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Supplementary Table S1. Mean values of measurements (See Table 1 for abbreviations).

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **ID** | **Mode** | **SL** | **HL** | **HDW** | **HDPC** | **HLD** | **HTTR** | **HAR** | **HTT** | **RL** | **RDW** |
| *Chimarrogale himalayaca* | SA | 11.21 | 11.97 | 4.11 | 5.37 | 0.98 | 1.06 | 11.45 | 4.82 |  |  |
| *Nectogale elegans* | SA | 13.21 | 12.27 | 5.88 | 5.16 | 1.44 | 1.56 | 11.70 | 4.31 | 13.38 | 1.95 |
| *Neomys fodiens* | SA | 9.07 | 8.82 | 3.62 | 3.91 | 0.82 | 1.41 | 8.47 | 3.54 | 9.09 | 1.08 |
| *Sorex albibarbis* | SA | 8.26 | 8.88 | 3.12 | 3.42 | 0.79 | 1.15 | 8.52 | 3.15 | 9.36 | 1.05 |
| *Sorex bendirii* | SA | 9.76 | 9.86 | 3.74 | 3.96 | 0.97 | 1.56 | 9.40 | 3.99 | 10.45 | 1.29 |
| *Sorex navigator* | SA | 8.34 | 8.79 | 3.23 | 3.30 | 0.78 | 1.33 | 8.37 | 3.25 | 9.46 | 1.10 |
| *Sorex palustris* | SA | 6.73 | 7.88 | 2.48 | 3.24 | 0.69 | 1.05 | 6.74 | 2.90 | 9.36 | 1.02 |
| *Sorex cinereus* | Am | 5.68 | 6.04 | 1.92 | 2.32 | 0.50 | 0.75 | 5.87 | 2.03 | 6.37 | 0.65 |
| *Sorex hoyi* | Am | 4.75 | 5.20 | 1.69 | 2.09 | 0.41 | 0.73 | 5.00 | 1.91 | 5.29 | 0.61 |
| *Sorex sonomae* | Am | 7.97 | 8.20 | 3.00 | 3.23 | 0.79 | 1.12 | 7.83 | 3.04 | 8.85 | 1.02 |
| *Suncus hututsi* | Am |  |  |  |  |  |  |  |  |  |  |
| *Cryptotis parvus* | Am | 6.21 | 6.20 | 2.23 | 2.63 | 0.54 | 1.00 | 5.95 | 2.39 | 6.36 | 0.82 |
| *Cryptotis tropicalis* | Am | 6.87 | 6.83 | 2.31 | 3.09 | 0.67 | 1.16 | 6.61 | 2.77 | 7.00 | 0.88 |
| *Cryptotis merriami* | Am | 7.33 | 7.77 | 2.69 | 3.44 | 0.74 | 1.24 | 7.43 | 2.80 | 7.24 | 0.87 |
| *Cryptotis merus* | Am | 7.09 | 7.56 | 2.71 | 3.48 | 0.66 | 0.90 | 7.30 | 2.70 |  |  |
| *Cryptotis nigrescens* | Am | 7.38 | 7.89 | 2.76 | 3.37 | 0.71 | 1.39 | 7.59 | 2.96 | 6.89 | 0.87 |
| *Blarinella quadricaudata* | Am | 7.23 | 7.21 | 2.83 | 3.11 | 0.71 | 1.43 | 6.86 | 3.14 | 7.80 | 0.99 |
| *Crocidura olivieri* | Am |  | 14.12 | 3.87 | 7.05 | 1.21 | 1.09 | 13.89 | 5.10 |  |  |
| *Crocidura religiosa* | Am |  | 5.77 | 1.59 | 3.00 | 0.41 | 0.35 | 5.70 | 2.03 |  |  |
| *Crocidura suaveolens* | Am |  | 7.91 | 2.43 | 3.74 | 0.62 | 0.88 | 7.73 | 2.73 |  |  |
| *Myosorex cafer* | Am | 8.93 | 9.75 | 3.11 | 4.46 | 0.94 | 1.41 | 9.46 | 3.42 |  |  |
| *Myosorex geata* | Am | 8.43 | 8.99 | 3.16 | 4.23 | 0.82 | 1.40 | 8.73 | 3.37 |  |  |
| *Myosorex kihaulei* | Am | 8.53 | 9.04 | 3.15 | 4.20 | 0.86 | 1.37 | 8.77 | 3.47 |  |  |
| *Blarina brevicauda talpoides* | SF | 9.67 | 9.15 | 3.97 | 4.09 | 1.06 | 2.03 | 8.88 | 4.02 | 8.40 | 1.39 |
| *Blarina brevicauda jerryrchoatei* | SF | 9.31 | 8.46 | 3.76 | 3.84 | 1.07 | 1.98 | 8.44 | 3.91 | 7.79 | 1.30 |
| *Blarina carolinensis* | SF | 8.12 | 7.41 | 3.31 | 3.54 | 0.87 | 1.59 | 7.41 | 3.30 | 7.08 | 1.01 |
| *Blarina hylophaga* | SF |  |  |  |  |  |  |  |  |  |  |
| *Blarina peninsulae* | SF | 8.06 | 7.53 | 3.30 | 3.70 | 0.88 | 1.41 | 7.36 | 3.34 | 7.11 | 1.08 |
| *Blarina shermani* | SF |  |  |  |  |  |  |  |  |  |  |
| *Blarina brevicauda jknoxjonesi* | SF |  |  |  |  |  |  |  |  |  |  |
| *Cryptotis mexicanus* | SF | 8.06 | 7.29 | 3.32 | 3.19 | 0.79 | 1.69 | 6.82 | 3.35 |  |  |
| *Cryptotis phillipsii* | SF |  | 7.77 | 3.25 | 3.27 | 0.83 | 1.68 | 7.38 | 3.13 |  |  |
| *Cryptotis eckerlini* | SF | 8.76 | 7.77 | 4.25 | 3.85 | 0.97 | 2.22 | 7.52 | 3.67 | 8.06 | 1.27 |
| *Cryptotis matsoni* | SF | 9.29 | 7.70 | 4.22 | 3.79 | 0.97 | 2.50 | 7.62 | 4.00 |  |  |
| *Cryptotis cavatorculus* | SF |  | 8.35 | 4.34 | 4.18 | 1.04 | 2.50 | 7.88 | 3.79 | 8.08 | 1.24 |
| *Cryptotis celaque* | SF | 8.84 | 7.89 | 3.99 | 3.54 | 0.99 | 2.29 | 7.38 | 3.61 | 8.42 | 1.18 |
| *Cryptotis mam* | SF | 8.83 | 7.81 | 4.02 | 3.60 | 1.02 | 2.37 | 7.37 | 3.78 | 8.32 | 1.32 |
| *Cryptotis magnimanus* | SF |  | 8.27 | 4.50 | 3.55 | 1.07 | 2.32 | 7.86 | 3.92 |  |  |
| *Cryptotis mccarthyi* | SF |  | 8.04 | 4.08 | 3.48 | 1.04 | 2.25 | 7.55 | 3.45 |  |  |
| *Congosorex phillipsorum* | SF | 8.09 | 7.82 | 3.31 | 3.88 | 0.88 | 1.49 | 7.66 | 2.98 |  |  |
| *Myosorex blarina* | SF | 9.81 | 9.80 | 3.83 | 4.93 | 0.88 | 1.82 | 9.61 | 3.99 | 9.45 | 1.44 |
| *Myosorex varius* | SF | 9.39 | 9.50 | 3.32 | 4.52 | 0.97 | 1.62 | 9.20 | 3.96 | 9.78 | 1.26 |
| *Myosorex zinki* | SF | 10.53 | 9.78 | 4.62 | 4.60 | 1.25 | 1.77 | 9.76 | 4.06 |  |  |
| *Cryptotis lacertosus* | SF | 10.87 | 8.83 | 5.09 | 3.87 | 1.32 | 2.70 | 8.17 | 4.15 | 9.01 | 1.54 |
| *Cryptotis oreoryctes* | SF | 9.63 | 8.29 | 4.46 | 3.66 | 1.11 | 2.63 | 7.78 | 3.96 | 8.60 | 1.31 |
| *Surdisorex norae* | F | 12.08 | 10.08 | 6.01 | 6.30 | 1.75 | 3.46 | 9.95 | 5.07 | 10.43 | 1.81 |
| *Surdisorex polulus* | F | 11.38 | 10.07 | 5.81 | 6.22 | 1.68 | 3.70 | 9.56 | 5.30 |  |  |
| *Cryptotis gracilis* | UN | 7.52 | 7.07 | 3.10 | 3.23 | 0.77 | 1.40 | 6.73 | 3.06 |  |  |
| *Cryptotis endersi* | UN | 8.22 | 8.59 | 3.57 | 3.61 | 0.77 | 1.67 | 8.33 | 3.42 |  |  |
| *Cryptotis meridensis* | UN | 8.22 | 8.44 | 3.38 | 3.70 | 0.86 | 1.49 | 8.04 | 3.58 | 8.73 | 1.21 |
| *Cryptotis monteverdensis* | UN |  | 8.33 | 3.58 | 3.61 | 0.82 | 1.45 | 7.95 | 3.63 |  |  |
| *Cryptotis thomasi* | UN | 8.93 | 8.83 |  | 3.85 | 0.95 | 1.92 | 8.04 | 3.57 |  |  |
| **Number of species** |  | 40 | 48 | 47 | 48 | 48 | 48 | 48 | 48 | 28 | 28 |

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **ID** | **Mode** | **UL** | **UFL** | **UOP** | **UPC** | **ULD** | **FL** | **FDW** | **FLD** | **TL** | **TDA** | **TDW** | **3MW** |
| *C. himalayaca* | SA |  |  |  |  |  |  |  |  |  |  |  | 0.46 |
| *N. elegans* | SA | 18.10 | 13.00 | 3.15 | 3.37 | 0.67 | 13.37 | 4.70 | 1.55 | 24.35 | 1.84 | 3.58 | 0.49 |
| *N. fodiens* | SA | 12.31 | 9.29 | 1.95 | 2.12 | 0.46 | 10.29 | 2.64 | 0.92 | 17.56 | 1.11 | 2.41 | 0.36 |
| *S. albibarbis* | SA | 12.16 | 9.35 | 1.81 | 2.39 | 0.47 | 9.46 | 2.69 | 0.93 | 17.38 | 0.92 | 2.22 | 0.32 |
| *S. bendirii* | SA | 13.89 | 10.33 | 2.35 | 2.86 | 0.63 | 10.83 | 3.02 | 1.10 | 19.24 | 1.34 | 2.57 | 0.36 |
| *S. navigator* | SA | 12.42 | 9.43 | 1.99 | 2.39 | 0.51 | 9.60 | 2.77 | 0.97 | 17.79 | 1.15 | 2.35 | 0.33 |
| *S. palustris* | SA | 8.39 | 7.08 | 1.48 | 2.09 | 0.49 | 7.76 | 2.25 | 1.25 | 11.87 | 2.94 | 1.64 | 0.35 |
| *S. cinereus* | Am | 8.24 | 6.25 | 1.23 | 1.45 | 0.32 | 6.72 | 1.65 | 0.61 | 11.92 | 0.82 | 1.49 | 0.19 |
| *S. hoyi* | Am | 6.88 | 5.21 | 1.06 | 1.29 | 0.26 | 5.79 | 1.48 | 0.43 | 9.81 | 0.66 | 1.23 | 0.17 |
| *S. sonomae* | Am | 11.56 | 8.64 | 1.76 | 2.28 | 0.48 | 9.14 | 2.46 | 0.83 | 16.02 | 1.08 | 2.11 | 0.35 |
| *Su. hututsi* | Am |  |  |  |  |  |  |  |  |  |  |  | 0.40 |
| *C. parvus* | Am | 8.26 | 6.16 | 1.10 | 1.45 | 0.35 | 7.22 | 1.64 | 0.59 | 10.48 | 0.58 | 1.41 | 0.21 |
| *C. tropicalis* | Am | 9.23 | 7.06 | 1.23 | 1.69 | 0.42 | 7.84 | 1.64 | 0.62 | 11.57 | 0.68 | 1.57 | 0.25 |
| *C. merriami* | Am | 9.63 | 7.04 | 1.41 | 1.89 | 0.47 | 8.47 | 1.85 | 0.83 | 12.08 | 0.71 | 1.64 | 0.24 |
| *C. merus* | Am |  |  |  |  |  | 8.55 | 1.88 | 0.78 | 11.86 | 0.75 | 1.83 | 0.27 |
| *C. nigrescens* | Am | 9.23 | 6.78 | 1.37 | 1.93 | 0.48 | 8.59 | 1.90 | 0.81 | 11.72 | 0.74 | 1.60 | 0.31 |
| *Bl. quadricaudata* | Am | 10.35 | 7.77 | 1.68 | 1.86 | 0.46 | 7.84 | 2.00 | 0.76 | 12.49 | 0.89 | 1.85 | 0.30 |
| *Cr. olivieri* | Am |  |  |  |  |  | 13.87 | 2.95 | 1.42 |  |  |  |  |
| *Cr. religiosa* | Am |  |  |  |  |  | 6.33 | 1.31 | 0.57 |  |  |  |  |
| *Cr. suaveolens* | Am | 7.58 | 5.94 | 1.04 | 1.18 | 0.38 | 9.07 | 1.90 | 0.74 | 11.25 | 0.43 | 1.47 |  |
| *M. cafer* | Am |  |  |  |  |  | 11.09 | 2.35 | 0.93 |  |  |  | 0.43 |
| *M. geata* | Am |  |  |  |  |  | 9.88 | 2.30 | 0.98 |  |  |  | 0.41 |
| *M. kihaulei* | Am |  |  |  |  |  | 10.08 | 2.30 | 0.99 |  |  |  | 0.39 |
| *B. b. talpoides* | SF | 12.10 | 8.40 | 2.69 | 2.98 | 0.67 | 10.34 | 2.68 | 1.01 | 14.10 | 1.18 | 2.27 | 0.44 |
| *B. b. jerryrchoatei* | SF | 11.12 | 7.72 | 2.26 | 2.75 | 0.58 | 9.59 | 2.41 | 0.97 | 12.78 | 1.09 | 1.95 | 0.45 |
| *B. carolinensis* | SF | 9.95 | 7.17 | 1.99 | 2.18 | 0.52 | 8.59 | 2.19 | 0.80 | 11.79 | 0.59 | 1.73 | 0.30 |
| *B. hylophaga* | SF |  |  |  |  |  |  |  |  |  |  |  | 0.41 |
| *B. peninsulae* | SF | 10.33 | 7.34 | 2.12 | 2.34 | 0.56 |  |  |  | 11.77 | 0.88 | 1.98 | 0.36 |
| *B. shermani* | SF |  |  |  |  |  |  |  |  |  |  |  | 0.37 |
| *B. b. jknoxjonesi* | SF |  |  |  |  |  |  |  |  |  |  |  | 0.40 |
| *C. mexicanus* | SF |  |  |  |  |  |  |  |  |  |  |  | 0.37 |
| *C. phillipsii* | SF |  |  |  |  |  |  |  |  |  |  |  |  |
| *C. eckerlini* | SF | 9.03 | 5.83 | 2.43 | 2.80 | 0.67 | 9.14 | 2.53 | 0.90 |  |  |  | 0.47 |
| *C. matsoni* | SF |  |  |  |  |  | 9.67 | 2.59 | 0.93 |  |  |  |  |
| *C. cavatorculus* | SF | 11.63 | 8.17 | 2.32 | 2.77 | 0.55 |  |  |  |  |  |  | 0.52 |
| *C. celaque* | SF | 12.16 | 8.33 | 2.17 | 2.75 | 0.66 | 9.00 | 2.51 | 0.83 |  |  |  | 0.45 |
| *C. mam* | SF | 11.80 | 8.16 | 2.01 | 2.70 | 0.58 | 8.89 | 2.33 | 0.79 | 13.59 | 0.88 | 1.99 | 0.42 |
| *C. magnimanus* | SF |  |  |  |  |  |  |  |  |  |  |  |  |
| *C. mccarthyi* | SF |  |  |  |  |  |  |  |  |  |  |  | 0.47 |
| *Co. phillipsorum* | SF |  |  |  |  |  | 8.65 | 2.11 | 0.85 |  |  |  | 0.40 |
| *M. blarina* | SF | 13.08 | 9.54 | 2.30 | 2.97 | 0.77 | 11.05 | 2.64 | 1.08 | 15.68 | 1.04 | 2.28 | 0.50 |
| *M. varius* | SF | 12.84 | 9.84 | 1.89 | 2.94 | 0.53 | 11.08 | 2.41 | 0.98 | 16.46 | 0.96 | 2.11 | 0.48 |
| *M. zinki* | SF |  |  |  |  |  | 11.94 | 2.93 | 1.26 |  |  |  | 0.61 |
| *C. lacertosus* | SF | 13.31 | 8.83 | 2.46 | 3.57 | 0.80 | 9.58 | 2.73 | 0.94 | 14.08 | 1.07 | 2.22 | 0.53 |
| *C. oreoryctes* | SF | 12.34 | 8.23 | 2.39 | 3.01 | 0.61 | 9.91 | 2.66 | 0.93 | 15.40 | 1.07 | 2.16 | 0.47 |
| *Sur. norae* | F | 15.37 | 10.46 | 3.28 | 4.14 | 0.94 | 12.48 | 3.13 | 1.41 | 16.83 | 1.25 | 2.81 | 0.74 |
| *Sur. polulus* | F |  |  |  |  |  | 12.02 | 2.93 | 1.24 |  |  |  | 0.80 |
| *C. gracilis* | UN |  |  |  |  |  | 7.74 | 2.10 | 0.81 | 13.57 | 0.84 | 1.95 | 0.30 |
| *C. endersi* | UN |  |  | 1.76 | 2.30 | 0.56 | 9.53 | 2.59 | 0.89 |  |  |  |  |
| *C. meridensis* | UN | 11.83 | 8.56 | 1.81 | 2.23 | 0.54 | 9.38 | 2.34 | 0.84 | 15.52 | 0.92 | 2.08 | 0.36 |
| *C. monteverdensis* | UN |  |  |  |  |  |  |  |  |  |  |  |  |
| *C. thomasi* | UN |  |  |  |  |  | 9.84 | 2.31 | 0.95 |  |  |  | 0.38 |
| **No. of spp.** |  | 29 | 29 | 30 | 30 | 30 | 40 | 40 | 40 | 28 | 28 | 28 | 44 |

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **ID** | **Mode** | **3ML** | **3PPW** | **3PPL** | **3MPW** | **3MPL** | **3DPW** | **3DPL** | **3CW** | **3CL** | **3hMW** | **3hML** |
| *C. himalayaca* | SA | 4.69 | 0.42 | 2.85 | 0.34 | 1.53 | 0.46 | 1.39 | 0.29 | 2.14 | 0.60 | 8.37 |
| *N. elegans* | SA | 5.87 | 0.42 | 2.84 |  |  | 0.52 | 1.57 | 0.33 | 2.44 | 0.59 | 11.74 |
| *N. fodiens* | SA | 4.14 | 0.33 | 2.29 | 0.29 | 1.41 | 0.46 | 1.12 | 0.30 | 2.11 | 0.48 | 7.36 |
| *S. albibarbis* | SA | 3.63 | 0.30 | 2.02 | 0.27 | 1.22 | 0.38 | 0.98 | 0.23 | 1.82 | 0.42 | 7.11 |
| *S. bendirii* | SA | 3.84 | 0.36 | 2.03 | 0.33 | 1.23 | 0.47 | 1.18 | 0.29 | 2.33 | 0.44 | 7.28 |
| *S. navigator* | SA | 3.75 | 0.31 | 2.14 | 0.31 | 1.26 | 0.43 | 1.20 | 0.27 | 2.22 | 0.46 | 7.38 |
| *S. palustris* | SA | 3.90 | 0.33 | 2.03 | 0.31 | 1.24 | 0.43 | 1.08 | 0.26 | 2.17 | 0.45 | 7.07 |
| *S. cinereus* | Am | 2.31 | 0.18 | 1.26 | 0.17 | 0.81 | 0.26 | 0.62 | 0.14 | 1.19 | 0.26 | 4.28 |
| *S. hoyi* | Am | 2.03 | 0.16 | 1.12 | 0.15 | 0.78 | 0.23 | 0.58 | 0.12 | 1.18 | 0.22 | 3.29 |
| *S. sonomae* | Am | 3.48 | 0.32 | 1.93 | 0.30 | 1.30 | 0.44 | 1.15 | 0.26 | 2.32 | 0.42 | 5.89 |
| *Su. hututsi* | Am | 4.13 | 0.35 | 2.25 | 0.31 | 1.30 | 0.40 | 0.78 | 0.25 | 1.46 | 0.50 | 5.99 |
| *C. parvus* | Am | 2.25 | 0.21 | 1.21 | 0.20 | 0.85 | 0.31 | 0.67 | 0.17 | 1.51 | 0.23 | 3.35 |
| *C. tropicalis* | Am | 2.48 | 0.24 | 1.48 | 0.21 | 0.95 | 0.26 | 0.63 | 0.17 | 1.48 | 0.29 | 3.74 |
| *C. merriami* | Am | 2.50 | 0.28 | 1.54 | 0.26 | 0.92 | 0.35 | 0.75 | 0.26 | 1.43 | 0.39 | 3.70 |
| *C. merus* | Am | 2.75 | 0.27 | 1.57 | 0.24 | 0.96 | 0.22 | 0.71 | 0.26 | 1.57 | 0.42 | 3.88 |
| *C. nigrescens* | Am | 2.70 | 0.27 | 1.60 | 0.27 | 0.94 | 0.40 | 0.82 | 0.21 | 1.62 | 0.40 | 3.70 |
| *Bl. quadricaudata* | Am | 2.76 | 0.25 | 1.65 | 0.25 | 1.21 | 0.35 | 1.10 | 0.24 | 2.18 | 0.33 | 3.89 |
| *Cr. olivieri* | Am |  |  |  |  |  |  |  |  |  |  |  |
| *Cr. religiosa* | Am |  |  |  |  |  |  |  |  |  |  |  |
| *Cr. suaveolens* | Am |  |  |  |  |  |  |  |  |  |  |  |
| *M. cafer* | Am | 3.81 | 0.37 | 2.08 | 0.34 | 1.38 | 0.52 | 1.35 | 0.32 | 2.64 | 0.51 | 5.36 |
| *M. geata* | Am | 3.29 | 0.38 | 1.76 | 0.38 | 1.19 | 0.48 | 1.31 | 0.32 | 2.63 | 0.50 | 4.56 |
| *M. kihaulei* | Am | 3.30 | 0.37 | 1.73 | 0.36 | 1.18 | 0.49 | 1.41 | 0.39 | 2.87 | 0.51 | 4.73 |
| *B. b. talpoides* | SF | 3.18 | 0.39 | 1.73 | 0.39 | 1.10 | 0.54 | 1.37 | 0.40 | 2.61 | 0.49 | 4.29 |
| *B. b. jerryrchoatei* | SF | 3.14 | 0.44 | 1.76 | 0.42 | 1.00 | 0.51 | 1.33 | 0.41 | 2.43 | 0.47 | 4.31 |
| *B. carolinensis* | SF | 2.25 | 0.30 | 1.38 | 0.28 | 0.83 | 0.41 | 1.05 | 0.32 | 2.00 | 0.36 | 3.49 |
| *B. hylophaga* | SF | 2.87 | 0.37 | 1.66 | 0.36 | 1.01 | 0.48 | 1.32 | 0.37 | 2.51 | 0.46 | 4.16 |
| *B. peninsulae* | SF | 2.85 | 0.31 | 1.64 | 0.32 | 0.98 | 0.42 | 1.23 | 0.36 | 2.41 | 0.40 | 4.06 |
| *B. shermani* | SF | 2.82 | 0.38 | 1.66 | 0.38 | 1.13 | 0.47 | 1.19 | 0.35 | 2.47 | 0.42 | 4.23 |
| *B. b. jknoxjonesi* | SF | 3.03 | 0.40 | 1.68 | 0.39 | 1.00 | 0.51 | 1.31 | 0.41 | 2.65 | 0.60 | 4.20 |
| *C. mexicanus* | SF | 2.57 | 0.35 | 1.47 | 0.35 | 0.83 | 0.25 | 1.28 |  | 2.32 |  |  |
| *C. phillipsii* | SF |  |  |  |  |  |  |  |  |  |  |  |
| *C. eckerlini* | SF | 2.53 | 0.47 | 1.53 | 0.45 | 1.11 | 0.60 | 1.78 | 0.45 | 3.25 | 0.48 | 4.13 |
| *C. matsoni* | SF | 2.63 | 0.47 | 1.35 | 0.51 | 1.12 | 0.64 | 1.72 | 0.49 | 3.04 | 0.41 | 4.42 |
| *C. cavatorculus* | SF | 2.74 | 0.49 | 1.63 | 0.53 | 0.91 | 0.74 | 1.93 | 0.52 | 3.18 | 0.53 | 3.98 |
| *C. celaque* | SF | 2.70 | 0.44 | 1.49 | 0.45 | 0.78 | 0.56 | 1.66 | 0.43 | 2.90 | 0.46 | 3.98 |
| *C. mam* | SF | 2.56 | 0.43 | 1.54 | 0.44 | 0.93 | 0.61 | 1.74 | 0.46 | 3.13 | 0.45 | 3.97 |
| *C. magnimanus* | SF |  |  |  |  |  |  |  |  |  |  |  |
| *C. mccarthyi* | SF | 2.44 | 0.46 | 1.43 | 0.49 | 0.79 | 0.61 | 1.64 | 0.44 | 2.88 | 0.49 | 3.78 |
| *Co. phillipsorum* | SF | 3.03 | 0.35 | 1.68 | 0.35 | 0.95 | 0.48 | 1.32 | 0.37 | 2.22 | 0.47 | 3.99 |
| *M. blarina* | SF | 3.41 | 0.54 | 1.71 | 0.46 | 1.15 | 0.60 | 1.77 | 0.43 | 3.59 | 0.57 | 4.44 |
| *M. varius* | SF | 3.37 | 0.46 | 1.76 | 0.42 | 1.22 | 0.58 | 1.71 | 0.45 | 3.30 | 0.52 | 4.86 |
| *M. zinki* | SF | 3.79 | 0.66 | 1.94 | 0.61 | 1.31 | 0.73 | 2.04 | 0.67 | 4.26 | 0.57 | 5.05 |
| *C. lacertosus* | SF | 2.63 | 0.55 | 1.54 | 0.52 | 1.02 | 0.70 | 1.87 | 0.50 | 3.25 | 0.49 | 3.95 |
| *C. oreoryctes* | SF | 2.72 | 0.50 | 1.56 | 0.50 | 0.95 | 0.66 | 1.91 | 0.49 | 3.35 | 0.50 | 4.35 |
| *Sur. norae* | F | 3.76 | 0.82 | 1.87 | 0.84 | 1.28 | 1.08 | 3.19 | 0.71 | 5.35 | 0.75 | 5.28 |
| *Sur. polulus* | F | 4.01 | 0.83 | 1.97 | 0.89 | 1.38 | 1.16 | 3.34 | 0.75 | 5.62 | 0.66 | 5.07 |
| *C. gracilis* | UN | 2.56 | 0.29 | 1.49 | 0.28 | 0.84 | 0.41 | 1.01 | 0.27 | 2.01 | 0.41 | 4.06 |
| *C. endersi* | UN |  |  |  | 0.31 | 0.97 | 0.42 | 1.08 | 0.28 | 2.40 | 0.43 | 4.53 |
| *C. meridensis* | UN | 3.30 | 0.36 | 1.54 | 0.34 | 1.05 |  | 1.09 |  | 2.17 |  |  |
| *C. monteverdensis* | UN |  |  |  |  |  |  |  |  |  |  |  |
| *C. thomasi* | UN | 3.11 | 0.38 | 1.61 | 0.36 | 0.97 | 0.52 | 1.10 | 0.31 | 2.26 | 0.45 | 4.43 |
| **No. of spp.** |  | 45 | 45 | 45 | 45 | 45 | 45 | 46 | 44 | 46 | 44 | 44 |

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **ID** | **Mode** | **3hPPW** | **3hPPL** | **3hMPW** | **3hMPL** | **3hDPW** | **3hDPL** | **3hCW** | **3hCL** |
| *C. himalayaca* | SA | 0.46 | 3.65 | 0.40 | 2.17 | 0.54 | 1.50 | 0.31 | 2.43 |
| *N. elegans* | SA | 0.54 | 3.82 |  | 2.06 |  | 1.76 |  | 2.87 |
| *N. fodiens* | SA | 0.38 | 2.75 | 0.32 | 1.53 | 0.51 | 1.30 | 0.30 | 2.47 |
| *S. albibarbis* | SA | 0.34 | 2.73 | 0.28 | 1.42 | 0.43 | 1.15 | 0.26 | 2.17 |
| *S. bendirii* | SA | 0.38 | 2.74 | 0.33 | 1.52 | 0.54 | 1.36 | 0.28 | 2.64 |
| *S. navigator* | SA | 0.37 | 3.01 | 0.32 | 1.65 | 0.52 | 1.34 | 0.25 | 2.48 |
| *S. palustris* | SA | 0.36 | 2.71 | 0.33 | 1.42 | 0.48 | 1.23 | 0.29 | 2.40 |
| *S. cinereus* | Am | 0.22 | 1.71 | 0.18 | 1.01 | 0.31 | 0.79 | 0.19 | 1.39 |
| *S. hoyi* | Am | 0.18 | 1.48 | 0.15 | 0.91 | 0.15 | 0.65 | 0.15 | 1.15 |
| *S. sonomae* | Am | 0.34 | 2.46 | 0.28 | 1.45 | 0.43 | 1.17 | 0.25 | 2.35 |
| *Su. hututsi* | Am | 0.39 | 2.42 | 0.36 | 1.23 | 0.53 | 1.06 |  | 1.80 |
| *C. parvus* | Am | 0.21 | 1.43 | 0.18 | 0.82 | 0.27 | 0.71 | 0.20 | 1.44 |
| *C. tropicalis* | Am | 0.23 | 1.58 | 0.20 | 0.77 | 0.29 | 0.78 | 0.26 | 1.42 |
| *C. merriami* | Am | 0.29 | 1.78 | 0.25 | 0.97 | 0.34 | 0.75 | 0.25 | 1.49 |
| *C. merus* | Am | 0.26 | 1.71 | 0.28 | 0.90 | 0.39 | 0.76 | 0.27 | 1.60 |
| *C. nigrescens* | Am | 0.27 | 1.78 | 0.27 | 0.96 | 0.38 | 0.93 | 0.23 | 1.69 |
| *Bl. quadricaudata* | Am | 0.26 | 1.79 | 0.21 | 1.22 | 0.36 | 1.04 | 0.23 | 2.02 |
| *Cr. olivieri* | Am |  |  |  |  |  |  |  |  |
| *Cr. religiosa* | Am |  |  |  |  |  |  |  |  |
| *Cr. suaveolens* | Am |  |  |  |  |  |  |  |  |
| *M. cafer* | Am | 0.37 | 2.24 | 0.35 | 1.30 | 0.53 | 1.35 | 0.29 | 2.32 |
| *M. geata* | Am | 0.39 | 1.76 | 0.40 | 1.04 | 0.51 | 1.41 | 0.32 | 2.27 |
| *M. kihaulei* | Am | 0.38 | 1.82 | 0.37 | 1.07 | 0.52 | 1.45 | 0.30 | 2.46 |
| *B. b. talpoides* | SF | 0.39 | 1.84 | 0.36 | 1.02 | 0.47 | 1.21 | 0.30 | 2.01 |
| *B. b. jerryrchoatei* | SF | 0.39 | 1.89 | 0.33 | 1.14 | 0.45 | 1.24 | 0.29 | 1.95 |
| *B. carolinensis* | SF | 0.28 | 1.58 | 0.26 | 0.86 | 0.33 | 0.94 | 0.23 | 1.58 |
| *B. hylophaga* | SF | 0.34 | 1.88 | 0.30 | 1.04 | 0.43 | 1.20 | 0.26 | 2.06 |
| *B. peninsulae* | SF | 0.29 | 1.82 | 0.27 | 1.01 | 0.38 | 1.05 | 0.25 | 1.77 |
| *B. shermani* | SF | 0.35 | 1.86 | 0.35 | 1.15 | 0.42 | 1.13 | 0.29 | 2.04 |
| *B. b. jknoxjonesi* | SF | 0.31 | 1.83 | 0.35 | 0.98 | 0.47 | 1.07 | 0.40 | 1.76 |
| *C. mexicanus* | SF |  |  |  |  |  |  |  |  |
| *C. phillipsii* | SF |  |  |  |  |  |  |  |  |
| *C. eckerlini* | SF | 0.31 | 1.67 | 0.33 | 0.99 | 0.47 | 1.27 | 0.32 | 2.26 |
| *C. matsoni* | SF |  | 1.71 | 0.31 | 1.00 | 0.50 | 1.43 |  | 2.19 |
| *C. cavatorculus* | SF | 0.35 | 1.74 | 0.36 | 0.97 | 0.53 | 1.44 | 0.41 | 2.08 |
| *C. celaque* | SF | 0.34 | 1.79 | 0.36 | 0.82 | 0.48 | 1.35 | 0.31 | 2.05 |
| *C. mam* | SF | 0.31 | 1.66 | 0.33 | 0.90 | 0.47 | 1.31 | 0.31 | 2.33 |
| *C. magnimanus* | SF |  |  |  |  |  |  |  |  |
| *C. mccarthyi* | SF | 0.34 | 1.70 | 0.37 | 0.85 | 0.50 | 1.41 | 0.30 | 2.33 |
| *Co. phillipsorum* | SF | 0.32 | 1.63 | 0.33 | 0.90 | 0.47 | 1.17 | 0.30 | 2.08 |
| *M. blarina* | SF | 0.45 | 1.73 | 0.44 | 1.06 | 0.59 | 1.66 | 0.36 | 2.81 |
| *M. varius* | SF | 0.42 | 1.87 | 0.39 | 1.09 | 0.54 | 1.57 | 0.32 | 2.63 |
| *M. zinki* | SF | 0.48 | 1.95 | 0.49 | 1.20 | 0.64 | 1.69 | 0.37 | 2.80 |
| *C. lacertosus* | SF | 0.37 | 1.66 | 0.37 | 0.96 | 0.53 | 1.49 | 0.35 | 2.48 |
| *C. oreoryctes* | SF | 0.36 | 1.75 | 0.38 | 0.94 | 0.54 | 1.50 | 0.33 | 2.42 |
| *Sur. norae* | F | 0.59 | 2.04 | 0.61 | 1.09 | 0.84 | 2.24 | 0.41 | 3.22 |
| *Sur. polulus* | F | 0.51 | 2.02 | 0.53 | 1.14 | 0.78 | 2.07 | 0.37 | 3.23 |
| *C. gracilis* | UN | 0.30 | 1.80 | 0.30 | 1.01 | 0.42 | 1.09 | 0.29 | 1.91 |
| *C. endersi* | UN | 0.32 | 2.04 | 0.33 | 1.17 | 0.48 | 0.92 | 0.24 | 1.66 |
| *C. meridensis* | UN |  | 1.81 | 0.33 | 1.08 | 0.49 | 1.27 | 0.28 | 1.96 |
| *C. monteverdensis* | UN |  |  |  |  |  |  |  |  |
| *C. thomasi* | UN | 0.34 | 1.77 | 0.32 | 1.02 | 0.47 | 1.11 | 0.31 | 2.00 |
| **No. of spp.** |  | 43 | 45 | 44 | 45 | 44 | 45 | 42 | 45 |

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Supplementary Figure 1. Evaluation of 34 individual locomotor indices using box-and-whisker plots of mean indices for each group. *A priori* groupings are semi-aquatic, ambulatory, semi-fossorial, and *Surdisorex*, which represents the extreme of fossorial adaptations in soricids. *Cryptotis gracilis* and the *Cryptotis thomasi* group are included as unknowns. Cross represents the mean; shaded box is the standard deviation; and the lines show the range of distribution. Abbreviations of indices are explained in the text.

a. IM

Chart, box and whisker chart

Description automatically generated

b. HFI

Chart, bar chart

Description automatically generated

c. FOOT

Chart, box and whisker chart

Description automatically generated

d. CLAW

Chart, box and whisker chart

Description automatically generated

e. CLI

Chart, box and whisker chart

Description automatically generated

f. SHI

Chart, box and whisker chart

Description automatically generated

g. BI

Chart, box and whisker chart

Description automatically generated

h. SMI

Chart, box and whisker chart

Description automatically generated

i. HRI

Chart, box and whisker chart

Description automatically generated

j. HTI

Chart, box and whisker chart

Description automatically generated

k. TTP

Chart, box and whisker chart

Description automatically generated

l. HEB

Chart, box and whisker chart

Description automatically generated

m. RDW

Chart, box and whisker chart

Description automatically generated

n. OLI

Chart, box and whisker chart

Description automatically generated

o. TMO

Chart, box and whisker chart

Description automatically generated

p. TCO

Chart, box and whisker chart

Description automatically generated

q. OCI

Chart, box and whisker chart

Description automatically generated

r. URI

Chart, box and whisker chart

Description automatically generated

s. %DPL

Chart, box and whisker chart

Description automatically generated

t. %CL

Chart, box and whisker chart

Description automatically generated

u. %CLS

Chart

Description automatically generated

v. MW3

Chart, box and whisker chart

Description automatically generated

w. PI

Chart, bar chart, box and whisker chart

Description automatically generated

x. MANUS

Chart, box and whisker chart

Description automatically generated

y. CI

Chart

Description automatically generated

z. PES

Chart

Description automatically generated

α. FRI

Chart, bar chart, box and whisker chart

Description automatically generated

β. FEB

Chart, box and whisker chart

Description automatically generated

γ. DTA

Chart

Description automatically generated

δ. %hDPL

Chart, box and whisker chart

Description automatically generated

ε. %hCL

Chart, box and whisker chart

Description automatically generated

ζ. %hCLS

Chart, box and whisker chart

Description automatically generated

η. %TAIL

Chart, box and whisker chart

Description automatically generated

θ. RR

Chart, box and whisker chart

Description automatically generated