



**Fig. S1 (a)** Relative abundance of gut bacteria at the phylum level. **(b)** Relative abundance of gut bacteria at the genus level. "Others" include genus that were less than 0.5% of the total abundance and less than 5% in all samples. The mtDNA shows the mitochondrial lineage of each koala (N2, northern 2; C, central; S, southern). The Management shows the management group of each koala.