



Review and recommendation by supervisor of the Dissertation Ph.D. Thesis of Lena Hunt

Student: Lena Macrie Hunt, 5th year, DSP EPB

Thesis title: Physiological, structural, and biochemical leaf traits of selected Poaceae species involved in oxidative stress protection and acclimation to different light conditions

Supervisor/ školitel: prof. RNDr. Jana Albrechtová, Ph.D.;

Consultant/ Konzultant: Mgr. Zuzana Lhotáková, Ph.D.

I have known Lena Hunt since 2018 when she came to me looking to begin a Ph.D. study in doctoral study program of the field of Experimental Plant Biology, associated with the Department of Experimental Plant Biology, Faculty of Science, Charles University, where I have a position of a professor, leading the Lab of Plant Ecophysiology. I selected Lena in a competition for the Ph.D. project I posted in the framework of very competitive STARS research fellowship for promising students by the Faculty of Science at Charles University <https://stars-natur.cz/>. Since then, I have had the pleasure of being her PhD supervisor of her Ph.D. topic aimed at eco-physiological topic of leaf traits involved in oxidative stress protection and acclimation to different light conditions.

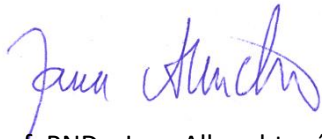
Lena has also demonstrated a strong publishing record early in her career. I am happy to report that Lena enjoys the process of writing scientific articles and managed to publish three leading-author papers (all in Q1 journals), carrying out the majority of the initial manuscript preparation on her own. She is currently first author of papers Hunt et al. 2023; Plants, IF = 4,5; Hunt et al. 2021a, Plants IF= 4,5, cit. 3x; Hunt et al. 2021b, Antioxidants IF= 7, cit. 8x. From co-authored publications Pech et al. 2025, International Journal of Molecular Sciences, IF = 5,6, cit. 7x. To this date Lena has on WoS HI 3 and her publications have been cited 18x, without self-citations 13x.

Lena has worked on two projects funded by the Grant Agency of the Czech Republic (GAČR): “Dynamic changes in plant protective mechanisms under conditions of increased CO₂ concentration and temperature” (18-23702S; 2018-2021) and currently ongoing “Light-induced defense mechanisms mediated by low molecular weight metabolites and their role in plant resistance to high temperature and drought” (21-18532S; 2021-2023; <https://starfos.tacr.cz/en/projekty/GA21-18532S>). She also contributed to the Czech-U.S. bilateral project “Evaluation of ecosystem function based on the monitoring of quantitative vegetation parameters from remote sensing data of high spatial, spectral and temporal resolution” funded by the Czech part (INTER-EXCELLENCE, INTERACTION LTAUSA18154, 2019-2022; <https://starfos.tacr.cz/en/projekty/LTAUSA18154>). The last mentioned project had American collaborators – prof. Howard Epstein from University of Virginia (<https://evsc.as.virginia.edu/people/profile/hee2b>), and Dr. Petya Campbell, Joint Center for Earth Systems Technology, University of Maryland Baltimore County and NASA Goddard Space Flight Center (<https://science.gsfc.nasa.gov/sed/bio/petya.k.campbell>). With both she has joint publications. This year she also contributed to finalization of online E-learning course on Time Series Analysis in Remote Sensing for Understanding Human-Environment Interactions (E-TRAINEE) is an ERASMUS+ Strategic partnership project (ID 2020-1-CZ01-KA203-078308; 2020 to August 2023; <https://web.natur.cuni.cz/gis/etrainee/>).

As Lena’s supervisor, I am proud of the recognition she has already received for her work. At her first scientific conference as a PhD candidate, she won “Best talk of a young scientist” (Plant Biology CS Student Days in 2019) and two years later won “Best poster presentation of a young scientist” at the same conference (Plant Biology CS Student Days in 2021). Lena was also awarded a FESPB support grant to attend and give an oral presentation at the Federation of European Societies of Plant Biology congress (Plant Biology Europe 2021).

In the years she has worked in my lab, Lena has proven to be very talented colleague, enthusiastic and capable student. On a personal level, I have found Lena to be a kind and pleasant person. She is always willing to help other members of the lab with anatomical sectioning, fieldwork, or manuscript preparation. She is well-tempered, organized, responsible, and fair. Moreover, she is enthusiastic about research and eager to explore new scientific topics. During her PhD Lena has gained many experiences, both positive and negative, that are necessary to shape a person into a mature scientist. Lena is undoubtedly such a scientist. I wish her as many breathtaking discoveries and undying enthusiasm for biology as possible on her future journey.

Prague, September 8, 2023



prof. RNDr. Jana Albrechtová, Ph.D.

- Professor of Plant Anatomy and Physiology at the Department of Experimental Plant Biology, Faculty of Science, Charles University
- CV: <http://orcid.org/0000-0001-6912-1992>
- SCERIN Coordinator <https://www.scerin.eu/>; <https://gofcgold.org/regional-networks/south-central-european-regional-information-network-scerin>
- Vice-President of Czech Society for Experimental Plant Biology
- Head of the Scientific Board for Ph.D. studies in Experimental Plant Biology at Fac. Sci, CUNI
- Guarantor of the Mgr. Study in Plant Anatomy and Physiology at Fac. Sci, CU
- <https://scholar.google.cz/citations?user=fzNnEgMAAAAJ&hl=cs>
- e-mail: albrecht@natur.cuni.cz , cell: +420-734272462