

**Supplementary Table S1.** Stable isotope values and elemental concentrations for Asian black bear foods from Ashio–Nikko Mountains

Food items	Parts	Season	$n-\delta$	$\delta^{15}\text{N}$ (‰)	$\delta^{13}\text{C}$ (‰)	$n-\%$	%N	%C
<b>Ants</b>								
<i>Lasius flavus</i>	Ants	Re	42	0.6 ± 4.1	-20.7 ± 4.1	3	6.56 ± 0.02	55.28 ± 0.31
<i>L. japonicus</i>	Ants	Re	27	1.2 ± 3.0	-20.1 ± 3.0	3	7.18 ± 0.04	53.72 ± 0.18
<i>Tetramorium tsushimae</i>	Ants	Re	41	1.0 ± 1.5	-16.8 ± 1.5	3	9.23 ± 0.02	53.69 ± 0.22
<b>C3 plants</b>								
<i>Quercus crispula</i>	Leaves	Re	3	-1.7 ± 1.1	-26.9 ± 0.5	21	3.06 ± 0.57	48.22 ± 0.87
<i>Malus toringo</i>	Leaves	Re	3	-3.2 ± 0.7	-29.2 ± 0.6	12	1.86 ± 0.23	46.78 ± 0.40
<i>Salix caprea</i>	Leaves	Re	6	-1.4 ± 0.9	-25.5 ± 1.9	12	4.54 ± 0.54	43.69 ± 2.57
<i>Rubus phoenicolasius</i>	Soft mast	Re	6	-3.5 ± 0.6	-28.3 ± 0.3	-	-	-
<i>Cerasus jamasakura</i>	Soft mast	Re	4	-0.8 ± 0.1	-26.4 ± 0.5	4	1.09 ± 0.07	40.27 ± 0.10
<i>Prunus grayana</i>	Soft mast	Re, Hy	6	-4.6 ± 0.2	-30.7 ± 0.5	-	-	-
<i>Swida controversa</i>	Soft mast	Re, Hy	5	-2.9 ± 0.4	-31.6 ± 2.0	4	1.18 ± 0.08	58.57 ± 0.59
<i>Actinidia arguta</i>	Soft mast	Hy	4	-1.1 ± 1.1	-29.0 ± 1.0	3	1.44 ± 0.43	47.41 ± 4.29
<i>Vitis coignetiae</i>	Soft mast	Hy	6	-5.6 ± 0.4	-27.4 ± 2.3	2	0.65 ± 0.36	40.52 ± 0.13
<i>Q. crispula</i>	Hard mast	Hy	5	-3.3 ± 0.3	-23.8 ± 2.0	3	0.92 ± 0.29	44.05 ± 0.57
<i>Fagus crenata</i>	Hard mast	Hy	6	-2.7 ± 0.2	-27.7 ± 1.0	2	0.69 ± 0.01	48.59 ± 0.06
<i>Q. serrata</i>	Hard mast	Hy	5	-1.8 ± 1.4	-27.1 ± 2.6	4	0.87 ± 0.15	45.30 ± 0.59
<b>Animal materials</b>								
<i>Cervus nippon</i>	Meat	Re, Hy	5	1.7 ± 0.6	-26.3 ± 0.7	2	13.97 ± 0.03	44.79 ± 0.04
<i>Atachycines apicalis</i>	Adult	Hy	6	3.4 ± 0.7	-26.8 ± 0.2	-	-	-
<i>Vespula flaviceps</i>	Adult	Hy	6	3.2 ± 0.7	-26.1 ± 0.4	6	10.55 ± 1.52	48.76 ± 0.81
<i>V. flaviceps</i>	Pupa wasp	Hy	6	2.5 ± 0.3	-26.6 ± 0.2	-	-	-

Abbreviations: Re, reproductive season; Hy, hyperphagia season