Table S4A: Pairwise comparison of the V4 region (SSU) among the *Coccomyxa* species. Upper right corner = number of CBCs; lower left corner = number of HCBCs.

species	*Ellipt.*	*Hemi.*	*C. subellipsoidea*		*C. polymorpha*	*C. simplex*			*C. vinatzeri*	*C. galuniae*	*C. dispar*	*C. viridis*
POP-ID	V4-OG1	V4-OG2	V4-A1	V4-A2	V4-B	V4-C1	V4-C2	V4-C3	V4-D	V4-E	V4-F	V4-G
V4-OG1		1	3	3	4	3	3	3	3	3	3	3
V4-OG2	1		2	2	3	2	2	2	2	2	2	2
V4-A1	2	2		0	1	0	0	0	0	0	0	0
V4-A2	2	2	0		1	0	0	0	0	0	0	0
V4-B	2	2	0	0		0	0	0	1	1	1	1
V4-C1	2	2	0	0	1		0	0	0	0	0	0
V4-C2	2	2	0	0	1	0		0	0	0	0	0
V4-C3	2	2	0	0	1	0	0		0	0	0	0
V4-D	2	2	0	0	0	0	0	0		0	0	0
V4-E	2	2	0	0	0	0	0	0	0		0	0
V4-F	2	2	0	0	0	0	0	0	0	0		0
V4-G	4	4	2	2	2	2	2	2	2	2	2	

Table S4B: Pairwise comparison of the V9 region (SSU) among the *Coccomyxa* species. Upper right corner = number of CBCs; lower left corner = number of HCBCs.

species	*Ellipt.*	*Hemi.*	*C. sub./sim.*	*C. polymorpha*	*C. vinatzeri*	*C. galuniae*	*C. dispar*	*C. viridis*	
POP-ID	V9-OG1	V9-OG2	V9-A	V9-B	V9-C	V9-D	V9-E	V9-F1	V9-F2
V9-OG1		4	3	2	4	4	3	2	3
V9-OG2	0		5	5	5	5	5	5	5
V9-A	1	0		1	0	0	1	2	2
V9-B	0	0	2		2	2	2	0	0
V9-C	0	0	1	2		0	1	3	3
V9-D	1	0	3	3	2		1	3	3
V9-E	1	0	2	0	3	5		3	2
V9-F1	1	0	1	2	1	2	0		0
V9-F2	1	0	1	2	1	2	1	0	

Table S4C: Pairwise comparison of ITS-2 Barcode region among the *Coccomyxa* species. Upper right corner = number of CBCs; lower left corner = number of HCBCs.

species	*Ellipt.*	*Hemi.*	*C. subellipsoidea*				*C. polymorpha*	*C. simplex*			*C. vinatzeri*	*C. galuniae*	*C. dispar*	*C. viridis*		*C. sp.* 1	*C. sp.* 2		*C. sp.* 3	*C. sp.* 4	*C. sp.* 5
POP-ID	OG-1	OG-2	BC-1a	BC-1b	BC-1c	BC-1d	BC-2	BC-3a	BC-3b	BC-3c	BC-4	BC-5	BC-6	BC-7a	BC-7b	BC-8	BC-9a	BC-9b	BC-10	BC-11	BC-12
OG-1		6	6	7	7	7	5	6	6	5	6	6	5	3	3	6	6	6	4	4	4
OG-2	0		8	9	9	9	7	8	8	7	8	9	7	6	6	8	9	9	7	7	7
BC-1a	5	6		0	0	0	2	5	5	4	5	4	7	5	5	7	3	3	1	6	7
BC-1b	5	5	2		0	0	3	5	5	4	5	5	8	5	5	8	4	4	2	6	7
BC-1c	4	5	1	1		0	3	6	6	5	6	5	8	5	5	8	4	4	2	6	7
BC-1d	5	6	2	2	1		3	6	6	5	6	5	8	5	5	8	4	4	2	6	7
BC-2	3	4	2	2	1	2		6	6	5	6	5	6	3	3	9	2	2	1	4	5
BC-3a	3	4	2	2	1	2	2		0	0	1	3	8	4	4	9	7	7	4	6	7
BC-3b	3	4	2	2	1	2	2	0		0	1	3	8	4	4	9	7	7	4	6	7
BC-3c	3	4	2	2	1	2	2	0	0		1	3	7	3	3	8	6	6	3	5	6
BC-4	5	6	2	2	1	2	3	3	3	3		4	10	8	8	11	6	6	4	9	10
BC-5	4	5	2	2	1	2	2	2	2	2	1		6	6	6	7	5	5	4	7	7
BC-6	3	4	2	2	1	2	2	2	2	2	3	2		10	10	3	8	8	7	11	11
BC-7a	7	7	2	4	3	4	4	3	3	3	4	3	4		0	11	4	4	1	1	2
BC-7b	7	7	2	4	3	4	4	3	3	3	4	3	4	0		11	4	4	1	1	2
BC-8	5	6	4	4	3	4	4	4	4	4	4	4	2	6	6		10	10	8	13	13
BC-9a	4	4	2	2	1	2	2	2	2	2	2	2	1	4	4	3		0	3	6	7
BC-9b	5	5	3	2	2	3	3	3	3	3	3	3	2	5	5	4	1		3	6	7
BC-10	5	5	2	2	1	2	2	2	2	2	3	2	2	4	4	4	0	1		3	4
BC-11	7	7	2	4	3	4	4	3	3	3	4	2	4	0	0	6	4	5	4		1
BC-12	7	2	2	4	3	4	4	3	3	3	4	2	4	0	0	6	4	5	4	0	