Abstract:

Tarentola annularis is a climbing gecko with a wide distribution in Africa north of the equator. Herein we describe the development of the osteocranium of this lizard from the first appearance of the cranial elements up to the point of hatching. This is based on a combination of histology and cleared and stained specimens. This is the first comprehensive account of gekkotan pre-hatching skull development based on a comprehensive series of embryos, rather than a few selected stages. Given that Gekkota is now widely regarded as representing the sister group to other squamates, this account helps to fill a significant gap in the literature. Moreover, as many authors have considered features of the gekkotan skull and skeleton to be indicative of paedomorphosis, it is important to know whether this hypothesis is supported by delays in the onset of cranial ossification. In fact, we found the sequence of cranial bone ossification to be broadly comparable to that of other squamates studied to date, with no significant lags in development.