|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Response variable | Distribution | Link | Interactions | Covariates | Random effects |
| Aerobic physiology |  |  |  |  |  |
| * 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) |
| Enzymes |  |  |  |  |  |
| * Lactate dehydrogenase | gaussian | identity | Latitude\*poly(Temperature, 2) | 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) |
| Immunocompetence | gamma | log | Latitude\*poly(Temperature, 3) | -none- | (1|Population/Fish\_id) |
| Haematocrit | gaussian | identity | Latitude | -none- | -none- |

**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.