

Abstract

The squamata reptiles present a wide array of reproductive strategies. In the genus *Lepidophyma* from the neotropical family Xantusiidae, there are 19 species, all of them live-bearing and diploid. Obligatory unisexuality is also present in some species. This obligatory unisexuality did not evolve via hybridization, which is unique among vertebrates. The genus thus presents a very interesting, but still poorly little explored group. Only recently our team has discovered a facultative unisexuality in *Lepidophyma smithii*. The unisexually produced offsprings are not fully homozygous are of both sexes, which is unique for vertebrates as well. The aim of my work is to describe the basic reproductive biology of this species, e.g. the relationship between female size and clutch size and offspring size. Additionally, my work focuses on sexual dimorphism. I tested whether *L. smithii* is dimorphic in body length and head size. These traits are often sexually dimorphic in squamatesu. Also, I documented the ontogeny of sexual dimorphism and reconstructed growth curves for males and females.