

Jana Kvičarová: Phylogeny of coccidia and coevolution with their hosts
Supervisor's evaluation of the PhD thesis

Jana's PhD thesis did not start the same way most theses do. Instead of coming to our laboratory and asking for a suitable topic, she came with clear idea of the subject she would like to study. Obviously, it was eimerians, their relationships to the hosts and various taxonomic and evolutionary issues. While at that time we did not have any experience with these organisms, we soon found and agreed that the topic could not only be easily incorporated into our research but it will also make it more complex and interesting.

Due to the mentioned lack of our experience, Jana could only rely on her own ability to get the mammal samples, isolate the parasites and find the best way of isolating DNA. Fortunately, Jana proved to be very enthusiastic, independent and inventive person. She has not only been able to handle all these task but she also had no difficulties with mastering the appropriate methods of molecular phylogenetics and various types of population analyses. Finally, during the work on several papers and manuscripts, as well as the PhD. thesis text, she convinced me that she managed to obtain substantial knowledge on the eimerian biology and taxonomy and is able to put this information in a broader context.

I am not going to describe the thesis itself. However I want to summarize and stress that it covers quite large span of biological aspects connected to the studied group; from classical descriptions and taxonomy to phylogenetic, population genetic and evolutionary analyses. These analyses are based on substantial amount of data obtained during the four years of the study. Similar to one of the reviewers I feel that this might give an impression that the thesis is bit heterogeneous. However, I strongly believe that the individual studies form an interconnected net which will give a complex evolutionary picture once completed with additional studies. At this point it already shows many new phylogenetic/evolutionary phenomena previously unknown in eimerians, leaving aside substantial extension of molecular data available for this interesting group.

As supervisor I am entirely satisfied with the work Jana did in our laboratory and with the thesis itself. I certainly recommend to accept the thesis as a base for the PhD. defence and the following formal procedures.

In České Budějovice, 13.3.2012



Václav Hypša