

Males prefer adult females with juvenile traits in the spiny-footed lizard, *Acanthodactylus erythrurus*.

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Abstract: Coloration is a conspicuous trait relatively widespread among lacertid lizard species. However, coloration in females during the reproductive period is extremely rare. Spiny-footed lizards (*Acanthodactylus erythrurus*) show reddish color of tails in juveniles and tails and hind limbs of females during the breeding season. In this study, we investigated whether female coloration is a sexual ornament attractive to males for mating. Using experimental terraria at the laboratory, males were faced to four different situations of availability of pairs of females or their odors: a) an adult female with its natural white coloration and a juvenile female with its natural red-tailed coloration; 2) an adult female artificially red-colored and a juvenile female artificially white-colored; 3) two adult females artificially red and white colored, respectively; and 4) two papers impregnated with the odor of adult and juvenile female. Through video recordings, we analyzed the time that males spent near each of the females and odoring papers, assuming that a greater proportion of time would indicate preference for mating. Males preferred adult females than juvenile females, and within adult females, they preferred those that had red-colored tails and hind limbs. Since red coloration is a juvenile trait that disappears in adult individuals, choice of adult females with red colors suggests that males prefer to mate with adult females that are probably virgin, or have experienced few episodes of reproduction.