CICLO DE CONFERÊNCIAS **2015/2016**

CENTRO DE INVESTIGAÇÃO

ISPA - INSTITUTO UNIVERSITÁRIO

IMPERFECT MIMICRY AND STIMULUS SALIENCE

The theory of mimicry explains how a mimic species gains advantage by resembling a model species. Selection for increased mimic-model similarity should then result in accurate mimicry, yet there are many surprising examples of poor mimicry in the natural world. The existence of imperfect mimics remains a major unsolved conundrum. I will present experiments that test a novel explanation of the phenomenon. The main idea is that predators perceive prey as having several traits, but that the traits differ in their importance for learning. When predators learn to discriminate prey, high-salience traits overshadow other traits, leaving them under little or no selection for similarity, and allow imperfect mimicry to succeed. In the experiments, blue tits were used as predators that attacked artificial prey with different traits: either color, pattern, and shape, or different two-color combinations. The outcome of the experiments was that if the birds perceived one prey trait as having higher salience (higher associability) than the other traits, mimics of only that trait were successful in avoiding attacks. If, on the other hand, two prey traits had similar salience, mimic-model similarity in both traits was needed for high mimic success. I conclude that difference in salience between components of prey appearance is of major importance in explaining imperfect mimicry.

5 OUTUBRO 2015

12H30

AUDITÓRIO 1

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