

البحث الخامس

Developmental Stages of the Climbing Gecko *Tarentola annularis* With Special

Reference

to the Claws, Pad Lamellae, and Subdigital Setae

Studying the mode of development of squamates has the advantage of allowing easy access

to embryos without surgically compromising gravid females. Despite the non-ophidian squamates

being a very diverse lineage of reptiles, embryonic tables for individuals of this group are very few.

Here, I present the first in ovo embryonic table for a basal multi-toed, pad-bearing gecko,

Tarentola annularis. In this gecko, only the III and IV digits bear claws. Eleven embryonic stages are

described based on chronological development of morphological characteristics. In contrast to

other previously studied geckos, this species exhibits a longer incubation period.

Comparison with

other squamates, embryonic development of *T. annularis* is indicative of a conserved

developmental strategy. Interestingly, the clawless digits of this gecko do exhibit claws during the

first half of embryonic development. Thus, regression of claws in these digits could be an advantage of studying this particular taxon, as it raises the question, to be answered in future study, of which mechanisms could be responsible for such claw regression. Before hatching, the outer periderm layer sloughs revealing the functional setae. The present study provides not only a model for pentadactyl limbs and digit development, but also an example of a unique developmental phenomenon, as represented by claw regression.