

Abstract:

The maternal effect is a phenotypic process in which the mother influences her offspring through her phenotype, her behaviour and also through the environmental condition that affect her. This non-genetic effect can have a variety of manifestations. One way that mothers of oviparous vertebrates can affect their offspring is through the size of their eggs. This thesis aims to investigate whether and how female of the gecko *Paroedura picta* can influence the growth and final body size of their offspring. Females of this species can reproduce at an early age and increase the size of their eggs during their lifetime. Therefore, I investigated whether this difference in energy allocation to the eggs would affect the size of the hatchlings and subsequently their growth and final body size. The result shows that the eggs mass increases with female body size and larger hatchlings were born from larger eggs. However, smaller hatchlings from smaller eggs grow faster compared to larger ones and exhibit so called compensatory growth. Only the sex affects final body size of an individual, but this effect is not apparent at hatching. In this gecko, the maternal effect is only apparent in the egg size and hatchling size but it does not affect the growth or final body size of an offspring later in the ontogeny.