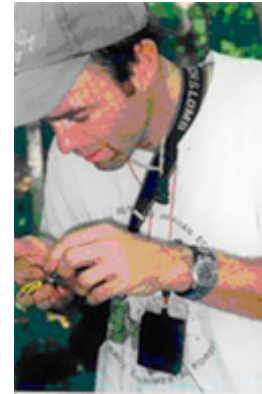


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Photo



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Specific Research Interests

Effects of climate change on animal demography and ecosystem function

Key taxa: songbirds, amphibians

Research Fields

- Atmospheric chemistry
- Biogeochemistry
- Carbon Footprint Analysis
- Climatology
- Community & Disaster Planning
- Data Analysis & Statistical Modeling
- Ecology & Ecosystem Management
- Economics
- Energy policy & technology
- Ethics
- Fire
- Forestry & Forest Management
- Geographic Information Systems
- Horticulture
- Human Impacts - economics
- Human Impacts - health
- Human Impacts - policy
- Hydrology
- Impacts - agriculture & horticulture
- Impacts - ecosystems, populations
- Impacts - physical
- Instrumentation
- Mitigation Policy
- Modeling Climate
- Modeling Ecosystems
- Modeling Socioeconomic Processes
- Natural Resource Policy & Planning
- Outreach & Engagement
- Paleoclimatology
- Paleoecology
- Physical Ecology
- Physiological Ecology
- Urban Ecology
- Water Policy & Planning
- Other...

Forest Ecology

Projects

1. Habitat selection behavior as a mechanism for adaptation to climate change
2. Trophic cascades in soil ecosystems as a function of climate change

Selected Recent Publications

Betts, M.G., G.J. Forbes, and A.W. Diamond. In Press. Thresholds in songbird occurrence in relation to landscape structure. *Conservation Biology* 00: 000-000.

Betts, M.G., D. Mitchell, A.W. Diamond, and J. Bêty. In Press. Uneven rates of landscape change as a source of bias in roadside wildlife surveys. *Journal of Wildlife Management* 00: 000-000.

Linke, J., M.G. Betts, M. Lavigne, and S.E. Franklin. 2007. Introduction: Structure, function and change in forest landscapes. In *Forest Disturbance and Spatial Pattern: Remote Sensing and GIS Approaches*. Wulder, M. and S.E. Franklin (eds). Taylor and Francis Group Publishing.

Betts, M.G., B.P. Zitske, A.S. Hadley, and A.W. Diamond. 2006. Migrant forest songbirds undertake breeding dispersal following timber harvest. *Northeastern Naturalist* 13: 531-536.

Betts, M.G., G.J. Forbes, A.W. Diamond, and P.D. Taylor. 2006. Independent effects of fragmentation on forest songbirds: an organism-based approach. *Ecological Applications* 16: 1076–1089.

Betts, M.G., A.W. Diamond, G.J. Forbes, M.-A. Villard, and J. Gunn. 2006. The importance of spatial autocorrelation, extent and resolution in predicting forest bird occurrence. *Ecological Modelling* 191: 197–224.

Young, L., M.G. Betts, and A.W. Diamond. 2005. Do Blackburnian Warblers select mixed forest? The importance of spatial resolution in defining habitat. *Forest Ecology and Management* 214: 358–372.

Warren, T., M.G. Betts, A.W. Diamond, and G.J. Forbes. 2005. The influence of local habitat and landscape composition on cavity-nesting birds in a forested mosaic. *Forest Ecology and Management* 214: 331–343.

Doran, P.J., P.Z. Gulezian, and M.G. Betts. 2005. A test of the mobbing playback method as a means to estimate bird reproductive success. *Journal of Field Ornithology* 76: 227-233.

Betts, M.G., A.S. Hadley, and P.J. Doran. 2005. Avian mobbing response is restricted by territory boundaries: experimental evidence from two species of forest warblers. *Ethology* 111: 821-835.

Betts, M.G., A.W. Diamond, G.J. Forbes, K. Frego, J. Loo, B. Matson, M. Roberts, M.-A. Villard, R. Wissink, L. Wuest, and V. Zelazny. 2005. Plantations and biodiversity: a comment on the debate in New Brunswick. *Forestry Chronicle* 81: 265-269.

Betts, M.G., N.P.P. Simon, and J. Nocera. 2005. Point count data summary metrics differentially predict reproductive activity in forest and grassland birds. *Journal of Ornithology* 146: 151-159.

Betts, M.G., S.E. Franklin, and R.G. Taylor. 2003. Interpretation of landscape pattern and habitat change for local indicator species using satellite imagery and geographic information system data in New Brunswick, Canada. *Canadian Journal of Forest Research* 33: 1821–1831.

Betts, M.G., J. Knox, and G.J. Forbes. 2002. A landscape ecological approach to private woodlot planning in New Brunswick. *Natural Areas Journal* 22: 311–317.

Betts, M.G., J. Loo. 2002. A comparison of pre-European settlement forest characterization methodologies. *Forestry Chronicle* 18(3): 123-129.

Betts, M.G. 1997. Community forestry in New Brunswick. *International Journal of Ecological Forestry* 12(3): 247-254.

Professional Activities

AAAS

Ecological Society of America

American Ornithologists Union