

A Report on Trapped Raptors
in Relation to Furbearer Trapping in North Central North Dakota
During the 1975 and 1976 Trapping Seasons

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Acknowledgements

I'd like to take the opportunity to sincerely thank several people who helped me compile this report and who offered invaluable assistance in caring for injured raptors.

- 1) Dr. James Foss and Dr. Louis Pinkerton of the Minot Veterinary Clinic for their help in treating and caring for injured birds.
- 2) Dr. Pat Redig and Dr. Gary Duke, Raptor Rehabilitation Laboratory, School of Veterinary Medicine, University of Minnesota, St. Paul Campus for their work and help in compiling the data concerning injuries and rehabilitation of trapped raptors.
- 3) Mike Nilsen, Director of the Roosevelt Park Zoo, Minot, North Dakota for providing space and feeding for injured raptors.

General Discussion

North Dakota has traditionally supported a large and varied population of raptors. The spring and late fall migrations of these birds of prey, at times, produces large concentrations of all raptors, including Bald and Golden Eagles throughout most of North Dakota. I transferred to Minot, North Dakota in the spring of 1974 and first came into contact with the problem of raptors being accidentally caught in leg hold traps during the 1974 fall trapping season. I received several calls from trappers who had accidentally caught an eagle or other raptor in one of their fox traps. I released several birds to the wild, however, most of the birds received substantial injury to their legs and subsequently perished. I also had several birds turned over to me by State Game Wardens who had received similar calls and had picked up the birds. All of these trapped birds seem to have one thing in common: the vast majority of them had been caught by trappers using "open" bait - a rabbit or other type of carcass was set out in plain view and traps were set under or directly adjacent to the bait.

I decided to monitor raptor losses with special attention paid to eagle mortalities caused by trapping. I discussed this problem with Special Agent Thomas Harper, Las Vegas, Nevada in the fall of 1975 and he reported a very similar situation with bobcat trapping in Northern Nevada which resulted in significant eagle mortalities. SA Harper and I began to realize that a distinct possibility existed that accidental trapping of eagles and other raptors around "open" or "hanging" bait was a significant problem over much of the United States. SA Harper forwarded me a copy of his report which relates to eagle mortalities caused by "hanging bait" trapping in Nevada. A copy of SA Harper's report is appended to this report for information.

- * Prior to and during the 1975 and 1976 trapping seasons, I made an effort to advise the public to report any raptors accidentally caught to their local warden, National Wildlife Refuge, or to myself. I also discouraged trappers from using "open" baits in their trap sets. Press releases in the Minot Daily News and Minot Air Force Base Newspaper in addition to a news story on KMOT TV, Minot was used to inform the local public of the problem. Despite the efforts, a total of eighteen (18) raptors including nine (9) eagles were trapped during the 1975 season and twenty (20) raptors including fourteen (14) eagles were trapped during the 1976 season. These birds were recovered from a local seven (7) county area and the sample was composed only of those birds reported by trappers. A more detailed breakdown of trapped raptors is included in this report for reference in addition to a sample of the aforementioned press releases.

Several things became apparent during the time spent in monitoring the two trapping seasons. First, the economics of trapping and high prices paid for long hair furs has vastly increased the number of trappers and

hence the number of traps in the field. Second, amateur and unskilled trappers are the most likely to use uncovered ("open") baits and therefore are the most likely to catch raptors. Third, modern day trappers are using off road vehicles and snowmobiles to place traps over a broader area. Fourth, at least one-half of all raptors trapped suffered wounds which resulted in death. Fifth, efforts to rehabilitate birds with trap wounds so that they can eventually be released to the wild has not been very successful.

The following are some short discussions on subjects which are directly connected with the trapping problem.

Economics of Trapping

It is no secret that trapping has become a full time industry for North Dakota and many other western states as well. The demand and high prices for furs has turned what was once an outdoor hobby/activity practiced by a small dedicated group of people into a money making, commercial endeavor for anyone who can buy a dozen traps at the local hardware store. The number of trappers in the field has increased dramatically in North Dakota over the past three years. In 1975, the average price for a red fox was between \$30 and \$40. In 1976, the average price for fox jumped to between \$40 and \$50 with an exceptional pelt bringing as high as \$65 from some buyers. Even coyotes were bringing top money in the \$50 to \$60 range. These high prices had the effect of bringing out anyone who could afford traps; knowledgeable or not! Quite simply, sheer numbers of traps in the field have increased, but the trapping methods used by the inexperienced trapper is more the problem.

Causes of Accidental Eagle Trapping

- * Specifically, the "open" or "hanging" bait is the chief cause in almost every incident of the accidental trapping of raptors. A sheep carcass, rabbit, deer ribs, intestines, whole fish, etc. are hung in lower tree branches or tossed out in the middle of a frozen slough and traps are set adjacent to or under the "bait". No attempt is made to cover this bait and the eagles and other raptors can spot this against a snow background from great distances. Any bait open to view is considered an easy meal for the raptors and they are not "trap-wise" in the mold of most furbearing mammals. This is especially true if the weather conditions have made normal prey species hard to find. Open view rabbit sets become especially attractive to eagles and owls. These birds seem to stay in North Dakota later than some of the smaller hawks and their migration during the last three years has coincided with the later part of the trapping season. Most of the birds were caught during the last two weeks in November and the entire month of December. Snow cover at this time of the year, cold weather and scarce food make the birds highly susceptible to open baits.

Trapper's Attitudes and Recommendations

Ironically, most experienced, skillful trappers use scent and/or covered baits for fox and coyote in North Dakota. They have very little esteem for amateur trappers who catch magpies and birds of prey using open bait sets. Ernie Zahn, a District Field Assistant with the U.S. Fish and Wildlife at Velva, North Dakota summarized that an educated trapper using the proper sets to catch long haired furbearers would very rarely, if ever, catch a bird of prey. DFA Zahn, a trapper for many years, has made it a point to give trapping seminars in the North Central counties of North Dakota and he highly discourages the use of open or hanging baits. He advocates the use of scent and if a carcass of some kind is used, the trapper is instructed to set up his traps in a rough circle a couple of hundred yards from the carcass using scent posts. He discourages the placing of traps next to the carcass or in the body cavity.

Strangely enough, some trappers could not equate the catching of eagles with the use of open bait. On two occasions, following calls by the trapper informing me that he had caught an eagle, when I arrived at the trap sight, I found no evidence of open bait. When the trappers were asked what type of bait they were using, they both indicated that they had used a rabbit and, when the eagle was found, the rabbit was removed for use in another open bait set a short distance away.

- * In all cases where an eagle or other raptor was accidentally caught, the trapper was given a warning that he was using methods which facilitate the taking of protected birds of prey and that any subsequent trapping could possibly lead to court action. All trappers contacted were cooperative and in every instance, following a discussion of trapping methods, they agreed that open bait trapping was not necessary for furbearers and further agreed to change their methods. Only one instance occurred where an eagle was caught a second time after the trapper was first contacted. This repeat was reportedly caused by an open bait set the trapper had forgotten to change.

Some other interesting general comments were made by trappers during our discussions concerning trapping in general. They pointed out that the high prices have brought out people who have very little, if any knowledge, about trapping as a sport. And, worse yet, many of these people have no morals or ethics where the sport is concerned. People trapping on land without permission, theft of traps and animals, trap lines running on top of other trap lines, trappers fighting over territory to be trapped, and trappers using open baits which catch birds and dogs are a few of the problems which surfaced.

Many of these trappers are aware of some of the anti-trapping sentiment which has generated throughout some parts of the country and they want some control over those "slobs" who cast a dark shadow on ethical trappers.

The vast majority of trappers I talked with agreed that catching birds of prey does not help the sporting image of trapping as an outdoor activity. Many expressed the desire to see fur prices drop to a reasonable level so that, as one trapper put it, "the clowns who are out here only for the high price would be weeded out."

Some other recommendations which the trappers offered included:

- 1) Trappers should be required to check their traps every 24 hours.
- 2) All trappers should be required to identify their traps with their name and address.
- 3) Trappers should be required to have written permission from the landowner before trapping on his land.
- 4) Trappers should be required to report any trapped protected birds to a Game Warden as soon as possible.
- 5) All hanging or open baits should be outlawed.
- 6) It should be illegal to put a trap closer than 50 feet from any open bait. (This was suggested several times with the distance mentioned varying from 25 feet to 100 yards.)

Causes of Death and Trap Inflicted Wounds

The most common cause of death among trapped raptors seems to be shock coupled with exhaustion. The birds which are caught high on the leg invariably will break their leg during their struggle to free themselves from the trap. The traps are usually staked down with a short length of chain or wire and as the bird tries to fly it is jerked to the ground at the end of the chain resulting in a fracture of the leg.

In two cases, the birds were caught in #4 traps and the initial snapping shut of the trap may have broken the leg bone. Normally, traps the size of #3 and smaller did not seem to break the bone on the initial closing.

With the exception of one Golden Eagle, all of the birds which died suffered a fractured leg. Four of the birds had their legs almost completely severed with only the outside skin and the tendons intact. The breaking of the leg, coupled with the struggle to free themselves normally results in the bird going into severe shock and exhaustion and a short time later death results. Severe weather and cold temperatures have a definite effect on the trapped birds, bringing on frost bite and shock. Most of the recovered birds were taken immediately to Dr. James Foss at the Minot Veterinary Clinic for treatment. However, all except one bird perished if the leg was broken. Great Horned Owls and hawks

seem to be especially prone to broken legs, perhaps because of the smaller leg bones.

The chances of a bird dying are greatly increased in proportion to the length of time the bird stays in the trap and out in the weather. Two Golden Eagles which died of broken legs (shock) in the 1976-1977 season had been in the traps for at least 42 hours. The trappers involved told me they try to check their traps every day but actually they were only averaging checking their traps every 2½ or 3 days. Obviously, the less time the bird spends in the trap, the less chance of fatal injury and frostbite and the better chance of doctoring the bird if the leg is broken.

. Birds which were released to the wild usually were lucky in that the trap caught one of the talons or low enough on the foot that the leg did not break. Even so, these birds suffered wounds ranging from lacerated scutillate which was treated with antiseptic to a broken talon which was amputated to prevent infection. Every effort was made to release the birds to the wild, but rehabilitation of raptors, especially eagles, is difficult if the leg (legs) is badly wounded.

I contacted Dr. Pat Redig at the Raptor Rehabilitation Laboratory, School of Veterinary Medicine, University of Minnesota, St. Paul Campus for his experiences and thoughts on treating injured eagles and other birds of prey. He sent the following letter and summaries of raptor rehabilitation for 1975 and 1976. The photographs and comments on pages 17 through 19 are Dr. Redigs and they point out the seriousness of the problem.



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June 6, 1977

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Dear Mr. Cooper:

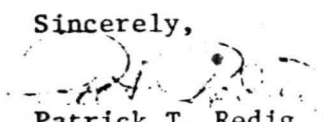
The problem of eagles and other birds of prey becoming injured in steel jaw traps is one with which I have dealt for several years. Clinically, trap injuries to the leg and toes are the most unrewarding form of treatment one can undertake. In most cases the end result is amputation of the portion of the limb below the site of injury.

In assessing the severity of a trap induced injury a number of aspects must be considered. First of all, soft tissue damage is just as important as an actual fracture of the leg. Secondly, in cases where the leg is now broken, the condition of the bird always looks better at the time it is removed from the trap than it does about two weeks later. The impact of the jaws of a trap cause severe damage to the nerves and blood vessels supplying the leg. If the bird does any struggling the damage is made more severe and usually is irreversible. Thus the tissues of the lower leg will lose their blood supply and die. It usually takes 4-6 days for the first signs of degeneration to set in. Therefore, all trapped birds, no matter how good they look at the time of trapping, should be given at least 10 days of observation before they are appraised for release. The final point is that a leg caught in a trap quickly freezes in temperature below 30° F. Frozen tissues have no chance at all for regeneration; one would be best advised to amputate the leg immediately. In this part of the country any bird so caught between mid-October through the end of March is very likely to be a victim of freezing.

For the two years, 1975 and 1976, I treated 37 raptors for trap injuries. Of those receiving trap injuries to the tarso-metatarsal bone (the first one above the foot) only one, a red-shouldered hawk, was nursed back to health without requiring an amputation. There were several others trapped by the toes rather than by the leg that were released after amputation of the injured toes. Average recovery time in these cases was 3 weeks.

That's a brief summary of my comments for now. If I can be of any help in the future, please let me know.

Sincerely,


Patrick T. Redig, DVM

PTR/pls

HEALTH SCIENCES

Summary of Raptor Rehabilitation at the
University of Minnesota for 1975 by
Drs. P. T. Redig and G. E. Duke

Table I

Species	Projectile	Pole trap	Other trap	Accident	Starvation	Disease	Orphaned	Donated*	Total
Hawks									
Red-tailed	15		9	5	1	2	1	3	36
Red-shouldered		1							1
Broad-winged	6			3	2	1	1		13
Rough-legged	6		1	3					10
Coopers				1		1			2
Goshawk	2			1	1	1			5
Sharp-shinned	2			2					4
Marsh hawk	1			1					2
Falcons									
Kestrel	3		1	3			10	1	18
Prairie	1			2				2	5
Peregrine				1				1	2
Eagles									
Bald	9		1	2		1	1		14
Golden	1								1
Ospreys	3			1					4
Owls									
Screech	1			8			2		11
European Scops								1	1
Saw-whet				2					2
Burrowing				1					1
Barred			2	1				1	4
Long-eared	2			1		1			4
Short-eared	1			3					4
Snowy	3			3					6
Great-horned	6	1	5	10	2	1	2		27
Totals	62	2	19	54	6	8	17	9	177
Percentages	35.03	1.13	10.73	30.51	3.39	4.52	9.60	5.08	100

SUMMARY OF RAPTOR REHABILITATION FOR 1976
P. T. Redig and G. E. Duke

Species/Problem	Projectile	Pole Trap	Other Trap	Accident	Starvation	Disease	Orphaned	Donated	Other	Died	Euth.	Holding	Successfully Rehabilitated			Other	TOTAL
													Research	Rehabilitated	Pending		
Hawks																	
Red-tailed	11			19		2	5		4	5	4	5	1	15	11		41
Red-shouldered							2					1		1			2
Harris						1				1							1
Broad-winged	1			6	1	2	1		1	2	1	5	1	3			12
Swainson's	2			1								1	1	1			3
Rough-leg	3		1									1	1	2			4
Ferruginous	3									1		1	1		1		3
Coopers						2	1			1				2			3
Goshawk		1		1	1	3				4				2			6
Marsh hawk	1		1				2			1		1		2			4
Falcons																	
Kestrel	3			11	1		6	2	1	7		4		10	2	1	24
Prairie				1		2				3							3
Peregrine				2											2		2
(Gyr Falcon)	1					1				1				1			2
Eagles																	
Bald	2		1	5		4			4	3		2	3	5	3		16
Golden	1		1	1		1				1				1	2		4
Ospreys	1									1							1
Owls																	
Screech	1			7		1	5			6			4	3	1		14
Saw Whet	1			2						1		2					3
Barred	4			5		2	1		1	1	1		5	4	2		13
Long-eared	1									1							1
Short-eared	1										1						1
Snowy	2			2							1	2		1			4
Great-horned	6	2	9	12		1	4	2		4	9	1	12	8	2		36
Turkey Vulture	1									1							1
Totals	46	3	13	75	3	22	27	4	11	44	17	26	30	61	26		204
Percentages	23%	1.5%	6.4%	36.8%	1.5%	10.8%	13.2%	2.0%	5.4%	21.6%	8.3%	12.7%	14.7%	29.9%	12.7%		

Concluding Comments

Several questions came to light while compiling the information for this report: How many birds of prey are actually lost due to accidental trapping throughout all of North Dakota? How many birds eventually become a mortality after release to the wild as a direct or indirect result of their trap wounds? Is accidental trapping of raptors a problem nationwide or is it confined to some of the western and north central states? Is the problem worth worrying about?

Very simply, I do not have any ready answers to these questions. As regards to the first question, the reports I received on trapped birds came from the area which is reached by the local Minot area TV and newspapers. The press releases and TV news stories asking trappers to report trapped raptors stressed the point that no one would be prosecuted if the trapping was accidental and the bird was reported. However, there is no way of knowing how many trappers may have released the birds themselves or killed the birds and disposed of them. In either case, the incident would not have been reported. Also, in the case of trapper released birds, there is no way of knowing the type and extent of the wounds received by the birds. My reports came primarily from the seven (7) north central counties and, with the exception of Williams and Divide County, I did not receive one report of trapping from the western counties. I find it hard to believe that the western counties which take in the "Badlands" and Little Missouri ecosystems and which harbor viable migrating populations of all species of raptors including eagles, did not have some raptors accidentally trapped. In addition, this area is heavily trapped for coyote, fox and, to a lesser extent, bobcat. Obviously, depending on voluntary reporting is not going to furnish the most reliable data. However, I would point out something worth thinking about: North Dakota has fifty-three (53) counties; if just one bird per county was accidentally trapped, the total equals fifty-three (53) birds of prey. The seven (7) north central counties averaged 2.6 birds trapped and this is based on reported birds only.

Once again, it is subjective as to how many birds become a mortality after release as a direct or indirect result of their trap wounds. Dr. Redig's summary of trap related wounds is very sobering to say the least. He points out that of thirty-seven (37) raptors treated for trap injuries to the tarso-metatarsal bone, only one was nursed back to health without requiring amputation. After discussing the injuries and treatment required with Dr. Redig, I am concerned that at least some of the birds which I thought to be in good condition and which I released back to the wild may not have lived very long. The thought also occurs that U.S.F.W.S. Special Agents and State Conservation Officers nationwide may be releasing birds of prey which require longer observation and more treatment.

Additionally, the subject of indirect mortality caused by trap related wounds is something we know little about. How many birds of prey with

trap related wounds are reduced to feeding on road kills and thus become road kills themselves?

Is the problem nationwide? The answer can only come from those individual states which have a trapping season. I have discussed this problem with Special Agent Dave Fisher at Pierre, South Dakota and he states the accidental trapping of raptors, especially eagles, is widespread in South Dakota. SA Fisher reports that as is the case in North Dakota, trapping around open bait accounts for practically all of the trapped birds. SA Harper's report points out that open or hanging bait trapping is definitely a factor on the eagle population in Nevada. I would say that anywhere a rabbit or other bait is hung or otherwise placed in the open in country which supports a raptor population, it is only a matter of time before a bird of prey takes advantage of the easy meal. If traps are set adjacent to this type of bait, eagles and other birds of prey will be caught!!

Is the problem worth worrying about? I suppose the answer to that depends on a persons like or dislike for eagles and other raptors and how much value he places in having them around. I believe a problem exists not only in North Dakota but anywhere open bait trapping is allowed. Obviously, I think it is worth worrying about or I would not have devoted effort to this report.

Ironically, this problem does have a fairly simple solution: 1) pass regulations at either the state or federal level prohibiting the use of open or hanging bait, 2) accompany this regulation with an education and public relations program aimed at informing the trappers the reason for the regulation and pointing out that it is an ineffective method of trapping most furbearers anyway.

Every trapper I talked to in North Dakota was receptive to this suggestion with several commenting that "something has to be done or the next thing will be the outlawing of trapping as a sport."

TRAPPED BIRDS OF PREY
FROM OCTOBER 1975 TO JANUARY 1976

Bird Caught (Species)	Number	Disposition
1) Golden Eagle	7	3 released to wild; 4 perished
2) Bald Eagle	2	1 released to wild; 1 perished
3) Great Horned Owl	6	1 released to wild; 5 perished
4) Rough Leg Hawk	2	1 released to wild; 1 perished
5) Swainson's Hawk	1	1 released to wild
TOTALS	18	7 (released) 11 (perished)

COUNTIES WHERE TRAPPED BIRDS WERE RECOVERED:

Ward	4
Burke	1
Pierce	2
Bottineau	1
Mountrail	4
McLean	3
Williams	3

TRAPPED BIRDS OF PREY
FROM OCTOBER 1976 TO JANUARY 1977

Bird Caught (Species)	Number	Disposition
1) Golden Eagle	11	6 released to wild; 5 perished
2) Bald Eagle	3	2 released to wild; 1 perished
3) Great Horned Owl	4	1 released to wild; 3 perished
4) Rough Leg Hawk	2	1 released to wild; 1 perished
TOTALS	20	10 (released) 10 (perished)

COUNTIES WHERE TRAPPED BIRDS WERE RECOVERED:

Mountrail	5
Bottineau	3
Ward	2
McLean	5
Pierce	1
Sheridan	2
Williams	1
Divide	1