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<https://doi.org/10.26879/1403>  
[palaeo-electronica.org/content/2024/5329-pliomys-lenki-ancient-dna](https://palaeo-electronica.org/content/2024/5329-pliomys-lenki-ancient-dna)

**APPENDIX 3.** Best partition schemes and substitution models for RAxML, MrBayes and BEAST analyses inferred using ModelFinder for both datasets [i.e., using consensus *Pliomys lenki* sequences generated using stringent (STR) and relaxed (REL) BWA mapping parameters].

**DATASET WITH STR *Pliomys***

RAxML		
Partition	Best Model	Subset Sites
1	GTR+G	ND1_1 CO2_1 ATP6_1 CO3_1 ND4L_1 CYTB_1
2	GTR+G	ND2_1 ATP8_1 ND3_1 ND4_1 ND5_1 ATP8_2
3	GTR+G	CO1_1
4	GTR+G	ND1_2 CO2_2 ATP6_2 CYTB_2
5	GTR+G	ND2_2 ND4L_2 ND4_2 ND5_2
6	GTR+G	CO1_2 CO3_2 ND3_2
7	GTR+G	ND1_3 ND2_3 ATP8_3 CO3_3 ND5_3 CYTB_3
8	GTR+G	CO1_3 CO2_3 ATP6_3 ND3_3 ND4L_3 ND4_3
9	GTR+G	ND6_1 ND6_2
10	GTR+G	ND6_3
11	GTR+G	12S 16S tRNAs

MrBayes		
Partition	Best Model	Subset Sites
1	GTR+I+G	ND1_1 CO2_1 ATP6_1 CO3_1 ND4L_1 CYTB_1
2	GTR+I+G	ND2_1 ATP8_1 ND3_1 ND4_1 ND5_1 ATP8_2
3	SYM+I+G	CO1_1
4	GTR+I+G	ND1_2 CO2_2 ATP6_2 CYTB_2
5	GTR+I+G	ND2_2 ND4L_2 ND4_2 ND5_2
6	GTR+I+G	CO1_2 CO3_2 ND3_2
7	GTR+I+G	ND1_3 ND2_3 ATP8_3 CO3_3 ND5_3 CYTB_3
8	GTR+I+G	CO1_3 CO2_3 ATP6_3 ND3_3 ND4L_3 ND4_3
9	GTR+I+G	ND6_1 ND6_2
10	GTR+G	ND6_3
11	GTR+I+G	12S 16S tRNAs

BEAST		
Partition	Best Model	Subset Sites
1	GTR+I+G	ND1_1 CO2_1 ATP6_1 CO3_1 ND4L_1 CYTB_1
2	GTR+I+G	ND2_1 ATP8_1 ND3_1 ND4_1 ND5_1
3	GTR+I+G	CO1_1
4	GTR+I+G	ND1_2 CO1_2 CO2_2 ATP6_2 CYTB_2
5	GTR+I+G	ND2_2 ND4L_2 ND4_2 ND5_2
6	GTR+I+G	ATP8_2 ND3_2 12S tRNAs
7	GTR+I+G	CO3_2 ND6_2
8	GTR+I+G	ND1_3 ND2_3 ATP6_3 ND3_3 ND4_3 ND5_3
9	GTR+I+G	CO1_3 CO2_3
10	GTR+I+G	ATP8_3 CO3_3 ND4L_3 CYTB_3
11	GTR+I+G	ND6_1
12	TN+G	ND6_3
13	GTR+I+G	16S

**DATASET WITH REL *Pliomys***

RAxML		
Partition	Best Model	Subset Sites
1	GTR+G	ND1_1 CO2_1 ATP6_1 CO3_1 ND4L_1 CYTB_1
2	GTR+G	ND2_1 ATP8_1 ND3_1 ND4_1 ND5_1 ATP8_2
3	GTR+G	CO1_1
4	GTR+G	ND1_2 CO2_2 ATP6_2 CYTB_2
5	GTR+G	ND2_2 ND4L_2 ND4_2 ND5_2
6	GTR+G	CO1_2 CO3_2 ND3_2
7	GTR+G	ND1_3 ND2_3 ATP6_3 ND3_3 ND4_3 ND5_3
8	GTR+G	CO1_3 CO2_3
9	GTR+G	ATP8_3 CO3_3 ND4L_3 CYTB_3
10	GTR+G	ND6_1 ND6_2
11	GTR+G	ND6_3
12	GTR+G	12S 16S tRNAs

MrBayes		
Partition	Best Model	Subset Sites
1	GTR+I+G	ND1_1 CO2_1 ATP6_1 CO3_1 ND4L_1 CYTB_1
2	GTR+I+G	ND2_1 ATP8_1 ND3_1 ND4_1 ND5_1 ATP8_2
3	SYM+I+G	CO1_1
4	GTR+I+G	ND1_2 CO2_2 ATP6_2 CYTB_2
5	GTR+I+G	ND2_2 ND4L_2 ND4_2 ND5_2
6	GTR+I+G	CO1_2 CO3_2 ND3_2
7	GTR+I+G	ND1_3 ND2_3 ATP8_3 ATP6_3 CO3_3 ND4L_3 ND5_3 CYTB_3
8	GTR+I+G	CO1_3 CO2_3 ND3_3 ND4_3
9	GTR+I+G	ND6_1 ND6_2
10	GTR+G	ND6_3
11	GTR+I+G	12S 16S tRNAs

BEAST		
Partition	Best Model	Subset Sites
1	GTR+I+G	ND1_1 CO2_1 ATP6_1 CO3_1 ND4L_1 CYTB_1
2	GTR+I+G	ND2_1 ATP8_1 ND3_1 ND4_1 ND5_1 ATP8_2
3	GTR+I+G	CO1_1
4	GTR+I+G	ND1_2 CO1_2 CO2_2 ATP6_2 CYTB_2
5	GTR+I+G	ND2_2 ND4L_2 ND4_2 ND5_2
6	GTR+I+G	CO3_2 ND3_2 ND6_2
7	GTR+I+G	ND1_3 ND2_3 ATP6_3 ND5_3
8	GTR+I+G	CO1_3 CO2_3 ND3_3 ND4_3
9	GTR+I+G	ATP8_3 CO3_3 ND4L_3 CYTB_3
10	GTR+I+G	ND6_1
11	TN+G	ND6_3
12	GTR+I+G	12S 16S tRNAs