

## Supplementary Table S9. Model Choice

Model choice was guided by Modeltest. The choice suggested by Modeltest is shown, but as that model was often not available in the software that was used to do the analysis the model that was actually used is also shown. The AIC weights are shown in parentheses; these are often low, indicating ambiguity in the model choice.

Table S9A. For model choice for DNA with the outgroup, with *An kompi*, all three outgroup sequences were included.

	modeltest	used
white143_1	TVM (0.094)	HKY (0.091)
white143_2	K80 (0.19)	K80 (0.19)
white143_3	TVM+G (0.40)	GTR+G (0.19)
cad143_1	TIM+G (0.28)	GTR+G (0.05)
cad143_2	F81 (0.17)	F81 (0.17)
cad143_3	TVM+G (0.23)	HKY+G (0.19)
coi143_1	TrN (0.26)	HKY (0.04)
coi143_3	GTR+G (0.70)	GTR+G (0.70)

Table S9B. For model choice for DNA, with the outgroup but without *An kompi*, two outgroup sequences were included.

gene	modeltest	used
white1	HKY (0.16)	HKY (0.16)
white2	TrNef (0.28)	K2P (0.03)
white3	TVM+G (0.35)	GTR+G (0.20)
cad1	TIM+G (0.32)	GTR+G (0.05)
cad2	F81 (0.15)	F81 (0.015)
cad3	TVM+G (0.23)	HKY+G (0.19)
coi1	TrN (0.20)	HKY (0.10)
coi3	GTR+G (0.69)	GTR+G (0.69)