**Appendix 1**: Data values for temperature (Temp.; o C), relative red blood cell volume (RRBC; % body mass), body mass (BM; g) and relative heart mass (RH; % body mass) used in analyses. Temperatures followed by one asterisk indicate that the temperature was estimated based on one or more species of the same genus. Temperatures followed by two asterisks indicate that the temperature estimate was based on the average temperature at which the species was held. Sources of data are listed in brackets.

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Class** | **Order** | **Family** | **Species** | **Temp.** | |  |  | **RRBC** |  | | **BM** |  |  | **RH** |  |
| Aves | [Strigiformes](http://en.wikipedia.org/wiki/Owl) | Strigidae | *Bubo virginianus* | | 40.8 | [1] |  | 2 | [2] | 1495 | | [2] |  | 0.49 | [3] |
| Aves | [Falconiformes](http://en.wikipedia.org/wiki/Falconiformes) | [Accipitridae](http://en.wikipedia.org/wiki/Accipitridae) | *Buteo jamaicensis* | | 40.6 | [1] |  | 2.7 | [2] | 925 | | [2] |  | 0.55 | [3] |
| Aves | Columbiformes | Columbidae | *Columba livia* | | 40.8 | [4] |  | 4.9 | [2] | 310 | | [2] |  | 1 | [5] |
| Aves | Galliformes | [Phasianidae](http://en.wikipedia.org/wiki/Phasianidae) | *Coturnix japonica* | | 41.0 | [6] |  | 4.3 | [6] | 111 | | [6] |  | 0.88 | [5] |
| Aves | Struthioniformes | Dromaiidae | *Dromaius novaehollandiae* | | 38.0 | [1] |  | 3.7 | [7] | 40000 | | [7] |  | 0.85 | [8] |
| Aves | [Gruiformes](http://en.wikipedia.org/wiki/Gruiformes) | Rallidae | *Fulica americana* | | 40.9 | [1] |  | 4.4 | [2] | 550 | | [2] |  | 0.67 | [3] |
| Aves | [Charadriiformes](http://en.wikipedia.org/wiki/Charadriiformes) | Laridae | *Larus ridibundus****\**** | | 41.2 | [1] |  | 6.15 | [9] | 215 | | [9] |  | 0.95 | [9] |
| Aves | [Passeriformes](http://en.wikipedia.org/wiki/Passeriformes) | Sturnidae | *Sturnus vulgaris* | | 41.5 | [1] |  | 6.95 | [10] | 67 | | [10] |  | 1.32 | [5] |
| Aves | [Passeriformes](http://en.wikipedia.org/wiki/Passeriformes) | Emberizidae | *Zonotrichia querula* | | 42.5 | [1] |  | 3.78 | [11] | 38 | | [11] |  |  |  |
|  |  |  |  | |  |  |  |  |  |  | |  |  |  |  |
| Mammalia | Artiodactyla | Bovidae | *Bos taurus* | | 38.4 | [1] |  | 2.22 | [12] | 348000 | | [12] |  | 0.35 | [13] |
| Mammalia | Pilosa | [Bradypodidae](http://en.wikipedia.org/wiki/Bradypodidae) | *Bradypus tridactylus* | | 32.6 | [14] |  | 1.95 | [15] | 4133 | | [15] |  | 0.25 | [14] |
| Mammalia | Artiodactyla | Camelidae | *Camelus dromedarius* | | 37.2 | [1] |  | 2.4 | [16] | 310000 | | [16] |  |  |  |
| Mammalia | Artiodactyla | Bovidae | *Capra hircus* | | 39.5 | [1] |  | 2.04 | [17] | 40500 | | [17] |  | 0.5 | [18] |
| Mammalia | Rodentia | Caviidae | *Cavia porcellus* | | 39 | [1] |  | 3.23 | [19] | 500 | | [19] |  |  |  |
| Mammalia | [Perissodactyla](http://en.wikipedia.org/wiki/Odd-toed_ungulate) | Equidae | *Equus caballus* | | 37.4 | [20] |  | 2.85 | [21] | 415000 | | [21] |  | 0.82 | [13] |
| Mammalia | Primates | Cercopithecidae | *Macaca mulatta* | | 39.3 | [1] |  | 2.96 | [22] | 4400 | | [22] |  | 0.50 | [5] |
| Mammalia | Rodentia | Cricetidae | *Mesocricetus auratus* | | 38.1 | [1] |  | 2.72 | [23] | 94 | | [23] |  | 0.92 | [5] |
| Mammalia | Rodentia | Muridae | *Mus musculus* | | 36.7 | [1] |  | 3.16 | [24] | 24 | | [24] |  |  |  |
| Mammalia | Chiroptera | Vespertilionidae | *Myotis lucifugus* | | 37.2 | [1] |  | 6.5 | [25] | 9 | | [1] |  | 1.03 | [26] |
| Mammalia | Lagomorpha | [Leporidae](http://en.wikipedia.org/wiki/Leporidae) | *Oryctolagus cuniculus* | | 39 | [1] |  | 2.56 | [27] | 3900 | | [27] |  | 0.29 | [13] |
| Mammalia | Artiodactyla | Cervidae | *Rangifer tarandus* | | 39.2 | [1] |  | 3.46 | [28] | 90300 | | [28] |  | 0.71 | [5] |
| Mammalia | Rodentia | Muridae | *Rattus norvegicus* | | 37.2 | [1] |  | 2.24 | [29] | 222 | | [29] |  | 0.55 | [30] |
| Mammalia | Diprotodontia | [Macropodidae](http://en.wikipedia.org/wiki/Macropodidae) | *Setonix brachyurus* | | 36.3 | [1] |  | 2.47 | [31] | 3250 | | [31] |  |  |  |
| Mammalia | Artiodactyla | Suidae | *Sus scrofa* | | 38.6 | [32] |  | 3.1 | [33] | 147000 | | [33] |  |  |  |
| Mammalia | [Diprotodontia](http://en.wikipedia.org/wiki/Diprotodontia) | [Phalangeridae](http://en.wikipedia.org/wiki/Phalangeridae) | *Trichosurus vulpecula* | | 36 | [1] |  | 2.62 | [34] | 2020 | | [34] |  | 0.37 | [35] |
|  |  |  |  | |  |  |  |  |  |  | |  |  |  |  |
| Reptilia | [Crocodylia](http://en.wikipedia.org/wiki/Crocodylia) | [Alligatoridae](http://en.wikipedia.org/wiki/Alligatoridae) | *Alligator mississippiensis* | | 29.9 | [36] |  | 1.4 | [37] | 2304 | | [37] |  | 0.15 | [38] |
| Reptilia | Squamata | Agamidae | *Amphibolurus caudicinctus* | | 36\* | [39] |  | 3.1 | [40] | 23 | | [40] |  |  |  |
| Reptilia | Squamata | Agamidae | *Amphibolurus inermis* | | 36\* | [39] |  | 3.7 | [40] | 24 | | [40] |  |  |  |
| Reptilia | Squamata | Agamidae | *Amphibolurus ornatus* | | 36\* | [39] |  | 2.2 | [40] | 23 | | [40] |  |  |  |
| Reptilia | Squamata | [Boidae](http://en.wikipedia.org/wiki/Boidae) | *Boa constrictor* | | 30.7 | [41] |  | 1.9 | [37] | 1715 | | [37] |  | 0.21 | [5] |
| Reptilia | [Crocodylia](http://en.wikipedia.org/wiki/Crocodylia) | [Crocodylidae](http://en.wikipedia.org/wiki/Crocodylidae) | *Crocodylus moreleti* | | 31.5\* | [42] |  | 1.4 | [37] | 2058 | | [37] |  |  |  |
| Reptilia | [Crocodylia](http://en.wikipedia.org/wiki/Crocodylia) | [Crocodylidae](http://en.wikipedia.org/wiki/Crocodylidae) | *Crocodylus niloticus* | | 31.5 | [42] |  | 1.3 | [37] | 3500 | | [37] |  | 0.12 | [5] |
| Reptilia | Squamata | Viperidae | *Crotalus viridis* | | 28.9 | [43] |  | 1.29 | [44] | 372 | | [44] |  | 0.25 | [45] |
| Reptilia | Squamata | Colubridae | *Elaphe obsoleta* | | 27.8 | [39] |  | 1.07 | [44] | 541 | | [44] |  | 0.17 | [45] |
| Reptilia | Testudines | Testudinidae | *Gopherus polyphemus* | | 34.5 | [43] |  | 1.9 | [37] | 4114 | | [37] |  |  |  |
| Reptilia | Squamata | Iguanidae | *Iguana iguana* | | 28.1 | [46] |  | 1.8 | [37] | 465 | | [37] |  | 0.19 | [47] |
| Reptilia | Squamata | [Elapidae](http://en.wikipedia.org/wiki/Elapidae) | *Laticauda colubrina* | | 29 | [48] |  | 1.93 | [49] | 417 | | [49] |  |  |  |
| Reptilia | Squamata | Colubridae | *Pituophis catenifer* | | 26.7 | [43] |  | 1.9 | [37] | 672 | | [37] |  |  |  |
| Reptilia | Squamata | Iguanidae | *Sauromalus obesus* | | 37.9 | [43] |  | 2.85 | [50] | 200 | | [50] |  |  |  |
|  |  |  |  | |  |  |  |  |  |  | |  |  |  |  |
| Amphibia | Anura | Bufonidae | *Bufo marinus* | | 25.2 | [51] |  | 1.93 | [52] | 200 | | [52] |  | 0.6 | [5] |
| Amphibia | Anura | Bufonidae | *Bufo melanostictus* | | 29 | [53] |  | 3.4 | [54] | 55 | | [54] |  |  |  |
| Amphibia | Anura | Hylidae | *Hyla septentrionalis* | | 24.7 | [55] |  | 1.7 | [55] | 32 | | [55] |  |  |  |
| Amphibia | Anura | Ranidae | *Lithobates catesbeiana* | | 21.3\* | [51] |  | 1.28 | [56] | 344 | | [56] |  | 0.23 | [5] |
| Amphibia | Anura | Ranidae | *Rana esculenta* | | 28 | [57] |  | 2.06 | [58] | 20 | | [58] |  | 0.28 | [5] |
| Amphibia | Anura | Ranidae | *Rana pipiens* | | 24.4 | [51] |  | 1.84 | [59] | 50 | | [59] |  | 0.33 | [60] |
|  |  |  |  | |  |  |  |  |  |  | |  |  |  |  |
| [Actinopterygii](http://en.wikipedia.org/wiki/Actinopterygii) | [Acipenseriformes](http://en.wikipedia.org/wiki/Acipenseriformes) | [Acipenseridae](http://en.wikipedia.org/wiki/Acipenseridae) | *Acipenser fulvescens* | | 16 | [61] |  | 0.9 | [62] | 3058 | | [62] |  |  |  |
| [Actinopterygii](http://en.wikipedia.org/wiki/Actinopterygii) | [Amiiformes](http://en.wikipedia.org/wiki/Amiiformes) | Amiidae | *Amia calva* | | 30.5 | [63] |  | 1.2 | [62] | 1963 | | [62] |  |  |  |
| [Actinopterygii](http://en.wikipedia.org/wiki/Actinopterygii) | [Anguilliformes](http://en.wikipedia.org/wiki/Anguilliformes) | Anguillidae | *Anguilla japonica* | | 18\*\* | [64] |  | 1.04 | [64] | 199 | | [64] |  |  |  |
| [Actinopterygii](http://en.wikipedia.org/wiki/Actinopterygii) | [Semionotiformes](http://en.wikipedia.org/wiki/Semionotiformes) | [Lepisosteidae](http://en.wikipedia.org/wiki/Lepisosteidae) | *Atractosteus tristoechus* | | 22.5\*\* | [65] |  | 1 | [65] | 1628 | | [65] |  |  |  |
| [Actinopterygii](http://en.wikipedia.org/wiki/Actinopterygii) | [Cypriniformes](http://en.wikipedia.org/wiki/Cypriniformes) | [Catostomidae](http://en.wikipedia.org/wiki/Catostomidae) | *Catostomus commersoni* | | 24 | [66] |  | 1 | [62] | 617 | | [62] |  |  |  |
| [Actinopterygii](http://en.wikipedia.org/wiki/Actinopterygii) | [Cypriniformes](http://en.wikipedia.org/wiki/Cypriniformes) | [Cyprinidae](http://en.wikipedia.org/wiki/Cyprinidae) | *Cyprinus carpio* | | 25\*\* | [67] |  | 1.44 | [67] | 529 | | [67] |  | 0.16 | [68] |
| [Actinopterygii](http://en.wikipedia.org/wiki/Actinopterygii) | [Perciformes](http://en.wikipedia.org/wiki/Perciformes) | [Serranidae](http://en.wikipedia.org/wiki/Serranidae) | *Epinephelus striatus* | | 25 | [69] |  | 0.8 | [62] | 1270 | | [62] |  |  |  |
| [Actinopterygii](http://en.wikipedia.org/wiki/Actinopterygii) | [Gadiformes](http://en.wikipedia.org/wiki/Gadiformes) | [Gadidae](http://en.wikipedia.org/wiki/Gadidae) | *Gadus morhua* | | 7\*\* | [70] |  | 0.6 | [70] | 4200 | | [70] |  | 0.12 | [71] |
| [Actinopterygii](http://en.wikipedia.org/wiki/Actinopterygii) | [Cypriniformes](http://en.wikipedia.org/wiki/Cypriniformes) | [Catostomidae](http://en.wikipedia.org/wiki/Catostomidae) | *Ictiobus cyprinellus* | | 22 | [72] |  | 0.9 | [62] | 3395 | | [62] |  |  |  |
| [Actinopterygii](http://en.wikipedia.org/wiki/Actinopterygii) | [Perciformes](http://en.wikipedia.org/wiki/Perciformes) | [Lutjanidae](http://en.wikipedia.org/wiki/Lutjanidae) | *Lutjanus campechanus* | | 24.7 | [73] |  | 0.9 | [62] | 3765 | | [62] |  |  |  |
| [Actinopterygii](http://en.wikipedia.org/wiki/Actinopterygii) | [Perciformes](http://en.wikipedia.org/wiki/Perciformes) | [Lutjanidae](http://en.wikipedia.org/wiki/Lutjanidae) | *Lutjanus griseus* | | 27.0 | [74] |  | 0.7 | [62] | 3711 | | [62] |  |  |  |
| [Actinopterygii](http://en.wikipedia.org/wiki/Actinopterygii) | [Perciformes](http://en.wikipedia.org/wiki/Perciformes) | [Serranidae](http://en.wikipedia.org/wiki/Serranidae) | *Mycteroperca tigris* | | 28 | [74] |  | 1 | [62] | 5885 | | [62] |  |  |  |
| [Actinopterygii](http://en.wikipedia.org/wiki/Actinopterygii) | [Salmoniformes](http://en.wikipedia.org/wiki/Salmoniformes) | Salmonidae | *Oncorhynchus mykiss* | | 16\*\* | [75] |  | 0.67 | [75] | 815 | | [75] |  | 0.11 | [76] |
| [Actinopterygii](http://en.wikipedia.org/wiki/Actinopterygii) | [Perciformes](http://en.wikipedia.org/wiki/Perciformes) | Sparidae | *Pagrus major* | | 19.5\*\* | [67] |  | 1.27 | [67] | 519 | | [67] |  |  |  |
| [Actinopterygii](http://en.wikipedia.org/wiki/Actinopterygii) | [Acipenseriformes](http://en.wikipedia.org/wiki/Acipenseriformes) | [Polyodontidae](http://en.wikipedia.org/wiki/Paddlefish) | *Polyodon spathula* | | 22 | [77] |  | 0.8 | [62] | 4679 | | [62] |  | 0.13 | [78] |
| [Actinopterygii](http://en.wikipedia.org/wiki/Actinopterygii) | [Perciformes](http://en.wikipedia.org/wiki/Perciformes) | Scaridae | *Pseudoscarus guacamaia* | | 28 | [74] |  | 1.2 | [62] | 4607 | | [62] |  |  |  |
| [Actinopterygii](http://en.wikipedia.org/wiki/Actinopterygii) | [Perciformes](http://en.wikipedia.org/wiki/Perciformes) | [Carangidae](http://en.wikipedia.org/wiki/Carangidae) | *Seriola quinqueradiata* | | 21.4\*\* | [67] |  | 1.23 | [67] | 873 | | [67] |  |  |  |
| [Actinopterygii](http://en.wikipedia.org/wiki/Actinopterygii) | [Perciformes](http://en.wikipedia.org/wiki/Perciformes) | [Carangidae](http://en.wikipedia.org/wiki/Carangidae) | *Seriola quinqueradiata* | | 23.7\*\* | [79] |  | 1.2 | [79] | 433 | | [79] |  |  |  |
| [Actinopterygii](http://en.wikipedia.org/wiki/Actinopterygii) | [Perciformes](http://en.wikipedia.org/wiki/Perciformes) | [Sphyraenidae](http://en.wikipedia.org/wiki/Sphyraenidae) | *Sphyraena barracuda* | | 24.4 | [80] |  | 0.9 | [62] | 2204 | | [62] |  |  |  |
| [Actinopterygii](http://en.wikipedia.org/wiki/Actinopterygii) | [Perciformes](http://en.wikipedia.org/wiki/Perciformes) | [Scombridae](http://en.wikipedia.org/wiki/Scombridae) | *Thunnus albacares* | | 25\*\* | [82] |  | 1.38 | [82] | 1071 | | [82] |  | 0.29 | [81] |

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