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Student evaluation:

**Kristýna Pospíšilová (2020)**

**Reconstruction of the evolution of multiple sex chromosomes in *Leptidea* wood white butterflies**

**(Master Thesis)**

Supervising Kristýna's work on her master thesis was an easy task for me. She was already very well prepared for this work by the previous supervisor of her bachelor's thesis, Jindra Tušerová (née Šichová). Before starting work on her master thesis, Kristýna has already mastered the preparation of high-quality spreads of pachytene chromosomes from *Leptidea* testes and ovaries, gene mapping on these preparations by fluorescence in situ hybridization with bacterial artificial chromosome clones as probes, the so-called BAC-FISH, fluorescence microscopy and processing of recorded digital images, including analysis and interpretation of the obtained results. Then, with the help of our colleague Atsuo Yoshido, who co-supervised her work, she acquired skills in related but necessary procedures, such as BAC cloning, BAC-DNA extraction, preparation and labelling of BAC probes, and designing BAC-FISH mapping experiments. My role has thus been greatly facilitated and de facto limited to consulting the results and discussing further research steps.

Kristýna's work was part of a long-term project of our laboratory, which aimed to decipher the origin of unique multiple sex chromosomes in three species of *Leptidea* wood white butterflies, to reveal the evolutionary mechanisms of their formation and to understand their role in speciation. With her precise results of mapping of multiple Z chromosomes in all three species, Kristýna greatly contributed to achieving the goals of this project. She is thus a well-deserved co-author of Yoshido et al. (2020) paper recently published online in *Heredity*.

In addition to well-mastered laboratory skills, accurate processing and interpretation of results, and the ability to work independently, I would like to emphasize Kristýna's perfect work with literature, very good English and above-standard writing skills, which is also evident from the text of her master thesis.

In conclusion, I was very satisfied with Kristýna's work in our laboratory during her studies. She did a great job and I am very happy that she decided to continue in our laboratory as a PhD student. It is my pleasure to recommend her work for a successful defence.

THANK YOU Kristýna!

In České Budějovice,  
14 July 2020

František Marec  
(tutor)