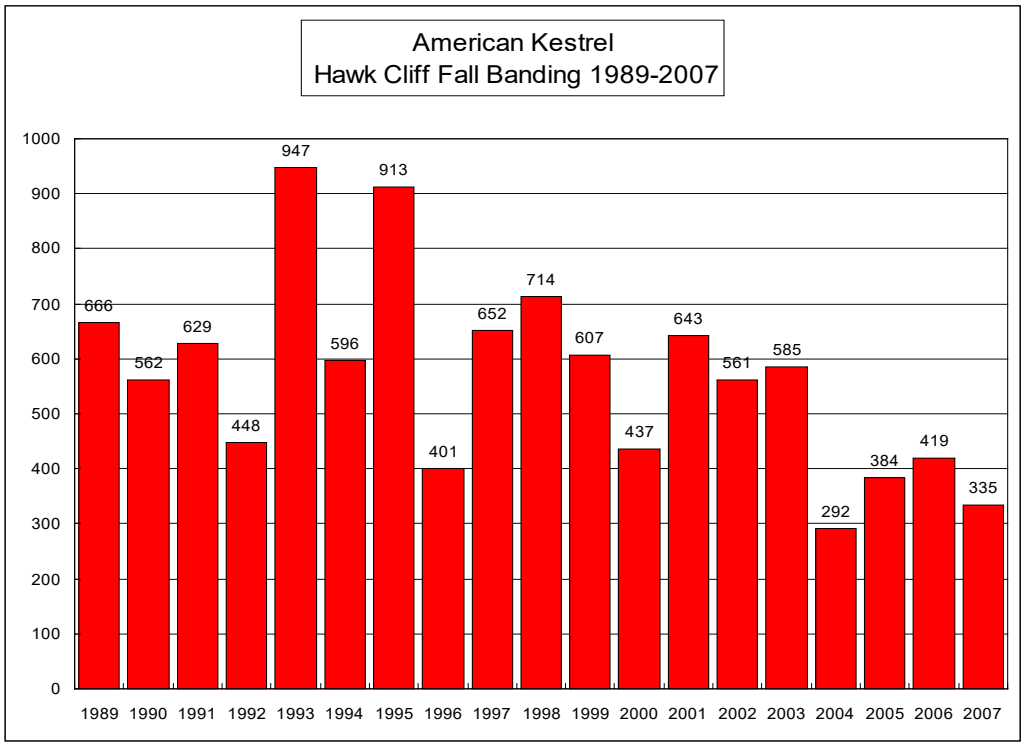
George and Bill Prieksaitis
Bruce Field
Hawk Cliff Foundation
Sheila Fowler
Cyril Crocker (Baillie Birdathon)
St.Thomas Field Naturalist Club
Bob Hubert
Jim Izawa

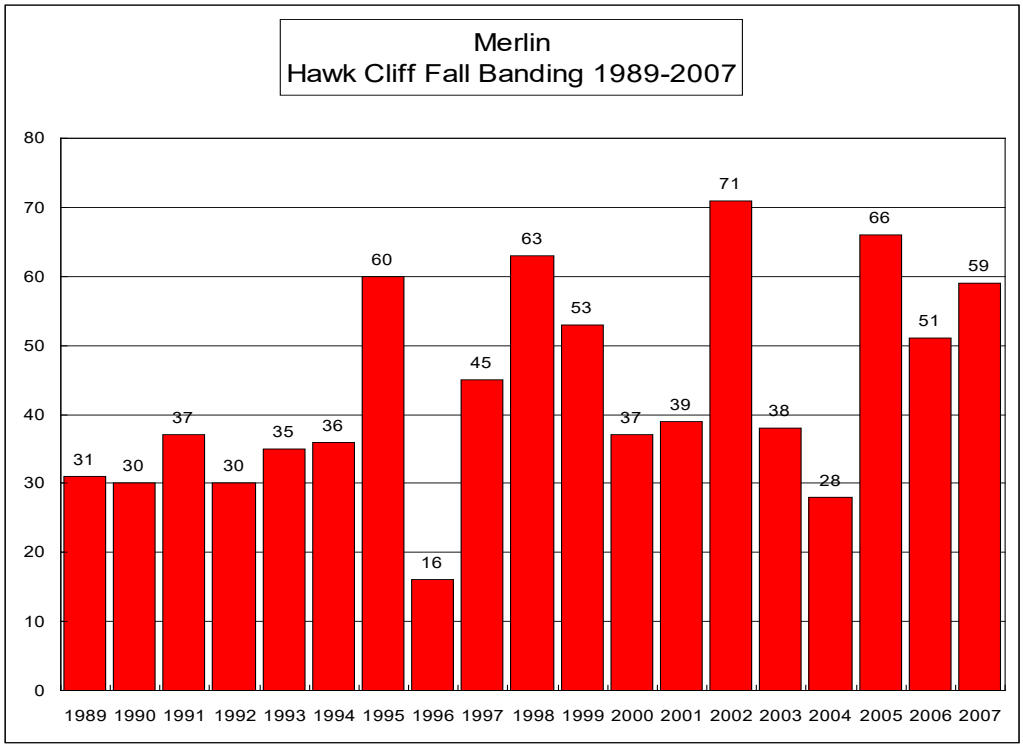

Sharp Shinned Hawk
Hawk Cliff Fall Banding 1989-2007
2500
2000
1500
1000
500
0
1358
1751
2019
1550
2238
1228
1489
1337
1374
1472
1970
1179
1015
991
1019
561
573
745
1040
1989
1990
1991
1992
1993
1994
1995
1996
1997
1998
1999
2000
2001
2002
2003
2004
2005
2006
2007


Coopers Hawk
Hawk Cliff Fall Banding 1989-2007
350
300
250
200
150
100
50
0
135
221
303
122
205
91
189
89
122
97
150
88
166
106
127
91
89
111
100
1989
1990
1991
1992
1993
1994
1995
1996
1997
1998
1999
2000
2001
2002
2003
2004
2005
2006
2007


Red-tailed Hawk
Hawk Cliff Fall Banding 1989-2007
800
700
600
500
400
300
200
100
0
314
291
421
251
219
405
751
152
253
281
386
166
384
599
365
289
145
139
461
1989
1990
1991
1992
1993
1994
1995
1996
1997
1998
1999
2000
2001
2002
2003
2004
2005
2006
2007


Northern Harrier
Hawk Cliff Fall Banding 1989-2007
300
250
200
150
100
50
0
140
99
74
70
86
267
118
40
140
172
175
76
103
182
122
88
164
117
220
1989
1990
1991
1992
1993
1994
1995
1996
1997
1998
1999
2000
2001
2002
2003
2004
2005
2006
2007


American Kestrel
Hawk Cliff Fall Banding 1989-2007
1000
900
800
700
600
500
400
300
200
100
0
666
562
629
448
947
596
913
401
652
714
607
437
643
561
585
292
384
419
335
1989 1990 1991 1992 1993 1994 1995 1996 1997 1998 1999 2000 2001 2002 2003 2004 2005 2006 2007


Merlin
Hawk Cliff Fall Banding 1989-2007
80
70
60
50
40
30
20
10
0
31
30
37
30
35
36
60
16
45
63
53
37
39
71
38
28
66
51
59
1989 1990 1991 1992 1993 1994 1995 1996 1997 1998 1999 2000 2001 2002 2003 2004 2005 2006 2007

Banding Totals - 2007

Hawk Cliff Raptor Banding Station

	Days	Hours	Hawks per Hr.	Kestrel	Merlin	Peregrine	Sharp-Sh	Coopers	Goshawk	Harrier	Broadwing	Red Tail	Red Shld	Rough Leg	Eagle	S.W. Owl	G.H. Owl	Scr. Owl	Total
Aug																			
Stn 1																			
Stn 5	3	11.5	1.65	14			2			2		1							**19**
Stn 6																			
Total	3	11.5	1.65	14			2			2		1							19
Sept																			
Stn 1	22	100.5	2.00	10	5		169	8		4	**2**	2	**1**						201
Stn 3	14	91.5	2.05	11	9		147	12		7		2							188
Stn 4	12	79.5	1.86	9	4		117	7		9		2							148
Stn 5	**29**	**199.5**	**2.79**	**239**	**29**		**176**	**14**		**93**		**6**							**557**
Stn 6	19	90	1.81	35	3		103	7		13		2							163
Stn 7																			
Total	96	561	2.24	304	50		712	48		126	2	14	1						1257
Oct																			
Stn 1	25	126.0	0.98		1		84	8	**2**	4		23						1	123
Stn 3	12	53.0	1.45				60	1				16							77
Stn 4	13	73.0	**1.53**	1	1		**93**	2		2		12	1						112
Stn 5	**28**	**169.5**	0.74	**13**	**5**	**6**	33	**9**	1	**43**		14	1		**1**				**126**
Stn 6	16	67.5	0.56	1	2		23	5	1	1		5							38
Stn 7	10	45.5	1.19				14	4				**36**							54
Total	104	534.5	0.99	15	9	6	307	29	4	50		106	2		1			1	530
Nov																			
Stn 1	23	**106**	0.91				**8**	8		1		**79**							**96**
Stn 3	12	43	**1.88**				2	**9**				68			**2**				81
Stn 4	10	42	1.57				6	5	**2**			53							66
Stn 5	15	68.5	1.08				1			**9**		62	**2**						74
Stn 6	4	14.5	0.21									2				1			3
Stn 7	3	10	0.30									3							3
Total	67	284	1.14				17	22	2	10		267	2		2	1			323
Dec																			
Stn 1	18	76.5	0.67	1			1	1	1	6		**40**		1					**51**
Stn 3	3	14	1.36				1			1		17							19
Stn 4	1	5	1.00									5							5
Stn 5	11	47	0.87	1						**25**		11	1	**3**					41
Stn 6	CLOSED																		
Stn 7	CLOSED																		
Total	33	142.5	0.81	2			2	1	1	32		73	1	4					116
Fall																			
Stn 1	**88**	409	1.15	11	6		**262**	**25**	**3**	15	**2**	**144**	1	1				**1**	471
Stn 3	41	201.5	**1.81**	11	9		210	22		8		103			**2**				365
Stn 4	36	199.5	1.66	10	5		216	14	2	11		72	1						331
Stn 5	86	**496**	1.65	**267**	**34**	**6**	212	23	1	**172**		94	**4**	**3**	1				**817**
Stn 6	39	172	1.19	36	5		126	12	1	14		9				**1**			204
Stn 7	13	55.5	1.03				14	4				39							57
Total	303	1533.5	1.46	335	59	6	1040	100	7	220	2	461	6	4	3	1		1	2245
Nests				71												3	1	1	76
Road Trapped																			
Rehab/Hack										1		1		1				1	4
Total 2007				406	59	6	1040	100	7	221	2	462	6	5	3	4	1	3	2325

92,790 banded pre-2007 — Total banded since 1969 = 95,115