Algonquin's Moose : An Update

by Noreen Kruzich

Twenty-five years have passed since the initial moose translocation from Algonquin to Michigan's Upper Peninsula (UP). *Operation Moose Lift*, as it was labelled, has become a remarkable experiment in wildlife management. Joint efforts by the Michigan Department of Natural Resources (DNR) and Ontario's Ministry of Natural Resources set the stage for this animal's reintroduction to Michigan, which have led to a self-sustaining moose population in the state.

Involved with the project over the last decade, Michigan DNR Wildlife Research Biologist Dean Beyer reports that they have been keeping close tabs on the moose herd, whose habitat makes up a 3,550-square-kilometre area in Michigan's western UP.

"We're estimating about 10 per cent [growth] annually," says Beyer from his Marquette office. "In 2009, we calculated about 420 animals," but he admits original predictions had the herd reaching 1,000 by the year 2000. DNR officials now believe that was overly optimistic and that the herd may never reach that number.

Beyer says their studies have shown a below-average adult reproductive rate, coupled with a low adult twinning rate, and a notably low birth rate among yearlings. Causes for low reproduction have yet to be determined says Beyer. Biologists say factors such as predation by wolves and bears, disease and parasites, or severe winter weather, such as deep snow, do have an impact on moose survival and reproduction, but their studies conclude this is not the case in Michigan.

"One hypothesis is that warm summer temperatures reduce the amount of time moose spend foraging, thus some cows might not achieve the physical condition necessary to produce young," states Beyer.

Another factor at play, and up for discussion and study, is that Michigan's UP is at the southern perimeter of moose habitat range in the non-mountainous regions of North America. The availability, quantity and quality of moose habitat determine the moose's nutritional status. For instance, yearlings that are well nourished grow faster and mature earlier, frequently breed and give birth to a single calf.

Wildlife researchers have been collecting data hoping to have a more thorough understanding of the Michigan moose's population dynamics as it relates to Michigan's available habitat. The core range of moose (1,743 kilometres square, lying in Baraga, Iron and Marquette counties) remains close to their original release site near Michigamme, Michigan.

When asked if there were any original Canadian transplants still alive, Beyer said he didn't believe so. "Moose may live up to twenty-five years although generally much less."

Despite the lower-than-predicted reproduction, DNR officials say the moose herd is faring well. Beyer reports that the high density areas hold about 19 moose per 100 square kilometres, but that it's the original, lower-density regions which are currently seeing the increase in population. And that's good news!

(As a Michigan native and a news reporter, Noreen Kruzich covered the moose transfer from its beginnings and has followed the project's progress since. Coincidentally, she moved to Ontario 13 years ago, eventually taking up residence just outside Algonquin Park.)

Being "bugged"?

This can be a challenging time to be outdoors with both blackflies and mosquitoes being present. Here are some tips to help you cope:

- Wear light-coloured clothing (white, tan, khaki, etc.)–blackflies are attracted to dark colours.
- Cover up. Wear long-sleeved shirts with cuffs and collars that can be buttoned tight, as well as long pants with elastic cuffs (or tuck your pants into your socks).
- Use insect repellent when outdoors–something with DEET works best. The concentration of DEET should be no greater than 30% for adults and no greater than 10% for children.
- If you cannot, or prefer not to, use insect repellent, try some type of netting (a bug hat or bug jacket), available at most outdoor stores. When camping, you can try a bug tarp shelter to avoid biting insects.

Blackfly bites can look and feel painful. Blackfly biting (L) and mosquito feeding (R)

*(insect photos by Steve Marshall; Note: **not** at actual size!)*

Colleen Hammill

Tips When Viewing Wildlife

Highway 60 can be an excellent place to view wildlife, especially Moose.

- Early morning or late evening can be the best time.
- Keep well off the travelled portion of the highway if you pull over to view wildlife.
- Keep a safe and respectful distance from wildlife.
- NEVER feed or attract wildlife.

Going for a hike?

Be aware that we are just opening our hiking, biking and backpacking trails for the season–you may come across downed trees, mud or flooded sections. With hundreds of kilometres of trails in Algonquin, it takes our dedicated staff several weeks to clean the trails after the long winter.

If you are going on a day-hike, know the length and difficulty of the trail and give yourself enough time to be back to your vehicle before dark.

Looking for Internet access?

The Visitor Centre now offers free WiFi internet access… and while there, don't forget to check out The Friends of Algonquin Park bookstore, or enjoy a light snack or meal at the Sunday Creek Café.

The Raven is available online [www.algonquinpark.on.ca] and a limited number of complete sets of the previous year's Raven are available at the Visitor Centre and the main gates along Highway 60.

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Algonquin Provincial Park

The Raven

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Why is this moose flying?

Learn more… see page 2.

Why the new look?

You have probably noticed that *The Raven*, the official newsletter for Algonquin Provincial Park, looks different this year. Why the new look?

2010 represents a new era for *The Raven*. For the first 50 years, *The Raven* had only two authors…Russ Rutter from 1960 to 1973 and Dan Strickland from 1974 to 2009. When Dan announced recently that he was going to end his run as the author, the Park thought that we should also retire *The Raven*…but we heard from you and you wanted us to keep the newsletter.

After much deliberation, we decided *The Raven* would continue, but with some changes. The new principal author will be Michael Runtz, a well-known Ontario naturalist, photographer and writer — with a strong connection to Algonquin Park. But we will also introduce guest writers and continue to reprint some of the old *Raven* articles.

The Raven will now have six issues a year (two in the spring, two in the summer, one in the fall, and one in the winter). *The Raven* was weekly in the summer but that format goes back 50 years when the newsletter was the only Park publication and represented the Park Information Guide, *This Week in Algonquin,* as well as the natural history essay. This new schedule will allow us to update our visitors with timely seasonal information and safety messages.

We hope you enjoy the new version of *The Raven* and welcome your comments. We know it is not the same but we hope that, after 50 years, you will allow us some flexibility to change!

The Park thanks The Friends of Algonquin Park for its generous contribution to the production, printing and distribution of The Raven for the past 12 years.
THANKS! Friends, for your support.

Those Magnificent Moose and Their Flying Machines

by Dan Strickland

Originally printed on April 25, 1985, we are pleased to reprint this slightly edited verion of The Raven *and also provide an update on Algonquin's moose.*

The small "chase" helicopter spots moose on a frozen lake.

This is our first *Raven* for 1985 but we feel safe in betting that you have already read or heard about at least one Algonquin news item elsewhere this year. Back in January the press and all the Canadian and U.S. TV networks carried prominent, coast-to-coast coverage of the spectacular transfer of moose from the Park to the state of Michigan. Interest in the project was so high that, for days on end, two Park employees did nothing but answer enquiries and do interviews over the phone. And, even though it was the dead of winter, we actually had to erect barricades to keep the public from crowding in too close on the operation down at our Mew Lake base camp.

Without a doubt, the moose transfer was the biggest and most important event involving Algonquin wildlife in years and, although the news is now several months old, we still think it worthwhile to devote a whole issue to the subject. Many readers may have caught only fleeting coverage earlier on and, besides, we now have the opportunity to bring everybody up-to-date on how our moose are doing in their new home.

Before doing that, however, we need to explain why the project was undertaken in the first place. To understand that you have to know how remarkably similar the release site of the transferred moose, in the Upper Peninsula of Michigan, is to Algonquin Park. Not only do the Upper Peninsula's forests look like ours, but also, many details of their history closely parallel events that took place here. Both areas were originally populated by moose but that changed in the late 1800s when settlers, trappers, and loggers began to persecute wolves and to destroy many of the original forests through logging and increased forest fires. The suppression of wolf populations allowed deer to spread north into areas from which they had previously been excluded by moose-supported wolves and the new, second-growth forests allowed the newly arrived deer to reach much higher numbers than could have been supported by the original forests. The problem, as far as the moose were concerned, is that deer carry a parasitic brainworm which, although apparently harmless to deer, is fatal to moose. When deer are numerous any local moose almost inevitably contract the parasite and die. Thus, although no one knew why at the time* the moose populations of the Upper Peninsula (UP) and of the Park dwindled as deer numbers increased. By the early 1900s moose had disappeared altogether in the UP and here in Algonquin they were certainly extremely scarce if not altogether absent. Not very far north of Algonquin, however, was good moose country that the deer had never invaded in any great numbers. This meant there was a source of moose close at hand to repopulate the Park or augment any that were left if conditions ever changed. And, as every regular visitor to Algonquin knows, conditions have changed dramatically. Wolf control stopped in 1959 and the fires and uncontrolled logging that created unnaturally good deer food conditions are also a thing of the past. The numbers of deer have therefore fallen and so, therefore, has the risk of a moose being infected with brainworm. As a result, in the last ten years, moose numbers have "exploded." We believe the Park population numbers about 4000 and it may still be growing.**

** The brainworm and its effects on moose were discovered here in Algonquin back in the 1960s.*

The same repossession by moose almost certainly would have occurred in the UP as well except that Lake Superior, lying between it and moose country to the north, barred the way. It is true that some moose cross over at Sault Ste. Marie at the east end of the Peninsula but they are few in number and, in any case, they have a long way to go through hostile, worm-infested deer country before they reach the suitable areas of the UP farther west.

Nevertheless, the fact that those newly suitable but mooseless areas existed led Michigan wildlife officials to reason that a moose re-introduction would now work. All they had to do was "inoculate" the suitable areas with the nucleus of a new moose population and nature would do the rest.

*** In 2009, the moose population in Algonquin was estimated to be 3,200.*

After being airlifted to Mew Lake, the moose were "processed and prepared" for their long journey to Michigan.

That is the background for the "great moose transfer of 1985." Rest assured that there was a tremendous amount of planning and consultation back and forth between Michigan and Ontario before all the details were worked out and work got started on January 21st [1985]. The basic idea sounds simple. A small, chase helicopter went out in search of moose, preferably out on a frozen lake, came in close for a shot from a tranquilizing gun, and then hovered nearby to prevent the moose from going back into the bush during the five minutes or so required for the drug to take effect and the moose to go down.

At that point a second, larger helicopter came in with a crew of men who fitted a special sling around the moose so that the helicopter could lift it back to our base camp at Mew Lake. We shall never forget the scarcely believable sight of moose after moose being ferried in over miles of frozen lakes and forests. At first we would see just a tiny speck dangling below the distant helicopter until, as it came closer and closer, the "speck" resolved itself into half a ton of blindfolded, ear-plugged moose. Back then, however, there was little time to marvel. As soon as the moose was lowered to earth another team of men (about half from Michigan and the rest from Ontario) went to work. Within ten minutes of its arrival the moose was weighed, measured, checked for pregnancy, given antibiotics, fitted with ear tags and a radio-collar, relieved of a blood sample, tested for brucellosis and tuberculosis and lifted by a crane into a special, 1000-pound crate to await shipment to Michigan. During all this time the animal's temperature was constantly monitored and a veterinarian was ready to take remedial action should the temperature climb or fall from the normal range. Just before the crate was shut an antidote was administered to reverse the effects of the tranquilizing drug and restore the moose to full consciousness — which usually happened in 2-5 minutes.

Whatever the number of animals caught in a day — it varied from one to four — they were all driven on the same truck non-stop through the night on the 14- to 24-hour trip (depending on the weather) to the release site in Michigan.

All this sounds straightforward enough but the use of drugs is a tricky business at the best of times and no operation of this magnitude had ever been attempted before. The project planners believed that 10-20% of the animals would be lost due to drug and handling-related stress and that it would take two years to transfer the desired 30 or so moose. In fact, 29 animals (10 bulls, 19 cows — of which 18 at least were pregnant) were transferred in just two weeks, far surpassing the most optimistic predictions and making it unnecessary to stage a repeat program next winter. Another five animals, unfortunately, were lost (three in the Park and two shortly after arriving in the UP) but four of the deaths were of moose handled in the first two days of the project (when drug dosages were still being adjusted) and only one animal was lost after that.

At day's end, any captured moose were transported in crates by truck to the release site in Michigan.

The really important result is that the nucleus of a new moose herd has been established in Michigan and, if expectations are borne out, the population will reach 1,000 by the year 2000 — all thanks to the 29 moose transferred this winter. As we go to press all 29 are doing well and still within 20 miles of the release site. Soon the cows will be having their calves and the population expansion will begin. The effect for Michigan of this handful of moose will be enormous.

For Algonquin, also, the transfer was very important — not financially (the people of Michigan paid all the bills) or even ecologically (the temporary loss of less than 1% of our moose is insignificant) — but rather in terms of our mission and tradition. The Park has a long history of helping less fortunate jurisdictions with wildlife restocking projects. Today, the descendents of Algonquin beaver, marten, fisher, otter, and even deer are all alive in various parts of North America. Being able to add the restored moose population of Michigan to that list is a privilege of which we are very, very proud.

[This ends *The Raven* article from 1985; an update follows overleaf.]