

Competition affects rhizoid morphology in *Adiantum aleuticum* gametophytes

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Fern gametophyte research is a relatively recent, and growing area of study. With the vast majority of work being done in the model organism *Ceratopteris richardii*, little practical data is available for other species of interest. *Adiantum aleuticum* (maidenhair fern) is a locally relevant species, which is of interest due to its natural product profile. Since most gametophyte cultures used in the research of these ferns are grown on high density plates, it may be difficult for researchers to control for effects on morphology that results from competition. In this study, gametophyte density, and medium nutrient content, was varied to determine the impact of these parameters on early rhizoid morphology. The results from this study helps formulate protocols for ideal growth conditions that maximize gametophyte density, while minimizing undesired loss of individual gametophyte fitness.