Supplementary Material

**Supplementary Table S3**: Results of statistical analyses on mahi metabolic rates and swim parameters acclimated to either 20, 24, 28, or 32ºC. Significance for all statistical tests was determined at p<0.05, and means are presented ± SEM. See main text for sample sizes.

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| --- | --- | --- | --- | --- | --- |
| **Measured variable** | **Statistical test** | **P-value** | **Post-hoc test** | **Post-hoc test P-values** | **Median** **(Range)** |
| Standard metabolic rate | Kruskall-Wallace ANOVA on ranks | P<0.001 | Dunn’s  | 32 v 20 = <0.00132 v 24 = 0.00232 v 28 = 0.21928 v 20 = 0.00728 v 24 = 0.81524 v 20 = 0.527 | 20ºC: 304.5(218.7-507.6)24ºC: 387.1(315.8-514.0)28ºC: 452.5(344.6-645.6)32ºC: 644.6(354.4-1016.8) |
| Maximal metabolic rate | Welch’s ANOVA | P<0.001 | Games-Howell | 20 v 24 = 0.004 20 v 28 = <0.00120 32 = <0.00124 v 28 = 0.03124 v 32 = 0.02028 v 32 = 0.949 | 20ºC: 829.5(631.0-1260.3)24ºC: 1228.7(854.6-2235.2)28ºC: 1685.8(1202.1-2280.8)32ºC: 1799.5(1180.7-2347.2) |
| Aerobic scope | One-way ANOVA | P<0.001 | Holm-Sidak | 28 v 20 = <0.00132 v 20 = <0.00124 v 20 = 0.01428 v 24 = 0.03232 v 24 = 0.21728 v 32 = 0.328 | 20ºC: 503.4 (179.0-973.7)24ºC: 846.0 (444.3-1877.4)28ºC: 1122.4 (781.8-1936.2)32ºC: 980.7(565.1-1775.4) |
| Critical swimming speed (*U*crit) | One-way ANOVA | P=0.003 | Holm-Sidak | 28 v 20 = 0.00228 v 32 = 0.02228 v 24 = 0.19424 v 20 = 0.23824 v 32 = 0.52832 v 20 = 0.512 | 20ºC: 4.191(1.991-5.445)24ºC: 4.461(3.222-6.982)28ºC: 5.463(3.622-8.359)32ºC: 4.301(3.050-5.709) |
| Optimal sustained swimming speed (*U*opt) | One-way ANOVA | P=0.078 | N/A | N/A | 20ºC: 3.480(2.440-4.510)24ºC: 3.140(2.170-4.710)28ºC: 3.975(2.560-5.340)32ºC: 3.700(2.470-4.630) |
| Minimum cost of transport (COTmin) | One-way ANOVA | P<0.001 | Holm-Sidak | 32 v 20 = <0.00132 v 24 = <0.00132 v 28 = 0.00528 v 20 = 0.11024 v 20 = 0.44728 v 24 = 0.327 | 20ºC: 0.379(0.292-0.541)24ºC: 0.404(0.315-0.616)28ºC: 0.470(0.315-0.792)32ºC: 0.665(0.426-0.891) |
| Cost of transport at *U*crit (COT*U*CRIT) | Kruskall-Wallace ANOVA on ranks | P<0.001 | Dunn’s  | 32 v 20 = <0.00132 v 24 = 0.79232 v 28 = 1.00028 v 20 = 0.00228 v 24 = 1.00024 v 20 = 0.009 | 20ºC: 0.410(0.322-0.520)24ºC: 0.551(0.373-1.113)28ºC: 0.617(0.451-0.893)32ºC: 0.734(0.546-1.027) |
| Factorial aerobic scope | Kruskall-Wallace ANOVA on ranks | P=0.033 | Dunn’s | 32 v 20 = 1.00032 v 24 = 1.00032 v 28 = 0.08428 v 20 = 0.06328 v 24 = 1.00024 v 20 = 1.000 | 20ºC: 2.704(1.390-4.398)24ºC: 3.238(2.079-6.246)28ºC: 3.541(2.572-6.618)32ºC: 2.835(1.816-4.609) |