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(full CV available upon request)

1. Overview

My professorial career started at Lakehead University's School of Forestry during 1988-98 and continued at Dalhousie's School for Resource and Environmental Studies from 1998 to the present. I was Director of the School during 1998-2004, 2009-2012, and 2017-2018. I retired from active duty in July 2019.

Please Note: due to my retirement in June 2019, *I have stopped taking on new students to supervise.*

2. My Hobbies

- * Choral singing (baritone; mostly early music)
- * Brewing at home (kit and fruit wines, and mead)
- * Photography (novice level; trees mainly)
- * Cycle touring in Europe and Canada
- * Growing trees in the city
- * Home renovations

3. Research Interests

My interests are wide-ranging, and cover both biophysical and socio-political areas including: forest ecology; environmental assessment, particularly impact prediction and monitoring; cumulative effects assessment; natural resources decision-making; land-use and forest planning; biodiversity assessment modelling; forest management and policy; climate change and forests; conflict resolution and public participation; forest sustainability; criteria and indicators of sustainable forest management; conservation of old-growth forests; European forests; forests in protected areas; urban forests; forest futures using scenario analysis.

4. Continuing Research Activities

Urban Forests

Since 2010 I have taken annual research contracts with the Halifax Regional Municipality to assist in preparation of and support for the city's first-ever urban forest master plan (UFMP - see <http://www.halifax.ca/RealPropertyPlanning/UFMP>). The plan was approved by HRM Council in September 2012. We continue to support the implementation process for the UFMP with research, monitoring, and public-engagement activities.

Recent and current thesis projects on urban forests include: (a) optimal street-tree spacing; (b) priority-setting for citizen tree-planting events in city parks; (c) trees on golf courses; (d) canopy improvements in urban cemeteries; and (e) the role of NGOs in urban-forest governance.

Forest Management

My ongoing studies associated with timber-producing forests revolve around movement of dissolved organic carbon into water-supply lakes. I co-supervise PhD student David Foster on this project.

While not strictly research, I am involved with the provincial Department of Lands and Forestry on various sustainability files, including biodiversity, old forests, forest planning, program evaluation, and the impending spruce-budworm outbreak.

5. Graduate Thesis Supervision

Theses Recently Completed under My Supervision/Co-supervision

Jessica Quinton - The Living Amongst the Dead: The Role of Halifax Cemeteries as Greenspace and Their Potential for Expansion of the Urban Forest (completed August 2019)

Julie Bailey - Incorporating Sustainable Energy Decisions in Agriculture (PhD completed Dec 2018)

Mirabai Alexander - A Change Can Do You Good? The Adaptability of Three Forest Birds to the Moose-browsed Grassland of Cape Breton Highlands National Park (MES completed August 2018)

Xin Liu - GIS-based Multi-criteria Decision Analysis (MCDA) for Prioritizing Tree-planting Sites in Halifax Urban Parks (MES completed August 2018)

Jie Ma - Scholar and Practitioner Views on Science in Environmental Assessment (MES completed April 2018)

Bimal Aryal - Economic and Biophysical Implications of Alternative Street-tree Spacings in Halifax, Canada (MES completed December 2017)

Andy Kekacs - Gifts to a Future World: Conversations with Woodland Owners in Nova Scotia (MES completed August 2017)

Aaron Mackinnon - Implementing Science in Environmental Assessment: A Review of Theory (MES completed April 2017)

6. Selected Recent Publications

Book

Mackinnon, A.J., P.N. Duinker, and T.R. Walker. 2018. *The Application of Science in Environmental Impact Assessment*. Routledge Focus on Environment and Sustainability, Taylor & Francis Group, London, UK. 142 pp.

Refereed Journal Papers and Book Chapters

Dietz, S., S. Arnold, and 44 contributing authors (including P.N. Duinker). 2021. Atlantic Provinces. Regional Perspectives Report Chapter 01 in: *Canada in a Changing Climate: Regional Perspectives Report* (F.J. Warren, N. Lulham, and D.S. Lemmen, editors). Government of Canada, Ottawa, ON.

Duinker, P.N. and L.A. Greig. 2021. Scenario planning in cumulative effects assessment. Chapter 06 in *Handbook of Cumulative Impact Assessment* (J.A.E. Blakley and D.M. Franks, editors), pp. 92-105. Edward Elgar Publishing, Cheltenham, UK.

Ordonez, C., J.W.N. Steenberg, and P.N. Duinker. 2021. Vulnerability of urban nature to climate change: Overview of impacts and assessment approaches, with examples from urban forests. Chapter 18 of “*Routledge Handbook of Urban Ecology*”, Second Edition. Editors: Pippin Anderson, Ian Douglas, David Goode, Mike Houck, David Maddox, Harini Nagendra, and Tan Puay Yok. In press.

Aryal, B, J.W.N. Steenberg, and P.N. Duinker. 2021. The effects of residential street tree spacing and crown interactions on crown dimensions and canopy cover. *Arboriculture and Urban Forestry* 47(5):183–195. doi: doi.org/1048044/jauf.2021.017

Sorensen, J.K., P.N. Duinker, M. Zurba, M. Smit. 2021. Testing a novel human-nature connection model with Halifax’s urban forest using a text-messaging engagement strategy. *Urban Forestry and Urban Greening*: submitted; minor revisions required; resubmitted.

Thompson, K., P.N. Duinker, and K. Sherren. 2021. Ecosystem services: A new framework for old ideas, or advancing environmental decision-making? Learning from Canadian forerunners to the ES concept. *Canadian Geographer* 65(3):306-320. doi: 10.1111/cag.12670

Keys, K., D.L. Burton, G.W. Price, and P.N. Duinker. 2021. Ion availabilities in two forest soils amended with alkaline-treated biosolids, agricultural lime, and wood fly ash over a 10-week period. *Canadian Journal of Forest Research* 51:41-48. doi: 10.1139/cjfr-2020-0114

Doll, S.M. and P.N. Duinker. 2020. Characterization and justification of trees on an inner-city golf course in Halifax, Canada: an investigation into the ecological integrity of institutional greenspace. *Forests* 11(1): 96. doi:10.3390/f11010096

Quinton, J., J. Ostberg, and P.N. Duinker. 2020. The importance of multi-scale temporal and spatial

management for cemetery trees in Malmö, Sweden. *Forests* 11: 78. doi:10.3390/f11010078

van der Marel, R.C., P.C. Holroyd, and P.N. Duinker. 2020. Managing motorized route-user networks in Alberta's Eastern Slopes: Applying density limits to the Livingstone-Porcupine Hills public lands. *Global Ecology and Conservation*: accepted.

Quinton, J., P.N. Duinker, J.W.N. Steenberg, and J. Charles. 2020. The living among the dead: cemeteries as urban forests, now and in the future. *Urban Forestry and Urban Greening*: accepted.

Quinton, J., J. Ostberg, and P.N. Duinker. 2020. The influence of cemetery governance on tree management in urban cemeteries: A case study of Halifax, Canada and Malmö, Sweden. *Landscape and Urban Planning* 194. <https://doi.org/10.1016/j.landurbplan.2019.103699>

Quinton, J., P.N. Duinker, K.A. Gallant, J.W.N. Steenberg, and J. Charles. 2019. To tree or not to tree: user and management perspectives of cemetery trees. *Urban Forestry and Urban Greening* 43: 126385. doi.org/10.1016/j.ufug.2019.126385

Thompson, K., K. Sherren, and P.N. Duinker. 2019. A framework for the use of ecosystem services concepts in Canadian municipal plans. *Ecosystem Services* 38: online.

Steenberg, J.W.N., P.N. Duinker, and S.A. Nitoslawski. 2019. Ecosystem-based management revisited: updating the concepts for urban forests. *Landscape and Urban Planning* 186:24-35. doi.org/10.1016/j.landurbplan.2019.02.006

Quinton, J. and P.N. Duinker. 2019. Beyond burial: Researching and managing cemeteries as urban green spaces, with examples from Canada. *Environmental Reviews*: accepted 2018-10-16. doi: 10.1139/er-2018-0060

Steenberg, J.W.N., P.N. Duinker, I.F. Creed, J.N. Serran, and C. Ouillet Dallaire. 2019. Alternative scenarios for the future of Canada's boreal region. *Environmental Reviews*: accepted. doi.org/10.1139/er-2018-0062

Yeung, A.C.Y., A. Paltsev, A. Daigle, P.N. Duinker, and I.F. Creed. 2019. Atmospheric change as a driver of change in the Canadian boreal zone. *Environmental Reviews*: accepted 2018-10-16 (doi: 10.1139/er-2018-0055)

Creed, I.F., P.N. Duinker, J.W.N. Steenberg, and J.N. Serran. 2019. Managing risks to Canada's boreal zone: transdisciplinary thinking in pursuit of energy security. *Environmental Reviews*: accepted (doi: 10.1139/er-2018-0070)

Ma, J., P.N. Duinker, and T.R. Walker. 2018. Scholar and practitioner views on science in environmental assessment. *Impact Assessment and Project Appraisal* 36(6):516-528. (doi: 10.1080/14615517.2018.1519978)

Keys, K., D. Burton, G. Price, and P.N. Duinker. 2018. Forest floor chemistry and mineral soil ion exposure after surface application of alkaline-treated biosolids under two white spruce (*Picea glauca*) plantations in Nova Scotia, Canada. *Forest Ecology and Management* 417:208-221.

doi.org/10.1016/j.foreco.2018.02.040

Steenberg, J.W.N., P. Robinson, and P.N. Duinker. 2018. Counter-intuitive relationships between housing renovation, socioeconomic status, and urban forest ecosystems. *Environment and Planning B: Urban Analytics and City Science*: published online 2018_01_12. doi/pdf/10.1177/2399808317752927.

Publicover, J.L., T.S.A. Wright, S. Baur, and P.N. Duinker. 2018. Engaging with environmental issues as a musician: career perspectives from the musicians of the Playlist for the Planet. *Popular Music and Society*: accepted. <http://dx.doi.org/10.1080/03007766.2018.1426367>.

Bond, A., F. Retief, B. Cave, A.L. Brown, M. Fundingsland, P.N. Duinker, and R. Verheem. 2018. A contribution to the conceptualisation of quality in impact assessment. *Environmental Impact Assessment Review* 68:49-58. DOI: 10.1016/j.eiar.2017.10.006

Publicover, J.L., T.S.A. Wright, S. Baur, and P.N. Duinker. 2017. Music as a tool for environmental education and advocacy: artistic perspectives from musicians of the Playlist for the Planet. *Environmental Education Research* 27:187-195. dx.doi.org/10.1080/13504622.2017.1365356

Nitoslawski, S., J.W.N. Steenberg, P.N. Duinker, and P.G. Bush. 2017. Assessing the influence of environmental attributes on urban forest species composition in suburban neighbourhoods. *Urban Forestry and Urban Greening* 27:187-195. doi.org/10.1016/j.ufug.2017.08.002

Ordóñez, C., T. Beckley, P.N. Duinker, and A.J. Sinclair. 2017. Public values associated with urban forests: synthesis of findings and lessons learned from emerging methods and cross-cultural case studies. *Urban Forestry and Urban Greening* 25:74-84. doi.org/10.1016/j.ufug.2017.05.002

Duinker, P.N., S. Lehvävirta, A. Busse Nielsen, and S. Toni. 2017. Urban Woodlands and Their Management. In press as Chapter 34 in "Routledge Handbook of Urban Forestry", edited by F. Ferrini, C. Konijnendijk van den Bosch, and A. Fini.

MacLellan, L.K. and P.N. Duinker. 2017. The local trap and community forest policy in Nova Scotia: pitfalls and promise. Chapter 6 in: Bullock, R. (editor). *Growing Community Forests: Practice, Research, and Advocacy in Canada*. University of Manitoba Press, Winnipeg, MB.

Sinclair, A.J., M. Doelle, and P.N. Duinker. 2017. Looking up, down, and sideways: reconceiving cumulative effects assessment as a mindset. *Environmental Impact Assessment Review* 62:183-194. dx.doi.org/10.1016/j.eiar.2016.04.007

Nitoslawski, S.A., P.N. Duinker, and P.G. Bush. 2016. A review of drivers of tree diversity in suburban areas: research needs and recommendations for Canadian cities. *Environmental Reviews*: accepted. doi: 10.1139/er-2016-0027

Duinker, P.N. and L.K. MacLellan. 2016. Whither community forests in Canada? A plea for innovation, creativity, and adaptive policy development. In: Teitelbaum, S. (editor). *Community Forests in Canada*, pp. 329-346. UBC Press, Vancouver, BC.

Nitoslawski, S.A., and P.N. Duinker. 2016. Managing tree diversity: a comparison of suburban development in two Canadian cities. *Forests* 7: 119. doi:10.3390/f7060119

Sinclair, A.J., M. Doelle, and P.N. Duinker. 2016. Looking up, down, and sideways: reconceiving cumulative effects assessment as a mindset. *Environmental Impact Assessment Review*: accepted.

Bailey, J.A., P.N. Duinker, P. Amyotte, M. Adams, and F. Khan. 2016. Measuring energy conservation on Nova Scotia (NS) farms: a 2004 to 2011 comparison. *Energy*: accepted subject to minor revisions.

Ordóñez, C., P.N. Duinker, A.J. Sinclair, T. Beckley, and J. Diduck. 2016. Public values of urban forests in Canada using a sidewalk-interception survey: results for Fredericton, Halifax, and Winnipeg. *Arboriculture and Urban Forestry* 42(1):46–57.

Reports and Other Papers

NorthWinds Environmental Services Inc. 2020. Guide to Preparing Forest Stewardship Plans for Crown Lands in Nova Scotia. Draft Report to Department of Lands and Forestry, Halifax, NS. (Authorship Team: Rike Burkhardt, Peter Duinker, Triin Hart, Diane Roddy, Kate Turner, Laird Van Damme).

Duinker, P.N. 2020. Environmental assessment of forest management in Nova Scotia: where might we be headed? *Atlantic Forestry Review* 26(4):35-36.

Ristow, M., J.W.N. Steenberg, and P.N. Duinker. 2019. An Updated Approach for Assessing Canada's Urban Forest Carbon Storage and Sequestration. Final Report to Environment and Climate Change Canada. School for Resource and Environmental Studies, Dalhousie University, Halifax, NS.

KBM Resources Group, Lallemand inc./BioForest, Dillon Consulting Limited (with special advisors Peter Duinker and James Steenberg). 2019. Toronto Canopy Study 2018. Report for the City of Toronto. 287 pp.

Sorensen Kass, J., F. Stevens, and P.N. Duinker. 2019. The Street Trees of Bridgewater, Nova Scotia: Follow-up Inventory and Recommendations. Report to the Council of the Town of Bridgewater. School for Resource and Environmental Studies, Dalhousie University, Halifax, NS.

Quinton, J. and P. Duinker. 2019. The Trees of Camp Hill and Fairview Lawn Cemeteries. School for Resource and Environmental Studies, Dalhousie University, Halifax, NS. (plus three similar reports)

Duinker, P.N. 2019. The blind men and the trees: diverse perspectives on the species composition of Halifax's urban forest. *Atlantic Forestry Review* 25(4):16-17.

Duinker, P.N. 2018. Urban Forest Management and Research in Halifax, NS: Contributions from the School for Resource and Environmental Studies, Dalhousie University. School for Resource and Environmental Studies, Dalhousie University, Halifax, NS.

Van Damme, L. and P.N. Duinker. 2018. Silviculture reporting, progress, and accountability. Chapter 16 in: *An Independent Review of Forest Practices in Nova Scotia: Addendum* (W. Lahey, editor). Nova Scotia Department of Lands and Forestry, Halifax, Nova Scotia.

- Duinker, P.N. 2018. Environmental assessment of forest management. Chapter 18 in: An Independent Review of Forest Practices in Nova Scotia: Addendum (W. Lahey, editor). Nova Scotia Department of Lands and Forestry, Halifax, Nova Scotia.
- Duinker, P.N., J. Williams, and L. Van Damme. 2018. Full-tree harvesting. Chapter 10 in: An Independent Review of Forest Practices in Nova Scotia: Addendum (W. Lahey, editor). Nova Scotia Department of Lands and Forestry, Halifax, Nova Scotia.
- Duinker, P.N. 2018. Old forests. Chapter 7 in: An Independent Review of Forest Practices in Nova Scotia: Addendum (W. Lahey, editor). Nova Scotia Department of Lands and Forestry, Halifax, Nova Scotia.
- Doll, S. and P. Duinker. 2018. The Trees of Old Ashburn Golf Course: Inventory and Management Recommendations. Report to the Managers of Old Ashburn Golf Club. School for Resource and Environmental Studies, Dalhousie University, Halifax, NS.
- Doll, S., M. Ristow, J. Quinton, and P. Duinker. 2018. The Street Trees of Bridgewater, Nova Scotia: Inventory and Recommendations for Improvement. Report to the Council of the Town of Bridgewater. School for Resource and Environmental Studies, Dalhousie University, Halifax, NS.
- Duinker, P. and J. Charles. 2018. Growing together in Halifax, Canada: A productive partnership helped create a strong master plan for forests in this Nova Scotian city. In "Forests and Sustainable Cities: Inspiring Stories from around the World", pp. 29-34. Food and Agriculture Organization of the United Nations, Rome, IT.
- Blakley, J., P. Duinker, L. Greig, G. Hegmann, and B. Noble. 2017. Cumulative Effects Assessment. FasTip Document for International Association for Impact Assessment, Fargo, ND.
- Duinker, P.N. 2017. Guest Editorial: Why Care about Urban Forests? *Atlantic Forestry Review* 23(6):6-7.
- Duinker, P.N. 2017. Silviculture vs. Arboriculture: The Same or Different? *Atlantic Forestry Review* 23(6):32-33.
- Duinker, P. 2017. Trees in the city: why trees in cities are phenomenal investments in urban infrastructure. *Municipal World* 127(1):3-5.
- Foster, D. and P. Duinker. 2017. The HRM Urban Forest in 2016. Report to HRM. School for Resource and Environmental Studies, Dalhousie University, Halifax, NS.
- Leahey, M. and P. Duinker. 2016. Things You Never Knew about Trees ... and How Pugwash Learned Them. *Municipal World* 126(8):25-26.
- Hayden, N., N. Secen, and P.N. Duinker. 2016. Tree Planting Tips & Tricks. School for Resource and Environmental Studies, Dalhousie University, Halifax, NS.

Duinker, P.N. and C. Pilkington. 2016. The Trees of Pugwash, Nova Scotia: Inventory and Recommendations for Improvement. School for Resource and Environmental Studies, Dalhousie University, Halifax, NS.

Duinker, P.N., S. Maasik, and C. Kent. 2015. Invasive Alien Species: Learning Materials for Nova Scotia Envirothon 2016 Participants. School for Resource and Environmental Studies, Dalhousie University, Halifax, NS. 31 pp.

Duinker, P.N. and C. Pilkington. 2016. The Trees of Pugwash, Nova Scotia: Inventory and Recommendations for Improvement. School for Resource and Environmental Studies, Dalhousie University, Halifax, NS.