

Supervisor's opinion on the Ph.D. thesis

RNDr. Dagmara Sirová:

“Hunters or gardeners? Plant-microbe interactions in rootless carnivorous *Utricularia*”

I have known Dagmara Sirová since some ten years ago when our cooperation on research of enzymes in the traps of carnivorous plants started. Precise results of her bachelor thesis were ready for publication in *New Phytologist*. Then Dáša was working as a student assistant on a cooperative project with the University of California, Davis, and I supervised her master thesis on enzyme activities and distribution in benthic cyanobacterial mats in marshes of northern Belize, which again was successfully published in *Aquatic Microbial Ecology*. It was my pleasure that Dáša continued her scientific career as my Ph.D. student, naturally focused on biogeochemistry of benthic cyanobacterial mats – linking structure and function in a small-scale ecosystem. Yet, meanwhile she was taking care for a baby, a bilateral project with NSF ended and Dáša got cut off both fresh samples and access to the marshes in Belize a couple of years ago.

Fortunately, she has found her own way from that discouraging situation having a backup topic. Since her undergraduate studies indeed, Dáša became fascinated with the microbial content of bladderworts' traps and their intriguing role for the carnivorous plants. As a kind of hobby, she made a couple of experiments, either in cooperation with Eliška Rejmánková in Belize, or with Lubomír Adamec in Třeboň. Even during her first maternity leave Dáša made a greenhouse experiment in our lab. From time to time, she has evaluated data and written a manuscript, or at least largely contributed to another one. It was more than natural she has eventually focused on revisiting carnivory of *Utricularia*, in particular, on a possible role of microbial commensals in the traps in the nutrition of rootless aquatic plants. Yet it is rather uncommon, but not necessary either, I do understand why Dáša has included her first paper (from bachelor's degree) into her Ph.D. thesis to show the entire story from its very beginning.

Dáša was born for science. She has been an outstanding student, very enthusiastic, working overnight or on weekend whenever necessary, always searching literature, looking for new methods and their novel or “impossible” applications. I have always appreciated her perfect writing, open-mind thinking, challenging discussions, and her way of asking iffy questions. Once she came with the idea of stable isotope probing, next year the paper was published. One year Dáša returned from a conference with the idea of metagenomics, next year she largely wrote a project proposal on transcriptomics that, being recently granted, has opened new perspectives for our lab and Department. Just a few days ago, we have cropped another experiment with *Utricularia*. I am really pleased being her supervisor and colleague, and do enjoy our fruitful cooperation. During a decade, Dáša has published twelve papers, six of them as the first author, mainly in well recognised journals. I am absolutely sure she is ready for getting the Ph.D. degree.

Last but not least, besides the excellent scientist, Dáša has been a perfect mum of Hugo and Lada.

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