

SI Tables

Table S1. The differences between approximated and empirical distributions for within-host genetic distances. For a range of μN_{eq} and times since clonal infection, Akaike's Information Criterion (AIC) is given for both the geometric-Poisson (GP) and the Poisson (P) approximation. 250 simulated pathogen populations were generated, and for each, 1000 pairwise distances were recorded at each of the sample times. Cells are shaded according to the lower AIC value – red for Poisson, green for geometric-Poisson. The mutation rate was 0.001 per genome per generation.

		Effective population size, N_{eq}					
		500	1000	2500	5000	7500	10000
Time since clonal infection	50	GP: 75341 P: 75216	GP: 80764 P: 80334	GP: 80729 P: 80462	GP: 80734 P: 80431	GP: 78318 P: 78008	GP: 84445 P: 84162
	100	GP: 115043 P: 114067	GP: 128371 P: 126955	GP: 131869 P: 130751	GP: 133561 P: 132260	GP: 129586 P: 128358	GP: 133905 P: 132656
	500	GP: 258951 P: 257189	GP: 297052 P: 291320	GP: 323116 P: 310162	GP: 343677 P: 324330	GP: 336449 P: 319142	GP: 340266 P: 322343
	1000	GP: 324557 P: 336776	GP: 384288 P: 386824	GP: 442356 P: 421016	GP: 455690 P: 421886	GP: 459908 P: 422279	GP: 464791 P: 424528
	2500	GP: 340205 P: 360382	GP: 455889 P: 499865	GP: 559643 P: 591170	GP: 616431 P: 602032	GP: 640539 P: 601454	GP: 648459 P: 583515
	5000	GP: 355353 P: 384607	GP: 470566 P: 555942	GP: 629747 P: 772276	GP: 730920 P: 844597	GP: 758704 P: 821443	GP: 781885 P: 804054
	7500	GP: 351289 P: 384044	GP: 489139 P: 599342	GP: 656489 P: 870263	GP: 755024 P: 994202	GP: 785749 P: 986565	GP: 801616 P: 947202
	10000	GP: 349955 P: 380901	GP: 477976 P: 567623	GP: 655821 P: 898879	GP: 708001 P: 1001501	GP: 708912 P: 984256	GP: 692577 P: 942683