**SUPPLEMENTAL MATERIAL A**

***Phylogeny construction.–***

We created a composite phylogenetic tree that combined several recently published phylogenies. Because it was time-calibrated, we used the phylogeny of Zheng and Wiens (2016) as the phylogenetic backbone of our composite tree. However, several of our edits were made based on the topography of the phylogenetic tree of extant snakes published by Figueroa et al. (2016). We plotted *Coelognathus* as paraphyletic to the rest of the clade based on Figueroa et al. (2016). We left the position of *Gonyosoma* as sister to the clade containing *Lycodon* and the ‘Boigas’ (i.e *Boiga*, *Crotaphopeltis*, *Dasypeltis*, *Dipsadoboa*, and *Telescopus*)*.* Based on Uetz et al. (2021) we updated the generic assignment of *Dryocalamus* and *Lepturophis* to *Lycodon* and plotted those species as sister to all other *Lycodon.* Within the ‘Boigas’, we placed *Toxicodryas* as sister to *Dasypeltis* (Šmíd et al., 2019)*,* and together, *Dasypeltis* and *Toxicodryas* were kept as sister to *Boiga* per Weinell et al. (2020). We left the position of *Crotaphopeltis* as sister to *Dipsadoboa*, and together as sister to *Telescopus*. We manually inserted several species within those genera based on the phylogenies of Branch et al. (2019), Šmíd et al. (2019), and Engelbrecht et al. (2020).