

## 7. PUBLICATIONS

### 7.1 Submitted or Under Revision (Various)

Anisimov, O. et al. 2014. Chapter 28, Polar Regions (Arctic and Antarctica). In: Climate Change 2013: Impacts, Adaptation and Vulnerability. Contribution of Working Group II to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change. (to be released in 2014).

Bawden, A., Linton, H., Burn, D.H. and Prowse, T.D. 201x. Recent changes in patterns of western Canadian river flow and association with climatic drivers. *Hydrological Processes* (submitted.).

Bawden, A., Burn, D.H. and Prowse, T.D. 201x. A spatiotemporal analysis of hydrological trends in Athabasca River region, Canada. *Journal of Hydrology* (submitted).

Eum, H., Dibike, Y., Prowse, T. and Bonsal, B. 201x. Inter-comparison of high-resolution gridded climate data sets and their implication on hydrological model simulation over the Athabasca Watershed, Canada. *Hydrological Processes* (submitted).

Eum, H., Dibike, Y. and Prowse, T. 201x. Uncertainty in modelling the hydrologic responses of a large watershed: A case study of the Athabasca River Basin, Canada. *Hydrological Processes* (submitted).

Jarret, T., Prowse, T.D. and Smith, D.J. 201x. A 616-year reconstruction of May-July precipitation variability on southern Vancouver Island, British Columbia, Canada. *Dendrochronologia* (submitted).

Linton, H., Prowse, T., Dibike, Y. and Bonsal, B. 201x. Spatial and temporal analysis of hydroclimatic variables affecting streamflow in western Canada from 1950-2010. *Hydrological Processes* (submitted, HYP-13-0687).

Moquin, P.A., Mesquita, P.S., Wrona, F.J. and Prowse, T.D. 201x. Responses of benthic invertebrate communities to shoreline retrogressive thaw slumps in Arctic upland lakes. *Freshwater Science* (submitted).

Newton, B., Prowse, T. and Bonsal, B. 201x. Evaluating the distribution of water resources in western Canada using synoptic climatology and selected teleconnections. Part 1: Winter season. *Hydrological Processes* (submitted: HYP-13-0686).

Newton, B., Prowse, T. and Bonsal, B. 201x. Evaluating the distribution of water resources in western Canada using synoptic climatology and selected teleconnections. Part 2: Summer season. *Hydrological Processes* (submitted: HYP-13-0688).

Ahmed, R., Prowse, T.D., Bonsal, B.R. and Dibike, Y.B. 2013. Temporal sequencing of annual spring runoff in four major Arctic-draining rivers. *Polar Science* (accepted for publication with minor revision).

Vaughan, D.G. et al. 2013. Chapter 4, Observations : Cryosphere. In: *Climate Change 2013: The Physical Science Basis. Contribution to of Working Group I to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change* (in press).

Jackson, S.I. Prowse, T.D. and Bonsal, B.R., 201x. Atmospheric boundary-layer conditions associated with snow ablation in a semi-arid basin of Western Canada. *Journal of Hydrology* (under revision).

von de Wall, S.J., Prowse, T.D., Wrona, F.J. and de Rham, L.P. 201x. An assessment of annual peak spring break-up and open water levels on Canadian rivers. *Hydrological Processes* (under revision).

## **7.2 Refereed Journal Articles (Published/Accepted/In Press)**

Brooks, R.N., Prowse, T.D. and O'Connell, I.J. 2013. Quantifying northern-hemisphere freshwater ice. *Geophysical Research Letters*: DOI:10.1002/grl.50238.

Shrestha, R.R., Dibike, Y.B. and Prowse, T.D. 2012. Modelling climate change impacts on hydrology and nutrient loading in the Upper Assiniboine catchment. *Journal of American Water Resources Association*, 48(1): 74-89. DOI: 10.1111/j.1752-1688.2011.00592.x.

Thompson, M.S., Wrona, F.J. and Prowse, T.D. 2012. Shifts in plankton, nutrient and light relationships in small tundra lakes caused by localized permafrost thaw. *Arctic*, 66 (4): 367-376.

Beltaos, S., Carter, T. and Prowse, T. 2011. Morphology and genesis of deep scour holes in the Mackenzie Delta. *Canadian Journal of Civil Engineering*, **38**, 638-649.

Callaghan, T.V., Johansson, M., Prowse, T.D., Olsen, M.S. and Reiersen, L.-O, 2011. Arctic Cryosphere: Changes and Impacts. *Ambio* 40:3–5. DOI 10.1007/s13280-011-0210-0.

Callaghan, T.V., Johansson, M. Key, J., Prowse, T., Ananicheva, M. and Klepikov, A. 2011. Feedbacks and Interactions: From the cryosphere to the climate system. *Ambio* 40:75–86. DOI 10.1007/s13280-011-0215-8.

Olsen, M.S., Callaghan, T.V., Reist, J.D., Reiersen, L.O., Dahl-Jensen, D., Granskog, M.A., Goodison, B., Hovelsrud, G.K., Johansson, M., Kailenborn, R., Key, J., Klepikov, A., Meier, W., Overland, J.E., Prowse, T.D., Sharp, M., Vincent, M.F. and Walsh, H. M.S., 2011. The Changing Arctic Cryosphere and likely Consequences: an Overview. *Ambio* 40: 111-118.

Dibike, Y., Prowse, T., Saloranta, T. and Ahmed R. 2011. Response of Northern Hemisphere lake-ice cover and lake-water thermal structure patterns to a changing climate. *Hydrological Processes*, **25**, 2942–2953; doi: 10.1002/hyp.8068.

Dibike, Y., Prowse, T., Bonsal, B., de Rham, L. and Saloranta, T. 2011. Simulation of North American Lake-ice Cover Characteristics under Contemporary and Future Climate Conditions. *International Journal of Climatology*, doi: 10.1002/joc.2300.

Dibike, Y., Prowse, T., Shrestha, R. and Ahmed, R. 2011. Observed trends and future projections of precipitation and temperatures in the Lake Winnipeg Watershed. *Journal of Great Lakes Research*, doi:10.1016/j.jglr.2011.04.005.

Kääb, A. and Prowse, T.D. 2011. Cold regions river flow observed from space. *Geophysical Research Letters*, 38, L08403, doi:10.1029/2011GL047022.

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Prowse, T., Alfredsen, K., Beltaos, S., Bonsal, B., Duguay, C., Korhola, A., McNamara, J., Vincent, W.F., Vuglinsky, V. and Weyhenmeyer, G.A. 2011. Arctic freshwater ice and its climatic role. *Ambio* 40:46–52. DOI 10.1007/s13280-011-0214-9.

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Bennett, K.E. and Prowse, T.D. 2010. Northern-Hemisphere Geography of Ice-Covered Rivers. *Hydrological Processes*, 24: 235-240.

Mesquita, P.S., Wrona, F.J., Prowse, T.D. 2010. Effects of retrogressive thaw slumping on sediment chemistry and submerged macrophytes in Arctic tundra lakes. *Freshwater Biology* 55, 2347–2358; doi:10.1111/j.1365-2427.2010.02450.x

Prowse, T.D., Shrestha, R., Bonsal, B. and Dibike, Y. 2010. Changing spring air-temperature gradients along large northern rivers: Implications for severity of river-ice floods. *Geophys. Res. Lett.*, 37, L19706, doi:10.1029/2010GL044878.

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de Rham, L.P., Prowse, T.D., Beltaos, S. and Bonsal, B.R. 2009. Hydrology and climatology of the spring river-ice break-up, Mackenzie River Basin, Canada. Poster. Environment Canada Science and Technology Forum. April 28-29, 2009. Victoria, BC

Goulding, H. and Prowse, T.D. 2007.

Assessing the role of hydroclimatic controls on the occurrence of extreme hydrological events in the Mackenzie Delta, N.W.T. Poster at the 8th International ACUNS Student Conference on Northern Studies. Saskatoon, SK. Oct 18-21.

Lévesque, L.M. and Prowse T.D. 2006. Future climate change and potential impacts on permafrost and water resources in Nunavut. Abstracts of the 30<sup>th</sup> Scientific Meeting of the Canadian Geophysical Union, 10-14 May, Banff, AB, Canada.

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Prowse, T.D. 2006. Invited talk: Vulnerability of Freshwater Ice. Vulnerability of Cryospheric and Socio-Economic Systems Workshop, 26-28 Feb. 2006, Peter Wall Institute, University of British Columbia, Vancouver, Canada.

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Reist, J.D., Wrona, F.J. and Prowse, T.D. 2006. Climate change impacts on arctic freshwater ecosystems and fisheries – ACIA Chapter 8. 59<sup>th</sup> Canadian Conference for Fisheries Research, 5-7 January 2006, Calgary, AB, Canada.

Furgal, C. and Prowse, T. 2005. Assessing Climate Impacts and Adaptation in the Canadian North: A northern view for the National Climate Assessment. ArcticNet Science Conference, Banff, AB, Canada, December 12-14.

Peters, D.L., Beltaos, S., Bonsal, B.R., Krishnappan, B.G., Lacroix, M.P. and Prowse, T.D. 2005. Extreme hydrological events in the Mackenzie River Delta, Canada: Project

overview and preliminary findings. Second International Conference on Arctic Research Planning, November 10-12, Copenhagen, Denmark.

Prowse, T.D. and Shen, H.T. 2005. River ice ecology. Invited talk to: World Water & Environmental Resources Congress 15-19 May 2005, Anchorage, AK, USA.

Prowse, T.D., 2005. Terrestrial cryosphere in the climate system. Invited plenary talk to 1<sup>st</sup> International CliC Science Conference, Climate and the Cryosphere, Beijing, China, 11-15 April 2005.

Prowse, T.D., and Lévesque, L.M. 2005. Climate change in arctic hydrologic systems: A focus on importance to freshwater ecosystems. Invited talk to: Adapting to Climate Change in Canada, May 4-7, Montréal, Canada.

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Prowse, T.D. 2004. Climate Change in the Arctic: The Arctic Climate Impact Assessment. Invited plenary talk to 4<sup>th</sup> International Symposium of Science Journalists, 4-8 October, Montreal, Quebec, Canada.

Prowse, T.D. 2004. Climate Change Impacts On Water: a review of issues from “*Threats to Water Availability in Canada*” Invited talk, 57<sup>th</sup> CWRA Annual Conference Montreal, Quebec, June 16-18, 2004.

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- Leconte, R., Peters, D.L., Pietroniro, A. and Prowse, T.D. 1999. Climate fluctuation and the hydrologic response of the Peace-Athabasca Delta. In: Abstracts of the 25<sup>th</sup> Scientific Meeting of the Canadian Geophysical Union, May 9-13, Banff, Canada.

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