SEX DOES NOT AFFECT TAIL AUTOTOMY PERFORMANCE IN MEDITERRANEAN LIZARDS

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Caudal autotomy is one of the most effective and widespread defensive mechanisms among lizards. When predators grasp the tail, lizards have the ability to shed this limb from the point of the attack and further. Numerous factors have been reported to affect tail shedding performance such as temperature, age, predation pressure, intraspecific competition etc. Interestingly, the impact of sex on tail loss remains greatly understudied. This is interesting as there are theoretical reasons for why autotomic performance should vary with sex. Here we analyzed tail autotomy performance in the lab for 12 species of lacertid lizards belonging to six genera (Algyroides, Anatololacerta, Hellenolacerta, Lacerta, Ophisops, Podarcis) and the field frequencies of broken or regenerated tails of a single species (Podarcis erhardii) from a diversity of various insular populations. Our aim was to investigate whether sex affects caudal autotomy, as well as the duration of post-autotomic tail movement. Tail loss performance in the lab was assessed through a standardized predation simulation experiment. When trials resulted in autotomy, we recorded the movement of the thrashing tail with a digital timekeeper until cessation of movement. In the case of P. erhardii frequencies, the condition of the tail (intact, broken or regenerated) was recorded for each individual captured in the field. We found no effect of sex on tail loss in any of the species, either in the lab or in the field. We also failed to detect any influence of sex on the duration of tail movement. Our findings indicate that tail autotomy is a rather conservative strategy that is used in the same way and extent by both sexes. However, we have to stress out that our lab experiments took place during the non-reproductive period. It would be interesting to repeat this experiment in gravid females, as pregnancy alters most aspects of reptilian biology.