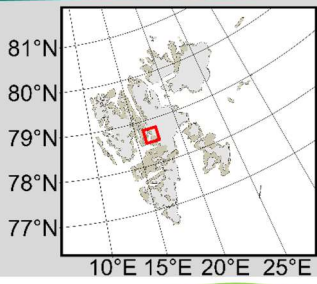


Run-off impacts on Arctic kelp holobionts



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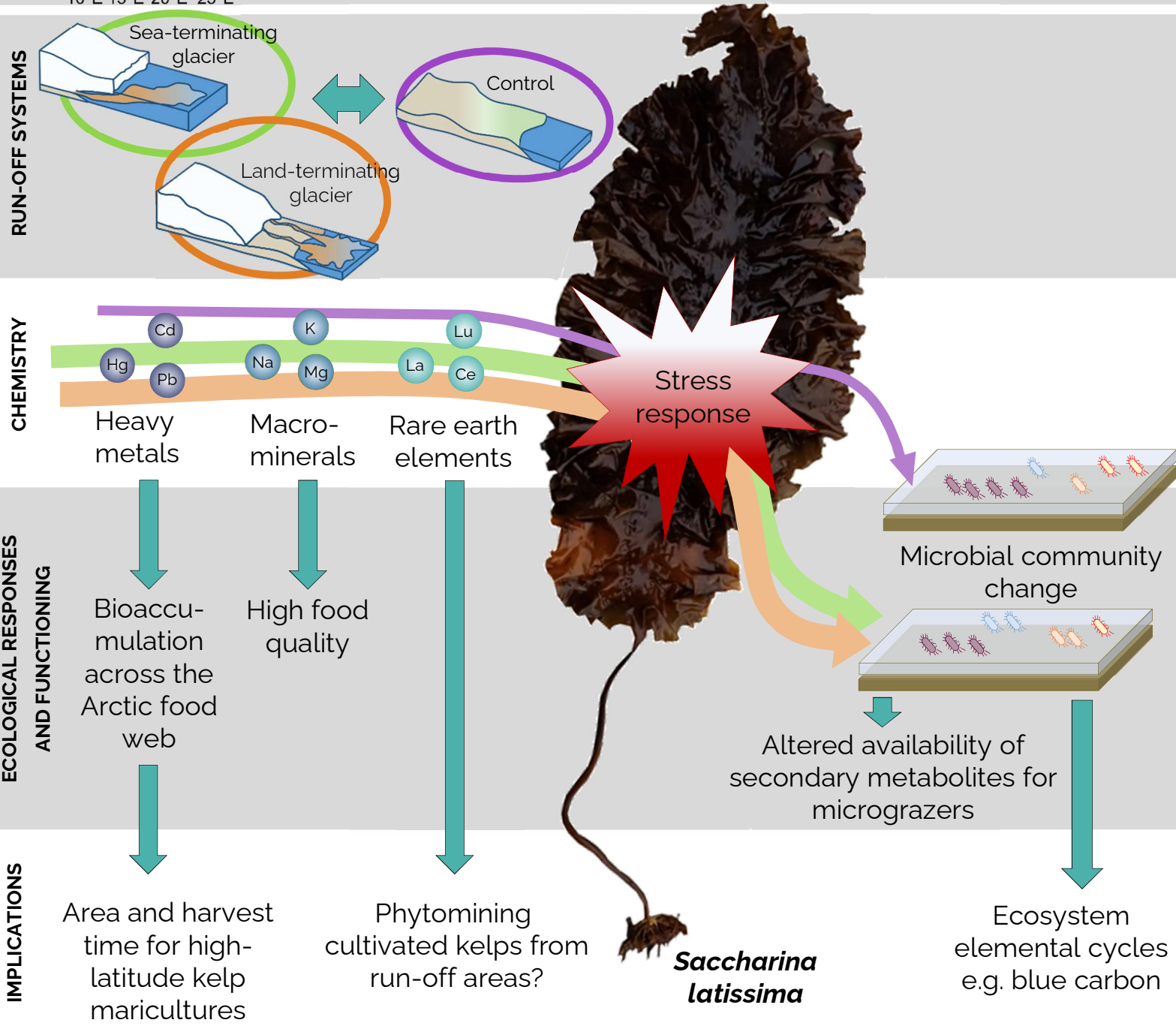


Rising temperatures in the Arctic result in run-off plumes in fjords. Within these run-off plumes, physical and chemical parameters are altered. In Arctic fjords, kelps are primary producers, hence, many species depend on them as food source. Kelps have a high heavy metals biosorption potential, with their associated microbial community depending on the host conditions.

Research question: How is meltwater run-off affecting the elemental concentration and associated microbial communities characteristics of kelps?



Meltwater plume in an Svalbard fjord



We found the biogenic element concentration, biochemistry and microbial community in *Saccharina latissima* to strongly respond to changes in run-off influences. This relates both to present-day spatial differences and near-future temporal changes.

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Bengtsson et al. (2010, 2011, 2012); Davies et al. (2003); Jaishankar et al. (2014); Zeraatkar et al. (2016).