

**Figure S3:** We suggest 4 hypotheses on the metabolic cost of a weapon as size increases. 1) Isometry - metabolic cost of weapon scales in direct proportion to mass (slope =1) 2) Typical allometry - that the metabolic cost of the weapon decreases consistent with the general scaling of metabolic rate and body size (slope =0.75). 3) Cost minimization – the cost of weapons decrease (more than typically) for larger weapons. 4) Expensive weapons – that the metabolic cost of weapons increases with the size of a weapon.