Title: Understanding and managing forest biogeochemical cycles.

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Abstract:
Cycles of carbon, nutrients and water are important in the functioning of forest ecosystems, and directly or indirectly influence many of the benefits society obtains from forests. Flows of materials through these cycles link many of the elements of forest ecosystems, including living organisms, dead organic matter and geological soil material. The living plants produce carbon compounds that drive the energetics of the forest and influence the soil environment from which plants draw their nutrients and water. Non-living components store and regulate flows of carbon, nutrients and water, and support microbial populations that influence plant growth and forest response to disturbance. All of these functions are influenced by forest management and natural disturbance. CEF researchers are studying a diverse set of relationships involving these biogeochemical cycles to gain a better understanding of ecosystem function and to support better forest management.

This presentation will also provide an up-date on the Sustainable Forest Management Network. A national, multidisciplinary research partnership involving university researchers, industry, governments, Aboriginal organizations and NGOs, the Network identifies research priorities and funds projects across the country. With two years remaining in its federal NCE mandate the Network is focusing on activities that synthesize and disseminate knowledge. A new Network-wide project will involved a scenario planning process to explore possible futures for the Canadian forest. The project will present many opportunities to draw together the expertise of all stakeholder groups, including university researchers, to bring the state of knowledge about forests and the future to the attention of policy- and opinion-makers. The Network is also working to create a legacy that will allow the values derived from the partnership over the last twelve years to continue to benefit society into the future.