

## Life-history correlates of evolutionary shifts along the oviparity-viviparity continuum in lacertid lizards

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Most live-bearing squamates exhibit a primitive (lecitotrophic) viviparity which can be described as a pronounced retention of eggs in the oviducts with accompanying shifts in some other quantitative traits. Viviparity of this kind may thus be viewed as an endpoint along an oviparity-viviparity continuum (OVC). Theory predicts that a transition from oviparity to viviparity is associated with evolutionary shifts in multiple life-history traits. These predictions have mostly been tested via broad comparisons of viviparous vs. oviparous species, whereas life-history consequences of smaller shifts along the OVC, which occur within the egg-laying reproductive mode, remain poorly studied.

Lizards of the West Palaeoartic tribe Lacertini present a promising model for studying initial stages towards viviparity. They show a marked variation along the OVC among and within species. My talk will confront the patterns of intraspecific life-history divergence in two widespread lacertid lizards, *Zootoca vivipara* (which includes both oviparous and viviparous lineages) and *Lacerta agilis* (Roitberg et al., 2013, 2015, see [www.eroit.allrital.de](http://www.eroit.allrital.de) for details), with the patterns of interspecific variation (Braña et al., 1991; Braña, 1996). A pronounced parallelism of life-history variation along the OVC within and among species was found. The most consistent pattern is a decrease in mean offspring size in species or intraspecific lineages with longer vs. shorter egg retention. This trend is apparently accompanied with increasing the total clutch mass relative to female mass, and increasing female body size relative to male body size. The revealed patterns will be discussed in the context of several models of life-history evolution, such as Darwin's fecundity-advantage hypothesis and the Winkler & Wallin model. This study is part of a project supported by the Deutsche Forschungsgemeinschaft (grant RO 4168/1).

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