

## **Abstract**

Aggregation is a very important strategy of many organisms. It occurs in both vertebrates and invertebrates. Besides other functions (foraging, thermoregulation, maintenance of humidity protection against desiccation, epigamic, hibernation or aestivation), aggregation also carries out antipredatory function. Aggregation of animals may reduce the risk of attacks by predators and prey mortality. Reduction of the attack probability might be caused by the predator confusion effect, lower risk of prey detectability, dilution effect, more effective vigilance of aggregation members and increase of strength of the warning signal produced by aposematic prey. Experimental studies, focused on the role of aposematic coloration in antipredatory functions use usually birds as predators. There are many kinds of insects, such as true bugs or mealworms, or artificial prey used as a prey in the experiments. The combination of aposematic signals and gregariousness of prey might have a significant influence on both probability and frequency of predator attacks. The length of predator's hesitation before the attack and the attack intensity used on attack may differ according to the coloration and presentation (gregariousness) of the prey and therefore the chance of survival varies. Aggregation may also improve predator's ability to remember aposematic prey and to generalize the experience with it. Predator's reaction to warningly colored prey could be affected by the novelty of the prey or the size of its aggregation.

## **Key words**

Aggregation, prey, predator, antipredatory function, gregariousness, aposematic prey, cryptic prey