

»»» FEBRUARY 2025 NEWSLETTER «««

KNOWLEDGE EXCHANGE NETWORK (KEN) ECOLOGICAL FORESTRY RESEARCH INITIATIVE (EFRI)

Edition #5



SUCCESSFUL FIELD SEASON FOR THE FOREST BIODIVERSITY MANAGEMENT CLUSTER STUDENTS

DATA COLLECTION AT THE SAINT MARY'S RIVER WATERSHED

It was a fruitful field season for the Forest Biodiversity Management Cluster (FBMC) students Ben Collison and Mary Legorburu. The study intends to understand the impact of forest harvest on stream temperature and fish habitat. In May, they deployed temperature loggers in the Western branch of the Saint Mary's river. Prior to going into the field, they underwent the Canadian Aquatic Biomonitoring Network (CABIN) training and certification for freshwater sampling. Later in the summer, macro-invertebrate sampling was done based on CABIN protocols and data was collected downstream and upstream from bridges and culverts. The data will be used by Mary for their Honour's project at Dal and by Ben for his Ph.D. thesis.

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Integrating climate change into strategic forest management is crucial for predicting forest dynamics and maintaining resource availability. However, there is no scientific consensus on how to integrate their climate-sensitive outputs into strategic forest planning. This study proposes an approach to incorporate climate change into a strategic forest planning model, Woodstock, calibrated for the Acadian forest region.

NEW PAPER!!

INTEGRATING THE EFFECTS OF CLIMATE CHANGE INTO LONG-TERM STRATEGIC FOREST MANAGEMENT PLANNING USING A PROCESS- BASED STAND MODEL

Albert, C., Taylor, A. R., D'Orangeville, L. (2024). Integrating the effects of climate change into long-term strategic forest management planning using a process-based stand model. Canadian Journal of Forest Research. <https://doi.org/10.1139/cjfr-2024-0238>

MEDIA ATTENTION

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A study co-authored by the FBMC Co-chair Dr. Anthony Taylor on investigating climate anomalies associated with the sudden mortality of balsam fir trees in eastern Canada has received media attention. This study, which was shared in our previous newsletter, was covered by CBC New Brunswick on December 02, 2024 and by The Globe and Mail on December 08, 2024.

NEW PAPER!! CAN TREE-RINGS INFORM ASSISTED MIGRATION?

D'Orangeville, L., Itter, M.S., Santos, J.M.D., Taylor, A. R. (2025). Can tree-rings inform assisted migration? Revisiting provenance trials across Atlantic Canada to compare local adaptation between red spruce populations. *Forest Ecology and Management*, (V)578. <https://doi.org/10.1016/j.foreco.2024.122482>

>>> READ MORE

As climate niches of most tree species are projected to shift rapidly in the coming decades, forest-assisted migration (FAM) of populations from warmer sites is a promising silvicultural tool to help forests adapt to global changes. However, additional knowledge on species-specific local genetic adaptation and phenotypic plasticity is needed to inform the deployment of FAM in forest management.

The Wildlands Network hosted a webinar series to engage with Biosphere Regions in Eastern Canada and the Champlain-Adirondack Biosphere Region (CABR) in the United States with the Future Forests Reimagined (FFR) framework for resilient forestry best practices. The links to the online webinars can be found here:

- Workshop 1: Bioregionalism (Sept 11)
- Workshop 2: The Big Picture (Sept 25)
- Workshop 3: Indigenous Perspectives (Oct 9)
- Workshop 4: Forest Protection and Active Management (Oct 23)
- Workshop 5: Ecological Forest Management (Nov 6)
- Workshop 6: Forest Economics (Nov 20)
- Workshop 7: Science of Old Forests (Dec 4)

FUTURE FORESTS REIMAGINED US AND CANADA BIOSPHERE REGION EXCHANGE FALL 2024 WEBINAR

CALL OUT

Knowledge Exchange Network (KEN) Session Recommendations:

Got something you want to share or teach, or interested in learning about something new? Let us know!

We are organizing the 2025 KEN sessions, and we want to make sure the upcoming sessions reflect your interests! So, did you just wrap up a research project and looking to share results, or got a skill worth sharing (like grant writing, or stress management), or just interested in learning more about a specific topic? Let us know and we can make it happen!

Please get in touch at: efri@dal.ca



EDITORIAL

FROM ACADEMIA TO ACTION: A GUIDE FOR STUDENTS AND RESEARCHERS

Chu, S.M. (2025). From academia to action: A guide for students and researchers. *Dalhousie Journal for Interdisciplinary Management*, (V)19, 1. <https://ojs.library.dal.ca/djim/article/view/12376>