

# SES Fall Seminar Series

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## 'Some Aspects of Ecological Research in Forests and Agroforests: a 30-year perspective'

For the past several decades, the University of Guelph has, with many external partners, pursued a variety of interesting research avenues in forested environments. The common denominator for many of these studies has been the purposeful embracing of an ecosystem ecology approach to understanding the structure of, and important ecological processes within, both natural and plantation forests. In southern Ontario, long-term experiments in tree-based intercropping and integrated riparian systems have contributed to our understanding of the importance of litterfall, nutrient transfer and carbon sequestration, for example, in these land-use systems. An early awareness of the important linkage between terrestrial and aquatic systems developed in the agricultural landscape of southern Ontario has been parlayed into larger research efforts investigating the flow of energy and nutrients across this important ecotone in forests in both central Ontario and the boreal region, where large-scale timber harvesting practices can possibly impact negatively upon these processes. Historical studies in boreal plantations have investigated successional pathways associated with the understory plant community, the distribution of soil microarthropods and litterfall, throughfall and stemflow chemical fluxes for several species within the genus *Picea*. Additional research efforts have embraced studies on the distribution of arboreal lichens and the occurrence of microbial communities within the phyllosphere in boreal plantations, the impact of forest fire on young-of-year pike populations, the restoration of ridge-top oak forests in central Ontario using fire, and a feedstock to furnace investigation of bioenergy from short-rotation willow plantations. The author takes a retrospective look at some of these studies, while discussing the wide range of investigative scales necessary to thoroughly understand forest systems. The talk is framed within a long-term ecological research perspective, since the temporal context provided by engaging in such research can aid us greatly in understanding large-scale changes in ecosystem processes, revealing the secrecy inherent within what has been termed "the invisible present".



Friday  
October 2,  
2015

3:30 - 4:30 pm  
Alexander Hall  
Room 218

All are welcome to attend!



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