10.1071/MF11105_AC

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## Supplementary Material

**Table A1**. Volumetric dietary data for terapontid species' ontogenetic trophic units. Only dietary categories that totaled more than 5% within any individual species' ontogenetic trophic units are outlined.

| | *Terapon jarbua* | | *Amniataba percoides* | | | | *Leiopotherapon unicolor* | | | | *L. aheneus* | | *Hephaestus fuliginosus* | | | | *H. carbo* | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ontogenetic Trophic Unit | 1 | 2 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 1 | 2 | 3 | 4 | 1 | 2 | 3 |
| Size range (mm) | >60 | 60-102 | >30 | 30-60 | 60-100 | 100-126 | >30 | 30-60 | 60-120 | 120-181 | >40 | 40-73 | >40 | 40-140 | 140-240 | 240-320 | 30-60 | 60-110 | 110-163 |
| **Broad dietary category** | | | | | | | | | | | | | | | | | | | |
| Diptera larvae | 52.2 | 18.2 | 32.3 | 33.9 | 20.4 | 12.4 | 66.0 | 23.9 | 10.6 | 0.6 | 34.1 | 5.9 | 33.8 | 25.3 | 0.8 | - | 33.6 | 17.1 | 5.9 |
| Ephemeroptera | 1.7 | 14.1 | 11.6 | 17.1 | 9.5 | 6.8 | 16.0 | 19.8 | 7.7 | 0.2 | 18.3 | 5.5 | 18.5 | 8.7 | 1.1 | 0.1 | 16.0 | 9.3 | 5.9 |
| Trichoptera | | | 6.1 | 13.0 | 12.3 | 4.6 | - | 15.6 | 8.1 | 1.3 | 6.5 | 6.2 | 28.6 | 15.1 | 1.5 | 0.3 | 8.3 | 32.1 | 22.3 |
| Odonata larvae | | | 2.7 | 2.5 | 3.7 | 5.4 | - | 5.0 | 7.7 | 1.5 | - | 6.8 | | | | | 6.7 | 9.5 | 11.2 |
| Other aquatic inverts | | | 0.4 | 6.5 | 9.3 | 5.4 | 2.0 | 9.1 | 9.5 | 4.2 | | | - | 7.8 | 5.9 | 1.1 | 21.9 | 6.5 | 4.0 |
| Surface Invertebrates | | | | | | | | | | | | | | | | | | | |
| Macrocrustacea | 13.3 | 12.3 | | | | | - | 3.2 | 19.2 | 23.0 | | | - | 7.5 | 13.7 | 9.9 | 1.7 | 13.1 | 15.7 |
| Zooplankton | | | 35.9 | 7.1 | 1.6 | 0.1 | 16.0 | 6.4 | 1.4 | - | 25.6 | 1.3 | 5.3 | 3.7 | - | - | 6.6 | - | - |
| Ostracoda | | | | | | | | | | | | | | | | | | | |
| Mollusca, Gastropoda | | | | | | | | | | | | | | | | | | | |
| Terrestrial invertebrates | 2.7 | 11.0 | | | | | - | 1.0 | 6.2 | 14.6 | | | 0.1 | 1.5 | 6.0 | 3.1 | 0.8 | 3.8 | 15.8 |
| Fish | 12.3 | 13.1 | | | | | - | 1.1 | 8.5 | 37.4 | | | - | 2.0 | 10.8 | 11.9 | - | 1.6 | 12.5 |
| Fish scales | 13.3 | 30.0 | | | | | | | | | | | | | | | | | |
| Eggs | | | | | | | | | | | | | | | | | | | |
| Inorganic | | | | | | | | | | | | | | | | | | | |
| Detritus | | | | | | | | | | | 7.3 | 11.1 | 1.0 | 4.1 | 3.5 | 1.9 | | | |

| | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Filamentous algae | | 0.3 | 8.8 | 24.2 | 15.1 | - | 6.1 | 9.5 | 4.8 | 2.4 | 56.9 | 0.5 | 15.2 | 15.9 | 3.7 |
| Aquatic macrophytes | | - | 0.2 | 1.7 | 35.2 | | | | | | | - | 0.5 | 7.0 | 22.0 |
| Terrestrial vegetation | | | | | | | | | | | | 0.1 | 1.0 | 26.8 | 38.4 |
| Misc. plant parts | | | | | | | | | | | | | | | |
| Terrestrial vertebrates | | | | | | | | | | | | | 0.2 | 4.5 | 6.5 |

**Table A1** (cont.)

| | *H. jenkinsi* | | | *Scortum ogilbyi* | | | *S. parviceps* | | | | *Syncomistes butleri* | | | *S. trigonicus* | | *Hannia greenwayi* | | *Pingalla gilberti* | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ontogenetic Trophic Unit | 1 | 2 | 3 | 1 | 2 | 3 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 1 | 2 | 1 | 2 | 1 | 2 |
| Size range (mm) | >40 | 40-160 | 160-280 | >80 | 80-220 | 220-324 | >40 | 40-120 | 120-240 | 240-353 | >80 | 80-160 | 160-241 | >50 | 50-105 | >40 | 40-107 | >40 | 40-97 |
| **Broad dietary category** | | | | | | | | | | | | | | | | | | | |
| Diptera larvae | 44.3 | 9.6 | 2.5 | 9.4 | 1.4 | 0.1 | 58.8 | 39.4 | 2.6 | 1.7 | 38.9 | 12.6 | 0.2 | 18.0 | 1.0 | 35.4 | 13.6 | 72.0 | 15.2 |
| Ephemeroptera | 3.8 | 16.7 | 2.5 | 8.9 | 0.6 | - | | | | | | | | 9.0 | 0.2 | 45.5 | 32.6 | 10.0 | 0.7 |
| Trichoptera | 6.3 | 15.5 | 2.6 | | | | 28.0 | 0.1 | 1.4 | 0.2 | 6.2 | 0.6 | - | 9.1 | 1.0 | | | 10.0 | 0.5 |
| Odonata larvae | | | | | | | | | | | | | | | | - | 6.1 | | |
| Other aquatic inverts | 38.8 | 9.5 | 3.6 | 10.0 | 0.5 | 0.6 | | | | | | | | | | 8.6 | 5.0 | | |
| Surface Invertebrates | | | | | | | | | | | | | | | | | | | |
| Macrocrustacea | - | 3.8 | 7.8 | | | | | 5.2 | | 2.6 | | | | | | | | | |
| Zooplankton | 5.8 | 2.9 | 0.1 | 9.6 | - | - | 6.0 | 0.2 | 1.2 | 1.0 | | | | 14.3 | 0.4 | 10.4 | - | 8.0 | 0.2 |
| Ostracoda | | | | | | | | | | | | | | | | | | | |
| Mollusca, Gastropoda | - | 0.1 | 6.2 | | | | | | | | | | | | | | | | |
| Terrestrial inverts | | | | | | | | | | | | | | | | | | | |
| Fish | - | 4.9 | 6.8 | | | | | | | | | | | | | - | 9.3 | | |
| Fish scales | | | | | | | | | | | | | | | | | | | |
| Eggs | | | | | | | | | | | | | | | | | | | |
| Inorganic | | | | | | | | | | | | | | | | | | - | 12.0 |
| Detritus | - | 2.1 | 8.0 | 7.1 | 18.0 | 7.1 | 0.5 | 4.0 | 9.2 | 12.8 | 32.2 | 47.0 | 41.0 | 32.3 | 67.0 | | | - | 34.0 |
| Filamentous algae | - | 15.4 | 12.2 | 38.4 | 56.4 | 52.0 | - | 42.0 | 53.7 | 50.0 | 12.2 | 31.4 | 46.6 | 13.1 | 26.0 | - | 19.7 | - | 36.5 |
| Aquatic macrophytes | - | 3.6 | 8.2 | - | 12.0 | 33.1 | | 6.8 | 23.3 | 18.3 | | | | | | | | | |
| Terrestrial vegetation | - | 1.8 | 19.1 | | | | | 0.5 | 1.8 | 5.5 | | | | | | | | | |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Misc. plant parts | - | 0.6 | 7.1 | | | 5.0 | 5.4 | 11.6 | | | |
| Terrestrial vertebrates | - | - | 5.3 | | | | | | | | |

Table A1 (cont).

| Species<br>Size Range (mean) | *H. tulliensis*<br>81-217mm (156.4) | *H. epirrhinos*<br>193-275mm (223.7mm) | *P.midgleyi*<br>43-71mm (57.3) | *S. rastellus*<br>68-165mm (115.2) | *Varrichthys lacustris*<br>112-181mm (150mm) | *P. lorentzi*<br>48-116mm (65.6) | *Mesopristes argenteus*<br>85-226mm (147.4mm) | *A. caudavittata*<br>67-105mm (80mm) |
|---|---|---|---|---|---|---|---|---|
| **Broad diet category** | | | | | | | | |
| Diptera larvae | 1.9 | | 5.3 | 1.7 | 5.2 | 9.8 | 0.3 | 38.2 |
| Ephemeroptera larvae | 0.9 | | 0.7 | 1.7 | | 4.8 | 7.4 | |
| Trichoptera larvae | 5.0 | 4.3 | 1.3 | 1.3 | | 2.9 | 8.3 | |
| Odonata larvae | 1.3 | 5.0 | | | 1.3 | | 1.8 | |
| Other aquatic inverts | 2.9 | | | | 19.7 | | 3.1 | |
| Surface Invertebrates | | | | | | | | |
| Terrestrial-aerial inverts | 1.1 | | | | 12.4 | | | 1.7 |
| Macrocrustacea | 3.4 | 46.7 | | | | 9.5 | 42.8 | |
| Zooplankton | 0.1 | | 3.7 | | 0.1 | 3.8 | | |
| Ostracoda | 0.6 | | | | | | | 5.7 |
| Mollusca/Gastropoda | | | | | 5.2 | | 10.4 | 13.5 |
| Fish | 3.6 | 24.3 | | | | | 6.2 | 9.8 |
| Fish scales | | | | | | | | |
| Eggs | 0.3 | | | 0.1 | | | 2.4 | |
| Inorganic | 0.7 | | 29.3 | 6.3 | | 2.9 | 2.7 | 0.7 |
| Detritus | 6.8 | | 47.0 | 38.3 | | 22.0 | 1.1 | |
| Filamentous algae | 48.4 | 19.7 | 6.3 | 47.7 | 18.8 | 30.8 | | 25.5 |
| Aquatic macrophytes | 0.8 | | | | 33.2 | 1.3 | | 2.5 |
| Terrestrial vegetation | 20.1 | | | | 0.8 | 0.8 | | |
| Misc. plant parts | | | 3.0 | | | 8.8 | | |
| Terrestrial vertebrates | | | | | | | | |

**Table A2.** Summary data of raw terapontid OTU morphologies used in study analyses. OTU codes are outlined in Table 1 (main text). All linear variables (standard length, intestinal length, maxilla length, mouth width, head length, snout length, eye diameter, body depth) are presented as average lengths (mm). Relative eye position is presented as a ratio variable (eye height/head depth) and tooth shape and mouth position as coded integer values.

| OTU | Standard length | Intestinal length | Head length | Snout length | Maxilla length | Mouth width | Eye diameter | Eye position | Body depth | Tooth Shape | Mouth orientation |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Ap1 | 24.8 | 15.9 | 8.3 | 3.9 | 2.1 | 1.7 | 2.9 | 0.67 | 8.0 | 1 | 1 |
| Ap2 | 46.2 | 34.9 | 14.6 | 7.1 | 3.5 | 3.9 | 5.2 | 0.68 | 18.0 | 1 | 1 |
| Ap3 | 76.0 | 65.7 | 22.0 | 10.5 | 5.6 | 6.7 | 6.9 | 0.69 | 29.2 | 1 | 1 |
| Ap4 | 113.5 | 112.8 | 33.3 | 16.5 | 8.6 | 12.1 | 9.4 | 0.67 | 48.1 | 1 | 1 |
| Ac | 75.3 | 67.7 | 21.8 | 10.9 | 7.5 | 8.3 | 6.9 | 0.71 | 27.0 | 1 | 1 |
| Hg1 | 23.5 | 16.8 | 8.0 | 3.7 | 2.2 | 2.2 | 2.9 | 0.65 | 8.5 | 1 | 1 |
| Hg2 | 78.7 | 74.0 | 25.1 | 13.3 | 8.9 | 8.3 | 7.5 | 0.71 | 27.0 | 1 | 1 |
| Hf1 | 32.9 | 28.6 | 11.6 | 5.6 | 3.2 | 2.7 | 3.5 | 0.72 | 11.7 | 1 | 1 |
| Hf2 | 71.6 | 78.3 | 27.1 | 13.3 | 7.2 | 8.3 | 6.6 | 0.71 | 26.3 | 1 | 1 |
| Hf3 | 166.7 | 303.8 | 54.0 | 26.0 | 21.3 | 19.7 | 11.1 | 0.70 | 73.2 | 1 | 1 |
| Hf4 | 288.8 | 556.3 | 87.6 | 42.3 | 31.2 | 40.2 | 15.1 | 0.78 | 106.8 | 1 | 1 |
| Hc1 | 47.3 | 37.5 | 15.7 | 7.2 | 5.0 | 4.8 | 4.8 | 0.68 | 19.2 | 1 | 1 |
| Hc2 | 81.3 | 71.3 | 26.3 | 12.1 | 9.0 | 9.1 | 7.2 | 0.67 | 34.5 | 1 | 1 |
| Hc3 | 138.1 | 126.7 | 42.0 | 19.6 | 14.4 | 18.0 | 10.1 | 0.63 | 55.7 | 1 | 1 |
| Ht | 151.9 | 375.3 | 46.9 | 23.7 | 14.0 | 16.2 | 12.0 | 0.61 | 63.0 | 1 | 1 |
| Hj1 | 33.1 | 26.5 | 10.8 | 5.9 | 3.7 | 3.1 | 3.4 | 0.70 | 12.2 | 1 | 1 |
| Hj2 | 91.2 | 153.3 | 31.2 | 15.8 | 10.7 | 10.2 | 7.4 | 0.70 | 36.2 | 1 | 1 |
| Hj3 | 194.7 | 415.7 | 62.9 | 30.7 | 20.9 | 23.2 | 12.8 | 0.70 | 74.5 | 1 | 1 |
| He | 226.7 | 303.0 | 74.5 | 36.2 | 32.1 | 25.3 | 14.4 | 0.74 | 78.3 | 1 | 1 |
| Lu1 | 23.1 | 14.5 | 9.2 | 4.0 | 2.3 | 2.7 | 2.6 | 0.66 | 7.8 | 1 | 1 |
| Lu2 | 42.7 | 34.0 | 14.1 | 6.2 | 4.9 | 3.7 | 4.5 | 0.77 | 15.9 | 1 | 1 |
| Lu3 | 87.8 | 66.8 | 28.1 | 12.2 | 9.1 | 9.7 | 7.1 | 0.77 | 26.9 | 1 | 1 |
| Lu4 | 139.2 | 122.6 | 48.4 | 20.6 | 17.0 | 20.0 | 9.5 | 0.74 | 47.6 | 1 | 1 |
| La1 | 35.2 | 33.2 | 11.1 | 4.9 | 2.5 | 3.2 | 3.8 | 0.63 | 8.2 | 1 | 1 |

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| La2 | 51.4 | 96.3 | 16.3 | 7.4 | 4.9 | 5.1 | 4.8 | 0.69 | 18.4 | 1 | 1 |
| Ma | 132.8 | 169.1 | 43.1 | 22.8 | 15.8 | 14.3 | 11.9 | 0.65 | 58.1 | 1 | 1 |
| Pg1 | 33.1 | 24.0 | 11.2 | 5.6 | 2.6 | 2.4 | 3.3 | 0.65 | 11.3 | 3 | 3 |
| Pg2 | 65.1 | 117.0 | 19.4 | 10.3 | 4.7 | 5.3 | 5.5 | 0.70 | 22.0 | 3 | 3 |
| Pm | 57.1 | 155.3 | 15.8 | 8.1 | 3.8 | 4.7 | 4.5 | 0.64 | 20.4 | 3 | 3 |
| Pl | 65.6 | 118.3 | 18.8 | 9.0 | 5.1 | 6.0 | 5.8 | 0.66 | 27.9 | 3 | 1 |
| Sp1 | 31.9 | 37.3 | 10.1 | 4.6 | 3.0 | 3.0 | 3.1 | 0.63 | 10.2 | 2 | 2 |
| Sp2 | 73.9 | 188.7 | 22.2 | 10.5 | 6.1 | 7.1 | 5.9 | 0.60 | 26.7 | 2 | 2 |
| Sp3 | 212.8 | 773.9 | 58.0 | 25.2 | 11.2 | 20.0 | 9.8 | 0.62 | 60.0 | 2 | 2 |
| Sp4 | 263.1 | 1431.7 | 70.4 | 32.0 | 17.6 | 25.8 | 12.3 | 0.62 | 103.6 | 2 | 2 |
| So1 | 66.5 | 157.0 | 20.8 | 9.2 | 6.4 | 7.1 | 5.3 | 0.63 | 26.1 | 2 | 2 |
| So2 | 176.4 | 521.4 | 47.1 | 20.5 | 12.3 | 18.0 | 10.0 | 0.60 | 65.6 | 2 | 2 |
| So3 | 246.6 | 1297.6 | 63.5 | 28.0 | 18.6 | 24.5 | 12.5 | 0.63 | 159.4 | 2 | 2 |
| St1 | 39.0 | 57.4 | 11.2 | 5.3 | 3.4 | 3.5 | 3.6 | 0.68 | 12.5 | 3 | 2 |
| St2 | 76.5 | 232.2 | 21.3 | 11.3 | 6.7 | 7.3 | 4.9 | 0.71 | 23.2 | 3 | 2 |
| Sb1 | 63.4 | 126.1 | 19.6 | 10.3 | 5.6 | 5.9 | 4.9 | 0.65 | 23.3 | 3 | 2 |
| Sb2 | 120.4 | 320.4 | 34.3 | 17.9 | 10.3 | 10.9 | 7.7 | 0.61 | 45.3 | 3 | 2 |
| Sb3 | 187.3 | 786.5 | 50.1 | 26.1 | 17.9 | 16.7 | 10.3 | 0.60 | 84.8 | 3 | 2 |
| Sr | 119.3 | 415.4 | 32.8 | 17.9 | 9.7 | 11.6 | 7.1 | 0.65 | 42.4 | 3 | 2 |
| Tj1 | 49.5 | 44.9 | 16.1 | 7.2 | 6.0 | 6.5 | 4.5 | 0.70 | 16.4 | 1 | 1 |
| Tj2 | 77.3 | 82.5 | 22.0 | 10.8 | 9.8 | 10.5 | 6.2 | 0.71 | 26.8 | 1 | 1 |
| Vl | 149.7 | 141.1 | 40.8 | 18.5 | 12.2 | 15.3 | 10.3 | 0.65 | 62.5 | 1 | 1 |

**Table A3.** Results for scaling analyses of reduced major axis regressions of $Log_{10}$ –transformed standard length versus eight $Log_{10}$ –transformed morphological variables. Morphological are variables coded as follows: IL-intestinal length; ML; maxilla length; MW-mouth width; HL-head length; SNL-snout length; ED-eye diameter; EP-eye position; and BD-body depth. Regression equation slope (b), isometric slope, constant (y-axis intercept), $r^2$ (square of the correlation coefficient), 95% confidence interval for slope and number of sample points (n) are outlined for each species and variable. Statistically significant allometric relationships (b≠1) are highlighted in bold.

| *Amniataba caudovittata* | | | | | | |
|---|---|---|---|---|---|---|
| Variable | b | Isometry | Constant | $r^2$ | Confidence limits | n |
| Intestinal length | 1.363 | 1.0 | -0.766 | 0.926 | 0.849-1.878 | 6 |
| Maxilla length | 0.876 | 1.0 | -0.793 | 0.984 | 0.723-1.029 | 6 |
| Maxilla width | 0.964 | 1.0 | -0.890 | 0.890 | 0.33-1.597 | 6 |
| Head length | 0.704 | 1.0 | 0.017 | 0.770 | 0.003-1.405 | 6 |
| Snout length | 1.187 | 1.0 | -1.189 | 0.785 | 0.175-2.20 | 6 |
| Eye Diameter | **0.301** | 1.0 | 0.270 | 0.730 | -0.03-0.634 | 6 |
| Eye position | -0.640 | 0.0 | 1.920 | 0.590 | -1.12-0.023 | 6 |
| Body depth | 0.857 | 1.0 | -0.200 | 0.886 | 0.456-1.262 | 6 |
| *Amniataba percoides* | | | | | | |
| Variable | b | Isometry | Const | $r^2$ | Confidence limits | n |
| IL | **1.385** | 1.0 | -0.761 | 0.929 | 1.339-1.431 | 432 |
| ML | **1.094** | 1.0 | -1.284 | 0.900 | 1.067-1.121 | 623 |
| MW | **1.239** | 1.0 | -1.480 | 0.967 | 1.169-1.308 | 72 |
| HDL | **0.903** | 1.0 | -0.343 | 0.992 | 0.877-0.928 | 72 |
| SNL | **0.933** | 1.0 | -7.139 | 0.981 | 0.894-0.973 | 72 |
| ED | **0.724** | 1.0 | -0.513 | 0.973 | 0.687-0.761 | 72 |
| EP | 0.008 | 0.0 | 0.662 | 0.002 | -0.057-0.073 | 72 |
| BD | **1.057** | 1.0 | -0.496 | 0.966 | 1.042-1.073 | 72 |
| *Hannia greenwayi* | | | | | | |
| Variable | b | Isometry | Const | $r^2$ | Confidence limits | n |
| IL | **1.194** | 1.0 | -0.423 | 0.954 | 1.041-1.347 | 15 |
| ML | **1.049** | 1.0 | -1.010 | 0.992 | 1.012-1.086 | 28 |
| MW | **1.175** | 1.0 | -1.316 | 0.987 | 1.113-1.237 | 28 |
| HDL | 0.996 | 1.0 | -0.489 | 0.988 | 0.994-1.048 | 28 |
| SNL | 1.071 | 1.0 | -0.907 | 0.974 | 0.990-1.151 | 28 |
| ED | **0.803** | 1.0 | -0.647 | 0.957 | 0.723-0.882 | 28 |
| EP | 0.231 | 0.0 | 0.437 | 0.786 | -0.175-0.287 | 28 |
| BD | **1.068** | 1.0 | -0.542 | 0.991 | 1.023-1.114 | 28 |
| *Hephaestus carbo* | | | | | | |
| Variable | b | Isometry | Const | $r^2$ | Confidence limits | n |

| | | | | | | |
|---|---|---|---|---|---|---|
| IL | **1.274** | 1.0 | -0.581 | 0.954 | 1.216-1.333 | 87 |
| ML | **1.059** | 1.0 | -1.075 | 0.981 | 1.031-1.087 | 105 |
| MW | **1.270** | 1.0 | -1.463 | 0.982 | 1.216-1.323 | 60 |
| HDL | **0.916** | 1.0 | -0.333 | 0.990 | 0.888-0.944 | 60 |
| SNL | **0.937** | 1.0 | -0.709 | 0.981 | 0.896-0.977 | 60 |
| ED | **0.665** | 1.0 | -0.415 | 0.952 | 0.619-0.711 | 60 |
| EP | -0.091 | 0.0 | 0.841 | 0.073 | -0.19-0.01 | 60 |
| BD | **1.068** | 1.0 | -0.507 | 0.986 | 1.043-1.093 | 103 |

*Hephaestus epirrhinos*

| Variable | b | Isometry | Const | $r^2$ | Confidence limits | n |
|---|---|---|---|---|---|---|
| IL | **1.516** | 1.0 | -1.085 | 1.000 | 1.26-1.772 | 3 |
| ML | 1.154 | 1.0 | -1.206 | 0.986 | -0.591-2.900 | 3 |
| MW | 1.396 | 1.0 | -1.886 | 0.998 | 0.501-2.291 | 3 |
| HDL | 1.180 | 1.0 | -0.909 | 0.985 | -0.725-2.9 | 3 |
| SNL | 0.999 | 1.0 | -1.361 | 0.950 | -1.829-3.837 | 3 |
| ED | 0.493 | 1.0 | -0.001 | 0.860 | -0.33-1.307 | 3 |
| EP | -0.007 | 0.0 | 0.755 | 0.003 | -1.61-1.66 | 3 |
| BD | 1.204 | 1.0 | -0.936 | 0.995 | 0.15-2.255 | 3 |

*Hephaestus fuliginosus*

| Variable | b | Isometry | Const | $r^2$ | Confidence limits | n |
|---|---|---|---|---|---|---|
| IL | **1.440** | 1.0 | -0.769 | 0.965 | 1.408-1.471 | 292 |
| ML | **1.120** | 1.0 | -1.222 | 0.985 | 1.107-1.132 | 461 |
| MW | **1.249** | 1.0 | -1.472 | 0.992 | 1.213-1.284 | 75 |
| HDL | **0.935** | 1.0 | -0.347 | 0.997 | 0.918-0.952 | 75 |
| SNL | **0.927** | 1.0 | -0.643 | 0.927 | 0.904-0.950 | 75 |
| ED | **0.676** | 1.0 | -0.460 | 0.983 | 0.648-0.703 | 75 |
| EP | -0.001 | 0.0 | 0.721 | 0.000 | -0.05-0.05 | 75 |
| BD | **1.069** | 1.0 | -0.565 | 0.993 | 1.056-1.077 | 455 |

*Hephaestus jenkinsi*

| Variable | b | Isometry | Const | $r^2$ | Confidence limits | n |
|---|---|---|---|---|---|---|
| IL | **1.574** | 1.0 | -0.988 | 0.926 | 1.478-1.671 | 80 |
| ML | **1.054** | 1.0 | -1.075 | 0.975 | 1.022-1.086 | 119 |
| MW | **1.150** | 1.0 | -1.261 | 0.985 | 1.107-1.192 | 72 |
| HDL | **0.945** | 1.0 | -0.363 | 0.992 | 0.919-0.970 | 72 |
| SNL | **0.919** | 1.0 | -0.610 | 0.985 | 0.89-0.952 | 72 |
| EyeD | **0.701** | 1.0 | -0.500 | 0.969 | 0.644-0.738 | 72 |
| EyePos | -0.022 | 0.0 | 0.750 | 0.010 | -0.08-0.04 | 72 |
| BD | **1.046** | 1.0 | -0.519 | 0.993 | 1.029-1.064 | 102 |

*Hephaestus tulliensis*

| Variable | b | Isometry | Const | $r^2$ | Confidence limits | n |
|---|---|---|---|---|---|---|

| | | | | | | |
|---|---|---|---|---|---|---|
| IL | **1.766** | 1.0 | -1.295 | 0.780 | 1.291-2.241 | 16 |
| ML | 0.940 | 1.0 | -0.906 | 0.903 | 0.772-1.108 | 19 |
| MW | 1.104 | 1.0 | -1.225 | 0.909 | 0.883-1.325 | 19 |
| HDL | **0.856** | 1.0 | -0.216 | 0.957 | 0.735-0.978 | 19 |
| SNL | 0.921 | 1.0 | -0.725 | 0.946 | 0.779-1.062 | 19 |
| ED | **0.580** | 1.0 | -0.198 | 0.806 | 0.391-0.769 | 19 |
| EP | -0.285 | 0.0 | 1.242 | 0.341 | -0.549-0.02 | 19 |
| BD | 0.953 | 1.0 | -0.280 | 0.965 | 0.851-1.056 | 19 |

*Leiopotherapon aheneus*

| Variable | b | Isometry | Const | $r^2$ | Confidence limits | n |
|---|---|---|---|---|---|---|
| IL | **1.806** | 1.0 | -1.123 | 0.943 | 1.650-1.962 | 34 |
| ML | 0.996 | 1.0 | -1.007 | 0.975 | 0.945-1.047 | 41 |
| MW | **1.221** | 1.0 | -1.384 | 0.942 | 1.116-1.326 | 41 |
| HDL | 1.042 | 1.0 | -0.569 | 0.977 | 0.985-1.099 | 41 |
| SNL | **1.093** | 1.0 | -1.003 | 0.975 | 1.032-1.155 | 41 |
| ED | **0.696** | 1.0 | -0.503 | 0.918 | 0.623-0.770 | 41 |
| EP | 0.192 | 0.0 | 0.347 | 0.210 | -0.06-0.324 | 41 |
| BD | 1.033 | 1.0 | -0.481 | 0.985 | 0.995-1.074 | 48 |

*Leiopotherapon unicolor*

| Variable | b | Isometry | Const | $r^2$ | Confidence limits | n |
|---|---|---|---|---|---|---|
| IL | **1.252** | 1.0 | -0.572 | 0.936 | 1.223-1.280 | 479 |
| ML | **1.187** | 1.0 | -1.315 | 0.960 | 1.169-1.204 | 709 |
| MW | **1.283** | 1.0 | -1.511 | 0.977 | 1.228-1.339 | 75 |
| HDL | **0.955** | 1.0 | -0.405 | 0.996 | 0.938-0.972 | 75 |
| SNL | **0.934** | 1.0 | -0.728 | 0.991 | 0.909-0.958 | 75 |
| ED | **0.637** | 1.0 | -0.402 | 0.958 | 0.599-0.676 | 75 |
| EP | 0.078 | 0.0 | 0.590 | 0.158 | -0.026-0.129 | 75 |
| BD | **0.970** | 1.0 | -0.423 | 0.958 | 0.955-0.986 | 511 |

*Mesopristes argenteus*

| Variable | b | Isometry | Const | $r^2$ | Confidence limits | n |
|---|---|---|---|---|---|---|
| IL | **1.257** | 1.0 | -1.183 | 0.952 | 1.177-1.346 | 13 |
| ML | 0.991 | 1.0 | -0.937 | 0.969 | 0.890-1.092 | 17 |
| MW | 1.164 | 1.0 | -1.320 | 0.961 | 0.992-1.337 | 17 |
| HDL | 1.021 | 1.0 | -0.533 | 0.993 | 0.958-1.08 | 17 |
| SNL | 0.988 | 1.0 | -0.740 | 0.993 | 0.926-1.050 | 17 |
| ED | **0.743** | 1.0 | -0.501 | 0.951 | 0.616-0.871 | 17 |
| EP | -0.040 | 0.0 | 0.740 | 0.047 | -0.176-0.096 | 17 |
| BD | 1.014 | 1.0 | -0.419 | 0.994 | 0.968-1.060 | 17 |

*Pingalla gilberti*

| Variable | b | Isometry | Const | $r^2$ | Confidence limits | n |
|---|---|---|---|---|---|---|

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|---|---|---|---|---|---|---|
| IL | **1.470** | 1.0 | -0.625 | 0.676 | 1.146-1.794 | 30 |
| ML | **0.819** | 1.0 | -0.825 | 0.932 | 0.744-0.893 | 36 |
| MW | 1.120 | 1.0 | -1.309 | 0.920 | 0.999-1.242 | 36 |
| HDL | **0.910** | 1.0 | -0.363 | 0.984 | 0.886-0.954 | 36 |
| SNL | 1.050 | 1.0 | -0.892 | 0.973 | 0.985-1.114 | 36 |
| ED | **0.744** | 1.0 | -0.608 | 0.958 | 0.686-0.802 | 36 |
| EP | 0.050 | 0.0 | 0.607 | 0.029 | -0.058-0.159 | 36 |
| BD | 1.008 | 1.0 | -0.496 | 0.970 | 0.946-1.071 | 36 |

*Pingalla lorentzi*

| Variable | b | Isometry | Const | $r^2$ | Confidence limits | n |
|---|---|---|---|---|---|---|
| IL | **1.316** | 1.0 | -0.324 | 0.913 | 1.042-1.591 | 12 |
| ML | 0.921 | 1.0 | -0.966 | 0.983 | 0.837-1.005 | 12 |
| MW | **1.236** | 1.0 | -1.442 | 0.973 | 1.035-1.437 | 12 |
| HDL | **0.919** | 1.0 | -0.367 | 0.994 | 0.85-0.987 | 12 |
| SNL | 1.019 | 1.0 | -0.867 | 0.989 | 0.912-1.126 | 12 |
| ED | **0.530** | 1.0 | -0.182 | 0.910 | 0.363-0.696 | 12 |
| EP | 0.106 | 0.0 | 0.464 | 0.402 | -0.02-0.234 | 12 |
| BD | **1.148** | 1.0 | -0.642 | 0.986 | 1.052-1.244 | 12 |

*Pingalla midgleyi*

| Variable | b | Isometry | Const | $r^2$ | Confidence limits | n |
|---|---|---|---|---|---|---|
| IL | 2.256 | 1.0 | -1.797 | 0.924 | -5.634-10.147 | 3 |
| ML | 0.891 | 1.0 | -0.990 | 0.995 | 0.068-1.714 | 3 |
| MW | 1.457 | 1.0 | -1.865 | 0.995 | 0.153-2.761 | 3 |
| HDL | **0.804** | 1.0 | -0.212 | 0.999 | 0.64-0.968 | 3 |
| SNL | 0.631 | 1.0 | -0.271 | 0.974 | -0.654-1.916 | 3 |
| EyeD | **0.680** | 1.0 | -0.542 | 0.999 | 0.397-0.962 | 3 |
| EyePos | -0.831 | 0.0 | 2.107 | 0.962 | -2.92-1.263 | 3 |
| BD | 0.873 | 1.0 | -0.225 | 1.000 | 0.723-1.021 | 3 |

*Scortum ogilbyi*

| Variable | b | Isometry | Const | $r^2$ | Confidence limits | n |
|---|---|---|---|---|---|---|
| IL | **1.626** | 1.0 | -0.817 | 0.884 | 1.501-1.752 | 80 |
| ML | **0.775** | 1.0 | -0.613 | 0.975 | 0.753-0.798 | 120 |
| MW | **0.942** | 1.0 | -0.862 | 0.982 | 0.901-0.987 | 70 |
| HDL | **0.848** | 1.0 | -0.229 | 0.988 | 0.835-0.861 | 70 |
| SNL | **0.843** | 1.0 | -0.577 | 0.994 | 0.822-0.865 | 70 |
| ED | **0.656** | 1.0 | -0.471 | 0.760 | 0.623-0.689 | 70 |
| EP | -0.024 | 0.0 | 0.665 | 0.014 | -0.089-0.041 | 70 |
| BD | **1.038** | 1.0 | -0.478 | 0.987 | 1.016-1.059 | 70 |

*Scortum parviceps*

| Variable | b | Isometry | Const | $r^2$ | Confidence limits | n |
|---|---|---|---|---|---|---|

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|---|---|---|---|---|---|---|
| IL | **1.681** | 1.0 | -0.931 | 0.976 | 1.599-1.763 | 74 |
| ML | **0.876** | 1.0 | -0.872 | 0.984 | 0.850-0.903 | 73 |
| MW | 1.022 | 1.0 | -1.065 | 0.993 | 0.993-1.052 | 70 |
| HDL | **0.915** | 1.0 | -0.366 | 0.998 | 0.902-0.928 | 70 |
| SNL | **0.897** | 1.0 | -0.665 | 0.992 | 0.869-0.925 | 70 |
| ED | **0.593** | 1.0 | -0.353 | 0.949 | 0.545-0.641 | 70 |
| EP | 0.008 | 0.0 | 0.597 | 0.003 | -0.04-0.056 | 70 |
| BD | **1.104** | 1.0 | -0.651 | 0.992 | 1.081-1.128 | 73 |

*Syncomistes butleri*

| Variable | b | Isometry | Const | $r^2$ | Confidence limits | n |
|---|---|---|---|---|---|---|
| IL | **1.560** | 1.0 | -0.714 | 0.956 | 1.494-1.627 | 97 |
| ML | 0.995 | 1.0 | -1.038 | 0.983 | 0.969-1.02 | 109 |
| MW | 0.998 | 1.0 | -1.039 | 0.966 | 0.943-1.054 | 70 |
| HDL | **0.873** | 1.0 | -0.281 | 0.993 | 0.851-0.895 | 70 |
| SNL | **0.869** | 1.0 | -0.556 | 0.988 | 0.841-0.899 | 70 |
| ED | **0.674** | 1.0 | -0.519 | 0.957 | 0.63-0.717 | 70 |
| EP | -0.079 | 0.0 | 0.781 | 0.082 | -0.16-0.01 | 70 |
| BD | **1.096** | 1.0 | -0.604 | 0.987 | 1.072-1.121 | 109 |

*Syncomistes rastellus*

| Variable | b | Isometry | Const | $r^2$ | Confidence limits | n |
|---|---|---|---|---|---|---|
| IL | **1.938** | 1.0 | -1.373 | 0.777 | 1.249-2.628 | 13 |
| ML | 1.007 | 1.0 | -1.095 | 0.942 | 0.846-1.167 | 13 |
| MW | **1.126** | 1.0 | -1.277 | 0.987 | 1.012-1.241 | 13 |
| HDL | **0.914** | 1.0 | -0.380 | 0.996 | 0.863-0.965 | 13 |
| SNL | **0.884** | 1.0 | -0.581 | 0.997 | 0.840-0.928 | 13 |
| ED | **0.648** | 1.0 | -0.491 | 0.971 | 0.547-0.748 | 13 |
| EP | 0.086 | 0.0 | 0.475 | 0.200 | -0.07-0.24 | 13 |
| BD | **1.100** | 1.0 | -0.639 | 0.990 | 1.027-1.172 | 13 |

*Syncomistes trigonicus*

| Variable | b | Isometry | Const | $r^2$ | Confidence limits | n |
|---|---|---|---|---|---|---|
| IL | **2.356** | 1.0 | -2.042 | 0.948 | 2.155-2.557 | 32 |
| ML | **1.160** | 1.0 | -1.338 | 0.979 | 1.099-1.221 | 35 |
| MW | **1.086** | 1.0 | -1.187 | 0.986 | 1.002-1.171 | 30 |
| HDL | 0.962 | 1.0 | -0.483 | 0.996 | 0.921-1.002 | 30 |
| SNL | **1.120** | 1.0 | -1.058 | 0.991 | 1.051-1.189 | 30 |
| ED | **0.464** | 1.0 | -0.181 | 0.949 | 0.393-0.535 | 30 |
| EP | 0.108 | 0.0 | 0.508 | 0.186 | -0.04-0.258 | 30 |
| BD | **1.078** | 1.0 | -0.645 | 0.979 | 1.021-1.135 | 34 |

*Terapon jarbua*

| Variable | b | Isometry | Const | $r^2$ | Confidence limits | n |
|---|---|---|---|---|---|---|

| | | | | | | |
|---|---|---|---|---|---|---|
| IL | **1.201** | 1.0 | -0.348 | 0.905 | 1.008-1.394 | 31 |
| ML | **0.932** | 1.0 | -0.786 | 0.950 | 0.872-0.992 | 51 |
| MW | **1.089** | 1.0 | -1.033 | 0.994 | 1.026-1.152 | 35 |
| HDL | **0.702** | 1.0 | 0.018 | 0.995 | 0.663-0.74 | 35 |
| SNL | 0.912 | 1.0 | -0.682 | 0.978 | 0.810-1.013 | 35 |
| ED | **0.717** | 1.0 | -0.563 | 0.956 | 0.600-0.834 | 35 |
| EP | 0.047 | 0.0 | 0.621 | 0.099 | -0.06-0.154 | 35 |
| BD | 1.007 | 1.0 | -0.470 | 0.966 | 0.955-1.059 | 53 |

*Varrichthys lacustris*

| Variable | b | Isometry | Const | $r^2$ | Confidence limits | n |
|---|---|---|---|---|---|---|
| IL | **1.409** | 1.0 | -1.359 | 0.939 | 1.301-1.917 | 11 |
| ML | 1.099 | 1.0 | -1.308 | 0.980 | 0.982-1.216 | 11 |
| MW | **1.367** | 1.0 | -1.789 | 0.901 | 1.043-1.69 | 11 |
| HDL | **0.846** | 1.0 | -0.228 | 0.980 | 0.755-0.936 | 11 |
| SNL | **0.860** | 1.0 | -0.603 | 0.959 | 0.729-0.990 | 11 |
| ED | **0.577** | 1.0 | -0.242 | 0.688 | 0.284-0.869 | 11 |
| EP | -0.039 | 0.0 | 0.736 | 0.008 | -0.372-0.299 | 11 |
| BD | 1.024 | 1.0 | -0.433 | 0.977 | 0.906-1.141 | 11 |