



Student evaluation:

Kristýna Pospíšilová (2018)

Analysis of structure and origin of multiple sex chromosomes in *Leptidea* wood white butterflies
[Bc. Thesis]

In her bachelor project, Kristýna focused on the evolution and origin of multiple sex chromosomes in wood white butterflies of the genus *Leptidea*, recently established models for the evolution of cryptic species and speciation. For this research, we selected two closely related species with Eastern Palearctic distribution, namely *L. juvernica* and *L. sinapis*. Due to both the species, Kristýna had to become a field worker, capable of collecting a sufficient number of fertilized females and discriminating them from each other. Subsequently, Kristýna had to prove her skills for fine lab work – she mastered the spreading technique for making chromosome preparations as well as techniques of molecular cytogenetics based on fluorescence in situ hybridization (FISH). In particular, she did a great job in optimizing FISH with bacterial artificial chromosomes (BAC-FISH) and its reprobing protocol for mapping all the individual BAC clones in one chromosome preparation. Besides FISH techniques, she has become skilled in fluorescence microscopy and isolation of individual BAC clones from their library. These skills along with a high precision of work enabled her to obtain valuable information on the architecture of *Leptidea* Z₁ chromosome and its step-by-step evolution.

I always appreciated Kristýna's ability to quickly learn new methods, enthusiasm for experimental and fieldwork, diligence, independence and logical thinking. Moreover, I was grateful for Kristýna's choice of English as the language of work and the fact that she finished writing her thesis a few weeks before the deadline (the first time in history of our lab). Last but not least, thanks to her friendly nature, Kristýna has quickly become a valuable member of our laboratory and I am really happy she has decided to continue working in our lab during her master studies.

To conclude, Kristýna has been an excellent bachelor student and has done a great job in our lab. It gives me a great pleasure to recommend her thesis for the defence.

In České Budějovice,
21 May 2018

Tušerová

Jindra Tušerová
(tutor)