

Advisor's statement

Diploma thesis of Doubravka Požárová

The Role of Phenotypic Plasticity in Parallel Altitudinal Differentiation in *Arabidopsis arenosa*

The thesis quantifies the contribution of phenotypic plasticity to alpine syndrome in a wild *Arabidopsis* species. The thesis is based on a very complex and challenging experiment using 16 populations and two environmental factors. Given such a setup the author did impressive and to a large extent very independent (!) work in planning, maintaining and collecting experimental data and she also brought an innovative state-of-the art statistical analytical solution. The thesis also managed to fulfill all objectives stated in the introduction. It was always a pleasure to critically discuss the findings and plan further analyses, esp. when the advisor's initial excitement about some ongoing results have been calmed down by the author's critical view.

Unfortunately, due to limited time for writing up the thesis in the very end, there are several flaws esp. in Results presentation; clearly one more round of comments would help, but none of these issues seriously affect the major results and overall interpretations. On the bright side, the Discussion then covers all the major aims postulated and the major findings are well summarized in the end. I also appreciate original graphical presentation throughout the thesis.

Regardless the above stated concerns, Doubravka's work brings novel valuable insights into evolutionary role of phenotypic variation in the leading plant model genus and the thesis successfully addressed all major aims of the project. I am thus happy to recommend the thesis for defense.

Filip Kolář

Říčany, 27. 8. 2021