Global Contamination of Mercury in Forested Landscapes

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Mercury is widely regarded as a global pollutant, contaminating all types of environment on the planet. It is traditionally thought as a neurotoxicant, but more recent work suggested that mercury can also lead to endocrine disruption and cardiovascular diseases. Critically, mercury can be transformed to an organic form called methylmercury by certain anaerobic bacteria, and methylmercury can be effectively taken up at the base of the food chain and "biomagnified" along the food chain, leading to a very high concentration to top animal predators and posing a risk to the health of human and wildlife. Due to the stomatal uptake of gaseous mercury by foliage, forests represent a net sink of mercury at the global scale, and both the terrestrial and aquatic ecosystems within forested landscape are thus subject to elevated mercury contamination. In this seminar, I will present the findings from my recent studies examining mercury biogeochemical cycling in different forested landscapes, including upland forests, streams and rivers, wetlands, and the impact of perturbation (wildfire and flooding) and restoration.

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Conference Room, 3/F, Mong Man Wai Building

Zoom Link (Mixed-mode)

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