

## **Abstract**

Allometry is a type of relationship between two changing traits of an organism's body. One of the most studied types is morphological allometry, which deals with the change of shape in relation to the size of an organism. The surface area to volume ratio is an immensely important feature that impacts many aspects of a cell's life, and there are ways of changing it. Unicellular algae are a diverse group with many specifics and a wide-ranging impact on the global ecosystem. The goal of this thesis is to introduce allometry and its types and applications with an emphasis on morphologic allometry and changes to the surface area to volume ratio, using specifically unicellular algae as model organisms.