

Abstract:

The environment during incubation can have significant influence upon phenotype of reptile hatchlings. Temperature is one of the main environmental factors affecting developing embryos. The response to variability in the environment can be diverse: short, long-lasting and potentially also sex-specific. A large number of studies focused on this phenomenon but only a small portion of them studied the persistence of the phenotypic effects. I summarized studies on the influence of environmental factors on the phenotype of reptiles in species with both temperature or genotypic sex determination. These studies were evaluated in terms of duration of these effects and if these are sex specific. I also assessed how much they correspond with the predictions of the adaptive model suggested by Charnov & Bull which explains the origin and maintenance of temperature sex determination.

Key words:

phenotypic plasticity, environment, development, behaviour, morphology, sex determination, phenotype