

**Supplemental Table 1.** Mean ( $\pm$  standard deviation) relative intestinal length (RIL), digestive somatic index (DSI) and terminal standard body length (mm) for *Danio rerio* on each diet type. The fish fed the herbivorous diet had larger RIL than fish on the other diets (ANCOVA Diet:  $F_{3,61} = 59.493$ ,  $P < 0.001$ ; Body Mass:  $F_{1,57} = 0.003$ ,  $P = 0.995$ ), whereas the fish consuming the ancestral diet had larger DSI than those on the omnivorous diet (ANCOVA Diet:  $F_{3,61} = 10.456$ ,  $P < 0.001$ ; Body Mass:  $F_{1,57} = 1.235$ ,  $P = 0.271$ ). Fish on the carnivore diet had larger terminal body length than all other diets (ANOVA Diet:  $F_{3,61} = 10.09$ ,  $P < 0.05$ ). Posthoc tests were Tukey's HSD with a family error rate of  $P = 0.05$ . Values that share a superscript letter for a particular index are not significantly different.

Diet Type	RIL	DSI	Standard Body Length (mm)
Ancestral	0.804 $\pm$ 0.026 <sup>A</sup>	0.092 $\pm$ 0.042 <sup>A</sup>	31.5 $\pm$ 3.4 <sup>A</sup>
Carnivore	0.760 $\pm$ 0.032 <sup>A</sup>	0.081 $\pm$ 0.028 <sup>AB</sup>	35 $\pm$ 3.9 <sup>B</sup>
Omnivore	0.854 $\pm$ 0.034 <sup>A</sup>	0.057 $\pm$ 0.030 <sup>B</sup>	32.8 $\pm$ 2.6 <sup>A</sup>
Herbivore	1.050 $\pm$ 0.040 <sup>B</sup>	0.061 $\pm$ 0.017 <sup>AB</sup>	30.2 $\pm$ 1.6 <sup>A</sup>