Fig. S1

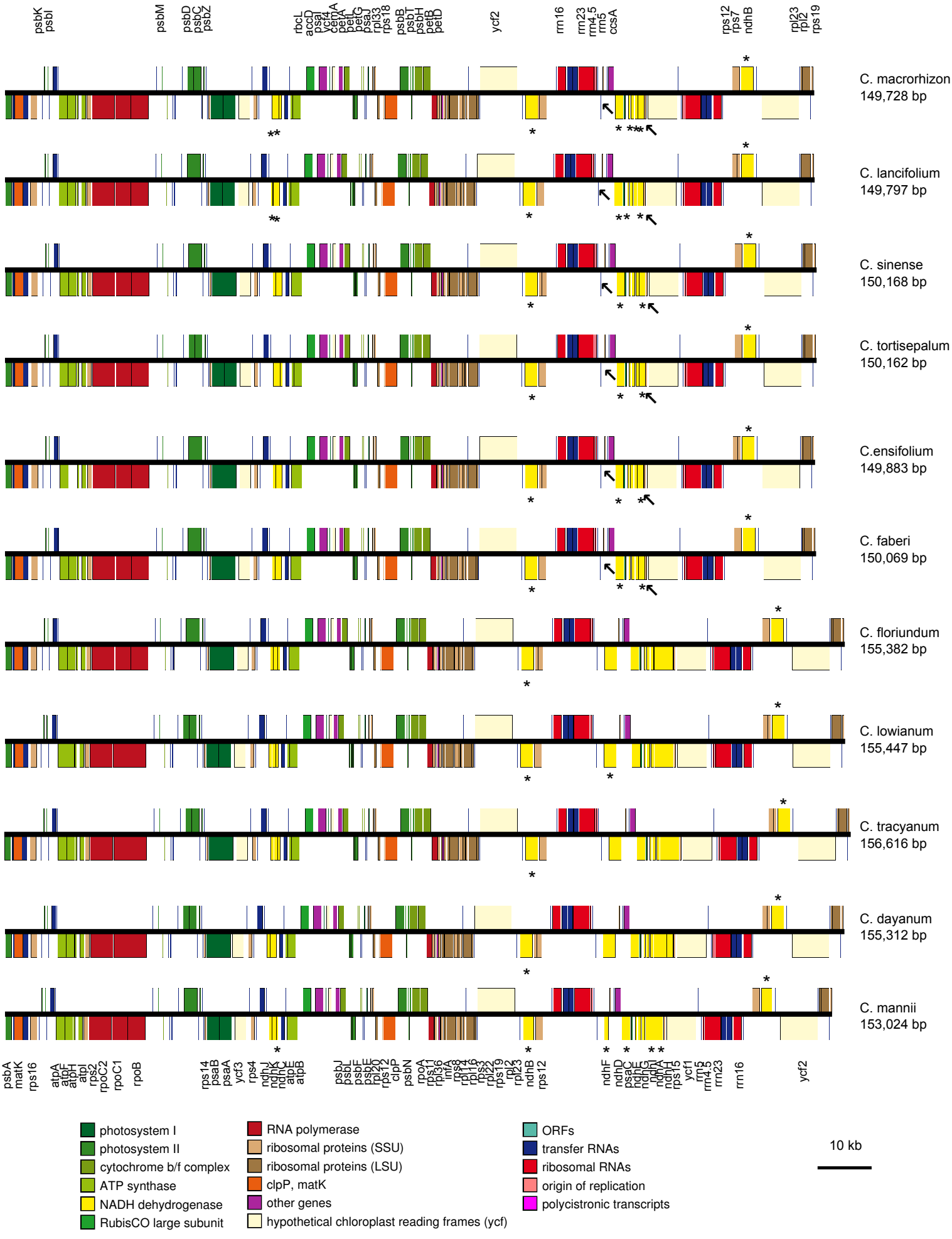
psbK
psbI
psbM
psbD
psbC
psbZ
rbcL
accD
psaI
ycf4
petA
petG
psaJ
rpl33
rps18
psbB
psbT
psbH
petB
petD
ycf2
rrn16
rrn23
rrn4.5
rrn5
ccsA
rps12
rps7
ndhB
rpl23
rpl2
rps19
C. macrorhizon
149,728 bp
C. lancifolium
149,797 bp
C. sinense
150,168 bp
C. tortisepalum
150,162 bp
C.ensifolium
149,883 bp
C. faberi
150,069 bp
C. floriundum
155,382 bp
C. lowianum
155,447 bp
C. tracyanum
156,616 bp
C. dayanum
155,312 bp
C. mannii
153,024 bp
psbA
matK
rps16
atpA
atpF
atpH
atpI
rps2
rpoC2
rpoC1
rpoB
rps14
psaB
psaA
ycf3
rps4
ndhJ
ndhK
ndhC
atpE
atpB
psbJ
psbL
psbF
psbE
rpl20
rps12
clpP
psbN
rpoA
rps11
rpl36
infA
rps8
rpl14
rpl16
rps3
rpl22
rps19
rpl2
rpl23
ndhB
rps12
ndhF
ndhD
psaC
ndhE
ndhG
ndhI
ndhA
ndhH
rps15
ycf1
rrn5
rrn4.5
rrn23
rrn16
ycf2
photosystem I
photosystem II
cytochrome b/f complex
ATP synthase
NADH dehydrogenase
RubisCO large subunit
RNA polymerase
ribosomal proteins (SSU)
ribosomal proteins (LSU)
clpP, matK
other genes
hypothetical chloroplast reading frames (ycf)
ORFs
transfer RNAs
ribosomal RNAs
origin of replication
polycistronic transcripts
10 kb

Fig. S2

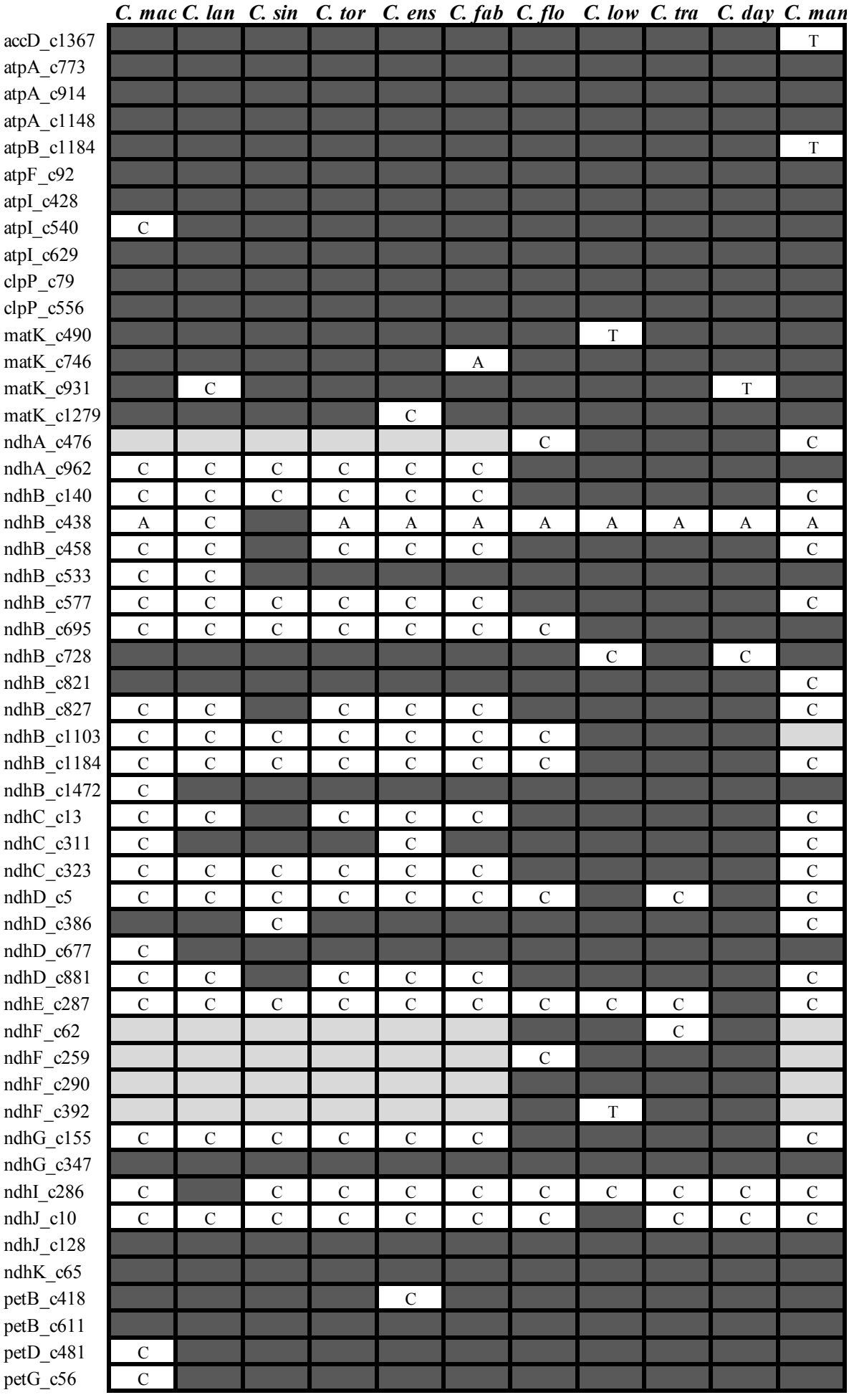
C. mac
C. lan
C. sin
C. tor
C. ens
C. fab
C. flo
C. low
C. tra
C. day
C. man
accD_c1367
atpA_c773
atpA_c914
atpA_c1148
atpB_c1184
atpF_c92
atpI_c428
atpI_c540
atpI_c629
clpP_c79
clpP_c556
matK_c490
matK_c746
matK_c931
matK_c1279
ndhA_c476
ndhA_c962
ndhB_c140
ndhB_c438
ndhB_c458
ndhB_c533
ndhB_c577
ndhB_c695
ndhB_c728
ndhB_c821
ndhB_c827
ndhB_c1103
ndhB_c1184
ndhB_c1472
ndhC_c13
ndhC_c311
ndhC_c323
ndhD_c5
ndhD_c386
ndhD_c677
ndhD_c881
ndhE_c287
ndhF_c62
ndhF_c259
ndhF_c290
ndhF_c392
ndhG_c155
ndhG_c347
ndhI_c286
ndhJ_c10
ndhJ_c128
ndhK_c65
petB_c418
petB_c611
petD_c481
petG_c56

Fig. S2 (continue)

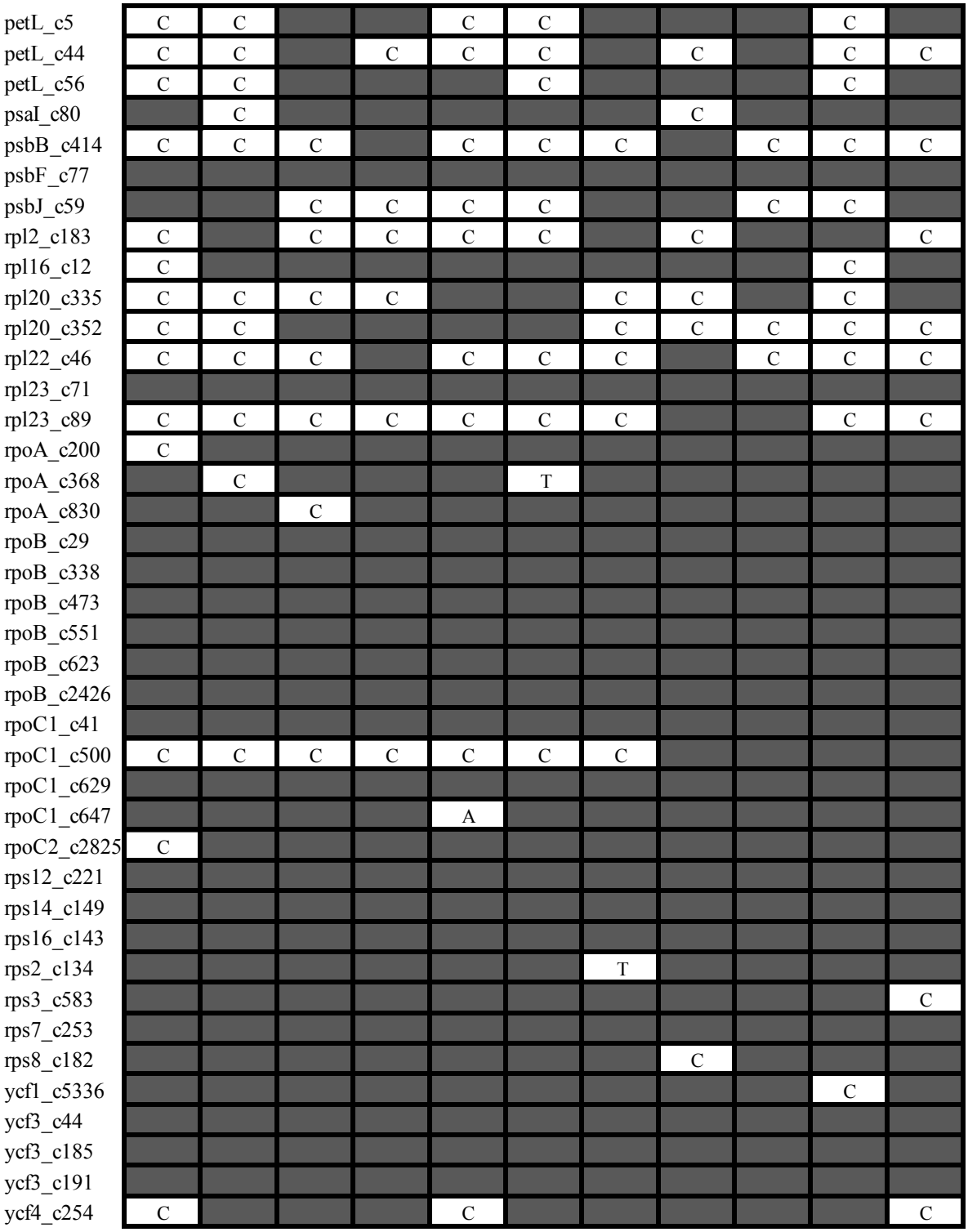

Fig. S3

	C. mac	*C. lan*	*C. sin*	*C. tor*	*C. ens*	*C. fab*	*C. flo*	*C. low*	*C. tra*	*C. day*	*C. man*
accD_c1367	0.94	0.89	0.92	0.93	0.89	0.94	0.96	0.91	0.93	0.95	-
atpA_c773	0.91	0.92	0.88	0.93	0.95	0.96	0.99	0.98	0.98	0.99	0.86
atpA_c914	0.85	0.88	0.98	0.93	0.93	0.97	0.98	0.98	0.99	0.97	0.9
atpA_c1148	0.77	0.86	0.97	0.88	0.88	0.95	0.98	0.97	0.96	0.96	0.88
atpB_c1184	0.89	0.95	0.91	0.94	0.93	0.94	0.94	0.96	0.97	0.96	-
atpF_c92	0.87	0.95	0.93	0.89	0.79	0.85	0.7	0.84	0.93	0.83	0.97
atpI_c428	0.97	0.98	0.98	0.99	0.99	0.98	0.9	0.98	0.98	0.99	0.99
atpI_c540	-	0.75	0.25	0.67	0.7	0.76	0.71	0.65	0.84	0.85	0.6
atpI_c629	0.95	0.98	0.98	0.98	0.97	0.99	0.99	0.99	0.99	0.99	0.99
clpP_c79	0.98	0.95	0.88	0.95	0.94	0.98	0.97	0.97	0.93	0.98	0.88
clpP_c556	0.81	0.91	0.93	0.97	0.95	0.96	0.92	0.93	0.88	0.91	0.7
matK_c490	0.86	0.9	0.43	0.2	0.64	0.67	0.45	-	0.9	0.86	0.3
matK_c746	0.39	0.72	0.26	0.34	0.36	-	0.73	0.55	0.89	0.75	0.86
matK_c931	0.32	-	0.46	0.54	0.3	0.34	0.93	0.39	0.95	-	0.52
matK_c1279	0.85	0.87	0.67	0.81	-	0.87	0.84	0.87	0.76	0.85	0.87
ndhA_c476	-	-	-	-	-	-	-	0.84	0.78	0.87	-
ndhA_c962	-	-	-	-	-	-	0.47	0.72	0.44	0.5	0.36
ndhB_c140	-	-	-	-	-	-	0.66	0.83	0.82	0.66	-
ndhB_c438	-	-	0.29	-	-	-	-	-	-	-	-
ndhB_c458	-	-	0.44	-	-	-	0.84	0.78	0.87	0.9	-
ndhB_c533	-	-	0.43	0.51	0.29	0.4	0.72	0.85	0.91	0.9	0.8
ndhB_c577	-	-	-	-	-	-	0.68	0.48	0.47	0.67	-
ndhB_c695	-	-	-	-	-	-	-	0.57	0.34	0.32	0.91
ndhB_c728	0.35	0.8	0.84	0.76	0.75	0.67	0.9	-	0.52	-	0.86
ndhB_c821	0.36	0.62	0.66	0.58	0.35	0.64	0.74	0.68	0.77	0.76	-
ndhB_c827	-	-	0.27	-	-	-	0.5	0.75	0.69	0.9	-
ndhB_c1103	-	-	-	-	-	-	-	0.75	0.85	0.42	-
ndhB_c1184	-	-	-	-	-	-	-	0.9	0.61	0.92	
ndhB_c1472	-	0.48	0.31	0.31	0.3	0.21	0.79	0.83	0.91	0.86	0.84
ndhC_c13	-	-	0.4	-	-	-	0.61	0.66	0.55	0.8	-
ndhC_c311	-	0.69	0.7	0.81	-	0.71	0.45	0.82	0.57	0.67	-
ndhC_c323	-	-	-	-	-	-	0.24	0.67	0.41	0.56	-
ndhD_c5	-	-	-	-	-	-	-	0.39	-	0.44	-
ndhD_c386	0.36	0.3	-	0.34	0.4	0.38	0.41	0.75	0.86	0.71	-
ndhD_c677	-	0.81	0.44	0.42	0.34	0.33	0.4	0.91	0.76	0.85	0.78
ndhD_c881	-	-	0.35	-	-	-	0.68	0.89	0.9	0.88	-
ndhE_c287	-	-	-	-	-	-	-	-	-	0.59	-
ndhF_c62	-	-	-	-	-	-	0.58	0.41	-	0.4	-
ndhF_c259	-	-	-	-	-	-	-	0.57	0.59	0.82	-
ndhF_c290	-	-	-	-	-	-	0.79	0.71	0.57	0.79	-
ndhF_c392	-	-	-	-	-	-	0.92	-	0.7	0.94	-
ndhG_c155	-	-	-	-	-	-	0.55	0.55	0.91	0.54	-
ndhG_c347	0.46	0.83	0.53	0.8	0.64	0.75	0.83	0.81	0.9	0.93	0.88
ndhI_c286	-	0.66	-	-	-	-	-	-	-	-	-
ndhJ_c10	-	-	-	-	-	-	-	0.24	-	-	-
ndhJ_c128	0.32	0.44	0.67	0.54	0.55	0.33	1	0.94	0.66	0.89	0.21
ndhK_c65	0.42	0.75	0.85	0.88	0.83	0.87	0.83	0.94	0.79	0.84	0.43
petB_c418	0.84	0.98	0.91	0.95	-	0.99	0.99	0.96	0.96	0.98	0.99
petB_c611	0.82	0.95	0.88	0.8	0.6	0.91	0.97	0.97	0.98	0.95	0.88
petD_c481	-	0.91	0.88	0.8	0.84	0.92	0.84	0.74	0.81	0.88	0.95
petG_c56	-	0.89	0.3	0.39	0.29	0.51	0.59	0.5	0.73	0.6	0.76

Fig. S3 (continue)

petL_c5	-	-	0.73	0.53	-	-	0.46	0.62	0.57	-	0.65
petL_c44	-	-	0.25	-	-	-	0.51	-	0.67	-	-
petL_c56	-	-	0.76	0.72	0.7	-	0.25	0.8	0.91	-	0.74
psaI_c80	0.3	-	0.79	0.76	0.35	0.82	0.83	-	0.91	0.75	0.82
psbB_c414	-	-	-	0.3	-	-	-	0.25	-	-	-
psbF_c77	0.88	0.99	0.97	0.9	0.97	0.96	0.83	0.91	0.82	0.96	0.97
psbJ_c59	0.85	0.98	-	-	-	-	0.83	0.95	-	-	0.97
rpl2_c183	-	0.24	-	-	-	-	0.44	-	0.28	0.33	-
rpl16_c12	-	0.94	0.51	0.48	0.5	0.48	0.37	0.22	0.27	-	0.58
rpl20_c335	-	-	-	-	0.22	0.36	-	-	0.28	-	0.28
rpl20_c352	-	-	0.34	0.33	0.26	0.65	-	-	-	-	-
rpl22_c46	-	-	-	0.32	-	-	-	0.27	-	-	-
rpl23_c71	0.79	0.51	0.56	0.79	0.59	0.89	0.83	0.79	0.88	0.94	0.75
rpl23_c89	-	-	-	-	-	-	-	0.86	0.66	-	-
rpoA_c200	-	0.43	0.49	0.49	0.28	0.68	0.29	0.3	0.74	0.53	0.26
rpoA_c368	0.24	-	0.5	0.55	0.54	-	0.48	0.3	0.63	0.42	0.34
rpoA_c830	0.51	0.23	-	0.32	1	0.44	0.43	0.21	0.71	0.45	0.21
rpoB_c29	0.34	0.3	0.43	0.61	0.42	0.35	0.66	0.49	0.4	0.77	0.37
rpoB_c338	0.6	0.63	0.47	0.7	0.55	0.85	0.38	0.59	0.58	0.76	0.57
rpoB_c473	0.41	0.6	0.49	0.63	0.61	0.75	0.45	0.69	0.48	0.71	0.51
rpoB_c551	0.54	0.72	0.82	0.9	0.78	0.91	0.85	0.91	0.45	0.96	0.85
rpoB_c623	0.51	0.42	0.72	0.68	0.67	0.72	0.83	0.79	0.41	0.78	0.71
rpoB_c2426	0.73	0.68	0.78	0.72	0.58	0.79	0.87	0.8	0.71	0.88	0.66
rpoC1_c41	0.73	0.7	0.83	0.81	0.69	0.91	0.92	0.9	0.92	0.76	0.86
rpoC1_c500	-	-	-	-	-	-	-	0.28	0.28	0.5	0.21
rpoC1_c629	0.74	0.43	0.67	0.53	0.63	0.64	0.58	0.69	0.69	0.62	0.9
rpoC1_c647	0.83	0.54	0.95	0.9	-	0.9	0.66	0.94	0.94	0.93	0.83
rpoC2_c2825	-	0.74	0.62	0.74	0.54	0.74	1	0.73	0.81	0.73	0.73
rps12_c221	0.85	0.92	0.94	0.67	0.56	0.79	0.85	0.87	0.8	0.7	0.95
rps14_c149	0.73	0.87	0.69	0.74	0.72	0.81	0.69	0.9	0.93	0.85	0.96
rps16_c143	0.84	0.88	0.59	0.65	0.39	0.77	1	0.82	0.73	0.79	0.65
rps2_c134	0.28	0.32	0.25	0.33	0.22	0.24	-	0.52	0.69	0.43	0.43
rps3_c583	0.86	0.98	0.64	0.91	0.83	0.96	0.73	0.78	0.9	0.92	-
rps7_c253	0.96	0.83	0.91	0.96	0.48	0.94	0.94	0.97	0.95	0.9	0.93
rps8_c182	0.65	0.5	0.39	0.61	0.2	0.79	0.52	-	0.74	0.65	0.33
ycf1_c5336	0.35	0.54	0.41	0.7	0.66	0.84	0.79	0.36	0.3	-	0.74
ycf3_c44	0.44	0.87	0.82	0.9	0.76	0.88	0.85	0.74	0.82	0.71	0.89
ycf3_c185	0.6	0.95	0.8	0.75	0.76	0.9	0.87	0.89	0.87	0.84	0.73
ycf3_c191	0.41	0.96	0.91	0.75	0.56	0.82	0.72	0.81	0.78	0.84	0.71
ycf4_c254	-	0.81	0.86	0.88	-	0.82	0.62	0.96	0.92	0.84	-

Editing efficiency (edited reads/total reads)

0.05-0.2	0.2-0.4	0.4-0.6	0.6-0.8	0.8-1.0