

This is an appendix to the paper by Olson & McCauley 2000 Linkage disequilibrium and phylogenetic congruence between chloroplast and mitochondrial haplotypes in *Silene vulgaris*. *Proc. R. Soc. Lond. B* **267**, 1801-1808.

Electronic appendices are refereed with the text. However, no attempt has been made to impose a uniform editorial style on the electronic appendices.

Appendix A. MtDNA restriction fragment sizes in kilobases for the 14 *Silene vulgaris* individuals in Olson and McCauley 2000. Row labels 1-14 refer to the individuals in Olson & McCauley 2000. Column headings identify the mtDNA probe and restriction enzyme combination used to detect the banding patterns. ? = unknown. Refer to Olson & McCauley 2000 for detailed methods.

	coxI	coxI	atp6	18s	cob	cox2	nad5	atp9	cox3	cox3	nad3	atpA	atpA
	EcoRI	HindIII	HindIII	HindIII- StuI	HindIII	StyI	NdeI	HindIII - StyI	EcoRI	HindIII	StyI	EcoRI	HindIII
1	2.9	3.8	2.2, 3.4	2.9, 5.8	1.2, 2.2	4.0	5.9, 10.5	4.4	2.5	6.0	1.0	1.4	1.2
2	2.9	3.8	2.2, 3.4	2.9, 5.8	1.2, 2.2	4.0	5.9, 10.5	4.4	2.2	6.0	1.0	1.5	1.2
3	3.0	5.2	7.4, 3.3	2.9, 5.8	0.7, 1.0	5.9	4.2, 7.7	4.4	7.6	3.4	1.0	1.4	4.6
4	3.0	5.2	7.4, 3.3	2.9, 5.8	0.7, 1.0	5.9	4.2, 7.7	4.4	7.6	3.4	?	1.5	4.6
5	2.6	3.6	3.4, 6.2	2.9, 5.8	3.8, 4.7	4.5	4.2, 7.7	4.4	10.1	3.4	1.0	2.3	4.6
6	1.9	3.6	3.4, 3.9	2.9, 5.8	2.0, 3.6	4.8	4.2, 9.0	4.4	4.8	11.0	1.0	4.1	4.0
7	2.6	5.2	1.6, 3.4	2.9, 5.8	3.6, 5.6	4.8	5.2, 8.8	4.4	2.8	10.0	1.5, 2.6	3.1	4.6
8	2.6	5.2	1.6, 3.4	2.9, 5.8	3.6, 5.6	4.8	5.2, 8.8	4.4	2.8	10.0	1.5, 2.6	3.1	4.6
9	2.6	5.2	1.6, 3.4	2.9, 5.8	3.6, 5.6	4.8	5.2, 8.8	4.4	3.0	10.0	1.5, 2.6	4.3	4.5
10	3.0	7.1	2.1	2.9, 5.8	2.3, 3.6	2.2	1.3, 8.0	4.4	5.2	3.1	1.0, 1.5	4.0	3.4
11	1.9	3.6	2.2, 4.0	2.9, 5.8	0.9, 1.0	2.4	4.2, 7.7	4.4	6.0	3.6	1.0, 5.0	1.8	4.8
12	2.3	3.4	2.2, 3.4	2.9, 5.8	2.2, 4.5	2.2	5.6, 9.5	4.4	2.8	4.1	1.1, 1.7	4.6	3.1
13	2.6	6.5	2.2, 3.4	2.9, 5.8	1.3, 2.9	2.2	5.6, 8.1	4.4	7.6	9.0	1.1, 1.7	2.3	3.1
14	2.5	5.4	2.2, 3.4	2.9, 5.8	2.4, 2.9	3.3	7.5, 8.5	4.4	4.4	6.3	1.1, 1.7	1.6	4.6

Appendix B . Primers designed for Olson and McCauley (in review).

mtDNA	Primers	Author
gene		
atpA	atpA-up: TACACGAATTTTCAAGTGGATGA	Thomas Städler
	atpA-lo: TCTAGTGGCATTTCGATCACAGA	
atp6	atp6-up: GGAAACTT(GC)TATTTCTCATTAC	Thomas Städler
	atp6-lo: TTT(GA)ATGGAGATTT(GA)TAGCAT	
atp9	atp9-up: ATGTTAGAAGGTGCAAAAT(CT)AAT	Thomas Städler
	atp9-lo: AGATCAAAAAGGCCATCAT	
coxII	olscox2r1: CCACTCTATTGTCCACTTC	Matthew Olson
	olscox2f2: CTGATTTTGGTTTTTCGTAT	

Appendix C. Chloroplast and mitochondrial data sets used for phylogenetic reconstructions. (A) The chloroplast data set was constructed by sequencing three regions of the chloroplast genome and scoring for the presence or absence of indels and point mutations. Characters 1-15 (12-15 are indels) are within H-Psba, characters 16-24 are within L1-L2( 23 and 24 are indels), Character 25 is an indel within e-f. (B) The mitochondrial data set was constructed by scoring for similarity of RFLP patterns after hybridizing with 10 different mitochondrial gene probes. Characters are in the following order: *cox1* (*NdeI*), *atp6* (*HindII*, *EcoRI*), *18SrDNA* (*HindIII* + *StuI*), *cob* (*HindII*, *EcoRI*), *cox2* (*StyI*), *nad5* (*NdeI*), *atp9* (*HindII*, *EcoRI*), *cox3* (*HindII*, *EcoRI*), *atpA* (*HindII*, *EcoRI*), *nad3* (*StyI*). Different alleles within loci indicated by different numbers or letters. ? = unknown. Sizes of restriction fragments and details of scoring of data are available upon request.

#### A. Chloroplast Data

Individual	Character States
1	00100 00000 00000 10010 01000
2	00100 00000 00000 10010 01000
3	00000 00000 00000 00000 00000
4	00000 00000 00000 00000 00000
5	00000 11010 10000 00000 00110
6	00000 00000 00000 00000 00000
7	00000 00000 00000 01100 10000
8	00000 00000 00000 01101 10000
9	00000 00001 00000 01100 10000
10	00011 00100 00001 00010 00000
11	00010 00000 01000 00010 00000
12	00100 00000 00010 00010 00001
13	11100 00000 00110 00010 00001
14	00100 00000 00000 00010 00001

#### B. Mitochondria Data Set

Individual	Character States
1	1111271b72
2	1111271112
3	2212421222
4	221242128?
5	7617521092
6	5510341452

7	6414331863
8	6414331863
9	6414331563
10	3313111334
11	5719721905
12	4115181a41
13	81181517b1
14	91166616a1