

This is Annex 6 prepared by Algonquin Eco Watch as part of a request for Individual Environmental Assessment for the Algonquin Forest Management Plan 2010

Appendix 6- A record of conversations with MNR Staff and David Euler.

The purpose of this appendix is to illustrate how some of the dialogue between Algonquin Eco Watch's Vice-President, David Euler and staff of MNR discussed the use of the habitat matrix in the Forest Management Plan. The e-mails here illustrate how MNR staff attempt to discourage people from understanding how they actually work on their management plan. As well, it shows the lack of commitment to clear and unbiased scientific work.

From: Davison, Roger (MNR) [mailto:roger.davison@ontario.ca]
Sent: October-05-09 4:14 PM
To: Dave Euler; wilton@algonquin-eco-watch.com
Cc: Cottam, Norm (MNR); Yaraskavitch, Joe (MNR)
Subject: Information Request

Change in Marten matrix from 2005 FMP to 2010 FMP

The following changes were made to the American marten habitat matrix from the 2005 FMP to the 2010 FMP.

The numbers 1 and 2 are used in the habitat matrix to represent used and preferred wildlife habitat respectively. FMP objectives are set for preferred habitat only.

- . ES13 was changed from 2 → 1
- . ES28 was changed from 2 → 1

These changes were recommended by the Brian Naylor, MNR Regional Science Advisor based on Paul Gelok's, University of Toronto, Master's thesis. Seasonal habitat associations of American martens (*Martes americana*) in central Ontario (<http://www.uoguelph.ca/~wrs/martens.html>).

The wildlife habitat matrix that was provided to you by the plan author on August 27, 2008 (via email) includes this update and is the only version of the matrix that has been used in the Algonquin Park 2010 FMP.

From: Dave Euler [mailto:birchpt@sympatico.ca]
Sent: October 9, 2009 2:01 PM
To: Davison, Roger (MNR)
Cc: Cottam, Norm (MNR); Yaraskavitch, Joe (MNR); wilton@algonquin-eco-watch.com; gord.cumming@algonquinforestry.on.ca; Hayward, Carrie (MNR); Winters, John E. (MNR)
Subject: Gelok's thesis

Hello Roger, Thanks for sending me a copy of Paul Gelok's thesis.

I have read the thesis and it is apparent from Mr Gelok's thesis that the changes made in the Habitat Suitable Matrix are exactly the opposite of what he found in his research. Removing the mature trees in ES 13 and ES 28 as preferred habitat for American Marten is not supported by the research in his thesis.

Dave Euler

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From: Davison, Roger (MNR)

Sent: Friday, October 09, 2009 2:48 PM

To: Dave Euler

Cc: Cottam, Norm (MNR); Yaraskavitch, Joe (MNR); wilton@algonquin-eco-watch.com; gord.cumming@algonquinforestry.on.ca; Hayward, Carrie (MNR); Winters, John E. (MNR); Naylor, Brian (MNR)

Subject: RE: Gelok's thesis

Hi Dave

Thanks for your note.

I discussed this with Brian Naylor and he is going to respond directly to you on this matter.

Brian wanted me to mention that he wouldn't be able to reply until late next week due to a number of commitments.

Roger

From: Naylor, Brian (MNR) [mailto:brian.naylor@ontario.ca]

Sent: October-15-09 1:28 PM

To: Davison, Roger (MNR); Dave Euler

Cc: Cottam, Norm (MNR); Yaraskavitch, Joe (MNR); wilton@algonquin-eco-watch.com; gord.cumming@algonquinforestry.on.ca; Hayward, Carrie (MNR); Winters, John E. (MNR); Naylor, Brian (MNR)

Subject: RE: Gelok's thesis

Hi Dave,

There seems to be some confusion about what Paul Gelok's research discovered and how this information was used to revise the habitat suitability model (HSM) for martens. I will do my best to provide some clarity.

Paul's thesis consists of two chapters. The first chapter examined summer habitat use based on marten visits to track plate boxes. Paul's best model suggested that habitat use was positively associated with forest with 15-50% conifer in the overstory (i.e., deciduous-dominated forest with some conifer such as ES28), forest that was mature, and forest that had a relatively low canopy closure, and was negatively associated with non-forested habitat.

Paul's second chapter examined winter habitat use based on marten snow-tracks counted along transects. Paul's best model suggested that habitat use was positively associated with the abundance of small mammals, grouse, and small mustelids. He also found that habitat use was positively associated with forest with high basal area, and negatively associated with forest with 15-50% conifer in the overstory (i.e., deciduous-dominated forest with some conifer such as ES28) and non-forested habitat.

Paul's second chapter also tested the non-spatial HSM for martens from Holloway et al. (2004). This assessment was included in chapter 2 since the HSM is intended to reflect winter habitat suitability based on the prevailing assumption that winter habitat is most limiting. Paul concluded that the HSM was a poor predictor of the density of marten tracks encountered along his transects. He suggested that the ranking of ecosites may have been the primary factor limiting the model's predictive capability. Unfortunately, Paul did not conduct an ecosite-based

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use/availability analysis within his thesis. However, his unpublished data were acquired and track density was summarized by ecosite type. The large number of ecosites and the relatively small amount of sampling within some ecosite types precluded a rigorous statistical analysis of these data. Moreover, there is some debate whether track counts by themselves (without information on the age of animals) provide a reliable index of habitat suitability. Thus, Paul's data do not provide an unequivocal test of the HSM or an unequivocal ranking for each ecosite. However, some trends were apparent and led me to recommend a small number of changes to the ecosite rankings in Holloway et al. (2004). Specifically,

- Forest dominated by red pine (ES12) or mixtures of red pine, white pine, and jack pine (ES13) appeared to receive similar low use by martens. ES12 had been rated as used and ES13 had been rated as preferred in Holloway et al. (2004). Thus, ES13 was changed to used for consistency.
- Tolerant hardwood forest with a significant component of beech (ES25) or basswood (ES26) was rated as unused in Holloway et al. (2004). But martens were clearly making some use of these ecosites during winter so their rankings were changed from unused to used.
- Tolerant hardwood forest with a significant component of yellow birch and hemlock (ES28) was rated as preferred in Holloway et al. (2004). While Paul's data suggested this ecosite was used, the density of tracks was low relative to other conifer-dominated ecosite types. Moreover, Paul's modelling (described above) suggested a negative association with forest with 15-50% conifer in the overstory during winter. Thus, the ranking was changed from preferred to used.

Dave, I hope this explanation helps clarify things. If you have any further questions please do not hesitate to contact me.

Sincerely,

Brian

From: Dave Euler [mailto:birchpt@sympatico.ca]

Sent: Thursday, October 22, 2009 9:09 AM

To: Naylor, Brian (MNR); Davison, Roger (MNR)

Cc: Cottam, Norm (MNR); Yaraskavitch, Joe (MNR); wilton@algonquin-eco-watch.com; gord.cumming@algonquinforestry.on.ca; Hayward, Carrie (MNR); Winters, John E. (MNR)

Subject: RE: Gelok's thesis

Thanks Brian, for this explanation of the changes in the Habitat Matrix based on Paul Golek's thesis.

Your explanation is troubling for three reasons:

- The data you used as a basis for the changes has not been subject to peer review, an important and necessary step in understanding science.
- The reasoning that suggests that statistical tests have not revealed significant difference, but there are trends apparent, is not an adequate reason to make changes.
- The changes made in the matrix have had a major impact on the draft Long Term Management Direction (LTMD) in the draft 2010 FMP for Algonquin Park, and the decisions made on the basis of the changes are significant.

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Paul Golek's thesis has not been published in the peer reviewed literature, the traditional test of the value of the science in the thesis. Furthermore, the unpublished data you acquired has not been peer reviewed even within the context of his thesis advisors. More surprising, perhaps, is that Dr. Ian Thompson, a recognized authority on American Marten was not consulted. Dr. Thompson is easily available for discussion of this nature, and should have been asked for an opinion of the changes.

Changing the matrix has led to large changes in the output of the model for the Park. In the 2005 Management Plan, the model output was 281,000 ha of American Marten habitat, based on the Holloway et al. 2004 version of the matrix. In the 2010 draft plan, habitat for this species is estimated at 157,000 and this apparent loss of habitat has occurred because of the changes in the matrix, not because of ecological changes on the ground in the Park.

It is tempting to search for trends in data, especially when statistical tests fail to find significant relationships. However the essential purpose of statistical testing is to insure that changes in responses to environmental measurements are real changes and not artificial correlations. Making management decisions on the basis of trends seems unwarranted.

Logging and the planning decisions made in Algonquin Park involved hundreds of jobs and millions of dollars and as well as the long term health of the Algonquin Ecosystem. I hope we can make those decisions on the best possible scientific data and in the context of careful and thoughtful planning.

David Euler Ph.D.
Wildlife Habitat and Forestry

From: Naylor, Brian (MNR) [mailto:brian.naylor@ontario.ca]

Sent: November-02-09 8:59 AM

To: Dave Euler; Davison, Roger (MNR)

Cc: Cottam, Norm (MNR); Yaraskavitch, Joe (MNR); wilton@algonquin-eco-watch.com; gord.cumming@algonquinforestry.on.ca; Hayward, Carrie (MNR); Winters, John E. (MNR); Naylor, Brian (MNR)

Subject: RE: Gelok's thesis

Hello Dave,

Thank you for expressing your concerns. Here is my response to your three main points.

The data you used as a basis for the changes has not been subject to peer review, an important and necessary step in understanding science.

You are correct. Paul's thesis and my assessment of Paul's unpublished data had not been published in the peer-reviewed literature. As you know, we strive to use the most reliable knowledge available in our guides and tools, and preferentially use peer-reviewed literature when it is available. Unfortunately, there was (and continues to be) very little peer-reviewed literature available on habitat use by martens in the Great Lakes-St. Lawrence forest. In my professional opinion, Paul's research represented the best available information at the time the changes were made to the HSM. Thus, I make no apology for using this information even though it had not been published in the peer-reviewed literature.

The reasoning that suggests that statistical tests have not revealed significant difference, but there are trends apparent, is not an adequate reason to make changes.

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To be clear, Paul did find numerous statistically significant relationships in his analysis. For example, there was a negative association between winter habitat use and hardwood-dominated mixed forest (such as represented by ES28) in a number of his models. While a statistical analysis of use/availability was not conducted by ecosite for the reasons stated previously, some trends were so obvious in the data (and consistent with results from Paul's modelling of habitat use) that I felt compelled to recommend a few changes to the HSM. For example, the density of tracks encountered in other ecosites that the HSM rated as preferred was > 1.5 times higher than that observed in ES28. Moreover, the density of tracks in ES28 was similar to that observed in other ecosites the HSM rated as used. Thus, the rating for ES28 was changed from preferred to used. Given the large amount of ES28 across much of the GLSL forest, modelling in SFMM would have overestimated the amount of preferred habitat, potentially masking trends in the actual supply of preferred habitat, if this change had not been made to the HSM.

The changes made in the matrix have had a major impact on the draft Long Term Management Direction (LTMD) in the draft 2010 FMP for Algonquin Park, and the decisions made on the basis of the changes are significant.

If significant changes have resulted from use of the revised HSM then I would suggest it was a good thing we made the changes we did, otherwise the modelling would have provided unreliable information that might have lead to inappropriate decisions.

**The following clarification is provided by Roger Davison, Southern Region:
The Algonquin Park planning team was provided the most up-to-date science-based habitat matrix in SFMM at the start of the planning process. It is important to clarify that a planning team is not required to compare an old habitat matrix to a new matrix during the planning process.**¹

Sincerely,

Brian

Brian Naylor,
Forest Management Guide Biologist,
Forest Policy Section,
Ontario Ministry of Natural Resources,
3301 Trout Lake Road,
North Bay, Ontario,
P1A 4L7.

Phone: 705-475-5564
FAX: 705-475-5570

¹ This is a rather startling admission. One would think that knowing the changes in the matrix is an important point of information for everyone involved. Dave Euler May 17, 2010