

ABSTRACT

This bachelor's thesis deals with streptophyte algae, with special attention given to the class Zygnematophyceae. The thesis is written as a literature review, aiming to summarize existing knowledge about streptophyte algae, particularly focusing on the class Zygnematophyceae. Additionally, the thesis elucidates the phylogenetic relationships within this group, which historically have been challenging. The thesis primarily focuses on the description, ecology, and taxonomy of streptophyte lineages, emphasizing their significance in the study of terrestrialization, or the colonization of land. A significant part of this thesis is therefore to highlight the ecological and evolutionary role of streptophyte algae, especially in the context of their adaptation to terrestrial environments.

An additional aim of the thesis is to address the issues associated with the group of algae, given their inconsistent definition. The thesis points out that algae do not form a monophyletic group, as they encompass various taxonomic lineages.

This thesis can serve as a foundation for further research in the field of algology, thereby contributing to a better understanding and orientation in the process of terrestrialization. It also indicates the need for more phylogenetic studies to enhance understanding of the evolution of the streptophyte lineage. Furthermore, the thesis can serve as a basis for future work on similar topics, as it summarizes the latest phylogenetic relationships within the streptophyte lineage, thus facilitating research for other authors in this area of study.