

Exploring the link between flowering start, flowering duration and time until first fruit ripens

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The relationships between different aspects of the reproductive cycles of plants may vary due to weather conditions as well as among different environments. In this thesis, the relationships among flowering start, flowering duration, and the time until first fruit ripens, were explored for north-temperate plants based on data collected in two grassland and two woodland habitats around Uppsala, Sweden, in three consecutive years (2008-2010). The four sites involved were Gottsunda, Nântuna, H ässelby hage and Vallsg ärd e. The results were then analysed using statistical software JMP in order to determine in what forms and directions the relationships exist, if at all.

Some relationships were detected between flowering start and flowering duration, as well as between flowering start and the time until first fruits mature, in different forms among different sites and years.

The two woodland sites were found to flower earlier, flowered for a shorter time, but took longer to mature their fruits compared to plant populations at the two grassland sites. The relationships among flowering start, duration of flowering and time to fruit maturation were generally weak, but were more often detected in the grasslands. The effects of shading in the woody habitats are discussed.

The data of rainfall and temperature in Uppsala for the relevant months of the growing seasons in 2008-2010 were extracted, in order to discover whether the difference among years can be explained by the difference in rainfall and temperature, however no relationships can be established. This might be due to the relatively short time period of the study.