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 = <0.001  32 v 24 = 0.002  32 v 28 = 0.219  28 v 20 = 0.007  28 v 24 = 0.815  24 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 = <0.001  20 32 = <0.001  24 v 28 = 0.031  24 v 32 = 0.020  28 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 = <0.001  32 v 20 = <0.001  24 v 20 = 0.014  28 v 24 = 0.032  32 v 24 = 0.217  28 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 = 0.002  28 v 32 = 0.022  28 v 24 = 0.194  24 v 20 = 0.238  24 v 32 = 0.528  32 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 = <0.001  32 v 24 = <0.001  32 v 28 = 0.005  28 v 20 = 0.110  24 v 20 = 0.447  28 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 = <0.001  32 v 24 = 0.792  32 v 28 = 1.000  28 v 20 = 0.002  28 v 24 = 1.000  24 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 = 1.000  32 v 24 = 1.000  32 v 28 = 0.084  28 v 20 = 0.063  28 v 24 = 1.000  24 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) |