Information in support of manuscript “Has snake fang evolution lost its bite? New insights from a structural mechanics viewpoint”by **Broeckhoven C, du Plessis A**. *Biology Letters.*

Supplementary Material 1. Comparison of fang curvature

**Materials and Methods** – A polyline was created from the base to the tip of the fang along the curve by selecting approximately 10 points on the surface and was used to calculate fang length. Next, the polyline was used as a basis for a best-fit circle measurement (using the geometric measurement toolbox implemented in VGStudio Max 3.0). Fang curvature was determined by the formula:

with *DA* the degree of curvature (in radians), *A* the fang length and *r* the radius of the curvature.

**Results** – Figure S1 shows the application of the method to a fang of *Bitis atropos*. The curvature of fangs differed significantly between the three phenotypes (phylANOVA; *F*1,19 = 15.75, *P* = 0.02), with the closed, fused phenotype having a higher curvature than the grooved phenotype (Bonferroni *post hoc* test; *P* = 0.02). The closed, non-fused phenotype and grooved phenotype had a similar curvature (Bonferroni *post hoc* test; *P* = 0.42), but both differed (although not statistically significant) from the closed, fused phenotype (Bonferroni *post hoc* test; *P* = 0.08). Maximum VM stress tended to decrease with increase in curvature (pGLS; *r* = -0.84, *P* = 0.09).

**Figure S1.**

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