

## **Changes in leaves morphology of selected species of the genus *Taraxacum* during the growing season**

### **Summary**

Inflorescences (often also fruits) and leaves (different in spring, summer and autumn) are morphological elements necessary for the identifying of dandelions. Therefore, the plants can only be identify during spring flowering, which limits research. The purposes of this thesis were preparation method of leaf measurement, estimation of similarity between types of leaves and possibility to use it for identification of species during other periods of the growing season, as well as documentation of morphological changes during the growing season.

Pilot studies were carried out in 2016. Selected species of dandelions were grown in pots, their leaves were photographed, and characteristics were determined in a dedicated computer program.

The performed analyzes showed: high variability of dandelion leaves (both during the season and in its particular periods), necessity to develop a more detailed method of leaf measurements and greater similarity of spring and autumn leaves than the summer ones, which indicates the possibility of extending the period of identification of dandelion by autumn. Changes in leaf morphology were explained as adaptation to particular seasons and indicated the possibility of their implementation by epigenetic mechanisms.

A simple, tabular method was developed for comparing many dendrograms.

Keywords: *Taraxacum*, leaf shape, variability, growing season