

**Table S2.** Annotation of *Neelus murinus* mitogenome. Nucleotide composition is calculated on the coding strand; spacers and overlaps (positive and negative numbers, respectively) are calculated with respect to the following gene.

Gene	A%	C%	G%	T%	Length (bp)	Strand	Positions	Spacers/ overlaps	Star/Stop codons
<i>nad2</i>	33.3	21.6	7.5	37.5	1,000	J	1-1,000	0	ATG (Met) / T--
<i>trnW</i>	40.9	13.6	12.1	33.3	66	J	1,001-1,066	1	
<i>trnC</i>	33.3	9.8	15.7	41.2	51	N	1,118-1,068	-1	
<i>trnY</i>	35.6	11.9	16.9	35.6	59	N	1,176-1,118	0	ATG (Met) / TAA
<i>cox1</i>	27.5	25.0	15.8	31.8	1533	J	1,177-2,709	1	
<i>trnLuua</i>	34.9	11.1	14.3	39.7	63	J	2,711-2,773	0	
<i>cox2</i>	34.7	23.1	9.8	32.4	673	J	2,774-3,446	0	ATC (Ile) / T--
<i>trnK</i>	35.3	11.8	13.2	39.7	68	J	3,447-3,514	0	
<i>trnD</i>	41.0	8.2	11.5	39.3	61	J	3,518-3,578	3	
<i>atp8</i>	35.8	20.8	5.7	37.7	162	J	3,581-3,742	-7	ATT (Ile) / TAA
<i>atp6</i>	29.4	25.4	10.5	34.7	672	J	3,736-4,407	-46	ATG (Met) / TAA
<i>cox3</i>	29.6	25.1	13.7	31.7	837	J	4,362-5,198	1	ATA (Met) / TAA
<i>trnG</i>	32.3	16.1	9.7	41.9	62	J	5,200-5,261	0	
<i>nad3</i>	28.1	24.6	10.5	36.8	345	J	5,262-5,606	3	ATT (Ile) / TAA
<i>trnA</i>	43.5	8.1	11.3	37.1	62	J	5,610-5,671	4	
<i>trnR</i>	28.3	21.7	21.7	28.3	60	J	5,676-5,735	2	
<i>trnN</i>	26.7	16.7	21.7	35.0	60	J	5,732-5,791	0	
<i>trnSgcu</i>	33.3	25.0	16.7	25.0	60	J	5,792-5,851	0	
<i>trnE</i>	34.2	11.4	16.5	38.0	79	J	5,852-5,930	-16	
<i>trnF</i>	36.9	9.2	20.0	33.8	65	N	5,977-5,913	1	
<i>nad5</i>	22.9	10.8	24.9	41.4	1705	N	7,683-5,979	-2	ATT (Ile) / ---
<i>trnH</i>	37.5	6.3	20.3	35.9	64	N	7,745-7,682	-2	
<i>nad4</i>	22.1	9.7	25.8	42.4	1344	N	9,087-7,744	0	ATG (Met) / TAG
<i>nad4L</i>	21.5	8.4	25.9	44.2	274	N	9,361-9,088	2	ATG (Met) / ---
<i>trnT</i>	40.0	16.7	11.7	31.7	60	J	9,364-9,423	-1	
<i>trnP</i>	35.0	6.7	21.7	36.7	60	N	9,482-9,423	1	
<i>nad6</i>	29.2	25.5	8.7	36.6	486	J	9,484-9,969	0	ATT (Ile) / TAA
<i>cob</i>	29.2	25.5	8.7	36.6	1132	J	9,970-11,101	0	ATG (Met) / T--
<i>trnSuga</i>	36.1	11.1	15.3	37.5	72	J	11,102-11,173	0	
<i>nad1</i>	20.7	10.0	23.8	45.5	922	N	12,095-11,174	3	ATA (Met) / T--
<i>trnLuag</i>	41.5	6.2	15.4	36.9	65	N	12,163-12,099	0	
<i>rrnL</i>	33.2	7.7	18.2	41.0	1107	N	13,270-12,164	0	
<i>trnV</i>	32.3	12.9	21.0	33.9	62	N	13,332-13,271		
total	35.4	23.1	10.9	30.6	13,992				