Discussion Paper:

Wild Raptors in Ontario Falconry: Review and Policy Options

April 5, 2019

Jointly submitted by:

Ontario Hawking Club
Ontario Federation of Anglers and Hunters

Author: Martin Geleynse
Ontario Hawking Club

Reviewers: Mark Ryckman, OFAH
Chris Davies, OFAH
Keith Munro, OFAH
Lauren Tonelli, OFAH
Doug Wilson, Falconer
Simon Etherington, OHC
Louise Engel, OHC

Summary

Falconry is a means of hunting using a trained bird of prey that has been practiced around the world for thousands of years. It is recognized by UNESCO as an Intangible Cultural Heritage of Humanity. The knowledge and skills developed through falconry have been important tools in the conservation of raptors. Falconers played a key role in the recovery of the previously endangered peregrine falcon. Falconry is also used to reduce bird hazards at airports, reduce agricultural crop damage, and falconry technique are widely used in raptor rehabilitation.

Falconry is regulated throughout North America and regulations were first developed in Ontario under the *Fish and Wildlife Conservation Act* in 1997. The use of wild raptors is an important part of the traditions of falconry and is allowed in virtually all jurisdictions. In 2012 the Ministry of Natural Resources and Forestry (MNRF) implemented a policy to allow for the limited use of wild raptors by Ontario falconers.

This policy has had an enormously beneficial and transformative impact on Ontario falconry. Previously unavailable birds, such as passage red-tailed hawks and merlins have opened up new and exciting forms of falconry. It has also resulted in a much higher level of involvement and appreciation of the wildlife resource. Unfortunately, the current policy includes significant limitations on the number of birds and species available and every year less than half of applicants receive an opportunity to share in the policy's benefits.

From 2012 to 2018, 367 applications were received and 175 permits issued, an application success rate of 48%. Based on available data the overall capture or "fill rate" was 59%. Red-tailed hawks represented 57% of the birds captured.

Based on an analysis of the first 5 years of capture data, this paper outlines options for modifying and expanding the policy to increase its benefits, simplify administration and facilitate ongoing raptor conservation in Ontario. Specifically, the paper makes recommendations in 2 areas: the total number of permits available and the addition of northern goshawk to the list of species allowed to be taken.

The Falconry Advisory Committee recommends increasing the number of authorizations available for the 4 species currently allowed, so that no annual draw is required (outlined below in option 3 for "Increase Number of Permits Available"). Extrapolating from the available capture data we believe this change would result in approximately 45-50 applicants taking 27-30 birds per year. This would dramatically increase predictability and satisfaction with the program.

The committee further recommends adding northern goshawk to the list of allowed species, with authorizations to be allocated specifically for goshawks (outlined below in "Add Northern Goshawk) .

Background

In 2012, after a lengthy public review (EBR 011-3058) the Ministry of Natural Resources and Forestry (MNRF) adopted a policy to allow for the capture of wild raptors by licensed falconers. In so doing, Ontario joined the vast majority of jurisdictions in North America that already allowed falconers to capture and hunt with wild raptors.

The policy allows for a total of 25 birds of prey to be captured each year from 4 common species: Red-tailed hawk, Cooper's hawk, sharp-shinned hawk and merlin. The northern goshawk, which was included in the original proposal, was not included in the final policy due to concerns that the species might be reviewed by COSEWIC. However, no such review has been planned.

To help implement the policy, the MNRF entered into a memorandum of understanding (MOU) with the Ontario Hawking Club to develop software and conduct an annual random draw for the allocation of permits. Applicants are divided into 3 "pools":

- Pool 1 consists of Apprentice license holders. Eight applicants are draw from this pool
- Pool 2 consists of applicants who were unsuccessful the previous year. Six applicants are drawn from this pool.
- Pool 3 consists of all remaining applicants, and those not drawn from Pools 1 and 2 are placed in Pool 3. Eleven applicants are drawn from this pool.

This system was developed in consultation with the Falconry Advisory Committee and recognizes the value of trapping and training a wild raptor, especially red-tailed hawk, for apprentice falconers.

Positive Impact of the Wild Raptor Policy

- Wild birds are an integral part of the ancient traditions of falconry.
- The capture and training of a wild bird tests and develops a falconer's skills and leads to an overall improvement in the quality and standards of practice of the falconry community in Ontario.
- Red-tailed hawks have rapidly replaced the non-native Harris' hawk as the "bird of choice" for apprentices and experienced falconers. They are robust, cold-tolerant and highly effective hunters.
    - Passage[1] red-tailed hawks have enabled more apprentices to become more successful and learn more about falconry, game species and wild raptors than ever before.
    - Red-tailed hawks have stimulated widespread interest and growth in squirrel hawking which was rarely practiced in Ontario prior to 2012.
- Merlins offer exciting opportunities for very aerial flights on large flocks of starlings, as well as opportunities for falconers to participate in the recently opened mourning dove hunting season. Prior to 2012 they were virtually unknown in Ontario falconry.
- Cooper's hawks and sharp-shinned hawks have also provided opportunities to hunt abundant quarry such as house sparrows, cowbirds and starlings in agricultural settings. This type of hunting was not feasible with the captive-bred species available prior to 2012.

[1] "Passage" birds are those captured on their first migration.

Capture Authorization Trends and Analysis

- From 2014 to 2018 total demand has been stable at between 52 and 66 applicants. The number of Apprentice applicants has grown significantly from 4 to between 18 and 25.
- Most applicants eventually receive an authorization, but some have repeatedly unsuccessful:
    - One person applied to the draw 4 times without receiving an authorization.
    - Between 2012 and 2016 eight people applied to the draw twice without success
- Demand for authorizations has been over-subscribed in all years. Average success rate is 49%.
    - 70% of apprentices and 60% of those in pools 2 receive a permit on average.
    - About half of applicants overall do not receive an authorization.
- Of 25 authorizations issued each year, the number of birds actually captured varied from 13 to 16, or an average of 59% of the total permits issued.
- 57% of birds captured are Red-tailed hawks. Merlins continue to increase in popularity and we believe they are now roughly equivalent to Cooper's in overall capture level.

Table 1: Applications for Authorizations to Capture a Wild Raptor

YEAR	POOL #1 APPRENTICES	POOL #2 UNSUCCESSFUL PREVIOUS YEAR	POOL #3 GENERAL APPLICANTS	TOTAL APPLICANTS
2012	4	N/A	31	35
2013	9	8	31	48
2014	16	12	28	56
2015	17	16	19	52
2016	18	16	21	55
2017	25	16	25	66
2018	21	16	18	55
AVERAGE SUCCESS RATE	**70%**	**60%**	**27%**	**48%**

Table 2: Capture Authorization Fill Rates

YEAR	**RED-TAILED HAWK**	**MERLIN**	**COOPER'S HAWK**	**SHARP-SHINNED HAWK**	**FILL RATE**
2012	9	0	5	1	60%
2013	10	1	2	3	64%
2014	6	2	4	1	52%
AVERAGE	**8.3**	**1**	**3.7**	**1.7**	**59%**

Recommendation: Increase number of Permits

- Under the current system the benefits of access to wild raptors are available to less than half of the participants. Sometimes takes several years for an applicant to be successful.
    - This uncertainty makes planning very difficult; falconers must weigh the odds of success in the draw against the need to make alternate arrangements for captive-bred birds well in advance.

- The limits of the current policy are turning an otherwise successful program into an increasing source of dissatisfaction and frustration amongst falconers.
    - No other jurisdiction in the U.S. or Canada has a "hard" quota or capture limit on the 4 common species covered by the current policy.

- The intent of the current policy is to allow up to 25 birds to be *taken* but the permit "fill rate" (59%) is not taken into account. The number of permits could be increased 41 without exceeding the intent of the current policy limits.

- The 25 bird limit is not based on an assessment of sustainability. This target can and should be increased without any impact on raptor populations or environmental sustainability.
    - Generally accepted management guidelines suggest a "take" for falconry of up to 5% is highly sustainable and requires little monitoring (Millsap 2006, USFWS 2007).
    - Current capture rates fall far below this level. For example, in the United States falconers do not have quotas or limits, the capture rate for red-tailed hawks is only 0.2% of the population.

Option 1: Increase number of authorizations to 45

- Maintains current capture target and recognizes 59% authorization fill rate.
- Expect 25-27 birds actually captured per year.
- Reduces, but does not eliminate, draw over-subscription rate. Annual draw still required.

Option 2: Increase capture target to 45 and authorizations to 75.

- With a 59% fill rate, 75 authorizations would result in about 45 birds being captured.
- At current levels, all applicants will be successful in getting a permit.
- Pool 2 will be eliminated, and the number of applicants is expected to drop as a result to 45-48 in subsequent years. Falconer satisfaction with the program will increase dramatically.
- Draw will be unnecessary, at least in the near-term, the infrastructure for it will need to be maintained.
- We estimate that take will stabilize at 27-30 birds per year based on the number of applicants.
    - Even if it does not, this option is still well within sustainability limits.
    - Assuming the goshawk proposal below is adopted in an additive way, the number of applicants for these authorizations, and birds captured, will drop further.

Option 3: Provide a capture authorization to all applicants or licence holders.

- Eliminates "hard" limit and the need to maintain an application and draw process. Reduces administration.
- Mirrors falconry management practice elsewhere: No other jurisdiction in N.A. has a quota or "hard limit" on the capture of the 4 species covered by the current policy.
- Pool 2 (unsuccessful applicants) will be eliminated, and falconer satisfaction increased.
- As in Option 2, we estimate take will stabilize at 27-30 birds per year; only slightly more than allowed under the current policy.
    - There is no reason to think there will be an increase in the number of people interested in attempting to capture a raptor since the current process is free of charge.
- ***<u>This is the preferred option.</u>***

Table 3: Comparison of Options.

OPTION	TOTAL APPLICANTS	POOL #2 APPLICANTS	APPLICANT DRAW RATE	BIRDS CAPTURED
1: CURRENT PROGRAM (25)	55	12-16	45%	15
2: 45 AUTHORIZATIONS	52	5	86%	27
3: 75 AUTHORIZATIONS	48	0	100%	29
4: ALL FALCONERS	48*	0	100%	29

* Assumes the number of falconers interested in capturing a bird will be similar to current draw applicants.

Recommendation: Add Northern Goshawk

- The northern goshawk is an important and highly-desirable species that is ideally suited to the climate, landscape and quarry available in Ontario.
    - It is difficult to breed in captivity with very limited supply from captive sources.
- It is not a species at risk, and is not under review by COSEWIC or COSSARO. It is listed as "widespread and uncommon" by NHIC and is present in all but the most heavily agricultural and urban areas of Ontario:
    - Appears to be stable or increasing slightly in Great Lakes region (Farmer *et al* 2008).
    - Ontario Breeding Bird Atlas shows significant increases in south and central Ontario (Bush 2007).
    - Northern population estimated at 5000 pairs (Duncan and Kirk 1995) and southern population at 500 to 2000 pairs (Kirk 1995).
- NS, QC, MB, SK, AB, BC and northern U.S. states allow falconers to capture goshawks
    - In most jurisdictions the capture of goshawks is not given special consideration relative to other falconry raptors. Michigan has a quota of 5 and Wisconsin limits non-resident capture permits.
- The Ontario Hawking Club (OHC) has conducted annual nesting surveys in the counties surrounding the GTA since 2012.[2]
    - Over 50 active nest sites have been identified, with between 19 and 29 active each year.
    - Similar numbers were found in the 1980s and 1990s by club members indicating a stable population in this agricultural landscape.
- Nevertheless, some special considerations may be warranted for goshawk capture:
    - May be necessary to ensure goshawk capture is not unduly concentrated in the relatively small area of the province around the GTA.
    - Goshawks are not suitable for apprentices and apprentices should not be permitted to take wild goshawks.
- Estimate that 10 to 15 general class falconers would apply for goshawk permits each year with about 6-10 actually able to fill their permits.
- Availability of goshawks will result in a reduction in demand for the other 4 species.

Option 1: Authorize 7 goshawks per year, without geographic allocation

- Provides falconers with a limited number of goshawks while keeping harvest totals below the level where the committee felt that any geographic management would be necessary to spread out the capture across regions of the province
- A separate draw would be necessary to allocate goshawk authorizations.

[2] Grey, Dufferin, Simcoe, Durham, Wellington, Halton, Peel, York

Option 2: Authorize 15 goshawks per year, allocated to specific districts.

- Makes more birds available but would spread the take out across MNRF districts.
- Would provide enough goshawks to fill anticipated demand, but not necessarily from a falconer's "home area".
    - A draw or other mechanism may be necessary to determine the district in which an individual would be allowed to take a bird.
- This option requires greater management but would motivate increased search efforts. It would likely result in more active long-term monitoring of goshawk habitat and nest locations.
- Given the lack of road access in many areas, it may be harder for individual falconers to find birds in their designated area.
- In practices both Option 1 and 2, would likely result in 5-7 birds being taken from the counties surrounding the GTA since that is the area best known to falconers. Option 2 would allow additional opportunities in other areas of the province.

Appendix: Supplementary Discussion of Alternatives

Increase Number of Permits Available

Wild raptors have dramatically improved falconry in Ontario but with less than 50% of applicants getting permits in recent years, the current restrictions severely limit the number people that can benefit from these improvements. In the case of non-apprentices, the application success rate is only 38%.

A falconer that is unsuccessful in the draw is forced to choose between waiting another year for the chance to get the bird they originally wanted or attempting to purchase a bird, generally of a different species and temperament, from a breeder. Acquiring and training a bird is a multi-year long-term commitment, which makes such trade-offs very difficult. Even though most apprentices are successful, the 30% that are unsuccessful face a similar choice with even more significant consequences, including delaying the start of their apprenticeship or compromising its quality and effectiveness.

The original limitation to 25 authorizations was somewhat arbitrary and was introduced to provide certainty around the new policy when it was first proposed. It was not biologically established or motivated, but it did make for a proposal that was more easily accepted and adopted. In that sense the 25-bird limit did its job, but this consideration is no longer necessary.

The 4 species currently covered by the wild-take policy are widespread and common and could very easily support an increase in the take to levels that would eliminate the need for a draw. This would eliminate the guesswork in acquiring a bird and make the benefits of this successful policy more generally available within the falconry community and reduce the administrative effort in the process.

The generally accepted management guidelines derived from the available research suggest a "take" for falconry of up to 5% is very sustainable and requires little monitoring (Millsap 2006, USFWS 2007). Current capture levels fall well below this level for all falconry species across North America. For example, in the United States, where falconers do not have aggregate quotas or limits, it is estimated that the capture rate for red-tailed hawks it is only 0.2% of the population

We therefore recommend Option 3: "Provide a capture authorization to all applicants or licence holders". Under this option all interested falconers would get a permit. This would eliminate "draw pool 2" (those not drawn in the previous year), which in recent years has had 12 to 16 applicants. Eliminating the need for these people to re-apply will result in a reduction of 7-10 in the number of applications the following year as 60% of them will obtain a bird. With Option 3, we expect approximately 45-50 applicants will capture 27-30 birds per year. This is a fairly modest increase over the current target of 25 birds and completely eliminates the uncertainty and administration associated with a draw. The availability of goshawks may serve to further reduce this number.

Option 2 would similarly eliminate "pool 2", at least in the near term, but it would require that the infrastructure for a draw remain in place and would still result in some uncertainty.

Add Northern Goshawk

The northern goshawk is a highly-desirable species that is ideally suited to the climate, landscape and quarry available in Ontario. This powerful bird capable of taking rabbits, grouse and ducks in dramatic

style. Unfortunately, goshawks are difficult to breed in captivity and availability from captive sources is extremely limited. There are many falconers in Ontario with the necessary skill, who have waited unsuccessfully for years in the hopes of flying one of these spectacular birds.

The goshawk's population status may be summarized as follows: Goshawks are a largely non-migratory species with a cyclical dependency on prey populations, especially in the north (Kirk and Hyslop 1998). Migration data is, therefore, limited and inconsistent. There is no hard evidence that goshawks declined during the DDT era (Duncan and Kirk 1995). They appeared to have remained stable or increased slightly in the Great Lakes region (Farmer *et al* 2008). The Ontario Breeding Bird Atlas showed significant increases in southern and central Ontario and "effort-adjusted" declines in the north (Bush 2007). The northern population has been estimated at 5000 pairs (Duncan and Kirk 1995) and the southern population at 500 to 2000 pairs (Kirk 1995). It is listed as "Widespread and Uncommon" by the NHIC.

Goshawks are, more challenging to train and fly than many of the other species on the list. It requires patience, experience and skill to master the needs of these high-strung predators. They are not suitable for an apprentice falconer and we strongly believe that goshawk take authorizations should only be available to non-apprentices[3]. The rest of our discussion will proceed under the assumption that only non-apprentice falconers will be eligible to take goshawks.

Although goshawks are not as common as the other species falconers are currently allowed to take, they are very widespread across central and northern Ontario and, as our surveys have shown, even large parts of southern Ontario. Although they are not officially a "species of concern", and there is no reason to believe that populations have declined, a few people within the MNRF have expressed concern that they are "thinly distributed". Though this may be true in southern Ontario, there are nevertheless, enough known nesting pairs even in this area, to sustain the modest needs of a small take by falconers.

We estimate that average annual interest would be for about 10 to 15 birds, with eyasses being far more popular than passage birds[4]. Some of this interest will undoubtedly replace interest in the other 4 species and would not be entirely additive.

Option 1: "Allow 7 goshawk authorizations per year, without a geographic allocation" is conceptually fairly simple to implement but has a lower total number of authorizations. Under this scenario we would expect capture activity to be concentrated in the MNRF districts of Midhurst, Aurora, Peterborough and Guelph. A draw would almost certainly be necessary. If a draw is still required for the other 4 species, we would recommend that applicants not be allowed to apply to both draws. This will prevent "double dipping" and will ensure a higher number of permits are actually filled.

Option 2: "15 goshawk authorizations geographically allocated to specific MNRF districts" would provide the most permits overall and would allow greater control over distribution of the take, but it would require a draw process[5]. This option has the added benefit of providing a significant and tangible motivation for the falconry community to continue to identify goshawk nest sites across a wide area of southern and central Ontario. This information can be of immediate conservation value in

[3] The apprentice pool in the existing draw provides apprentices with significant advantages in obtain far more suitable birds from the amongst the other 4 species.

[4] Eyass birds are pre-fledging nestlings. Passage birds are those trapped on their first migration. Adult birds are not available to be taken

[5] If required, the Ontario Hawking Club would be willing to develop a suitable computerized draw for this purpose

forestry decision-making, and of even greater long-term value in monitoring and conserving this species.

Given the distribution of falconers in Ontario, it is very likely that both options would see roughly the same number of birds taken from the MNRF districts of Midhurst, Aurora, Peterborough and Guelph since this area is the best known to falconers. Option 2 would allow additional opportunities in the rest of Ontario.

The option of adding the goshawk to the list of allowed species with no specific numeric limitations or special considerations was the scenario envisioned in the initial 2011 proposal (EBR 011-3058). Arguably this is one of the simplest and most flexible options to implement. Also, we firmly believe that it is a very sustainable option given the size and documented resilience of goshawk populations (Kenward 1986). Nevertheless, there are a number of downsides:

1. Depending on the total number of wild take authorizations available, this option could increase the degree to which the draw is over-subscribed, and

2. It does not allow for direct control or predictability of the number of goshawks that will be taken. Given the previous sensitivity, this option, in combination with an overall increase of the number of permits available, may raise concerns and result in "poor optics" for this choice.

For this reason, we have not presented this as a viable option at the present time. Regardless of which option is selected, the Ontario Hawking Club intends to continue its annual goshawk surveys and to direct its members, to the extent possible, in such a way as to distribute the take of goshawks as evenly as possible throughout the province.

Bibliography

Brohn, A. 1986. Report of the SubCommittee on Falconry Rules. International Association of Fish and Wildlife Agencies. Washington D.C. 7pp. mimeo.

Cadman, M.D., P.F.J. Eagles, F.M. Helliener, 1987. Atlas of the Breeding Birds of Ontario. University of Waterloo Press.

Cadman, M.D., D.A. Sutherland, G.G. Beck, D. LePage, A.R. Couturier (eds). 2007. Atlas of the Breeding Birds of Ontario, 2001-2005. Bird Studies Canada, Environment Canada, Ontario Field Ornithologists, Ontario Ministry of Natural Resources, Ontario Nature, Toronto.

Conway, C.J., S.H. Anderson, D.E. Runde, and D. Abbate. 1995. Effects of experimental nestling harvest on prairie falcons. Journal of Wildlife Management 59:311–316.

Duncan, P., and D.A. Kirk. 1995. Status report in the Queen Charlotte Goshawk *Accipiter gentiles laingi* and the Northern Goshawk *Accipiter gentiles atricapillus* in Canada. Committee on the status of endangered wildlife in Canada, Ottawa.

Farmer, C.J., L.J. Goodrich, E. Ruelas Inzunza, and J.P. Smith. 2008. Conservation status of North America's birds of prey. Pp. 303-419 *in* K.L. Bildstein, J.P. Smith, E. Ruelas Inzunza, and R.R. Veit (eds.), State of North America's birds of prey. Nuttall Ornithological Club, Cambridge, MA, and American Ornithologists' Union, Washington, D.C.

Kenward, R.E. 1986. Inferring sustainable yields for some European raptor populations, in Proceedings of Raptor Research Foundation Conference.

Kirk, D. A. 1995. Forest Management and the Northern Goshawk (*Accipter gentiles*) with Special Reference to Ontario. Ontario Ministry of Natural Resources, Central Region Science and Technology Unit, North Bay.

Kirk, D.A., Hyslop C. 1998. Population status and recent trends in Canadian raptors: a review. Biological Conservation 83:91-118

Millsap, B. A. and G. T. Allen. 2006. Effects of Falconry Harvest on Wild Raptor Populations in the U.S.: Theoretical Considerations and Likely Consequences. Wildlife Society Bulletin 34:1392-1400.

Oliphant, L.W., Thompson, W.J.P. 1988. The use of falconry techniques in the reintroduction of the peregrine, in Peregrine falcon populations: their management and recovery, Peregrine Fund.

Runde, D.E. 1986. Controlled harvest of nestling Prairie Falcons: A field experiment, in Proceedings of Raptor Research Foundation Conference.

Sutherland, D. 2000. Natural Heritage Information Center, Ontario Ministry of Natural Resources.

U.S. Fish and Wildlife Service. 2007. Final environmental assessment: Take of raptors from the wild under falconry and the raptor propagation regulations. U.S. Fish and Wildlife Service, Arlington, VA.