# **Curriculum Vitae**

Dr. Jay R. Malcolm Professor

## A. Date Curriculum Vitae Prepared: 2019 May 1

## **B. Biographical Information**

Room 4011, Earth Sciences Centre Faculty of Forestry University of Toronto 33 Willcocks St. Toronto, ON M5S 3B3 416-978-0142; 647-706-2042 (cell); 416-978-3834 (fax) jay.malcolm@utoronto.ca

## **1. EDUCATION**

#### Degrees

Ph.D.	1991, University of Florida, School of Forest Resources and Conservation,
	Wildlife Ecology
M.Sc.	1983, University of Guelph, Zoology
B.Sc. (Hon.)	1980, University of Guelph, Zoology

## Postgraduate, Research, and Specialty Training

POSTDOC

2016-2017. Queens University, Kingston, ON (NSERC)

#### **TECHNICAL TRAINING**

2018. Technical Training Workshop, CBM-CFS3 (Carbon Budget Model).

#### FIELD RESEARCH

- 2016-2019. Haliburton Forest and Algonquin Provincial Park, Ontario. Effects of partial harvesting on forest structure and biodiversity.
- 2010-2015. Haliburton Forest, Ontario. Understanding spatial variation in small mammal populations and relationships with forest structure and dynamics.
- 2005-2014. Northeastern Ontario, Canada. Boreal wildlife communities as a function of woody debris supplies and tree cohort structure.

2005.	Jari Cellulose SA, Monte Dourado, Brazil. Small mammal communities of Eucalyptus
	plantations and primary and secondary forests.
2002-2004.	Central Ontario (principally Algonquin Provincial Park and Haliburton Forest). Multi-scale habitat selection by American martens and flying squirrels in the Great Lakes - St. Lawrence forests of central Ontario.
2002.	Kayapó Indigenous Area, Pará, Brazil. Effects of Brazil nut harvesting on the ecology of spiny rats ( <u>Proechimys</u> , Echimyidae).
2001.	Haliburton Forest, Ontario. Insect diversity in temperate forest canopies.
1996, 2000.	Kayapó Indigenous Area, Pará, Brazil. Effects of selective logging on forest structure and small mammal communities.
1997-2000.	Northeastern Ontario, Canada. Effects of logging on insect, bird, and small mammal communities in boreal forests
1993-1994.	Dzanga-Sangha Dense Forest Reserve, southwestern Central African Republic. Three- dimensional structure of small mammal populations and habitats in undisturbed and selectively-logged forest.
1991-1992.	Juruá River, western Amazonia, Brazil. Ecological and evolutionary significance of Amazonian riverine barriers.
1986-1989.	Biological Dynamics of Forest Fragments Project, Amazonas, Brazil. Influence of forest fragmentation on small mammal populations and habitats. Additional field expeditions to the upper Urucú river and the Balbina dam site.
1983-1984	Biological Dynamics of Forest Fragments Project, Amazonas, Brazil.

### LABORATORY RESEARCH

1992-1993. Department of Biology, Queen's University, Ontario. Use of PCR and sequencing to determine cytochrome *b* sequences of two species of mouse opossums.

## 2. EMPLOYMENT

## **Current Academic Appointments**

2014-present.	Full Professor, Faculty of Forestry, University of Toronto
2012.	Cross-appointed, Department of Physical and Environmental Sciences, University of
	Toronto Scarborough
2009.	Adjunct Professor, Faculty of Forestry and the Forest Environment, Lakehead University
1999.	Cross-appointed, Department of Geography, University of Toronto
1998.	Associate, Centre for Research in Earth and Space Technology
1997.	Cross-appointed, Royal Ontario Museum

## **Previous Academic Appointments**

2012-2017.	Graduate Coordinator, Faculty of Forestry, University of Toronto
2002-2014.	Associate Professor, Faculty of Forestry, University of Toronto
1997-2001.	Assistant Professor, Faculty of Forestry, University of Toronto

## Consulting

- 1999-2000. Pew Center on Global Climate Change. Ecosystems and global climate change: A review of potential impacts on U.S. terrestrial ecosystems and biodiversity.
  1998. Ontario Ministry of Natural Resources. Applied multivariate statistics for ecologists: A
- 1998. Ontario Ministry of Natural Resources. Applied multivariate statistics for ecologists: A workshop on multivariate statistical methods.

1998. United Nations Environmental Program. Handbook on Methods for Climate Change Impact Assessment and Adaptation Strategies.
1997. Hagler Bailly Services, Inc. (for the U.S. Environmental Protection Agency). Vulnerability to climate change of ecological resources in 25 U.S. States.
1995-1996. World Wildlife Fund (WWF)-U.S. Impacts of climate change on wildlife populations in protected areas; impacts of climate change on arctic wildlife.
1995. WWF-U.S. Multivariate modelling of impacts of climate change on southern African ungulate populations.
1994-1995. WWF-U.S. Development of quantitative methodologies to assess wildlife vulnerability to

climate change; adaptation to climate change.

## **Research Assistantships**

1991.	Dr. T. T. Struhsaker, University of Florida. Analysis of long-term data set on climate, tree phenology, and rodent abundance in Kibale Forest Reserve, Uganda.
1983.	Dr. R. J. Brooks, University of Guelph, Ontario. Small mammal trapping in Churchill, Manitoba. Microcomputer applications.
1980.	Dr. R. J. Brooks, University of Guelph, Ontario. Age determination of beaver; tests of optimal foraging theory using house mice; small mammal trapping in Churchill, Manitoba.
1980.	Dr. D. H. Lynn, University of Guelph, Ontario. Ciliate systematics.

## 3. HONOURS AND CAREER AWARDS

### **Distinctions and Research Awards**

1991-1992.	NSERC Postdoctoral Fellowship
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- 1985-1988. NSERC Postgraduate Scholarship
- 1983. M.Sc. Awarded with Distinction
- 1981. NSERC Postgraduate Scholarship
- 1980. Ontario Graduate Scholarship
- 1980.University of Guelph Scholarship
- 1980. NSERC Undergraduate Summer Research Award

## **Teaching Awards**

2015. Academic Teaching Award (Awarded by Faculty of Forestry Undergraduate and Graduate Students)
 2009. Academic Teaching Award (Awarded by Faculty of Forestry Undergraduate and Graduate Students)

## **Student/Trainee Awards**

- 2009. Best Student Oral Presentation Award, 30th Canadian Symposium on Remote Sensing (Kuttner and Malcolm)
- 2001. Honourable Mention, Student Paper Award, Conservation Biology Annual Meeting (Pardini and Malcolm)
- 1997. Participant, Young Scholar Dialogue, Conservation Ecology (Issues 1 and 2)

### 4. PROFESSIONAL AFFILIATIONS AND ACTIVITIES

#### Administrative Activities

2012-2017. Graduate Coordinator, Faculty of Forestry, University of Toronto
 1997-present. Various intra- and extra-Faculty committees, including academic searches, student awards, professorial progress-through-the-ranks, and safety.

### **Peer Review Activities**

#### ASSOCIATE OR SECTION EDITING

2013. Multi-cohort management in boreal forests. Forestry Chronicle 89 (Special Issue).

GRANT REVIEWS

Typically 1 per year

#### MANUSCRIPT REVIEWS

Typically 3 per year

## **Other Research and Professional Activities**

2018.	Technical Training Workshop, CBM-CFS3 (Carbon Budget Model).
2015-present.	Technical Advisory Group, IntAct: International Action for Primary Forests
2003-present.	National Council, World Wildlife Fund Canada
2000-2003.	Ontario Ministry of Natural Resources Forest Technical Committee

#### WORKSHOPS AND CONFERENCES ORGANIZED

- 2018. North American Congress for Conservation Biology 2018, Scientific Program Committee.
- 2011. Boreal Multi-cohort Forest Management Workshop: A Workshop and Associated Special Issue of the Forestry Chronicle, Cochrane, Ontario (Sponsored by the Canadian Institute of Forestry and the Forestry Research Partnership).
- 2010. Multi-cohort Stand Structural Classification Using LiDAR, Faculty of Forestry, University of Toronto.
- 2008. Enhanced Forest Productivity Workshop (Multi-cohort Forest Management), Faculty of Forestry, University of Toronto.
- 2008. Sustainable Forest Management (NCE) Workshop (Ecological Roles of Coarse Woody Debris), Faculty of Forestry, University of Toronto.
- 2007. Enhanced Forest Productivity Workshop (Multi-cohort Forest Management), Faculty of Forestry, University of Toronto.
- 2007. Sustainable Forest Management (NCE) Workshop (Ecological Roles of Coarse Woody Debris), Faculty of Forestry, University of Toronto.
- 2005. Enhanced Forest Productivity Workshop (Multi-cohort Forest Management), Faculty of Forestry, University of Toronto.
- 2005. Sustainable Forest Management (NCE) Workshop (Ecological Roles of Coarse Woody Debris), Faculty of Forestry, University of Toronto.

## **C. Academic Profile**

## **1. RESEARCH STATEMENTS**

Available upon request.

## 2. TEACHING PHILOSOPHY

Available upon request.

# **D. Research Funding**

## 1. GRANTS

2019.	Effects of uneven-age forest management on beetle species richness and composition in south-central Ontario. Malcolm. Brown Fund, Haliburton Forest, \$8,600. (100% authorship of proposal, 100% contribution to my research).
2017-2018.	Implications of boreal forest management in Canada from a climate change perspective. Malcolm. Greenpeace Canada, \$25,000. (Sole author of proposal, 100% contribution to my research).
2017.	Conservation and promotion of traditional ecological forest values. Malcolm and Van Schie . MITACS Aboriginal Community Engagement Program, \$10,000. (50% authorship of proposal, 100% contribution to my research).
2017-2021.	Effects of multiple rotations of uneven-age forest management on mammal, insect, and fungus biodiversity in central Ontario. Malcolm. NSERC, \$120,000. (Sole author of proposal, 100% contribution to my research).
2016-17.	Sharing of Aboriginal Traditional Ecological Values for Incorporation into Sustainable Forest Management and Community Ecosystem Services. St. Denis, Thusky, Polson, St. Denis, Van Schie, and Malcolm. National Indian Brotherhood, \$34,703. (50% authorship of proposal, 33% contribution to my research).
2015-17.	Incorporation of Algonquin Traditional Ecological Values into Sustainable Forest Management for Ecosystem Service Benefits. Malcolm and Van Schie. MITACS Accelerate PhD Fellowship, \$54,000. (50% authorship of proposal, 75% contribution to my research).
2015-17.	Incorporation of Algonquin Traditional Ecological Values into Sustainable Forest Management for Ecosystem Service Benefits. Malcolm and Van Schie. Anishnabek Outfitting Inc., \$36,000. (50% authorship of proposal, 75% contribution to my research).
2015-16.	Short- and long-term effects of forest management on ground beetles (Carabidae) in Haliburton Forest. Malcolm and Smith. Brown Fund, Haliburton Forest, \$18,000. (100% authorship of proposal, 100% contribution to my research).
2014.	Wolves as indicators of ecosystem services in Wolf Lake First Nation traditional lands. Malcolm and Thompson. MITACS Accelerate Internship, \$7,500. (75% authorship of proposal, 75% contribution to my research).
2014.	Wolves as indicators of ecosystem services in Wolf Lake First Nation traditional lands. Malcolm and Thompson. Anishnabek Outfitting Inc., \$7,500. (75% authorship of proposal, 75% contribution to my research).
2014-16.	Wolf Lake First Nation Wolf Study. Wolf Lake First Nation. Van Schie and Malcolm. Mitsubishi Corporation, \$86,700 (50% authorship of proposal, 75% contribution to my research).

2012-13.	Understanding spatial variation in small mammal populations and relationships with forest structure and dynamics. Malcolm and Thomas. Brown Fund, Haliburton Forest,
2011-2016.	<ul> <li>\$17,000. (50% authorship of proposal, 100% contribution to my research)</li> <li>Effects of forest management on dead wood supply and implications for biodiversity.</li> <li>Malcolm. NSERC, \$190,000. (Sole author of proposal, 100% contribution to my research)</li> </ul>
2011.	Effects of experimental removal of downed woody debris on boreal small mammal populations. Malcolm and Thompson. Canadian Forest Service, \$3,000. (Sole author of proposal, 100% contribution to my research)
2011.	Dual-beam laser altimetry system for ground-based remote sensing of tree and forest canopy structure. Thomas, Chen, Caspersen, Malcolm, Smith, and Murphy. NSERC, \$34,600. (5% authorship of proposal, 5% contribution to my research)
2010-11.	Understanding spatial variation in small mammal populations and relationships with forest structure and dynamics. Malcolm and Thomas. Brown Fund, Haliburton Forest, \$12,000. (50% authorship of proposal, 100% contribution to my research)
2010-11.	Ontario Forest Resource Inventory Enhancement using ADS40 Aerial Imagery and LiDAR data. MITACS Elevate Industrial Fellowship to Ben Kuttner. Kuttner, Malcolm, and Van Damme. MITACS, Inc., \$140,000. (50% authorship of proposal, 50% contribution to my research)
2010-13.	Potential effects of biofuel harvesting on the biodiversity of woody debris: indicator species, biological thresholds, and future habitat supply. Malcolm, Johnson, Moncalvo, Morris, and Thompson. Ivey Foundation, \$90,000. (Sole author of proposal, 100% contribution to my research)
2010.	Effects of experimental removal of downed woody debris on boreal small mammal populations. Malcolm and Thompson. Canadian Forest Service, \$5,000. (Sole author of proposal, 100% contribution to my research)
2009.	Effects of experimental removal of downed woody debris on boreal small mammal populations. Malcolm and Thompson. Canadian Forest Service, \$9,000. (Sole author of proposal, 100% contribution to my research)
2008.	Effects of experimental removal of downed woody debris on boreal small mammal populations. Malcolm and Thompson. Canadian Forest Service, \$3,500. (Sole author of proposal, 100% contribution to my research)
2008-2010.	The role of downed woody debris in nutrient retention and cycling in boreal mixedwoods of northeastern Ontario. Malcolm, Morris, Meyer, Klironomos, Moncalvo, Thompson, Smith, and Peng. Ontario Ministry of Natural Resources Vegetation Management Alternatives Program, \$83,448. (Sole author of proposal, 90% contribution to my research)
2007-2008.	Projected tree distributions in the Credit Valley Conservation Authority under global warming. Malcolm. Credit Valley Conservation Authority, \$10,000. (Sole author of proposal, 100% contribution to my research)
2007-2008.	Projected forest composition in Haliburton forest in a changing climate. Malcolm. Brown Fund, Haliburton Forest, \$10,000. (Sole author of proposal, 100% contribution to my research)
2007-2008.	Meteorological instrument tower for integrated forest ecosystem research. Thomas, Smith, Malcolm, Caspersen, Chen, and Basiliko. NSERC Research Tools and Instruments - Category 1, \$113,213. (5% authorship of proposal, 5% contribution to my research)
2007-2009.	Multi-cohort Forest Classification Using LiDAR. Malcolm, Durst, Pineau, Woods, Bidwell, and Rudy. Ontario Centre of Excellence, \$72,900. (Sole author of proposal, 100% contribution to my research)
2007.	Conservation of the boreal forest as a strategy to combat global warming. Malcolm and Thomas. Greenpeace Canada, \$9,000. (25% authorship of proposal, 50% contribution to my research)

2007-2011.	Effects of experimental manipulation of dead wood supplies on boreal small mammal, insect, and fungal communities. Malcolm. NSERC, \$110,000. (Sole author of proposal, 100% contribution to my research)
2005-2007.	Multi-cohort forest management in north-eastern Ontario: cohort classification, associated wildlife communities, and projected stand dynamics. Malcolm, Casperson, Drapeau, Smith, and Thompson. Forestry Futures Trust, \$305,000. (Sole author of proposal, 100% contribution to my research)
2005-2007.	Dynamics of woody debris in eastern boreal forests: implications for carbon and wildlife management. Malcolm, Drapeau, Klironomos, Moncalvo, Peng, Smith, and Thompson. Sustainable Forest Management Network, \$444,720. (Sole author of proposal, 90% contribution to my research)
2005-2006.	A review of responses of boreal wildlife to partial cutting. Malcolm, Vanderwel, and Kuttner. Ontario Ministry of Natural Resources, \$15,000. (50% authorship of proposal, 100% contribution to my research)
2005.	Projected tree distributions, tree migration rates, and forest types in Ontario under 2° global warming. Malcolm. World Wildlife Fund-U.S., \$5,800. (Sole author of proposal, 100% contribution to my research)
2004-2005.	Ecology of sympatric flying squirrel species ( <i>Glaucomys</i> spp.) in Haliburton Forest. Malcolm and Holloway. Brown Fund, Haliburton Forest, \$15,000. (Sole author of proposal, 100% contribution to my research)
2004-2007.	Multi-cohort stand structure, dynamics, and associated wildlife communities in boreal northeastern Ontario. Malcolm, Casperson, Drapeau, Smith, and Thompson. Tembec, Inc., \$50,000. (Sole author of proposal, 100% contribution to my research)
2004-2007.	Multi-cohort stand structure, dynamics, and associated wildlife communities in boreal northeastern Ontario. Malcolm, Casperson, Drapeau, Smith, and Thompson. Ontario Ministry of Natural Resources, \$15,000. (Sole author of proposal, 100% contribution to my research)
2004-2007.	Multi-cohort stand structure and dynamics and associated wildlife communities in boreal northeastern Ontario. Malcolm, Casperson, Smith, Drapeau, and Thompson. Lake Abitibi Model Forest, \$30,000. (Sole author of proposal, 100% contribution to my research)
2003-2004.	Adaptive responses to climate change-induced tree migration in Ontario. Malcolm, Scott, Pinto, Carleton, Kruus, and Maycock. Living Legacy Trust, \$106,835. (Sole author of proposal, 100% contribution to my research)
2003-2004.	Multi-scale habitat associations of the American marten ( <i>Martes americana</i> ) in Haliburton Forest. Malcolm. Brown Fund, Haliburton Forest, \$17,500. (Sole author of proposal, 100% contribution to my research)
2003-2004.	Adaptive responses to climate change-induced tree migration in Ontario. Malcolm, Scott, Pinto, Carleton, Kruus, and Maycock. David Suzuki Foundation, \$10,000. (Sole author of proposal, 100% contribution to my research)
2003-2004.	Multi-scale habitat selection by flying squirrels in the Great Lakes-St. Lawrence region of Ontario. Malcolm, Holloway, Naylor, Cumming, and Stabb. Living Legacy Trust, Ontario Ministry of Natural Resources, \$33,787. (50% authorship of proposal, 100% contribution to my research)
2002-2004.	Effects of brazil nut harvesting on the ecology of spiny rats. Solorzano-Filho and Malcolm. Wildlife Conservation Society, \$17,000. (75% authorship of proposal, 100% contribution to my research)
2002.	Vulnerability of global biodiversity hotspots to climate change. Malcolm. Conservation International, \$6,670. (Sole author of proposal, 100% contribution to my research)
2002-2004.	Multi-scale habitat selection by northern flying squirrels in the Great Lakes-St. Lawrence region of Ontario. Malcolm, Holloway, Naylor, Cumming, and Stabb. Living Legacy Trust, Ontario Ministry of Natural Resources, \$65,360. (50% authorship of proposal, 100% contribution to my research)

2001-2003.	Mammal communities and the ecological consequences of selective logging. Malcolm, Lambert, Zimmerman, and Jerozolimski. National Geographic Society, \$21,700. (75%
2001-2003.	authorship of proposal, 100% contribution to my research) Impacts of interacting disturbances on central African mammals. Remis, Ray, and Malcolm. World Wildlife Fund, \$26,560. (25% authorship of proposal, 25% contribution to
2002-2006.	my research) Impacts of logging on biodiversity in the Great Lakes-St. Lawrence forest of northeastern Ontario. Malcolm. NSERC, \$88,000. (Sole author of proposal, 100% contribution to my
2001-2004.	research) Multi-scale habitat selection by American martens in the Great Lakes-St. Lawrence forests of Central Ontario. Malcolm, Naylor, Cumming, Ray, and Nagel. Living Legacy Trust, Ontario Ministry of Natural Resources, \$54,740. (50% authorship of proposal, 100% contribution to my research)
2000-2004.	100% contribution to my research) Conservation and development alliances with tropical forest indigenous peoples. Zimmerman and Malcolm. Donner Canada Foundation, \$200,000. (25% authorship of proposal, 100% contribution to my research).
2000-2003.	Biodiversity in eastern mixed-wood forest canopies. Smith, Malcolm, Thomas, Schleifenbaum, Darling, and Hutchinson. Richard Ivey Foundation, \$131,000. (15% authorship of proposal, 30% contribution to my research).
2000-2002.	Integrated fire and forest management in the boreal forest. Martell, Hirsch, Malcolm, McApline, and Weintraub. Sustainable Forest Management Network, National Centres of Excellence, \$115,000. (25% authorship of proposal, 25% contribution to my research).
2000-2001.	Migration rates and biodiversity loss under global warming. Malcolm. World Wildlife Fund-U.S., \$50,000. (Sole author of proposal, 100% contribution to my research)
2000-2001.	Migration rates and biodiversity loss under global warming. Malcolm. David Suzuki Foundation, \$7,500. (Sole author of proposal, 100% contribution to my research)
1999-2000.	Potential natural vegetation as a guide to woodland conservation and enhancement. Kenney, Malcolm, and Csillig. EJLB Foundation, \$70,000. (10% authorship of proposal, 25% contribution to my research)
1997-1999.	Practical implementation of sustainable management and conservation of biodiversity in Ontario northern hardwood/conifer and boreal forests. Bryan, Malcolm, and Carleton. Richard Ivey Foundation, \$155,000. (40% authorship of proposal, 67% contribution to my research)
1998-1999.	Impacts of logging practices on biodiversity in the Great Lakes-St. Lawrence/boreal ecotone of northeastern Ontario. Malcolm, Carleton, and Ray. Wildlife Habitat Canada, \$18,000. (40% authorship of proposal, 67% contribution to my research)
1998-2001.	Impacts of logging on biodiversity in the Great Lakes-St. Lawrence/boreal ecotone of northeastern Ontario. Malcolm. NSERC, \$77,605. (Sole author of proposal, 100% contribution to my research)
1998.	Assessing the threats of climate change to globally significant ecoregions. Malcolm. World Wildlife Fund-U.S., \$15,280. (Sole author of proposal, 100% contribution to my
1998.	research) Ethnocultural Initiatives. Wilson, Zimmerman, and Malcolm. University of Toronto, \$7,500. (10% author of proposal, 10% contribution to my teaching)
1998-2000.	Landscape comparison of ecological communities along gradients of variable-retention harvesting in lowland black spruce sites. Smith, Malcolm, and Carleton. Lake Abitibi Model Forest, \$87,000. (33% authorship of proposal, 100% contribution to my research)
1997-1998.	Impacts of logging on biodiversity in the Great Lakes-St. Lawrence/boreal ecotone of northeastern Ontario. Malcolm. University of Toronto Connaught Fund, \$27,000. (Sole
1997.	author of proposal, 100% contribution to my research) A review of the potential effects of global warming on Canadian forests. Martell and Malcolm. Canada Country Collaborative Research Grant, \$10,000. (25% authorship of proposal, 100% contribution to my research)

1995.	Forest Service, \$6,000. (50% authorship of proposal, 100% contribution to my research)
1993-1994.	Effects of selective logging on central African small mammal communities, forest structure, and tree diversity. Malcolm. National Geographic Society, \$9,060. (Sole author of proposal, 100% contribution to my research)
1993-1994.	Effects of selective logging on central African small mammal communities, forest structure, and tree diversity. Malcolm. Wildlife Conservation Society, \$9,120. (Sole author of proposal, 100% contribution to my research)
1991-1992.	Ecological and evolutionary significance of Amazonian river barriers. Patton, Peres, Malcolm, da Silva. National Geographic Society, \$25,000. (Sole author of proposal, 50% contribution to my research)
1991-1992.	Ecological and evolutionary significance of Amazonian river barriers. Malcolm, Patton, Peres, da Silva, Gascon. Wildlife Conservation Society, \$56,000. (Sole author of proposal, 33% contribution to my research)
1987-1989.	Small mammals of tropical forest fragments: pattern and process. Malcolm. National Geographic Society, \$9,300. (Sole author of proposal, 50% contribution to my research)
1984-1988.	Small mammals of tropical forest fragments: pattern and process. Malcolm. World Wildlife Fund-U.S., BDFF Project, \$69,000. (Sole author of proposal, 50% contribution to my research)
1987-1988.	Small mammals of tropical forest fragments: pattern and process. Malcolm. Sigma Xi Grant-in-Aid-of-Research, \$400. (Sole author of proposal, 50% contribution to my research)
1985.	Small mammals of tropical forest fragments: pattern and process. Malcolm. Tinker Summer Research Award, \$1,200. (Sole author of proposal, 50% contribution to my research)

Effects of colocities logging on mohogony regeneration. Zimmermen and Malacim, LLC

## **E.** Publications

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## **1. PEER-REVIEWED PUBLICATIONS**

## **Journal Articles**

- 1. Dennis, R.W. J., J. R. Malcolm, S. M. Smith, and M. I. Bellocq. 2018. Response of saproxylic insect communities to logging history, tree species, stage of decay, and wood posture in the central Nearctic boreal forest. Journal of Forestry Research 29:1365-1377.
- 2. Boan, J. J., J. R. Malcolm, M. Vanier, D. L. Euler, and F. M. Moola. 2018. From climate to caribou: the normalization of manufactured uncertainty in post-truth era. Wildlife Society Bulletin 42:366-381.
- Malcolm, J. R., K. Valenta, and S. M. Lehman. 2017. Edge effects in tropical dry forests of Madagascar: additivity or synergy? Landscape Ecology 32:327-341.
- 4. Barkley, E. P., J. R. Malcolm, S. M. Smith, and M. I Bellocq. 2016. Does variable stand structure in the central Nearctic boreal forest associated with multi-cohort management support diversity in ground beetle (Coleoptera, Carabidae) communities? Journal of Forestry Research 27:1191-1202.
- Norghauer, J. M., C. M. Free, R. M. Landis, J. Grogan, J. R. Malcolm, S.C. Thomas, and B. L. Zimmerman. 2016. Herbivores limit the population size of big-leaf mahogany trees in an Amazonian forest. Oikos 125:137–148.
- 6. Gompper, M. E., D. Lesmeister, J. C. Ray, J. R. Malcolm, and R. Kays. 2016. Differential habitat use or intraguild interactions: what structures a carnivore community? PLoS ONE 11(1):1-18 (e0146055).

- Venier, L. A., I. Thompson, R. Fleming, J. R. Malcolm, I. Aubin, J.A. Trofymow, D. Langor, R. Sturrock, C. Patry, R.O. Outerbridge, S.B. Holmes, S. Haeussler, L. De Grandpré, H. Chen, E. Bayne, A. Arsenault, and J. P. Brandt. 2014. Effects of natural resource development on the terrestrial biodiversity of Canadian boreal forests. Environmental Reviews 22: 457-490.
- Boan, J. J., J. R. Malcolm, and B. E. McLaren. 2014. Forest overstorey and age as habitat? Detecting the indirect and direct effects of predators in defining habitat in a harvested boreal landscape. Forest Ecology and Management 326:101-108.
- 9. Boan, J. J., B. E. McLaren, and J. R. Malcolm. 2013. Predicting non-inventoried forest elements using forest inventory data: the case of winter forage for woodland caribou. Ecoscience 20:1-11.
- 10. Burrell, M. V. A., J. R Malcolm, and P. Drapeau. 2013. Multicohort stand structure as a coarse filter of variation in mixedwood boreal bird communities. Forestry Chronicle 89:37-49.
- Kuttner, B., J. R. Malcolm, and S. M. Smith. 2013. Multi-cohort stand structure in boreal forests of northeastern Ontario: relationships with forest age, disturbance history, and deadwood features. Forestry Chronicle 89:1-13.
- Cross, M. S., E. S. Zavaleta, D. Bachelet, M. L. Brooks, C. A. F. Enquist, E. Fleishman, L. Graumlich, C. R. Groves, L. Hannah, L. Hansen, G. Hayward, M. Koopman, J. J. Lawler, J. R. Malcolm, J. Nordgren, B. Petersen, E. L. Rowland, D. Scott, S.L. Shafer, M. R. Shaw, and G. M. Tabor. 2012. The Adaptation for Conservation Targets (ACT) framework: a tool for incorporating climate change into natural resource management. Environmental Management 50:341–351.
- Richmond, S., E. Nol, D. Burke, and J. R. Malcolm. 2012. Effects of single-tree selection harvesting on Rose breasted Grosbeak (Pheucticus leudovicianus) demography in a northern hardwood forest. Forest Ecology and Management 276: 24-32.
- Vanderwel, M. C., J. R. Malcolm, and J. P. Caspersen. 2012. Using a data-constrained model of home range establishment to predict abundance in spatially heterogeneous habitats. PLOS ONE 7(7): 1-11.
- Fischer, A.L., J.-M. Moncalco, J. N. Klironomos, and J. R. Malcolm. 2012. Fruiting body and molecular rDNA sampling of fungi in woody debris from logged and unlogged boreal forests in northeastern Ontario. Ecoscience 19: 374-390.
- Chaundy-Smart, R. F., S. M. Smith, J. R. Malcolm, and M. I. Bellocq. 2012. Comparison of moth communities following clear-cutting and wildfire disturbance in the southern boreal forest. Forest Ecology and Management 270:273-281.
- 17. Berch, S.M., D. Morris, and J. R. Malcolm. 2011. Intensive forest biomass harvesting and biodiversity in Canada: a summary of relevant issues. Forestry Chronicle 87:478-487.
- Boan, J. J., B. E. McLaren, and J. R. Malcolm. 2011. Influence of post-harvest silviculture on understory vegetation: implications for forage in a multi-ungulate system. Forest Ecology and Management 262:1704-1712.
- Garroway, C. J., J. Bowman, T. J. Cascaden, G. L. Holloway, J. R. Malcolm, and P. J. Wilson. 2011. The genetic signature of rapid range expansion by flying squirrels in response to contemporary climate warming. Global Change Biology 17:1760–1769.
- Vanderwel, M. C., J. P. Caspersen, J. R. Malcolm, M. J. Papaik, and C. Messier. 2011. Structural changes and potential vertebrate responses following simulated partial harvesting of boreal mixedwood stands. Forest Ecology and Management 261:1362-1371.

- Vanderwel, M. C., J. R. Malcolm, J. P. Caspersen, and M. A. Newman. 2010. Fine-scale habitat associations of red-backed voles in boreal mixedwood stands. Journal of Wildlife Management 74:1492-1501.
- Garroway, C. J., J. Bowman, G. L. Holloway, J. R. Malcolm, C. Mahan, T. McEachen, M. A. Steele, G. Turner, and P. J. Wilson. 2010. Climate change induced hybridization in flying squirrels. Global Change Biology 16:113-121.
- Patterson, J. E. H. and J. R. Malcolm. 2010. Landscape structure and local habitat characteristics as correlates of Glaucomys sabrinus and Tamiasciurus hudsonicus occurrence. Journal of Mammalogy 91:642-653.
- Norghauer, J. M., J. Grogan, J. R. Malcolm, and J. M. Felfili. 2010. Long-distance seed dispersal helps big leaf mahogany seedlings escape defoliation by a specialist caterpillar. Oecologia 162:405-412.
- Vanderwel, M. C., J. R. Malcolm, and S. M. Smith. 2009. Long-term snag and downed woody debris dynamics under periodic surface fire, fire suppression, and shelterwood management. Canadian Journal of Forest Research 39:1709-1721.
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### 2. NON-PEER-REVIEWED PUBLICATIONS

#### **Technical Reports**

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### Avadavat

Malcolm, J. R. 2017. Declaration in Support of Greenpeace Defendants' Motion to Strike, Resolute Forest Products, Inc., et al. v. Greenpeace International, et al. (Defendants), Civil Action File No. CV116-071, United States District Court, Southern District of Georgia (11 pp.)

#### Editorials

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#### **Magazine Entries**

Malcolm, J. R. 2008. Forest biomass: a low-hanging fruit? Tomorrow's Forest (The Sustainable Forest Management Network Newsletter), Spring 2008.

Contributor. 2004. National Geographic Atlas of the World, 8<sup>th</sup> Edition. National Geographic Society. Contributor. 2002. Our burdened earth. National Geographic Magazine, Map Supplement.

Malcolm, J. R., A. Markham, and R. P. Neilson. 2001. Can species keep up with climate change? Conservation Biology in Practice 2(2):24-25.

Malcolm, J. R. 1998. High roads to oblivion. Natural History 7/8:46-49.

### **3. SUBMITTED PUBLICATIONS**

#### **Journal Articles**

Malcolm, J. R., B. Holtsmark, and P. W. Piascik. Forest Harvesting and the carbon debt in boreal east-central Canada. Submitted to Climatic Change, Feb. 2019.

## **F. Intellectual Property**

Not applicable.

## **G.** Presentations and Special Lectures

## **Invited Lectures and Presentations**

- 2019. Natural Resources Defence Council Webinar, How the Growing Industrial Footprint in Canada's Boreal Forest Undermines Climate Protection.
- 2017. Ontario Ministry of Natural Resources and Forestry Forest Carbon Science Forum.
- 2017. Joint Meeting of the Entomological Societies of Canada and Manitoba (Smith, Malcolm, Barkley, Dennis, Timms, Islam, Seehausen, and Bellocq).
- 2014. International Conference on Development, Biodiversity and Climate Change: Issues and Challenges. Chamba, India (Van Schie and Malcolm).
- 2012. Biomass/Biodiversity Workshop (Great Lakes Forestry Centre), Sault Ste. Marie, ON.
- 2011. Canadian Mathematical Society, Winter Meeting, Toronto, ON (Hayashi, Malcolm, Kramm, Puric-Mladenovic, and Shi).
- 2011. Forests for the future: a scientific symposium for high school students, Royal Botanical Garden, Burlington, ON.
- 2011. Guelph Biomathematics and Biostatistics (BioM&S) Symposium, Climate Change and Ecology: a Mathematical & Statistical Perspective, Guelph, ON.
- 2011. Ecological Society of America Annual Meeting, Austin, Texas (Hayashi, Malcolm, Kramm, Puric-Mladenovic, and Shi).
- 2011. Boreal Forest Changes 2011 Conference, Chapleau Cree First Nation, Chapleau, ON.
- 2009. Guest speaker at event to prepare student delegates for the Copenhagen talks, Milton, ON.
- 2009. Entomological Societies of Canada and Manitoba, Winnipeg, MB (Malcolm and Smith).
- 2009. Zoological Education Trust Public Lecture, 48<sup>th</sup> Annual Meeting of Canadian Society of Zoologists, Toronto, ON.
- 2009. Faculty Seminar, Faculty of Forestry and the Forest Environment, Lakehead University, Thunder Bay, Ontario.
- 2009. Toronto and Area Council of Women, Toronto, ON.
- 2009. Far North Science Advisory Panel, Fourth Meeting, Barrie, ON.
- 2009. Sustainable Forest Management Network, Forest Futures Project, Toronto, ON.
- 2009. Invitation to Action and Solutions: Boreal Forest Customer & Investor Roundtable, Greenpeace Canada, Toronto, ON.
- 2008. Ontario Professional Foresters Association 2008 Conference and Annual General Meeting Forestry: a Changing Climate, Thunder Bay, ON.
- 2008. The State of Science on Forest Carbon Management in Canada, Pollution Probe, Toronto, ON.
- 2008. Climate Change Workshop Adapting our natural areas to climate change, Mississauga, ON.
- 2008. Paper Futures 2008: Leading the Way to a Green Bottom Line, Market Initiatives, Toronto, ON.
- 2008. Boreal Wildlife Day, Wildlife Conservation Society Canada, Toronto, ON.
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- 2007. Making Green Connections: Creating Partnerships and Providing Tools for Greenways, Ontario Nature's Annual General Meeting.
- 2006. Senior Alumni Association, University of Toronto, Toronto, ON.
- 2006. A.D. Latornell Conservation Symposium, Alliston, ON.
- 2006. Continuing Studies Seminar Series, Mississauga Public Library, Toronto, ON.
- 2006. CBC Future of Climate Change Workshop (Fifth Estate), Toronto, ON.
- 2006. Later Life Learning, University of Toronto, Toronto, ON.
- 2004. Species at Risk: Pathways to Recovery, Victoria, BC.
- 2004. Climate Change in New England and Eastern Canada: Natural Resource Impacts and Adaptation Responses, Conference of New England Governors and Eastern Canadian Premiers Symposium, Boston, Massachusetts.
- 2003. Conference on Global Climate Change and Biodiversity, Univ. of East Anglia, Norwich, U.K.
- 2003. Senate Standing Committee on Agriculture and Forestry, Senate of Canada, Ottawa, ON.

- 2003. Living Legacy Trust Biodiversity Conservation Workshop, Sault Ste. Marie, Ontario
- 2003. Climate Change in the Western and Northern Forests of Canada: Impacts and Adaptations, University of Northern British Columbia, Prince George, B.C.
- 2001. 12<sup>th</sup> Global Warming International Conference and Expo, Cambridge, UK.
- 2001. Guest Seminar, Royal Botanical Gardens, Edinburgh, UK.
- 2001. World Wildlife Fund Boreal Standards Workshop, Orangeville, Ontario.
- 2001. Department of Zoology Seminar Series, University of Guelph, Guelph, ON.
- 2001. Department of Biology Seminar Series, Carleton University, Ottawa, ON.
- 2001. Lake Abitibi Model Forest conference: New concepts and solutions in forest management (Malcolm, Ramprasad, Deans Smith, and Carleton).
- 2000. Royal Botanical Gardens, Hamilton, ON.
- 2000. Department of Geography Seminar Series, York University, ON.
- 2000. Lake Abitibi Model Forest conference: New knowledge and solutions for forest management (Smith, Malcolm, and Carleton).
- 1999. American Museum of Natural History Spring Symposium, NY (Markham and Malcolm).
- 1999. Seminar Series, Institute of Environmental Studies, University of Toronto, ON.
- 1998. Department of Biology Seminar, Trent University, ON.
- 1998. Seminar Series, Earth Observations Laboratory, Crestech, Toronto, ON.
- 1998. Forestry-Wildlife Workshop. Westwind Conference Series, Bracebridge, ON.
- 1998. Atmospherics Sciences Seminar Series, Environment Canada, Downsview, ON.
- 1997. Ecology Seminar Series, University of Toronto, Toronto, ON.
- 1996. Department of Zoology Seminar Series, University of Guelph, Guelph, ON.
- 1996. IUCN World Conservation Congress, Montreal, QE.
- 1996. Faculty of Forestry Seminar, University of Toronto, Toronto, ON.
- 1996. Conference on Scenarios of Future Biodiversity: Causes, Patterns, and Consequences, National Center for Ecological Analysis and Synthesis, University of California, Santa Barbara, CA
- 1995. Biology Departmental Seminar, University of Southern Maine, Portland, MA.
- 1995. Departmental Seminar, University of Wyoming, Laramie, WY.
- 1995. Departmental Seminar, University of Western Kentucky, Bowling Green, KY.
- 1995. Conference on Potential impacts of Climate Change on Tropical Forest Ecosystems, San Juan, Puerto Rico.
- 1994. First International Canopy Conference, Marie Selby Botanical Gardens, Sarasota, FL.
- 1993. Ecology and Evolutionary Biology Seminar, Queen's University, Kingston, ON.
- 1991. Ecology and Evolutionary Biology Seminar, Queen's University, Kingston, ON.
- 1990. Museum Seminar, Museum of Vert. Zoology, University of California, Berkeley, CA.
- 1990. Department of Biological Sciences Seminar, Florida State University, Tallahassee, FL.
- 1989. Insituto Nacional de Pesquisa da Amazônia, Manaus, AM, Brazil.

#### Conferences

- 2018. Society for Conservation Biology, Toronto (Malcolm, Holtsmark, and Piascik).
- 2015. Ecological Society of America Annual Meeting, Baltimore (Malcolm, Valenta, and Lehman).
- 2015. Ecological Society of America Annual Meeting, Baltimore (Karve and Malcolm).
- 2013. 16th International Boreal Forest Research Association Conference, Edmonton, AL. (Venier, Thompson, Fleming, Malcolm, Aubin, Trofymow, Langor, Sturrock, Patry, Outerbridge, Holmes, Haeussler, Grandpré, Chen, Bayne, and Arsenault).
- 2013. Society for Conservation Biology (Malcolm, Barkley, Burrell, Campbell, Carleton, Dennis, Fischer, Gradowski, Kuttner, Newman, Sherman, Sharkey, Sugar, Sztaba, and Vanderwel), Baltimore, MD.
- 2013. Society for Conservation Biology (Piascik, Malcolm, and Smith), Baltimore, MD.

- 2011. International symposium on "Dynamics and ecological services of deadwood in forest ecosystems," Rouyn-Noranda, QC (Malcolm, Dennis, Fischer, Vanderwel, Klironomos, Moncalvo, Morris, Smith, and Thompson).
- 2011. Symposium on "Predator interactions on both sides of the Pacific," American Society of Mammalogists Annual Meeting, Portland, Oregon (Gompper, Lesmeister, Ray, Malcolm, and Kays).
- 2010. IEA Bioenergy Conference, Kamloops, BC (Iraci, Malcolm, and Morris).
- 2009. Fifth International Colloquium on Arboreal Squirrels, Thompson Rivers University, Kamloops, BC (Patterson and Malcolm).
- 2009. 30th Canadian Symposium on Remote Sensing, Lethbridge, AL (Kuttner and Malcolm).
- 2009. Carnivores 2009: Carnivore Conservation in a Changing World, Denver, CO (Gompper, Lesmeister, Ray, Malcolm, and Kays).
- 2009. 7th North American Forest Ecology Workshop, Logan, UT (Vanderwel, Caspersen, and Malcolm).
- 2008. Canadian Society of Zoologists, Halifax, NS (Patterson and Malcolm).
- 2008. International Society for Arboriculture Ontario (ISAO) Conference, Niagara Falls, ON (Puric-Mladenovic, Malcolm, and Shi)
- 2008. Entomological Society of Ontario/Entomological Society of Canada Annual Meeting. Ottawa, Ontario (Barkley, Malcolm, and Smith.
- 2008. Do Carabidae and Diapriidae communities reflect age class distribution and structure in the boreal forest?
- 2008. Lindsay Winter Farm Woodlot Conference, Lindsay, ON (Puric-Mladenovic, Malcolm, and Shi)
- 2008. Ecological Society of America 93rd Annual Meeting, Milwaukee, WI (Vanderwel, Malcolm, Caspersen, and Newman).
- 2007. Canadian Society for Ecology and Evolution, Montreal, QC (Sharkey and Malcolm).
- 2007. American Society of Mammalogists, Albuquerque, NM (Sharkey and Malcolm).
- 2007. The Ontario Stewardship Program Annual General Meeting and Conference, Parry Sound, Ontario (Puric-Mladenovic, Malcolm, and Shi).
- 2007. Conference on Complex Stand Structures and Associated Dynamics: Measurement Indices and Modeling Approaches; International Union of Forest Research Organizations, Sault Ste. Marie, Ontario (Kuttner and Malcolm)
- 2007. International Congress on a Global Vision of Forestry, Toronto (Dennis and Malcolm)
- 2007. International Congress on a Global Vision of Forestry, Toronto (Kuttner and Malcolm)
- 2007. International Congress on a Global Vision of Forestry, Toronto (Sharkey and Malcolm)
- 2007. International Congress on a Global Vision of Forestry, Toronto (Vanderwel, Malcolm, and Caspersen)
- 2007. International Union of Forest Research Organizations, Sault St. Marie, ON (Vanderwel, Caspersen, and Malcolm)
- 2006. International Congress on Cultivated Forests, Bilbao, Spain (Barlow et al.)
- 2006. International Congress on Cultivated Forests, Bilbao, Spain (Gardner et al.)
- 2006. Ontario Ecology and Ethology Colloquium (Norghauer, Malcolm, and Zimmerman).
- 2006. American Society of Mammalogists (Holloway and Malcolm)
- 2005. Canadian Association of Geographers Ontario Division (Newman, Malcolm, and Thompson).
- 2005. American Society of Mammalogists (Holloway and Malcolm)
- 2005. Ecological Society of America (Malcolm, Puric-Mladenovic, and Shi)
- 2005. Ecological Society of America (Holloway and Malcolm)
- 2005. Ecological Society of America (Vanderwel, Malcolm, and Smith)
- 2005. Ecological Society of America (Zigouris, Malcolm, and Heaven)
- 2005. North American Forest Ecology Workshop (Vanderwel, Malcolm, and Smith)
- 2005. Canadian Society of Zoologists (Bowman, Holloway, Malcolm, Middel, and Wilson)
- 2004. Workshop on Climate Change and Ontario's Parks; Parks Research Forum of Ontario (Bowman, Wilson, Carr, McEachen, Malcolm, and Holloway)
- 2004. Society for Conservation Biology (Malcolm, Liu, Hansen, and Hannah)

- 2004. Society for Conservation Biology (Lambert, Malcolm, and Zimmerman)
- 2004. Society for Conservation Biology (Gelok, Malcolm, Ray, and Naylor)
- 2004. American Society of Mammalogists (Lambert, Malcolm, and Zimmerman)
- 2004. American Society of Mammalogists (Gelok, Malcolm, Ray, and Naylor)
- 2004. American Society of Mammalogists (Peters, Malcolm, and Zimmerman)
- 2003. Entomological Society of Ontario (Vanderwel, Malcolm, Sandy Smith)
- 2003. 10th Annual Meeting of The Wildlife Society (Malcolm, Campbell, Kuttner, Sugar, and Carleton).
- 2003. 10<sup>th</sup> Annual Meeting of The Wildlife Society (Holloway, Malcolm, and Naylor).
- 2003. 10th Annual Meeting of The Wildlife Society (Ray, Kays, Gompert, and Malcolm).
- 2002. Third International Canopy Conference, Cairns, Australia (Vance, Malcolm, and Smith).
- 2001. Entomological Societies of Ontario and Canada (Vance, Malcolm, and Smith).
- 2001. Old-Growth Forests in Canada: A Science Perspective (Kuttner and Malcolm).
- 2001. Old-Growth Forests in Canada: A Science Perspective (Deans, Malcolm, and Smith).
- 2001. Society for Conservation Biology (Campbell and Malcolm).
- 2001. Society for Conservation Biology (Nagel, Naylor, and Malcolm).
- 2001. Society for Conservation Biology (Pardini and Malcolm).
- 2000. Ontario Ecology and Ethology Colloquium (Campbell, Kuttner, and Malcolm).
- 2000. Ontario Ecology and Ethology Colloquium (Kuttner, Campbell, and Malcolm).
- 2000. Toronto Entomological Society (Sugar and Malcolm).
- 1999. Society for Conservation Biology (Sugar and Malcolm).
- 1999. 136th Annual Meeting Entomology Society of Ontario (Deans, Smith, and Malcolm).
- 1999. Entomological Society of America Annual Meeting (Sugar and Malcolm).
- 1999. 136<sup>th</sup> Annual Meeting of the Entomological Society of Ontario (Sugar and Malcolm).
- 1999. Toronto Entomological Association, Toronto, Ontario (Sugar and Malcolm).
- 1999. Spring Symposium, Biodiversity and Climate Change: Conservation in the Face of Uncertainty, American Museum of Natural History (Markham and Malcolm).
- 1999. Ontario Ecology and Ethology Colloquium (Campbell and Malcolm).
- 1998. Toronto Entomological Society (Sugar and Malcolm).
- 1997. Geomatics in the era of RADARSAT (Malcolm, Zimmerman, Cavalcanti, Ahern, and Pietsch).
- 1997. International Theriological Congress (Laurance, Lynam, and Malcolm).
- 1996. 76th Annual Meeting of the Am. Soc. of Mammalogists (Malcolm, Patton, and da Silva).
- 1993. Society for Conservation Biology (Stith, Struhsaker, Malcolm).
- 1991. Ecological Society of America (Bierregaard, Malcolm, and Brown).
- 1990. Society for Conservation Biology.
- 1989. 16th Brazilian Zoology Conference.
- 1987. 14th Brazilian Zoology Conference.
- 1985. 65th Annual Meeting of the American Society of Mammalogists.
- 1984. 11th Brazilian Zoology Conference.
- 1983. 63rd Annual Meeting of the American Society of Mammalogists (Malcolm and Brooks).
- 1983. Canadian Society of Zoologists Annual Meeting (Malcolm and Brooks).
- 1983. 8th Ontario Ethology and Ecology Colloquium (Malcolm and Brooks).
- 1983. 8th Ontario Ethology and Ecology Colloquium (Galbraith, Brooks, and Malcolm).
- 1982. 7th Ontario Ethology and Ecology Colloquium (Malcolm and Brooks).

#### Invited Workshops (2007 onward only)

- 2018. The role of forest conservation in carbon offsetting in the context of overall climate change mitigation and adaptation strategies and policies (NGO working group), Toronto, ON.
- 2018. Global warming potential of the build environment (International Institute for Sustainable Development, Technical Advisory Committee,), Toronto, ON.
- 2013. Conservation targets for Rouge National Park (Wildlands League), Toronto, ON.
- 2013. Ecological indicators of forest management (Canadian Forest Service), WebEx.
- 2012. Biomass/Biodiversity Workshop (Great Lakes Forestry Centre), Sault Ste. Marie, ON.

- 2010. Multi-cohort stand structural classification using LiDAR (Faculty of Forestry), Toronto, ON.
- 2009. Biofuel Harvesting in Ontario: Policy Directions (Richard Ivey Foundation), Toronto, ON.
- 2008. Boreal Shield Ecosystem Status and Trends Report (Canadian Forest Service), Toronto, ON.
- 2007. Biodiversity Implications of Biofuel Development (Richard Ivey Foundation), Toronto, ON.
- 2007. Adapting to Climate Change (National Center for Ecological Analysis and Synthesis), Santa Barbara, CA.
- 2007. Forest Management Landscape and Site Guides (Wildlands League), Toronto, ON.
- 2007. Geoide Proposal Development, York University, Toronto, ON.

## Press Activities (2007 onward only)

- 2016. Interview for CBC Toronto News, February
- 2014. Interviewed for La Presse
- 2009. Interviewed for article in the Christian Science Monitor
- 2009. Interview filmed for CBC's "Darwin's Brave New World" (The Nature of Things).
- Vanderwel et al. (2007) featured in "Current Results: Key Discoveries about Our Environment" 2008. (web-based news service)
- 2007. Interviewed and quoted in four Toronto Star Articles
- 2007. Profiled in Ontario Nature magazine (January)
- 2007. CBC National News (Radio), March 2007. The Current, CBC Radio, April
- 2007. Interview for CBC National News, May

## H. Teaching and Design

## **Undergraduate Courses Taught**

FOR400	Advanced Seminar in Forest Conservation	2004-2011
FOR413/1555	Wildlife Ecology and Management	2001, 2002, 2004-2011, 2013
FOR200	Conservation of Temperate Forests	2000-2002
JFG328	Conservation and Management of Canada's Forests	1997-1999

## **Graduate Courses Taught**

Course coordinator:		
FOR3006	Case Study Analysis in Forest Conservation	2005-2006
FOR3009	Forest Conservation Biology	1997, 1998, 2001-2003, 2005-2017, 2019
FOR3001	Biodiversity of Forest Organisms	2011-2016, 2018
FOR 413/1555	Wildlife Ecology and Conservation	1998-2002, 2004-2011, 2013
FOR1900	Advanced Topics in Forestry: A Short Course in	
	(Especially Multivariate) Methods for Ecologists	S
FOR3011	International Forest Conservation Field Camp	1999, 2010
	(Brazil)	
FOR3011	International Forest Conservation Field Camp	2015
	(Costa Rica)	
FOR3012	Analytical Methods in Forestry (Statistics Modu	
FOR1000	Graduate Research Methods (Statistics Module	e) 2015
		2013

## Team teaching

FOR201	Conservation of Tropical and Subtropical Forests	2016
FOR3011	International Forest Conservation Field Camp (Bahia, Brazil)	2009
FOR3008	Research Paper in Forest Conservation	1997-2002, 2004-2018
BIO395	Conservation Biology	2008
ECE496	Electrical Engineering Design Project	2008, 2011, 2012
FOR3009	Conservation of Global Forest Ecosystems	1999
FOR3001	Biodiversity of Forest Organisms	1996-2002, 2004-2010
FOR3002	Applied Ecology	1997-2002
FOR3006	Case Study Analysis in Forest Management	1996, 2007
FOR1580	Forests in the Developing World	1997
FOR1581	Tropical Forest Management and Conservation	1996, 1999

## **Guest Lecturer**

FOR3005H	Stresses in the Forest Environment	2017
EESC04H3	Biodiversity and Biogeography	2012-15
FOR1331H	Advanced Forest Entomology	2004-2006, 2008, 2012, 2017
GGR403H1	Global Ecology and Biogeochemical Cycles (Geography)	2006
GGRC41H3	Current Topics in Human Geography	2006
BIO395	Conservation Biology	2000, 2001
FOR1000	Graduate Seminar I	1997-2002, 2004-2006
FOR3000	Current Issues and Approaches in Forest Conservation	1996, 1997
FOR3002	Applied Ecology	1996, 2010-12
FOR1067	Fundamentals of Forestry	1997
JBF1436	Landscape Ecology and Methods	1996
SCI199Y	First Year Seminar	1998
FOR1581	Tropical Forest Management and Conservation	2001, 2002, 2004, 2005, 2006
ENV200	Assessing Global Change: Science and the Environment	2003

# I. Research Supervision

## **Postdoctoral Supervision**

2010/2011.	Ben Kuttner (MITACS Elevate Industrial Fellowship: Ontario Forest Resource Inventory
	Enhancement using ADS40 Aerial Imagery and LiDAR data)
2009.	Francisca Matos (Landsat-based characterization of selective logging in the Amazon)
2003/2004.	Danijela Puric-Mladenovic (Adaptive responses to climate change-induced tree migration
	in Ontario)
2003/2004.	Hua Shi (Adaptive responses to climate change-induced tree migration in Ontario)
2001/2002.	Canran Liu (Migration rates and biodiversity loss under global warming)

## **Graduate Student Supervision**

## COMPLETED

Angel, B. 2019. Ground beetles (Coleoptera: Carabidae) and ecologically sustainable forest management in the northern hardwood forests of central Ontario. M.Sc.F.

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- Sztaba, A. 2014. Abundances of cavity-nesting birds and their dead wood resources in closed-canopy managed and unmanaged mixedwood forests of boreal northeastern Ontario. **M.Sc.F.** (co-supervised with P. Drapeau).
- Piascik, P. 2012. Responses of ground beetle (Carabidae) communities to experimental downed wood removal. **M.Sc.F.** (co-supervised with S. Smith).
- Iraci, J. 2011. Nutrient dynamics of downed woody debris in boreal mixedwood stands. **M.Sc.F.** (co-supervised with D. Morris).
- Richmond, S. 2011. Effects of single-tree selection harvesting on Rose-breasted Grosbeaks (*Pheucticus leudovicianus*) in a predominantly forested landscape. **Ph.D.**
- Hayashi, K. 2011. Climate-induced tree migration in southern Ontario: pathways and source populations. **M.Sc.F.**
- Kuttner, B. 2010. Multi-cohort stand structural classification for boreal forest types: ground- and LiDAR-based approaches. **Ph.D.**, (co-supervised with S. Smith).
- Barkley, E. 2009. Insect communities and multicohort stand structure in the boreal mixedwoods of northeastern Ontario. **M.Sc.F.**, (co-supervised with S. Smith).
- Burrell, M. 2009. Multicohort management and LiDAR: new forest management tools for northeastern Ontario mixedwood bird communities. **M.Sc.F.**, (co-supervised with P. Drapeau).
- Dennis, J. 2009. Saproxylic insect communities in boreal mixedwoods of northeastern Ontario as a function of variation in woody debris quality and quantity and sampling methods. **M.Sc.F.**, (co-supervised with S. Smith).
- Solórzano-Filho, J. 2009. On small mammal sympatry in the southeastern Amazon and ecological relationships with brazil nut dispersal and harvesting. **Ph.D.**, (co-supervised with B. Zimmerman).
- Vanderwel, M. 2009. Modelling effects of partial harvesting on wildlife habitat. **Ph.D.**, (co-supervised with J. Caspersen).
- Kramm, D. 2008. Consensus modeling of tree distributions in Ontario and projected changes under global warming. M.Sc. (Primary Supervisor, University of Applied Sciences, Eberswalde, Germany)
- Sharkey, C. 2008. Small mammal communities and multi-cohort stand structure in boreal north-eastern Ontario. **M.Sc.F.**
- Patterson, J. 2007. The ecology of *Glaucomys sabrinus* and *Tamiasciurus hudsonicus* in a fragmented Great Lakes-St. Lawrence forest landscape. **M.Sc.F.**
- Norghauer, J. 2007. Big-leaf mahogany and its natural enemies: a test of the Janzen-Connell hypothesis in Amazonia, **Ph.D.**, (co-supervised with B. Zimmerman).
- Leite, R. N. 2006. Communities of small mammals in a mosaic of Eucalyptus plantations and primary and secondary forests in the eastern Amazon. **M.Sc.** (National Institute of Amazonian Research, co-supervised with M. N. F. da Silva).
- Holloway, G. 2006. Effects of selection and shelterwood logging on flying squirrel populations in Algonquin Provincial Park. **Ph.D.**
- Gelok, P. 2005. Seasonal habitat associations of American martens (*Martes americana*) in central Ontario. **M.Sc.F.** (co-supervised with J. Ray).
- Vanderwel, M. 2005. Modelling the dynamics of white and red pine coarse woody debris in central Ontario. **M.Sc.F.** (co-supervised with S. Smith).
- Lambert, T. 2004. Small mammals of the south-eastern Amazon and the ecological consequences of selective logging. **Ph.D.** (co-supervised with B. Zimmerman).
- Peters, S. 2004. Effects of selective logging on bat communities and trophic structure in southeastern Amazonia, Brazil. **M.Sc.F.** (co-supervised with B. Zimmerman).
- Pinto, D. 2003. Natural regeneration of big-leafed Mahogany (<u>Swietenia macrophylla</u>) in unlogged and selectively logged forests in Southern Pará, Brazil and Kayapó forest tree knowledge and taxonomy. M.Sc.F. (co-supervised with B. Zimmerman).
- Vance, C. 2002. The canopy insect communities of old-growth pine and maple stands in the Great Lakes-St. Lawrence forest of central Ontario. **M.Sc.F.** (co-supervised with S. Smith).

- Deans, A. 2002. Influence of variable retention harvesting on insect communities in lowland conifer forests of northeastern Ontario. M.Sc.F. (co-supervised with S. Smith).
- Kuttner, B. 2002. Impacts of clearcut logging on small mammal communities in boreal mixedwoods of northeastern Ontario. **M.Sc.F.**
- Christensen, H. 2001. Clearing a common ground: WTO international trade regulations and sustainable forest management. **M.A.** (Geography)
- Campbell, B. 2001. Impacts of logging on bird diversity in boreal mixedwood forests of northeastern Ontario. **M.Sc.F.**
- Sugar, A. 2000. The long-term impacts of clear-cut logging on insect communities in the boreal mixedwood forests of northeastern Ontario. **M.Sc.F.**
- Rampradsad, P. 2000. Influence of variable retention harvesting on plant diversity in lowland conifer forests of northeastern Ontario. **M.Sc.F.** (co-supervised with T. Carleton).

#### THESES IN PROGRESS

- Maloney, J., M.Sc.F., Effects of single-tree selection, trap height, tree species, and deadwood decay on beetle communities in Great Lakes St. Lawrence forests.
- Kostyukova, K., **Ph.D.**, Understanding spatial variation in Great Lakes St. Lawrence small mammal populations and relationships with forest structure and dynamics (co-supervised with S. Thomas).
- Karve, A., **Ph.D.**, Effects of experimental downed wood removal on the abundances and ecology of boreal small mammals.
- Croydon-Sugarman, M., **M.Sc.F.**, Effects of experimental downed wood removal on boreal fungal populations (co-supervised with J-M. Moncalvo).
- Van Schie, Ph.D., Ecosystem services in Wolf Lake First Nation traditional lands.