

The Algonquin Eco Watcher



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ALGONQUIN ECOSYSTEM HEADWATER STUDY



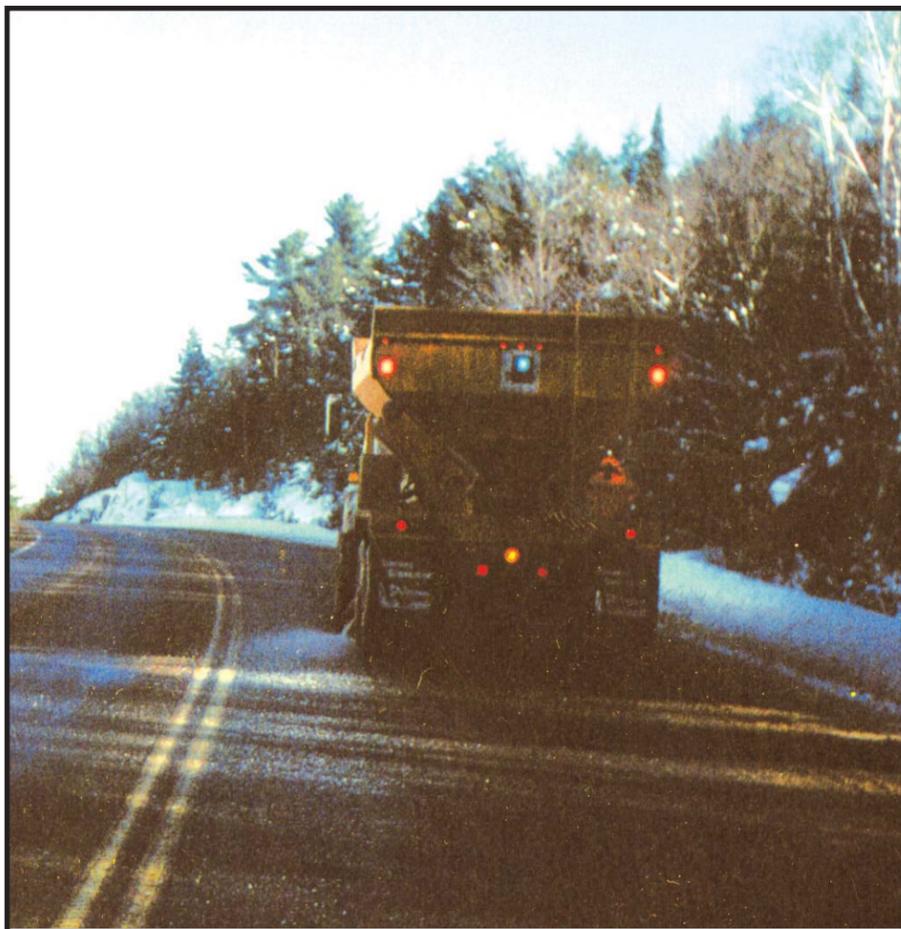
Hundreds of tiny headwater lakes such as Kootchie Lake, above, are the vital source waters of the seven major rivers that originate on the Algonquin Dome.

Algonquin Eco Watch defines the Algonquin Ecosystem as Algonquin Park, plus all those watersheds that source outside the Park, but flow into it. While the majority of these more than 20 “outside” watersheds occur adjacent to Algonquin Park’s western boundary, there are additional source waters outside the northern, southern and eastern boundaries as well.

Since development on these waters is not restricted to the same degree as waters within Algonquin Park, Algonquin Eco Watch, in partnership with the W. Garfield Weston Foundation, Sir Sandford Fleming College, the Ontario Ministry of Natural Resources/Ontario Parks, and The Friends of Algonquin Park, have initiated a water quality/quantity study. This study, aimed at establishing baseline physical and chemical characteristics not only for those waters flowing into Algonquin Park, but also for certain selected waters within the Park where development has occurred, will provide accurate scientific reference data in the event of future development proposals. It will further establish which waters are problem free, and facilitate restorative measures in those waters where problems are identified.

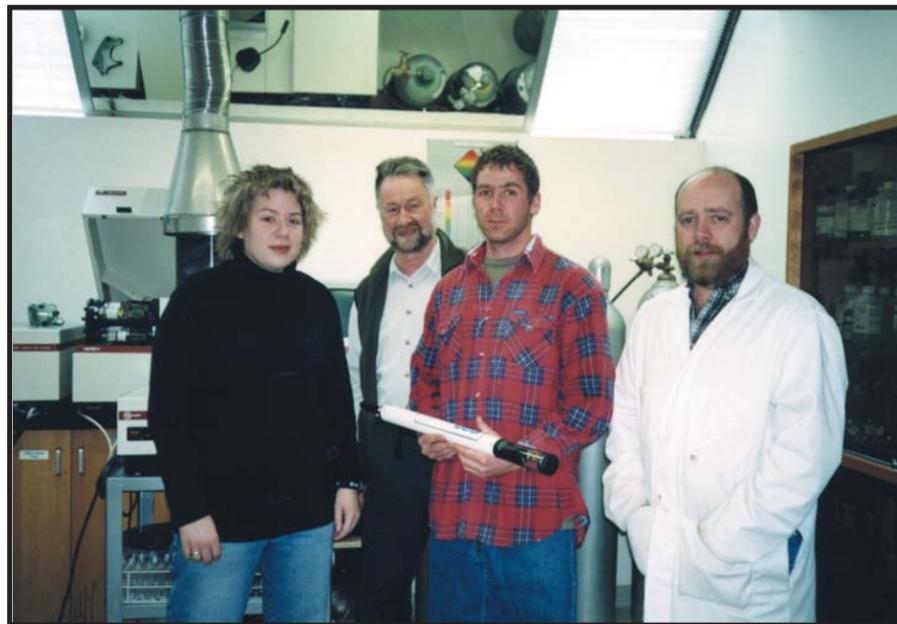
If additional funding assistance can be obtained, it is felt that this project could be completed in three field seasons, beginning in 2001. Repeating this project at 5-10 year intervals will facilitate direct data comparison and eventually establish water quality/quantity trends through time within the Algonquin Ecosystem.

ROAD SALT



Road salt, such as this being spread along Highway 60, adjacent to South Tea Lake in Algonquin Park, has recently been classed as toxic and will affect nearby water quality.

Environment Canada tentatively classified road salt as a toxic substance in the year 2000. Comprised of such chemical compounds as sodium chloride (which melts winter snow), calcium chloride (which lays summer dust), and ferrocyanide (which provides anti-clumping properties), it has been demonstrated that road salt can be harmful to aquatic organisms. The



Seen left to right in the Fish and Wildlife lab at Sir Sandford Fleming College, Lindsay, are Andrea Rhodenizer, technician, Hugh Banks, professor, Terry Honsberger, technologist, and Pat Hogan, lab technician, with the probe of the state-of-the-art “Hydro Lab” water quality analyzer purchased for this project.

implications of these new findings regarding road salt are important within the Algonquin Ecosystem, particularly adjacent to the Highway 60 corridor, and along interior logging haul roads, which pass near water.

Algonquin Eco Watch and the consultants designing the replacement Highway 60 Smoke Creek Bridge collaborated on changes to the bridge approaches, which should ensure that run-off from the new bridge will not reach Smoke Creek directly, but will be filtered and buffered in the substrate adjacent to the Creek. In addition, as part of the Headwater Study (see article above), we will routinely be monitoring (electrical) conductivity, which Environment Canada advises can be converted to indicate chloride (salt) concentrations.

HEMLOCK MANAGEMENT



This hemlock logging operation near Wilkins Lake in Algonquin Park will open the forest canopy, admitting growth-promoting sunlight, but because of ground frost may not create sufficient disturbance in the duff layer to stimulate seedling regeneration.

The lack of hemlock recruitment into the forest overstory could eventually result in the loss of this valuable wildlife winter cover species from the Algonquin Ecosystem. Deer and moose will browse available hemlock in winter thus inhibiting growth. Further, strict cutting restrictions introduced as a protective measure to counteract over-cutting of hemlock during the 1950's and 60's have resulted in over-mature stands, which are subject to blow-down, in addition to insufficient regeneration resulting from a lack of natural or human disturbance.

Natural regeneration of hemlock may be expected in good seed years, provided that the seeds are able to reach the mineral soil layer, as a result of the duff layer having been removed or disturbed by fire or machinery, respectively. Logging restrictions during the spring-summer-fall period however, often mean that operations within hemlock stands must occur during the winter, when scarification from equipment is minimized due to ground frost, thus reducing the amount of natural seed germination in good seed years. This leaves two possible alternatives if successful management within hemlock stands is to be achieved. Firstly, seedbed preparation can be accomplished by re-visiting the area during the frost-free period with specialized equipment. This is seldom done owing to the seasonal restrictions already mentioned, in addition to cost, since economically, hemlock lumber is only marginally profitable at best. Secondly, by extending the hemlock operating season into the frost free period, utilizing today's newer, quieter equipment, it may be possible to stimulate the regeneration of more hemlock seedlings than the existing moose or deer populations could kill through browsing. The latter alternative is feasible, since it would stimulate natural regeneration through enhanced seedbed preparation during the frost-free period at no additional cost, but could prove unpopular with Park visitors.

From a practical sense, we must accept the fact that large-scale expenditure on hemlock management is not likely, owing to the low commercial value of the product. On the other hand, to overly restrict logging within hemlock stands will protect the existing trees, but could lead to the eventual loss of the species through lack of recruitment into the overstory. Hemlock's greatest value lies in its importance as a wildlife winter cover species. The solution to its long-term retention within the Algonquin Ecosystem must be part of existing or innovative inexpensive management schemes. Algonquin Eco Watch invites ideas from its members.

ALGONQUIN ECO WATCH POSITION PAPER

All the issues discussed in this "Algonquin Eco Watcher", as well as many additional issues identified within the Algonquin Ecosystem, are discussed in detail in our recently completed Position Paper entitled "Environmental Pressures to be Considered in the Management of the Algonquin Ecosystem". Copies will be mailed to members on request for a \$5.00 copying and mailing fee. (Please make cheques payable to Algonquin Eco Watch.) This paper will be updated if/as issues are resolved and as new issues develop. We would welcome comments and suggestions from members.

OPEN HOUSE

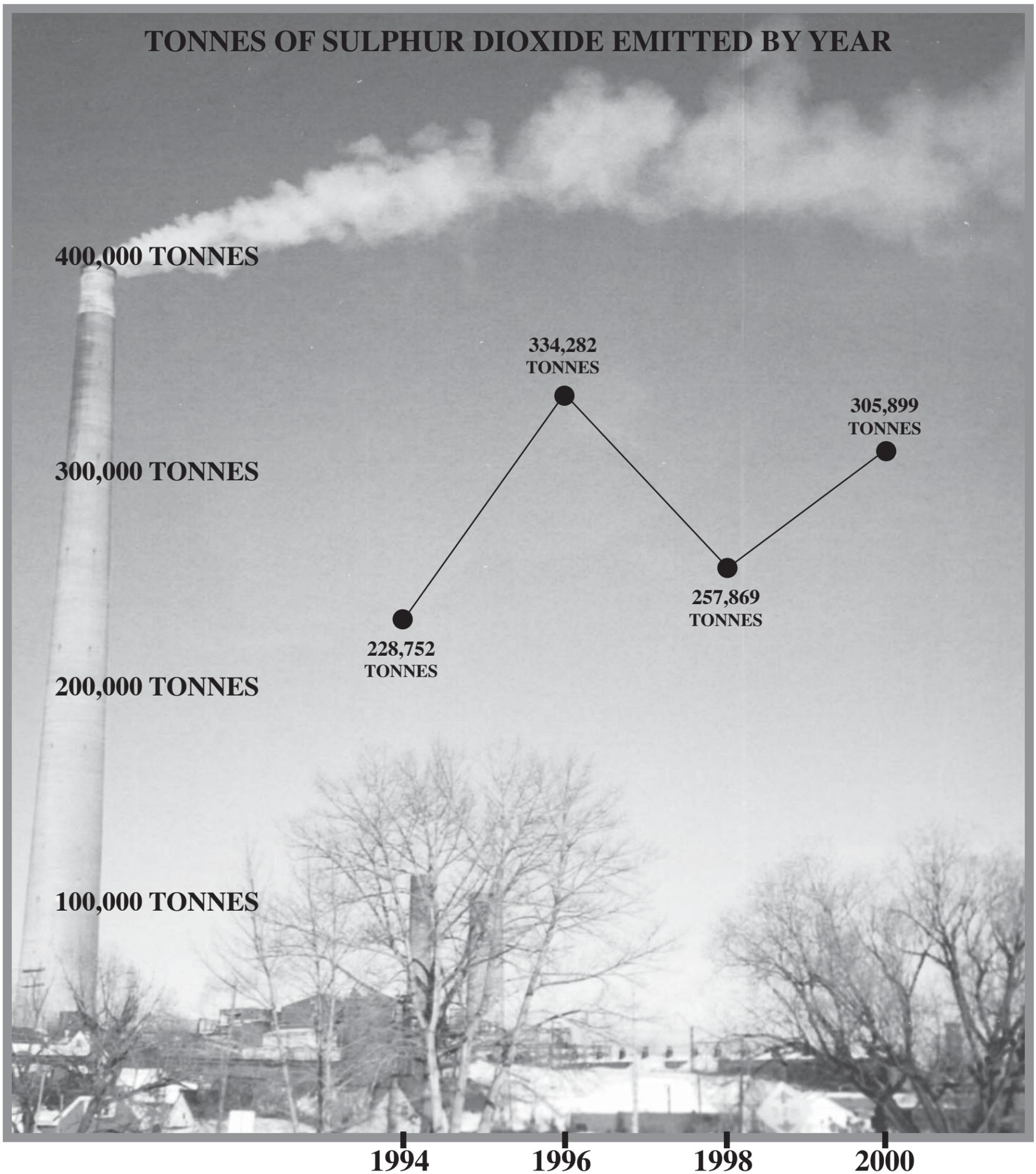
Members and the public are cordially invited to Algonquin Eco Watch's first Open House to be held on the morning of August 11th, 2001. This event will take place between 10:00am and noon at the Cache Lake Recreation Centre, just off Highway 60, at km 23 in Algonquin Park. Members of the Algonquin Eco Watch Board of Directors will be in attendance to answer questions about our Group, and to discuss issues relating to the future health of the Algonquin Ecosystem. We look forward to seeing you there.

C.N.R DECOMMISSIONING

It has now been over 6 years since Canadian National Railways began removing track and ties from the main line through Algonquin Park. Many remaining forms of pollution, such as ballast from the Sudbury Basin, deteriorating culverts, creosote impregnated wood and waste petroleum products have yet to be removed. Since it appears increasingly doubtful that any further clean-up is planned, two citizens of Ontario, in addition to Algonquin Eco Watch, the Federation of Ontario Naturalists and the Wildlands League, initiated a "Request for an Investigation" by the Environmental Commissioner of Ontario under the provisions of the Ontario Environmental Bill of Rights, in April, 2001. Progress in this regard will be updated in future issues of the "Algonquin Eco Watcher".



SUPERSTACK EMISSIONS



The accompanying graph indicates sulphur dioxide emissions from the 381m stack at Sudbury between 1994 and the year 2000. Average particulate sulphur dioxide emissions by weight for the years 1994, 1996, 1998 and 2000, were 281,700 tonnes* annually. In the years 1994 and 1996, emissions exceeded Ontario Ministry of the Environment allowable limits by 49% and 97%, respectively.

There is abundant proof in the scientific literature that sulphur dioxide is toxic to plant life.

Borne on the prevailing northwest winds, it has been well documented that the plume from "Superstack" easily carries sulphur dioxide as far as the Algonquin Ecosystem and beyond. Will this trend increase if ore from Voisey's Bay in Labrador is transported to Sudbury for smelting?

In an effort to determine what the future may hold regarding the aerial transportation of sulphur dioxide from the Sudbury Basin to the Algonquin Ecosystem, Algonquin Eco Watch will initiate a "Request for an Investigation" by the Environmental Commissioner of Ontario, under the provisions of the Ontario Environmental Bill of Rights.

*1 tonne = 2,200lb

ALGONQUIN WOLVES

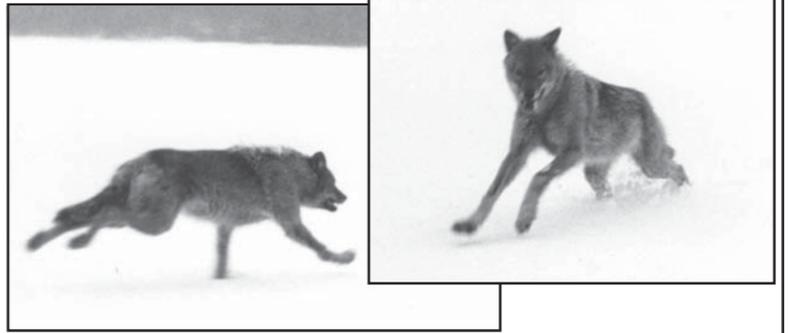
No other species in the Algonquin Ecosystem generates as much interest as its wolves. The accompanying photos help to illustrate the wide physical variation existing within the population, and may also imply evolutionary or human-induced changes, which have occurred within the recent past.

The "Algonquin Wolf" with its somewhat smaller stature is better adapted to predating deer than moose. The documented decline of the Algonquin deer herd during the 1960's and 70's is felt to have been due, at least in part, to the very heavy harvesting of hemlock (see "Hemlock Management" article, page #2) from many of the most heavily utilized Algonquin Park deer wintering areas, for use as shoring timber during the construction of the Toronto Subway. The subsequent documented increase in the Algonquin moose herd is felt to have happened thanks to a resulting decline in the occurrence of a parasitic brainworm, which is carried by deer, but is often fatal to moose. While the decline in deer numbers may well have been reflected in a corresponding decline in the wolf population, insufficient survey data are available to substantiate this. In any event, it is likely that the best way to increase Algonquin wolf numbers would be to increase their preferred winter prey species, the deer, something that would likely result in a corresponding decrease in moose numbers, and would be difficult as well as costly to achieve.

To increase the Algonquin deer herd would require the provision of considerably more early succession forest through increased logging within Algonquin Park, in addition to providing an increased hemlock component, particularly in the "traditional" deer wintering areas, which are no longer inhabited by deer. Even if this could be accomplished, there is no guarantee that deer would move back into the old areas, since this is felt to be a traditional or learned response, taught to the fawns by their dams.



This juvenile "Algonquin" wolf, weighing about 20kg when photographed at Brule Lake, Algonquin Park, in 1993, exhibits some of the traits such as "sharp" facial features and reddish colouration, attributed to its cousin, the (southern) red wolf.



This "Algonquin" wolf, weighing about 35kg when photographed on Cedar Lake, Algonquin Park, in 1973, exhibits some of the traits such as gray colouration and "lanky" appearance, attributed to its cousin, the (northern) gray or timber wolf.

It was established at a recent symposium held at Dorset, Ontario, that genetically, Algonquin wolves are more closely related to the southern, or red wolf, than to the northern, or gray (timber) wolf. Since the distribution of the red wolf is fairly extensive across central North America, it appears that Algonquin's wolves are not in imminent danger of disappearing.

It is generally acknowledged however, that since continuing decreases in red wolf numbers across its range have been noted, the Algonquin population can act as a reservoir for this sub-species. As a result of this many feel that greater protection should be afforded to those wolves that occur outside the perimeter of Algonquin Park.

While Algonquin Eco Watch does not object to this philosophy, we strongly feel that more research is needed to confirm or disprove the many, often emotional, theories surrounding the wolf controversy. For this reason, Algonquin Eco Watch contributed \$3,000.00 toward Algonquin wolf research in the year 2000. We will continue to contribute toward this research program, subject to on-going demonstration of acceptable scientific protocols.

OUR MEMBERS SUGGEST

Following are some "capsule" statements that we have received from our members since the last printing of the "Algonquin Eco Watcher", regarding issues and suggestions which they feel warrant follow-up. We will endeavour to investigate and report on these topics as time and funding permit.

- Formation of a buffer area to protect Algonquin wolves. (see article this issue).
- Continue pressure regarding horse logging in the Park. (AEW agrees).
- Concern over "old" asphalt stored near the Oxtongue River. (AEW brought this to the attention of the Algonquin Park Superintendent, who in turn negotiated with the contractors to re-cycle that asphalt into the approaches for the new Smoke Creek bridge).
- Questions regarding the administrative structure of the Algonquin Forestry Authority. (Letter forwarded to the General Manager of the AFA).
- Questions regarding "film" on vehicles in the Rolphton area and possible link to "Superstack". (see article this issue).
- Concern expressed over the Smoke Creek bridge replacement and runoff containing road salt. (see article this issue).
- Reduce or abolish hunting, trapping, powerboats and logging. (All these issues except powerboats are addressed in our "Position Paper" (see page #2). The issue of powerboats is highly polarized, but will be addressed in the future).
- Ban calcium from the roads. (see article this issue).
- Ban heavy trucks from Highway 60 within Algonquin Park, especially those carrying toxic substances. (Attempts to do this have so far been unsuccessful).
- Excessive noise at campgrounds. (Forwarded to the Park Superintendent).
- Algonquin Park is becoming too "commercial", too "civilized". (The issue of Development is addressed in our "Position Paper" (see page #2)).

**If you agree with the ideas and opinions expressed in the Algonquin Eco Watcher, please pass this copy on to a friend.
(Back issues available on request.)**

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Please make cheques payable to "Algonquin Eco Watch"

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