

POSTER PRESENTATION

DIATOMS FROM DROUGHT EXPOSED HABITATS IN ICELAND

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With the current climate alterations, photosynthetic communities require further examination and understanding. Diverse diatoms from Iceland have been reported in the literature and descriptions of new to science taxa continues. This research focuses on taxa with potential strategies to survive terrestrial environments like: wet walls with lichen and moss cover. The ecology of taxa that are able to take advantage of the microhabitats available in aerophilous locations is largely unknown. During the summer of 2013 and 2015, subaerial algal assemblages were collected from rock outcrops or large boulders on the landscape from southwestern Iceland, primarily in the Hengill watershed, but also Sporhellan, Þingvellir National Park, and along Landmannaleið in the southern part of the Highlands. Light and scanning electron micrographs of internal and external morphology and ultrastructure of wet-wall diatoms is presented. Algal assemblages were dominated by co-occurring *Diadesmis* and *Humidophila* taxa. *Diadesmis gallica* W. Smith and *Humidophila perpusilla* (Grunow) Lowe, Kociolek, Johansen, Van de Vijver, Lange-Bertalot, Koplaová had the highest relative abundance. Numerous specimens of the genera *Orthoseira*, *Diadesmis*, *Epithemia*, and *Eunotia* were evaluated taxonomically. Desiccation adaptations are discussed.