Figure 3-source data 1 : Data on dependent and independent factors used in models 1. Protandry was used as the dependent factor and Body mass change during mating, late mating, body mass male, strategy fatstoring or foodstoring, minimum temperature, precipitation and dimorphism of body mass at emergence were considered as independent factors. Protandry was calculated as follows: Female Julian date – male Julian date. The exact hibernation phenology data for *Cricetus cricetus* have been confirmed by the authors. See materials and methods for the acquisition of minimum temperature data.

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| species | Late mating | Food/  Fat | protandry | Body mass change during mating | Body mass male | Dimorphism body mass emergence | precipitation | Min temperature |
| Callospermophilus lateralis | 11 | Fat | 211 | -11,1262 | 1732 | 1,262 | 411 | -7 |
| Callospermophilus saturatus | 13 | Food | 43 | -6,383 | 2483 | 1,453 | 863 | -7,3 |
| Chaetodipus formosus | 44 | Food | 144 | 0,84 | 18,64 | 1,124 | 863 | -7,3 |
| Cricetus cricetus | 2,55,6 | Food | 207 | -5,68 | 400,98 | 1,586,8 | 595 | -2,7 |
| Cynomys leucurus | 19 | Fat | 219,10 | -21,619 | 829,49 | 1,699 | 337 | -11,5 |
| Erinaceus europaeus | 111,12 | Fat | 17,612,13 | -12,512,13 | 1028,6712,13 | 1,3212,13 | 803 | -5,3 |
| Glis glis | 114 | Fat | 3015 | -8,614 | 105,514 | 1,114 | 758 | -2,5 |
| Ictidomys parvidens | 616 | Fat | 7,516 | -10,516 | 19216 | 1,2716 | 347 | -2,4 |
| Marmota monax | 117 | Fat | 2218 | -6,217 | 270117 | 1,0317 | 1156 | -11,5 |
| Microcebus murinus | 119 | Fat | 4819 | -20,720 | 6220 | 1,0220 | 922 | 14,6 |
| Perognathus longimembris | 44 | Food | 1421 | 3,221 | 721 | 1,0621 | 863 | -7,3 |
| Poliocitellus franklinii | 122,23 | Fat | 1122,23 | -2,6222,23 | 417,122,23 | 1,2722,23 | 517 | -21,1 |
| Spermophilus citellus | 124 | Fat | 2325 | -9,825 | 316,2625 | 1,6825 | 556 | -2,5 |
| Spermophilus xanthoprymnus | 124 | Fat | 7,524 | -11,6224 | 29224 | 1,6924 | 407 | -5,2 |
| Tachyglossus aculeatus | 126 | Fat | 4526 | -12,727 | 395027 | 1,0627 | 625 | 3,6 |
| Tamias amoenus | 121 | Food | 10,521 | -5,421 | 42,321 | 0,9121 | 846 | -7,3 |
| Tamias sibiricus | 128 | Food | 2028 | 1,529 | 90,629 | 0,9629 | 942 | -9,4 |
| Urocitellus armatus | 124 | Fat | 3,6630 | 6,8230 | 333,730 | 1,2530 | 402 | -13 |
| Urocitellus beldingi | 124 | Fat | 931 | -0,431 | 240,131 | 1,1431 | 568 | -12,4 |
| Urocitellus brunneus | 132 | Fat | 932 | -6,5733 | 17533 | 1,4433 | 610 | -11 |
| Urocitellus columbianus | 124 | Fat | 734 | -0,434 | 43034 | 1,1834 | 346 | -17,5 |
| Urocitellus elegans | 135 | Fat | 17,335 | -3,835 | 249,335 | 1,3735 | 281 | -16,6 |
| Urocitellus mollis | 136 | Fat | 1536 | 4,1737 | 18137 | 1,4937 | 248 | -5,4 |
| Urocitellus parryii | 124 | Food | 1438 | -21,639 | 94139 | 1,5839 | 237 | -30,2 |
| Urocitellus richardsonii | 124 | Food | 1640–43 | -1041,43 | 392,541,43 | 1,741,43 | 371,5 | -14,4 |
| Xerospermophilus tereticaudus | 444 | Fat | 5,344 | 4,244 | 14244 | 1,2744 | 250 | 2,4 |
| Zapus hudsonius | 145 | Fat | 1438 | -2,6745 | 1745 | 1,0245 | 837 | -8,5 |
| Zapus princeps | 146 | Fat | 10,3346 | -7,9147 | 22,4847 | 0,9547 | 570 | -14,1 |

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