

Supervisor's comments on the submitted PhD thesis by Jaroslav Šoun:

Taxonomy of selected groups of the genus *Caloplaca*

Presented PhD thesis is composed by six papers published in international peer-reviewed journals, all devoted to taxonomic studies in three groups of the large lichen genus *Caloplaca*. Jarda's interest in lichens developed gradually in course of his early years at our University following the creation of a small lichenological group around Jarda's senior colleague Jan Vondrák. His master thesis was devoted to the taxonomic treatment of the *Caloplaca aurantia* group in the Czech Republic, which was accomplished by means of "classical", i.e. non-experimental and non-molecular taxonomic tools, however using thoroughly described, taxonomically relevant and reproducible morphological and anatomical data. The results thus could be published in an international journal and are presented as a part of his thesis. I highly appreciate that Jarda has not resigned to an intricate nomenclatural problem that emerged following his study of *Caloplaca aurantia*, and was able to finish the uneasy typification of this taxon, as evidenced by the paper published in Mycotaxon in the last year.

Jarda's PhD study followed not only in the way of broadening his scope to other taxonomically problematic groups of *Caloplaca* but mainly he ventured into the vast field of molecular biology, having realized that the molecular markers can greatly contribute to the amount of taxonomically relevant data that can be evaluated in organisms, which morphological and anatomical characters that can be observed by conventional tools simply not reflect adequately the level of genetic differentiation and real speciation processes. He was able not only to collaborate with and learn from colleagues here at the South Bohemian University but established relations to the University of Copenhagen, at the laboratory of world leading specialists Ulrik Søchting, Ulf Arup and others, and realized scientific stays that were a great challenge and source of new ideas and knowledge for him. Jarda's studies and ability to co-operate with a wide range of lichenologists from multiple parts of the world resulted in a major treatment of *Caloplaca cerina* group, which will surely prove to become a milestone in the knowledge of at least European representatives, and a suite of other smaller treatments, which he lead or co-authored.

I must highly value Jarda's self-reliance, which was unfortunately to a great extent forced by the fact that no one from the Department of Botany's staff members including me is a lichenologist. On the other hand, the small but enormously active lichenological group lead by Jan Vondrák serves as an excellent example of efficient autonomous scientific group and deserves the acknowledgement for the *de facto* supervision. I can only recommend the thesis of Jaroslav Šoun as a basis for the successful defence of his Ph.D. title.

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