206 Does chronic toxicity of Cu and Zn to Daphnia magna depend on temperature? C.S. Pereira, Ghent University; C. Janssen, University of Ghent / Laboratory of Environmental Toxicology and Aquatic Ecology; R. Blust, University of Antwerp; K. De Schamphelaere, Ghent University (UGent) / Applied Ecology and Environmental Biology. Ecological risk assessment (ERA) is based on conventional ecotoxicological tests that are usually performed at a standard temperature. A shift away from this standard temperature can have an impact on the sensitivity of the organisms to metal stressors. The main goal of this research was to determine if chronic metal toxicity to Daphnia magna depends on temperature, since few studies are available about the influence of temperature on metal toxicity on Daphnia and temperature acclimation is often not considered. In this study, the chronic toxicity of copper (Cu) and zinc (Zn) on Daphnia magna at 15°C, 20°C, and 25°C was studied. Four clones from a single population of D. magna were acclimated at the same temperature that the 21d-Daphnia magna reproduction tests for Cu and for Zn was performed, 15°C, 20°C, and 25°C. D. magna clones present different sensitivities to Copper and Zinc. At 20°C the 21 days EC50 values for Cu varied between 40 and 51 µg Cu (dissolved)/L. For Zn at 20°C the 21 days EC50 values varied between 114 to 153 µg Zn (dissolved)/L. Zinc toxicity to *D. magna* depended on temperature. For total reproduction the 21 days EC50 values for Zn were lower at 15°C and higher at 25°C compared with 20°C, 1.4 fold variation. For Cu the 21 days EC50 and EC10 values presented on average a 1.4 and 1.5 fold of variation between 15 and 25°C, respectively. Compared with the values at 20°C the 21 days EC50 for Cu were lower at 15°C and similar at 25°C. Therefore the highest toxicity of Cu on D. magna was observed at the lowest temperature 15°C. The 21 days EC10 values for Cu at 20°C and 25°C were higher than the 21 days EC50 at 15°C. However, for Zn this was not observed. Even then, these results raises concerns since the EC10 for Cu at 20°C that is considered in ERA may not be protective at 15°C. Our results indicated that chronic toxicity of copper and zinc on Daphnia magna depends on temperature. Cu and Zn chronic toxicity on D. magna were higher at a lower temperature. Therefore the influence of temperature on metal toxicity should be considered in models like the Biotic Ligand Model (BLM).