

## Publications of Mer Bleue Research

### 1. Refereed Publications (published and in press):

107. Wu, Y., C. Blodau, T.R. Moore, J.L. Bubier, S. Juutinen and T. Larmola 2014. Effects of experimental nitrogen deposition on peatland carbon pools and fluxes: a modeling analysis. *Biogeosciences*, 12: 79–101 doi: 10.5194/bg-12-79-2015.
106. Talbot, J., N.T. Roulet, O. Sonnentag and T.R. Moore 2014. Increases in aboveground biomass and leaf area 85 years after drainage in a bog. *Botany* 92: 713-721 doi: 10.1139/cjb-2013-0319.
105. Sharp, C.E., J.M. Graham, M.B. Stott, T.R. Moore, S.E. Grasby, M. Strack and P.F. Dunfield 2014. Distribution and diversity of *Verrucomicrobia* methanotrophs in geothermal and acidic environments. *Environmental Microbiology* 6: 1867-78.
104. Brown, M. G., E. R. Humphreys, T. R. Moore, N. T. Roulet, and P. M. Lafleur. 2014. Evidence for a nonmonotonic relationship between ecosystem-scale peatland methane emissions and water table depth. *Journal of Geophysical Research: Biogeosciences* 119: 826-835.
103. Humphreys, E.R., Brown, M., Charron, C., and Jones, R. 2014. Contrasting the CO<sub>2</sub> fluxes of a temperate ombrotrophic bog with fluxes from two bogs in the Canadian Hudson Bay Lowland. *Arctic Antarctic Alpine Research* 46: 103-113.
102. Lai, D.Y.F., N.T. Roulet, and T.R. Moore. 2014a. The spatial and temporal relationships between CO<sub>2</sub> and CH<sub>4</sub> exchange in a temperate ombrotrophic bog. *Atmospheric Environment* 89: 249-259.
101. Lai, D.Y.F., T.R. Moore, and N.T. Roulet. 2014b. Spatial and temporal variations of methane flux measured by autochambers in a temperate ombrotrophic peatland. *Journal of Geophysical Research: Biogeosciences* 119:864-880.
100. Kross, A.S.E., N.T. Roulet, T.R. Moore, P.M. Lafleur, E.R. Humphreys, J.W. Seaquist, L.B. Flanagan, and M. Aurela. 2014. Phenology and its role in carbon dioxide exchange processes in northern peatlands. *Journal of Geophysical Research: Biogeosciences* 119:1370–1384. doi 10.1002/2014jg002666.
99. Wang, M., T.R. Moore, J. Talbot & P.J.H. Richard 2014. The cascade of C:N:P stoichiometry in an ombrotrophic peatland: from plants to peat. *Environmental Research Letters* 9:024003 (7 pp) <http://dx.doi.org/10.1088/1748-9326/9/2/024003>.
98. Loisel, J., Z. Yu, D.W. Beilman, P. Camill, J. Alm, M.J. Amesbury, D. Anderson, S. Andersson, C. Boichicchio, K. Barber, L.R. Belyea, J. Bunbury, F.M. Chambers, D.J. Charman, F. De Vleeschouwer, B. Fiałkiewicz-Kozielec, S.A. Finkelstein, M. Gałka, M. Garneau, D. Hammarlund, W. Hinchcliffe, J. Holmquist, P. Hughes, M.C. Jones, E.S. Klein, U. Kokfelt, A. Korhola, P. Kuhry, A. Lamarre, M. Lamentowicz, D. Large, M. Lavoie, G. MacDonald, G. Magnan, M. Makila, G. Mallon, P. Mathijssen, D. Mauquoy, J. McCarroll, T.R. Moore, J. Nichols, B. O'Reilly, P. Oksanen, M. Packalen, D. Peteet, P.J.H. Richard, S. Robinson, T. Ronkainen, M. Rundgren, A. Britta, K. Sannel, C. Tarnocai, T. Thom, E.-S. Tuittila, M. Turetsky, M. Valiranta, M. van der Linden, B. van Geel, S. van Bellen, D. Vitt, Y. Zhao & W. Zhou in press. A database and synthesis of northern peatland soil properties and Holocene carbon and nitrogen accumulation. *The Holocene* doi: 10.1177/0959683614538073.
97. Wang, M., M.T. Murphy & T.R. Moore 2014. Nutrient resorption of two evergreen shrubs in response to long-term fertilization in an ombrotrophic peatland. *Oecologia* 174: 365–377. doi:10.1007/s00442-013-2784-7.
96. Basiliko, N., K. Henry, V. Gupta, T.R. Moore, B.T. Driscoll & P.F. Dunfield 2013. Controls on bacterial and archaeal community structure and links to greenhouse gas production in natural, mined, and restored Canadian peatlands. *Frontiers in Terrestrial Microbiology* 4: 215. doi: 10.3389/fmicb.2013.00215.
95. Wang M. & T.R. Moore 2014. Carbon, nitrogen, phosphorus and potassium stoichiometry in an ombrotrophic peatland reflects plant functional type. *Ecosystems* 17: 673–684.
94. Turetsky M.R., A. Kotowska, J. Bubier, N.B. Dise, P. Crill, E. Hornibrook, K. Minkinen, T.R. Moore, I. H. Myers-Smith, H. Nykänen, D. Olefeldt, J. Rinne, S. Saarnio, N. Shurpali, J.M.

- Waddington, J. White, K. Wickland & M. Wilmking 2014. A synthesis of methane emissions from 71 northern, temperate, and subtropical wetlands. *Global Change Biology* 20: 2183-2197. doi: 10.1111/gcb.12580.
93. Kalacska, M., J.P. Arroyo-Mora, J. de Gea, E. Snirer, C. Herzog & T.R. Moore 2013. Videographic analysis of *Eriophorum vaginatum* spatial coverage in an ombrotrophic bog. *Remote Sensing* 5: 6501-6512.
92. Kross A., J.W. Seaquist, N.T. Roulet, R. Fernandes & O. Sonnentag 2013. Estimating carbon dioxide exchange rates at contrasting northern peatlands using MODIS satellite data. *Remote Sensing of Environment* 137: 234–243.
91. Kopp B.J., J.H. Fleckenstein, N.T. Roulet, E. Humphreys, J. Talbot & C. Blodau 2013. Impact of long-term drainage on summer groundwater flow patterns in the Mer Bleue peatland, Ontario, Canada. *Hydrology and Earth System Sciences* 17: 3485–3498.
90. Larmola, T., J.L. Bubier, C. Kobyljanec, N. Basiliko, S. Juutinen, E. Humphreys, M. Preston & T.R. Moore 2013. Vegetation feedbacks of nutrient addition lead to a weaker carbon sink in an ombrotrophic bog. *Global Change Biology* 19: 3729-3739.
89. Pratte S., A. Mucci & M. Garneau 2013. Historical records of atmospheric metal deposition along the St. Lawrence Valley (eastern Canada) based on peat bog cores. *Atmospheric Environment* 79: 831-840.
88. Turetsky M.R., Bond-Lamberty B., Euskirchen E., Talbot J., Frohling S., McGuire A.D. & Tuittila E-S. 2012. Tansley Review: The resiliency and functional role of moss in boreal and arctic ecosystems. *New Phytologist* 196: 49-67.
87. Blodau, C. & M. Deppe 2012. Humic acid addition lowers methane release in peats of the Mer Bleue bog, Canada. *Soil Biology & Biochemistry* 52: 96-98.
86. Blodau, C. & M. Siems 2012. Drainage-induced forest growth alters belowground carbon biogeochemistry in the Mer Bleue bog, Canada. *Biogeochemistry* 107: 107-123.
85. Wu, J., N. Roulet, M. Nilsson, P. Lafleur & E. Humphreys, 2012. Simulating the carbon cycling of northern peatlands using a coupled land surface climate and wetland carbon model (CLASS3W-MWM). *Atmosphere-Ocean*, 50: 487-506.
84. Sulman, B.N., A.R. Desai, N.M. Schroeder, D. Ricciuto, A. Barr, A.D. Richardson, L.B. Flanagan, P.M. Lafleur, H. Tian, G. Chen, R.F. Grant, B. Poulter, H. Verbeeck, P. Ciais, B. Ringeval, I.T. Baker, K. Schaefer, Y. Luo & E. Weng, 2012. Impact of hydrological variations on modeling of peatland CO<sub>2</sub> fluxes: results from the North American Carbon Program site synthesis. *J. Geophys. Res.* 117: G01031, doi:10.1029/2011JG001862.
83. Laine, A., J. Bubier, T. Riutta, M. Nilsson, T.R. Moore, H. Vasander & E-S. Tuitilla 2012. Abundance and composition of plant biomass as potential controls for mire NEE. *Botany* 90: 63-74.
82. Limpens, J. G. Granath, R. Aerts, M.M.P.D. Heijmans, L.J. Sheppard, L. Bragazza, B. Williams, H. Rydin, J. Bubier, T. Moore, L. Rochefort, E.A.D. Mitchell, A. Buttler, L.J.L. van den Berg, U. Gunnarsson, A-J. Francez, R. Gerdol, M. Thormann, P. Grosvernier, M.M. Wiedermann, M.B. Nilsson, M.R. Hoosbeek, S. Bayley, J-F. Nordbakken, M.P.C.P. Paulissen, S. Hotes, A. Breeuwer, M. Ilomets, H.B.M. Tomassen, I. Leith & B. Xu 2012. Glasshouse vs field experiments: do they yield ecologically similar results for assessing N impacts on peat mosses? *New Phytologist* 195: 408-418.
81. Lai, D.Y.F., Roulet, N.T., Humphreys, E.R., Moore, T.R., & Dalva, M. 2012. The effect of atmospheric turbulence and chamber deployment period on autochamber CO<sub>2</sub> and CH<sub>4</sub> flux measurements in an ombrotrophic peatland. *Biogeosciences* 9: 3305-3322.
80. Knox, S.H., Carey, S.K., & Humphreys, E.R. 2012. Snow surface energy exchanges and snow-melt in a shrub-covered bog in eastern Ontario, Canada. *Hydrological Processes* 26: 1876-1890.
79. Chong, M., Humphreys, E.R. & Moore, T.R. 2012. Microclimatic response to increasing shrub cover and its effect on *Sphagnum* CO<sub>2</sub> exchange in a bog. *Ecoscience* 19: 89-97
78. Schaefer, K., Schwalm, C.R., Williams, C., Arain, M.A., Barr, A., Chen, J.M., Davis, K.J., Dimitrov, D., Hilton, T.W., Hollinger, D.Y., Humphreys, E. and 40 others. 2012. A model-data comparison

- of gross primary productivity: Results from the North American Carbon Program site synthesis. *J. Geophys. Res.* 117: G03010, doi:10.1029/2012JG001960.
77. Brümmer, C., Black, T.A., Jassal, R.S., Grant, N.J., Spittlehouse, D.L., Chen, B., Nestic, Z., Amiro, B.D., Arain, M.A., Barr, A.G., Bourque, C.P.-A., Coursolle, C., Dunn, A.L., Flanagan, L.B., Humphreys, E.R., Lafleur, P.M., Margolis, H.A., McCaughey, J.H. & Wofsy, S.C. 2012. How climate and vegetation type influence evapotranspiration and water use efficiency in Canadian forest, peatland and grassland ecosystems. *Agric. Forest Meteorol.* 153: 14-30.
  76. Strilesky, S.L. & E.R. Humphreys 2012. A comparison of the net ecosystem exchange of carbon dioxide and evapotranspiration for treed and open portions of a temperate peatland. *Agric. Forest Meteorol.* 153: 45-53.
  75. Basiliko, N., H. Stewart, T.R. Moore, & N.T. Roulet, 2012. Do root exudates enhance peat decomposition? *Geomicrobiology Journal* 29: 374-378.
  74. Limpens, J., G. Granath, U. Gunnarson, R. Aerts, S. Bayley, L. Bragazza, J. Bubier, A. Buttler, L. van den Berg, A.-J. Francez, R. Gerdol, P. Grosvernier, M.M.P.D. Heijmans, M.R. Hoosbeek, S. Hotes, M. Ilomets, I. Leith, E.A.D. Mitchell, T. Moore, M.B. Nilsson, J-F. Nordbakken, L. Rochefort, H. Rydin, L.J. Sheppard, M. Thormann, M.M. Wiedermann, B. Williams, & B. Xu, 2011. Climatic modifiers of the response to N deposition in peat-forming *Sphagnum* mosses: a meta-analysis. *New Phytologist* 191: 496–507
  73. Bubier, J.L., R. Smith, S. Juutinen, T.R. Moore, R. Minocha, S. Long & S. Minocha, 2011. Effects of nutrient addition on leaf chemistry, morphology, and photosynthetic capacity of three bog shrubs. *Oecologia* 167: 355-368.
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  71. Xing, Y., J. Bubier, T. Moore, M. Murphy, N. Basiliko, S. Wendel & C. Blodau 2011. The fate of <sup>15</sup>N-nitrate in a northern peatland impacted by long term experimental nitrogen, phosphorus and potassium fertilization. *Biogeochemistry* 103: 281-296.
  70. Frohling, S., N.T. Roulet, E. Tuittila, J.L. Bubier, A. Quillet, J. Talbot, & P.J.H. Richard, 2010. A new model of Holocene peatland net primary production, decomposition, water balance, and peat accumulation. *Earth Systems Dynamics* 1: 1–25.
  69. Adkinson, A.C. & E.R. Humphreys, 2011. The response of carbon dioxide exchange to manipulations of *Sphagnum* water content in an ombrotrophic bog. *Ecology* 6: 733-743.
  68. Moore, T.R., A. De Young, J.L. Bubier, E.R. Humphreys, P.M. Lafleur, & N.T. Roulet, 2011. A multi-year record of methane flux at the Mer Bleue bog, southern Canada. *Ecosystems* 14: 646-657.
  67. Dimitrov, D.D., R.F. Grant, P.M. Lafleur, & E.R. Humphreys, 2011. Modelling the effects of hydrology on gross primary productivity and net ecosystem productivity at Mer Bleue bog. *Journal of Geophysical Research-Biogeosciences* 116, G04010, doi:10.1029/2010JG001586.
  66. Dimitrov, D.D., R.F. Grant, P.M. Lafleur & E.R. Humphreys 2010. Modelling the effects of hydrology on ecosystem respiration at Mer Bleue bog, *Soil Science Society of America Journal* 74: 680-694.
  65. Dimitrov, D.D., R.F. Grant, P.M. Lafleur, & E.R. Humphreys 2010. Modeling peat thermal regime of an ombrotrophic peatland with hummock-hollow microtopography. *Soil Science Society of America Journal* 74: 1406-1425.
  64. Teklemariam, T.A., P.M. Lafleur, T.R. Moore, N.T. Roulet & E.R. Humphreys 2010. The direct and indirect effects of inter-annual meteorological variability on ecosystem carbon dioxide exchange at a temperate ombrotrophic bog. *Agricultural and Forest Meteorology* 150: 1402-1411.
  63. Wu, J., N.T. Roulet, T.R. Moore, P. Lafleur & E. Humphreys 2010. Dealing with microtopography of an ombrotrophic bog for simulating ecosystem-level CO<sub>2</sub> exchanges. *Ecological Modelling* 222: 1038-1047.
  62. Juutinen, S., J.L. Bubier & T.R. Moore 2010. Responses of vegetation and ecosystem CO<sub>2</sub> exchange to nine years of fertilization at Mer Bleue bog. *Ecosystems* 6: 874-887.

60. Murphy, M.T. & T.R. Moore 2010. Linking root production to aboveground plant characteristics and water table in a temperate bog. *Plant & Soil* 336: 219-231.
59. Winsborough, C. & N. Basiliko 2010. Fungal and bacterial activity in northern peatlands. *Geomicrobiology Journal* 27: 315-320.
58. Dimitrov, D.D., R.F. Grant, P.M. Lafleur, & E.R. Humphreys 2010. Modeling the subsurface hydrology of Mer Bleue bog. *Soil Science Society of America Journal* 74: 680–694.
57. Deppe, M., D. McKnight, K.-H. Knorr & C. Blodau 2011. Effects of short-term drying and irrigation on CO<sub>2</sub> and CH<sub>4</sub> production and emission from mesocosms of a northern bog and alpine fen. *Biogeochemistry* 100: 89-103.
56. Deppe, M., D. McKnight & C. Blodau 2010. Effects of short-term drying and irrigation on electron flow in mesocosms of a northern bog and an alpine fen. *Environmental Science & Technology* 44: 80-86.
55. Lund, M., P.M. Lafleur, N.T. Roulet, A. Lindroth, T.R. Christensen, M. Aurela, B.H. Chojnicki, L.B. Flanagan, E.R. Humphreys, T. Laurila, W.C. Oechel, J. Olejnik, J. Rinne, P. Schubert & M.B. Nilsson 2010. Exchange of carbon dioxide across twelve northern peatland and tundra sites. *Global Change Biology* 16: 2436-2448.
54. Talbot, J., P.J.H. Richard, N.T. Roulet & R. Booth 2010. Assessing long-term hydrological and vegetation changes following drainage in a bog using paleoecological reconstructions and a hydrosequence. *Vegetation Science* 21: 143-156.
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51. Dinsmore, K.J., M. Billet & T.R. Moore 2009. Transfer of carbon dioxide and methane through the soil-water-atmosphere system at Mer Bleue peatland, Canada. *Hydrological Processes* 23: 330-341.
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48. Lai, D. 2009. Modelling the effects of climate change on methane emission from a northern ombrotrophic bog in Canada. *Environmental Geology* 58: 1197-1206.
47. Goldammer, T. & C. Blodau 2008. Desiccation and product accumulation constrain heterotrophic anaerobic respiration in peats of an ombrotrophic temperate bog. *Soil Biology and Biochemistry* 40: 2007-2015.
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44. Hember, R.A. & P.M. Lafleur 2008. Effects of serial dependence and large-scale tropospheric circulation on mid-latitude North American terrestrial carbon dioxide exchange. *Journal of Climate* 21: 751-770.
43. Li, J., W. Chen & R. Touzi 2007. Optimum RADARSAT-1 configurations for wetlands discrimination: a case study of the Mer Bleue peat bog. *Canadian Journal of Remote Sensing* 33 Supp. 1: 46-55.

42. Sonnentag, O., J.M. Chen, D.A. Roberts, J. Talbot, K.Q. Halligan & A. Govind 2007. Mapping tree and shrub leaf area indices in an ombrotrophic peatland through multiple endmember spectral unmixing. *Remote Sensing of Environment* 109: 342-360.
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40. Heitmann, T., T. Goldhammer, J. Beer & C. Blodau 2007. Electron transfer of dissolved organic matter and its potential significance for anaerobic respiration in a northern bog. *Global Change Biology* 13: 1771-1785.
39. Goldhammer, T., Einsiedl & C. Blodau 2008. *In situ* determination of sulfate turnover in peatlands: a downscaled push-pull tracer technique. *Journal of Plant Nutrition and Soil Science* 171: 740-750.
38. Beer, J. & C. Blodau 2007. Transport and thermodynamics constrain belowground carbon turnover in a northern peatland. *Geochimica Cosmochimica Acta* 71: 2989-3002.
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36. Moore, T.R., J.L. Bubier & L.A. Bledzki 2007. Litter decomposition in temperate peatlands: the effect of substrate and site. *Ecosystems* 10: 949-963.
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31. Roulet N.T., P.M. Lafleur, P.J.H. Richard, T.R. Moore, E.R. Humphreys & J. Bubier 2007. Comparison of a six year contemporary carbon balance and the carbon accumulation for the last 3,000 years for a northern peatland. *Global Change Biology* 13: 397-411.
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51. Goud, E.M. 2014. Short-term effects of a lowered water table on carbon cycling and plant community structure in a temperate bog margin. M.Sc. Thesis, McGill University.
50. Pinsonneault, A. in prep. Dissolved organic carbon cycling in the Mer Bleue Bog. Ph.D. Thesis. McGill University.
49. Živković, T. in prep. Nitrogen fixation in peatlands. Ph.D. Thesis. McGill University.
48. Lalonde, M. 2014. The hyperspectral determination of *Sphagnum* water content in a bog. M.Sc. Thesis, McGill University.
47. Wang, M. 2014. Plant stoichiometry in the Mer Bleue peatland. Ph.D. Thesis. McGill University.
46. De Young, A. 2014. Nitrous oxide and methane production and emission from the Mer Bleue bog and Mont Saint Hilaire forested swamp. M.Sc. Thesis, McGill University.
45. Bui, V. 2013. Stress responses in *Chamaedaphne calyculata* after 12 years of fertilization at Mer Bleue Bog. B.Sc. Honors Thesis. Mount Holyoke College.
44. Kross, A. 2012. Characterization of the variability and controls of carbon exchange in northern peatlands. Ph.D. Thesis. McGill University.
43. Lai, D. 2012. Spatial and temporal variations of carbon dioxide and methane fluxes measured by autochambers at the Mer Bleue peatland. Ph.D. Thesis. McGill University.
42. Lalonde, M. 2010. Using hyperspectral remote sensing to estimate foliar chlorophyll and nitrogen concentrations in an ombrotrophic peatland. B.Sc. Honours Thesis. McGill University.
41. Alfonso, A. 2012. Organic nitrogen use by different plant functional types in a boreal peatland. M.Sc. Thesis. McGill University.
40. Wilson, P. 2012. The relationship among micro-topographic variation, water table depth and biogeochemistry in an ombrotrophic bog. M.Sc. Thesis. McGill University.
39. Kobyljanec, C. 2011. Microbial respiration and substrate utilization across a nutrient gradient at Mer Bleue
38. Isles, P. 2011. An Inquiry into the determinants of the stable carbon isotope signatures of *Sphagnum* biomarkers from an ombrotrophic bog. M.A. Thesis, Columbia University, NY.
37. Chong, M. 2011. The microclimatic response to increasing shrub cover, and its consequent control on *Sphagnum* carbon dioxide exchange in an ombrotrophic bog. M.Sc. Thesis. McGill University.
36. Allux, S.H.A. 2010. Hyperspectral remote sensing of peatland vegetation at multiple spatial scales. B.Sc. Honours Thesis. McGill University.
35. Reichert, M. 2009. Impact of long term N-deposition on below ground C-cycling in a Canadian bog – based on a <sup>13</sup>C tracer experiment. Diploma Thesis. University of Bayreuth.
34. Armés, C.J. 2009. Methane production, oxidation, and emissions under simulated enhanced nutrient deposition in a northern peat bog. M.Sc. Thesis, University of Toronto.
33. Wu, J. 2009. Simulating northern peatland - atmosphere carbon dioxide exchange with changes in climate. Ph.D. Thesis. McGill University.
32. Smith, R. 2009. The effects of nitrogen, phosphorus and potassium fertilization on leaf morphology and photosynthesis processes for evergreen and deciduous shrubs in a boreal peatland. B.Sc. Honors Thesis. Mount Holyoke College.
31. De Young, A. 2009 Methane flux from the Blue Dome section of Mer Bleue. B.Sc. Honours Thesis. McGill University.
30. Adkinson, Angela C. 2009. Responses of *Sphagnum* productivity and net ecosystem exchange of CO<sub>2</sub> to modifications of moss moisture content in an ombrotrophic bog. M.Sc. Thesis. Carleton University.
29. Murphy, M. 2009. Getting to the root of the matter: Variations in vascular root biomass and production in peatlands and responses to global change. Ph.D. thesis. McGill University.
28. Talbot, J. 2009. The response of a northern peatland to long-term water table lowering. Ph.D. thesis. McGill University.

27. Strilesky, S. 2008. Comparison of the annual exchange of carbon dioxide between treed and open portions of a temperate bog peatland and the atmosphere. M.Sc. Thesis. Carleton University.
26. Dimitrov, D.D. 2009. Modelling of hydrological and thermal controls on CO<sub>2</sub> exchange at Mer Bleue bog. Ph.D. Thesis. University of Alberta.
25. Sonnentag, O. 2008. Spatially explicit simulation of peatland hydrology and carbon dioxide exchange. Ph.D. Thesis. University of Toronto.
24. Poon, D. 2007. Remote sensing and vegetation patterns at Mer Bleue. M.Sc. Thesis. McGill University.
23. Adkinson, A. 2006. Sphagnum in the bog water balance: Effects of air temperature and water dynamics on storage in the mass layer. B.Sc. Honours Thesis. Trent University.
22. Admiral, S.A. 2006. Measurement and modelling of evapotranspiration at a bog in southern Ontario. Ph.D. Thesis. Trent University.
21. Brunie, L. 2006. Plant responses to fertilization at a boreal peatland. B.Sc. Honors Thesis, Mount Holyoke College.
20. Rattle, J. 2006. Dissolved nitrogen dynamics in an ombrotrophic bog. M.Sc. Thesis. McGill University.
19. Stewart, H. 2006. Partitioning CO<sub>2</sub> flux into plant and peat components in an ombrotrophic bog. M.Sc. Thesis. McGill University.
18. Bonneville, M-C. 2007. Measurement and modeling of surface-atmosphere exchange of carbon dioxide and methane in a cattail marsh in Eastern Ontario. M.Sc. Thesis. McGill University.
17. Hember, R.A. 2006. Effects of synoptic- and large-scale atmospheric circulation variability on mid-latitude North American terrestrial carbon dioxide exchange. M.Sc. Thesis. Trent University.
16. McKinley, A. 2006. Root distribution in a temperate bog. B.A. Honours Thesis. McGill University.
15. Crosby, G. 2005. Northern peatland vegetation patterns along water-table gradients in Mer Bleue Bog, Ontario. B.Sc. Honors Thesis. Mount Holyoke College.
14. Hember, R.A. 2005. Synoptic controls on summer evapotranspiration above a bog peatland in eastern Ontario, Canada. B.Sc. Thesis. Trent University.
13. Basiliko, N. 2004. Nutrient, substrate, and microbial-ecological links to decomposition and greenhouse gas production in northern peatlands. Ph.D. Thesis. McGill University.
12. Murphy, M. 2003. Contributions of plant respiration to ecosystem respiration at Mer Bleue Bog, Ottawa, Ontario, Canada. B.Sc. Honors Thesis. Mount Holyoke College.
11. Roehm, C. 2003. Carbon dynamics in northern peatlands, Canada. Ph.D. Thesis. McGill University.
10. Smith, C.R. 2003. Winter carbon dioxide exchange at an ombrotrophic bog in southern Ontario. M.Sc. Thesis. Trent University.
9. Blodau, C. 2002. Carbon biogeochemistry in northern peatlands: regulation by environmental and biogeochemical factors. Ph.D. Thesis. McGill University.
8. Isernhagen, B. 2002. The effect of beaver pond drainage on CO<sub>2</sub> and CH<sub>4</sub> fluxes in a Canadian temperate peatland. M.Sc. Thesis. McGill University.
7. Reimer, A. 2002. The role of bog plants in the exchange of carbon dioxide and water between the atmosphere and the Mer Bleue peatland. M.Sc. Thesis. McGill University.
6. Bhatia, N. 2001. Tracking CO<sub>2</sub> flux: seasonal patterns, net ecosystem exchange and site comparisons of environmental variables in a boreal peatland. B.Sc. Honors Thesis. Mount Holyoke College.
5. Neal, E. 2001. Variation in net ecosystem CO<sub>2</sub> exchange at a peatland fertilization study. B.Sc. Honors Thesis. Mount Holyoke College.
4. Fraser, C. 2000. The hydrology and dissolved organic carbon (DOC) biogeochemistry of a boreal peatland. M.Sc. Thesis. McGill University.
3. Worth, D. 2000. The effect of temperature and water table depth on evaporation from a *Sphagnum* moss surface. B.Sc. Thesis. Trent University.
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