

Supervisor's assessment of the PhD thesis:

**Eva Holá: (A)sexual Life of Liverworts**

The thesis by Eva Holá consists of three papers, two of which have already been published in IF journals at the time of thesis submitting and the third one published on PLoS One shortly afterwards. As Eva is the first author of all three studies and these have been published in respected botanical journals, and in the third case, even a broadly scoped scientific platform, this constitutes a solid basis for my recommendation to the Committee to accept the thesis for the successful defence of the PhD degree, irrespective of anything else. Nevertheless, I would also like to suggest the audience to read the introductory parts of the thesis, written as a nice and concise review of bryophyte population biology and feel important to emphasize a few other details.

Eva joined our bryological team already for her bachelor studies, with a floristic topic of her thesis. Since her master degree studies, she began to specialise in the ecology of epixylic liverworts, with conventional methods gradually supplemented by the molecular ones, which opened the doors to population genetic questions, pursued in course of her PhD studies since 2008. It should be stressed that liverworts are generally extremely understudied group of botanical objects, and the tiny epixylic "(ex-)Lophoziaceae" are a prime example of such 'terra incognita' for good reasons, including the size itself, ephemeral and hidden nature of parts of their life cycle, secondary metabolites impeding the molecular analyses etc. Eva tackled boldly and with enthusiasm all challenges posed by the liverwort creatures, and did not hesitate to follow completely unknown routes. Nevertheless, I must also acknowledge the help and support from our molecular expert Jiří Košnar, who never gave up to design protocols for any of our at first crazy-looking questions. Definitely beneficiary for Eva was a series of scientific stays in Finland in 2009-2010, where she could learn methods of field ecological and cultivation experiments with liverworts from a world's leading team in the field.

I should also mention that Eva successfully worked part-time in the state's Nature Conservation Agency, where she helped to implement monitoring and practical conservation measures for endangered bryophyte species. My co-operation with this institution was never more fluent at these times.

Eva has also cooperated with other Czech teams dealing with ecology of old-growth forests and she co-authored several IF papers of those teams. This all constitutes my deep belief that Eva Holá is a talented beginning scientist who can – with a little bit o' luck – pursue a great scientific career or practically manage things to make bryophyte life happier – or both.

Mgr. Jan Kučera, PhD

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