

S1 Table – Ecological and demographic differences

Species	Body mass^a	Habitat^[1]	Mating system	Reproductive output	Age at maturity	Population structure
Collared Pika	114-135 g	alpine talus	polygynandry ^[3]	1 litter per year ^[9] ; 2 to 4 young per litter ^[9]	1 year ^[11]	relatively stable metapopulation ^[11]
Hoary Marmot	3.7-5.6 kg	alpine meadow	monogamy, polygamy ^[4,5]	0.5 to 1 litter per year ^[4,5] ; 2 to 5 young per litter ^[4,5]	3+ years ^[4]	metapopulation or source-sink
Singing Vole	15-35 g	alpine or arctic tundra	promiscuous ^[6]	> 1 litter per year ^[10] ; 6 to 8 young per litter ^a	<1 year ^[10]	variable colonies (10x amplitude) ^[6]
Brown Lemming	26-42 g	alpine, arctic, & maritime tundra	promiscuous ^[7]	> 1 litter per year; active in winter ^[7] ; 4 to 6 young per litter ^a	<1 year ^[7]	50 – 125x high amplitude cycles ^[10,12]
Arctic Ground Squirrel	250-621 g	alpine & arctic tundra; boreal forest ^[2]	promiscuous ^[8]	1 litter per year ^[8] ; 6 to 8 young per litter ^[2]	1 year ^[2]	source-sink dynamics ^[2]

^a.From 1st to 3rd quartiles based on University of Alaska Museum specimen records