

Some vaguely explored (but not trivial) costs of tail autotomy in lizards

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Lizard tail autotomy is considered an efficient anti-predator strategy that allows animals to escape from a predator attack. However, since the tail also is involved in many alternative functions, tailless animals must cope with several costs following autotomy. Here we explicitly evaluate the consequences of tail autotomy for two costs that have been virtually unexplored: 1. we test whether the anatomical change that occurs after tail loss causes a reduction in the role of the tail as a distraction mechanism to predators; 2. we analyzed whether tail synthesis comprises an energetically costly process in itself, by directly comparing the cost of maintenance before and after autotomy. We found that original tails displace further and at greater velocity than regenerated tails, indicating that the anti-predation responses of a lizard probably changes according to whether its tail is original or regenerated. With regard to the energetic cost of tail synthesis, we observed a significant in