

Abstract

The cryptic coloration is one of the main ways to protect prey before the visually directing predators. Most animals use two basic strategies of crypsis, background-matching and disruptive coloration. The aim of this thesis was to summarize and evaluate knowledge about different strategies of cryptic coloration. The study was mainly focused on the confrontation between insect prey and predator bird. Experimental studies are comparing the effectiveness of cryptic coloration of prey by a combination of background-matching and disruptive coloration with prey characteristics (inner pattern contrast, background contrast, shape and pattern distribution, symmetry) or background parameters (background complexity, multiple backgrounds, the distance between the prey and the predator) that affect detectability. The results of the study conclude that disruptive coloration pattern in cryptic prey has better effects than the strategy of background-matching. Prey characteristics can affect detectability, but the results of individual studies are not conclusive. Even the background parameters results were unambiguous, the highest efficiency for prey detection time was a combination of disruptive coloration and the background complexity. The issue of camouflage is so complex that the majority of studies do not have conclusive results. Some predators can break camouflage through the ability to search image and perceptual completion.

Keywords: detectability, camouflage, crypsis, cryptic coloration, background-matching, disruptive coloration, countershading, transparency, inner pattern contrast, background contrast, symmetry, background complexity