

Abstract

Immediately after germination, the plants depend on the nutrients stored in the seed from which they germinated, until the nutrient intake is completely replaced by the mature leaves and roots. Nutrients in seeds are important for early development of vegetative organs. Their content and concentration in seeds can be influenced by various factors such as nutrient availability in soil, latitude, temperature, photoperiod, granivory and competition. This bachelor's thesis summarizes current knowledge about intraspecific and interspecific variability of seed nutrient stoichiometry, specifically nitrogen, phosphorus and carbon, as they most often limit plant growth. For all three elements, common and different trends can be observed, both at the intra-species and inter-species level. The only trend comparable between the intra-species and inter-species level is correlation of carbon seed concentration and latitude, while at the inter-species level there is also the opposite trend of negative correlation of latitude and carbon concentration in seeds. Other observed trends are not comparable between the intra-species and inter-species level. It is not possible to compare these trends, as there is lack of studies on the variability of seed nutrient stoichiometry. Therefore it is necessary to focus on seed research than on vegetative organs, which are much more studied than seeds.

Key words: nitrogen, phosphorus, interspecific variability, seed, stoichiometry, comparison, carbon, intraspecific variability, nutrients