## Lizards Evolving Placentas? The Debate Between Dr. Jerry Bergman vs. Dr. Dan Stern Cardinale - Common Design or Common Descent?<sup>1</sup>

By Jerry Bergman, PhD

In the debate, Dr. Dan Stern Cardinale stated in support of evolution that "An example of a direct observation in nature is lizard populations that are in the process of evolving from the ability of laying eggs to being able to give live birth to their offspring, which is macroevolution by anyone's standard." (1:44:35). This bold claim was also made in the *National Geographic* as follows:

Evolutionary records show that nearly a hundred reptile lineages have independently made the transition from egg-laying to live birth in the past, and today about 20 percent of all living snakes and lizards give birth to live young only.<sup>2</sup>

I was unable to find any "evolutionary records" that showed a "hundred reptile lineages have independently made the transition from egg-laying to live birth." What I found was a great deal of variety in reproduction. Some fish and reptiles use a mix of both birthing styles. The mother forms the eggs but retains them inside her body until the end stages of their embryonic development. At this time, the egg shells, due to the calcium absorbed from them (the shell is an important nutrient source) are so thin that embryos can breathe oxygen through them! When born, they are covered with only the thin-membrane remnant of their shell.

The other approach is that some lizards called skinks can conserve their bodies' nutrient resources by depositing eggs *outside* of their body for their final days of early development. In

<sup>&</sup>lt;sup>1</sup> https://www.youtube.com/watch?v=xCR7PUGnrJg.

<sup>&</sup>lt;sup>2</sup> Handwerk, B., "Evolution in action: Lizard moving from eggs to live birth," *National Geographic News*, https://www.nationalgeographic.com/animals/article/100901-science-animals-evolution-australia-lizard-skink-livebirth-

eggs#:~:text=Evolutionary%20records%20shows%20that%20nearly,Fish%20Had%20Umbilical%20Cord.%22), 1 September 2010.

harsh mountain climates, skinks protect their young by keeping them inside their bodies until they are ready to survive in the outside world.<sup>3</sup> Rather than providing evidence for evolution, this example illustrates a level of design that allows the animal to adapt to a variety of environments. Handwerk correctly observes that "the move from egg-laying to live birth in reptiles is fairly common... because it's relatively easy to make the switch."<sup>4</sup> The reason it is easy to make the switch is because the egg system is very complex, so complex that the live birth method is only one more level of complexity on the 12 basic steps required for the egg-production reproduction method. The wide variety of animal birthing styles was described by Doyl as follows:

Lizards reproduce in an amazing variety of ways. Some lay eggs (oviparity) and some bear live young (viviparity). Most species rely mostly on egg yolk for nutrition during embryonic development; a few have next to no yolk and rely completely on a placental connection to the mother. Some lizard placentas even compare with the complexity of mammalian placentas. Some species can vary the timing of birth. There are a rare few species that even have variety in their reproductive mode.<sup>5</sup>

This variety, when lined up by evolutionists, produces "populations that are in different stages of this process, [which] you can begin to put together *what looks like the transition from one [birth style] to the other*."<sup>6</sup> Furthermore, by so doing, one could attempt to prove evolution from eggs to live birth or from live birth (viviparity) to the egg design (oviparity) birth. Or from live birth to the ability to, depending on conditions, employ either live birth or the egg approach, as used by three known lizard species. These three known lizard species have the built-in design to use either oviparity or viviparity. No evidence exists that they have evolved, or are evolving from oviparity to viviparity.

 <sup>&</sup>lt;sup>3</sup> Stewart, J., et al., "Uterine and eggshell structure and histochemistry in a lizard with prolonged uterine egg retention (Lacertilia, Scincidae, Saiphos)," *Journal of Morphology* 271(11):1342-1351, November 2010.
<sup>4</sup> Handwerk, 2010.

<sup>&</sup>lt;sup>5</sup> Doyl, S., "Lizards moving from eggs to live birth: Evolution in action?," https://creation.com/lizard-eggs-livebirth, 18 November 2010.

<sup>&</sup>lt;sup>6</sup> Handwerk, 2010. Emphasis added.

It is possible that some lizard types had the capacity for *both* reproductive modes, but lost one or the other type in history. Evolutionists don't generally consider this possibility because it is a process of information *loss*, which does not support microbes-to-microbiologists upwardtrending model of evolution.

## Summary

The variety of reproduction design proves, not evolution, but rather the intelligent design worldview. The existence of viviparity and oviparity in one type of animal actually creates problems for evolution, such as the problem of two different systems simultaneously evolving in the same animal. When one is functional there appears, in most cases at least, no reason for natural selection to select for the other competing reproductive system. Lastly, there was no evidence in the research reviewed above of lizards evolving placentas, but rather much evidence of not only intelligent design, but also overdesign.