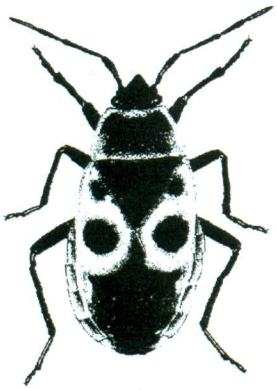

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Mentor's assessment of thesis by Kateřina Švehlová: Analysis of heat shock protein genes expression in spruce bark beetle *Ips typographus* and their importance for survival upon exposure to heat

Katka started to work in our lab approximately two and half years ago. She had previous experience with molecular biology from the lab of Lukáš Trantírek, where she performed certain experiments under the supervision of Dr. Silvie Trantírková.

Presented thesis is focused on the biology of spruce bark beetle and particularly on the heat tolerance of this famous insect. Katka took advantage of the fact that these beetles are not able to escape from heat during significant part of their life. She measured their survival under defined temperatures and identified very steep survival curve. Subsequently, Katka identified several heat shock protein genes from this organism and measured their expression in intact animals and in animals exposed to heat shock. Importantly, Katka attempted to test the role of heat shock proteins in thermal resistence functionally.

Thesis is written in very good English and it is worth of notion that this very good text was generated in amazingly short amount of time. And if Katka had an extra day, I am sure that even small flukes of the thesis would be easily fixed.

It was obvious from the very beginning that Katka is one of the brightest students I have ever had opportunity to interact with. She understands the problem immediately, and she is able to design proper experiments very quickly. On top of that, Katka speaks excellent English. My personal experience is that Katka belongs to the most talented students. Yet, her contribution would be much better, if she was more patient and devoted more time to actual work.

Despite minor critical comments I think that from experimental point of view Katka's thesis fulfills the criteria for master thesis and quality of writen text exceeds required level. Therefore I recommend the thesis for awarding Master degree and I suggest excellent grade.

České Budějovice
23.1.2012

David Doležel