Abstract

Mimicry is an imitation of another species signal that means an evolutionary advantage to the mimicking species. Therefore, it would be expected for mimicry to be selected for high accuracy and mimics to closely resemble their models. However, many mimetic species resemble their models only imperfectly, and several hypotheses have been formulated to explain the existence of such inaccurate mimics. These hypotheses are not necessarily exclusive, and the explanation of imperfection might vary among different mimetic complexes.

In this text, various mechanisms are discussed that may allow the evolution and maintenance of imperfect mimicry in different mimetic complexes. Attention is also paid to the role of predators' perception and behaviour in mimetic accuracy, as well as the trade-offs between mimicry and some opposing selection pressures, such as sexual selection.

Keywords: imperfect mimicry, inaccurate mimicry, evolution of mimicry, predator perception, predator behaviour, predator learning