

Decoy Coloration in Lizards: A Tail of Deception

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The bright blue or red tail of many lizard species has long interested both scientists and children chasing skinks in their backyard. I have experienced this interest from both standpoints. The apparent paradox of a conspicuously colored yet harmless organism has led some to hypothesize that its function is not to deter predation, but to serve as a signal of juvenile status to adult males. Some even think that these animals are actually noxious and the bright tail is aposematic. Interestingly, many of these lizards' brightly colored tails fade as they mature and become cryptic. This begs the question: If it is in fact an effective anti-predation mechanism, why switch tactics as an adult? My laboratory has been chasing answers to these questions for a decade and I present the story of decoy coloration in lizards as we know it today. While this work is ongoing, we have shown that the conspicuous and autotomous tail of many skink species is indeed an effective anti-predation mechanism and it transitions from bright coloration to cryptic coloration based upon differences in predation pressures experienced by small and large lizards. In this talk I discuss our findings from work in this field and the questions that remain unanswered. It is quite a tale.