

**JEFFREY J. MCDONNELL, Ph.D., D.Sc.**

Professor of Hydrology, School of Environmental Sustainability, University of Saskatchewan  
 Associate Director, Global Institute for Water Security, University of Saskatchewan  
 6<sup>th</sup> Century Chair in Hydrology, University of Aberdeen  
 University Distinguished Professor of Hydrology (Adjunct), Oregon State University  
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 Tel: +1-306-966-1990; Lab URL: <http://www.usask.ca/watershed/>  
 Google Scholar page: <http://scholar.google.ca/citations?user=EkZI9xkAAAAJ&hl=en>

**EDUCATION**

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- 1989 Ph.D., **Forest Hydrology**, University of Canterbury, Christchurch, New Zealand.  
 Dissertation: "The age, origin and pathway of subsurface stormflow in a steep humid headwater catchment", 270p.
- 1985 M.Sc., **Watershed Ecosystems**, Trent University, Peterborough, Canada.  
 Thesis: "Snowcover ablation and meltwater runoff on a small Precambrian Shield watershed", 127p.
- 1983 B.Sc. (Honors), **Physical Geography**, University of Toronto, Toronto, Canada. Thesis: "Storm waves, sediment flux and beach morphodynamics in a barred nearshore zone, Wymbolwood Beach, Ontario", 110p.

**REGISTRATION**


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1999- P.H., Registered Professional Hydrologist (reg'n #1506), American Institute of Hydrology.

**PROFESSIONAL EXPERIENCE**

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- 2012 Associate Director, Global Institute for Water Security, University of Saskatchewan, Saskatoon.
- 2012 Professor of Hydrology, Global Institute for Water Security and School of Environment and Sustainability, University of Saskatchewan, Saskatoon.
- 2009-11 Director, Institute for Water and Watersheds, Oregon State University; Distinguished Professor of Hydrology, Oregon State University, Corvallis Oregon.
- 1999-2011 Professor and Richardson Chair in Watershed Science, Department of Forest Engineering, Resources and Management, Oregon State University, Corvallis, Oregon.
- 1993-99 Professor of Hydrology (1997-99), Associate Professor (1993-97), State University of New York (SUNY), College of Environmental Science and Forestry, Syracuse, New York.
- 1989-93 Assistant Professor of Forest Hydrology, Watershed Science Unit, Department of Forest Resources, Utah State University (adjunct Dept. Civil & Env. Engineering; adjunct Dept of Geography; Coordinator, NASA Earth System Science Education Program 1991-93)
- 1989-90 Research Hydrologist, NASA Marshall Space Flight Center, Universities Space Research Assoc., Huntsville, Alabama.

**MAJOR AWARDS**

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- 2011 Birdsall-Dreiss Distinguished Lecturer Award, Geological Society of America  
 2011 EPA Scientific and Technological Achievement Award

- 2009 University Distinguished Professor, Oregon State University
- 2009 John Dalton Medal, European Geosciences Union
- 2009 Fellow, American Geophysical Union
- 2009 Doctor of Science (D.Sc.), University of Canterbury
- 1998 Gordon Warwick Award, British Geomorphological Research Group
- 1990 Warren Nystrom Award, Association of American Geographers

**OTHER RECOGNITION**

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- 2012 Highest cited paper in Hydrological Processes, John Wiley and Sons
- 2008 Teaching and Mentoring Award, College of Forestry, Oregon State University
- 2005 Fellow and Life Member, International Water Academy, Oslo Norway
- 1995 Scientific Literacy and Information Scholar Award, State University of New York
- 1987 Horton Research Grant Award, American Geophysical Union
- 1987 Canterbury Earth Science Prize, Geological Society of New Zealand
- 1986 Commonwealth Scholarship and Research Fellowship, New Zealand/Canada
- 1985 John B. Webb Memorial Trophy, Canadian Society of Petroleum Geologists

**NAMED LECTURES**

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- 2013 Nannerl Keohane Distinguished Lecture, UNC Chapel Hill, NC.
- 2012 Borland Lecture, Hydrology Days, Colorado State University, Fort Collins CO
- 2011 Birdsall-Dreiss Distinguished Lecturer, Geological Society of America
- 2009 Woo Lecture, Canadian Geophysical Union
- 2006 Boussinesq Lecture, The Boussinesq Society, TU Delft, The Netherlands
- 2006 Frontier Lecture, American Geophysical Union
- 2006 Penman Lecture, British Hydrological Society, Durham, UK

**OTHER PROFESSIONAL DISTINCTIONS**

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**Named and Visiting Appointments and Fellowships:**

- 2013 Nannerl Keohane Distinguished Visiting Professor, University of North Carolina at Chapel Hill and Duke University.
- 2012- Distinguished Professor of Hydrology (Adjunct), Oregon State University, Corvallis
- 2009 6th Century Chair of Hydrology, University of Aberdeen, Scotland
- 2009-2013 Invited Visiting Professor, Hohai University, Nanjing China
- 2008-2013 Invited Visiting Professor, Nanjing Hydraulic Research Institute, China
- 2009 Visiting Project Scientist, Isotope Hydrology Division, International Atomic Energy Agency, Vienna, Austria
- 2006-07 Fellow and Visiting Professor, Dept. Civil Engineering, Delft, The Netherlands
- 2006 DIG Scholar, Dept. of Geography, University of Durham.
- 2005 STINT Fellow, Swedish National Science Foundation, University of Stockholm.
- 2004 Institute for the Study of Planet Earth Speaker, University of Arizona.
- 2003 Gledden Fellow, Center for Environmental Fluid Dynamics, University of Western Australia.
- 2000 Visiting Professor, Institute of Hydrology, Freiburg University.
- 1999 Named Chair, Richardson Chair in Watershed Science, Oregon State University
- 1999 Leverhulme Trust Visiting Professor, Institute for Advanced Studies, Bristol University.
- 1998 Hayward Fellow, LandCare New Zealand Ltd.

- 1997 Invited Visiting Hydrologist, LandCare New Zealand.
- 1997 STA Fellow, Japan Science and Technology Agency, Japan Forestry and Forest Products Research Institute
- 1989 Invited Fellow, Universities Space Research Association (USRA), NASA Marshall Space Flight Center.

#### **Current Journal Editorships:**

- 2013 Associate Editor, Journal of Hydrology and Hydromechanics, Open access journal.
- 2012 Editorial Board, Journal of Hydrogeology and Hydrologic Engineering, Sci-Technol.
- 2012 Editorial Board, Riparian Ecology and Conservation, Versita and Springer.
- 2012 Editorial Board, Water, MDPI Publishers, Switzerland.
- 2011 Editorial Board, Advances in Water Science (China), UNESCO
- 2011 Editorial Board, International Journal of Hydrology Science and Technology, Inderscience Enterprises Ltd (UK).
- 2007 Editorial Board, Ecohydrology, John Wiley and Sons.
- 2004 Editorial Advisory Board, Forest Science and Technology, Taylor and Francis Ltd
- 2004 Editor-in-Chief, Benchmark Papers in Hydrological Sciences, Book Series, IAHS Press.
- 2004 Senior Advisory Editor, Encyclopedia of Hydrology, John Wiley and Sons.
- 1994 Editorial Board Member, Hydrological Processes, John Wiley and Sons.

#### **TRAINING OF HIGHLY QUALIFIED PERSONNELL**

**55 Post Docs, PhD students and MSc students; supervised also 11 technicians and 20 undergrad lab workers**

#### **KEY PAPERS (out of ~200; >9000 citations in total; h-index 55; i10-index 119; 2 papers in Nature)**

- Laudon, H, D. Tetzlaff, C. Soulsby, S. Carey, J. Seibert, J. Buttle, J. Shanley, J.J. McDonnell and K. McGuire, 2013. Change in winter climate will affect dissolved organic carbon and water fluxed in mid-to-high latitude catchments, *Hydrological Processes*, 27(5): 700-709. DOI: 10.1002/hyp.9686.
- Ali, G., Tetzlaff, D., Soulsby, C. & 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.
- Wohl, E., A. Barros, N. Brunzell, N. Chappell, M. Coe, T. Giambelluca, S. Goldsmith, R. Harmon, J. Hendrickx, J. Juvik, J.J. McDonnell, F. Ogden, 2012. A research vision for hydrology of the humid tropics: Balancing water, energy, and land use. *Nature (Climate Change)*, 2: 655-662.
- Brooks, R., R. Barnard, R. Coulombe and J.J. McDonnell, 2010. Two water worlds paradox: Trees and streams return different water pools to the hydrosphere. *Nature-Geoscience*, 3: 100-104, doi: 10.1038/NGEO722.
- McDonnell, J., K. McGuire, P. Aggarwal, K. Beven, D. Biondi, G. Destouni, S. Dunn, A. James, J. Kirchner, P. Kraft, S. Lyon, P. Maloszewski, B. Newman, L. Pfister, A. Rinaldo, A. Rodhe, T. Sayama, J. Seibert, K. Solomon, C. Soulsby, M. Stewart, D. Tetzlaff, C. Tobin, P. Troch, M. Weiler, A. Western, A. Wörman, S. Wrede, 2010. How old is the water? Open questions in catchment transit time conceptualization, modelling and analysis. *Hydrological Processes*, 24(12): 1745-1754.
- McDonnell, J.J., M. Sivapalan, K. Vaché S. Dunn, G. Grant, R. Haggerty, C. Hinz, R. Hooper, J. Kirchner, M. L. Roderick, J. Selker and M. Weiler, 2007. Moving beyond heterogeneity and process complexity: A new vision for watershed hydrology. *Water Resources Research*, 43, W07301, doi:10.1029/2006WR005467.