

Supervisors comments to the PhD thesis:

Jan Vondrák: The lichen genus *Caloplaca* (Teloschistales) and its licheniculous fungi: contributions to their taxonomy, nomenclature and biodiversity.

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Jan Vondrák studied a difficult problem of the lichenological taxonomy in the frame of his PhD dissertation, namely the monographic evaluation of the genus *Caloplaca*. The difficulties follow from the wide and unclear diversity of this genus, as well as from restricted knowledge of this genus and from the consequent nomenclatoric problems. *Caloplaca* belongs surely to genera with complicated taxonomy. The solution of taxonomic units remains difficult also after application of modern approach based on molecular evaluation, combined with careful analysis of morphological and ecological data. Of course, it was impossible to finish this enormous work in more or less satisfactory final form during the PhD studies. However, it is a positive and serious result of Vondrák's dissertation, that he presents maximum of results which he was able to obtain, and his dissertation represent surely an important contribution to lichenological taxonomy. He formulated also precisely further problems, which follow from the present situation in taxonomic classification of this genus.

Because I am not a lichenologist and I was the supervisor of Vondrák's PhD studies more or less „ex offio“, I have followed his studies only from the point of view of formal prescriptions and common principles of cryptogamological taxonomy. In spite of it, I can report, that the whole Vondrák's study developed very satisfactorily and his results are fully successful according to my opinion. The scientific external examiners will surely evaluate better his work, I should like mention only few circumstances:

- (1) Jan Vondrák worked during the whole PhD study with a great interest and enthusiasm. He recognized the problematics in details and I admired his knowledge of literature, as well as the mastering of different methodological approaches during the studies of herbaria, during the field work and in laboratory techniques.
- (2) Because I am not lichenologist, the doktorand was dependent on his own contacts with specialists from foreign laboratories. Jan Vondrák was able to establish and explore (in best sense) such contacts with both domestic and abroad scientists. This situation pressed the author to a certain independence in the work which, however, in this case, supported his scientific ability.
- (3) It is surely necessary to appreciate, that the author combined the classical and modern (molecular) methods in his work to the evaluation of taxonomic diversity, in a quite balanced way.
- (4) The taxonomic evaluation of numerous groups of non-vascular plants, fungi, algae and bacteria is complicated in the present time. The modern methods yield numerous explanations of enigmatic characters of populations, but also discover between them different unclear relations. Such situation leads to description of various cryptic species, ekoforms, morphospecies etc. The author dealt satisfactory with these problems. It is necessary to stress, that he respected also all formal taxonomic requirements, e.g., the nomenclatoric rules in a necessary form.
- (5) All the results are presented in a clearly arranged style and the work forms a good basis for future research in this field.
- (6) It is necessary to evaluate also the author's activity in presentation an publication of his results. He presents 10 scientific papers (published, accepted or submitted) from scientific journals, usually with co-authors, but always with his first authorship. This

presentation proves his ability to work systematically and in harmony with trends in modern science. All his papers have a good graphical form and perfect documentation.

Therefore, from the supervisors view, Jan Vondrák fulfilled successfully both formal and scientific requirements necessary for PhD study and I can recommend his work to the next PhD procession.

Třeboň, May 19th 2008



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