IS TAIL AUTOTOMY IN Acanthodactylus schreiberi A COLOR ‘DEPENDENT’ TRAIT?

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Tail shedding is a costly, yet very common anti-predatory strategy used by many lizard species. The loss of the tail has energetic costs and can affect the social status and locomotor performance of individuals. However, autotomy is an effective strategy against predators and the ease of autotomy, together with post-autotomic tail movement, can reflect different strategies at the inter- and intra-specific level. In our study we used Acanthodactylus schreiberi, a fast moving lizard with tail coloration that varies among age and sex groups, to investigate such differences. We found that male individuals were significantly less willing to shed their tail than females and juveniles, but post-autotomic tail movement differed significantly only between females and juveniles, with the latter exhibiting the highest overall movement duration. Our findings suggest that different strategies are taken by intra-specific groups and that tail autotomy is physiologically more efficient in juveniles, probably reflecting a different cost / benefit ratio among age groups. The brightly red colored tail, coupled with a more risky behavior of juveniles, supports an increased dependence on tail autotomy, partially explaining their more efficient tail autotomy.