

**Extended Data Table 1. Diversity estimates of malaria infections**

Infection	Deploid			Single Cell Sequencing	
	FWS	Effective K	Inferred K	Effective Number of Haplotypes	Observed Number of Haplotypes
MAL1	0.64	1.95	3	1.8	2
MAL2	0.95	1.79	2		
MAL3	0.97	1.86	2		
MAL4	0.69	2.72	3		
MAL5	0.73	1.43	2	1.6	2
MAL6	0.99	1.88	2		
MAL7	0.99	1.76	2		
MAL8	0.99	1.50	2		
MAL9	0.98	1.78	2		
MAL10	1.00	1.64	2		
MAL11	0.88	1.44	2		
MAL12	0.68	1.99	2		
MAL13	0.74	2.50	3		
MAL14	0.90	1.72	2		
MAL15	0.65	2.86	4	6.49	17
MAL16	0.99	1.77	2		
MAL17	0.51	3.91	4	4.23	7
MAL18	0.99	1.63	2		
MAL19	0.99	2.33	3		
MAL20	0.99	1.87	2		
MAL21	0.99	1.00	1		
MAL22	0.94	1.85	2		
MAL23	0.87	1.53	3	1.35	5
MAL24	0.42	2.72	3	4.63	7
MAL25	0.86	1.30	2		
MAL26	0.55	3.88	5		
MAL27	0.97	1.92	2		
MAL28	0.58	2.44	3		
MAL29	0.98	1.84	2	1	1
MAL30	0.59	2.18	3	3.79	8
MAL31	0.98	1.84	2	1	1
MAL32	0.65	2.23	3	2.17	3
MAL33	0.60	2.13	3	1	1
MAL34	0.96	1.88	2		
MAL35	0.98	1.72	2		
MAL36	0.99	1.77	2		
MAL37	0.58	2.09	3	1	1
MAL38	0.99	1.82	2	1	1
MAL39	0.69	1.90	3		
MAL40	0.80	3.18	4		
MAL41	0.98	1.42	2		
MAL42	0.91	1.89	2		
MAL43	0.82	2.33	3	1.64	3
MAL44	0.99	1.65	2		
MAL45	0.67	2.52	3		
MAL46	0.86	2.45	3		
MAL47	1.00	2.51	3		
MAL48	0.82	1.68	3	2.24	6
MAL49	0.97	1.66	2		