

Abstract

In my Bc Thesis I focused on temperature-corellated phenotypic plasticity. The theoretical part is divided into four main thematical units. The first one deals with temperature optimum and growth parameters. The second one with cell size and its infuence on the physiology and ecology of protists. The thirt one with genotyp influence on cell size and growth rate. The fourt one is about primary production and its relation to antagonistic phenomenon of increasing growth rate and decreasing cell size with increasing temperature. Finally, the fifth one is about specific examples of morphological changes which we can find in protist group.

In the practical part of the thesis I performed basic analysis of my own data about *Micrasterias thomasiana* and *Micrasterias rotata*. I compared the cells from May and October samples from the peat-bog in Krušné hory. The result of my analysis is that there is probably no sezonally-corellted morphological variability in neither of the studied species. Data on *M. rotata* may be, however, affected by the fact that I found it at one location only.