

## Abstract

An interspecies hybridization is usually viewed from two sides - either as mistakes in a reproduction resulting in decrease of a hybrids fitness (e. g. loss or decrease of viability and fertility) or as a mechanism helping animals adaptively respond to environmental changes resulting in higher fitness. Fitness is usually represented as a set of correlates. One of the correlates is an organism performance which is represented by a set of maximal values from measured physical activities.

This thesis focuses on the evaluation of the endurance and the bite force for gecko species *E. macularius* and *E. angramayniu*, their interspecies hybrids and intraspecies hybrids to determine their performance.

The results show differences in the bite force among each of the tested groups. *E. macularius* has the lowest bite force, while the highest bite force was measured in *E. angramayniu*. The bite force of interspecies hybrids is intermediate in comparison to the parent species. Nevertheless, intraspecies hybrids of large form and white form of *E. macularius* exceeds their parents in measured bite force. The variability in bite force suggests a positive effect of hybridization on fitness. The bite force differences between the large form and the white form of *E. macularius* support the hypothesis that there exist more allopatric populations of leopard gecko in nature. On the contrary, the endurance test did not show any significant differences between parent forms and their hybrids. We found no effect of domestication on performance in the laboratory form of *E. macularius*. This laboratory form does not differ from the large form in the bite force nor the endurance.

Key words: hybridization, performance, bite force, endurance, *E. macularius*, *E. angramayniu*