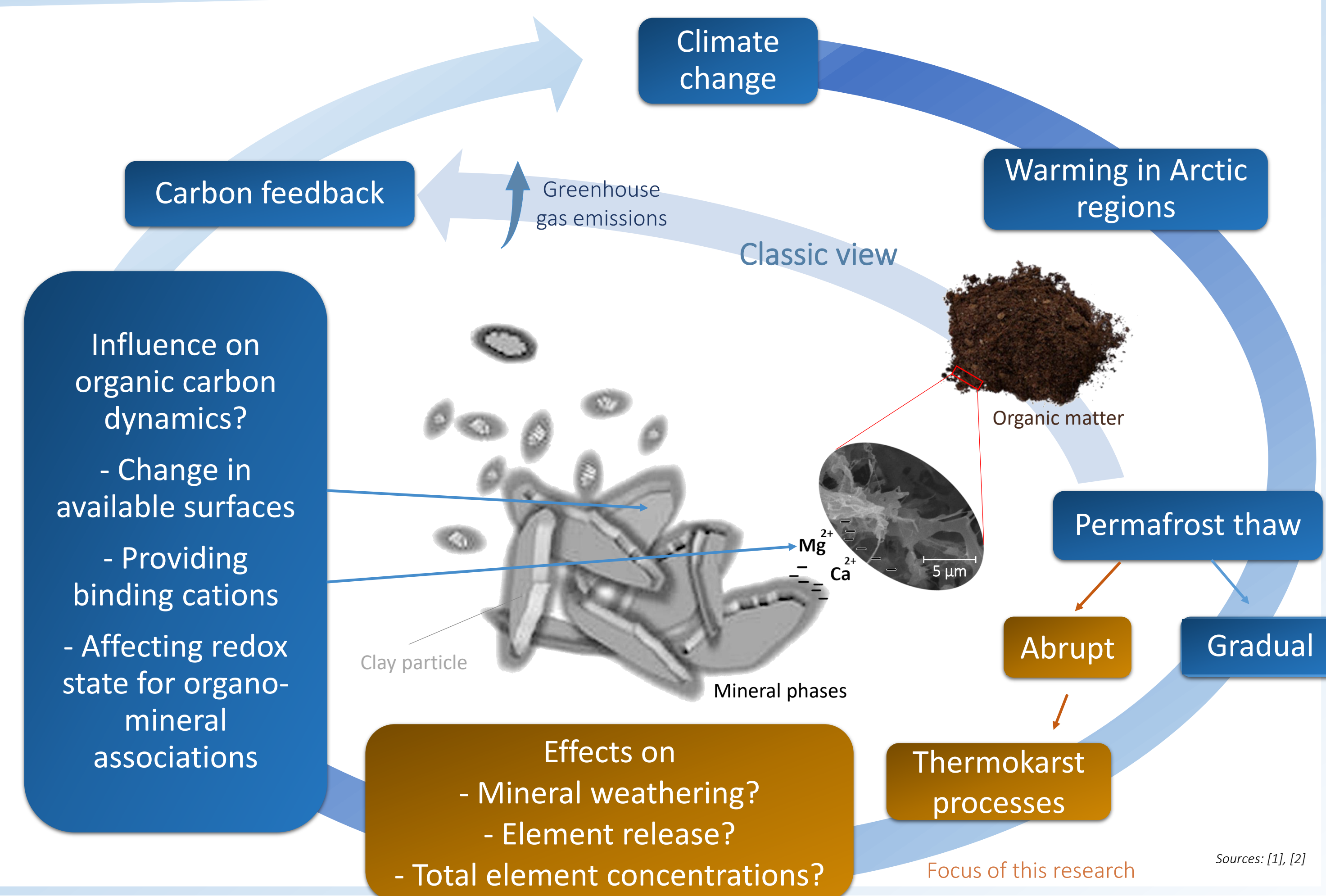


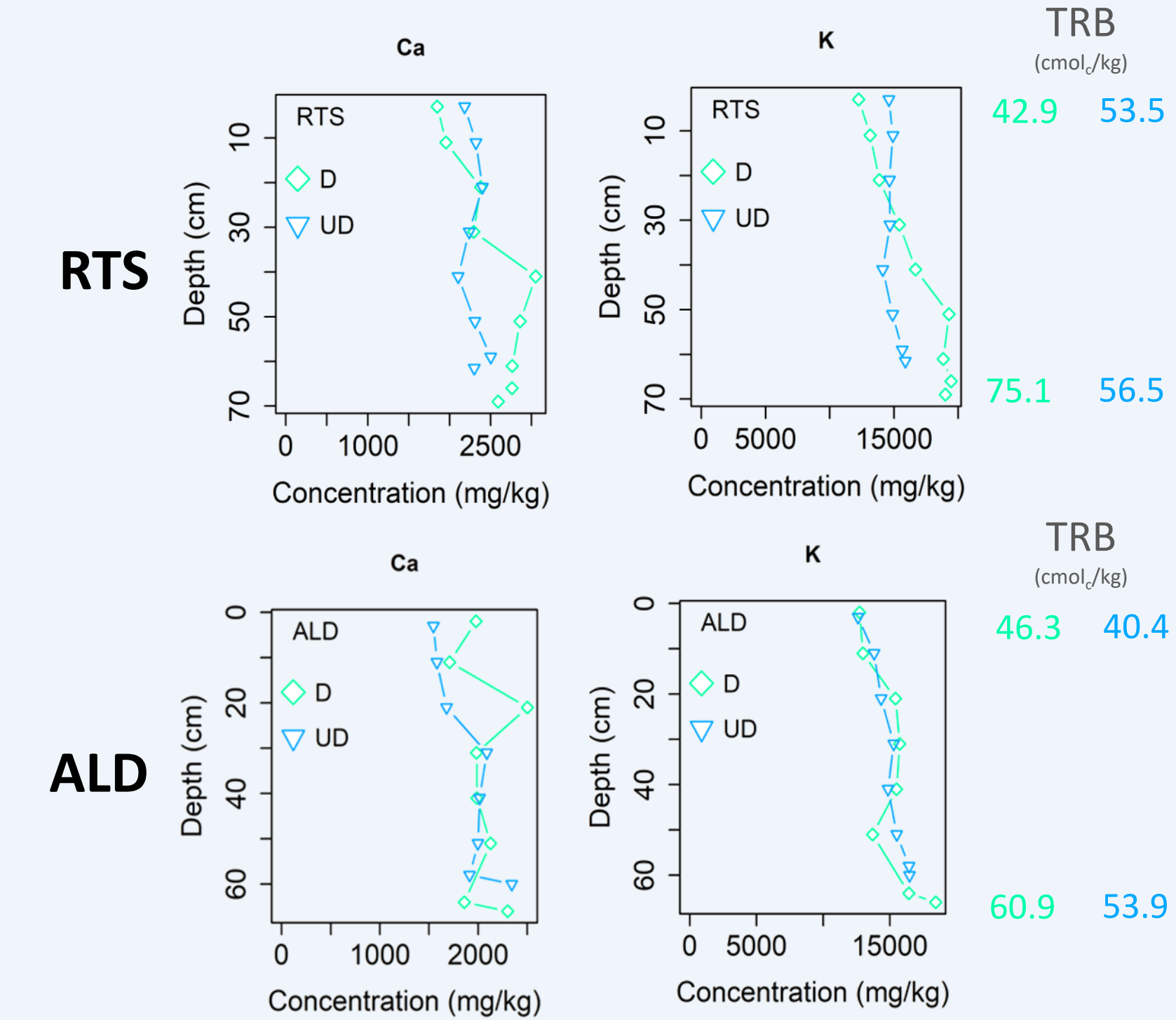
Maxime Thomas¹, Sophie Opfergelt¹, Arthur Monhonval¹, Nathan Bemelmans¹, Melissa Lafrenière², Joanne Heslop², Julien Fouché³, Thomas Rochereau³

¹Earth and Life Institute, Université catholique de Louvain, Louvain-la-Neuve, Belgium
²Department of Geography and Planning, Queen's University, Kingston, Ontario, Canada
³Université de Liège, Gembloux Agro-Biotech, Gembloux, Belgium
Contact : maxime.thomas@uclouvain.be

Permafrost thaw: implications for constituents exposed and carbon feedback



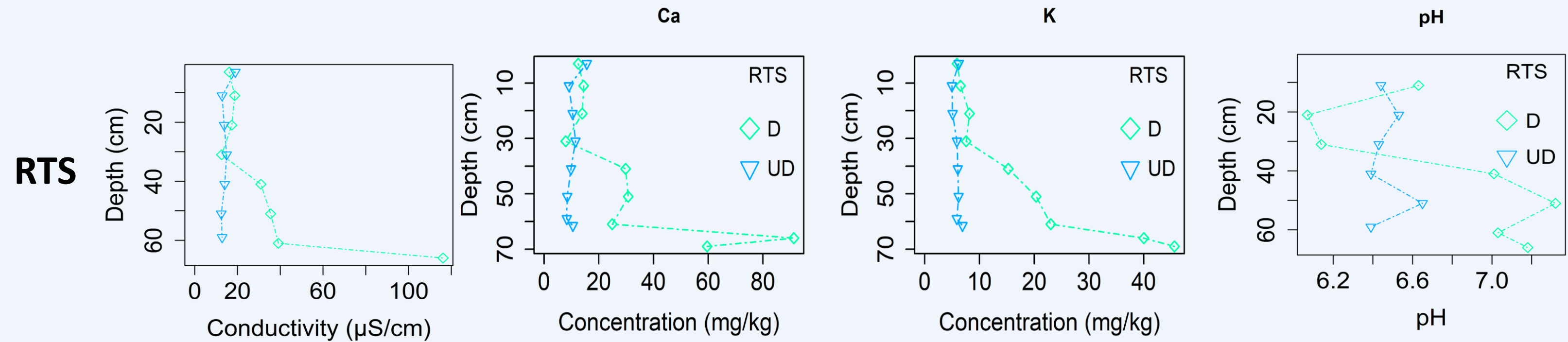
Higher total concentrations in mineral elements for RTS permafrost



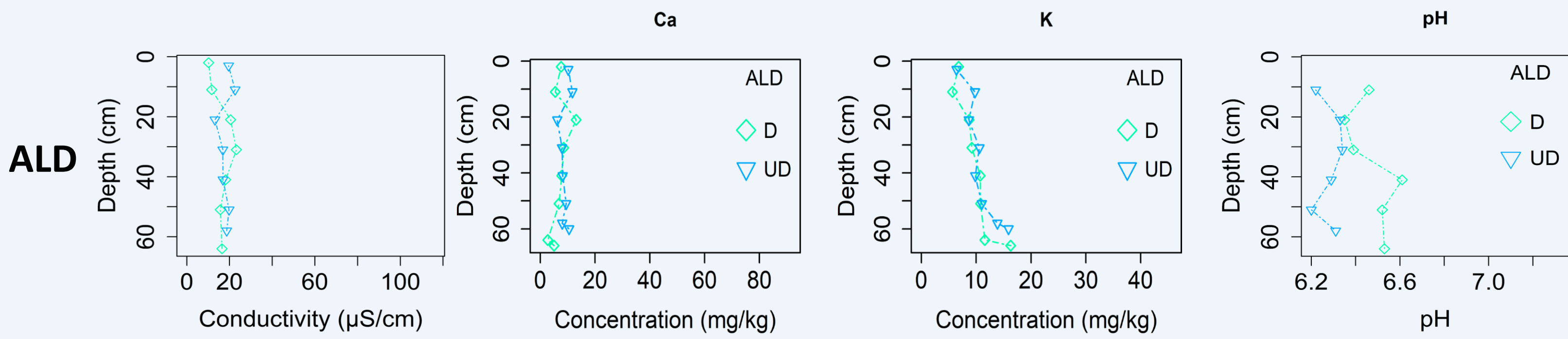
Higher reserve of primary minerals in permafrost exposed from RTS

- Same parent material: Similar primary minerals
- Permafrost layer in RTS less weathered than active layer: Increase in plagioclase content for permafrost disturbed RTS vs ALD

High potential for mineral element release in the Arctic from RTS permafrost

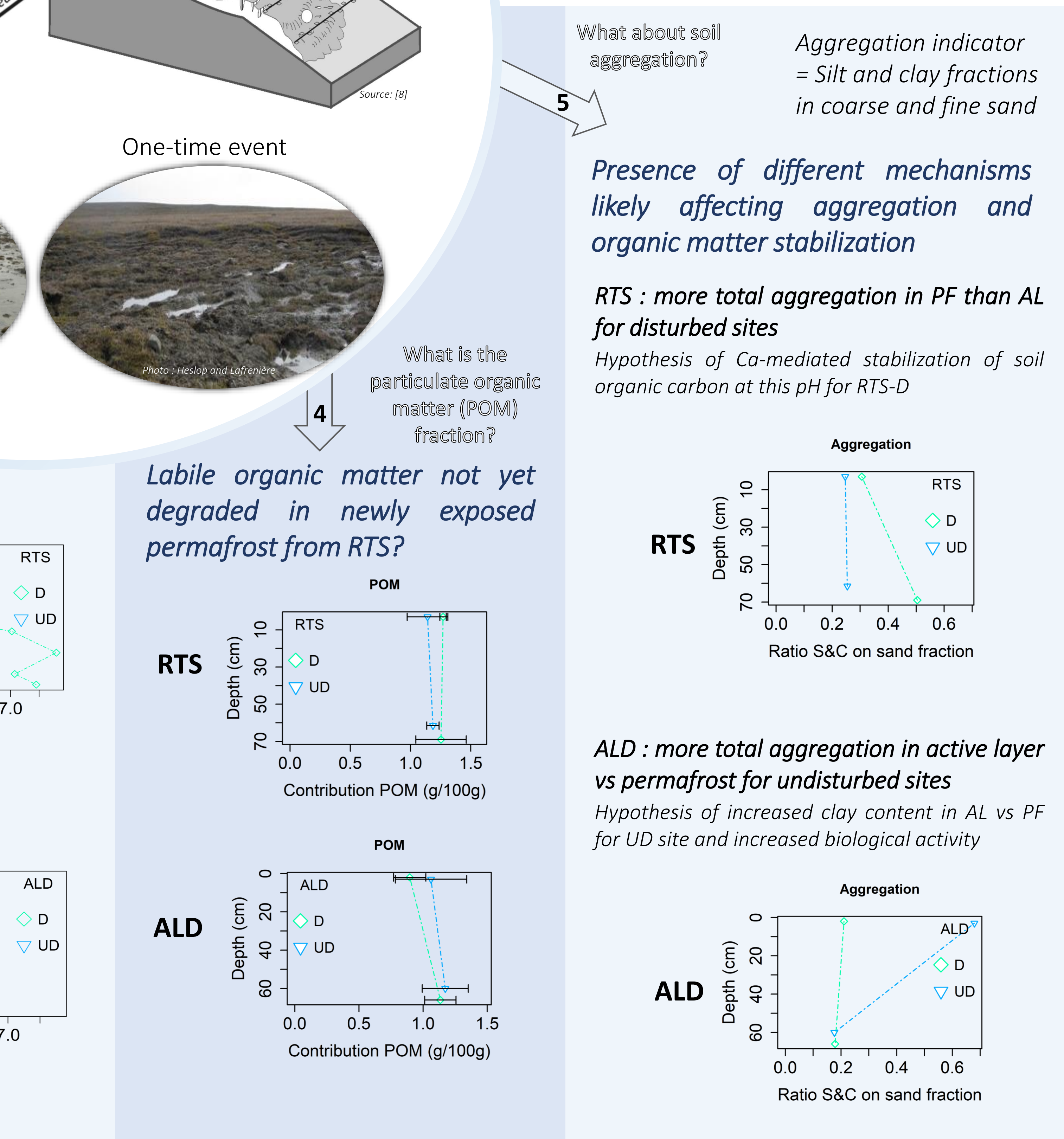
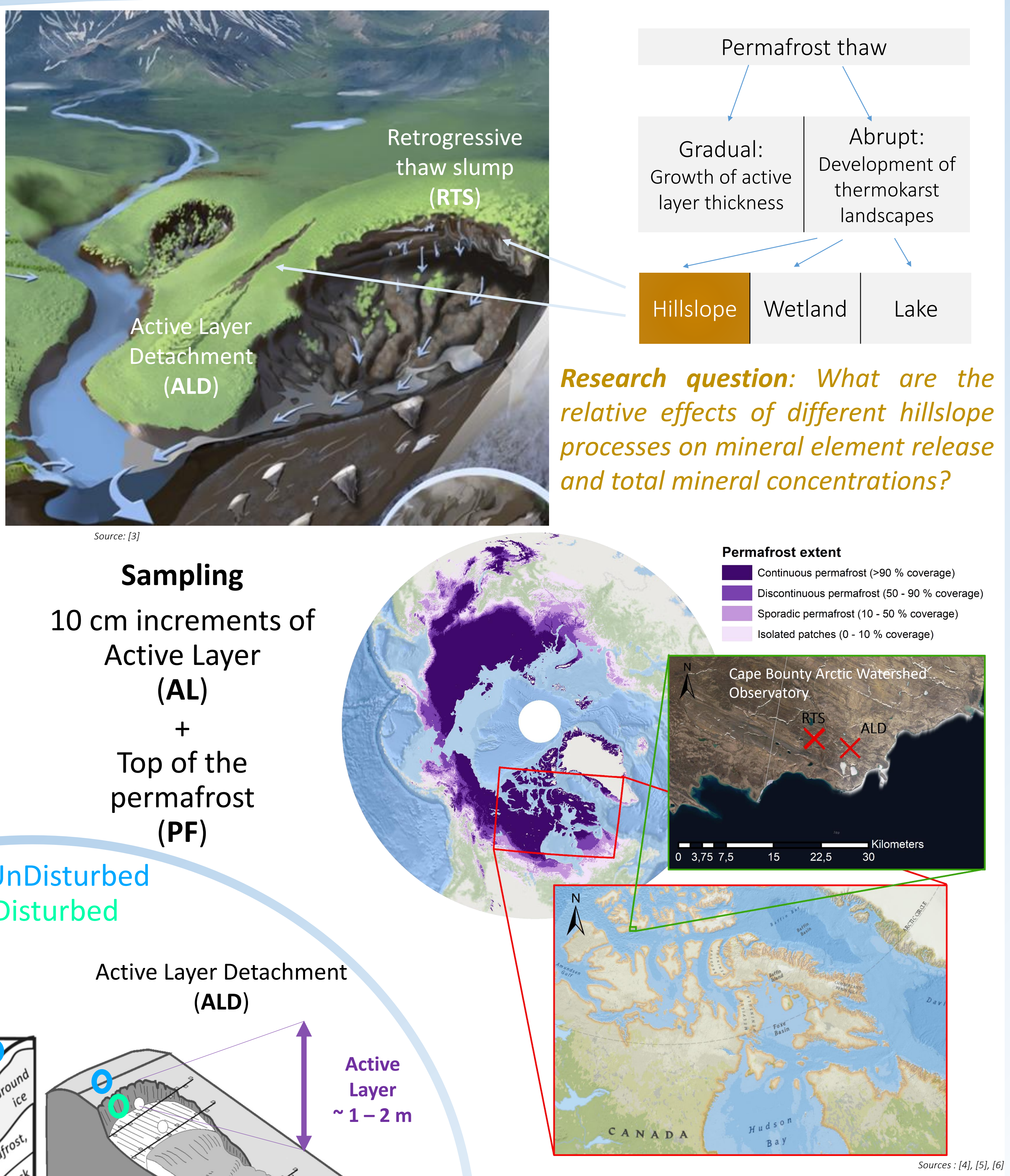


Mineral element concentration released several times higher for the RTS-D vs ALD-D



ALD-D and UD show no evolution of elements release with depth

Permafrost thaw: thermokarsts as physical consequences



Take-home message: Retrogressive Thaw Slumps development in the Arctic constitutes an important driver for mineral element release by abrupt permafrost thaw, compared to active layer detachments.

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