

LIFETIME PUBLICATIONS:

(i) Peer-Reviewed:

(c) *Published Journal Articles:*

(students and postdoctoral fellows I have supervised are underlined)

Kettridge N, Tilak AS, Devito KJ, Petrone RM, Mendoza C, **Waddington JM**. 2015. Moss and peat hydraulic properties are optimized to maximize peatland water use efficiency. *Ecohydrology* in press, doi: 10.1002/eco.1708.

Hokanson H, Lukenbach MC, Devito KJ, Kettridge N, Petrone RM, **Waddington JM**. 2015. Groundwater connectivity controls peat burn severity in the Boreal Plains. *Ecohydrology* in press, doi: 10.1002/eco.1657.

Lukenbach M, Kettridge N, Devito KJ, Petrone R, **Waddington JM**. 2015. Burn severity alters peatland moss water availability: Implications for post-fire recovery. *Ecohydrology* in press, doi: 10.1002/eco.1639.

Lukenbach MC, Kettridge N, Devito KJ, Petrone RM, **Waddington JM**. 2015. Hydrogeological controls on post-fire moss recovery in peatlands. *Journal of Hydrology* 530: 405-418, doi: 10.1016/j.jhydrol.2015.09.075.in press, doi: 10.1016/j.jhydrol.2015.09.075.

Moore PA, **Waddington JM**. 2015. Modelling *Sphagnum* moisture stress in response to 21st century climate change. *Hydrological Processes* 29: 3966-3982, doi: 10.1002/hyp.10484.

Lukenbach MC, Hokanson H, Moore PA, Devito KJ, Kettridge N, Thompson DK, Wotton BM, Petrone RM, **Waddington JM**. 2015. Hydrological controls on deep burning in a northern forested peatland. *Hydrological Processes* 29: 4114-4124, doi: 10.1002/hyp.10440..

Thompson DK, Baisley S, **Waddington JM**. 2015. Seasonal variation in albedo and radiation exchange between a burned and unburned forested peatland: Implications for peatland evaporation *Hydrological Processes* 29: 3227-3235, doi:10.1002/hyp.10436.

Moore PA, Morris PJ, **Waddington JM**. 2015. Multi-decadal water table manipulation alters peatland hydraulic structure and moisture retention. *Hydrological Processes* 29: 2970-2982, doi:10.1002/hyp.10416.

Wilhelm LP, Morris PJ, Granath G, **Waddington JM**. 2015. Assessment of an integrated peat-harvesting and reclamation method: Peatland-atmosphere carbon fluxes and vegetation recovery. *Wetland Ecology and Management* in press, doi: 10.1007/s11273-014-9399-6.

Ramirez J, Baird AJ, Coulthard T, **Waddington JM**. 2015. Ebullition of methane from peatlands: Does peat act as a signal shredder? *Geophysical Research Letters* 42: 3371-3379, doi: 10.1002/2015GL063469.

Ramirez J, Baird AJ, Coulthard T, Kirkby MJ, **Waddington JM**. 2015. Testing a simple model of gas bubble dynamics in porous media. *Water Resources Research* 51: 1036-1049, doi: 10.1002/2014WR015898.

Thompson DK, Wotton BM, **Waddington JM**. 2015. Estimating the heat transfer to an organic soil surface during crown fire *International Journal of Wildland Fire* 24: 120–129, doi: 10.1071/WF12121.

Waddington JM, Morris PJ, Kettridge N, Granath G, Thompson DK, Moore PA. 2015. Hydrological feedbacks in northern peatlands. *Ecohydrology* 8: 113-127, doi: 10.1002/eco.1493.

Kettridge N, Turetsky MR, Sherwood JH, Thompson DK, Miller CA, Benschoter BW, Flannigan MD, Wotton M, **Waddington JM**. 2015. Moderate drop in water table increases peatland vulnerability to post-fire regime shift. *Nature Scientific Reports* 5: 8063, doi:10.1038/srep08063_

Thompson DK, Benschoter BW, **Waddington JM**. 2014. Water balance of a burned and unburned forested boreal peatland. *Hydrological Processes* 28: 5954-5964, doi: 10.1002/hyp.10074.

Comas X, Kettridge N, Binley A, Slater L, Parsekian A, Baird AJ, Strack M, **Waddington JM**. 2014. The effect of peat structure on the spatial distribution of biogenic gases within bogs. *Hydrological Processes* 28: 5483-5494, doi: 10.1002/hyp.10056.

Thompson DK, **Waddington JM**. 2014. A Markov chain method for simulating bulk density profiles in boreal peatlands. *Geoderma* 232-234: 123-129, doi: 10.106/j.geoderma.2014.04.032.

Turetsky MR, Kotowska A, Bubier B, Dise NB, Crill P, Hornibrook E, Minkinen K, Moore TR, Myers-Smith IH, Nykänen H, Olefeldt D, Rinne J, Saarnio S, Shurpali N, **Waddington JM**, White J, Wickland K, Wilmking M. 2014. A synthesis of methane emissions from 71 northern, temperate, and subtropical wetlands. *Global Change Biology* 20: 2183-2197, doi: 10.1111/gcb.12580.

Kettridge N, Humphrey R, Smith JA, Lukenbach MC, Devito KJ, Petrone RM, **Waddington JM**. 2014. Burned and unburned peat water repellency: Implications for peatland evaporation following wildfire. *Journal of Hydrology* 513: 335-341, doi: 10.1016/j.jhydrol.2014.03.019.

Klapstein SJ, Turetsky MR, McGuire AD, Harden JW, Czimczik CI, Xiaomei X, Chanton JP, **Waddington JM**. 2014. Controls on the rate and age of methane released through ebullition from Alaska peatlands following permafrost degradation. *Journal of Geophysical Research* 119: 418-431, doi: 10.1002/2013JG002441.

Kettridge N, **Waddington JM**. 2014. Towards quantifying the negative feedback regulation of peatland evaporation to drought. *Hydrological Processes* 28: 3728-3740, doi: 10.1002/hyp.9898.

Pypker TG, Moore PA, **Waddington JM**, Hribljan JA, Chimner RA. 2013. Shifting environmental controls on CH₄ fluxes in a sub-boreal peatland. *Biogeosciences* 10: 7971-7981, doi:10.5194/bgd-10-11757-2013.

Moore PA, Pypker TG, **Waddington JM**. 2013. Effect of long-term water table manipulation on peatland evapotranspiration. *Agricultural and Forest Meteorology* 178: 106-119, doi: 10.1016/j.agrformet.2013.04.013.

Sherwood JH, Kettridge N, Thompson DK, Morris PJ, Silins U, **Waddington JM**. 2013. Effect of drainage and wildfire on peat hydrophysical properties. *Hydrological Processes* 27: 1866-1874, doi: 10.1002/hyp.9820.

Kettridge N, Thompson DK, Bombonato L, Turetsky MR, Benschoter BW, **Waddington JM**. 2013. The ecohydrological functioning of forested peatlands: Simulating the effects of tree shading on peatland evaporation and moss species composition. *Journal of Geophysical Research* in press. 118: 1-14, doi: 10.1002/jgrg.20043.

Thompson DK, **Waddington JM**. 2013. Wildfire effects on vadose zone hydrology in forested boreal peatland microforms. *Journal of Hydrology* 486: 48-56, doi: 10.1016/j.hydrol.2013.01.014.

Thompson DK, **Waddington JM**. 2013. Peat properties and water retention in boreal forested peatlands subject to wildfire disturbance. *Water Resources Research* 49: 3651-3658, doi: 10.1002/wrcr.20278.

Fan Z, McGuire AD, Turetsky MR, Harden JW, **Waddington JM**, Kane ES. 2013. The response of soil

Macrae ML, Devito KJ, Strack M, **Waddington JM**. 2013. Effect of water table drawdown on peatland nutrient dynamics: Implications for climate change. *Biogeochemistry* 112: 661-676, doi: 10.1007/s10533-012-9730-3.

Kettridge N, Kellner E, Price JS, **Waddington JM**. 2013. Peat deformation and biogenic gas bubbles control seasonal variations in peat hydraulic conductivity. *Hydrological Processes* 27: 3208–3216, doi: 10.1002/hyp.9369.

Kettridge N, Binley A, Comas X, Cassidy NJ, Baird AJ, Harris A, van der Kruk J, Strack M, Milner A, **Waddington JM**. 2012. Do peatland microforms move through time? Examining the development history of a patterned peatland using ground penetrating radar. *Journal of Geophysical Research* 117: G03030, doi:10.1029/2011JG001876.

Kettridge N, Thompson DK, **Waddington JM**. 2012. Impact of wildfire on the thermal behavior of a northern peatland: Observation and model simulations. *Journal of Geophysical Research* 117: G02014, doi:10.1029/2011JG001910.

Waddington JM, Thompson DK, Wotton BM, Quinton WL, Benscoter BW, Baisley SA, Flannigan MD, Turetsky MR. 2012. Examining the utility of the Canadian Forest Fire Weather Index System in boreal peatlands. *Canadian Journal of Forest Research* 42: 47-58, doi: 10.1139/x11-162.

Duval TP, **Waddington JM**. 2012. Climate and landscape controls on calcareous fen peat pore-water dynamics. *Hydrology Research* 43: 780-797, doi:10.2166/nh.2011.127.

Rowlands DS, Pearce E, Aboud A, Gibala MJ, Donato S, **Waddington JM**, Green JG, Tarnopolsky MA. 2012. Oxidative stress, inflammation and muscle soreness in an 894-km relay trail run. *European Journal of Applied Physiology* 12: 1839-1848, doi:10.1007/s00421-011-2163-1.

Duval TP, **Waddington JM**, Branfireun BA. 2012. Hydrological and biogeochemical controls on plant species distribution in calcareous fens. *Ecohydrology* 5: 73-89, doi: 10.1002/eco.202.

Duval TP, **Waddington JM**. 2011. Extreme variability of water table dynamics in temperate calcareous fens: Implications for biodiversity. *Hydrological Processes* 25: 3790-3802, doi:10.1002/hyp.8109.

Strack M, Tóth K, Bourbonniere RA, **Waddington JM**. 2011. Dissolved Organic Carbon production and runoff quality in cutover and restored peatlands. *Ecological Engineering* 37: 1998–2008, doi:10.1016/j.ecoleng.2011.08.015.

Morris PJ, **Waddington JM**, Benscoter BW, Turetsky MR. 2011. Conceptual frameworks in peatland ecohydrology: Looking beyond the two-layered (acrotelm-catotelm) model. *Ecohydrology* 4: 1-11, doi:10.1002/eco.191.

Morris PJ, **Waddington JM**. 2011. Groundwater residence-time distributions in peatlands: Implications for peat decomposition and accumulation. *Water Resources Research* 47: W02511, doi:10.1029/2010WR009492.

Benscoter BW, Thompson DK, **Waddington JM**, Flannigan MD, Wotton M, DeGroot W, Turetsky MR. 2011. Interactive effects of vegetation, soil moisture, and bulk density on the burning of thick organic soils. *International Journal of Wildfire* 20: 418-429.

Waddington JM, Lucchese MC, Duval TP. 2011. *Sphagnum* moss moisture retention following the revegetation of degraded peatlands. *Ecohydrology* 4: 359-366, doi: 10.1002/eco.130.

Kane ES, Turetsky MR, Harden JW, McGuire AD, **Waddington JM**, 2010. Seasonal ice and drainage controls on dissolved organic carbon and nitrogen concentrations in a boreal rich fen: a field water table manipulation experiment in interior Alaska. *Journal of Geophysical Research* **115**: G04012, doi:10.1029/2010JG001366.

Waddington JM, Kellner E, Strack M, Price JS. 2010. Differential peat deformation, compressibility and water storage between peatland microforms: Implications for peatland development. *Water Resources Research* **46**: W07538, doi:10.1029/2009WR008802.

Duval TP, **Waddington JM**, Branfireun BA. 2010. Towards calcareous wetland creation in flooded aggregate quarries: A 3-year mesocosm study. *Ecological Engineering* **36**: 586–595, doi: 10.1016/j.ecoleng.2009.12.006.

Waddington JM, Strack M, Greenwood MJ. 2010. Toward restoring the net carbon sink function of degraded peatlands: Short-term response in CO₂ exchange to ecosystem-scale restoration. *Journal of Geophysical Research* **115**: G01008, doi:10.1029/2009JG001090.

Lucchese MC, **Waddington JM**, Poulin M, Pouliot R, Rochefort L, Strack M. 2010. Organic matter accumulation in a restored peatland: Evaluating restoration success. *Ecological Engineering* **36**: 482-488, doi: 10.1016/j.ecoleng.2009.11.017.

Chivers MR, Turetsky MR, **Waddington JM**, Harden JW, McGuire AD. 2009. Climatic and vegetation controls on peatland CO₂ fluxes in Alaska: Early response to ecosystem-scale manipulations of water table and soil temperature. *Ecosystems* **12**: 1329-1342, doi: 10.1007/s10021-009-9292-y.

Strack M, **Waddington JM**, Lucchese MC, Cagampan JP. 2009. Moisture controls on CO₂ exchange in a *Sphagnum*-dominated peatland: Results from an extreme drought field experiment. *Ecohydrology* **2**: 454-461, doi: 10.1002/eco.68.

Waddington JM, Harrison K, Kellner E, Baird AJ. 2009. Effect of atmospheric pressure and temperature on entrapped gas content in peat. *Hydrological Processes* **23**: 2970-2980, doi: 10.1002/hyp.7412.

Kasischke ES, Bourgeau-Chavez LL, Rober AR, Wyatt KH, **Waddington JM**, Turetsky MR. 2009. Effects of soil moisture and water depth on ERS SAR backscatter measurements from an Alaskan wetland complex. *Remote Sensing of Environment* **113**: 1868–1873, doi: 10.1016/j.rse.2009.04.006.

Coulthard T, Baird AJ, Ramirez J, **Waddington JM**. 2009. Methane dynamics in peat: the importance of shallow peats and a novel reduced-complexity approach for modeling ebullition. In Baird, A.J., Belyea, L.R., Comas, X., Reeve, A., and Slater, L. (eds.) Carbon Cycling in Northern Peatlands, Geophysical Monograph Series, American Geophysical Union, Washington D.C., USA. pp. 173-185.

Waddington JM, Plach J, Cagampan J, Lucchese M, Strack M. 2009. Reducing the carbon footprint of Canadian peat extraction and restoration. *Ambio* **38**: 194-200.

Waddington JM, Ketcheson S, Kellner E, Strack M, Baird AJ. 2009. Evidence that piezometers vent gas from peat soils and implications for pore-water pressure and hydraulic conductivity measurements. *Hydrological Processes* **23**: 1249-1254, doi: 10.1002/hyp.7244.

Waddington JM, Quinton WL, Price JS, Lafleur P. 2009. Advances in Canadian Peatland Hydrology, 2003-2007. *Canadian Water Resources Journal* **34**: 139-148.

Thompson DK, **Waddington JM**. 2008. *Sphagnum* under pressure: towards an ecohydrological approach to examining *Sphagnum* productivity. *Ecohydrology* **1**: 299-308, doi: 10.1002/eco.31.

Turetsky MR, Treat CC, Waldrop M, **Waddington JM**, Harden JW, McGuire AD. 2008. Short-term

responses of methane fluxes and methanogen activity to water table and soil warming manipulations in an Alaskan peatland. *Journal of Geophysical Research* **113**: G00A10, doi: 10.1029/2007JG000496.

Strack M, **Waddington JM**. 2008. Spatio-temporal variability in peatland subsurface methane dynamics. *Journal of Geophysical Research* **113**: G02010, doi: 10.1029/2007JG000472.

Strack M, **Waddington JM**, Bourbonniere RA, Kenny EL, Shaw K, Whittington P, Price JS. 2008. Effect of water table drawdown on peatland dissolved organic carbon export and dynamics. *Hydrological Processes* **22**: 3373-3385, doi: 10.1002/hyp.6931.

Cagampan JP, **Waddington JM**. 2008. Net ecosystem exchange of a cutover peatland rehabilitated with a transplanted acrotelm. *Écoscience* **15**: 258-267.

Waddington JM, Toth K, Bourbonniere RA. 2008. Dissolved organic carbon export from a cutover and restored peatland. *Hydrological Processes* **22**: 2215-2224, doi: 10.1002/hyp.6818.

Cagampan JP, **Waddington JM**. 2008. Moisture dynamics and hydrophysical properties of a transplanted acrotelm on a cutover peatland. *Hydrological Processes* **22**: 1776-1787, doi: 10.1002/hyp.6802.

Waddington JM, Day SM. 2007. Methane emissions from a cutover peatland following restoration. *Journal of Geophysical Research* **112**: G03018, doi: 10.1029/2007JG000400.

Strack M, **Waddington JM**. 2007. Response of peatland carbon dioxide and methane fluxes to a water table drawdown experiment. *Global Biogeochemical Cycles* **21**: GB1007, doi: 10.1029/2006GB002715.

Kellner E, Baird AJ, Oosterwoud M, Harrison K, **Waddington JM**. 2006. Effect of temperature and atmospheric pressure on methane (CH₄) ebullition from near-surface peats. *Geophysical Research Letters* **33**: L18405, doi:10.1029/2006GL027509.

Strack M, Kellner E, **Waddington JM**. 2006. Effect of entrapped gas on peatland surface level fluctuations. *Hydrological Processes* **20**: 3611-3622.

Strack M, **Waddington JM**, Rochefort L, Tuittila E-S. 2006. Response of vegetation and net ecosystem carbon dioxide exchange at different peatland microforms following water table drawdown, *Journal of Geophysical Research* **111**: G02006, doi: 10.1029/2005JG000145.

Strack M, Waller ME, **Waddington JM**. 2006. Sedge succession and peatland methane dynamics: A potential feedback to climate change. *Ecosystems* **9**: 278-287.

Kellner E, **Waddington JM**, Price JS. 2005. Dynamics of biogenic gas bubbles in peat: Potential effects on water storage and peat deformation. *Water Resources Research* **41**: W08417, doi: 10.1029/2004WR003732

Petrone RM, Devito KJ, Kaufman S, Macrae ML, **Waddington JM**. 2005. Potential carbon losses from boreal pond and riparian areas: Influence of temperature and drought. *IAHS* **294**: 10-18.

Waddington JM, Heywood MJT, Crosbie BD, Dowsett EC. 2005. Potential ecohydrological controls on peat degradation and vegetation pattern change in a kettle-hole bog. *IAHS* **294**: 130-138.

Strack M, Kellner E, **Waddington JM**, 2005. Dynamics of biogenic gas bubbles in peat and their effects on peatland biogeochemistry. *Global Biogeochemical Cycles* **19**: GB1003, doi: 10.1029/2004GB002330.
Price JS, Branfireun BA, **Waddington JM**, Devito KJ. 2005. Advances in Canadian Wetland Hydrology, 1999-2003. *Hydrological Processes* **19**: 201-214.

Baird AJ, Beckwith CV, Waldron S, **Waddington JM**. 2004. Ebullition of methane-containing gas bubbles from near-surface *Sphagnum* peat. *Geophysical Research Letters* **31**: L21505, doi: 10.1029/2004GL021157.

Strack M, **Waddington JM**, Tuittila E-S. 2004. The effect of water table drawdown on northern peatland methane dynamics: Implications for climate change. *Global Biogeochemical Cycles* **18**: GB4003, doi: 10.1029/2003GB002209

Petrone RM, Price JS, von Waldow H, **Waddington JM**. 2004. Surface moisture and energy exchange from a restored peatland, Quebec. *Journal of Hydrology* **295**: 198-210.

Kellner E, Price JS, **Waddington JM**. 2004. Pressure variations in peat as a result of gas bubble dynamics. *Hydrological Processes* **18**: 2599-2605.

Waddington JM, Greenwood MJ, Petrone RM, Price JS. 2003. Mulch decomposition impedes recovery of net carbon sink function in a recently restored peatland. *Ecological Engineering* **20**: 199-210.

Petrone RM, Price JS, Carey SK, **Waddington JM**. 2003. Statistical characterization of the spatial variability of soil moisture in a cutover peatland. *Hydrological Processes* **18**: 41-52, doi: 10.1002/hyp.1309.

Petrone RM, **Waddington JM**, Price JS. 2003. Ecosystem-scale flux of CO₂ from a restored vacuum harvested peatland. *Wetlands Ecology and Management* **11**: 419-432.

McNeil P, **Waddington JM**. 2003. Moisture controls on *Sphagnum* growth and CO₂ exchange on a cutover bog surface. *Journal of Applied Ecology* **40**: 354-367.

Waddington JM, Rochefort L, Campeau S. 2003. *Sphagnum* production and decomposition in a restored peatland. *Wetland Ecology and Management* **11**: 85-95.

Waddington JM, Warner KD, Kennedy G. 2002. Cutover peatlands: A persistent source of atmospheric CO₂. *Global Biogeochemical Cycles* **16**: doi: 10.1029/2001GB001398.

Waddington JM, McNeil P. 2002. Peat oxidation in an abandoned vacuum extracted peatland. *Canadian Journal of Soil Science* **82**: 279-286.

Petrone RM, **Waddington JM**, Price JS. 2001. Ecosystem scale evapotranspiration and net CO₂ exchange from a restored peatland. *Hydrological Processes* **15**: 2839-2845.

Warren FJ, **Waddington JM**, Day SM, Bourbonniere R. 2001. The effect of drought on hydrology and sulphate dynamics in a temperate wetland. *Hydrological Processes* **15**: 3133-3150

Waddington JM, Rotenberg PA, Warren FJ. 2001. Peat CO₂ production in a natural and cutover peatland: Implications for restoration. *Biogeochemistry* **54**: 115-130.

Waddington JM, Devito KJ. 2001. Portable irrigation system for studying hillslope and wetland runoff generation processes. *Hydrological Processes* **15**: 281-287.

Waddington JM, Warner KD. 2001. Restoring the carbon sink function of cut-over peatlands. *Écoscience* **8**: 359-368.

Waddington JM, Price JS. 2000. The effect of peatland drainage, harvesting, and restoration on atmospheric water and carbon exchange. *Physical Geography* **21**: 433-451.

- McNeil PR, **Waddington JM**, Lavoie C, Price JS, Rochefort L. 2000. Contemporary and long-term peat oxidation rates in a post-vacuum harvested peatland, in *Sustaining our Peatlands: Proceedings of the 11th International Peat Congress*, Rochefort, L. and J-Y Daigle (eds), International Peat Society, Québec, pp. 732-741.
- Brassard P, **Waddington JM**, Hill AR, Roulet NT. 2000. Modeling groundwater-surface water mixing in a headwater wetland: Implications for isotopic hydrograph separation. *Hydrological Processes* **14**: 2697-2710.
- Griffis TJ, Rouse WR, **Waddington JM**. 2000. Inter-annual variability of net ecosystem CO₂ exchange at a subarctic fen. *Global Biogeochemical Cycles* **14**: 1109-1122.
- Griffis TJ, Rouse WR, **Waddington JM**. 2000. Scaling net ecosystem exchange from the community to the landscape level at a subarctic fen. *Global Change Biology* **6**: 459-473.
- Price JS, **Waddington JM**. 2000. Advances in Canadian wetland hydrology and biogeochemistry. *Hydrological Processes* **14**: 1579-1589.
- Waddington JM**, Roulet NT. 2000. Carbon balance of a boreal patterned peatland. *Global Change Biology* **6**: 87-98.
- Waddington JM**, Griffis TJ, Rouse WR. 1998. Northern Canadian wetlands: Net ecosystem CO₂ exchange and climate change. *Climatic Change* **40**: 267-275.
- Moore TR, Roulet NT, **Waddington JM**. 1998. The effect of climatic change on the carbon cycling of Canadian wetlands. *Climatic Change* **40**: 229-245.
- Frolking SE, Bubier JL, Moore TR, Ball T, Bellisario LM, Bhardwaj A, Carrol P, Crill PM, Lafleur PM, McCaughey JH, Roulet NT, Suyker AE, Verma SB, **Waddington JM**, Whiting GJ. 1998. Relationship between ecosystem productivity and photosynthetically-active radiation for northern peatlands. *Global Biogeochemical Cycles* **12**: 115-126.
- Waddington JM**, Roulet NT. 1997. Groundwater flow and dissolved carbon movement in a boreal peatland. *Journal of Hydrology* **191**: 122-138.
- Devito KJ, **Waddington JM**, Branfireun BA. 1997. Flow reversals in peatlands influenced by local groundwater systems. *Hydrological Processes* **11**: 103-110.
- Waddington JM**, Roulet NT. 1996. Atmosphere-wetland carbon exchanges: Scale dependency of CO₂ and CH₄ exchange on the developmental topography of a peatland. *Global Biogeochemical Cycles* **10**: 233-245.
- Waddington JM**, Roulet NT, Swanson RV. 1996. Water table control of CH₄ emission enhancement by vascular plants in boreal peatlands. *Journal of Geophysical Research* **101**: 22775-22785.
- Hill AR, **Waddington JM**. 1993. Analysis of storm runoff sources using oxygen-18 in a headwater swamp. *Hydrological Processes* **7**: 305-316.
- Waddington JM**, Roulet NT, Hill AR. 1993. Runoff mechanism in a forested groundwater discharge swamp. *Journal of Hydrology* **147**: 37-60.
- Woo MK, **Waddington JM**. 1990. Effects of beaver dams on subarctic wetland hydrology. *Arctic* **43**: 223-230.