

**Supplemental table 3:** Information pertaining to statistical models that were run to identify differences between low- and high-latitude reefs for aerobic physiology, enzyme, immunocompetence, and hematocrit metrics.

Response variable	Distribution	Link	Interactions	Covariates	Random effects
<b>Aerobic physiology</b>					
▪ Resting oxygen consumption	gaussian	identity	Latitude*poly(Temperature, 2)	Fish Mass (centred)	(1 Fish_id)
▪ Maximum oxygen consumption	gaussian	identity	Latitude*poly(Temperature, 2)	Fish Mass (centred)	(1 Fish_id)
▪ Absolute aerobic scope	gaussian	identity	Latitude*poly(Temperature, 2)	Fish Mass (centred)	(1 Fish_id)
<b>Enzymes</b>					
▪ Lactate dehydrogenase	gaussian	identity	Latitude*poly(Temperature, 3)	Tissue Mass (centred)	(1 Fish_id)
▪ Citrate synthase	gaussian	log	Latitude*poly(Temperature, 2)	Tissue Mass (centred)	(1 Fish_id)
▪ Lactate dehydrogenase: citrate synthase	gaussian	identity	Latitude*Temperature	Tissue Mass (centred)	(1 Fish_id)
<b>Immunocompetence</b>	gamma	log	Latitude*poly(Temperature, 3)	-none-	(1 Population/Fish_id)
<b>Haematocrit</b>	gaussian	identity	Latitude	-none-	-none-