Table S1.

Physiological data for mammal and bird species used. References are for body temperatures (Tb) lower critical temperatures (Tlc), and basal metabolic rates (BMR). Values of BMR provided in KJ/hr were converted to mlO2/hr using the conversion factor: 1 KJ/hr = 47.8 mlO2/hr. Minimum thermal conductance (CMIN), BMR residuals, CMIN residuals, and measures of mass-independent thermal adaptation (A) and index of avenues of adaptation (I) were calculated as outlined in the methods section.

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Mammals | | | | | | | | | | | |
| Species | Order | Mass (g) | Tb (°C) | Tlc (°C) | BMR (mlO2/hour) | CMIN (ml02/hour/°C) | BMR residuals | CMIN residuals | A | I | References |
| *Setifer setosus* | Afrosoricida | 530 | 32.2 | 28 | 122.4 | 29.14 | -0.43 | -0.03 | 0.40 | 0.00 | (1) |
| *Pecari tajacu* | Artiodactyla | 20000 | 38 | 28 | 5800.0 | 580.00 | 0.11 | 0.38 | 0.27 | 1.00 | (2) |
| *Philantomba monticola* | Artiodactyla | 4200 | 39.1 | 25 | 1806.0 | 128.09 | 0.09 | 0.10 | 0.01 | 1.00 | (3) |
| *Raphicerus campestris* | Artiodactyla | 9600 | 39 | 30 | 3696.0 | 410.67 | 0.14 | 0.40 | 0.26 | 1.00 | (3) |
| *Tragulus javanicus* | Artiodactyla | 1618 | 38.4 | 26.6 | 872.1 | 73.91 | 0.07 | 0.10 | 0.03 | 1.00 | (4) |
| *Ailurus fulgens* | Carnivora | 5740 | 37.6 | 25 | 878.2 | 69.70 | -0.32 | -0.24 | 0.08 | 0.00 | (5) |
| *Arctictis binturong* | Carnivora | 14280 | 36 | 27 | 1128.1 | 125.34 | -0.50 | -0.21 | 0.29 | 0.00 | (6) |
| *Arctogalidia trivirgata* | Carnivora | 2010 | 36.2 | 19 | 552.8 | 32.14 | -0.19 | -0.32 | -0.13 | 1.00 | (6) |
| *Canis latrans* | Carnivora | 10000 | 36 | 22 | 2700.0 | 192.86 | -0.01 | 0.07 | 0.08 | 0.87 | (7) |
| *Cerdocyon thous* | Carnivora | 5444 | 38.6 | 25 | 1497.1 | 110.08 | -0.07 | -0.03 | 0.04 | 0.00 | (8) |
| *Eira barbara* | Carnivora | 2950 | 38.4 | 26 | 1221.3 | 98.49 | 0.03 | 0.07 | 0.04 | 1.00 | (6) |
| *Fossa fossana* | Carnivora | 2260 | 37.9 | 26 | 906.3 | 76.16 | -0.01 | 0.03 | 0.04 | 0.73 | (6) |
| *Galerella sanguinea* | Carnivora | 540 | 38.7 | 26 | 410.4 | 32.31 | 0.09 | 0.01 | -0.08 | 0.00 | (9) |
| *Genetta tigrina* | Carnivora | 1698 | 38.5 | 26 | 747.1 | 59.77 | -0.01 | -0.01 | 0.00 | 0.00 | (10) |
| *Martes americana* | Carnivora | 900 | 37 | 26 | 594.9 | 54.08 | 0.09 | 0.10 | 0.01 | 1.00 | (11) |
| *Nandinia binotata* | Carnivora | 4270 | 37.4 | 27 | 862.5 | 82.93 | -0.24 | -0.09 | 0.15 | 0.00 | (6) |
| *Paradoxurus hermaphroditus* | Carnivora | 2910 | 36.5 | 27 | 797.3 | 83.93 | -0.15 | 0.01 | 0.16 | 0.05 | (6) |
| *Spilogale putorius* | Carnivora | 624 | 36.5 | 30 | 312.0 | 48.00 | -0.07 | 0.14 | 0.21 | 0.67 | (12) |
| *Suricata suricatta* | Carnivora | 850 | 36.3 | 30 | 310.3 | 49.25 | -0.17 | 0.08 | 0.25 | 0.31 | (13) |
| *Vulpes macrotis* | Carnivora | 1868 | 38 | 22 | 1143.2 | 71.45 | 0.15 | 0.05 | -0.10 | 0.00 | (7) |
| *Vulpes zerda* | Carnivora | 44.1 | 32 | 23.4 | 23.5 | 2.73 | -0.36 | -0.45 | -0.09 | 1.00 | (14) |
| *Anoura caudifer* | Chiroptera | 11.5 | 36.3 | 26 | 42.7 | 4.15 | 0.32 | 0.06 | -0.26 | 0.00 | (15) |
| *Anoura latidens* | Chiroptera | 13.6 | 38.12 | 34.7 | 36.9 | 10.79 | 0.20 | 0.43 | 0.23 | 1.00 | (16) |
| *Artibeus concolor* | Chiroptera | 19.7 | 35 | 29 | 39.8 | 6.63 | 0.12 | 0.13 | 0.01 | 1.00 | (15) |
| *Artibeus jamaicensis* | Chiroptera | 45.2 | 36 | 25 | 76.8 | 6.98 | 0.15 | -0.05 | -0.20 | 0.26 | (15) |
| *Artibeus lituratus* | Chiroptera | 70.1 | 36.7 | 25 | 108.0 | 9.23 | 0.16 | -0.04 | -0.20 | 0.20 | (15) |
| *Carollia perspicillata* | Chiroptera | 14.9 | 36.6 | 29 | 43.1 | 5.67 | 0.24 | 0.13 | -0.11 | 0.00 | (15) |
| *Chrotopterus auritus* | Chiroptera | 96.1 | 37.2 | 28 | 141.3 | 15.36 | 0.17 | 0.11 | -0.06 | 0.00 | (15) |
| *Cynopterus brachyotis* | Chiroptera | 37.4 | 36.5 | 30 | 47.5 | 7.31 | 0.00 | 0.01 | 0.01 | 1.00 | (17) |
| *Desmodus rotundus* | Chiroptera | 29.4 | 35 | 29 | 34.7 | 5.78 | -0.06 | -0.03 | 0.03 | 0.00 | (15) |
| *Diaemus youngi* | Chiroptera | 36.6 | 33 | 25 | 37.3 | 4.66 | -0.10 | -0.18 | -0.08 | 1.00 | (15) |
| *Diphylla ecaudata* | Chiroptera | 27.8 | 33 | 26 | 38.6 | 5.51 | 0.00 | -0.04 | -0.04 | 1.00 | (15) |
| *Dobsonia anderseni* | Chiroptera | 241.4 | 36.4 | 28 | 174.0 | 20.71 | -0.03 | 0.01 | 0.04 | 0.24 | (18) |
| *Dobsonia praedatrix* | Chiroptera | 179.5 | 37.1 | 26 | 142.5 | 12.84 | -0.02 | -0.13 | -0.11 | 1.00 | (18) |
| *Eonycteris spelaea* | Chiroptera | 51.6 | 34 | 26 | 48.0 | 6.00 | -0.10 | -0.15 | -0.05 | 1.00 | (17) |
| *Erophylla bombifrons* | Chiroptera | 16.1 | 33 | 30 | 17.7 | 5.90 | -0.17 | 0.13 | 0.30 | 0.43 | (19) |
| *Glossophaga longirostris* | Chiroptera | 13.5 | 37.5 | 31.5 | 26.5 | 4.42 | 0.06 | 0.04 | -0.02 | 0.00 | (20) |
| *Glossophaga soricina* | Chiroptera | 6.8 | 36.5 | 31.4 | 17.7 | 3.47 | 0.10 | 0.11 | 0.01 | 1.00 | (21) |
| *Hipposideros galeritus* | Chiroptera | 8.5 | 31.9 | 29 | 9.4 | 3.24 | -0.24 | 0.02 | 0.26 | 0.09 | (17) |
| *Histiotus velatus* | Chiroptera | 11.2 | 32 | 25 | 10.0 | 1.43 | -0.30 | -0.40 | -0.10 | 1.00 | (15) |
| *Leptonycteris curasoae* | Chiroptera | 24 | 36 | 27 | 34.1 | 3.79 | -0.01 | -0.16 | -0.15 | 1.00 | (20) |
| *Macroderma gigas* | Chiroptera | 107 | 35.6 | 30 | 94.2 | 16.82 | -0.04 | 0.12 | 0.16 | 0.75 | (22, 23) |
| *Miniopterus schreibersii* | Chiroptera | 10.91 | 37.7 | 32.5 | 26.0 | 5.00 | 0.12 | 0.15 | 0.03 | 1.00 | (22) |
| *Molossus molossus* | Chiroptera | 15.6 | 36 | 32 | 22.5 | 5.63 | -0.05 | 0.11 | 0.16 | 0.70 | (15) |
| *Monophyllus redmani* | Chiroptera | 8.7 | 35.5 | 31 | 11.1 | 2.47 | -0.17 | -0.10 | 0.07 | 0.00 | (19) |
| *Mormoops blainvillei* | Chiroptera | 8.6 | 33 | 30 | 8.0 | 2.67 | -0.31 | -0.06 | 0.25 | 0.00 | (19) |
| *Natalus tumidirostris* | Chiroptera | 5.4 | 34 | 28 | 8.3 | 1.38 | -0.15 | -0.24 | -0.09 | 1.00 | (24) |
| *Noctilio albiventris* | Chiroptera | 27 | 34.2 | 32 | 31.6 | 14.36 | -0.08 | 0.39 | 0.47 | 0.83 | (15) |
| *Noctilio leporinus* | Chiroptera | 61 | 33.3 | 28 | 70.8 | 13.36 | 0.02 | 0.16 | 0.14 | 1.00 | (15) |
| *Nyctimene albiventer* | Chiroptera | 30.9 | 35.9 | 28 | 26.4 | 3.34 | -0.20 | -0.28 | -0.08 | 1.00 | (18) |
| *Peropteryx macrotis* | Chiroptera | 5.1 | 35 | 30.5 | 11.8 | 2.62 | 0.02 | 0.06 | 0.04 | 1.00 | (24) |
| *Phyllostomus discolor* | Chiroptera | 33.5 | 34 | 25 | 47.9 | 5.32 | 0.04 | -0.10 | -0.14 | 0.71 | (15) |
| *Phyllostomus elongatus* | Chiroptera | 35.6 | 36 | 25 | 38.8 | 3.53 | -0.08 | -0.29 | -0.21 | 1.00 | (15) |
| *Phyllostomus hastatus* | Chiroptera | 84.2 | 35 | 25 | 100.2 | 10.02 | 0.07 | -0.05 | -0.12 | 0.41 | (15) |
| *Pteronotus quadridens* | Chiroptera | 4.9 | 32.8 | 30 | 6.1 | 2.18 | -0.25 | -0.01 | 0.24 | 0.00 | (19) |
| *Rhinonicteris aurantia* | Chiroptera | 8.27 | 36.1 | 32.5 | 16.2 | 4.50 | 0.00 | 0.17 | 0.17 | 1.00 | (22) |
| *Rhinophylla pumilio* | Chiroptera | 9.5 | 36 | 30 | 18.6 | 3.10 | 0.02 | -0.02 | -0.04 | 0.54 | (15) |
| *Saccopteryx bilineata* | Chiroptera | 8.2 | 35.5 | 30 | 15.3 | 2.78 | -0.02 | -0.03 | -0.01 | 1.00 | (25) |
| *Sturnira erythromos* | Chiroptera | 15.9 | 34.4 | 25.5 | 39.9 | 4.48 | 0.19 | 0.01 | -0.18 | 0.00 | (16) |
| *Sturnira lilium* | Chiroptera | 21.9 | 36.6 | 30 | 53.2 | 8.06 | 0.21 | 0.19 | -0.02 | 0.00 | (15) |
| *Tonatia bidens* | Chiroptera | 27.4 | 37 | 28 | 55.1 | 6.12 | 0.16 | 0.01 | -0.15 | 0.00 | (15) |
| *Uroderma bilobatum* | Chiroptera | 16.2 | 36.3 | 30 | 31.6 | 5.02 | 0.08 | 0.06 | -0.02 | 0.00 | (15) |
| *Chaetophractus nationi* | Cingulata | 2150 | 35.5 | 29 | 559.0 | 86.00 | -0.21 | 0.09 | 0.30 | 0.31 | (1) |
| *Chaetophractus vellerosus* | Cingulata | 1110 | 34.4 | 30 | 306.4 | 69.64 | -0.26 | 0.16 | 0.42 | 0.38 | (1) |
| *Dasypus novemcinctus* | Cingulata | 3320 | 34.5 | 28 | 806.8 | 124.12 | -0.19 | 0.15 | 0.34 | 0.43 | (1) |
| *Euphractus sexcinctus* | Cingulata | 8190 | 34.2 | 26 | 1244.9 | 151.82 | -0.28 | 0.01 | 0.29 | 0.04 | (1) |
| *Tolypeutes matacus* | Cingulata | 1160 | 33 | 28 | 210.0 | 42.00 | -0.44 | -0.07 | 0.37 | 0.00 | (1) |
| *Zaedyus pichiy* | Cingulata | 1740 | 35.2 | 28 | 393.2 | 54.61 | -0.29 | -0.05 | 0.24 | 0.00 | (1) |
| *Planigale maculata* | Dasyuromorphia | 13.1 | 34.2 | 31 | 13.2 | 4.13 | -0.23 | 0.02 | 0.25 | 0.09 | (26) |
| *Caluromys derbianus* | Didelphimorphia | 357 | 34 | 25 | 203.5 | 22.61 | -0.08 | -0.05 | 0.03 | 0.00 | (27) |
| *Chironectes minimus* | Didelphimorphia | 946 | 35.3 | 24.5 | 548.7 | 50.81 | 0.04 | 0.06 | 0.02 | 1.00 | (27) |
| *Didelphis marsupialis* | Didelphimorphia | 1329 | 35 | 25.5 | 611.3 | 64.35 | -0.02 | 0.08 | 0.10 | 0.81 | (27) |
| *Didelphis virginiana* | Didelphimorphia | 3257 | 34.8 | 22 | 1074.8 | 83.97 | -0.05 | -0.02 | 0.03 | 0.00 | (27) |
| *Lutreolina crassicaudata* | Didelphimorphia | 812 | 35.8 | 27 | 406.0 | 46.14 | -0.04 | 0.06 | 0.10 | 0.60 | (27) |
| *Marmosa lepida* | Didelphimorphia | 106 | 36.3 | 31 | 63.6 | 12.00 | -0.20 | -0.03 | 0.17 | 0.00 | (28) |
| *Marmosa robinsoni* | Didelphimorphia | 122 | 34 | 26.5 | 97.6 | 13.01 | -0.06 | -0.03 | 0.03 | 0.00 | (27) |
| *Metachirus nudicaudatus* | Didelphimorphia | 336 | 35 | 27.5 | 205.0 | 27.33 | -0.06 | 0.05 | 0.11 | 0.45 | (27) |
| *Monodelphis brevicaudata* | Didelphimorphia | 111 | 33.8 | 28 | 75.5 | 13.02 | -0.14 | 0.00 | 0.14 | 0.00 | (27) |
| *Philander opossum* | Didelphimorphia | 751 | 35.8 | 29.5 | 338.0 | 53.65 | -0.10 | 0.14 | 0.24 | 0.59 | (27) |
| *Cercartetus nanus* | Diprotodontia | 60 | 34.9 | 31 | 51.6 | 13.23 | -0.12 | 0.16 | 0.28 | 0.56 | (29) |
| *Cercopithecus mitis* | Diprotodontia | 8800 | 37 | 5 | 3520.0 | 110.00 | 0.15 | -0.15 | -0.30 | 0.49 | (30) |
| *Dendrolagus matschiei* | Diprotodontia | 6960 | 36.3 | 27 | 1426.8 | 153.42 | -0.17 | 0.06 | 0.23 | 0.25 | (5) |
| *Lagorchestes conspicillatus* | Diprotodontia | 2660 | 35.8 | 25 | 851.2 | 78.81 | -0.09 | 0.00 | 0.09 | 0.02 | (31) |
| *Lasiorhinus latifrons* | Diprotodontia | 25000 | 34 | 25 | 2750.0 | 305.56 | -0.29 | 0.04 | 0.33 | 0.13 | (32) |
| *Macropus giganteus* | Diprotodontia | 26200 | 36.5 | 15 | 7074.0 | 329.02 | 0.11 | 0.06 | -0.05 | 0.00 | (33, 34) |
| *Macropus rufus* | Diprotodontia | 23300 | 36.3 | 15 | 5032.8 | 236.28 | 0.00 | -0.05 | -0.05 | 1.00 | (33, 34) |
| *Petaurus breviceps* | Diprotodontia | 130 | 36.3 | 27 | 93.6 | 10.06 | -0.10 | -0.15 | -0.05 | 1.00 | (33, 35) |
| *Phascolarctos cinereus* | Diprotodontia | 4765 | 35.8 | 20 | 1048.3 | 66.35 | -0.19 | -0.22 | -0.03 | 1.00 | (36) |
| *Tarsipes rostratus* | Diprotodontia | 10 | 36.6 | 28 | 29.0 | 3.37 | 0.20 | 0.00 | -0.20 | 0.00 | (37) |
| *Atelerix albiventris* | Erinaceomorpha | 450 | 35.2 | 30 | 146.7 | 28.21 | -0.30 | -0.01 | 0.29 | 0.00 | (1) |
| *Erinaceus concolor* | Erinaceomorpha | 822.7 | 35.2 | 27.5 | 347.2 | 45.09 | -0.11 | 0.05 | 0.16 | 0.30 | (38) |
| *Heterohyrax brucei* | Hyracoidae | 1287 | 36.4 | 25 | 669.2 | 58.70 | 0.03 | 0.05 | 0.02 | 1.00 | (39) |
| *Sylvilagus audubonii* | Lagomorpha | 701 | 38.25 | 28 | 456.4 | 44.53 | 0.06 | 0.08 | 0.02 | 1.00 | (40) |
| *Elephantulus edwardii* | Macroscelidae | 49.8 | 3.76E+01 | 32.5 | 54.3 | 10.65 | -0.04 | 0.11 | 0.15 | 0.73 | (41) |
| *Macroscelides proboscideus* | Macroscelidae | 38.8 | 36.23 | 35 | 52.0 | 42.28 | 0.02 | 0.77 | 0.75 | 1.00 | (42) |
| *Colobus guereza* | Primates | 10800 | 37 | 5 | 3132.0 | 97.88 | 0.03 | -0.25 | -0.28 | 0.89 | (30) |
| *Eulemur fulvus* | Primates | 2330 | 38.8 | 30 | 324.8 | 36.91 | -0.47 | -0.29 | 0.18 | 0.00 | (43) |
| *Nycticebus coucang* | Primates | 953.3 | 35.1 | 25 | 218.3 | 21.61 | -0.36 | -0.31 | 0.05 | 0.00 | (44) |
| *Perodicticus potto* | Primates | 932 | 36 | 25 | 347.6 | 31.60 | -0.15 | -0.14 | 0.01 | 0.00 | (45) |
| *Abrothrix andinus* | Rodentia | 34.6 | 39.3 | 27 | 64.7 | 5.26 | 0.16 | -0.11 | -0.27 | 0.41 | (46) |
| *Abrothrix longipilis* | Rodentia | 42.3 | 36.5 | 27 | 57.5 | 6.05 | 0.04 | -0.10 | -0.14 | 0.71 | (46) |
| *Akodon azarae* | Rodentia | 30 | 37.7 | 30 | 51.0 | 6.62 | 0.10 | 0.02 | -0.08 | 0.00 | (47) |
| *Ammospermophilus leucurus* | Rodentia | 79.2 | 37.2 | 31 | 103.0 | 16.61 | 0.10 | 0.19 | 0.09 | 1.00 | (48) |
| *Aplodontia rufa* | Rodentia | 630 | 38 | 26.5 | 277.2 | 24.10 | -0.13 | -0.16 | -0.03 | 1.00 | (49) |
| *Apodemus mystacinus* | Rodentia | 42.3 | 38.3 | 28 | 70.6 | 6.85 | 0.13 | -0.04 | -0.17 | 0.25 | (50) |
| *Auliscomys boliviensis* | Rodentia | 76.8 | 36.9 | 23 | 110.6 | 7.96 | 0.14 | -0.13 | -0.27 | 0.47 | (46) |
| *Baiomys taylori* | Rodentia | 7.3 | 36 | 29 | 14.2 | 2.03 | -0.01 | -0.14 | -0.13 | 1.00 | (51) |
| *Cabassous centralis* | Rodentia | 3180 | 33.6 | 27.5 | 677.3 | 111.03 | -0.25 | 0.11 | 0.36 | 0.30 | (1) |
| *Cannomys badius* | Rodentia | 344 | 36 | 27 | 172.0 | 19.11 | -0.14 | -0.11 | 0.03 | 0.00 | (49) |
| *Chaetodipus hispidus* | Rodentia | 35.8 | 37.5 | 30.5 | 44.8 | 6.40 | -0.02 | -0.03 | -0.01 | 1.00 | (52) |
| *Chaetodipus intermedius* | Rodentia | 14.6 | 35 | 33 | 15.6 | 7.80 | -0.19 | 0.27 | 0.46 | 0.59 | (53) |
| *Cryptomys bocagei* | Rodentia | 94 | 33.7 | 31.5 | 69.6 | 31.64 | -0.13 | 0.42 | 0.55 | 0.77 | (54) |
| *Cryptomys damarensis* | Rodentia | 124 | 35.2 | 27 | 70.7 | 8.62 | -0.21 | -0.21 | 0.00 | 0.00 | (55) |
| *Cryptomys hottentotus* | Rodentia | 77 | 33.8 | 28 | 48.5 | 8.36 | -0.22 | -0.10 | 0.12 | 0.00 | (54) |
| *Cryptomys mechowi* | Rodentia | 267 | 34 | 29 | 160.2 | 32.04 | -0.09 | 0.17 | 0.26 | 0.66 | (54) |
| *Ctenomys talarum* | Rodentia | 126 | 36.1 | 25 | 119.2 | 10.74 | 0.01 | -0.12 | -0.13 | 0.92 | (56) |
| *Cynomys ludovicianus* | Rodentia | 1112.3 | 37.2 | 30 | 422.7 | 58.71 | -0.12 | 0.09 | 0.21 | 0.42 | (57) |
| *Dasyprocta azarae* | Rodentia | 3849 | 37.4 | 18 | 1886.0 | 97.22 | 0.14 | 0.00 | -0.14 | 0.00 | (58) |
| *Dasyprocta leporina* | Rodentia | 2687 | 38.3 | 20 | 1558.5 | 85.16 | 0.17 | 0.03 | -0.14 | 0.00 | (58) |
| *Dipodomys deserti* | Rodentia | 106 | 36.8 | 28.5 | 92.2 | 11.11 | -0.04 | -0.06 | -0.02 | 1.00 | (49) |
| *Dipodomys microps* | Rodentia | 57.2 | 36.4 | 27 | 66.9 | 7.12 | 0.01 | -0.10 | -0.11 | 0.91 | (59) |
| *Dolichotis salinicola* | Rodentia | 1613 | 38.4 | 28 | 725.9 | 69.80 | 0.00 | 0.07 | 0.07 | 1.00 | (58) |
| *Geomys bursarius* | Rodentia | 197 | 36.4 | 30 | 137.9 | 21.55 | -0.06 | 0.08 | 0.14 | 0.56 | (53) |
| *Geomys pinetis* | Rodentia | 202 | 36.1 | 26 | 135.3 | 13.40 | -0.08 | -0.14 | -0.06 | 1.00 | (60) |
| *Georychus capensis* | Rodentia | 192.6 | 36.4 | 26.3 | 113.6 | 11.25 | -0.14 | -0.20 | -0.06 | 1.00 | (61) |
| *Gerbillurus paeba* | Rodentia | 31.13 | 36 | 33.3 | 27.7 | 10.26 | -0.18 | 0.21 | 0.39 | 0.53 | (62) |
| *Gerbillus andersoni* | Rodentia | 35.8 | 37 | 28 | 39.4 | 4.38 | -0.07 | -0.20 | -0.13 | 1.00 | (63) |
| *Gerbillus nanus* | Rodentia | 28.2 | 38.8 | 33 | 22.0 | 3.79 | -0.25 | -0.20 | 0.05 | 0.00 | (63) |
| *Heterocephalus glaber* | Rodentia | 39.2 | 32.3 | 32 | 21.6 | 72.00 | -0.36 | 1.00 | 1.36 | 0.73 | (60) |
| *Heteromys anomalus* | Rodentia | 69.3 | 36 | 26 | 100.5 | 10.05 | 0.13 | 0.00 | -0.13 | 0.00 | (49) |
| *Hydrochoerus hydrochaeris* | Rodentia | 26400 | 37.1 | 22 | 6600.0 | 437.09 | 0.07 | 0.18 | 0.11 | 1.00 | (58) |
| *Hystrix africaeaustralis* | Rodentia | 11100 | 37 | 24 | 2319.9 | 178.45 | -0.11 | 0.01 | 0.12 | 0.06 | (64) |
| *Isthmomys pirrensis* | Rodentia | 140.4 | 37.5 | 30 | 123.6 | 16.48 | 0.00 | 0.04 | 0.04 | 1.00 | (65) |
| *Jaculus jaculus* | Rodentia | 74.5 | 37 | 33 | 91.6 | 22.90 | 0.07 | 0.34 | 0.27 | 1.00 | (66) |
| *Jaculus orientalis* | Rodentia | 139.1 | 37 | 28 | 139.1 | 15.46 | 0.05 | 0.02 | -0.03 | 0.00 | (66) |
| *Kerodon rupestris* | Rodentia | 442 | 38.2 | 27 | 282.9 | 25.26 | -0.01 | -0.05 | -0.04 | 1.00 | (58) |
| *Liomys irroratus* | Rodentia | 48.1 | 36.63 | 31 | 53.9 | 9.57 | -0.03 | 0.07 | 0.10 | 0.70 | (67) |
| *Liomys salvini* | Rodentia | 43.8 | 37.09 | 31 | 46.9 | 7.70 | -0.06 | 0.00 | 0.06 | 0.00 | (67) |
| *Loxodontomys micropus* | Rodentia | 62.3 | 37.2 | 22 | 97.8 | 6.43 | 0.15 | -0.17 | -0.32 | 0.53 | (46) |
| *Microtus longicaudus* | Rodentia | 29.16 | 37.7 | 20 | 76.4 | 4.32 | 0.28 | -0.15 | -0.43 | 0.36 | (68) |
| *Microtus montanus* | Rodentia | 30.79 | 37.5 | 26 | 81.6 | 7.10 | 0.29 | 0.05 | -0.24 | 0.00 | (69) |
| *Microtus ochrogaster* | Rodentia | 36.3 | 37.8 | 25 | 40.3 | 3.15 | -0.07 | -0.34 | -0.27 | 1.00 | (70) |
| *Myodes gapperi* | Rodentia | 23.3 | 37.6 | 26.5 | 48.5 | 4.37 | 0.15 | -0.09 | -0.24 | 0.39 | (71) |
| *Myoprocta acouchy* | Rodentia | 914 | 35.4 | 25 | 502.7 | 48.34 | 0.02 | 0.05 | 0.03 | 1.00 | (58) |
| *Myopus schisticolor* | Rodentia | 26.4 | 39 | 20.9 | 93.5 | 5.17 | 0.40 | -0.05 | -0.45 | 0.11 | (72) |
| *Mystromys albicaudatus* | Rodentia | 93.78 | 37.5 | 20 | 126.8 | 7.25 | 0.13 | -0.22 | -0.35 | 0.62 | (73) |
| *Napaeozapus insignis* | Rodentia | 20.9 | 37 | 31 | 92.0 | 15.33 | 0.47 | 0.48 | 0.01 | 1.00 | (74) |
| *Notomys alexis* | Rodentia | 32.3 | 37.7 | 32 | 45.2 | 7.93 | 0.02 | 0.08 | 0.06 | 1.00 | (75) |
| *Ochrotomys nuttalli* | Rodentia | 19.5 | 38.08 | 29.5 | 27.1 | 3.16 | -0.04 | -0.19 | -0.15 | 1.00 | (76) |
| *Octodon degus* | Rodentia | 206 | 37.6 | 27 | 191.6 | 18.08 | 0.07 | -0.01 | -0.08 | 0.13 | (58) |
| *Octodontomys gliroides* | Rodentia | 152 | 37.2 | 25 | 130.7 | 10.71 | -0.01 | -0.16 | -0.15 | 1.00 | (58) |
| *Otomys irroratus* | Rodentia | 102 | 36.5 | 24 | 84.9 | 6.79 | -0.07 | -0.26 | -0.19 | 1.00 | (77) |
| *Pedetes capensis* | Rodentia | 2300 | 36 | 23 | 736.0 | 56.62 | -0.11 | -0.11 | 0.00 | 0.00 | (78) |
| *Peromyscus eremicus* | Rodentia | 21.5 | 36.6 | 29 | 31.8 | 4.18 | 0.00 | -0.09 | -0.09 | 1.00 | (79) |
| *Peromyscus leucopus* | Rodentia | 21.2 | 36 | 27.5 | 35.2 | 4.14 | 0.05 | -0.09 | -0.14 | 0.65 | (71) |
| *Peromyscus truei* | Rodentia | 33.2 | 36.7 | 27 | 50.8 | 5.24 | 0.06 | -0.10 | -0.16 | 0.63 | (79) |
| *Phyllotis darwini* | Rodentia | 59 | 37 | 27.5 | 71.4 | 7.52 | 0.03 | -0.09 | -0.12 | 0.74 | (46) |
| *Priodontes maximus* | Rodentia | 45190 | 33.6 | 27 | 3027.7 | 458.74 | -0.43 | 0.07 | 0.50 | 0.15 | (1) |
| *Pseudomys hermannsburgensis* | Rodentia | 12.2 | 37.5 | 31 | 23.3 | 3.58 | 0.04 | -0.02 | -0.06 | 0.35 | (80) |
| *Rattus fuscipes* | Rodentia | 130 | 37.4 | 28.1 | 141.7 | 15.24 | 0.08 | 0.03 | -0.05 | 0.00 | (81) |
| *Rattus villosissimus* | Rodentia | 250.6 | 38.9 | 30 | 220.5 | 24.78 | 0.06 | 0.08 | 0.02 | 1.00 | (82) |
| *Saccostomus campestris* | Rodentia | 83.4 | 35.4 | 28 | 81.7 | 11.04 | -0.02 | 0.00 | 0.02 | 0.00 | (3) |
| *Spalacopus cyanus* | Rodentia | 178 | 36 | 26.5 | 112.1 | 11.80 | -0.12 | -0.16 | -0.04 | 1.00 | (49, 83) |
| *Spalax leucodon* | Rodentia | 207.7 | 37 | 25 | 159.9 | 13.33 | -0.02 | -0.15 | -0.13 | 1.00 | (60) |
| *Spermophilus beecheyi* | Rodentia | 599.6 | 37.6 | 25 | 317.8 | 25.22 | -0.05 | -0.13 | -0.08 | 1.00 | (84) |
| *Tachyoryctes splendens* | Rodentia | 233.6 | 36.2 | 27 | 163.5 | 17.77 | -0.04 | -0.05 | -0.01 | 1.00 | (60) |
| *Tamias merriami* | Rodentia | 60.8 | 37 | 29 | 91.2 | 11.40 | 0.13 | 0.09 | -0.04 | 0.00 | (85) |
| *Thomomys bottae* | Rodentia | 143 | 36 | 28 | 120.1 | 15.01 | -0.02 | 0.00 | 0.02 | 0.00 | (86) |
| *Thomomys talpoides* | Rodentia | 106 | 35.5 | 26 | 141.0 | 14.84 | 0.14 | 0.07 | -0.07 | 0.00 | (87) |
| *Thomomys umbrinus* | Rodentia | 85 | 34.6 | 27 | 72.3 | 9.51 | -0.08 | -0.07 | 0.01 | 0.00 | (87) |
| *Thrichomys apereoides* | Rodentia | 323 | 37.6 | 25 | 206.7 | 16.40 | -0.04 | -0.16 | -0.12 | 1.00 | (58) |
| *Tupaia belangeri* | Scandentia | 100.86 | 39.4 | 30 | 139.2 | 14.81 | 0.15 | 0.08 | -0.07 | 0.00 | (88) |
| *Tupaia glis* | Scandentia | 123 | 37 | 30 | 93.5 | 13.36 | -0.08 | -0.02 | 0.06 | 0.00 | (89) |
| *Blarina brevicauda* | Soricomorpha | 20.5 | 38 | 25 | 66.0 | 5.08 | 0.33 | 0.00 | -0.33 | 0.00 | (71, 90) |
| *Condylura cristata* | Soricomorpha | 49 | 37.7 | 24.5 | 110.3 | 8.36 | 0.28 | 0.01 | -0.27 | 0.00 | (91) |
| *Neurotrichus gibbsii* | Soricomorpha | 11.8 | 38.7 | 25 | 46.5 | 3.39 | 0.35 | -0.04 | -0.39 | 0.10 | (92) |
| *Notiosorex crawfordi* | Soricomorpha | 4 | 38 | 32 | 13.1 | 2.18 | 0.14 | 0.04 | -0.10 | 0.00 | (93) |
| *Scalopus aquaticus* | Soricomorpha | 48 | 36 | 26 | 67.7 | 6.77 | 0.07 | -0.08 | -0.15 | 0.54 | (49) |

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Birds | | | | | | | | | | | |
| Species | Order | Mass (g) | Tb (°C) | Tlc (°C) | BMR (mlO2/hour) | CMIN | BMR residuals | CMIN residuals | A | I | References |
| *Buteo buteo* | Accipitriformes | 1012 | 39.8 | 13 | 646.3 | 24.12 | 0.05 | -0.06 | -0.11 | 0.56 | (94) |
| *Anas aucklandica* | Anseriformes | 373.1 | 41.3 | 30 | 322.7 | 28.56 | 0.02 | 0.23 | 0.21 | 1.00 | (95) |
| *Anas castanea* | Anseriformes | 483.3 | 41.5 | 24 | 327.9 | 18.74 | -0.04 | -0.01 | 0.03 | 0.00 | (95) |
| *Anas gracilis* | Anseriformes | 393.7 | 41.3 | 30 | 572.7 | 50.68 | 0.26 | 0.47 | 0.21 | 1.00 | (95) |
| *Anas rhynchotis* | Anseriformes | 508 | 40.9 | 22 | 452.7 | 23.95 | 0.08 | 0.09 | 0.01 | 1.00 | (95) |
| *Aythya novaeseelandiae* | Anseriformes | 488.4 | 40 | 16 | 401.5 | 16.73 | 0.04 | -0.06 | -0.10 | 0.60 | (95) |
| *Hymenolaimus malacorhynchos* | Anseriformes | 717.1 | 41 | 12 | 540.6 | 18.64 | 0.07 | -0.10 | -0.17 | 0.59 | (95) |
| *Tadorna variegata* | Anseriformes | 1193.6 | 40.2 | 22 | 575.5 | 31.62 | -0.05 | 0.02 | 0.07 | 0.26 | (95) |
| *Collocalia esculenta* | Apodiformes | 6.8 | 38.2 | 31.5 | 13.9 | 2.07 | -0.22 | -0.02 | 0.20 | 0.00 | (96) |
| *Collocalia vanikorensis* | Apodiformes | 11.6 | 38.9 | 30 | 20.6 | 2.31 | -0.20 | -0.09 | 0.11 | 0.00 | (96) |
| *Aegotheles cristatus* | Caprimulgiformes | 45.56 | 38.2 | 31 | 55.9 | 7.76 | -0.15 | 0.13 | 0.28 | 0.46 | (97) |
| *Caprimulgus macrurus* | Caprimulgiformes | 68.6 | 38.1 | 26 | 53.5 | 4.42 | -0.28 | -0.21 | 0.07 | 0.00 | (96) |
| *Caprimulgus vociferus* | Caprimulgiformes | 46 | 37 | 25 | 55.9 | 4.66 | -0.15 | -0.09 | 0.06 | 0.00 | (98) |
| *Chordeiles minor* | Caprimulgiformes | 72 | 40 | 30 | 76.0 | 7.60 | -0.14 | 0.02 | 0.16 | 0.12 | (99, 100) |
| *Eurostopodus mystacalis* | Caprimulgiformes | 162 | 40.1 | 30 | 82.7 | 8.19 | -0.33 | -0.13 | 0.20 | 0.00 | (96) |
| *Phalaenoptilus nuttallii* | Caprimulgiformes | 40 | 40.2 | 35 | 30.6 | 5.88 | -0.37 | 0.04 | 0.41 | 0.09 | (101) |
| *Podargus strigoides* | Caprimulgiformes | 380.3 | 38.6 | 30 | 177.8 | 20.67 | -0.24 | 0.09 | 0.33 | 0.26 | (96) |
| *Calidris alpina* | Charadriiformes | 53 | 37.6 | 28.2 | 83.2 | 8.85 | -0.02 | 0.15 | 0.17 | 0.88 | (102) |
| *Calidris minuta* | Charadriiformes | 29 | 39 | 28 | 53.1 | 4.83 | -0.05 | 0.02 | 0.07 | 0.32 | (102) |
| *Cepphus grylle* | Charadriiformes | 342.2 | 39.9 | 7 | 520.1 | 15.81 | 0.26 | -0.01 | -0.27 | 0.03 | (103) |
| *Haematopus ostralegus* | Charadriiformes | 385.4 | 39.1 | 19 | 524.4 | 26.09 | 0.23 | 0.18 | -0.05 | 0.00 | (102) |
| *Pluvialis apricaria* | Charadriiformes | 151 | 38.9 | 18 | 213.7 | 10.22 | 0.10 | -0.02 | -0.12 | 0.13 | (104) |
| *Rissa tridactyla* | Charadriiformes | 365 | 40.2 | 5 | 569.8 | 16.19 | 0.28 | -0.01 | -0.29 | 0.04 | (103) |
| *Sterna fuscata* | Charadriiformes | 176.75 | 39.3 | 28 | 137.7 | 12.19 | -0.14 | 0.03 | 0.17 | 0.16 | (105, 106) |
| *Uria lomvia* | Charadriiformes | 819 | 39.6 | 2 | 872.4 | 23.20 | 0.24 | -0.03 | -0.27 | 0.12 | (103, 107, 108) |
| *Bubulcus ibis* | Ciconiiformes | 299.2 | 40 | 25 | 171.6 | 11.44 | -0.19 | -0.12 | 0.07 | 0.00 | (109) |
| *Egretta thula* | Ciconiiformes | 314 | 40.2 | 26 | 233.7 | 16.46 | -0.07 | 0.03 | 0.10 | 0.30 | (109) |
| *Egretta tricolor* | Ciconiiformes | 309 | 40.4 | 29 | 292.5 | 25.66 | 0.03 | 0.23 | 0.20 | 1.00 | (109) |
| *Colius colius* | Coliiformes | 40.2 | 37 | 29 | 30.6 | 3.83 | -0.38 | -0.15 | 0.23 | 0.00 | (110) |
| *Colius striatus* | Coliiformes | 51 | 39 | 25 | 40.6 | 2.90 | -0.32 | -0.32 | 0.00 | 1.00 | (111) |
| *Urocolius macrourus* | Coliiformes | 51.3 | 40.6 | 29 | 38.5 | 3.32 | -0.34 | -0.27 | 0.07 | 0.00 | (112) |
| *Caloenas nicobarica* | Columbiformes | 613 | 40.9 | 25 | 312.1 | 19.63 | -0.13 | -0.04 | 0.09 | 0.00 | (113) |
| *Columba livia* | Columbiformes | 467 | 41.6 | 23 | 247.6 | 13.31 | -0.15 | -0.15 | 0.00 | 1.00 | (113) |
| *Columba vitiensis* | Columbiformes | 467.9 | 39.9 | 22 | 248.3 | 13.87 | -0.15 | -0.13 | 0.02 | 0.00 | (113) |
| *Columbina inca* | Columbiformes | 41.5 | 40.2 | 32 | 44.9 | 5.48 | -0.22 | 0.00 | 0.22 | 0.00 | (114) |
| *Drepanoptila holosericea* | Columbiformes | 198 | 39 | 27 | 142.0 | 11.83 | -0.16 | -0.01 | 0.15 | 0.00 | (115) |
| *Ducula bicolor* | Columbiformes | 453 | 40.9 | 26 | 234.7 | 15.75 | -0.17 | -0.07 | 0.10 | 0.00 | (113) |
| *Ducula pacifica* | Columbiformes | 333.4 | 39.8 | 27.5 | 135.8 | 11.04 | -0.32 | -0.16 | 0.16 | 0.00 | (113) |
| *Ducula pinon* | Columbiformes | 583.8 | 39.7 | 23 | 306.4 | 18.35 | -0.12 | -0.06 | 0.06 | 0.00 | (113) |
| *Ducula pistrinaria* | Columbiformes | 394.2 | 40.8 | 27 | 184.5 | 13.37 | -0.23 | -0.11 | 0.12 | 0.00 | (113) |
| *Ducula rubricera* | Columbiformes | 418.8 | 40.8 | 24 | 234.7 | 13.97 | -0.15 | -0.11 | 0.04 | 0.00 | (113) |
| *Ducula rufigaster* | Columbiformes | 376.7 | 40.6 | 26 | 218.9 | 14.99 | -0.15 | -0.05 | 0.10 | 0.00 | (113) |
| *Ducula zoeae* | Columbiformes | 456.2 | 40.2 | 19 | 293.0 | 13.82 | -0.07 | -0.13 | -0.06 | 1.00 | (113) |
| *Geopelia cuneata* | Columbiformes | 39 | 39 | 34 | 45.9 | 9.18 | -0.19 | 0.24 | 0.43 | 0.55 | (116) |
| *Geophaps plumifera* | Columbiformes | 89 | 40.5 | 33 | 72.7 | 9.69 | -0.22 | 0.08 | 0.30 | 0.26 | (117, 118) |
| *Goura cristata* | Columbiformes | 2313.4 | 40.9 | 19 | 734.2 | 33.53 | -0.13 | -0.10 | 0.03 | 0.00 | (113) |
| *Gymnophaps albertisii* | Columbiformes | 241.6 | 39.2 | 22 | 162.5 | 9.45 | -0.15 | -0.15 | 0.00 | 1.00 | (113) |
| *Hemiphaga novaeseelandiae* | Columbiformes | 435.6 | 40.4 | 20 | 324.1 | 15.89 | -0.02 | -0.06 | -0.04 | 1.00 | (113) |
| *Leucosarcia melanoleuca* | Columbiformes | 468 | 40.7 | 24 | 287.8 | 17.23 | -0.09 | -0.04 | 0.05 | 0.00 | (113) |
| *Oena capensis* | Columbiformes | 36 | 39 | 32 | 42.1 | 6.01 | -0.21 | 0.07 | 0.28 | 0.25 | (115) |
| *Ptilinopus melanospilus* | Columbiformes | 98 | 38.9 | 30 | 84.1 | 9.45 | -0.19 | 0.05 | 0.24 | 0.19 | (113, 115) |
| *Ptilinopus perlatus* | Columbiformes | 196 | 39.5 | 24 | 182.6 | 11.78 | -0.04 | -0.01 | 0.03 | 0.00 | (113, 115) |
| *Zenaida macroura* | Columbiformes | 91.4 | 40.5 | 30 | 111.4 | 10.61 | -0.04 | 0.11 | 0.15 | 0.74 | (119) |
| *Aceros plicatus* | Coraciiformes | 1965 | 40.1 | 16 | 929.7 | 38.58 | 0.02 | -0.01 | -0.03 | 0.23 | (120) |
| *Dacelo novaeguineae* | Coraciiformes | 336 | 37 | 20 | 192.2 | 11.31 | -0.17 | -0.15 | 0.02 | 0.00 | (121) |
| *Phoeniculus purpureus* | Coraciiformes | 72.19 | 39.3 | 23.1 | 113.8 | 7.02 | 0.03 | -0.02 | -0.05 | 0.34 | (122, 123) |
| *Todus mexicanus* | Coraciiformes | 6.3 | 36.7 | 29 | 19.6 | 2.55 | -0.05 | 0.08 | 0.13 | 0.62 | (124) |
| *Guira guira* | Cuculiformes | 140 | 40 | 27 | 185.9 | 14.30 | 0.06 | 0.15 | 0.09 | 1.00 | (125) |
| *Daptrius ater* | Falconiformes | 362 | 39.1 | 19.5 | 206.5 | 10.54 | -0.16 | -0.20 | -0.04 | 1.00 | (126) |
| *Falco rupicoloides* | Falconiformes | 214 | 40 | 15 | 247.5 | 9.90 | 0.06 | -0.11 | -0.17 | 0.64 | (127) |
| *Falco sparverius* | Falconiformes | 116 | 40.2 | 25 | 113.8 | 7.49 | -0.10 | -0.09 | 0.01 | 0.00 | (127) |
| *Alectoris chukar* | Galliformes | 475 | 40.7 | 24 | 337.5 | 20.21 | -0.02 | 0.03 | 0.05 | 0.58 | (128) |
| *Callipepla gambelii* | Galliformes | 125.5 | 40 | 34 | 130.0 | 21.67 | -0.07 | 0.35 | 0.42 | 0.83 | (129, 130) |
| *Coturnix chinensis* | Galliformes | 44.9 | 39 | 27 | 63.1 | 5.26 | -0.09 | -0.04 | 0.05 | 0.00 | (131, 132) |
| *Coturnix coturnix* | Galliformes | 97 | 41.8 | 16 | 153.4 | 5.95 | 0.08 | -0.15 | -0.23 | 0.66 | (129, 133) |
| *Coturnix japonica* | Galliformes | 166 | 39.5 | 25 | 255.7 | 17.63 | 0.15 | 0.20 | 0.05 | 1.00 | (134, 135) |
| *Coturnix pectoralis* | Galliformes | 95.8 | 41.6 | 27 | 109.5 | 7.50 | -0.07 | -0.05 | 0.02 | 0.00 | (131) |
| *Lagopus leucura* | Galliformes | 326 | 39.9 | 6 | 406.3 | 11.99 | 0.16 | -0.12 | -0.28 | 0.42 | (136) |
| *Leipoa ocellata* | Galliformes | 1390 | 39.7 | 22 | 691.2 | 39.05 | -0.01 | 0.08 | 0.09 | 0.88 | (137) |
| *Syrmaticus humiae* | Galliformes | 398.83 | 40.36 | 24.5 | 773.9 | 48.80 | 0.39 | 0.45 | 0.06 | 1.00 | (138) |
| *Aramides cajanea* | Gruiformes | 374.3 | 40.2 | 30 | 265.3 | 26.01 | -0.06 | 0.19 | 0.25 | 0.76 | (139) |
| *Fulica atra* | Gruiformes | 387 | 39.6 | 20 | 404.9 | 20.66 | 0.11 | 0.08 | -0.03 | 0.00 | (140) |
| *Gallinula mortierii* | Gruiformes | 954.4 | 39.4 | 15 | 548.3 | 22.47 | -0.01 | -0.08 | -0.07 | 1.00 | (139) |
| *Gallinula tenebrosa* | Gruiformes | 512.4 | 39.4 | 17 | 402.5 | 17.97 | 0.03 | -0.04 | -0.07 | 0.58 | (139) |
| *Gallinula ventralis* | Gruiformes | 309.2 | 39.7 | 20 | 277.7 | 14.10 | 0.01 | -0.03 | -0.04 | 0.78 | (139) |
| *Gallirallus australis* | Gruiformes | 813.5 | 39 | 30 | 314.5 | 34.94 | -0.21 | 0.15 | 0.36 | 0.41 | (139) |
| *Gallirallus owstoni* | Gruiformes | 198.8 | 40.2 | 29 | 157.7 | 14.08 | -0.11 | 0.06 | 0.17 | 0.36 | (139) |
| *Gallirallus philippensis* | Gruiformes | 171.7 | 40.6 | 28 | 167.8 | 13.32 | -0.04 | 0.07 | 0.11 | 0.64 | (139) |
| *Megacrex inepta* | Gruiformes | 856.6 | 38.6 | 18 | 230.9 | 11.21 | -0.35 | -0.36 | -0.01 | 1.00 | (139) |
| *Porphyrio hochstetteri* | Gruiformes | 2758.3 | 39 | 9 | 1185.0 | 39.50 | 0.03 | -0.07 | -0.10 | 0.70 | (139) |
| *Porphyrio porphyrio* | Gruiformes | 919.3 | 39.6 | 14 | 636.2 | 24.85 | 0.07 | -0.03 | -0.10 | 0.29 | (139) |
| *Porzana cinerea* | Gruiformes | 47.9 | 38.9 | 28 | 85.1 | 7.81 | 0.02 | 0.12 | 0.10 | 1.00 | (139) |
| *Acridotheres cristatellus* | Passeriformes | 117.7 | 41.4 | 25 | 119.5 | 7.29 | -0.08 | -0.11 | -0.03 | 1.00 | (141) |
| *Actitis hypoleucos* | Passeriformes | 41.1 | 40.3 | 23.8 | 89.9 | 5.45 | 0.09 | 0.00 | -0.09 | 0.02 | (142, 143) |
| *Aethopyga christinae* | Passeriformes | 5.2 | 39 | 27.6 | 24.9 | 2.18 | 0.11 | 0.06 | -0.05 | 0.00 | (144) |
| *Aethopyga siparaja* | Passeriformes | 6.8 | 40.9 | 26 | 25.3 | 1.70 | 0.04 | -0.11 | -0.15 | 0.73 | (144, 145) |
| *Amadina fasciata* | Passeriformes | 17.2 | 43.1 | 31 | 36.8 | 3.04 | -0.06 | -0.06 | 0.00 | 1.00 | (146) |
| *Anthreptes collaris* | Passeriformes | 8.3 | 38.5 | 25 | 29.2 | 2.16 | 0.04 | -0.05 | -0.09 | 0.55 | (144) |
| *Aphelocoma coerulescens* | Passeriformes | 78.72 | 41.5 | 12.4 | 165.4 | 5.68 | 0.17 | -0.13 | -0.30 | 0.43 | (147) |
| *Astrapia stephaniae* | Passeriformes | 148.2 | 41.4 | 26 | 277.2 | 18.00 | 0.22 | 0.23 | 0.01 | 1.00 | (148) |
| *Bombycilla garrulus* | Passeriformes | 64.9 | 40.5 | 18 | 143.6 | 6.38 | 0.16 | -0.03 | -0.19 | 0.17 | (149) |
| *Cardinalis cardinalis* | Passeriformes | 41 | 38.9 | 29 | 86.5 | 8.74 | 0.07 | 0.20 | 0.13 | 1.00 | (150) |
| *Cardinalis sinuatus* | Passeriformes | 32 | 38.7 | 30 | 67.4 | 7.75 | 0.03 | 0.21 | 0.18 | 1.00 | (150) |
| *Carduelis flammea* | Passeriformes | 14.7 | 40.48 | 13 | 59.8 | 2.18 | 0.20 | -0.17 | -0.37 | 0.46 | (151, 152) |
| *Carduelis pinus* | Passeriformes | 13.8 | 38.8 | 23 | 59.3 | 3.75 | 0.21 | 0.08 | -0.13 | 0.00 | (153) |
| *Carduelis tristis* | Passeriformes | 12.8 | 39.3 | 23 | 52.1 | 3.20 | 0.18 | 0.02 | -0.16 | 0.00 | (153) |
| *Carpodacus cassinii* | Passeriformes | 27.4 | 39 | 22 | 58.3 | 3.43 | 0.01 | -0.11 | -0.12 | 0.92 | (154) |
| *Carpodacus mexicanus* | Passeriformes | 20.4 | 39 | 22 | 53.5 | 3.15 | 0.06 | -0.08 | -0.14 | 0.59 | (129, 155) |
| *Carpodacus purpureus* | Passeriformes | 34 | 39 | 30 | 146.3 | 16.26 | 0.35 | 0.52 | 0.17 | 1.00 | (156) |
| *Carpodacus roseus* | Passeriformes | 22.5 | 40.46 | 22.5 | 92.5 | 5.15 | 0.27 | 0.11 | -0.16 | 0.00 | (157) |
| *Cicinnurus magnificus* | Passeriformes | 82.3 | 40.4 | 20 | 135.8 | 6.66 | 0.07 | -0.07 | -0.14 | 0.49 | (148) |
| *Cicinnurus regius* | Passeriformes | 54 | 40.4 | 20 | 100.4 | 4.92 | 0.06 | -0.11 | -0.17 | 0.64 | (148) |
| *Cnemophilus loriae* | Passeriformes | 78.1 | 38.6 | 20 | 113.8 | 6.12 | 0.01 | -0.09 | -0.10 | 0.90 | (148) |
| *Coccothraustes vespertinus* | Passeriformes | 60 | 39 | 16 | 143.4 | 6.23 | 0.18 | -0.03 | -0.21 | 0.13 | (158) |
| *Coereba flaveola* | Passeriformes | 10 | 40.7 | 25 | 36.8 | 2.34 | 0.09 | -0.06 | -0.15 | 0.38 | (159) |
| *Corvus corax* | Passeriformes | 1203 | 41 | 1 | 946.5 | 23.66 | 0.16 | -0.11 | -0.27 | 0.41 | (160) |
| *Cyanerpes cyaneus* | Passeriformes | 13.5 | 40.22 | 25 | 46.8 | 3.07 | 0.11 | 0.00 | -0.11 | 0.03 | (161, 162) |
| *Cyanocitta cristata* | Passeriformes | 80.8 | 40.3 | 19 | 143.4 | 6.73 | 0.10 | -0.06 | -0.16 | 0.37 | (163) |
| *Emberiza chrysophrys* | Passeriformes | 15.94 | 40.58 | 25 | 55.4 | 3.56 | 0.14 | 0.02 | -0.12 | 0.00 | (164) |
| *Emberiza citrinella* | Passeriformes | 26.8 | 39.8 | 25 | 75.0 | 5.07 | 0.13 | 0.06 | -0.07 | 0.00 | (165) |
| *Emberiza hortulana* | Passeriformes | 24.3 | 39.5 | 32 | 71.7 | 9.56 | 0.13 | 0.36 | 0.23 | 1.00 | (165) |
| *Emberiza pusilla* | Passeriformes | 11.3 | 39.8 | 20 | 45.2 | 2.28 | 0.15 | -0.09 | -0.24 | 0.38 | (157) |
| *Emberiza rutila* | Passeriformes | 15.3 | 39.5 | 25 | 58.3 | 4.02 | 0.17 | 0.09 | -0.08 | 0.00 | (157) |
| *Emberiza spodocephala* | Passeriformes | 15.1 | 40.3 | 20 | 68.4 | 3.37 | 0.25 | 0.01 | -0.24 | 0.00 | (149) |
| *Epimachus meyeri* | Passeriformes | 202.7 | 41 | 18 | 316.9 | 13.78 | 0.19 | 0.05 | -0.14 | 0.00 | (148) |
| *Eremalauda dunni* | Passeriformes | 20.6 | 40 | 31.5 | 47.8 | 5.62 | 0.01 | 0.16 | 0.15 | 1.00 | (166) |
| *Eremiornis carteri* | Passeriformes | 12.3 | 39.1 | 30 | 34.1 | 3.75 | 0.00 | 0.10 | 0.10 | 1.00 | (167) |
| *Eremophila alpestris* | Passeriformes | 26 | 42 | 26 | 56.6 | 3.54 | 0.01 | -0.09 | -0.10 | 0.90 | (168) |
| *Erythrura gouldiae* | Passeriformes | 15.5 | 42.1 | 31.7 | 37.4 | 3.60 | -0.02 | 0.03 | 0.05 | 0.63 | (169) |
| *Estrilda melpoda* | Passeriformes | 7.5 | 43 | 35 | 22.5 | 2.81 | -0.04 | 0.09 | 0.13 | 0.69 | (146) |
| *Fringilla montifringilla* | Passeriformes | 21 | 40.4 | 25 | 66.0 | 4.29 | 0.14 | 0.04 | -0.10 | 0.00 | (170) |
| *Hylophylax naevioides* | Passeriformes | 16.1 | 40 | 30 | 41.1 | 4.11 | 0.01 | 0.08 | 0.07 | 1.00 | (161, 171) |
| *Icterus bullockii* | Passeriformes | 34 | 40 | 27 | 86.5 | 6.65 | 0.12 | 0.13 | 0.01 | 1.00 | (172) |
| *Icterus galbula* | Passeriformes | 34 | 39.8 | 27 | 86.5 | 6.76 | 0.12 | 0.13 | 0.01 | 1.00 | (172) |
| *Lanius collaris* | Passeriformes | 43.8 | 40 | 25 | 32.0 | 2.13 | -0.38 | -0.42 | -0.04 | 1.00 | (173) |
| *Lanius excubitor* | Passeriformes | 60 | 39.73 | 30 | 92.7 | 9.53 | -0.01 | 0.16 | 0.17 | 0.94 | (174, 175) |
| *Lichenostomus virescens* | Passeriformes | 25 | 40 | 33 | 51.1 | 7.30 | -0.02 | 0.24 | 0.26 | 0.92 | (176) |
| *Lichmera indistincta* | Passeriformes | 10.1 | 40.4 | 30 | 36.3 | 3.49 | 0.09 | 0.12 | 0.03 | 1.00 | (176, 177) |
| *Lonchura fuscans* | Passeriformes | 9.5 | 38.9 | 30 | 17.2 | 1.93 | -0.22 | -0.13 | 0.09 | 0.00 | (178) |
| *Lophorina superba* | Passeriformes | 74.6 | 40.5 | 19 | 124.3 | 5.78 | 0.06 | -0.11 | -0.17 | 0.64 | (148) |
| *Loxia curvirostra* | Passeriformes | 29.4 | 39.5 | 15 | 87.0 | 3.55 | 0.17 | -0.11 | -0.28 | 0.40 | (179) |
| *Loxia leucoptera* | Passeriformes | 29.8 | 39.5 | 14 | 78.4 | 3.07 | 0.12 | -0.18 | -0.30 | 0.60 | (179) |
| *Lullula arborea* | Passeriformes | 25.5 | 40 | 27.6 | 98.5 | 7.94 | 0.26 | 0.27 | 0.01 | 1.00 | (166) |
| *Malurus cyaneus* | Passeriformes | 8.2 | 41 | 26 | 24.9 | 1.66 | -0.02 | -0.16 | -0.14 | 1.00 | (180, 181) |
| *Manacus vitellinus* | Passeriformes | 15.5 | 37.9 | 26 | 40.2 | 3.38 | 0.01 | 0.01 | 0.00 | 0.00 | (182) |
| *Manucodia chalybatus* | Passeriformes | 177.2 | 40.5 | 20 | 236.1 | 11.52 | 0.10 | 0.00 | -0.10 | 0.00 | (148) |
| *Manucodia keraudrenii* | Passeriformes | 170.7 | 40.4 | 25 | 206.0 | 13.38 | 0.05 | 0.07 | 0.02 | 1.00 | (148) |
| *Nectarinia bifasciata* | Passeriformes | 6.2 | 39 | 24 | 15.8 | 1.05 | -0.14 | -0.30 | -0.16 | 1.00 | (144, 183) |
| *Nectarinia cuprea* | Passeriformes | 7.1 | 41 | 31 | 25.4 | 2.54 | 0.03 | 0.06 | 0.03 | 1.00 | (183, 184) |
| *Nectarinia kilimensis* | Passeriformes | 16.2 | 40 | 25 | 44.9 | 2.99 | 0.05 | -0.06 | -0.11 | 0.53 | (144) |
| *Nectarinia senegalensis* | Passeriformes | 13.7 | 40 | 30 | 41.1 | 4.11 | 0.05 | 0.12 | 0.07 | 1.00 | (183) |
| *Nectarinia tacazze* | Passeriformes | 13.5 | 41.4 | 25 | 42.1 | 2.57 | 0.07 | -0.08 | -0.15 | 0.54 | (144, 183, 184) |
| *Nectarinia venusta* | Passeriformes | 7.6 | 40 | 25 | 25.8 | 1.72 | 0.02 | -0.13 | -0.15 | 0.87 | (183, 184) |
| *Onychognathus morio* | Passeriformes | 128 | 39.1 | 15 | 221.3 | 9.18 | 0.16 | -0.03 | -0.19 | 0.14 | (185) |
| *Onychognathus tristramii* | Passeriformes | 123 | 40.6 | 21.5 | 196.0 | 10.26 | 0.12 | 0.03 | -0.09 | 0.00 | (186) |
| *Padda oryzivora* | Passeriformes | 24.9 | 42.5 | 31 | 51.1 | 4.44 | -0.02 | 0.02 | 0.04 | 0.51 | (146) |
| *Paradisaea raggiana* | Passeriformes | 215.7 | 39.7 | 16 | 322.7 | 13.62 | 0.18 | 0.03 | -0.15 | 0.00 | (148) |
| *Paradisaea rudolphi* | Passeriformes | 156.1 | 40.5 | 17 | 262.0 | 11.15 | 0.18 | 0.01 | -0.17 | 0.00 | (148) |
| *Parotia lawesii* | Passeriformes | 144.9 | 39.1 | 17 | 206.0 | 9.32 | 0.09 | -0.05 | -0.14 | 0.34 | (148) |
| *Parotia wahnesi* | Passeriformes | 164.2 | 39.7 | 22 | 221.8 | 12.53 | 0.09 | 0.05 | -0.04 | 0.00 | (148) |
| *Passer domesticus* | Passeriformes | 23 | 38.6 | 20 | 63.1 | 3.39 | 0.09 | -0.08 | -0.17 | 0.47 | (187) |
| *Phytotoma rara* | Passeriformes | 41.6 | 40.2 | 22 | 98.5 | 5.41 | 0.12 | -0.01 | -0.13 | 0.05 | (188) |
| *Pica nuttalli* | Passeriformes | 151.9 | 39.4 | 13.5 | 252.4 | 9.75 | 0.17 | -0.04 | -0.21 | 0.18 | (189) |
| *Pica pica* | Passeriformes | 158.9 | 39.5 | 21 | 206.0 | 11.14 | 0.07 | 0.01 | -0.06 | 0.00 | (189) |
| *Pipra mentalis* | Passeriformes | 12.3 | 37.9 | 26 | 33.5 | 2.82 | -0.01 | -0.02 | -0.01 | 1.00 | (182) |
| *Ptiloris magnificus* | Passeriformes | 179.4 | 38.6 | 22 | 258.1 | 15.55 | 0.13 | 0.13 | 0.00 | 0.00 | (148) |
| *Pycnonotus sinensis* | Passeriformes | 25.6 | 40.3 | 26.6 | 66.9 | 4.88 | 0.09 | 0.06 | -0.03 | 0.00 | (190) |
| *Saltator coerulescens* | Passeriformes | 47 | 39.4 | 27 | 66.9 | 5.40 | -0.08 | -0.04 | 0.04 | 0.00 | (191) |
| *Saltator orenocensis* | Passeriformes | 32.7 | 38.8 | 27.7 | 54.0 | 4.86 | -0.07 | 0.00 | 0.07 | 0.00 | (191) |
| *Sporophila corvina* | Passeriformes | 11 | 39.67 | 28.9 | 33.9 | 3.15 | 0.03 | 0.05 | 0.02 | 1.00 | (192) |
| *Sturnus sericeus* | Passeriformes | 64.9 | 40.5 | 27.6 | 153.0 | 11.86 | 0.19 | 0.24 | 0.05 | 1.00 | (190) |
| *Syrmaticus ellioti* | Passeriformes | 388.25 | 40.47 | 23 | 504.8 | 28.90 | 0.21 | 0.23 | 0.02 | 1.00 | (138) |
| *Taeniopygia guttata* | Passeriformes | 11.7 | 39.8 | 30 | 35.4 | 3.61 | 0.03 | 0.10 | 0.07 | 1.00 | (146, 193) |
| *Thryothorus ludovicianus* | Passeriformes | 14.9 | 39.4 | 27 | 61.7 | 4.98 | 0.21 | 0.18 | -0.03 | 0.00 | (194) |
| *Zonotrichia leucophrys* | Passeriformes | 28.6 | 41 | 23 | 66.0 | 3.67 | 0.05 | -0.09 | -0.14 | 0.65 | (195) |
| *Zosterops erythropleurus* | Passeriformes | 9.16 | 40.58 | 25 | 40.6 | 2.61 | 0.16 | 0.01 | -0.15 | 0.00 | (164) |
| *Zosterops lateralis* | Passeriformes | 11.8 | 40.3 | 29 | 27.7 | 2.45 | -0.08 | -0.07 | 0.01 | 0.00 | (181, 196) |
| *Anhinga anhinga* | Pelecaniformes | 1040 | 39.7 | 26 | 549.2 | 40.09 | -0.03 | 0.15 | 0.18 | 0.83 | (8) |
| *Phalacrocorax auritus* | Pelecaniformes | 1330 | 39.5 | 17.5 | 945.0 | 42.95 | 0.13 | 0.13 | 0.00 | 0.00 | (8, 197) |
| *Aulacorhynchus prasinus* | Piciformes | 174.7 | 38.1 | 23 | 142.9 | 9.46 | -0.12 | -0.08 | 0.04 | 0.00 | (120) |
| *Aulacorhynchus sulcatus* | Piciformes | 131.7 | 38.8 | 23 | 116.6 | 7.38 | -0.13 | -0.13 | 0.00 | 0.00 | (120) |
| *Pteroglossus aracari* | Piciformes | 200.7 | 40.9 | 29 | 153.0 | 12.86 | -0.13 | 0.02 | 0.15 | 0.14 | (120) |
| *Ramphastos dicolorus* | Piciformes | 328.9 | 39.2 | 20 | 217.5 | 11.33 | -0.11 | -0.14 | -0.03 | 1.00 | (120) |
| *Ramphastos toco* | Piciformes | 582 | 39.1 | 17 | 416.8 | 18.86 | 0.01 | -0.05 | -0.06 | 0.83 | (120) |
| *Ramphastos tucanus* | Piciformes | 420.3 | 39.6 | 25 | 294.0 | 20.14 | -0.05 | 0.05 | 0.10 | 0.51 | (120) |
| *Selenidera maculirostris* | Piciformes | 130.5 | 38.6 | 24 | 186.4 | 12.77 | 0.08 | 0.11 | 0.03 | 1.00 | (120) |
| *Podiceps nigricollis* | Podicipediformes | 317 | 39.6 | 15 | 368.5 | 14.98 | 0.13 | -0.01 | -0.14 | 0.09 | (198) |
| *Fulmarus glacialis* | Procellariiformes | 651 | 39.9 | 9 | 622.4 | 20.14 | 0.15 | -0.04 | -0.19 | 0.23 | (103) |
| *Oceanites oceanicus* | Procellariiformes | 42.2 | 39.7 | 15 | 82.2 | 3.33 | 0.04 | -0.22 | -0.26 | 0.85 | (199) |
| *Puffinus pacificus* | Procellariiformes | 367 | 39.3 | 23 | 400.6 | 24.58 | 0.12 | 0.17 | 0.05 | 1.00 | (200) |
| *Amazona viridigenalis* | Psittaciformes | 341 | 41.1 | 26.5 | 344.2 | 23.58 | 0.08 | 0.17 | 0.09 | 1.00 | (201) |
| *Bolborhynchus lineola* | Psittaciformes | 55.7 | 40.4 | 28 | 107.1 | 8.64 | 0.08 | 0.13 | 0.05 | 1.00 | (202) |
| *Cacatua roseicapilla* | Psittaciformes | 271 | 39 | 22 | 240.9 | 14.17 | -0.01 | 0.00 | 0.01 | 0.00 | (123, 203) |
| *Cyanoramphus auriceps* | Psittaciformes | 52.9 | 38.1 | 22 | 84.6 | 5.25 | -0.01 | -0.07 | -0.06 | 1.00 | (204) |
| *Cyanoramphus novaezelandiae* | Psittaciformes | 56.1 | 37.9 | 22 | 90.3 | 5.68 | 0.00 | -0.05 | -0.05 | 1.00 | (204) |
| *Cyanoramphus unicolor* | Psittaciformes | 129.4 | 40.2 | 18 | 185.9 | 8.37 | 0.08 | -0.07 | -0.15 | 0.46 | (204) |
| *Neophema elegans* | Psittaciformes | 42.02 | 40 | 21.2 | 100.4 | 5.34 | 0.13 | -0.01 | -0.14 | 0.10 | (205) |
| *Neophema pulchella* | Psittaciformes | 40 | 40 | 28.3 | 94.2 | 8.05 | 0.11 | 0.17 | 0.06 | 1.00 | (205) |
| *Neophema splendida* | Psittaciformes | 40.86 | 40 | 26 | 90.8 | 6.49 | 0.09 | 0.08 | -0.01 | 0.00 | (205) |
| *Nestor meridionalis* | Psittaciformes | 369.3 | 39.7 | 15 | 368.5 | 14.92 | 0.08 | -0.05 | -0.13 | 0.38 | (204) |
| *Nestor notabilis* | Psittaciformes | 836.9 | 39.5 | 5 | 763.9 | 22.14 | 0.17 | -0.06 | -0.23 | 0.26 | (204) |
| *Aptenodytes patagonicus* | Sphenisciformes | 11080 | 37.5 | -5 | 3760.5 | 88.48 | 0.14 | -0.03 | -0.17 | 0.16 | (206) |
| *Spheniscus humboldti* | Sphenisciformes | 3870 | 39 | 2 | 1631.9 | 44.11 | 0.07 | -0.10 | -0.17 | 0.58 | (207) |
| *Aegolius acadicus* | Strigiformes | 118.1 | 39 | 24 | 117.1 | 7.81 | -0.09 | -0.08 | 0.01 | 0.00 | (208) |
| *Aegolius funereus* | Strigiformes | 130 | 39.4 | 10 | 194.6 | 6.62 | 0.10 | -0.17 | -0.27 | 0.63 | (209) |
| *Athene cunicularia* | Strigiformes | 146.7 | 38 | 25 | 133.8 | 10.29 | -0.10 | -0.01 | 0.09 | 0.00 | (210) |
| *Bubo virginianus* | Strigiformes | 1000 | 39.9 | 20.3 | 746.7 | 38.10 | 0.11 | 0.14 | 0.03 | 1.00 | (211) |
| *Glaucidium gnoma* | Strigiformes | 52 | 39 | 27 | 71.7 | 5.98 | -0.08 | -0.01 | 0.07 | 0.00 | (212) |
| *Megascops asio* | Strigiformes | 141.5 | 39 | 26 | 85.1 | 6.55 | -0.28 | -0.19 | 0.09 | 0.00 | (212) |
| *Megascops trichopsis* | Strigiformes | 119 | 37 | 27 | 79.3 | 7.93 | -0.27 | -0.07 | 0.20 | 0.00 | (212) |
| *Micrathene whitneyi* | Strigiformes | 45 | 39 | 30 | 43.5 | 4.83 | -0.25 | -0.07 | 0.18 | 0.00 | (212) |
| *Otus leucotis* | Strigiformes | 221.1 | 38.9 | 20 | 126.7 | 6.70 | -0.24 | -0.28 | -0.04 | 1.00 | (213) |
| *Strix occidentalis* | Strigiformes | 571 | 38.5 | 17 | 460.3 | 21.41 | 0.06 | 0.01 | -0.05 | 0.00 | (211) |
| *Tyto alba* | Strigiformes | 533.2 | 37.8 | 22.5 | 308.8 | 20.18 | -0.10 | 0.00 | 0.10 | 0.01 | (214) |
| *Archilochus alexandri* | Trochiliformes | 3.3 | 40 | 27 | 8.1 | 0.62 | -0.25 | -0.39 | -0.14 | 1.00 | (215) |
| *Calypte anna* | Trochiliformes | 4.5 | 42 | 33 | 12.0 | 1.33 | -0.17 | -0.12 | 0.05 | 0.00 | (215) |
| *Patagona gigas* | Trochiliformes | 19.1 | 39 | 27 | 49.2 | 4.10 | 0.04 | 0.04 | 0.00 | 1.00 | (216) |
| *Selasphorus rufus* | Trochiliformes | 3.8 | 40 | 29 | 13.3 | 1.21 | -0.08 | -0.13 | -0.05 | 1.00 | (215) |
| *Selasphorus sasin* | Trochiliformes | 3.7 | 40 | 30 | 11.5 | 1.15 | -0.13 | -0.14 | -0.01 | 1.00 | (215) |
| *Stellula calliope* | Trochiliformes | 3 | 40 | 36 | 9.9 | 2.48 | -0.14 | 0.23 | 0.37 | 0.63 | (215) |
| *Turnix suscitator* | Turniciformes | 58.1 | 39 | 33 | 66.4 | 11.07 | -0.14 | 0.23 | 0.37 | 0.62 | (132) |

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