

**Supplementary Table 1:**

dN/dS for g23 OTUs that were decomposed into 2 or more ASVs. dN/dS ratios <1 indicate purifying selection, near 1 are neutral, and >1 indicate positive selection.

g23 OTU	dN	dS	dN/dS	p-value
bm	1.86E-05	0.0186338	0.001	0
bf	1.44E-05	0.0143962	0.001	0
aq	1.34E-05	0.0133587	0.001	0
r	0.0034673	0.0119827	0.289359	0
v	1.97E-05	0.0196893	0.001	0
bt	1.05E-05	0.0105403	0.001	0
ae	1.67E-05	0.0167076	0.001	0
ap	0.0037746	7.55E-05	50	0
as	2.22E-05	0.0222077	0.001	0
al	2.07E-05	0.020729	0.001	0
ao	1.18E-05	0.0118475	0.001	0
x	0.00382618	7.65E-05	50	0
au	1.18E-05	0.0118366	0.001	0
s	1.14E-05	0.0113891	0.001	0
br	1.35E-05	0.0135381	0.001	0
y	1.85E-05	0.018522	0.001	0
be	2.55E-05	0.0254708	0.001	0
e	3.30E-05	0.0329945	0.001	0
ab	0.936909	1.16858	0.801754	0.000242702
a	1.08743	0.770376	1.41156	2.55E-08
ay	1.38E-05	0.013778	0.001	0