

Estimates of selection parameters obtained by analysis of simulation data. For each set of simulations 10Mbp of exon-like sequence was analysed. *Divergence* - +/- indicates whether or not fixed derived alleles were used to infer the selection parameters.

Full DFE - +/- indicates whether a full DFE containing both deleterious and advantageous mutations was estimated (+) or a DFE containing just deleterious mutations was inferred (-).

$\ln L$ - The log likelihood of the model fit.

$\Delta \ln L$ - The likelihood ratio of the full DFE model to the deleterious DFE model.

$\hat{\gamma}_d$ - The mean, scaled strength of selection acting on a deleterious mutation, $2N_e s_d$.

β_d - The shape parameter of the DFE for harmful mutations.

γ_a - The scaled strength of selection acting on an advantageous mutations $2N_e s_a$.

p_a - The proportion of nonsynonymous mutations that are advantageous.

Divergence		Harmful Mutation Parameters					Advantageous Mutation Parameters						
		Full DFE	$\ln L$	$\Delta \ln L$	$\hat{\gamma}_d$	$\hat{\gamma}_d$ Est.	β_d	β_d Est.	γ_a	γ_a Est.	p_a	p_a Est.	$\gamma_a p_a$
+	+	-204.9	160.05	-1000	-864.1	0.2	0.202		11.850		0.00801	0.1	0.095
+	-	-364.9	-	-1000	-6,663.2	0.2	0.135	10	-	0.10000	-	-	-
-	+	-193.4	17.57	-1000	-827.7	0.2	0.206		7.995		0.01019	0.1	0.081
-	-	-211.0	-	-1000	-1,553.4	0.2	0.174		-		-	-	-
+	+	-201.6	173.09	-1000	-982.3	0.2	0.198		16.307		0.00583	0.1	0.095
+	-	-374.7	-	-1000	-8,314.1	0.2	0.133	20	-	0.005000	-	-	-
-	+	-191.6	13.41	-1000	-1,182.9	0.2	0.189		37.427		0.00292	0.1	0.109
-	-	-205.0	-	-1000	-1,617.7	0.2	0.175		-		-	-	-
+	+	-200.4	214.56	-1000	-1,045.7	0.2	0.195		37.425		0.00256	0.1	0.096
+	-	-414.9	-	-1000	-7,369.5	0.2	0.136	50	-	0.002000	-	-	-
-	+	-189.2	4.89	-1000	-1,025.7	0.2	0.195		64.141		0.00168	0.1	0.108
-	-	-194.1	-	-1000	-1,240.1	0.2	0.186		-		-	-	-
+	+	-222.3	197.07	-1000	-1,649.5	0.2	0.175		37.393		0.00218	0.1	0.082
+	-	-419.4	-	-1000	-5,778.8	0.2	0.138	100	-	0.001000	-	-	-
-	+	-190.3	-0.04	-1000	-964.5	0.2	0.193		0.505		0.00394	0.1	0.002
-	-	-190.2	-	-1000	-998.0	0.2	0.190		-		-	-	-
+	+	-210.7	207.84	-1000	-1,224.6	0.2	0.191		37.423		0.0025	0.1	0.094
+	-	-418.6	-	-1000	-7,285.3	0.2	0.137	200	-	0.000500	-	-	-
-	+	-190.3	0.14	-1000	-1,053.6	0.2	0.198		0.841		0.0072	0.1	0.006
-	-	-190.4	-	-1000	-1,148.9	0.2	0.191		-		-	-	-
+	+	-200.1	210.14	-1000	-678.7	0.2	0.214		37.429		0.00262	0.1	0.098
+	-	-410.2	-	-1000	-4,194.3	0.2	0.147	400	-	0.000250	-	-	-
-	+	-187.5	1.42	-1000	-749.7	0.2	0.208		33.663		0.0013	0.1	0.044
-	-	-188.9	-	-1000	-834.6	0.2	0.202		-		-	-	-
+	+	-207.4	163.86	-1000	-1,017.5	0.2	0.195		37.428		0.00204	0.1	0.076
+	-	-371.3	-	-1000	-3,923.5	0.2	0.148	800	-	0.000125	-	-	-
-	+	-189.6	0.34	-1000	-805.0	0.2	0.204		6.105		0.00186	0.1	0.011
-	-	-190.0	-	-1000	-879.1	0.2	0.198		-		-	-	-