

## **Abstract**

Subject of many studies dealing with interactions of predator and prey is behaviour and reactions of those predators who distinguish their prey by visual signals. The aim of the study was to compare the detectability of prey with a simple or structured body-margin shape of cryptically coloured true bugs *Dysodius crenulatus* and *Dysodius lunatus* (Aradidae) using a different type of background (tree bark of *Acer*, *Gleditschia* and *Tilia*). Background photos were presented in black and white and colour. The test was performed on naive birds and on the wild-caught adults of the Great Tits (*Parus major*) and the Blue Tits (*Cyanistes caeruleus*). The experiment was performed in the experimental cage with one-sided mirror glass. The influence of the body-margin shape of the prey was evident for certain groups, but the effect was depending on the age and specie of the birds and the type of the background. Different times of the search for prey were encountered as it was more difficult for birds to search for structured body-margin shape and the birds found faster preys with simple ones. When searching on the colour background the Great Tits were faster than on black and white background. Naive birds of the Great Tits were in search of prey faster than adults and vice versa with the Blue Tits. A separate task was to test the palatability of larvae and adults of cryptically coloured specie *Aradus betulae* on naive the Great Tits. Larvae were better protected against bird predators than the adults due to a chemical protection.

**Key words:** detectability, cryptic prey, body-margin shape, Heteroptera, palatability