Ecotypic differentiation of Dryas octopetala across the biome

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Dryas octopetala sensu lato is a circumpolar arctic and alpine plant, and it's widely distributed from the high arctic tundra to mid-latitude mountains in the northern hemisphere (e.g., Hultén, 1959). This plant seems to be one of the most suitable materials for examining ecotypic differentiation and adaptation to environments because of its wide distribution across the biome (Wada et al., 2003; Wada, 2008; Hirao et al., 2015). The ecotypic differentiation in *D. octopetala* was intensively studied between populations growing in fellfield and snowbed habitats within the biome (e.g., McGraw & Antonovics, 1983a, b). However, little study has been carried out for this species growing across the biome from the Arctic to mid-latitude temperate alpine regions. In this presentation, we will show ecotypic variation found in this species, especially focusing on leaf traits, photosynthetic performance, and genetic differentiation, among populations from the high arctic to mid-latitude alpine. Finally, we will discuss climatic factors as one of the driving forces to cause such differentiation found in this species.

References

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