Table S1. Species, common names, body mass (MB), grams of fat and lean mass consumed per day of hibernation, including the proportional contribution of each tissue to the consumption, daily energy expenditure of hibernation (DEEH) and DEEH corrected by arousal costs. This last value was used for the allometric regressions (see methods for details, in [1]).

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Species | common | Order | MB | Fat consumption | Lean mass consumption | Fat+Lean | DEEHTotal | DEEH | Savings(%) | Cellular MR5 (W cell-1) | Reference |  |
|  | name |  | (g) | (g/d) | (g/d) | (g/d) | (kJ/d) | minus arousals |  |  |  |  |
| *M. lucifugus* | Little brown bat | *Eutheria* | 8.5 | 0.0063 | 0.0021 | 0.01 | 0.29 | 0.23 | 97.32 | 6.02E-13 | [2] |  |
| *M. myotis* | Mouse eared bat | *Eutheria* | 24.7 | 0.05 | 0.01 | 0.06 | 2.24 | 2.10 | 88.12 | 1.86E-12 | [3] |  |
| *Z. princeps* | Jumping mouse | *Eutheria* | 36 | 0.07 | 0.021 | 0.09 | 3.22 | 0.42 | 98.12 | 2.57E-13 | [4] |
| *D. gliroides* | Monito del monte  | *Metatheria* | 45 | 0.18 | 0.05 | 0.23 | 8.40 | 6.32 | 76.12 | 3.06E-12 | [5] |
| *C. nanus* | Pigmy possum | *Metatheria* | 50 | 0.061 | 0.021 | 0.08 | 2.80 | 2.31 | 91.92 | 1.01E-12 | [6] |  |
| *S. parryii* | Arctic ground squirrel | *Eutheria* | 820 | 0.4536 | 0.27 | 0.72 | 24.38 | 18.97 | 90.92 | 5.04E-13 | [7] |  |
| *M. monax* | Woodchuck | *Eutheria* | 2180 | 3 | 0.801 | 3.80 | 137.92 | 120.64 | 66.12 | 1.21E-12 | [8] |  |
| *T. aculeatus* | Short-beaked equidna | *Pototheria* | 4673 | 5.63 | 1.501 | 7.13 | 258.83 | 239.39 | 59.62 | 1.12E-12 | [9] |
| *U. americanus* | Black bear | *Eutheria* | 74900 | 100.3 | 15.5 | 115.8 | 4347.71 | 4337.11 | -14.02 | 1.26E-12 | [10] |  |
| *U. arctos* | Brown bear | *Eutheria* | 179157 | 264 | 206 | 470.0 | 15342.40 | 15317.62 | -124.52 | 1.86E-12 | [11] |
| *M\_marmota* | Alpine marmot | *Eutheria* | 4100 | 4.1 | 1.081 | 5.15 | 187.15 | 149.72 | 72.42 | 7.95E-13 | [12] |  |
| *E\_quercinus* | Dormouse | *Eutheria* | 180.2 | 0.34 | 0.091 | 0.43 | 15.45 | 12.36 | 81.52 | 1.49E-12 | [13] |  |
| *S\_columbianus* | Columbian ground squirrel | *Eutheria* | 490.9 | 0.47 | 0.131 | 0.60 | 21.79 | 17.43 | 86.72 | 7.73E-13 | [14] |  |
| *E\_fuscus* | Big brown bat | *Eutheria* | 20.6 | 0.03 | 0.0081 | 0.04 | 1.38 | 1.10 | 92.92 | 1.17E-12 | [15] |
| *G\_glis* | Garden dormouse | *Eutheria* | 192.5 | 0.29 | 0.0781 | 0.37 | 13.45 | 10.76 | 84.62 | 1.22E-12 | [16] |
| *H\_terasensis* | Formosan leaf-nosed bat | *Eutheria* | 55 | 0.08 | 0.0211 | 0.10 | 3.68 | 2.95 | 90.32 | 1.17E-12 | [17] |
| *T\_taxus* | American badger | *Eutheria* | 8005 | 5.6 | 1.491 | 7.1 | 257.14 | 205.71 | 75.82 | 5.60E-13 | [18] |  |
| *M. flaviventris* | Yellow bellied marmot | *Eutheria* | 2111 | --- | --- | --- | ---- | --- | 83.33 | --- | [19] |  |
| *U. americanus* | Black bear | *Eutheria* | 60000 | --- | --- | --- | --- | --- | 533 | --- | [20] |  |
| *U. richardsonii* | Richardson’s ground squirrel | *Eutheria* | 330 | --- | --- | --- | --- | --- | 87.74 | --- | [21] |  |
| *S. saturatus* | Golden-mantled ground squirrel | *Eutheria* | 250 | --- | --- | --- | --- | --- | 854 | --- | [22] |  |

1the contribution of fat and lean mass to DEEH was estimated assuming 79% of fat and 21% of lean mass (1 gram of fat=39.7kJ; 1 gram of lean mass = 23.6kJ, see methods for details). 2Energy savings were computed as (DEEH-BMR)/BMR (see methods for details). 3Energy savings of hibernation were reported in the original study (compared to BMR). 4Energy savings of hibernation was estimated compared with the annual energy budget.5 Cellular metabolic rate was calculated assuming that a human body contains 3.72x1013 cells [23].

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