

APPENDIX 5 – Journal Publications

Journal Publications - 2013

- Ali, G., Birkel, C., Tetzlaff, D., Soulsby, C., **McDonnell, J.J.** and Paola, T. 2013. A comparison of wetness indices for the prediction of connected saturated areas under contrasting conditions. *Earth Surface Processes and Landforms*. DOI: 10.1002/esp.3506.
- Ali, G., Tetzlaff, D., Kruitbos, L., Soulsby, C., Carey, S., **McDonnell, J.J.**, Buttle, J., Laudon, H., McGuire, K., Seibert, J. and Shanley, J. 2013. Analysis of hydrological seasonality and functionality across northern 1 catchments using monthly precipitation-runoff polygon metrics. *Hydrological Sciences Journal*, 59 (1), 1–17.
- Baranowska, K.A., **North, R.L.**, Winter, J.G. and Dillon, P.J. 2013. Long-term seasonal effects of dreissenid mussels on phytoplankton in Lake Simcoe, Ontario, Canada. *Inland Waters, Special Issue on Lake Simcoe*, 3: 285-296.
- Baulch, H.M.**, Futter, M.N., Jin, L., Whitehead, P.G., Woods, D.T., Dillon, P.J., Butterfield, D.A., Oni, S.K., Aspden, L.P., O'Connor, E.M. and Crossman, J. 2013. Phosphorus dynamics across intensively monitored sub-catchments in the Beaver River. *Inland Waters*, 3(2): 187-206.
- Brinkmann, M., Hudjetz, S., Kammann, U., Hennig, M., Kuckelkorn, J., Chinoraks, M., Cofalla, C., Wiseman, S., **Giesy, J.P.**, Schäffer, A., **Hecker, M.**, Wölz, J., Schüttrumpf, H. and Hollert, H. 2013. How Flood Events Affect Rainbow Trout: Evidence of a Biomarker Cascade in Rainbow Trout After Exposure to PAH Contaminated Sediment Suspensions. *Aquatic Toxicology*, 128-129: 147-157. DOI:org/10.1016/j.aquatox.2012.11.010.
- Burnett-Seidel, C. and **Liber, K.** 2013. Derivation of no-effect and reference-level sediment quality values for application at Saskatchewan uranium operations. *Environmental Monitoring and Assessment*, 185(11): 9481-94, 1573-2959.
- Carey, S., Tetzlaff, D., Buttle, J., Laudon, H., **McDonnell, J.J.**, McGuire, K., Seibert, J., Soulsby, C. and Shanley, J. 2013. Use of color maps and wavelet coherence to discern short and longer-term climate influences on streamflow variability in northern catchments. *Water Resources Research*, 49(10): 6194-6207, DOI: 10.1002/wrcr.20469.
- Chang, W.**, Snelgrove, J., Akbari, A., Frigon, D., Ghoshal, S., 2012, Enhanced biodegradation of petroleum hydrocarbon-contaminated clayey soil: the role of aggregate sizes and microstructures. *Chemosphere* 2013 Jun; 91(11):1620-6. DOI: 10.1016/j.chemosphere.2012.12.058. Epub 2013 Feb 28.
- Chilima, J.**, Gunn, J., **Noble, B.F.** and **Patrick, R.** 2013 Institutional Considerations in Watershed-Scale Cumulative Effects Assessment Impact Assessment and Project Appraisal. *Special Issue on Governance*, 31(1): 74-84.
- Chun, K.P.**, **Wheater, H.S.** and Onof, C.J. 2013. Comparison of drought projections using two UK weather generators. *Hydrological Sciences Journal*, 58(2): 1-15. DOI: 10.1080/02626667.2012.754544.
- Chun, K.P.**, **Wheater, H.S.**, **Nazemi, A.** and **Khaliq, M.N.** 2013. Precipitation downscaling in Canadian prairies using the LARS-WG and GLM approaches. *Canadian Journal of Water Resources*, 38(4): 1-22, DOI: 10.1080/07011784.2013.830368.

- Doering, J.A., **Giesy, J.P.**, Wiseman, S. and **Hecker, M.** 2013. Predicting the sensitivity of fishes to dioxin-like compounds: possible role of the aryl hydrocarbon receptor (AhR) ligand binding domain. *Environmental Science and Pollution Research*, 20(3): 1219-1224. DOI 10.1007/s11356-012-1203-7.
- Edmunds, W.M., Jayakumar, R., Mishra, A., Salih, A., Sorooshian, S., **Wheater, H.S.** and Logan, W. 2013. G-WADI – the first decade. *Sciences in Cold and Arid Regions*, 5(1): 0001-0005.
- Ellis, C.R., **Pomeroy, J.W.** and Link, T.E. 2013. Modelling increases in snowmelt yield and desynchronization resulting from forest gap-thinning treatments in a northern mountain headwater basin. *Water Resources Research*, 49: 1-14. DOI: 10.1002/wrcr.20089.
- Ferguson, G.** 2013. Subsurface Energy Footprints. *Environmental Research Letters*, 8: 014037 (6pp). Institute of Physics Publishing.
- Gallego-Gallegos, M., **Doig, L.E.**, Tse, J.J., **Pickering, I.J.**, and **Liber, K.** 2013. Bioavailability, Toxicity and Biotransformation of Selenium in Midge (*Chironomus dilutus*) Larvae Exposed via Water or Diet to Elemental Selenium Particles, Selenite, or Selenized Algae. *Environmental Science and Technology*, 47(1): 584-592. DOI: 10.1021/es300828r.
- Gober, P.** 2013. Getting outside the water box: The need for new approaches to water planning and policy. *Water Resources Management*, 27(4): 955-957.
- Gober, P.**, Larson, K., Quay, R., Polsky, C., Chang, H. and Shandas, V. 2013 Why land planners and water managers don't talk to one another and why they should! *Society and Natural Resources*, 26(3): 356-364.
- Gober, P.** and **Wheater, H.S.** 2013. Socio-hydrology and the science-policy interface: A case study of the Saskatchewan River Basin. *Hydrology and Earth System Sciences Discussion Paper Series*, 10: 6669-6693. DOI:10.5194/hessd-10-6669-2013.
- Gupta, H.V., Blöschl, G., **McDonnell, J.J.**, Savenije, H.H.G., Sivapalan, M., Viglione, A. and Wagener, T. 2013. Synthesis of the Benchmark Report, in G. Blöschl et al. (eds), The PUB Benchmarking Report, Cambridge University Press, 10: 9147-9189, doi:10.5194/hessd-10-9147-2013.
- Haehnlein, S., Bayer, P., **Ferguson, G.** and Blum, P. 2013. Sustainability and policy for the thermal use of shallow geothermal energy, *Energy Policy*, 59: 914-925. Elsevier.
- Hassanzadeh, E.**, **Nazemi, A.-R.** and **Elshorbagy, A.** 2013. Quantile-based Downscaling of Precipitation using Genetic Programming: Application to IDF Curves in the City of Saskatoon, *Journal of Hydrological Engineering (ASCE)*, 10. doi:10.1061/(ASCE)HE.1943-5584.0000854.
- Heagle, D., Hayashi, M. and **van der Kamp, G.** 2013. Surface-subsurface salinity distribution and exchange in a closed-basin prairie wetland. *Journal of Hydrology*, 478: 1-14. doi.org/10.1016/j.jhydrol.2012.05.054.
- Hong, S.J., Khim, J.S., Park, J.S., Kim, M., Kim, W.-K., Jung, J., Hyun, S., Kim, J.-G., Lee, H., Choi, H.J., Codling, G. and **Giesy, J.P.** 2013. *In situ* Fate, and Partitioning of Waterborne Perfluoroalkyl Acids (PFFAs) in the Youngsan and Nakdong River Estuaries of South Korea. *Science of the Total Environment*, 445-446: 136-145. DOI: org/10.1016/j.scitotenv.2012.12.040.
- Hrachowitz, M., Savenije, H.H.G., Blöschl, G., **McDonnell, J.J.**, Sivapalan, M., **Pomeroy, J.W.**, Arheimer, B., Blume, T., Clark, M.P., Ehret, U., Fenicia, F., Freer, J.E., Gelfan, A., Gupta, H.V., Hughes, D.A., Hut, R.W., Montanari, A., Pande, S., Tetzlaff, D., Troch, P.A.,

- Uhlenbrook, S., Wagener, T., Winsemius, H.C., Woods, R.A., Zehe, E. and Cudennec, C. 2013. A decade of Predictions in Ungauged Basins (PUB) - a review. *Hydrological Sciences Journal*, 58(6): 1198-1255.
- Ireson, A.M., van der Kamp, G., Ferguson, G., Nachshon, U. and Wheeler, H.S.** 2013. Hydrogeological processes in seasonally frozen northern latitudes: Understanding gaps and challenges. *Hydrogeology Journal*, 21: 53-66. DOI: 10.1007/s10040-012-0916-5.
- Ireson, A.M., van der Kamp, G., Nachshon, U. and Butler, A.P.** 2013. Modeling groundwater-soil-plant-atmosphere exchanges in fractured porous media. *Procedia Environmental Sciences*, 19: 321-330.
- Jaeger, W., Plantinga, A., Chang, H., Grant, G., Hulse, D., **McDonnell, J.J.**, Moradkhani, H., Morzillo, A.T., Mote, P., Nolin, A., Santelmann, M. and Wu, J. 2013. Toward a formal definition of water scarcity in natural-human systems. *Water Resources Research*, (7): 4506–4517, DOI: 10.1002/wrcr.20249.
- Jardine, T.D.**, Kidd, K.A. and O’Driscoll, N. 2013. Food web analysis reveals effects of pH on mercury bioaccumulation at multiple trophic levels in streams. *Aquatic Toxicology*, 132-133: 46-52.
- Keykavoos, R., Mankidy, R., Ma, H., **Jones, P.** and Soltan, J. 2013. Mineralization of bisphenol A by catalytic ozonation over alumina. *Separation and Purification Technology*, 107: 310-317.
- Klaus, J.**, Zehe, E., Elsner, M., Külls, C. and **McDonnell, J.J.** 2013. Macropore flow of old water revisited: experimental insights from a tile-drained hillslope. *Hydrology and Earth System Science*, 17: 103-118.
- Kovalenko, K.E., Ciborowski, J.J.H., Daly, C., Dixon, D.G., Farwell, A.J., Foote, A.L., Frederick, K.R., Gardner Costa, J.M., Kennedy, K., **Liber, K.**, Roy, M.C., Slama, C.A., Smits, J.E.G. and Wytrykush, C.M. 2013. Food web structure in oil sands reclaimed wetlands. *Ecological Applications*, 23(5): 1048-1060.
- Laudon, H., Tetzlaff, D., Soulsby, C., Carey, S., Seibert, J., Buttle, J., Shanley, J., **McDonnell, J.J.** and McGuire, K. 2013. Winter climate affects dissolved organic carbon and water fluxes in mid- to high latitude catchments, *Hydrological Processes*, 27(5): 700-709. DOI: 10.1002/hyp.9686.
- Lindenschmidt, K.E. and Chun, K.P.** 2013. Evaluating the impact of fluvial geomorphology on river ice cover formation based on a global sensitivity analysis of river ice model. *Canadian Journal of Civil Engineering*, 40(7): 623-632.
- Lindenschmidt, K.E. and Chun, K.P.** 2013. Geospatial modelling to determine the behaviour of ice cover formation during river freeze-up. *Hydrology Research*, doi:10.2166/nh.2013.193.
- Lindenschmidt, K.-E.** and Long, J. 2013. A GIS approach to define the hydro-geomorphological regime for instream flow requirements using geomorphic response units (GRU). *River Systems*, 20(23-4): 261-275, <http://dx.doi.org/10.1127/1868-5749/2012/0053>.
- Liu, C.-S., Wang, Q.-W., Liand, B.-S. K., Liu, J., Zhou, B., Zhang, X., Liu, H.-L., **Giesy, J.P.** and Yu, H.-X. 2013. Effects of Tris (1, 3-dichloro-2-propyl) Phosphate and Triphenyl Phosphate on Receptor-Associated mRNA Expression in Zebrafish Embryos/Larvae. *Aquatic Toxicology*, 128-129: 147-157. DOI: org/10.1016/j.aquatox.2012.12.010.

- Mahmood T.H.** and Vivoni E.R. 2013 Forest ecohydrological response to bimodal precipitation during contrasting winter to summer transitions. *Ecohydrology*, DOI: 10.1002/eco.1424.
- Maletz, S., Floehr, T., Beier, S., Klümper, C., Brouwer, A., Behnisch, P., Higley, E., **Giesy, J.P., Hecker, M.**, Gebhardt, W., Linnemann, V., Pinnekamp, J. and Hollert, H. 2013. In vitro Characterization of the Effectiveness of Enhanced Sewage Treatment Processes to Eliminate Endocrine Activity of Hospital Effluents. *Water Research*, 47: 1545-1557. DOI: 10.1016/j.watres.2012.12.008.
- Massie, M.** and **Reed, M.G.** 2013. Cumberland House in the Saskatchewan River Delta: Flood memory and the municipal response, 2005 and 2011. *Climate Change and Flood Risk Management: Adaptation and Extreme Events at the Local Level* (Edward Elgar Press), **ebook ISBN 978 1 78100 667 2.**
- McIntyre, N., Ballard, C., Bruen, M., Bulygina, N., Buytaert, W., Cluckie, I., Dunn, S., Ehret, U., Ewen, J., Gelfan, A., Hess, T., Hughes, D., Jackson, B., Kjeldsen, T., Merz, R., Park, J.-S., O'Connell, E., O'Donnell, G., Oudin, L., Todini, E., Wagener, T. and **Wheater, H.** 2013. Modelling the hydrological impacts of rural land use change. *Hydrology Research*. DOI: 10.2166/nh.2013.
- Miles, J.J., Eimers, M.C., **North, R.L.** and Dillon, P.J. 2013. Spatial distribution and temporal variability in the forms of phosphorus in the Beaver River subwatershed of Lake Simcoe, Ontario, Canada. *Inland Waters, Special Issue on Lake Simcoe*, 3: 179-186.
- Muños-Villers, L. and **McDonnell, J.J.** 2013. Runoff generation in a steep, tropical montane cloud forest catchment on permeable volcanic substrate. *Water Resources Research*. DOI:10.1029/2011WR011316.
- Naile, J.E., Khim, J.S., Hong, S., Park, J.S., Kwon, B.-O., Ryu, J.S., Hwang, J.H., **Jones, P.D.** and **Giesy, J.P.** 2013. Distributions and bioconcentration characteristics of perfluorinated compounds in environmental samples collected from the west coast of Korea. *Chemosphere*, 90: 387-394. DOI: org/10.1016/j.chemosphere.2012.07.033.
- Nazemi, A., Wheater, H.S., Chun, K.P. and Elshorbagy, A.** 2013. A stochastic reconstruction framework for analysis of water resource system vulnerability to climate-induced changes in river flow regime. *Water Resources Research*, 49(1): 291-305. DOI:10.1029/2012WR012755.
- Nachshon, U., Ireson, A., van der Kamp, G. and Wheater, H.S.** 2013. Sulfate salt dynamics in the glaciated plains of North America. *Journal of Hydrology*, 499: 188-199, DOI: 10.1016/j.jhydrol.2013.07.001.
- North, R.L.**, et. al. (30 co-authors). 2013. The state of Lake Simcoe (Ontario, Canada): the effects of multiple stressors on phosphorus and oxygen dynamics. *Inland Waters, Special Issue on Lake Simcoe*, 3: 51-74.
- North, R.L.**, Winter, J.G. and Dillon, P.J. 2013. Nutrient indicators of agricultural impacts in the tributaries of a large lake. *Inland Waters, Special Issue on Lake Simcoe*, 3: 221-234.
- North, R.L.**, Khan, N.H., Ahsan, M., Prestie, C., Korber, D.R., Lawrence, J.R., and **Hudson, J.** (submitted). The influence of environmental factors on bacterial indicators in a large prairie reservoir: Lake Diefenbaker, SK, Canada. *Water Research*.
- Palmer, M.E., Hiriart-Baer, V.P., **North, R.L.** and Rennie, M.D. 2013. Summary of Lake Simcoe's past, present, and future. *Inland Waters, Special Issue on Lake Simcoe*, 3: 119-124. All authors contributed equally to this paper.

- Palmer, M.E., Hiriart-Baer, V.P., **North, R.L.** and Rennie, M.D. 2013. Toward a better understanding of Lake Simcoe through integrative and collaborative monitoring and research. *Inland Waters, Special Issue on Lake Simcoe*, 3: 47-50.
- Quinn, C.J., **North, R.L.**, and Dillon, P.J. 2013. Year-round patterns in bacterial production and biomass in Lake Simcoe, Ontario, Canada: are heterotrophic bacteria a significant contributor to low hypolimnetic oxygen? *Inland Waters, Special Issue on Lake Simcoe*, 3: 235-252.
- Razavi, S. and Tolson, B. 2013. An efficient framework for hydrologic model calibration on long data periods. *Water Resources Research*, 49: 8418-8431. Doi: 10.1002/2012WR013442
- Saramasinghe, S. and **Strickert, G.** 2013. Mixed-method integration and advances in fuzzy cognitive maps for computational policy simulations for natural hazards mitigation. *Environmental Modelling and Software. Thematic Issue on the future of Integrated Modelling Science and Technology*. 39, pp. (188-200). <http://dx.doi.org/10.1016/j.envsoft.2012.06.008>.
- Schiller, V., Wichmann, A., Kriehuber, R., Muth-Köhne, E., **Giesy, J.P.**, **Hecker, M.** and Fenske, M. 2013. Studying the effects of genistein on gene expression of fish embryos as an alternative testing approach for endocrine disruption. *Comparative Biochemistry and Physiology. Part C*, 157: 41–53.
- Schmidt, R., Tantoyotai, P., Fakra, S.C., Marcus, M.A., Yang, S.I., **Pickering, I.J.**, Bañuelos, G.S., Hristova, K.R. and Freeman, J.L. 2013. Selenium biotransformations in an engineered aquatic ecosystem for bioremediation of agricultural wastewater via brine shrimp production. *Environmental Science and Technology*, 47(10): 5057-5065. DOI: 10.1021/es305001n
- Sheelanere, P., **Noble, B.F.** and **Patrick, R.** 2013. Institutional requirements for watershed cumulative effects assessment and management: lessons from a Canadian trans-boundary watershed. *Land Use Policy*, 30: 67-75.
- Singh, S. P.** and **Hendry, M. J.** 2013. Solid phase fractionation and leaching behavior of Ni and U in uranium mine waste-rock piles. *Water Air and Soil Pollution*, 224 (1) 1360-9.
- Solomon, K.R., **Giesy, J.P.**, LaPoint, T.W., Giddings, J.M. and Richards, P.R. 2013. Ecological risk assessment of atrazine in North American surface waters. *Environmental Toxicology and Chemistry*, 32: 10–11. DOI: 10.1002/etc.2050.
- Tetzlaff, D., Soulsby, C., Buttle, C., Capell, R., Carey, S., Kruitbos, L., Laudon, H., **McDonnell, J.J.**, McGuire, K., Seibert, J. and Shanley, J. 2013. Catchments on the Cusp? Structural and functional change in northern ecohydrological systems. *Hydrological Processes*, 27(5): 766-774. DOI: 10.1002/hyp.9700.
- Thomas, J.K., Wiseman, S., **Giesy, J.P.** and **Janz, D.M.** 2013. Effects of Chronic Dietary Selenomethionine Exposure on Repeat Swimming Performance, Aerobic Metabolism and Methionine Catabolism in Adult Zebrafish (*Danio rerio*). *Aquatic Toxicology*, 130-131: 112-122. DOI: org/10.1016/j.aquatox.2013.01.009.
- Tillitt, D.E. and **Giesy, J.P.** 2013. Ecotoxicology of organochlorine chemicals in birds of the Great Lakes. *Environmental Toxicology and Chemistry*, 32: 490-492. DOI: 10.1002/etc.2109.
- Toor, N.S., Han, X., Franz, E., MacKinnon, M.D., Martin, J.W. and **Liber, K.** 2013. Selective biodegradation of naphthenic acids and a probable link between mixture profiles and

- aquatic toxicity. *Environmental Toxicology and Chemistry*, 32(10): 2207-16. DOI: 10.1002/etc.2295.
- Vandergucht, D.**, Sereda, J., Davies, J. and **Hudson, J.** 2013. A comparison of phosphorus deficiency indicators with steady state phosphate in lakes. *Water Research*, 47(5): 1816-1826. <http://dx.doi.org/10.1016/j.watres.2013.01.004>.
- Vardy, D.W., Oellers, J., Doering, J.A., **Giesy, J.P.** and **Hecker, M.** 2013. Sensitivity of early life stages of white sturgeon (*Acipenser transmontanus*), rainbow trout (*Oncorhynchus mykiss*), and fathead minnow (*Pimephales promelas*) to copper. *Ecotoxicology*, 22: 139–147. DOI: 10.1007/s10646-012-1010-4.
- Wang, H.-S., Chen, Z.-J., Wei, W., Man, Y.-B., **Giesy, J.P.**, Du, J., Wong, C.K.-C. and Wong, M.-H. 2013. Concentrations of Organochlorine Insecticides (OCPs) in Human Blood Plasma from Hong Kong: Markers of Exposure and Sources from Fish. *Environment International*, 54: 18-25. DOI: [10.1016/j.envint.2013.01.003](http://dx.doi.org/10.1016/j.envint.2013.01.003).
- Wang, H.-S., Xu, W.-F., Chen, Z.J., Cheng, Z., Man, Y.B., **Giesy, J.P.**, Du, J., Wong, C.K.C. and Wong, M.-H. 2013. In vitro estimation of exposure of Hong Kong residents to mercury and methylmercury via consumption of market fishes. *Journal of Hazardous Materials*, 248-249: 387-393. DOI: [10.1016/j.jhazmat.2012.12.060](http://dx.doi.org/10.1016/j.jhazmat.2012.12.060).
- Westbrook, C.J.**, Veatch, W.C., **Morrison, A.** 2013. Is ecohydrology missing much of the zoo? *Ecohydrology*, 6(1): 1-7.
- Wheater, H.S.** and **Gober, P.** 2013. Water security in the Canadian prairies: science and management challenges. *Philosophical Transactions of the Royal Society A*, 371, 20120409, DOI: 10.1098/rsta.2012.0409.
- Wiseman, S.B., He, Y., Gamal-El Din, M., Martin, J.W., **Jones, P. D.**, **Hecker, M.** and **Giesy, J.P.** 2013. Transcriptional responses of male fathead minnows exposed to oil sands process-affected water. *Comparative Biochemistry and Physiology Part C*, 157: 227–235. DOI: [10.1016/j.cbpc.2012.12.002](http://dx.doi.org/10.1016/j.cbpc.2012.12.002).
- Wu, F.-C., Mu, Y.-S., Hong, C., Zhao, X., **Giesy, J.P.** and Wu, K.B. 2013. Predicting Water Quality Criteria for Protecting Aquatic Life from Physico-chemical Properties of Metals. *Environmental Science and Technology*, 47: 446–453. DOI: [10.1021/es303309h](http://dx.doi.org/10.1021/es303309h).
- Zheng, X., Zhu, Y., Liu, C.-S., Liu, H.-L., **Giesy, J.P.**, **Hecker, M.**, Lam, M.H.W. and Yu, H.-X. 2013. Accumulation and Biotransformation of BDE-47 by Zebrafish Larvae and Teratogenicity and Expression of Genes Along the Hypothalamus-Pituitary-Thyroid axis. *Environmental Science and Technology*, 46: 12943-12952. DOI: [10.1021/es303289n](http://dx.doi.org/10.1021/es303289n).

Journal Publications - 2012

- Ali, G., Tetzlaff, D., Soulsby, C. and **McDonnell, J.J.** 2012. Topographic, pedologic and climatic interactions influencing streamflow generation at multiple catchment scales. *Hydrological Processes*, 26(25): 3858-3874. DOI: 10.1002/hyp.8416.
- Ali, G., Tetzlaff, D., Soulsby, C., **McDonnell, J.J.** and Capell, R. 2012. Comparison of similarity indices for catchment classification using a cross-regional dataset. *Advances in Water Resources Research*, 40: 11-22. DOI: 10.1016/j.advwatres.2012.01.008 .
- Al-Othman, A.M., Al-Othman, Z.A., El-Desoky, G.E., Aboul-Soud, M.A.M., Habila, M.A. and **Giesy, J.P.** 2012. Daily Intake of Selenium and Concentrations in Blood of Residents of

- Riyadh, Saudi Arabia. *Geochemistry Environmental Health*, 34: 417–431. DOI: 10.1007/s10653-011-9448-5.
- Anderson, J.A., Wiseman, S.B., Moustaffa, A., Gamel El-Din, M., **Liber, K.** and **Giesy, J.P.** 2012. Effects of exposure to oil sands process-affected water from experimental reclamation ponds in *Chironomus dilutes*. *Water Research*, 46: 1662-1672. DOI: 10.1016/j.watres.2011.12.007.
- Anderson, J., Wiseman, S.B., Wang, N., Moustafa, A., Gamel El-Din, M., Perez-Estrada, L., Martin, J., **Liber, K.** and **Giesy, J.P.** 2012. Effectiveness of ozonation treatment in eliminating toxicity of oil sands process water to *Chironomus dilutes*. *Environmental Science and Technology*, 46: 468-493. DOI: 10.1021/es202415g.
- Anochikwa, C.I., **van der Kamp, G.** and **Barbour, S.L.** 2012. Interpreting pore-water pressure changes induced by water table fluctuations and mechanical loading due to soil moisture changes. *Canadian Geotechnical Journal*, 49(3): 357-366.
- Ballard, C.E., McIntyre, N. and **Wheater, H.S.** 2012. Effects of peatland drainage management on peak flows. *Hydrology and Earth System Sciences*, 16: 2299-2310. DOI:10.5194/hess-16-2299-2012.
- Barr, A.G., van der Kamp, G.,** Black, T.A., McCaughey, J.H. and Nesic, Z. 2012. Comparing water and energy balance closure at the BERMS flux towers 1999-2009. *Agricultural and Forest Meteorology*, 153: 3-13. doi:10.1016/j.agrformet.2011.05.017
- Baulch, H.M.,** Dillon, P.J., Maranger, R. and Schiff, S.L. 2012. Budgeting N₂O emissions from freshwater ecosystems: Revisiting the IPCC methodology. *Canadian Journal of Fisheries and Aquatic Sciences*, 69: 145–160. <http://www.nrcresearchpress.com/doi/pdf/10.1139/f2011-144>.
- Baulch, H.M.,** Dillon, P.J., Maranger, R., Venkiteswaran, J.J., Wilson, H.F. and Schiff, S.L. 2012. Night and day: Short-term variation in nitrogen chemistry and nitrous oxide emissions. *Freshwater Biology*, 57(3): 509-525. DOI: 10.1111/j.1365-2427.2011.02720.x.
- Bense, V.F., Kooi, H., **Ferguson, G.** and Read, T. 2012. Permafrost degradation as a control on hydrogeological regime shifts in a warming climate. *Journal of Geophysical Research*, 117: F3. American Geophysical Union.
- Biswas, A., **Si, B.,** Chau, H. and **Bedard-Haughn, A.** 2012. Factors controlling soil water storage in the hummocky landscape of the Prairie Pothole region of North America. *Canadian Journal of Soil Science*, 92: 649-663.
- Bo, J., **Giesy, J.P.,** Ye, R., Wang, K.-J., Le, J.S. and Au, D.W.T. 2012. Identification of Differentially Expressed Genes and Quantitative Expression of Complement Genes in the Liver of Marine Medaka (*Orizias melastigma*) Challenged with *Vibrio parahemolyticus*. *Comparative Biochemistry and Physiology. Part D*, 7: 191-200. DOI: 10.1016/j.cbd.2012.02.005.
- Boxall, A.B.A, Rudd, M.A., Brooks, B.W., Caldwell, D.J., Choi, K., Hickmann, S., Innes, E., Ostapyk, K., Staveley, J.P., Verslycke, T., Ankley, G.T., Beazley, K.F., Belanger, S.E., Berninger, J.P., Carriquiriborde, P., Coors, A., DeLeo, P.C., Dyer, S.D., Ericson, J.F., Gagné, F., **Giesy, J.P.,** Gouin, T., Hallstrom, L., Karlsson, M.V., Larsson, D.G.J., Lazorchak, J.M., Mastrocco, F., McLaughlin, A., McMaster, M.E., Meyerhoff, R.D., Moore, R., Parrott, J.L., Snape, J.R., Murray-Smith, R., Servos, M.R., Sibley, P.K., Oliver Straub, J., Szabo, N.D., Topp, E., Tetreault, G.R., Trudeau, V.L. and Van Der Kraak, G. 2012. Pharmaceuticals and Personal

- Care Products in the Environment: What are the Big Questions? *Environmental Health Perspectives*, 120: 1221-1229. DOI: org/10.1289/ehp.1204993.
- Bradford, L. and Strickert, G. 2012. Managing Water Across Boundaries: Beyond Wetting your Whistle. *Conservation Biology*. 7 Sept. 2012. DOI: 10.1111/j.1523-1739.2012.01924.x.
- Brinkmann, M., Hudjetz, S., Kammann, U., Hennig, M., Kuckelkorn, J., Chinoraks, M., Cofall, C., Wiseman, S., **Giesy, J.P.**, Schäffer, A., **Hecker, M.**, Wölz, J., Schüttrumpf, H. and Hollert, H. 2013. How flood events affect rainbow trout: Evidence of a biomarker cascade in rainbow trout after exposure to PAH contaminated sediment suspensions. *Aquatic Toxicology*, 128–129: 13– 24. DOI:org/10.1016/j.aquatox.2012.11.010.
- 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. and Wofsy, S.C. 2012. How climate and vegetation type influence evapotranspiration and water use efficiency in Canadian forest, peatland and grassland ecosystems. *Agricultural and Forest Meteorology*, 153: 13-30.
- Bulygina, N., Ballard, C., McIntyre, N., O'Donnell, G. and **Wheater, H.S.** 2012. Integrating different types of information into the hydrological model parameter estimation: Application to ungauged catchments and land use scenario analysis. *Water Resources Research*. DOI:10.1029/2011WR011207.
- Bulygina, N., McIntyre, N. and **Wheater, H.S.** 2012. A comparison of rainfall-runoff modelling approaches for estimating impacts of rural land management on flood flows. *Hydrology Research* (in press). DOI:10.2166/nh.2013.034.
- Burnett-Seidel, C. and **Liber, K.** 2012. Evaluation of sediment quality guidelines derived using the screening-level concentration approach for application at uranium operations in Saskatchewan, Canada. *Environmental Monitoring and Assessment*, 184: 1593-1602.
- Chun, K.P.** and **Wheater, H.S.** 2012. An extreme analysis for the 2010 precipitation event at the South of Saskatchewan Prairie. *Global NEST journal special issue on Hydrology and Water Resources*, 14(3): 311-324.
- Chun, K.P.**, **Wheater, H.S.** and Onof, C.J. 2012. Prediction of the Impact of Climate Change on Drought: an evaluation of six UK catchments using two stochastic approaches. *Hydrological Processes*. DOI: 10.1002/hyp.9259.
- Doering, J.A., Wiseman, S., Beitel, S.C., Tendler, B.J., **Giesy, J.P.** and **Hecker, M.** 2012. Tissue Specificity of Aryl Hydrocarbon Receptor (AhR)-Mediated Responses and Relative Sensitivity of White Sturgeon (*Acipenser transmontanus*) to to AhR Agonists. *Aquatic Toxicology*, 114-115: 125-133. DOI:10.1016/j.aquatox.2012.02.015.
- Ehsanzadeh, E., **Spence, C.**, **van der Kamp, G.** and McConkey, B. 2012. On the behaviour of dynamic contributing areas and flood frequency curves in North American Prairie watersheds. *Journal of Hydrology*, 414-415: 364-373.3
- Ehsanzadeh, E., **van der Kamp, G.** and **Spence, C.** 2012. The impact of climatic variability-change on the hydro-climatology of Lake Winnipeg watershed. *Hydrological Processes*. **26**: 2802-2813.
- Ferguson, G.** 2012. Characterizing uncertainty in groundwater-source heating and cooling projects. *Energy*, 37: 201-206. Elsevier.

- Ferguson, G.** and Gleeson, T. 2012. Vulnerability of coastal aquifers to groundwater use and climate change. *Nature Climate Change*, 2: 342-345. Nature Publishing Group.
- Gleeson, T., Allen, D.M. and **Ferguson, G.** 2012. Teaching Hydrogeology: A Review of Current Practice. *Hydrology and Earth Systems Science*, 6: 2159-2168. European Geosciences Union.
- Gober, P.**, Middel, A., Brazel, A., Myint, S., Chang, H., Duh, J.-D. and House-Peters, L. 2012. Tradeoffs between water conservation and temperature amelioration in Phoenix and Portland: Implications for urban sustainability. *Urban Geography*, 33(7): 1030-1054.
- Gopalakrishnan, S., Harikrishnan, T., Chen, F.-Y., Bo, J. and **Giesy, J.P.** 2013. Modulation of Immune-associated Parameters and Antioxidant Responses in the Crab (*Scylla serrata*) Exposed to Mercury. *Chemosphere*, 90: 917-928. DOI: <http://dx.doi.org/10.1016/j.chemosphere.2012.06.031>.
- Guo, X., **Pomeroy, J.W.**, Fang, X., Lowe, S., Li, Z., Westbrook, C. and Minke, A. 2012. Effects of classification approaches on CRHM model performance. *Remote Sensing Letters*, 3: 39-47.
- Hassanzadeh, E.**, **Nazemi, A.-R.**, and **Elshorbagy, A.** 2012. A framework for downscaling extreme rainfall quantiles using genetic programming. In Proceedings of 10th International Conference on Hydroinformatics (HIC 2012), Hamburg, Germany.
- Havens, S.M., Hassler, C.S., **North, R.L.**, Guildford, S.J., Silsbe, G., Wilhelm, S.W. and Twiss, M.R. 2012. Iron plays a role in nitrate drawdown by phytoplankton in Lake Erie surface waters as observed in lake wide assessments. *Canadian Journal of Fisheries and Aquatic Sciences*, 69(2): 369-381.
- He, Y.H., Patterson, S., Wang, N., **Hecker, M.**, Martin, J., Gamal El-Din, M., **Giesy, J.P.** and Wiseman, S. 2012. Toxicity of Untreated and Ozone-treated Oil Sands Process-Affected Water (OSPW) to Early Life Stages of the Fathead Minnow (*Pimephales promelas*). *Water Research*, 46(17): 9701-9708.
- He, Y.H., Wiseman, S.B., Wang, N., Perez-Estrada, L.A., Gamal-El Din, M., Martin, J. and **Giesy, J.P.** 2012. Transcriptional Responses of the Brain–Gonad–Liver Axis of Fathead Minnows Exposed to Untreated and Ozone-Treated Oil Sands Process-Affected Water. *Environmental Science and Technology*, 46: 9701–9708. DOI: [org/10.1021/es3019258](http://dx.doi.org/10.1021/es3019258).
- Hecker, M.**, Khim, J.S., **Giesy, J.P.**, Li, S.-Q. and Ryu, J.-H. 2012. Seasonal Nutrient Loading and Chlorophyll A in a Northern Prairies Reservoir, Saskatchewan, Canada. *Journal of Water Resources and Protection*, 4: 180-202. DOI: 10.4236/jwarp.2012.44021.
- Helgason, W.** and **Pomeroy, J.W.** 2012. Characteristics of the near-surface boundary layer within a mountain valley during winter. *Journal of Applied Meteorology and Climatology*, 51: 583–597. DOI: 10.1175/JAMC-D-11-058.1
- Helgason, W.** and **Pomeroy, J.W.** 2012. Problems Closing the Energy Balance over a homogeneous Snow Cover during Midwinter. *Journal of Hydrometeorology*, 13: 557–572. doi: <http://dx.doi.org/10.1175/JHM-D-11-0135.1>.
- Higley, E., Grund, S., Seiler, T.B., Lubcke-von Varel, U., Brack, W., Schulz, T., **Giesy, J.P.**, Hollert, H. and Hecker, M. 2012. Effects of Upper Danube River Sediments on Steroidogenesis Using Chemical Fractionation and the H295R assay. *Environmental Toxicology and Chemistry*, 31: 1053-1062. DOI: 10.1002/etc.1777.

- Hong, S., Khim, J.S., Naile, J.E., Park, J.-S., Kwon, B.-O., Wang, T., Lu, Y.-L., Shim, W.J., **Jones, P.D.** and **Giesy, J.P.** 2012. AhR-mediated Potency of Sediments and Soils in Estuarine and Coastal Areas from the Yellow Sea Region: A Comparison Between Korea and China. *Environmental Pollution*, 171: 216-225. DOI: org/10.1016/j.envpol.2012.08.001.
- Hong, S.-J., Khim, J.-S., Ryu, J.-S., Park, J., Song, S.-J., Kwan, B.-O., Choi, K., Ji, K., Seo, J., Lee, S.-W., Park, J., Lee, W.-J., Choi, Y., Lee, K.-T., Kim, C.-K., Shim, W.-J., Naile, J.E. and **Giesy, J.P.** 2012. Two years after the Hebei Spirit oil spill: Residual Crude-derived Hydrocarbons and Potential AhR-Mediated Activities in Coastal Sediments. *Environmental Science and Technology*, 46: 1406-1414. DOI: 10.1021/es203491b.
- Hopkinson, C., **Pomeroy, J.W.**, **DeBeer, C.**, Ellis, C. and Anderson, A. 2012. Relationships between mountain snowpack depth and primary LiDAR point cloud derivatives in a mountainous environment. In, *Remote Sensing and Hydrology 2010*, IAHS Publ. No. 31, IAHS Press, Wallingford, UK.
- Huang, M., Zettl, J., **Barbour, S.**, **Elshorbagy, A.A.** and **Si, B.C.** 2012. The impact of soil moisture availability on forest growth indices for variably layered coarse-textured soils, *Ecohydrology, John Wiley and Sons*, 1(March - published online): 999-999.
- Huziy, O., Sushama, L., **Khaliq, M.N.**, Laprise, R., Lehner, B. and Roy, R. 2012. Analysis of streamflow characteristics over northeastern Canada in a changing climate. *Climate Dynamics*, DOI: 10.1007/s00382-012-1406-0.
- Ireson, A.M.**, Butler, A.B. and **Wheater, H.S.** 2012. Evidence for the onset and persistence with depth of preferential flow in unsaturated fractured porous media. *Hydrology Research*, 43(5): 707-719. DOI:10.2166/nh.2012.030.
- Jackson, B., Pagella, T., Sinclair, F., Orellana, B., Henshaw, A., Reynolds, B., McIntyre, N., **Wheater, H.S.** and Eycott, A. 2012. Polyscape: a GIS mapping toolbox providing efficient and spatially explicit landscape-scale evaluation of multiple ecosystem services. *Landscape and Urban Planning*, 112: 74-88. doi: 10.1016/j.landurbplan.2012.12.014.
- Jardine, T.D.**, Halliday, I.A., Howley, C., Sinnamon, V. and Bunn, S.E. 2012. Large scale surveys suggest limited mercury availability in tropical North Queensland (Australia). *Science of the Total Environment*, 416: 385-393.
- Jardine, T.D.**, Kidd, K.A. and Rasmussen, J.B. 2012. Terrestrial organic matter in the diet of stream consumers: Implications for mercury exposure. *Ecological Applications*, 22: 843-855.
- Jardine, T.D.**, Pettit, N.E., Warfe, D.M., Pusey, B.J., Ward, D.P., Douglas, M.M., Davies, P.M. and Bunn, S.E. 2012. Consumer-resource coupling in wet-dry tropical rivers. *Journal of Animal Ecology*, 81: 310-322.
- Jardine, T.D.**, Pusey, B.J., Hamilton, S.K., Pettit, N.E., Davies, P.M., Douglas, M.M., Sinnamon, V., Halliday, I.A. and Bunn, S.E. 2012. Fish mediate high food web connectivity in the lower reaches of a wet-dry tropical floodplain river. *Oecologia*, 168: 829-838.
- Jarosova, B., Blaha, L., Vrana, B., Randak, T., Grabic, R., **Giesy, J.P.** and Hilscherova, K. 2012. Changes in concentrations of hydrophilic organic contaminants and endocrine-disrupting potential of downstream of small communities located adjacent to headwaters. *Environment International*, 45: 22-31.

- Jenerette, G.D., Barron-Gafford, G., Guswa, A., **McDonnell, J.J.** and Villegas, J. 2012. Organization of complexity in water limited ecohydrology. *Ecohydrology*, 5: 184-199. DOI: 10.1002/eco.217.
- Jiao, W., Wang, T., Khim, J.-S., Luo, W., Hu, W., Naile, J.E., **Giesy, J.P.** and Lu, Y.-L. 2012. PAHs in surface sediments from coastal and estuarine areas of the Northern Bohai Sea and Yellow Sea, China. *Environmental Geochemistry and Health*, 34: 445-456. DOI 10.1007/s10653-011-9445-8.
- Jin, X. and **Giesy, J.P.** 2012. A Tiered Ecological Risk Assessment of Three Chlorophenols in Chinese Surface Waters. *Environmental Science and Pollution Research*, 19: 1544–1554. DOI 10.1007/s11356-011-0660-8.
- Jin, X., Zha, J., Xu, Y., **Giesy, J.P.** and Wang, Z. 2012. Toxicity of pentachlorophenol to native aquatic species in the Yangtze River. *Environmental Science and Pollution*, 19: 609-618. DOI: 10.1007/s11356-011-0594-1.
- Kenabatho, P., McIntyre, N. and Wheeler, H.S. 2012. Stochastic simulation of rainfall in the semi-arid Limpopo Basin, Botswana. *International Journal of Climatology*. 32: 1113-1127.
- Klaus, J.**, Zehe, E., Elsner, M., Külls, C. and **McDonnell, J.J.** 2012. Macropore flow of old water revisited: where does the mixing occur at the hillslope scale? *Hydrology and Earth System Science*, 17: 103-118.
- Korbas, M., MacDonald, T.C., **Pickering, I.J.**, George, G.N. and Krone, P.H. 2012. Chemical form matters: differential accumulation of mercury following inorganic and organic mercury exposures in zebrafish larvae. *ACS Chemical Biology*, 7(2): 410-419. DOI: 10.1021/cb200287c.
- Kruitbos, L., Tetzlaff, D., Soulsby, C., Buttle, J., Carey, S., Laudon, H., **McDonnell, J.J.**, McGuire, K., Seibert, J., Cunjak, R. and Shanley, J. 2012. Hydroclimatic and hydrochemical controls on Plecoptera (stonefly) diversity and distribution in northern freshwater ecosystems. *Hydrobiologia*, 693: 39-53.
- Lanni C., **McDonnell, J.J.**, Hopp, L. and Rigon, R. 2012. Simulated effect of soil depth and bedrock topography on near-surface hydrologic response and slope stability. *Earth Surface Processes and Landforms*. DOI: 10.1002/esp.3267.
- Law, A.Y.S., Wei, X., Zhang, X.W., Mak, N.K., Cheung, K.C., Wong, M.H., **Giesy, J.P.** and Wong, C.K.C. 2012. Biological analysis of endocrine-disrupting chemicals in animal meats from the Pearl River Delta, China. *Journal of Exposure Science and Environmental Epidemiology*, 22: 93-100. DOI: 10.1038/jes.2011.36.
- Lindenschmidt, K.-E.**, Sydor, M. and Carson, R. 2012. Modelling ice cover formation of a lake-river system with exceptionally high flows (Lake St. Martin and Dauphin River, Manitoba). *Cold Regions Science and Technology*, 82: 36–48.
- Liu, C., Yan, W., Zhou, B., Guo, Y., Liu, H., Yu, H., **Giesy, J.P.**, Wang, J., Li, G. and Zhang, X. 2012. Characterization of a bystander effect induced by the endocrine-disrupting chemical 6-propyl-2-thiouracil in zebrafish embryos. *Aquatic Toxicology*, 118-119: 108-115.
- Liu, F., Wiseman, S., Wan, Y., Doering, J.A., **Hecker, M.**, Lam, M.H.W. and **Giesy, J.P.** 2012. Multi-Species Comparison of the Mechanism of Biotransformation of MeO-BDEs to OH-BDEs in Fish. *Aquatic Toxicology*, 114-115: 182-188. DOI:10.1016/j.aquatox.2012.02.024.

- López-Moreno, J.I., **Pomeroy, J.W.**, Revuelto, J. and Vicente-Serrano, S.M. 2012. Response of snow processes to climate change: spatial variability in a small basin in the Spanish Pyrenees. *Hydrological Processes*. DOI: 10.1002/hyp.9408.
- Ma, Y., Han, J., Guo, Y., Lam, P.K.S., Wu, R.S S., **Giesy, J.P.**, Zhang, X. and Zhou, B. 2012. Disruption of Endocrine Function in H295R cell-based and *in vivo* assay in zebrafish by 2, 4-dichlorophenol. *Aquatic Toxicology*, 106-107: 173-181. DOI: 10.1016/j.Aquatox.2011.11.006.
- Marsh, C.B., Pomeroy, J.W.** and Spiteri, R.J. 2012. Implications of mountain shading on calculating energy for snowmelt using unstructured triangular meshes. *Hydrological Processes*, 26: 1767–1778. doi: 10.1002/hyp.9329.
- Menard, C.B., Essery, R., **Pomeroy, J., Marsh, P.** and Clark, D.B. 2012. A shrub bending model to calculate the albedo of shrub-tundra. *Hydrological Processes*. DOI: 10.1002/hyp.9582.
- Monette, A., Sushama, L., **Khaliq, M.N.**, Laprise, R. and Roy, R. 2012. Projected changes to precipitation extremes for northeast Canadian watersheds using a multi-RCM ensemble. *Journal of Geophysical Research: Atmospheres*, 117(D13106): DOI: 10.1029/2012JD017543.
- Murray, A.T., **Gober, P.**, Anselin, L., Rey, S.J., Padegimas, P.D. and Sampson, D. 2012. Spatial optimization models for water supply allocation. *Water Resources Management*, 26(8): 2243-2267.
- Nazemi, A.-R** and **Elshorbagy, A.** 2012. Application of copula modelling to the performance assessment of reconstructed catchments. *Stochastic Environmental Research and Risk Assessment*, 26(2): 189-205. DOI: 10.1007/s00477-011-0467-7.
- Nazemi, A., Wheeler, H.S., Chun, K.P.** and **Elshorbagy, A.** 2012. A stochastic reconstruction framework for analysis of water resource system vulnerability to climate-induced changes in river flow regime. *Water Resources Research*. DOI:10.1029/2012WR012755.
- Neville, C.J. and **van der Kamp, G.** 2012. Methods Note: Using recovery data to extend the effective duration of pumping tests. *Ground Water*, 50(5): 804-807. DOI:10.1111/j.1745-6584-2011.00906.x.
- Nielsen, J., **Noble, B.F.** and Hill, M. 2012. Impact assessment and wetland mitigation decision support framework for linear developments: an application to the Louis Riel Trail Highway 11 North project, Saskatchewan, Canada. *The Canadian Geographer*, 56(1): 117-139.
- North, R.L.**, Smith, R.E.H., Hecky, R.E., Depew, D.C., León, L.F., Charlton, M.N. and Guildford, S.J. 2012. Distribution of seston and nutrient concentrations in the eastern basin of Lake Erie pre- and post-dreissenid mussel introduction. *Journal of Great Lakes Research*, 38: 463-476.
- PaiMazumder, D., Sushama, L., Laprise, R., **Khaliq, M.N.** and Sauchyn, D. 2012. Canadian RCM projected changes to short- and long-term drought characteristics over the Canadian Prairies. *International Journal of Climatology*, DOI: 10.1002/joc.3521.
- Pan, X.**, Zhang, J., Huang, P. and Rogh, K. 2012. Estimating field-scale soil water dynamics at a heterogeneous site using multi-channel GPR. *Hydrology and Earth System Sciences*, 16: 4361-4372, DOI:10.5194/hess-16-4361-2012.
- Pettit, N.E., **Jardine, T.D.**, Hamilton, S.K., Sinnamon, V., Valdez, D., Davies, P.M., Douglas, M.M. and Bunn, S.E. 2012. Seasonal changes in water quality and macrophytes and the impact

- of cattle on tropical floodplain waterholes. *Marine and Freshwater Research*. **63**: 788-800.
- Poitras, V., Sushama, L., Seglenieks, F., **Khaliq, M.N.** and Soulis, E. 2011. Canadian RCM simulated streamflows over western Canada in a changing climate. *Journal of Hydrometeorology*, 12: 1395–1413.
- Pomeroy, J.**, Fang, X. and Ellis, C. 2012. Sensitivity of snowmelt hydrology in Marmot Creek, Alberta, to forest cover disturbance. *Hydrological Processes*, 26: 1891–1904. doi: 10.1002/hyp.9248.
- Puttaswamy, N. and **Liber, K.** 2012. Influence of inorganic anions on metals release from oil sands coke and on toxicity of nickel and vanadium to *Ceriodaphnia dubia*. *Chemosphere*, 86: 521-529.
- Reba, M.L., **Pomeroy, J.W.**, Marks, D. and Link, T.E. 2012. Estimating surface sublimation losses from snowpacks in a mountain catchment using eddy covariance and turbulent transfer calculations. *Hydrological Processes*, 26: 2699-3711. doi: 10.1002/hyp.8372.
- Richardson, A.D., Anderson, R.S., Arain, M.A., **Barr, A.G.**, Bohrer, G., Chen, G., Chen, J.M., Ciais, P., Davis, K.J., Desai, A.R., Dietze, M.C., Dragoni, D., Garrity, S.R., Gough, C.M., Grant, R., Hollinger, D.Y., Margolis, H.A., McCaughey, H., Migliavacca, M., Monson, R.K., Munger, J.W., Poulter, B., Raczka, B.M., Ricciuto, D.M., Sahoo, A.K., Schaefer, K., Tian, H., Vargas, R., Verbeeck, H., Xiao, J. and Xue, Y. 2012. Terrestrial biosphere models need better representation of vegetation phenology: Results from the North American Carbon Program Site Synthesis. *Global Change Biology*, 18: 566-584. DOI: 10.1111/j.1365-2486.2011.02562.x.
- Sereda J., Hunter, K., Vandergucht, D. and Hudson, J.** 2012. Photochemical Mineralization of Dissolved Organic Nitrogen to Ammonia in Prairie Lakes. *Hydrobiologia*, 693: 71-80.
- Sereda J., Vandergucht, D. and Hudson, J.** 2012. In situ UVA exposure modulates change in the uptake of radiophosphate in size fractionated plankton assemblages following UVR exposure. *Microbial Ecology*, 63: 751-760.
- Seston, R.M., **Giesy, J.P.**, Fredricks, T.B., Tazelaar, D.L., Coefield, S.J., Bradley, P.W., Roark, S.A., Zwiernik, S.A. and M.J. 2012. Dietary- and tissue-based exposure of belted kingfisher to PCDFs and PCDDs in the Tittabawassee River floodplain, Midland, MI, USA. *Environmental Toxicology and Chemistry*, 31: 1158-1168. DOI: 10.1002/etc.1780.
- Shaw, D.A., **van der Kamp, G.**, Conly, F.M., **Pietroniro, A.** and **Martz, L.**, 2012. The Fill–Spill Hydrology of Prairie Wetland Complexes during Drought and Deluge. *Hydrological Processes*, 26: 3147–3156. DOI: 10.1002/hyp.8390.
- Shi, W., Hu, X., Zhang, F.-X., Hu, G.-J., Hao, Y.-Q., Zhang, X., Liu, H.L., Wei, S., Wang, X., **Giesy, J.P.** and Yu, H. 2012. Occurrence of Thyroid Hormone Activities in Drinking Water from Eastern China: Contributions of Phthalate Esters. *Environmental Science and Technology*, 46: 1185-1198. DOI: 10.1021/es202625r.
- Shi, W., Zhang, F.X., Hu, G.-J., Hao, Y.-Q., Zhang, X.-W., Liu, H.-L., Wei, S., **Giesy, J.P.** and Yu, H.-X. 2012. Thyroid hormone disrupting activities associated with phthalate esters in water sources from Yangtze River Delta. *Environment International*, 42: 117-123. DOI: 10.1016/j.envint.2011.05.013.
- Shook, K.** and **Pomeroy, J.W.** 2012. Changes in the hydrological character of rainfall on the Canadian prairies. *Hydrological Processes*, 26: 1752–1766. Doi: 10.1002/hyp.9383.

- Stewart, M., Morgenstern, U., **McDonnell, J.J.** and Pfister, L. 2012. The ‘hidden streamflow’ challenge in catchment hydrology: A call to action for streamwater transit time analysis. *Hydrological Processes*, 26: 2061-2066. DOI: 10.1002/hyp.9262.
- Su, G., Liu, X., Gao, Z., Xian, Q., Feng, J.-F., Zhang, X., **Giesy, J.P.** and Yu, H.-X. 2012. Dietary Intake of Polybrominated Diphenyl Ethers (PBDEs) and Polychlorinated Biphenyls (PCBs) from Fish and Meat by Residents of Nanjing, China. *Environment International*, 42: 138-143. DOI:10.1016/j.envint.011.05.015.
- Su, G.-Y., Xia, J., Liu, H.-L., Lam, M.H.W., Yu, H., **Giesy, J.P.** and Zhang, X. 2012. Dioxin-like Activity of PBDEs’ Analogs and the Potential Risk Through Consumption of Fish from Eastern China. *Environmental Science and Technology*, 46: 10781-10788. DOI: 10.1021/es302317y.
- Sulman, B.N., Desai, A.R., Schroeder, N.M., Ricciuto, D., **Barr, A.**, Richardson, A.D., Flanagan, L.B., Lafleur, P.M., Tian, H., Chen, G., Grant, R.F., Poulter, B., Verbeeck, H., Ciais, P., Ringeval, B., Baker, I.T., Schaefer, K., Luo, Y., and Weng, E. 2012. Impact of hydrological variations on modeling of peatland CO₂ fluxes: results from the North American Carbon Program site synthesis. *Journal of Geophysical Research—Biogeosciences*, 117: G01031. DOI: 10.1029/2011JG001862.
- Sychrová, E., Štěpánková, T., Nováková L. K., Bláha L., **Giesy, J.P.** and Hilscherová, K. 2012. Estrogenic Activity in Extracts and Exudates of Cyanobacteria and Green Algae. *Environment International*, 39: 134-140. DOI: 10.1016/j.envint.2011.10.004.
- Toor, N.S., Franz, E., Fedorak, P.M., MacKinnon, M.D. and **Liber, K.** 2012. Degradation and aquatic toxicity of naphthenic acids in oil sands process-affected waters using simulated wetlands. *Chemosphere*, 90: 449-458.
- Tse, J.J., Gallego-Gallegos, M., Franz, E.D., **Liber, K.** and **Pickering, I.J.** 2012. Selenium speciation and localization in chironomids from lakes receiving treated metal mine effluent. *Chemosphere*, 89(3): 274-279. DOI: 10.1016/j.chemosphere.2012.04.036.
- van der Kamp, G.** and Maathuis, H. 2012. The unusual and large drawdown response of buried-valley aquifers to pumping. *Ground Water*, 50(2): 207-215.
- Vorogushyn, S., Kreibich, H., Merz, B. and **Lindenschmidt, K.-E.** 2012. Analysis of a detention basin impact on dike failure probabilities and flood risk for a channel-dike-floodplain system along the river Elbe, Germany. *Journal of Hydrology*, 436-437: 120-131.
- Wang, T., Khim, J.-S., Chen, C., Naile, J.E., Lu, Y.-L., Kannan, K., Park, J.-S. and **Giesy, J.P.** 2012. Perfluorinated Compounds in Surface Waters from Northern China: Comparison to Level of Industrialization. *Environment International*, 42: 37-46. DOI: 10.1016/j.envint.2011.03.023.
- Wang, T., Lu, Y.-L., Chen, C., Naile, J.E., Khim, J.-J. and **Giesy, J.P.** 2012. Perfluorinated compounds in Coastal Environmental Area of Tianjin, China. *Environmental Geochemistry and Health*, 34: 301-311. DOI: 10.1007/s10653-011-9422-2.
- Wilcox, B., Seyfried, M., Breshears, D. and **McDonnell, J.J.** 2012. Ecohydrologic connections and complexities in drylands—New perspectives for understanding transformative landscape change. *Ecohydrolog*, 5: 143-144.
- Wohl, E., Barros, A., Brunzell, N., Chappell, N., Coe, M., Giambelluca, T., Goldsmith, S., Harmon, R., Hendrickx, J., Juvik, J., **McDonnell, J.J.** and Ogden, F. 2012. A research vision for

hydrology of the humid tropics: Balancing water, energy, and land use. *Nature (Climate Change)*, 2: 655-662.

- Woo, M.-K. and **Pomeroy, J.W.** 2012. Snow and runoff: processes, sensitivity and vulnerability. In *Changing Cold Environments: a Canadian Perspective*. (eds H. French and O. Slaymaker), John Wiley & Sons, Ltd, Chichester, UK. doi: 10.1002/9781119950172.ch6.
- Wu, X., Jiang, J., Wan, Y., **Giesy, J.P.** and Hu, J. 2012. Cyanobacteria Produce Teratogenic Retinoic Acids. *Proceedings of the National Academy of Sciences, USA*, 109: 9477-9482. DOI: 10.1073/pnas.1200062109.
- Xing, L., Liu, H.-L., **Giesy, J.P.** and Yu, H.-X. 2012. pH-Dependent Aquatic Criteria for 2,4-dichlorophenol, 2,4,6-trichlorophenol and Pentachlorophenol. *Science of the Total Environment*, 441: 125-131. DOI: org/10.1016/j.scitotenv.2012.09.060.
- Xing, L., Liu, H.-L., **Giesy, J.P.**, Zhang, X. and Yu, H.-X. 2012. Probabilistic ecological risk assessment [for three chlorophenols in surface water](#) of China. *Journal of Environmental Science*, 24: 329-334. DOI: 10.1016/S1001-0742(11)60779-1.
- Yapura, M.J., Mapletoft, R.J., Pierson, R., Singh, J., Naile, J., **Hecker, M.**, Higley, E., Chang, H., **Giesy, J.P.** and Adams, G.P. 2012. Effects of a Non-steroidal Aromatase Inhibitor on Ovarian Function in Cattle. *Reproduction, Fertility and Development*, 24: 631-640. DOI: 10.1071/RD11239.
- Yi, A.X., Leung, K.M., Lam, M.H., Lee, J.S. and **Giesy, J.P.** 2012. Review of Measured Concentrations of Triphenyltin Compounds in Marine Ecosystems and Meta-analysis of Risks to Humans and the Environment. *Chemosphere*, 89: 1015-1025. DOI: 10.1016/j.chemosphere.2012.05.080.
- Yu, R.M.K., Chu, D.C.H., Tan, T.-F., Liu, V.W.T., Chan, A.K.Y., **Giesy, J.P.**, Cheng, S.H., Wu, R.S.S. and Kong, R.Y.C. 2012. Leptin-mediated Modulation of Steroidogenic Gene Expression in Hypoxic Zebrafish Embryos: Implications for the Disruption of Sex Steroids. *Environmental Science and Technology*, 46: 9112-9119. DOI.org/10.1021/es301758c.
- Zhang, K., Wan, Y., Jones, P.D., Wiseman, S., Lam, M.H.W., **Giesy, J.P.** and Hu, J. 2012. Occurrences and Fates of Hydroxylated Polybrominated Diphenyl Ethers in Marine Sediments in Relation to Trophodynamics. *Environmental Science and Technology*, 46: 2148-2155. DOI: 10.1021/es203195s.
- Zheng, X.M., Liu, H.L., Shi, W., Wei, S., **Giesy, J.P.** and Yu, X.-X. 2012. Effects of Pefluorinated Compounds on Development of Zebra Fish Embryos. *Environmental Science and Pollution Research*, 19: 2498-2505. DOI: 10.1007/sii356-012-0977-4.

Journal Publications - 2011

- Ballard, C.E., McIntyre, N., **Wheater, H.S.**, Holden, J. and Wallage, Z.E. 2011. Hydrological modeling of drained blanket peatland. *Journal of Hydrology*, 407: 81-93.
- Baulch, H.M.**, Stanley, E.H., and Bernhardt, E.S. 2011. Can algal uptake stop NO₃- pollution? *Nature*, 477: doi:10.1038/nature10418.
- Baulch, H.M.**, Schiff, S., Thuss, S. and Dillon, P.J. 2011. Isotopic character of N₂O emitted from streams. *Environmental Science and Technology*, 45: 4682-4688. <http://pubs.acs.org/doi/abs/10.1021/es104116a>.

- Baulch, H.M.**, Schiff, S.L., Maranger, R. and Dillon, P.J. Nitrogen enrichment and the emissions of nitrous oxide from streams. *Global Biogeochemical Cycles*, 25, GB4013, 2011. [doi:10.1029/2011GB004047](https://doi.org/10.1029/2011GB004047).
- Baulch, H.M.**, Dillon, P.J., Maranger, R. and Schiff, S.L. 2011. Diffusive and ebullitive fluxes of methane and nitrous oxide from streams: are bubble-mediated fluxes important? *Journal of Geophysical Research – Biogeosciences*, DOI: 10.1029/2011JG001656.
- Bradley, P.W., Wan, Y., **Jones, P.D.**, Wiseman, S., Chang, H., Lam, M.H.W., Long, D.T. and **Giesy, J.P.** 2011. Polybrominated Diphenyl Ethers and Methoxylated Analogues in Sediment Cores from Two Michigan, USA Inland Lakes. *Environmental Toxicology and Chemistry*, 30: 1236-1242. DOI: 10.1002/etc.500.
- Bulygina, N., McIntyre, N. and **Wheater, H.S.** 2011. Bayesian conditioning of a rainfall-runoff model for predicting flows in ungauged catchments and under land use changes. *Water Resources Research*, 47. DOI: 10.1029/2010WR009240.
- Burt, T., Hancock, G. and **McDonnell, J.J.** 2011. Where does water go when it rains? *Geography Review*, 25(1): 38-41.
- Burt, T., Howden, N., Worrall, F. and **McDonnell, J.J.** 2011. On the value of long-term, low-frequency water quality sampling: avoiding throwing the baby out with the bathwater. *Hydrological Processes*. 25: 828-830, DOI: 10.1002.hyp.7961.
- Callaghan, T.V., Johansson, M., Brown, R.D., Groisman, P.Y., Labba, N., Radionov, V., Bradley, R.S., Blangy, S., Bulygina, O.N., Christensen, T.R., Colman, J.E., Essery, R.L.H., Forbes, B.C., Forchhammer, M.C., Golubev, V.N., Honrath, R.E., Juday, G.P., Meshcherskaya, A.V., Phoenix, G.K., **Pomeroy, J.W.**, Rautio, A., Robinson, D.A., Schmidt, N.M., Serreze, M.C., Shevchenko, V.P., Shiklomanov, A.I., Shmakin, A.B., Sturm, M., Woo, M.-K. and Wood, E.F. 2011. Multiple Effects of Changes in Arctic Snow Cover. *AMBIO*. 40(1): 32-45. DOI:10.1007/s13280-011-0213-x.
- Chang, W.**, Klemm, S., Whyte, L., Beaulieu, C., Hawari, J., Whyte, L., Ghoshal, S., 2011, Petroleum hydrocarbon biodegradation under seasonal freeze-thaw soil temperature regimes in contaminated soils from a sub-Arctic site. *Environmental Science and Technology* 45(3), 1061-1066. (Impact Factor=5.228).
- Chang, W.**, Whyte, L., Ghoshal, S., 2011, Comparison of the effects of variable site temperatures and constant incubation temperature on the biodegradation of petroleum hydrocarbons in pilot-scale experiments with field-aged contaminated soils from a cold regions site. *Chemosphere*, 82(6) 872-878.
- Chen, C., Wang, T., Nail, J.E, Li, J., Geng, J., Lu, Y.-L., Bi, C., Hu, W., Zhang, X., Khim, J.-S., Feng, Y., **Giesy, J.P.** 2011. Perfluorinated compounds in aquatic products from Bohai Bay, Tianjin, China. *Human and Ecological Risk Assessment*, 17: 1279-1291.
- Driessnack, M.K., Dubé, M.G., Rozon-Ramilo, L.D., **Jones, P.D.**, Wiramanaden, C.I.E. and **Pickering, I.J.** 2011. The use of field-based mesocosm systems to assess the effects of uranium milling effluent on fathead minnow (*Pimephales promelas*) reproduction. *Ecotoxicology*, 20: 1209-1224. DOI: 10.1007/s10646-011-0666-5.
- Ellis, C.R., **Pomeroy, J.W.**, Essery, R.L.H. and Link, R.E. 2011. Effects of needleleaf forest cover on radiation and snowmelt dynamics in the Canadian Rocky Mountains. *Canadian Journal of Forest Research*, 41: 608-620. DOI: 10.1139/X10-227.

- Essilfie-Dughan, J., **Pickering, I.J., Hendry, M.J.**, George, G.N., and Kotzer, T. 2011. Molybdenum Speciation in Uranium Mine Tailings Using X-Ray Absorption Spectroscopy. *Environmental Science and Technology*, 45(2): 455–460. DOI: 10.1021/es102954b.
- Franz, E.D., Wiramanaden, C.I.E., **Janz, D.M., Pickering, I.J.** and **Liber, K.** 2011. Selenium bioaccumulation and speciation in *Chironomus dilutus* exposed to water-borne selenate, selenite, or seleno-DL-methionine. *Environmental Toxicology and Chemistry*. **30**(10): 2292-2299.
- Fredricks, T.B., **Giesy, J.P.**, Coefield, S.J., Seston, R.M., Tazelaar, D.L., Roark, S.A., Kay, D.P., Newsted, J.L. and Zwiernik, M.J. 2011. Multiple Lines of Evidence Risk Assessment of Terrestrial Passerines Exposed to PCDFs and PCDDs in the Tittabawassee River Floodplain, Midland, Michigan, USA. *Human and Ecological Risk Assessment*, 17: 159-186. DOI: 10.1080/10807039.2011.538632.
- Fredricks, T.B., Zwiernik, M.J., Seston, R.M., Coefield, S.J., Tazelaar, D.L., Roark, S.A., Kay, D.P., Newsted, J.L. and **Giesy, J.P.** 2011. Effects on Tree Swallows Exposed to Dioxin-like Compounds Associated with the Tittabawassee River and Floodplain near Midland, Michigan, USA. *Environmental Toxicology and Chemistry*, 30: 1354-1365. DOI: 10.1002/etc.511.
- Gabrielli, C. and **McDonnell, J.J.** 2011. An inexpensive, portable high speed drill rig and platform for bedrock groundwater studies in the headwaters. *Hydrological Processes*. DOI: 10.1002/hyp.8212.
- Gober, P.**, Wentz, E.A., Lant, T., Tschudi, M.K. and Kirkwood, C. 2011. WaterSim: A simulation model for urban water planning in Phoenix, Arizona, USA. *Environment and Planning B*, 38(2): 197-215.
- Goldsmith, G., Muñoz-Villers, L., Holwerda, F., **McDonnell, J.J.**, Asbjornsen, H. and Dawson, T.E. 2011. Stable isotopes reveal linkages among ecohydrological processes in a seasonally dry tropical montane cloud forest. *Ecohydrology*. DOI: 10.1002/eco.268.
- Hancock, G., Evans, K.E., **McDonnell, J.J.** and Hopp, L. 2011. Ecohydrological controls on soil erosion and landscape evolution. *Ecohydrology*. **5**(4): 478-490. DOI: 10.1002/eco.241.
- Hanesiak, J.M., Stewart, R.E., Bonsal, B.R., Harder, P., Lawford, R., Aider, R., Amiro, B.D., Atallah, E., **Barr, A.G.**, Black, T.A., Bullock, P., Brimelow, J.C., Brown, R., Carmichael, H., Derksen, C., Flanagan, L.B., Gauchon, P., Greene, H., Gyakum, J., Henson, W., Hogg, T., Kochtubajda, B., Leighton, H., Lin, C., Luo, Y., McCaughey, J.H., Meinert, A., Shabbar, A., Snelgrove, K., Szeto, K., Trishchenko, A., **van der Kamp, G.**, Wang, S., Wen, L., Wheaton, E., Wielki, C., Yang, Y., Yirdaw, S. and Zha, T. 2011. Characterization and summary of the 1999-2005 Canadian prairie drought. *Atmosphere-Ocean*, 49: 421-452.
- He, Y., Wiseman, S.B., **Hecker, M.**, Zhang, X., Wang, N., Perez, L.A., **Jones, P.D.**, Gamal El-Din, M., Martin, J.W. and **Giesy, J. P.** 2011. Effect of Ozonation on the Estrogenicity and Androgenicity of Oil Sands Process-Affected Water. *Environmental Science and Technology*, 45: 6268–6274. DOI: 10.1021/es2008215.
- Hecker, M.**, Hollert, H., Cooper, R., Vinggaard, A.-M., Akahori, Y., Murphy, M., Nellemann, C., Higley, E., Newsted, J.L., Laskey, J., Buckalew, A., Grund, S., Maletz, S., **Giesy, J.P.** and Timm, G. 2011. The OECD Validation Program of the H295R Steroidogenesis Assay. Phase 3: Final Inter-Laboratory Validation Study. *Environmental Science and Pollution Research*, 18: 503–515. DOI 10.1007/s11356-010-0396-x.

- Hopp, L. and **McDonnell, J.J.** 2011. Examining the role of throughfall patterns on subsurface stormflow generation. *Journal of Hydrology*, 409(1-2): 460-471. doi:10.1016/j.jhydrol.2011.08.044.
- Hopp, L., **McDonnell, J.J.** and Condon, P. 2011. Lateral subsurface flow in a soil cover over waste rock in a humid temperate environment. *Vadose Zone Journal*, 10: 1-13. DOI:10.2136/vzj2010.0094.
- Hopp, L., **McDonnell, J.J.** and Condon, P. 2011. Measuring and modeling lateral subsurface flow in a soil cover over waste rock in a humid temperate environment. *Vadose Zone Journal*, 10: 1-13. doi:10.2136/vzj2010.0094.
- Hughes, A.G., Vounaki, T., Peach, D.W., Ireson, A.M., Jackson, C.R., Butler, A.P., Finch, J. and Wheeler, H.S. 2011. Flood risk from groundwater in a Chalk catchment in southern England. *Journal of Flood Risk Management*, 4: 143-155.
- Ji, K., Seo, J.-H., Liu, X., Lee, J.-Y., Lee, S.-W., Lee, W.-J., Park, J.G., Kim, J.-S., Hong, S.G., Choi, Y.Y., Shim, W.-J., Takeda, S., **Giesy, J.P.** and Choi, K. 2011. Genotoxicity and Endocrine Disruption Potentials of Sediment Near an Oil Spill Site: 2 Years After the Hebei Spirit Oil Spill. *Environmental Science and Technology*, 45: 7481-7488.
- Kaisarevic, S., Hilscherova, K., Weber, R., Sundqvist, K.L., Tysklind, M., Voncina, E., Bobic, S., Andric, N., Pogrmic-Majkic, K., Vojinovic-Miloradov, M., **Giesy, J.P.** and Kovacevic, R. 2011. Characterization of Dioxin-Like Contamination in Soil and Sediments from the "Hot Spot" Area of Petrochemical Plant in Pancevo (Serbia). *Environmental Science and Pollution Research*, 18: 677-686. DOI 10.1007/s11356-010-0418-8.
- Khaliq, M.N.**, Ouarda, T.B.M.J., Gachon, P. and Sushama, L. 2011. Stochastic modeling of hot weather spells and their characteristics. *Climate Research*. **47**: 187–199.
- Kigobe, M., McIntyre, N., Wheeler, H.S. and Chandler, R. 2011. Multi-site stochastic modelling of rainfall in Uganda. *Hydrological Sciences Journal*, 56(1): 17-33.
- Kort, J., Bank, G., **Pomeroy, J.W.** and Fang, X. 2011. Effects of shelterbelts on snow distribution and sublimation. *Agroforestry Systems*, **86**(3): 335-344. DOI:10.1007/s10457-011-9466.4.
- Lam, T.I., Chan, H.W., Chau, C.K., Poon, C.S., and **Chun, K.P.** 2011. Environmental management system vs green specifications: How do they complement each other in the construction industry? *Journal of Environmental Management*, 92(3): 788-795. doi: 10.1016/j.jenvman.2010.10.030).
- Lanni C., Rigon, R. and **McDonnell, J.J.** 2011. On the relative role of upslope and downslope topography for describing water flowpath and storage dynamics: a theoretical analysis. *Hydrological Processes*, 25(25): 3909-3923. DOI: 10.1002/hyp.8263.
- Lee, X., Goulden, M.L., Hollinger, D.Y., **Barr, A.**, Black, T.A., Bohrer, G., Bracho, R., Drake, B., Goldstein, A., Gu, L., Katul, G., Kolb, T., Law, B., Margolis, H., Meyers, T., Monson, R., Munger, W., Oren, R., Paw, U.K.T., Richardson, A.D., Schmid, H.P., Staebler, R., Wofsy, S. and Zhao, L. 2011. Observed increase in local cooling effect of deforestation at higher latitudes. *Nature*, 479: 384-384. DOI:10.1038/nature10588.
- Li, X., Luo, W., Lu, Y.-L., Wang, T., Chen, C., **Giesy, J.P.**, Zhang, Y. and Li, J. 2011. Status and fuzzy comprehensive assessment of metals and arsenic contamination in farmland soils along the Yanghe River, China. *Chemical Ecology*, 27: 415-426. DOI.org/10.1080/02757540.2011.595711.

- Liber, K., Doig, L.E.** and White-Sobey, S.L. 2011. Toxicity of uranium, molybdenum, nickel, and arsenic to *Hyalella azteca* and *Chironomus dilutus* in water-only and spiked-sediment toxicity tests. *Ecotoxicology and Environmental Safety*, 74: 1171-1179.
- Lindenschmidt, K.-E.,** Sydor, M. and Carson, R. 2011. Ice jam modelling of the Red River in Winnipeg. 16th CRIPE Workshop on the Hydraulics of Ice Covered Rivers, Winnipeg, September 2011, pp. 274-290. http://cripe.civil.ualberta.ca/Downloads/16th_Workshop/Lindenschmidt-et-al-2011b.pdf
- Lindenschmidt, K.-E.,** van der Sanden, J., et al. 2011. Characterising river ice along the Lower Red River using RADARSAT-2 imagery. 16th CRIPE Workshop on the Hydraulics of Ice Covered Rivers, Winnipeg, September 2011, pp. 198 -213. http://cripe.civil.ualberta.ca/Downloads/16th_Workshop/Lindenschmidt-et-al-2011a.pdf.
- Liu, C., Zhang, X., Deng, J., **Hecker, M.,** Khedhairi, A., **Giesy, J. P.,** and Zhou, B. 2011. Effects of Prochloraz or Propylthiouracil on the Cross-Talk between the HPG, HPA, and HPT Axes in Zebrafish. *Environmental Science and Technology*, 45: 769–775. DOI: 10.1021/es102659p.
- Mahmood, T. H.** and Vivoni, E. R. 2011. A climate-induced threshold in hydrologic response in a semiarid ponderosa pine hillslope. *Water Resources Research*, 47: W09529, doi:10.1029/2011WR010384.
- Mahmood, T. H.** and Vivoni, E. R. 2011. Breakdown of hydrologic patterns upon model coarsening at hillslope scales and implications for experimental design. *Journal of Hydrology*, 411(3-4): 309-321. DOI: 10.1016/j.jhydrol.2011.10.011.
- Martin, A.J., Simpson, S., Fawcett, S., Wiramanaden, C.I.E., **Pickering, I.J.,** Belzile, N., Chen, Y.-W., London, J. and Wallschläger, D. 2011. Biogeochemical mechanisms of selenium exchange between water and sediments in two contrasting lentic environments. *Environmental Science and Technology*, 45(7): 2605-2612. DOI: 10.1021/es103604p.
- McDonnell, J.J.** 2011. Foreword, to D. Levia, D. Carlyle-Moses and T. Tanaka (eds.) *Forest Hydrology and Biogeochemistry: Synthesis of Past Research and Future Directions*, Springer, 740pp.
- McDonnell, J.J.** and C. Kendall. 2011. Foreword, to *Isotope Hydrology*, Weizu Gu et al. (eds), Science Press, Beijing (in Chinese), 1113pp.
- McIntyre, N., Young, P., Orellana, B., Marshall, M., Reynolds, B. and **Wheater, H.S.** 2011. Identification of nonlinearity in rainfall-flow response using data-based mechanistic modeling. *Water Resources Research*, 47. DOI:10.1029/2010WR009851.
- Mladjic, B., Sushama, L., **Khaliq, M.N.,** Laprise, R., Caya, D. and Roy, R. 2011. Canadian RCM projected changes to extreme precipitation characteristics over Canada. *Journal of Climate*, 24: 2565–2584.
- Myint, S.W., **Gober, P.,** Brazel, A., Grossman-Clarke, S. and Weng, Q. 2011. Per-pixel vs. object-based classification of urban land cover extraction using high spatial resolution imagery. *Remote Sensing of Environment*, 115(5): 1145-1161.
- Naile, J.E., Khim, J.-S, Wang, T., Wan, Y., Luo, W., Hu, W, Jiao, W., Park, J., Ryu, J., Hong, S, **Jones, P. D.,** Lu, Y. and **Giesy, J. P.** 2011. Sources and distribution of polychlorinated-dibenzo-p-dioxins and -dibenzofurans in soil and sediment from the Yellow Sea region of

- China and Korea. *Environmental Pollution*, 159(4): 907-917. DOI: 10.1016/Journal Environmental Pollution.2010.12.017.
- Nazemi, A.-R., Elshorbagy, A.** and Pingale, S. 2011. Uncertainties in the estimation of future annual extreme daily rainfall for the city of Saskatoon under climate change effects, In Proceedings of Canadian Society of Civil Engineering, 14-17 June 2011, Ottawa, Canada.
- Paule, A.,** Bauga, B., Ten-Hage, L., Duran, R., Paul, E. and Rols, J.L. 2011. A photosynthetic rotating annular bioreactor (Taylor-Couette type flow) for phototrophic biofilm cultures. *Water Research*, 45(18): 6107-6118. DOI: 10.1016/j.watres.2011.09.007.
- Pechlivanidis, I., Jackson, B., McIntyre, N. and Wheeler, H.S. 2011. Catchment scale hydrological modelling: A review of model types, calibration approaches and uncertainty analysis methods. *Global NEST Journal*, 13(3): 193-214.
- Phibbs, J., Wiramanaden, C.I.E., Hauck, D., **Pickering, I.J., Liber, K.** and **Janz, D.M.** 2011. Selenium uptake and speciation in wild and caged fish downstream of a metal mining and milling discharge. *Ecotoxicology and Environmental Safety*, 74(5): 1139-1150. DOI: 10.1016/j.ecoenv.2011.02.020.
- Phibbs, J., Franz, E., Hauck, D., Gallego, M., Tse, J.J., **Pickering, I.J., Liber, K.** and **Janz, D.M.** 2011. Evaluating the trophic transfer of selenium in aquatic ecosystems using caged fish, X-ray absorption spectroscopy and stable isotope analysis. *Ecotoxicology and Environmental Safety*, 74(7): 1855-1863. DOI: 10.1016/j.ecoenv.2011.06.015.
- Phillips, R.W., **Spence, C.** and **Pomeroy, J.W.** 2011. Connectivity and runoff dynamics in heterogeneous basins. *Hydrological Processes*, 25: 3061-3075. DOI:10.1002/hyp.8123.
- Pomeroy, J.W.,** Fang, X., Ellis, C.R. and Guan, M. 2011. Sensitivity of Snowmelt Hydrology on Mountain Slopes to Forest Cover Disturbance. *Centre for Hydrology Report No. 10.* Centre for Hydrology, University of Saskatchewan.
- Pomeroy, J.W.,** Fang, X. and Williams, B.T. 2011. Modelling Snow Water Conservation on the Canadian Prairies. *Centre for Hydrology Report No. 11.* Centre for Hydrology, University of Saskatchewan.
- Pourrezaeia, P., Drzewicz, M. P., Wang, Y., Gamal El-Din, M., Perez-Estrada, L.A., Martin, J.W., Anderson, J., Wiseman, S., **Liber, K.** and **Giesy, J.P.** 2011. The Impact of Metallic Coagulants on the Removal of NOM from Oil Sands Process Affected Water. *Environmental Science and Technology*, 45: 8452-8459. DOI: 10.1021/es201498v.
- Puttaswamy, N. and **Liber, K.** 2011. Identifying the causes of oil sands coke leachate toxicity to aquatic invertebrates. *Environmental Toxicology and Chemistry*, 30: 2576-2585.
- Sagin, J.,** Forman, S. and Sultan, M. 2011. Dunes and Wetlands, LAP Academic Publishing, ISBN – 978-3-8433-8586-2.
- Sagintayev, Z., Sultan, M., Khan, S.D., Khan, A.S., Mahmood, K., Yan, E., Milewski, A. and Marsala, P. 2011. Remote Sensing Contributions to Hydrologic Modeling in Arid and Inaccessible Watersheds, Pishin Lora Basin, Pakistan. *Hydrological Processes*, 26(1): 85-99. <http://onlinelibrary.wiley.com/doi/10.1002/hyp.8114/full>
- Sampson, D.A., Escobar, V., Tschudi, M.K., Lant, T. and **Gober, P.** 2011. A provider-based water planning and management model – Watersim 4.0 – for the Phoenix Metropolitan Area. *Journal of Environmental Management*, 92(10): 2596-2610.
- Sayama, T., **McDonnell, J.J.,** Dhakal, A. and Sullivan, K. 2011. How much water can a watershed store? *Hydrological Processes*, 25: 3899-3908. DOI: 10.1002/hyp.8288.

- Sereda, J., Bogard, M., **Hudson, J.**, Dessouki, T. and Helps, D. 2011. Climate warming and the onset of salinization: rapid changes in the limnology of two northern plains lakes. *Limnologica*, 41: 1-9.
- Sereda, J. and **Hudson, J.** 2011. Empirical models for predicting the excretion of nutrients (N and P) by aquatic metazoans: taxonomic differences in rates and element ratios. *Freshwater Biology*, 56: 250-263.
- Sereda, J., **Vandergucht, D.** and **Hudson, J.** 2011. Disruption of planktonic phosphorus cycling by ultraviolet radiation. *Hydrobiologia*, 665: 205-217. DOI:10.1007/s10750-011-0623-6.
- Seston, R.M., Zwiernik, M.J., Fredricks, T.B., Tazelaar, D.L., Coefield, S.J., Bradley, P.W., Newsted, J.L., Roark, S.A., Kay, D.P. and **Giesy, J.P.** 2011. Dietary exposure of great blue heron (*Ardea herodias*) to PCDD/DFs in the Tittabawassee River floodplain, Michigan, USA. *Ecotoxicology and Environmental Safety*, 74: 494-503.
- Shook, K.R.** and **Pomeroy, J.W.** 2011. Memory effects of depositional storage in Northern Prairie hydrology. *Hydrological Processes*. 25(25): 3890-3898. DOI: 10.1002/hyp.8381.
- Shook, K.R.** and **Pomeroy, J.W.** 2011. Synthesis of incoming shortwave radiation for hydrological simulation. *Hydrology Research*, 42(6): 433-446.
- Štěpánková, T., Ambrožová, L., Bláha, L., **Giesy, J.P.** and Hilscherová, K. 2011. Modulation of nuclear receptor signaling *in vitro* by extracts of laboratory cyanobacterial strains, complex water bloom samples and their fractions. *Aquatic Toxicology*, 105: 497-507. DOI: 10.1016/j.aquatox.2011.08.002.
- Sushama, L., **Khaliq, M.N.**, Laprise, R., Caya, D. and Roy, R. 2011. Assessment of climate change impacts on Canadian water resources using regional climate model projections. *Proceedings of the International Perspective on Water Resources and the Environment (IPWE)*, Singapore.
- Vardy, D., Thompset, A.R., Sigurdson, J.L., Doering, J.A., Zhang, X., **Giesy, J.P.** and **Hecker, M.** 2011. Effects of Sub-chronic Exposure of Early Life Stages of white sturgeon (*Acipenser transmontanus*) to copper, cadmium and zinc. *Environmental Toxicology and Chemistry*, 30: 2497-2505.
- Wan, H.T., Zhao, Y., Wong, M.H., **Giesy, J.P.** and Wong, C.K.C. 2011. Testicular Signaling is the Potential Target of Perfluorooctanesulfonate-Mediated Subfertility in Male. *Mice Biological Reproduction*, 84: 1016-1023. DOI 10.1095/biolreprod.110.089219.
- Wang, H. S., Du, J., Leung, H.M., Liang, P., **Giesy, J.P.**, Wong, C.K.C. and Wong, M.H. 2011. Distribution and Source Apportionments of Polychlorinated Biphenyls (PCBs) in Mariculture Sediments from the Pearl River Delta, South China. *Marine Pollution Bulletin Journal*, 63: 516-522. DOI:10.1016/j.marpolbul.2011.02.009.
- Wang, T., Chen, C., Jiao, W., Naile, J.E., Khim, J.-S., **Giesy, J.P.** and Lu, Y.-Y. 2011. Perfluorinated Compounds in Water, Sediment and Soil from Guanting Reservoir, China. *Bulletin of Environmental Contamination and Toxicology*, 87: 74-79. DOI 10.1007/s00128-011-0307-y.
- Wang, T., Lu, Y.-L., Chen, C., Naile, J.E., Khim, J.-S., Park, J., Luo, W., Jiao, W., Hu, W. and **Giesy, J.P.** 2011. Perfluorinated Compounds in Estuarine and Coastal Areas of North Bohai Sea, China. *Marine Pollution Bulletin*, 62: 1905-1914.
- Wang, X., Wu, J., Hao, Y., Zhou, B., Shi, W., Hu, G., Han, X., **Giesy, J.P.** and Yu, H.-X. 2011. Reproductive Toxicity Assessment of Surface Water of the Tai Section of the Yangtze

- River, China by *In Vitro* Bioassays Coupled with Chemical Analysis. *Environmental Pollution*, 159: 2720-2725. DOI: 10/1016j.envpol.1.2011.o5.019.
- Wei, X, Huang, Y., Wong, M. H., **Giesy, J.P.** and Wong, C.K.C. 2011. Assessment of Risk to Humans of Bisphenol A in Marine and Freshwater Fish from Pearl River Delta, China. *Chemosphere*, 85: 122-128. DOI:10.1016/j.chemosphere.2011.05.038.
- Whitehead, P.G., Jin, L., **Baulch, H.M.**, Butterfield, D.A., Oni, S.K., Dillon, P.J., Futter, M., Wade, A.J., **North, R.**, O'Connor, E.M. and Jarvie, H.P. 2011. Modelling phosphorus dynamics in multi-branch river systems: A study of the Black River, Lake Simcoe, Ontario, Canada. *Science of the Total Environment*, 412-413: 315-323. DOI:10.1016/j.scitotenv.2011.09.073.
- Whitfield, C.J., Aherne, J. and **Baulch, H.M.** 2011. Controls on greenhouse gas concentrations in polymictic headwater lakes in Ireland. *Science of the Total Environment*, 410-411: 217-225. <http://dx.doi.org/10.1016/j.scitotenv.2011.09.045>.
- Wiseman, S., Thomas, J.K., Higley, E., Hursky, O., Pietrock, M., Raine, J.C., **Giesy, J.P.**, **Janz, D.M.** and **Hecker, M.** 2011. Chronic Exposure to Dietary Selenomethionine Increases Gonadal Steroidogenesis in Female Rainbow Trout. *Aquatic Toxicology*, 105: 218–226. DOI:10.1016/j.aquatox.2011.06.012.
- Wiseman, S., Thomas, J.K., McPhee, L., Hursky, O., Raine, J.C., Pietrock, M., **Giesy, J.P.**, **Hecker, M.** and **Janz, D.M.** 2011. Attenuation of the Cortisol Response to Stress in Female Rainbow Trout Chronically Dietary Selenomethionine. *Aquatic Toxicology*, 105: 643-651. DOI: 10.1016/j.aquatox.2011.09.002.
- Yang, S.I., Lawrence, J.R., Swerhone, G.D.W. and **Pickering, I.J.** 2011. Biotransformation of selenium and arsenic in multi-species biofilm. *Environmental Chemistry*, 8(6): 543-551. DOI: 10.1071/EN11062.
- Yu, H.-Y., Zhang, B.-Z., **Giesy, J.P.** and Zeng, E.Y. 2011. Persistent Halogenated Compounds in Aquaculture Environments of South China: Implications for Global Consumers' Health Risk via Fish Consumption. *Environment International*, 37: 1190-1195. DOI: 10.1016/j.envint.2011.04012.
- Zhang, X., Wiseman, S., Yu, H., Liu, H., **Giesy, J.P.** and **Hecker, M.** 2011. Assessing the toxicity of naphthenic acids using a microbial genome wide live cell reporter array system. *Environmental Science and Technology*, 45: 1984-1991. DOI: org/10.1021/es1032579.
- Zhao, Y.Z., Wan, H.T., Law, A.Y.S., Wei, X., Huang, Y.-Q., **Giesy, J.P.**, Wong, M.H. and Wong, C.K.C. 2011. Risk Assessment for Human Consumption of Perfluorinated Compounds-contaminated Freshwater and Marine Fish from Hong Kong and Xiamen. *Chemosphere*, 85: 277-283. DOI: 10.1016/j.chemosphere.2011.06.002.