

H.pylori Rhesus Microbiome Analysis

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Data used in analysis

Library

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  library(readxl)  
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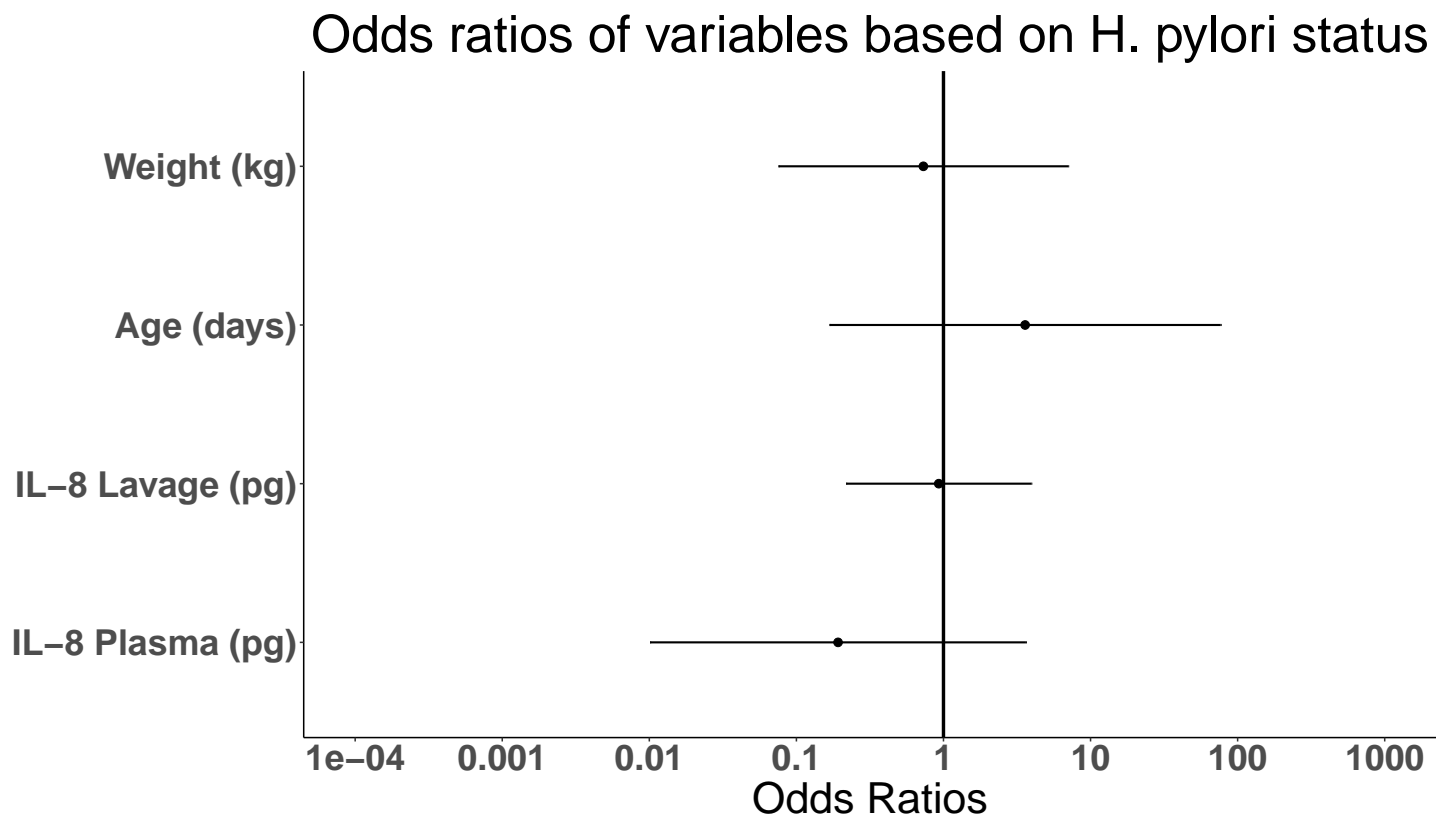
ASV counts the taxa table are linked below:

ASV counts

Taxa table

Table 1: H.pylori Metadata

SampleID	Treatment	site	Site_status	sex	log10_cfu.gm	IL8_Lavage	IL8_Plasma
LMiller_00458.BAL	H.pylori_(-)	BAL	H.pylori_(-)_BAL	Female	0.00	NA	463.376
LMiller_00458.Swab	H.pylori_(-)	Swab	H.pylori_(-)_Swab	Female	0.00	NA	463.376
LMiller_00459.BAL	H.pylori_(-)	BAL	H.pylori_(-)_BAL	Female	0.00	NA	258.416
LMiller_00459.Swab	H.pylori_(-)	Swab	H.pylori_(-)_Swab	Female	0.00	NA	258.416
LMiller_00461.BAL	H.pylori_(+)	BAL	H.pylori_(+)_BAL	Female	7.66	NA	704.550
LMiller_00461.Swab	H.pylori_(+)	Swab	H.pylori_(+)_Swab	Female	7.66	NA	704.550
LMiller_00462.BAL	H.pylori_(-)	BAL	H.pylori_(-)_BAL	Female	0.00	19.104	1075.626
LMiller_00462.Swab	H.pylori_(-)	Swab	H.pylori_(-)_Swab	Female	0.00	19.104	1075.626
LMiller_00463.BAL	H.pylori_(-)	BAL	H.pylori_(-)_BAL	Female	0.00	11.590	423.590
LMiller_00466.BAL	H.pylori_(+)	BAL	H.pylori_(+)_BAL	Female	3.81	11.201	642.148
LMiller_00466.Swab	H.pylori_(+)	Swab	H.pylori_(+)_Swab	Female	3.81	11.201	642.148
LMiller_00467.BAL	H.pylori_(+)	BAL	H.pylori_(+)_BAL	Female	6.09	15.511	425.782
LMiller_00467.Swab	H.pylori_(+)	Swab	H.pylori_(+)_Swab	Female	6.09	15.511	425.782
LMiller_00468.BAL	H.pylori_(-)	BAL	H.pylori_(-)_BAL	Female	0.00	15.511	660.911
LMiller_00468.Swab	H.pylori_(-)	Swab	H.pylori_(-)_Swab	Female	0.00	15.511	660.911
LMiller_00469.BAL	H.pylori_(+)	BAL	H.pylori_(+)_BAL	Female	6.38	NA	1279.789
LMiller_00469.Swab	H.pylori_(+)	Swab	H.pylori_(+)_Swab	Female	6.38	NA	1279.789
LMiller_00473.BAL	H.pylori_(-)	BAL	H.pylori_(-)_BAL	Female	0.00	20.100	608.508
LMiller_00473.Swab	H.pylori_(-)	Swab	H.pylori_(-)_Swab	Female	0.00	20.100	608.508
LMiller_00474.BAL	H.pylori_(-)	BAL	H.pylori_(-)_BAL	Female	0.00	44.699	443.989
LMiller_00476.BAL	H.pylori_(+)	BAL	H.pylori_(+)_BAL	Female	5.48	NA	476.431
LMiller_00476.Swab	H.pylori_(+)	Swab	H.pylori_(+)_Swab	Female	5.48	NA	476.431
LMiller_00477.BAL	H.pylori_(+)	BAL	H.pylori_(+)_BAL	Female	5.81	NA	715.056
LMiller_00477.Swab	H.pylori_(+)	Swab	H.pylori_(+)_Swab	Female	5.81	NA	715.056
LMiller_00481.BAL	H.pylori_(-)	BAL	H.pylori_(-)_BAL	Female	0.00	17.622	NA
LMiller_00481.Swab	H.pylori_(-)	Swab	H.pylori_(-)_Swab	Female	0.00	17.622	NA



	OR	2.5 %	97.5 %	p
(Intercept)	0.018	0.000	110.146	0.410
‘Weight (kg)’	0.243	0.000	7254.525	0.786
‘Age (days)’	1.042	0.955	1.177	0.413
‘IL-8 Lavage (pg)’	0.993	0.852	1.158	0.921
‘IL-8 Plasma (pg)’	0.996	0.985	1.001	0.271

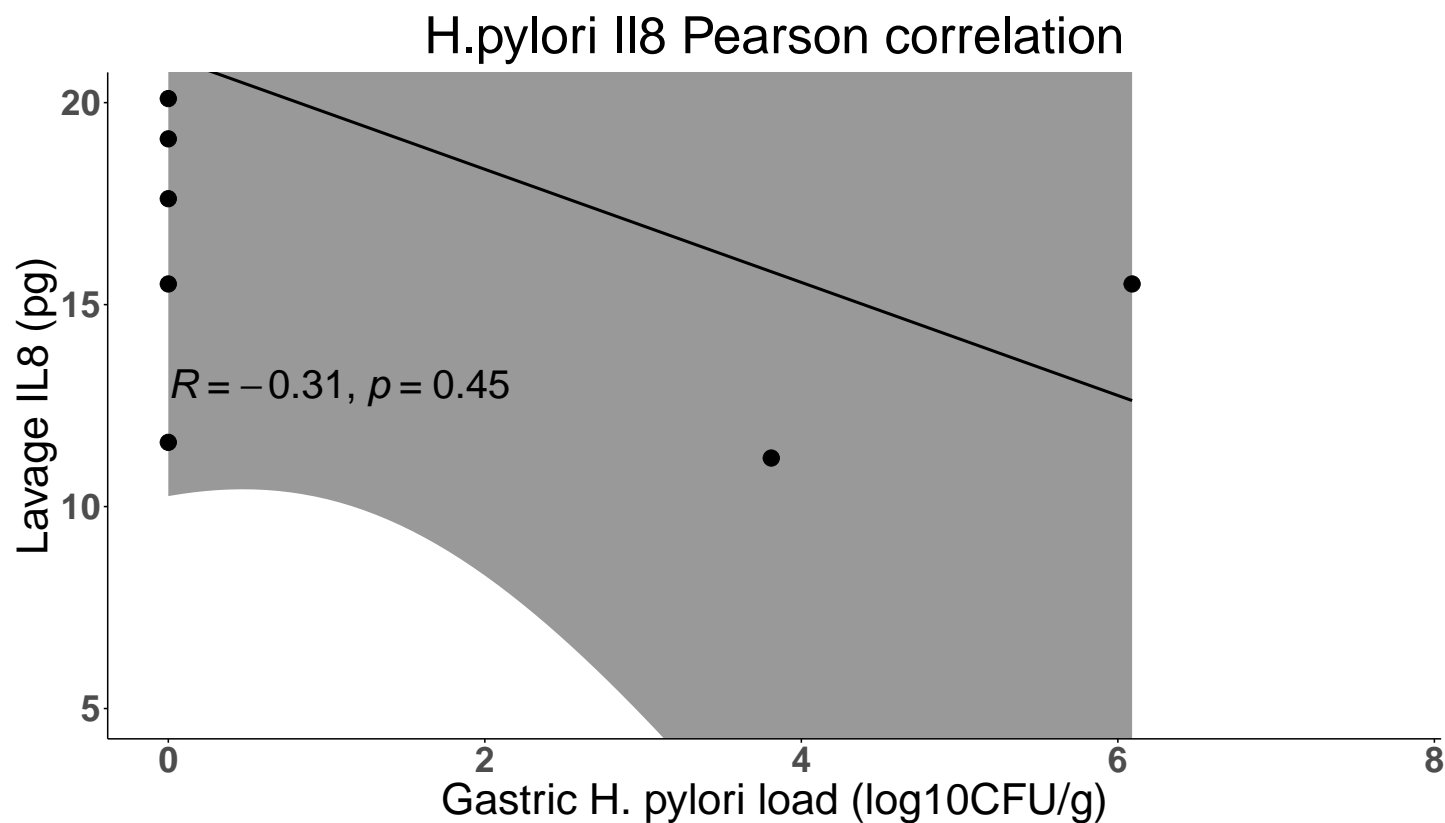


Figure 1: This plot only includes animals that had material sequenced and not all 25 animals from the study

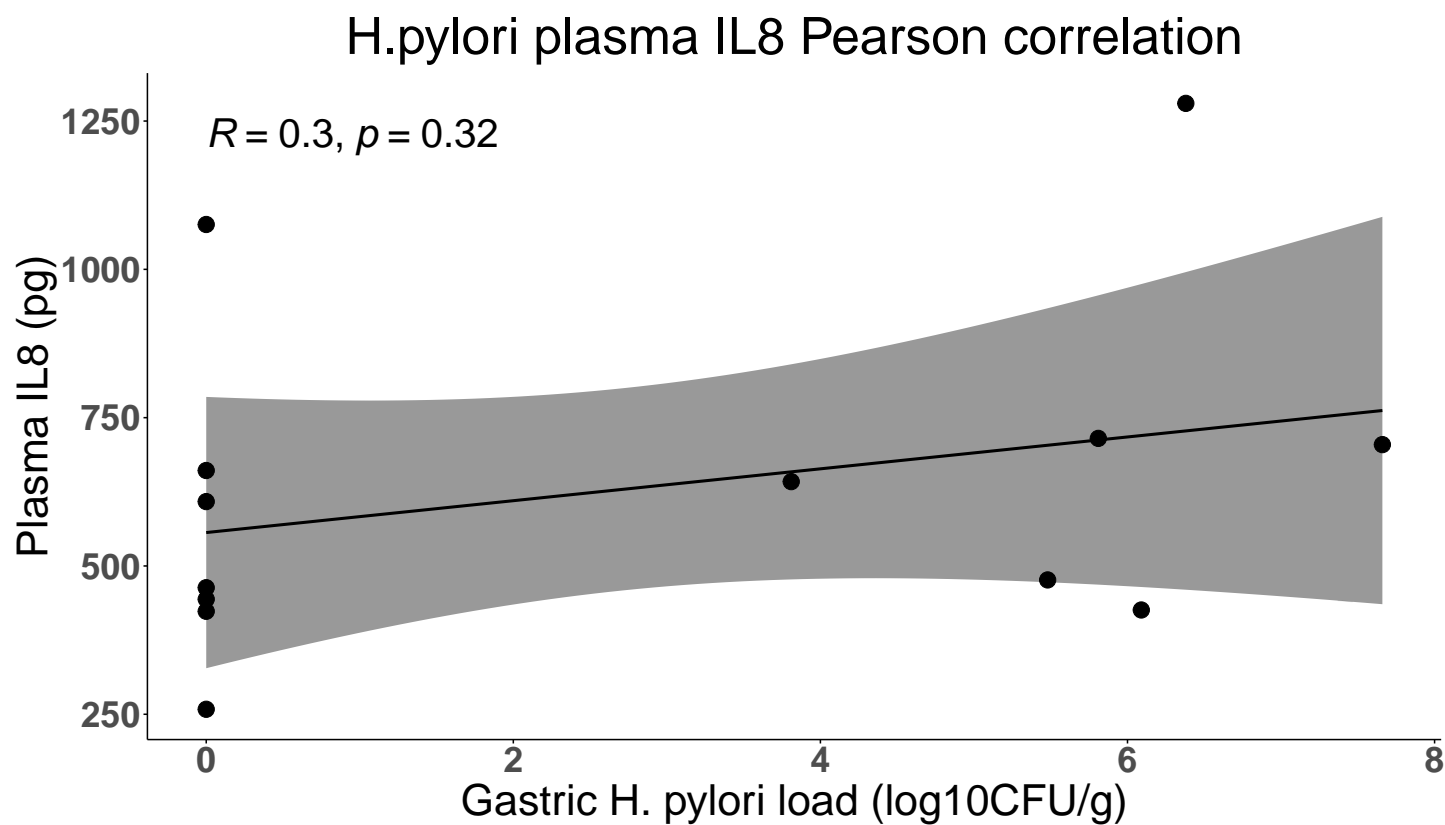
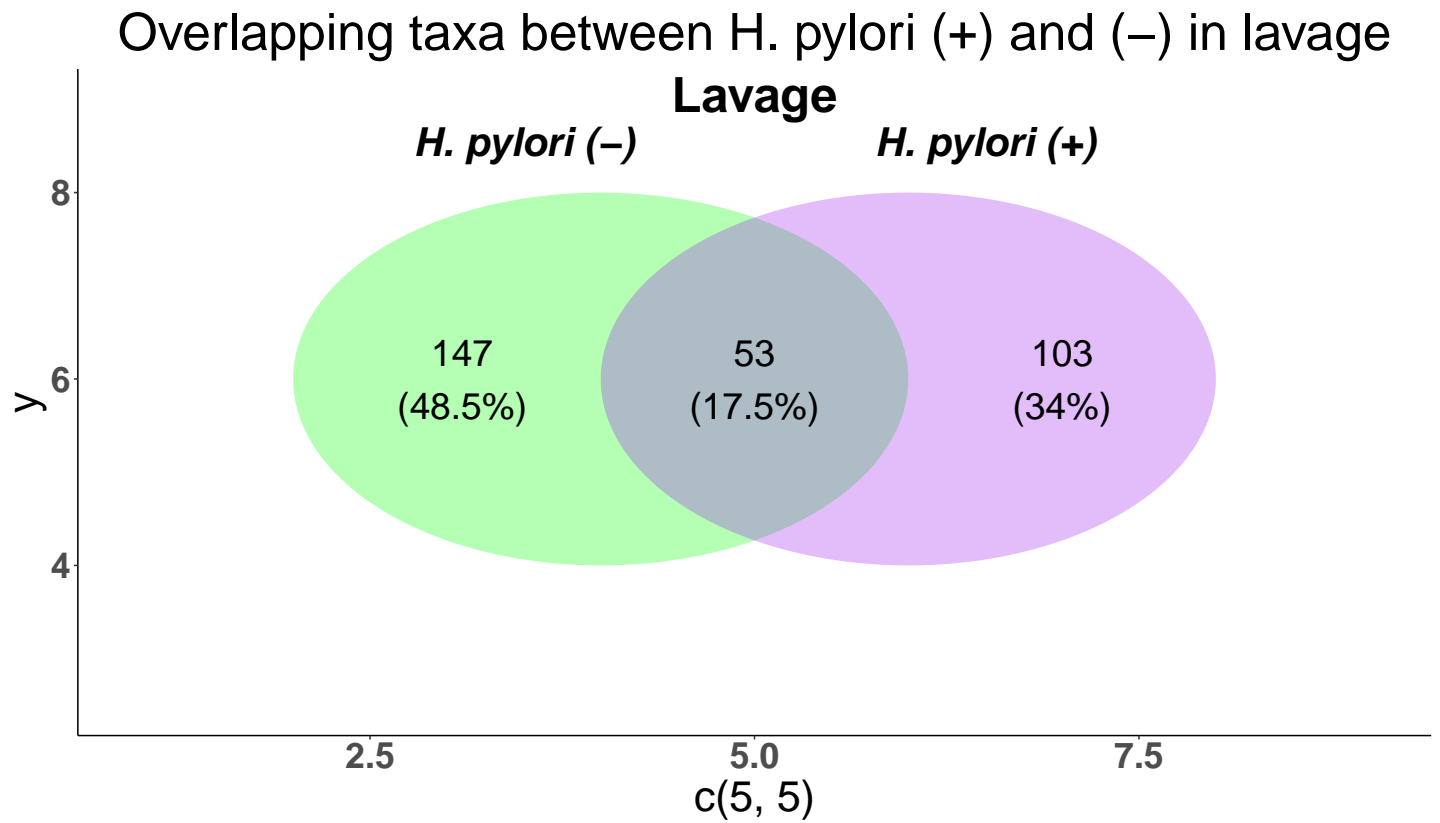


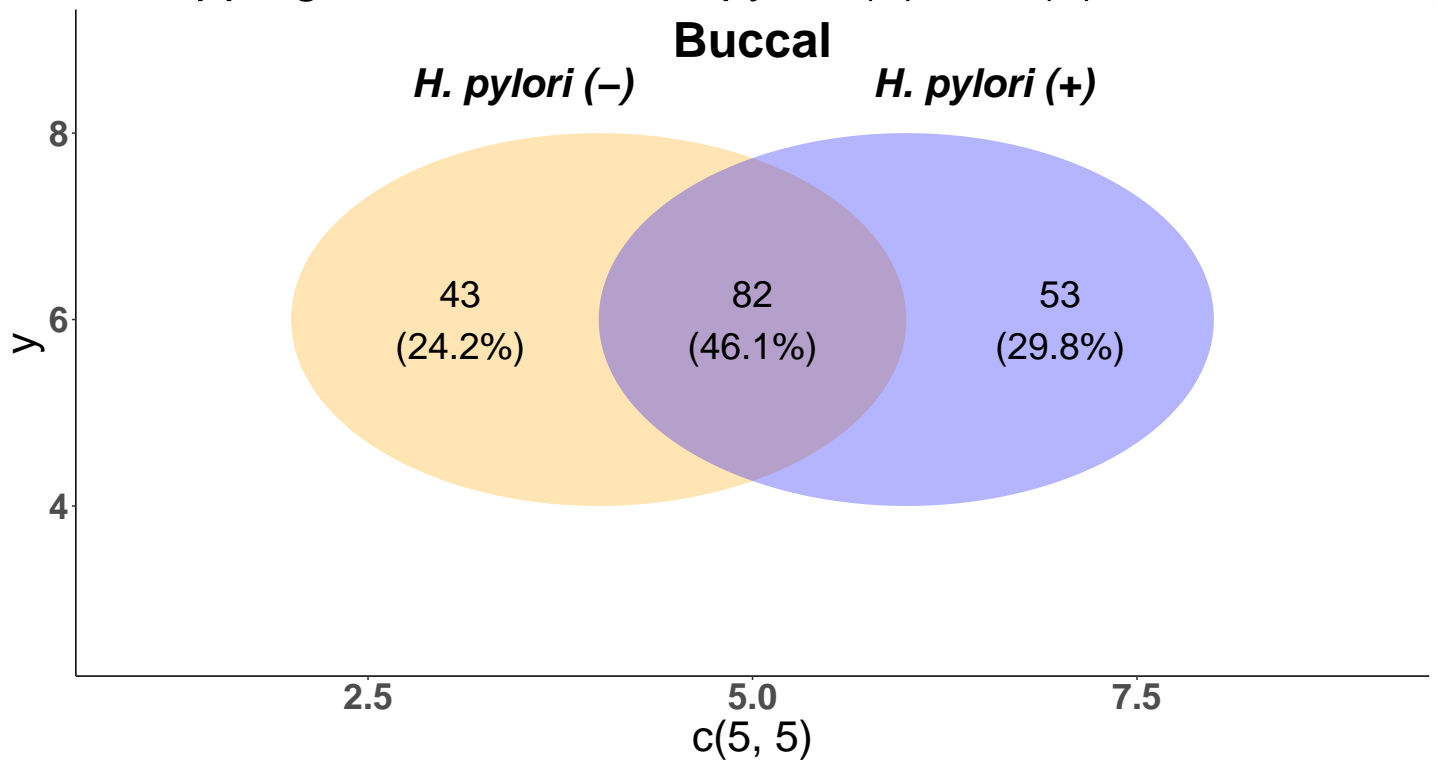
Figure 2: This plot only includes animals that had material sequenced and not all 25 animals from the study

Overlapping Taxa Between Sites and *H. pylori* Status

Lavage overlapping taxa

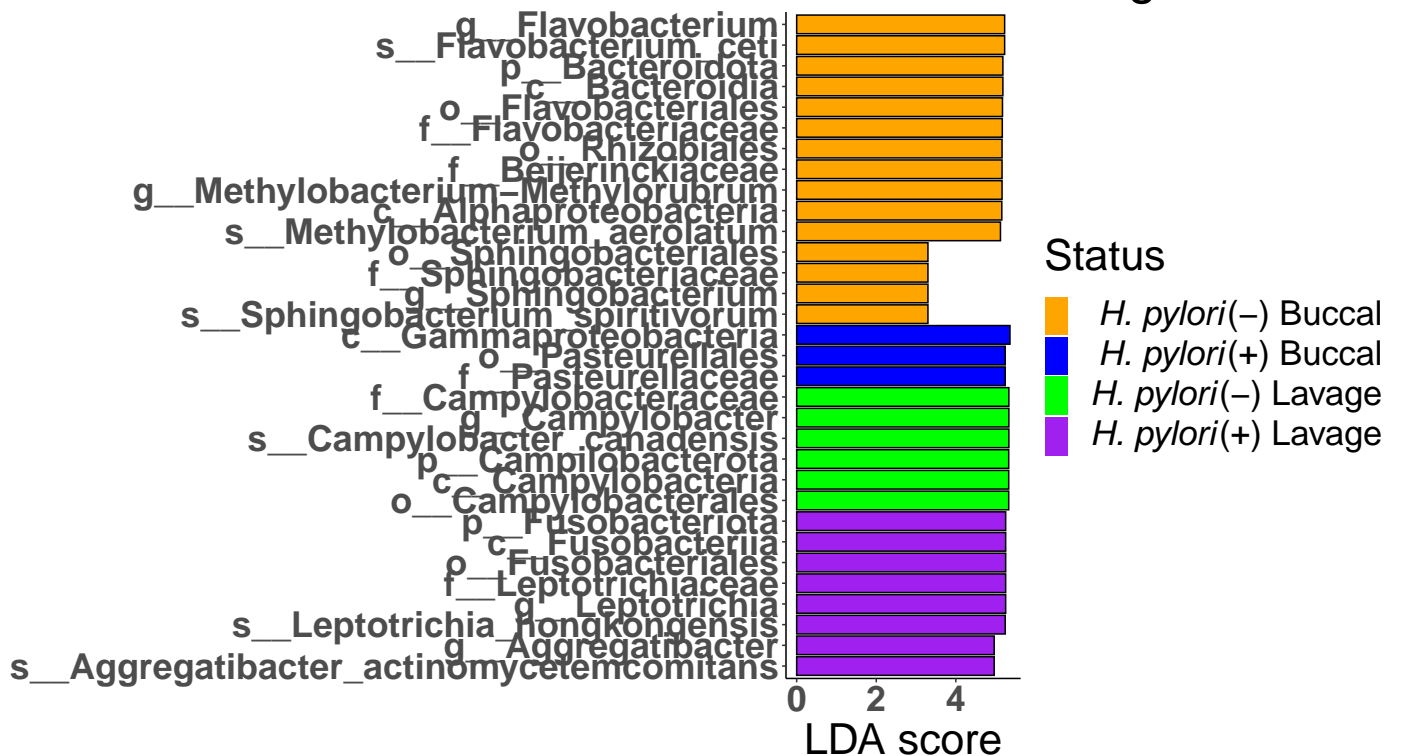


Overlapping taxa between H. pylori (+) and (–) in buccal cavity

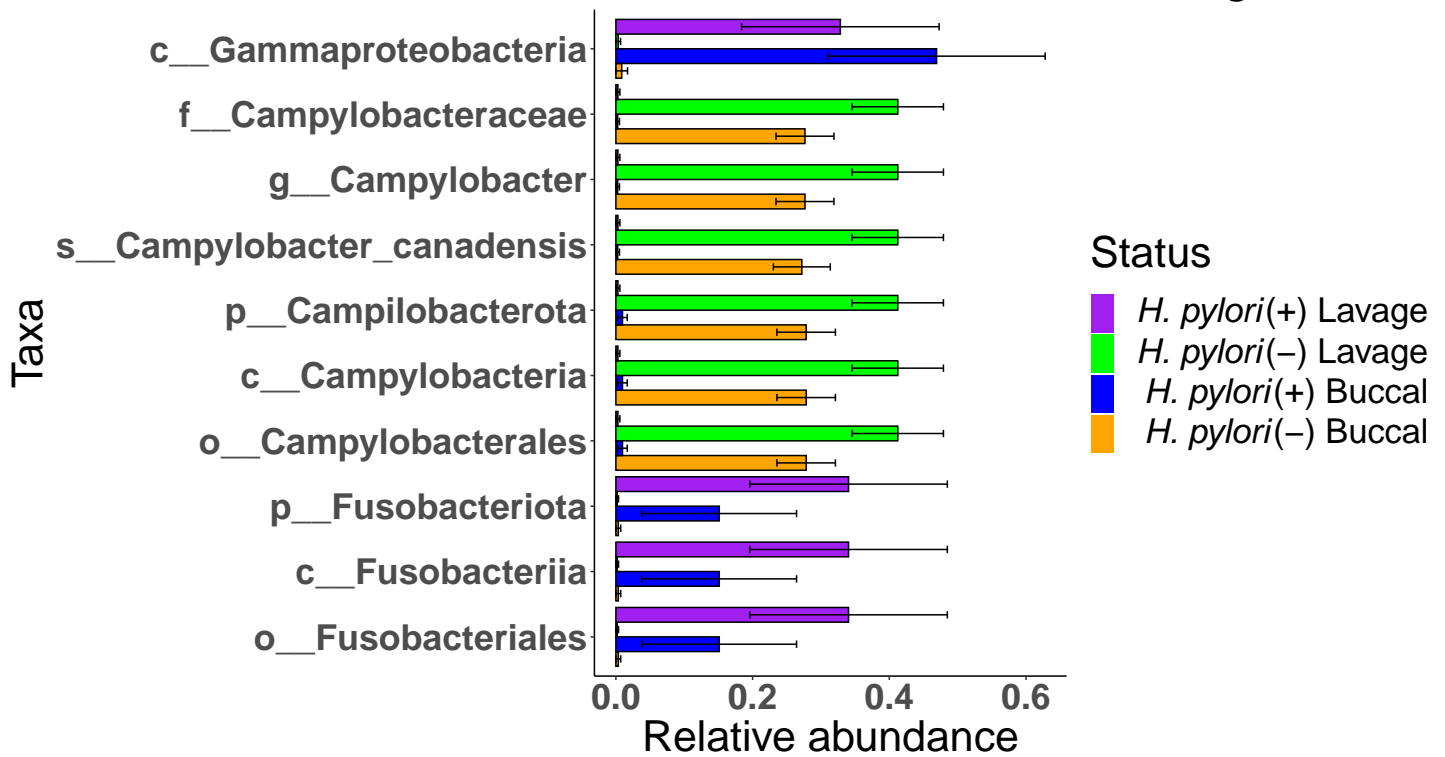


Lefse analysis and differential abundance for both sites

Lefse taxa from bronchoalveolar lavage and oral

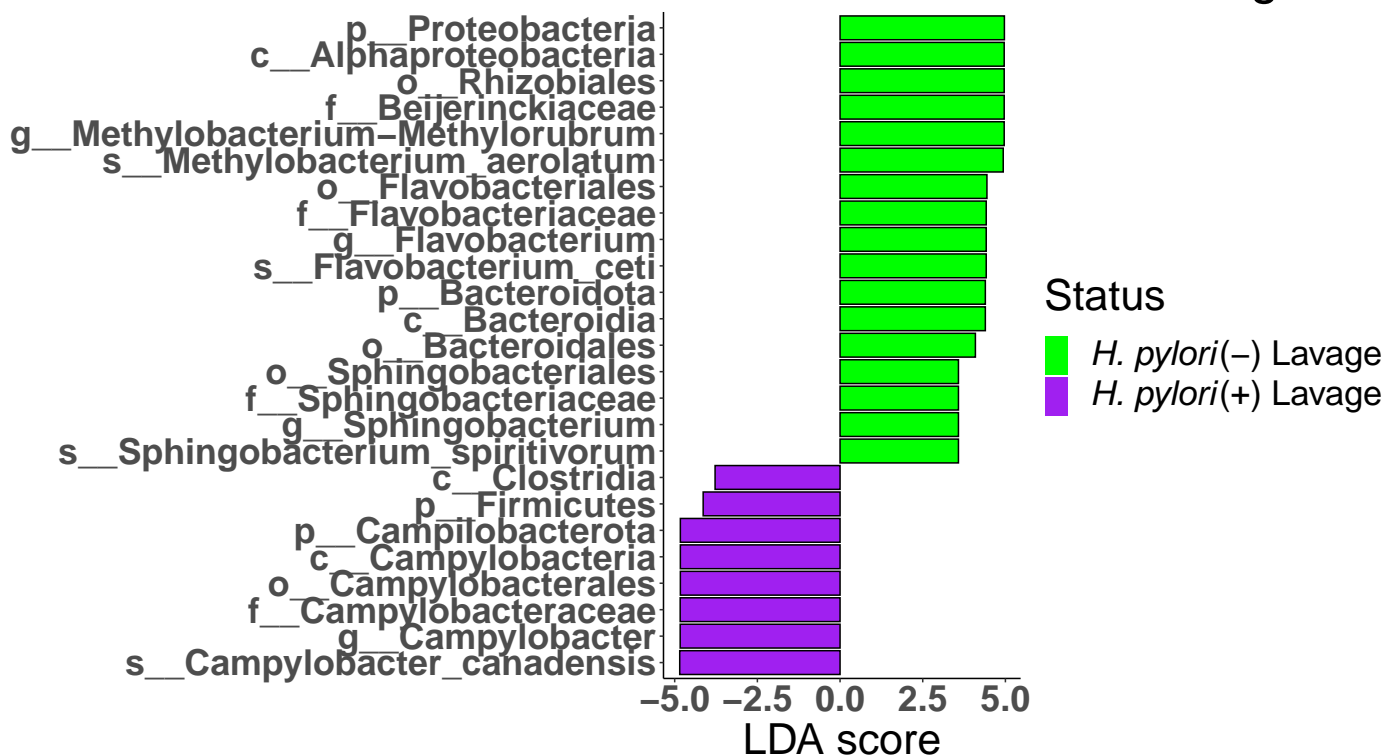


Lefse relative abundance from bronchoalveolar lavage and oral

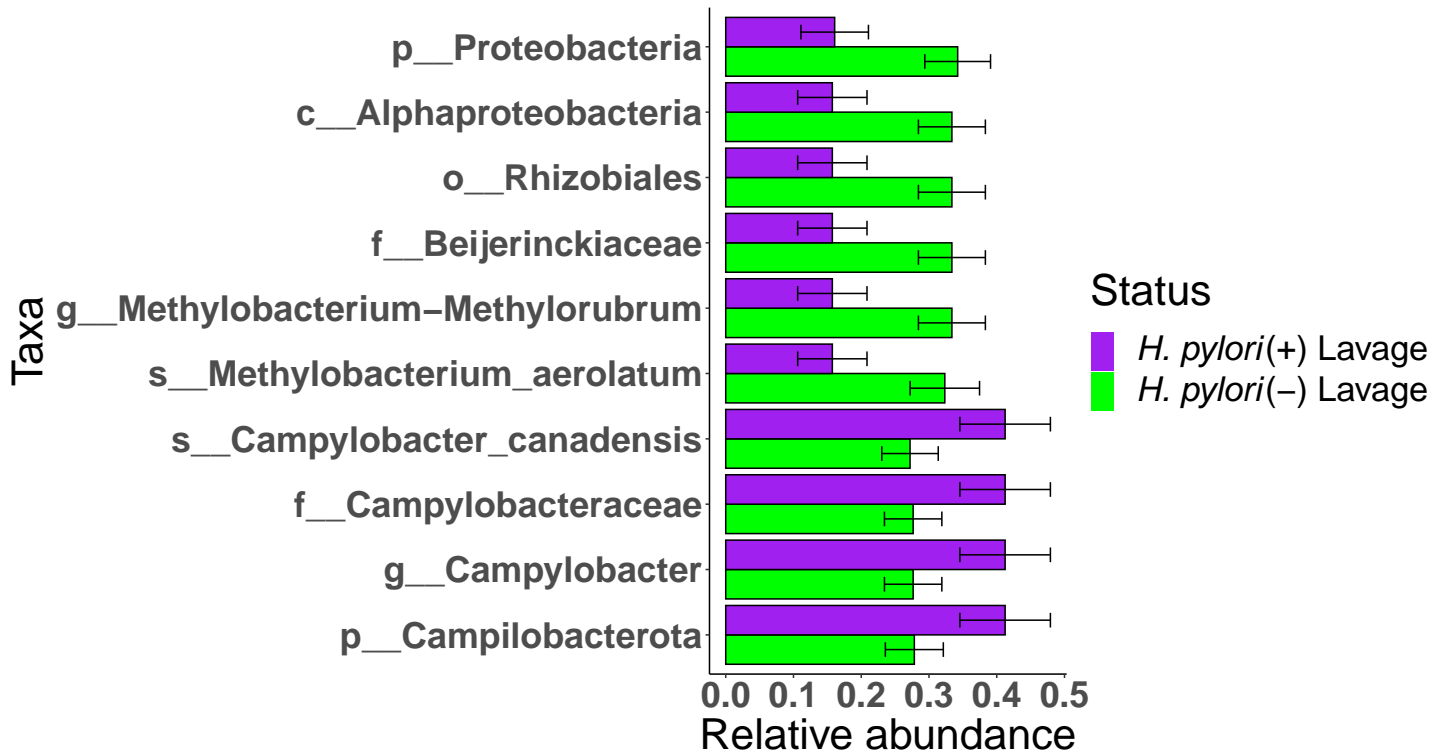


Lefse and differential abundance for bronchoalveolar lavage

Lefse Taxa from Bronchoalveolar Lavage

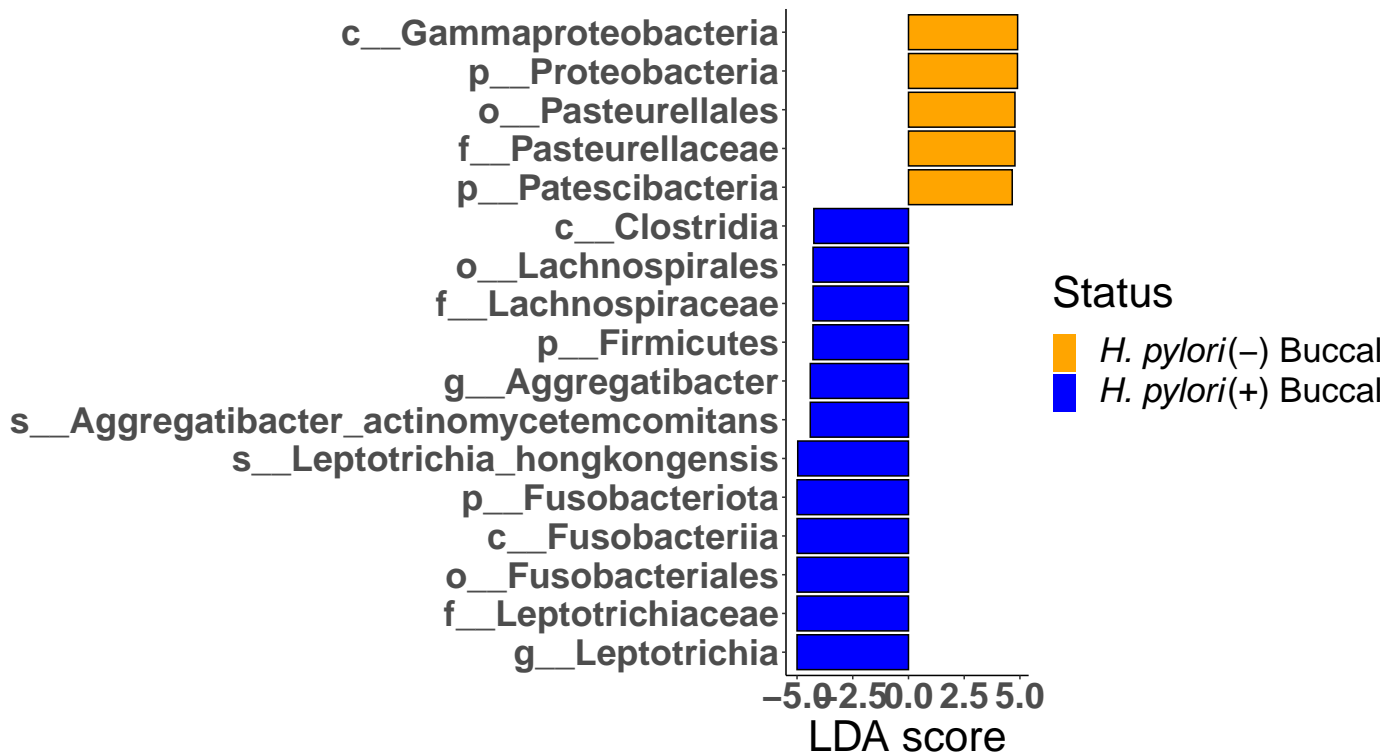


Lefse Relative Abundance from Bronchoalveolar Lav

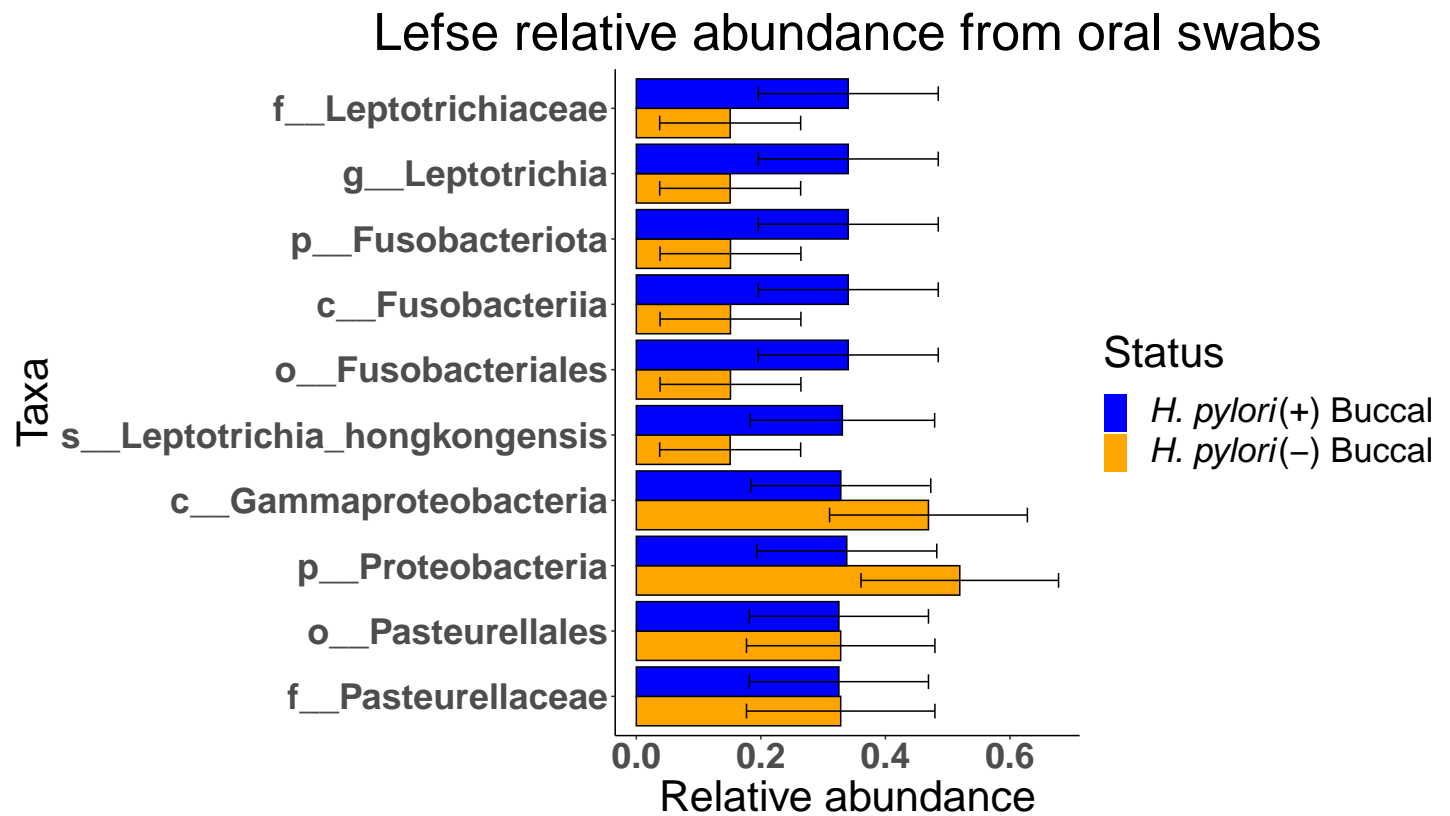


Lefse and differential abundance for oral swabs

Lefse taxa from oral swabs



Relative abundance of differential taxa

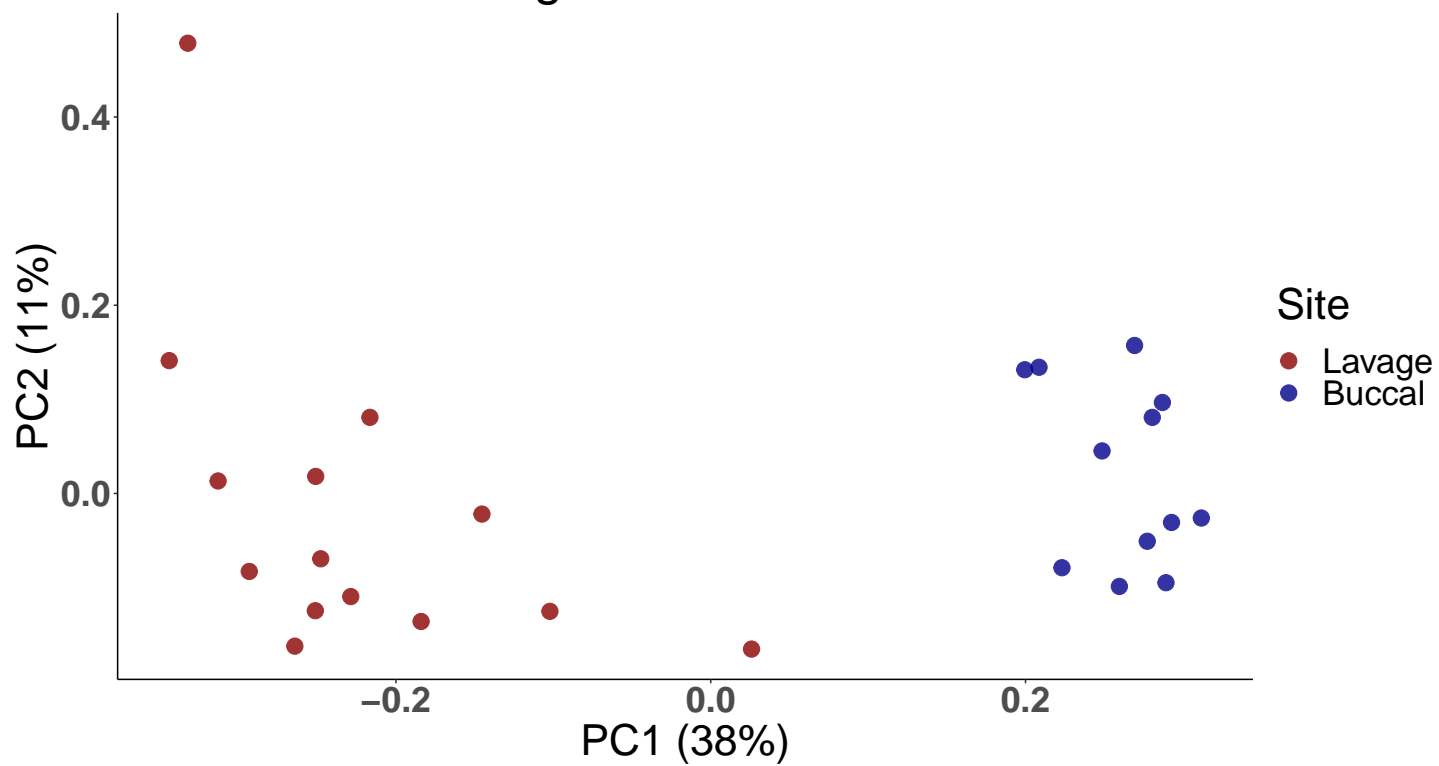


Beta diversity

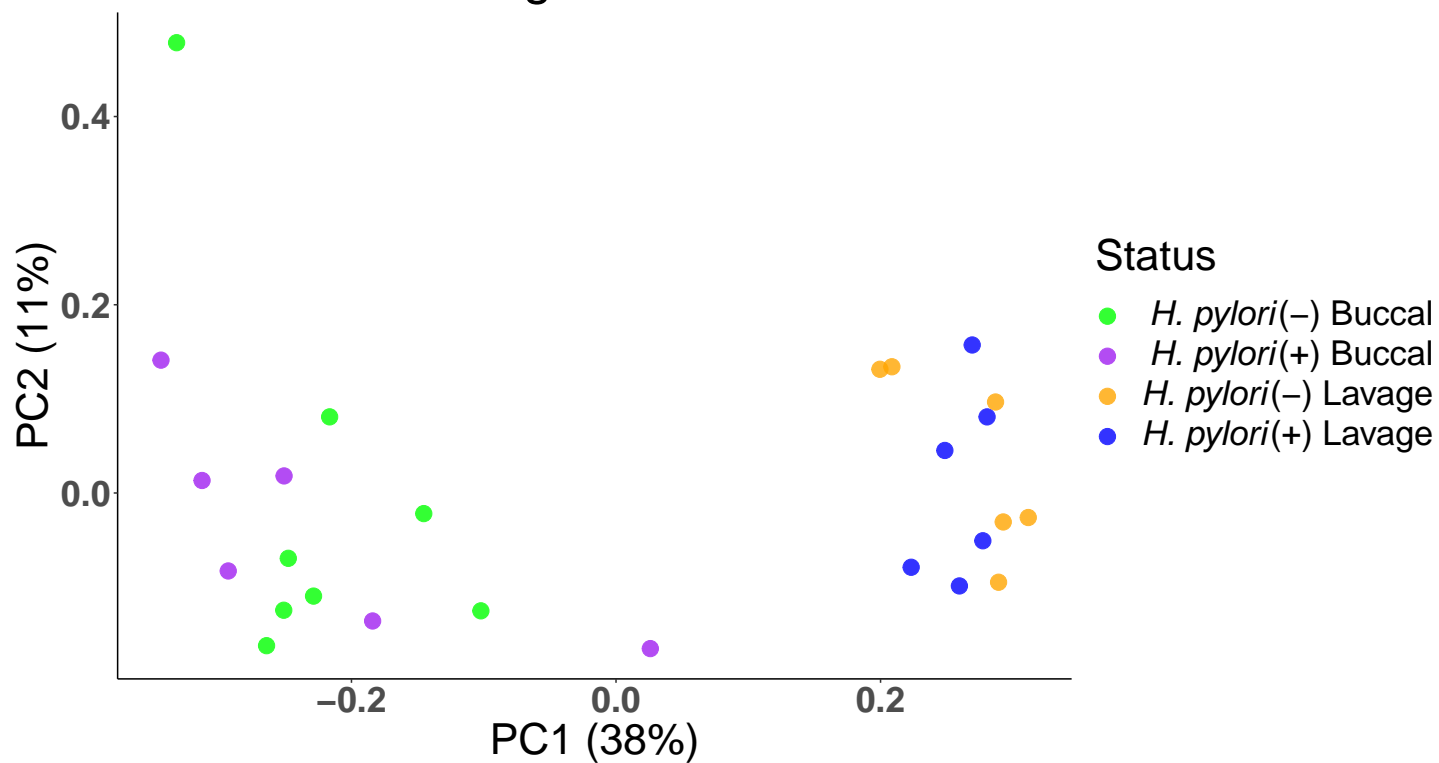
Unweighted unifrac PCoA plots

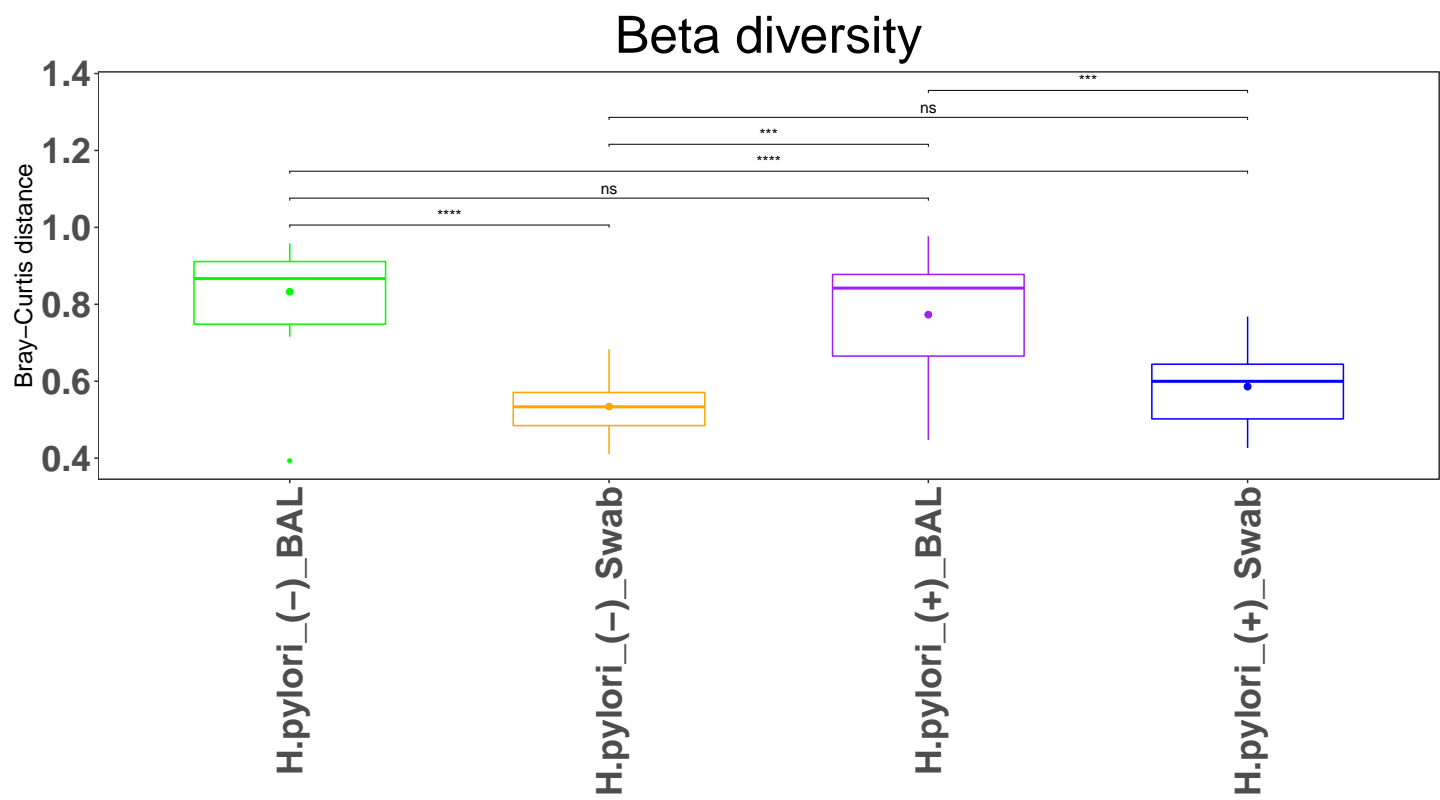
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##	PC8	PC9	PC10	PC11	PC12	PC13	PC14
## 1	0.03441675	0.0305229	0.0292508	0.02395872	0.0227312	0.01881898	0.01538496
##	PC15	PC16	PC17	PC18	PC19	PC20	
## 1	0.0140825	0.01226748	0.01155323	0.008776171	0.007488221	0.004824027	
##	PC21	PC22	PC23	PC24	PC25	PC26	
## 1	0.003528799	0.002630896	0.001679594	0	0	0	

Unweighted unifrac PCoA

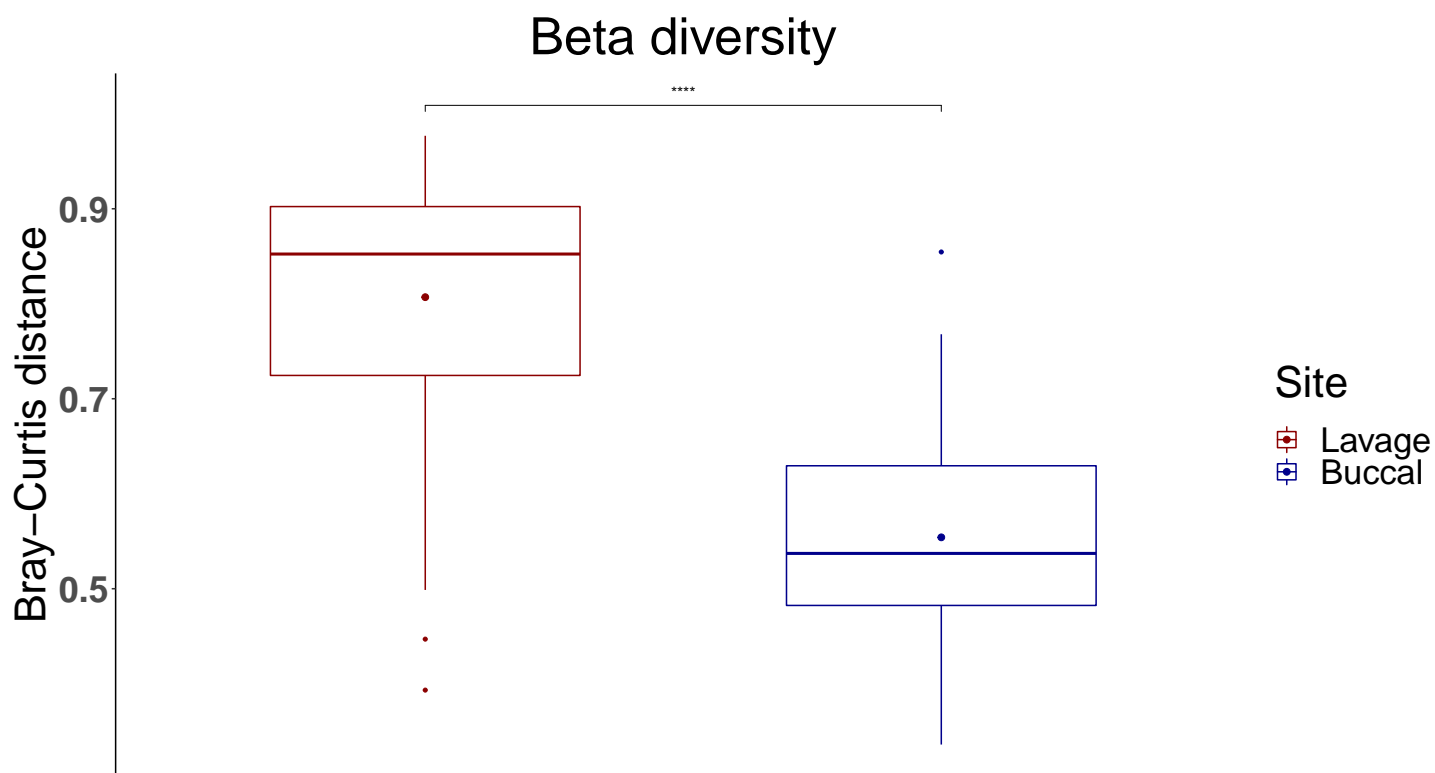


Status Unweighted unifrac PCoA



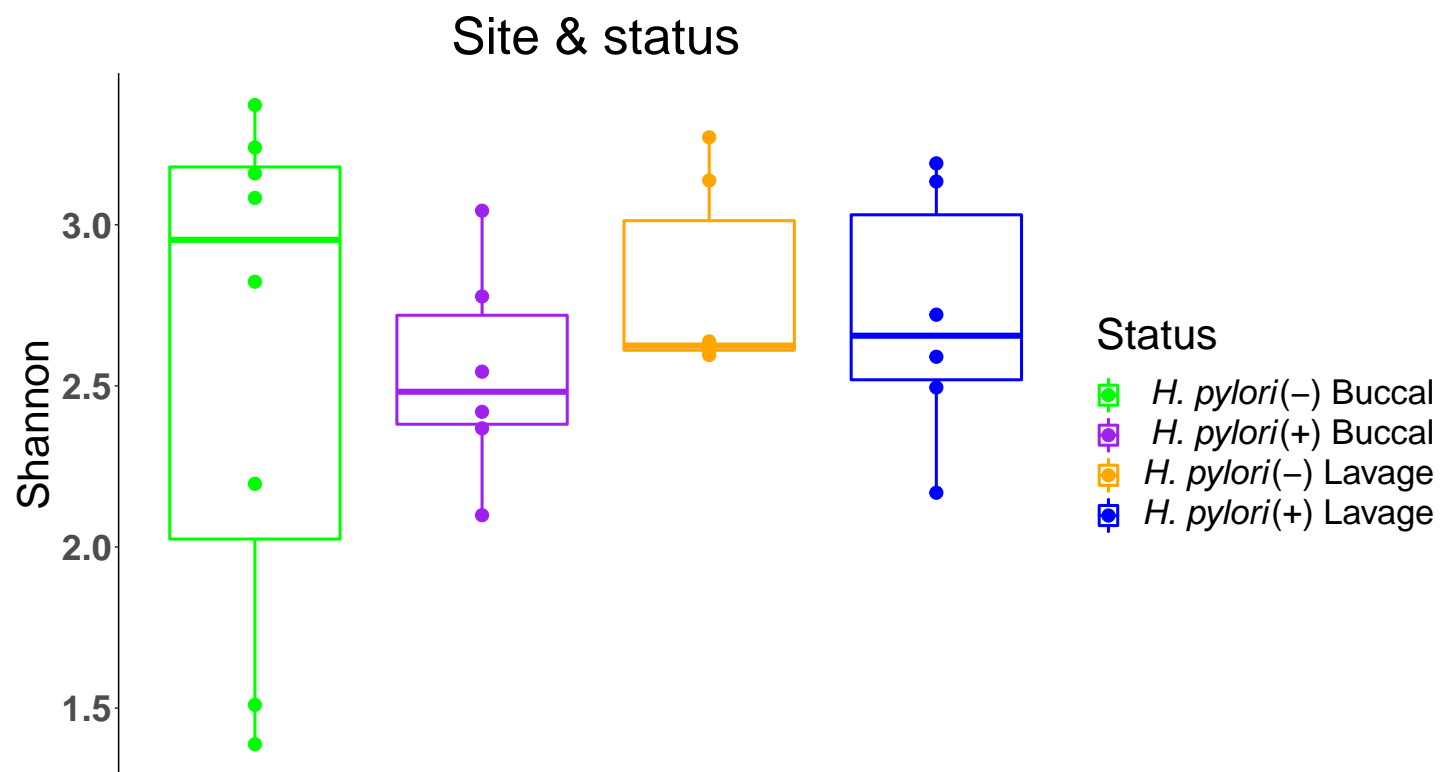


Bray-Curtis



Alpha Diversity

Shannon index by site and *H. pylori* status



Shannon index by site only

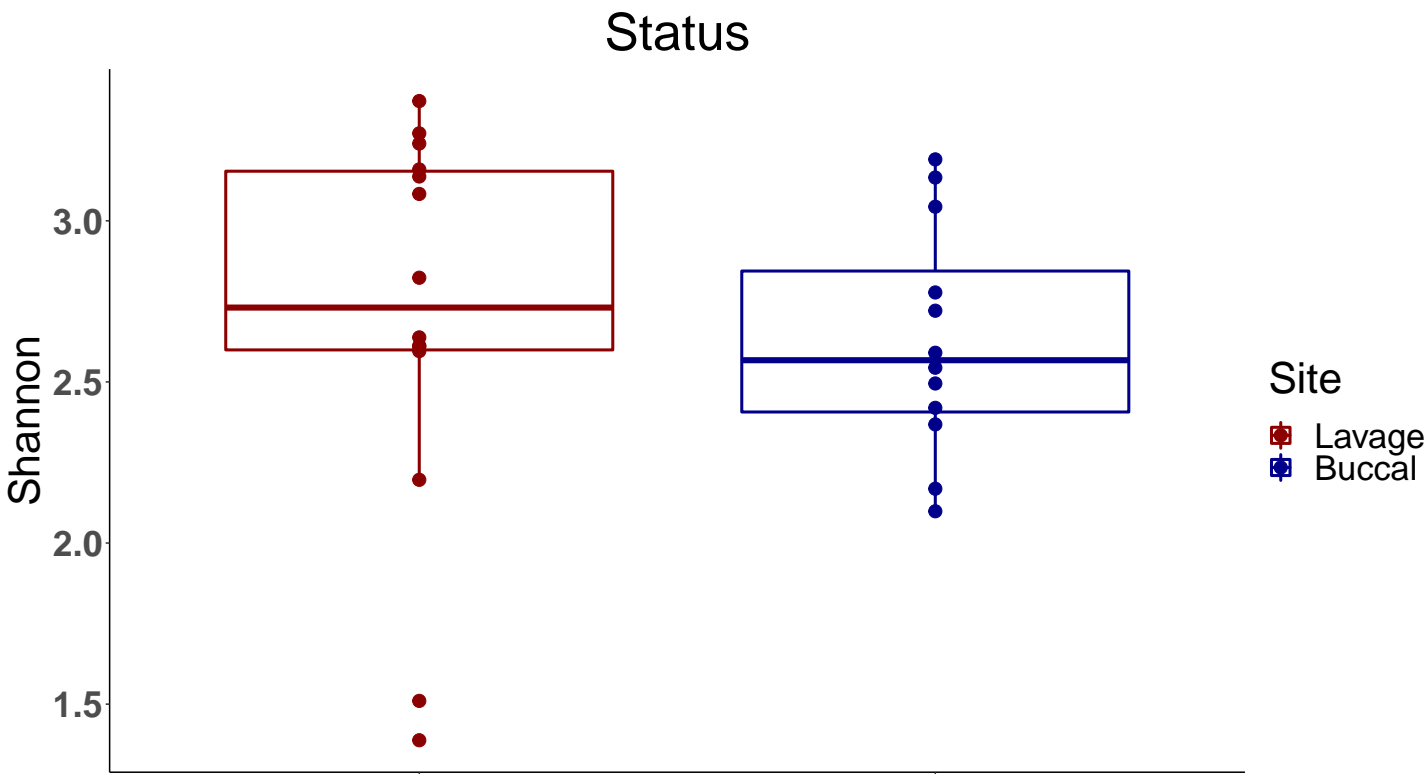
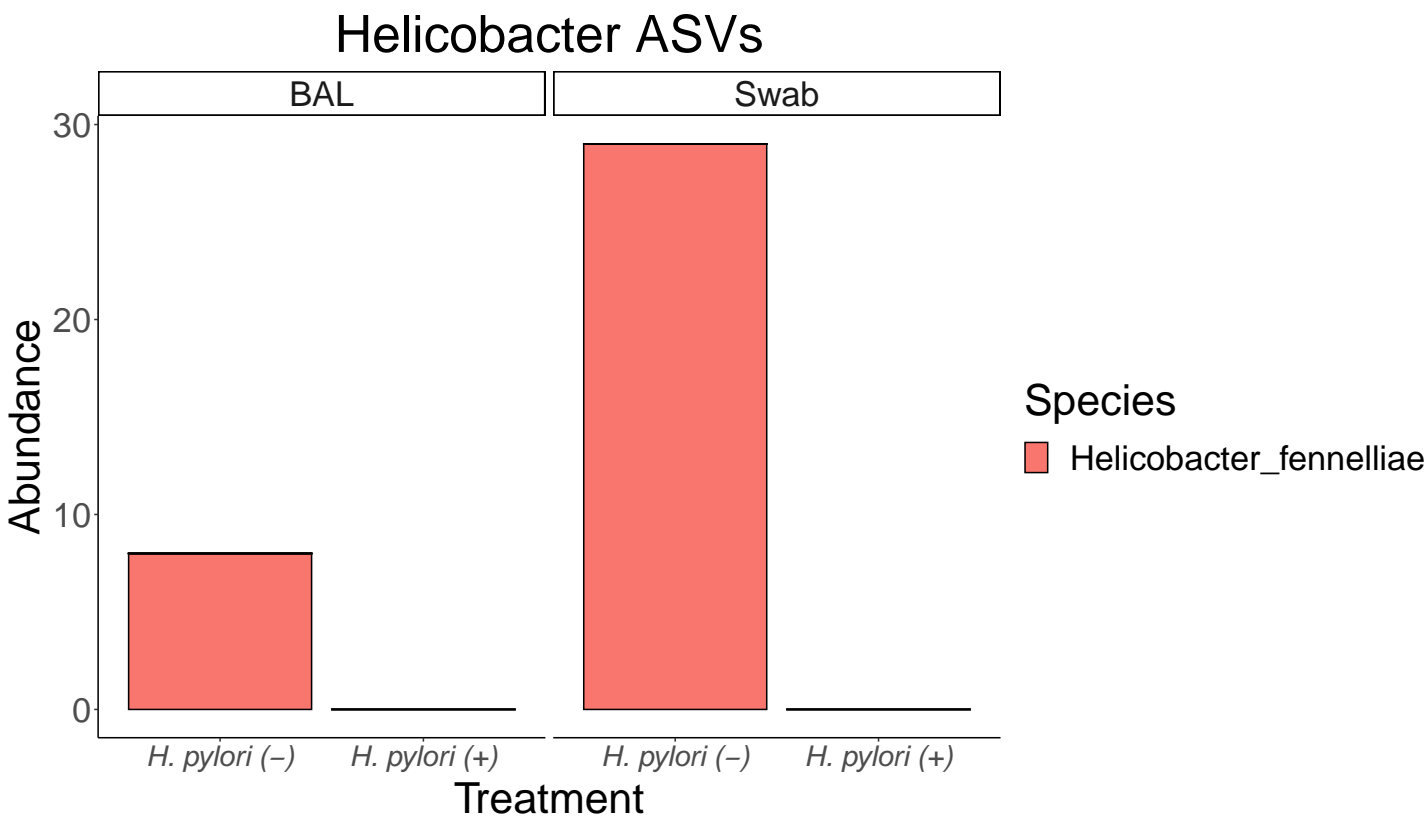


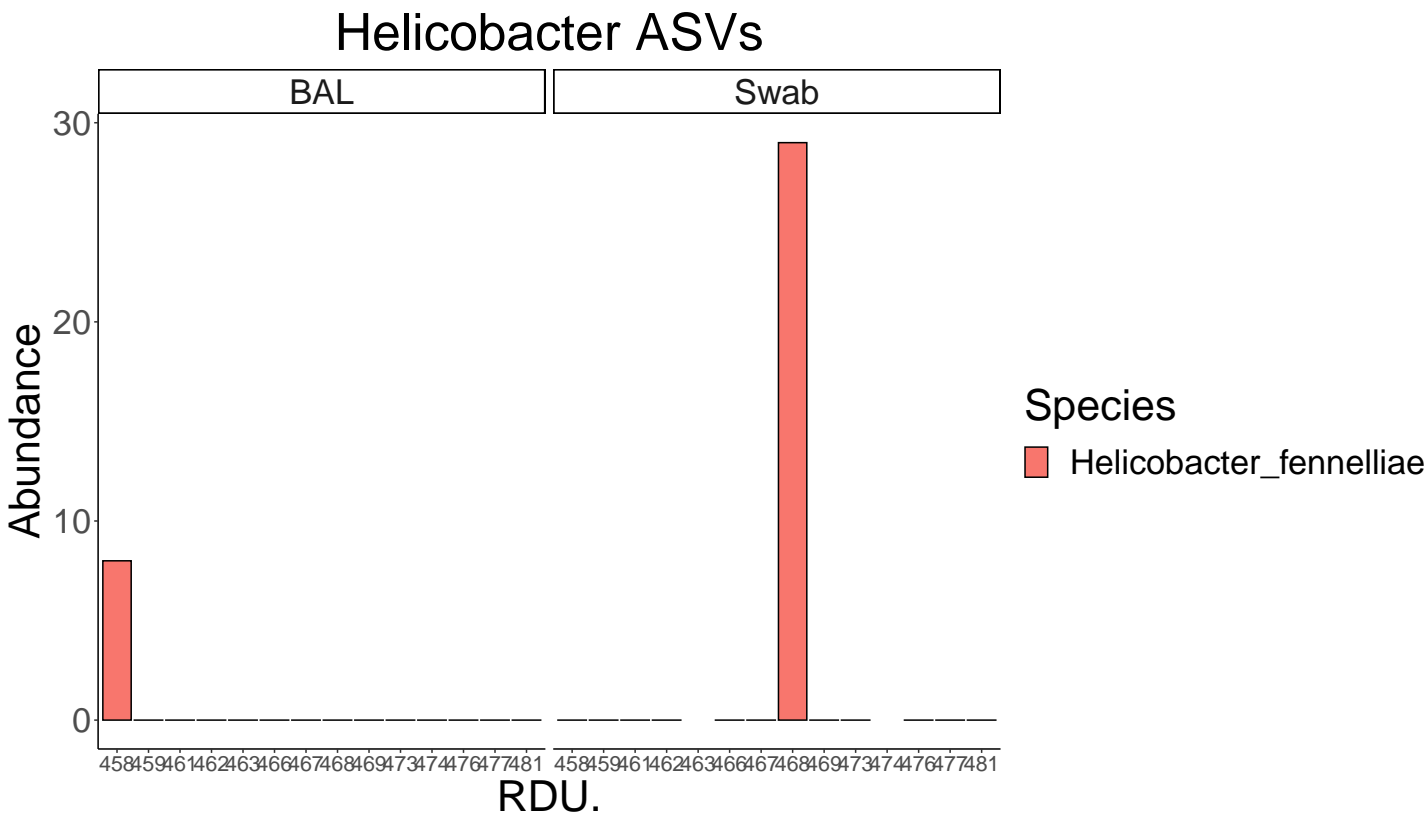
Table 2: All alpha diversity measurees

Groups	Measure	Test method	p.value	Significance
H.pylori_(-)_BAL vs H.pylori_(-)_Swab	Observed	KW	0.220	
H.pylori_(-)_BAL vs H.pylori_(+)_BAL	Observed	KW	0.651	
H.pylori_(-)_BAL vs H.pylori_(+)_Swab	Observed	KW	0.081	
H.pylori_(-)_Swab vs H.pylori_(+)_BAL	Observed	KW	0.262	
H.pylori_(-)_Swab vs H.pylori_(+)_Swab	Observed	KW	0.520	
H.pylori_(+)_BAL vs H.pylori_(+)_Swab	Observed	KW	0.109	
H.pylori_(-)_BAL vs H.pylori_(-)_Swab vs H.pylori_(+)_BAL vs H.pylori_(+)_Swab	Observed	KW	0.202	
H.pylori_(-)_BAL vs H.pylori_(-)_Swab	Chao1	KW	0.220	
H.pylori_(-)_BAL vs H.pylori_(+)_BAL	Chao1	KW	0.651	
H.pylori_(-)_BAL vs H.pylori_(+)_Swab	Chao1	KW	0.081	
H.pylori_(-)_Swab vs H.pylori_(+)_BAL	Chao1	KW	0.262	
H.pylori_(-)_Swab vs H.pylori_(+)_Swab	Chao1	KW	0.520	
H.pylori_(+)_BAL vs H.pylori_(+)_Swab	Chao1	KW	0.109	
H.pylori_(-)_BAL vs H.pylori_(-)_Swab vs H.pylori_(+)_BAL vs H.pylori_(+)_Swab	Chao1	KW	0.202	
H.pylori_(-)_BAL vs H.pylori_(-)_Swab	ACE	KW	0.220	
H.pylori_(-)_BAL vs H.pylori_(+)_BAL	ACE	KW	0.651	
H.pylori_(-)_BAL vs H.pylori_(+)_Swab	ACE	KW	0.081	
H.pylori_(-)_Swab vs H.pylori_(+)_BAL	ACE	KW	0.262	
H.pylori_(-)_Swab vs H.pylori_(+)_Swab	ACE	KW	0.520	
H.pylori_(+)_BAL vs H.pylori_(+)_Swab	ACE	KW	0.109	
H.pylori_(-)_BAL vs H.pylori_(-)_Swab vs H.pylori_(+)_BAL vs H.pylori_(+)_Swab	ACE	KW	0.202	
H.pylori_(-)_BAL vs H.pylori_(-)_Swab	Shannon	KW	0.439	
H.pylori_(-)_BAL vs H.pylori_(+)_BAL	Shannon	KW	1.000	
H.pylori_(-)_BAL vs H.pylori_(+)_Swab	Shannon	KW	0.796	
H.pylori_(-)_Swab vs H.pylori_(+)_BAL	Shannon	KW	0.109	
H.pylori_(-)_Swab vs H.pylori_(+)_Swab	Shannon	KW	0.337	
H.pylori_(+)_BAL vs H.pylori_(+)_Swab	Shannon	KW	0.423	
H.pylori_(-)_BAL vs H.pylori_(-)_Swab vs H.pylori_(+)_BAL vs H.pylori_(+)_Swab	Shannon	KW	0.540	
H.pylori_(-)_BAL vs H.pylori_(-)_Swab	Simpson	KW	0.519	
H.pylori_(-)_BAL vs H.pylori_(+)_BAL	Simpson	KW	0.699	
H.pylori_(-)_BAL vs H.pylori_(+)_Swab	Simpson	KW	0.699	
H.pylori_(-)_Swab vs H.pylori_(+)_BAL	Simpson	KW	0.109	
H.pylori_(-)_Swab vs H.pylori_(+)_Swab	Simpson	KW	0.423	
H.pylori_(+)_BAL vs H.pylori_(+)_Swab	Simpson	KW	0.262	
H.pylori_(-)_BAL vs H.pylori_(-)_Swab vs H.pylori_(+)_BAL vs H.pylori_(+)_Swab	Simpson	KW	0.493	
H.pylori_(-)_BAL vs H.pylori_(-)_Swab	InvSimpson	KW	0.519	
H.pylori_(-)_BAL vs H.pylori_(+)_BAL	InvSimpson	KW	0.699	
H.pylori_(-)_BAL vs H.pylori_(+)_Swab	InvSimpson	KW	0.699	
H.pylori_(-)_Swab vs H.pylori_(+)_BAL	InvSimpson	KW	0.109	
H.pylori_(-)_Swab vs H.pylori_(+)_Swab	InvSimpson	KW	0.423	
H.pylori_(+)_BAL vs H.pylori_(+)_Swab	InvSimpson	KW	0.262	
H.pylori_(-)_BAL vs H.pylori_(-)_Swab vs H.pylori_(+)_BAL vs H.pylori_(+)_Swab	InvSimpson	KW	0.493	
H.pylori_(-)_BAL vs H.pylori_(-)_Swab	Fisher	KW	0.606	
H.pylori_(-)_BAL vs H.pylori_(+)_BAL	Fisher	KW	0.699	
H.pylori_(-)_BAL vs H.pylori_(+)_Swab	Fisher	KW	0.796	
H.pylori_(-)_Swab vs H.pylori_(+)_BAL	Fisher	KW	0.631	
H.pylori_(-)_Swab vs H.pylori_(+)_Swab	Fisher	KW	0.631	
H.pylori_(+)_BAL vs H.pylori_(+)_Swab	Fisher	KW	1.000	
H.pylori_(-)_BAL vs H.pylori_(-)_Swab vs H.pylori_(+)_BAL vs H.pylori_(+)_Swab	Fisher	KW	0.927	
H.pylori_(-)_BAL vs H.pylori_(-)_Swab	Coverage	KW	NaN	NA
H.pylori_(-)_BAL vs H.pylori_(+)_BAL	Coverage	KW	NaN	NA
H.pylori_(-)_BAL vs H.pylori_(+)_Swab	Coverage	KW	NaN	NA
H.pylori_(-)_Swab vs H.pylori_(+)_BAL	Coverage	KW	NaN	NA
H.pylori_(-)_Swab vs H.pylori_(+)_Swab	Coverage	KW	NaN	NA
H.pylori_(+)_BAL vs H.pylori_(+)_Swab	Coverage	KW	NaN	NA
H.pylori_(-)_BAL vs H.pylori_(-)_Swab vs H.pylori_(+)_BAL vs H.pylori_(+)_Swab	Coverage	KW	NaN	NA
H.pylori_(-)_BAL vs H.pylori_(-)_Swab	PD	KW	0.366	
H.pylori_(-)_BAL vs H.pylori_(+)_BAL	PD	KW	0.699	
H.pylori_(-)_BAL vs H.pylori_(+)_Swab	PD	KW	0.439	
H.pylori_(-)_Swab vs H.pylori_(+)_BAL	PD	KW	0.631	
H.pylori_(-)_Swab vs H.pylori_(+)_Swab	PD	KW	0.749	
H.pylori_(+)_BAL vs H.pylori_(+)_Swab	PD	KW	0.631	
H.pylori_(-)_BAL vs H.pylori_(-)_Swab vs H.pylori_(+)_BAL vs H.pylori_(+)_Swab	PD	KW	0.777	

Helicobacter positive respiratory samples

Helicobacter positive samples separated by site





Taxa barplots

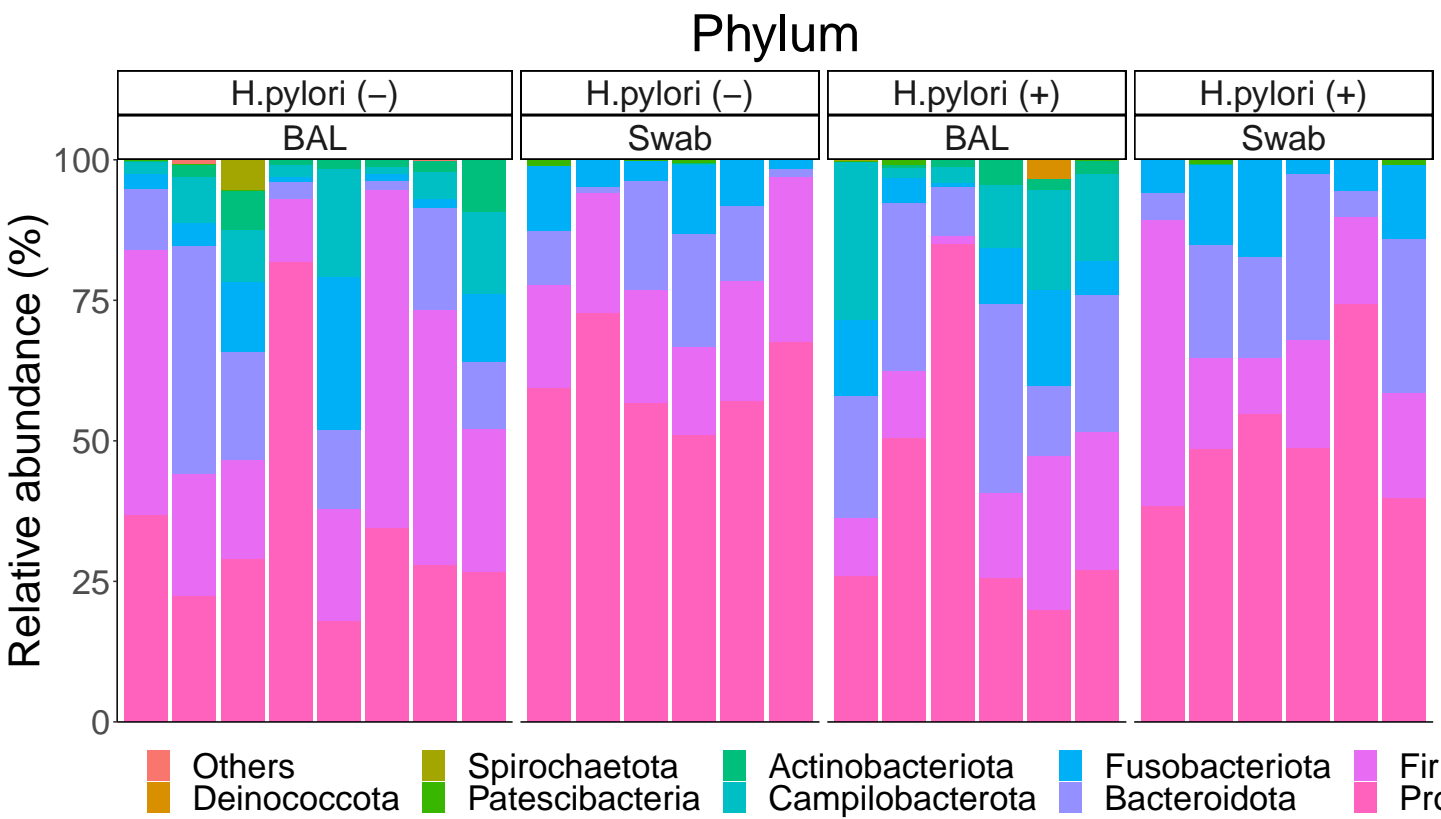


Figure 3: Microbiota Composition at Phylum level.

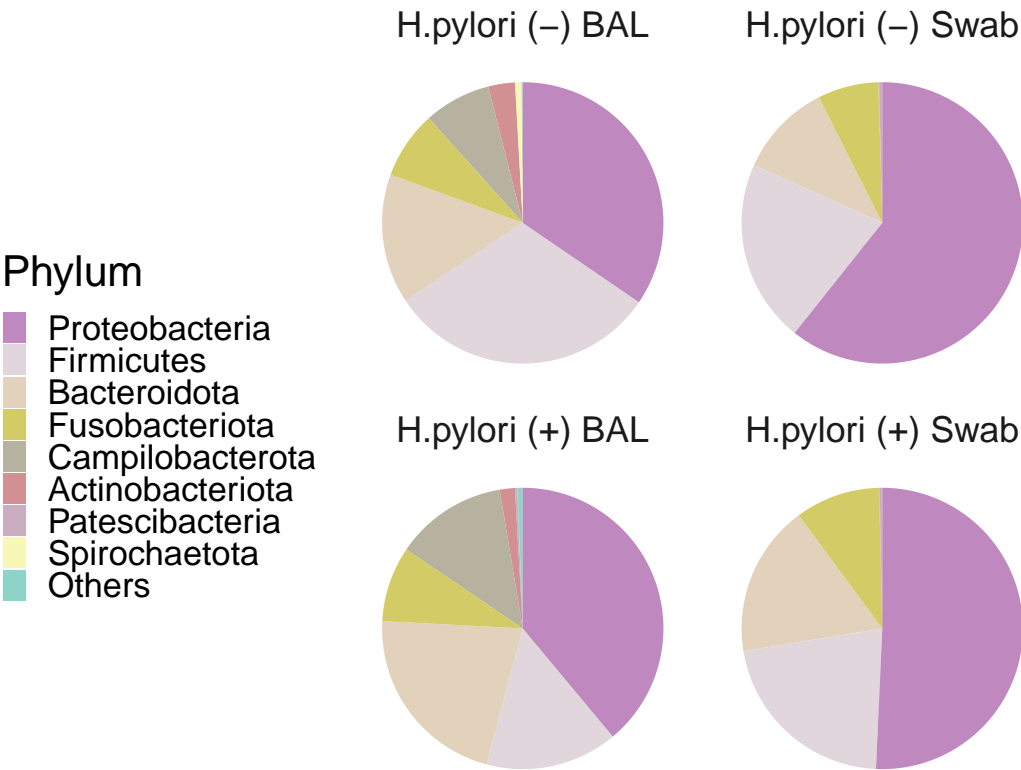


Figure 4: Microbiota Composition at Phylum level.

Table 3: Phylum Average Relative Abundance

Taxonomy	Sample	Average Percent Abundance
Acidobacteriota	H.pylori (+) BAL	0.1%
Actinobacteriota	H.pylori (-) BAL	3.1%
Actinobacteriota	H.pylori (+) BAL	1.8%
Actinobacteriota	H.pylori (+) Swab	0.1%
Actinobacteriota	H.pylori (-) Swab	0%
Bacteroidota	H.pylori (+) BAL	21.7%
Bacteroidota	H.pylori (+) Swab	17.4%
Bacteroidota	H.pylori (-) BAL	14.9%
Bacteroidota	H.pylori (-) Swab	10.8%
Campilobacterota	H.pylori (+) BAL	12.9%
Campilobacterota	H.pylori (-) BAL	7.7%
Campilobacterota	H.pylori (-) Swab	0%
Deinococcota	H.pylori (+) BAL	0.6%
Desulfobacterota	H.pylori (-) BAL	0.1%
Firmicutes	H.pylori (-) BAL	31.1%
Firmicutes	H.pylori (+) Swab	21.7%
Firmicutes	H.pylori (-) Swab	21%
Firmicutes	H.pylori (+) BAL	15.2%
Fusobacteriota	H.pylori (+) Swab	9.8%
Fusobacteriota	H.pylori (+) BAL	8.6%
Fusobacteriota	H.pylori (-) BAL	7.8%
Fusobacteriota	H.pylori (-) Swab	7%
Latescibacterota	H.pylori (-) BAL	0%
Patescibacteria	H.pylori (-) Swab	0.4%
Patescibacteria	H.pylori (+) Swab	0.3%
Patescibacteria	H.pylori (+) BAL	0.3%
Patescibacteria	H.pylori (-) BAL	0%
Proteobacteria	H.pylori (-) Swab	60.7%
Proteobacteria	H.pylori (+) Swab	50.7%
Proteobacteria	H.pylori (+) BAL	38.9%
Proteobacteria	H.pylori (-) BAL	34.5%
Spirochaetota	H.pylori (-) BAL	0.7%

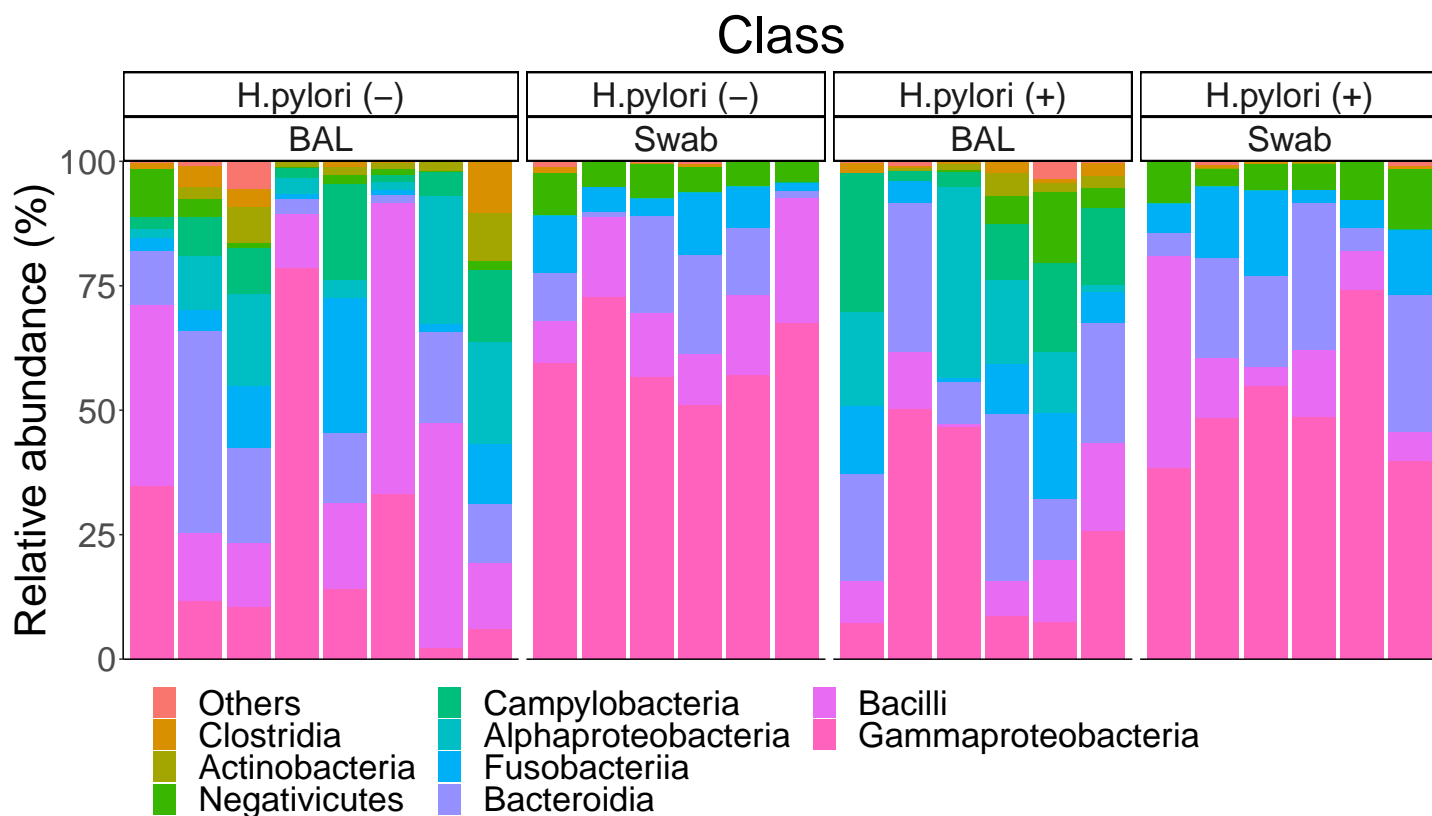


Figure 5: Microbiota Composition at Class level.

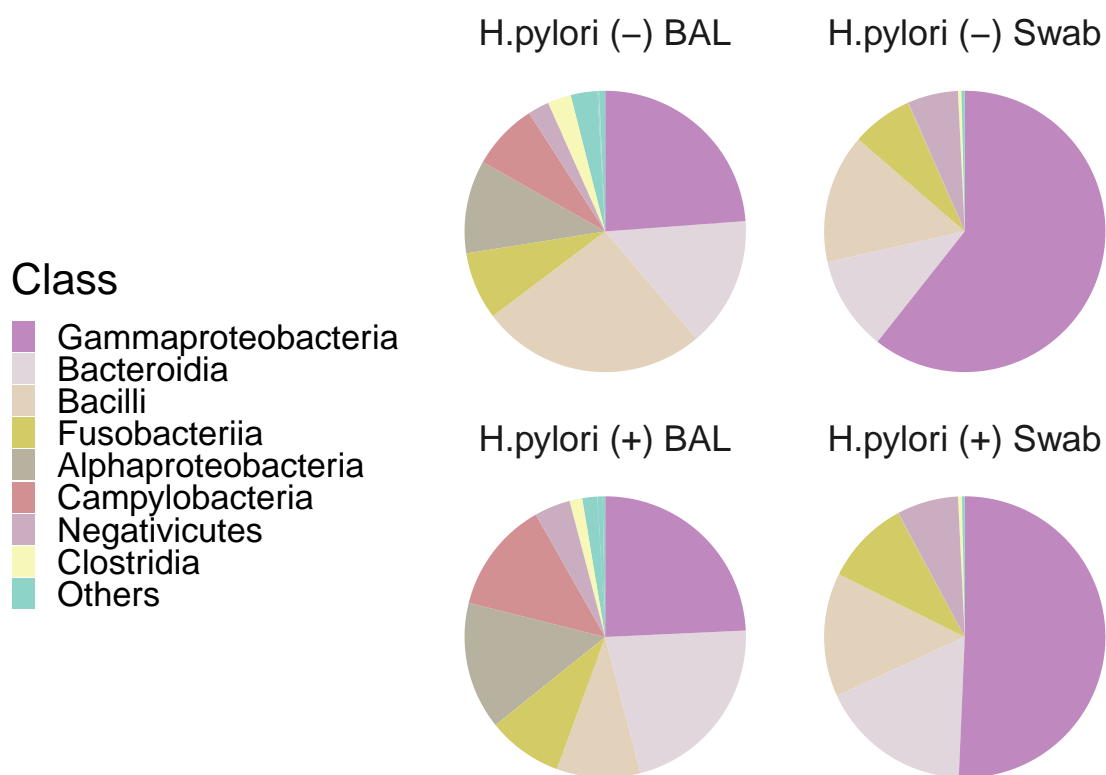


Figure 6: Microbiota Composition at Class level.

Table 4: Class Average Relative Abundance

Taxonomy	Sample	Average Percent Abundance
Actinobacteria	H.pylori (-) BAL	3.1%
Actinobacteria	H.pylori (+) BAL	1.7%
Alphaproteobacteria	H.pylori (+) BAL	14.7%
Alphaproteobacteria	H.pylori (-) BAL	10.7%
Bacilli	H.pylori (-) BAL	26%
Bacilli	H.pylori (-) Swab	14.9%
Bacilli	H.pylori (+) Swab	14.2%
Bacilli	H.pylori (+) BAL	9.6%
Bacteroidia	H.pylori (+) BAL	21.7%
Bacteroidia	H.pylori (+) Swab	17.4%
Bacteroidia	H.pylori (-) BAL	14.9%
Bacteroidia	H.pylori (-) Swab	10.8%
Campylobacteria	H.pylori (+) BAL	12.9%
Campylobacteria	H.pylori (-) BAL	7.7%
Clostridia	H.pylori (-) BAL	2.7%
Clostridia	H.pylori (+) BAL	1.5%
Clostridia	H.pylori (+) Swab	0.4%
Clostridia	H.pylori (-) Swab	0.4%
Deinococci	H.pylori (+) BAL	0.6%
Fusobacteriia	H.pylori (+) Swab	9.8%
Fusobacteriia	H.pylori (+) BAL	8.6%
Fusobacteriia	H.pylori (-) BAL	7.8%
Fusobacteriia	H.pylori (-) Swab	7%
Gammaproteobacteria	H.pylori (-) Swab	60.7%
Gammaproteobacteria	H.pylori (+) Swab	50.7%
Gammaproteobacteria	H.pylori (+) BAL	24.3%
Gammaproteobacteria	H.pylori (-) BAL	23.8%
Negativicutes	H.pylori (+) Swab	7.1%
Negativicutes	H.pylori (-) Swab	5.8%
Negativicutes	H.pylori (+) BAL	4.1%
Negativicutes	H.pylori (-) BAL	2.4%
Spirochaetia	H.pylori (-) BAL	0.7%

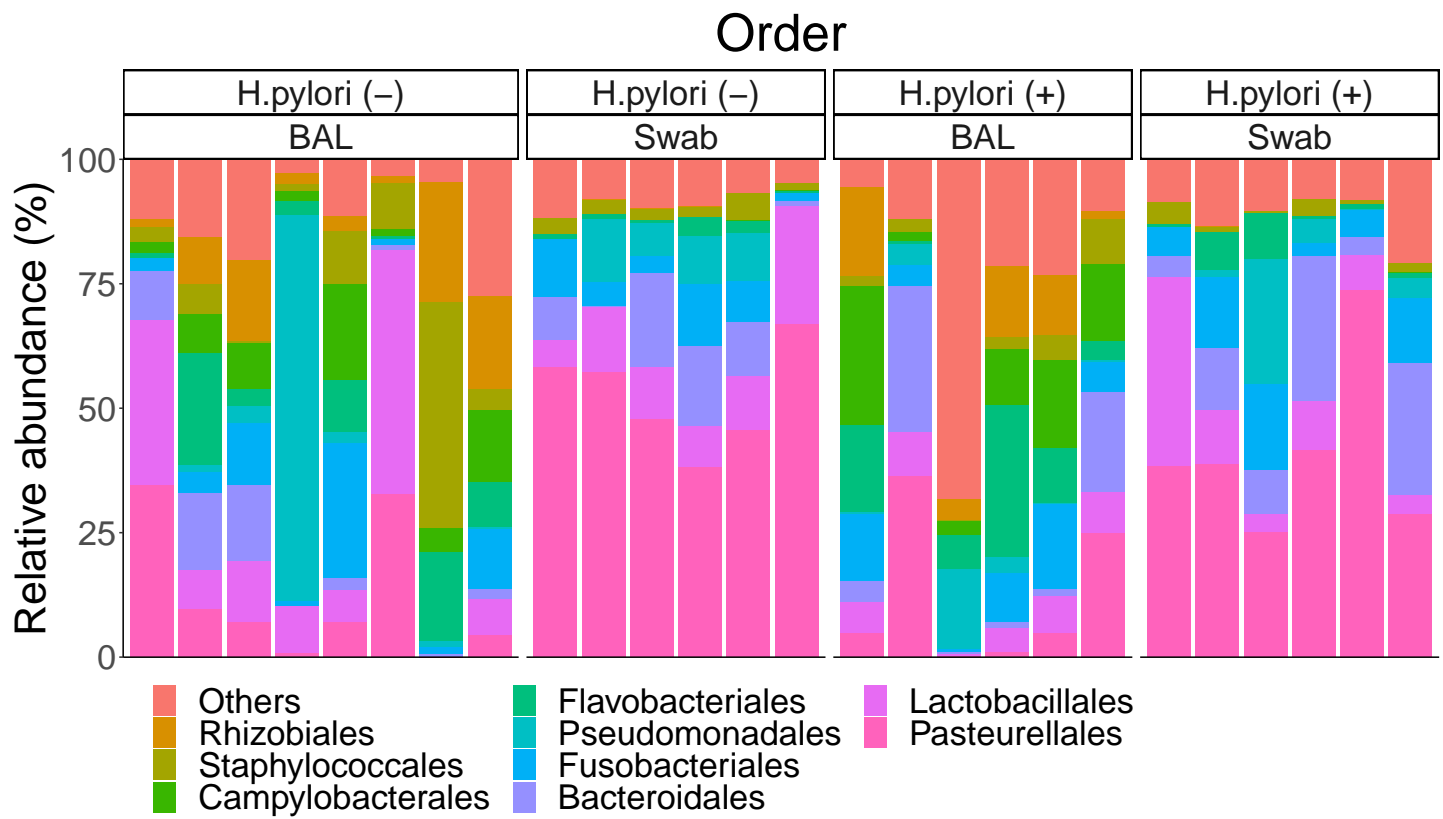


Figure 7: Microbiota Composition at Order level.

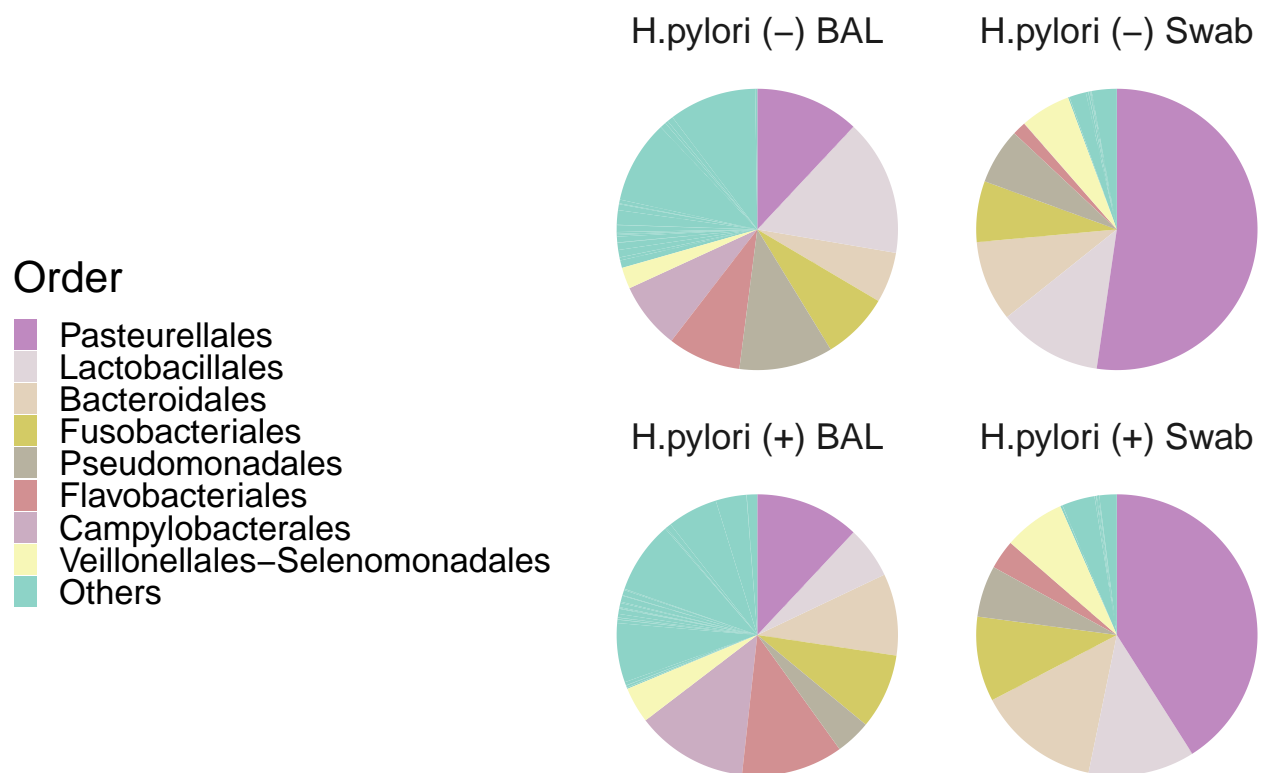


Figure 8: Microbiota Composition at Order level.

Table 5: Order Average Relative Abundance

Taxonomy	Sample	Average Percent Abundance
Bacteroidales	H.pylori (+) Swab	14.1%
Bacteroidales	H.pylori (+) BAL	9.4%
Bacteroidales	H.pylori (-) Swab	9.3%
Bacteroidales	H.pylori (-) BAL	5.8%
Burkholderiales	H.pylori (+) BAL	6.8%
Campylobacterales	H.pylori (+) BAL	12.9%
Campylobacterales	H.pylori (-) BAL	7.7%
Flavobacteriales	H.pylori (+) BAL	11.7%
Flavobacteriales	H.pylori (-) BAL	8.4%
Fusobacteriales	H.pylori (+) Swab	9.8%
Fusobacteriales	H.pylori (+) BAL	8.6%
Fusobacteriales	H.pylori (-) BAL	7.8%
Fusobacteriales	H.pylori (-) Swab	7%
Lactobacillales	H.pylori (-) BAL	15.7%
Lactobacillales	H.pylori (+) Swab	12.2%
Lactobacillales	H.pylori (-) Swab	12%
Lactobacillales	H.pylori (+) BAL	6%
Pasteurellales	H.pylori (-) Swab	52.3%
Pasteurellales	H.pylori (+) Swab	41%
Pasteurellales	H.pylori (+) BAL	12%
Pasteurellales	H.pylori (-) BAL	12%
Pseudomonadales	H.pylori (-) BAL	10.8%
Pseudomonadales	H.pylori (-) Swab	6.4%
Pseudomonadales	H.pylori (+) Swab	5.9%
Pseudomonadales	H.pylori (+) BAL	4.1%
Rhizobiales	H.pylori (-) BAL	9.6%
Rhizobiales	H.pylori (+) BAL	8.3%
Sphingomonadales	H.pylori (+) BAL	5.8%
Staphylococcales	H.pylori (-) BAL	10.1%
Veillonellales-Selenomonadales	H.pylori (+) Swab	7.1%
Veillonellales-Selenomonadales	H.pylori (-) Swab	5.8%
Veillonellales-Selenomonadales	H.pylori (+) BAL	4.1%

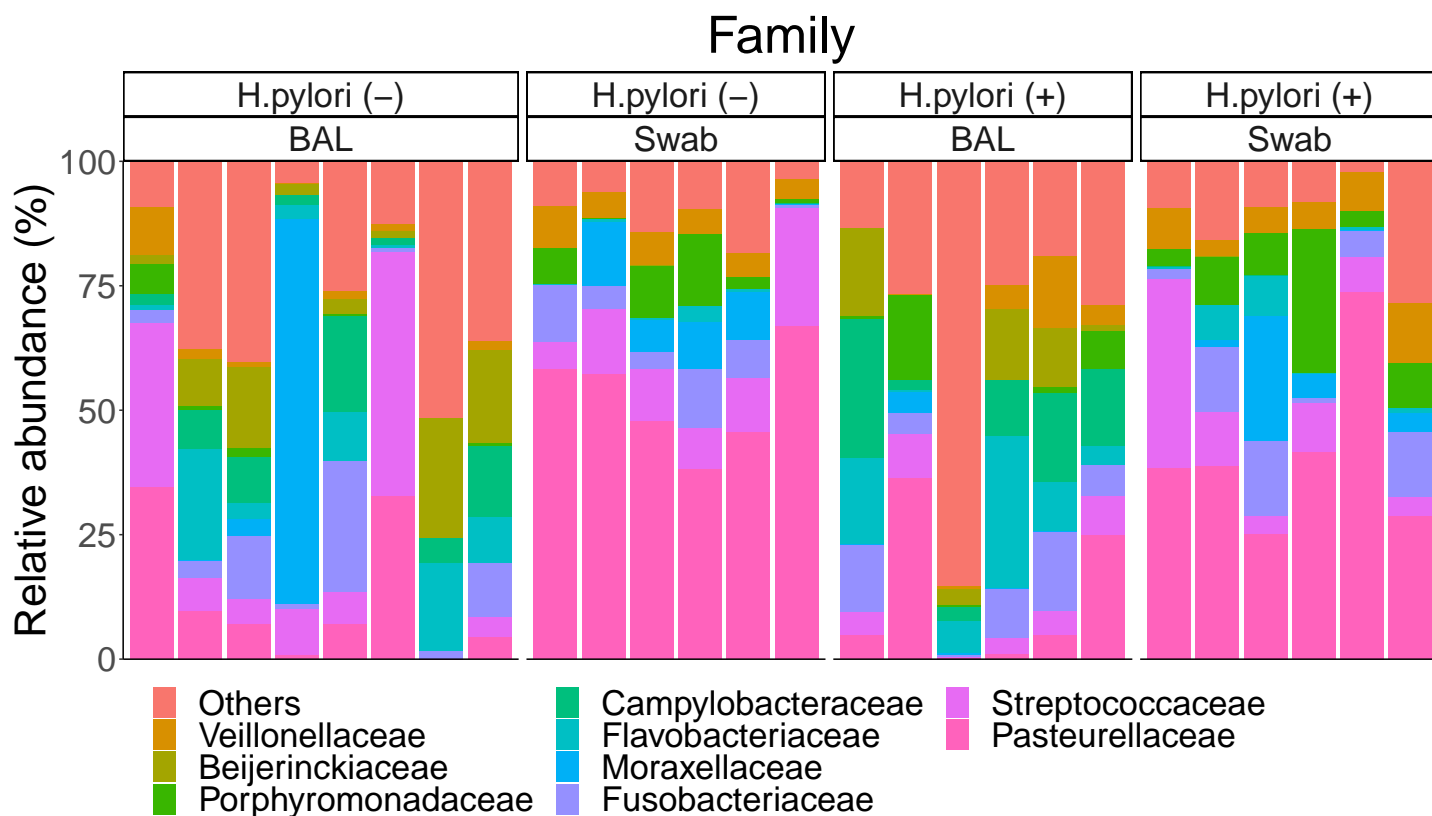


Figure 9: Microbiota Composition at Family level.

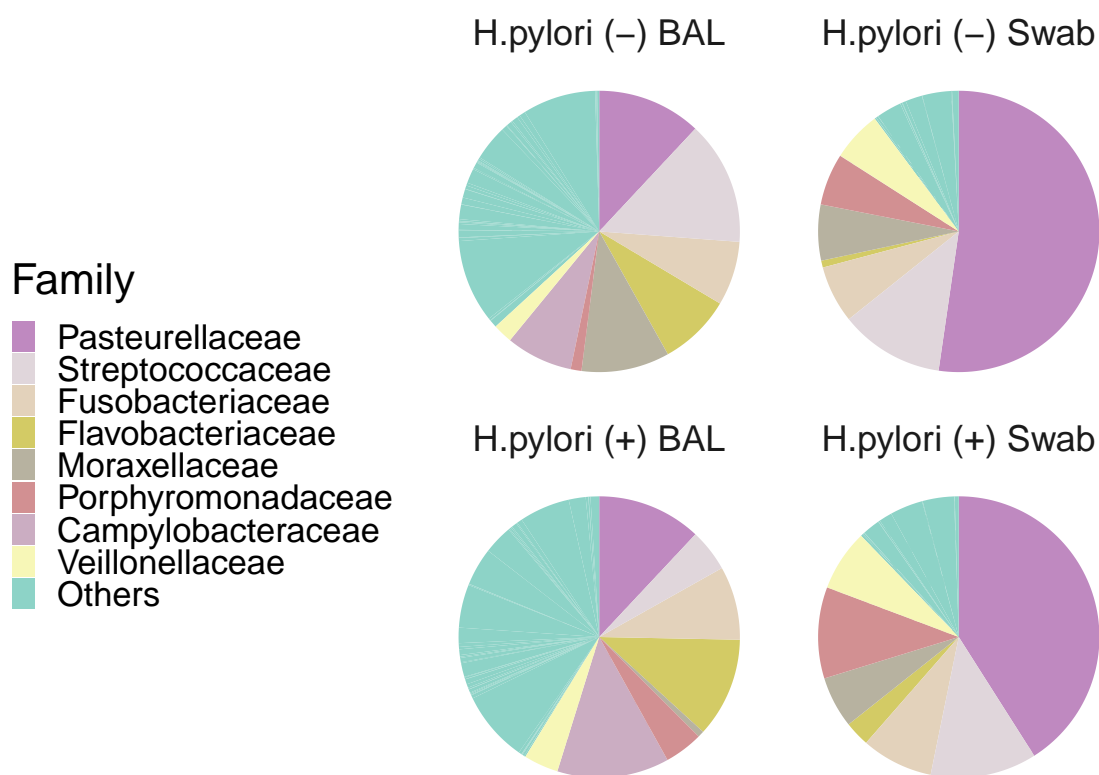


Figure 10: Microbiota Composition at Family level.

Table 6: Family Average Relative Abundance

Taxonomy	Sample	Average Percent Abundance
Beijerinckiaceae	H.pylori (-) BAL	9.5%
Beijerinckiaceae	H.pylori (+) BAL	8.1%
Campylobacteraceae	H.pylori (+) BAL	12.9%
Campylobacteraceae	H.pylori (-) BAL	7.7%
Flavobacteriaceae	H.pylori (+) BAL	11.5%
Flavobacteriaceae	H.pylori (-) BAL	8.3%
Fusobacteriaceae	H.pylori (+) BAL	8.5%
Fusobacteriaceae	H.pylori (+) Swab	8.2%
Fusobacteriaceae	H.pylori (-) BAL	7.4%
Fusobacteriaceae	H.pylori (-) Swab	6.6%
Moraxellaceae	H.pylori (-) BAL	10.1%
Moraxellaceae	H.pylori (-) Swab	6.4%
Moraxellaceae	H.pylori (+) Swab	5.9%
Oxalobacteraceae	H.pylori (+) BAL	5%
Pasteurellaceae	H.pylori (-) Swab	52.3%
Pasteurellaceae	H.pylori (+) Swab	41%
Pasteurellaceae	H.pylori (+) BAL	12%
Pasteurellaceae	H.pylori (-) BAL	12%
Porphyromonadaceae	H.pylori (+) Swab	10.5%
Porphyromonadaceae	H.pylori (-) Swab	5.9%
Porphyromonadaceae	H.pylori (+) BAL	4.4%
Prevotellaceae	H.pylori (+) BAL	4.3%
Prevotellaceae	H.pylori (-) BAL	4.1%
Sphingomonadaceae	H.pylori (+) BAL	5.8%
Staphylococcaceae	H.pylori (-) BAL	8.4%
Streptococcaceae	H.pylori (-) BAL	14.2%
Streptococcaceae	H.pylori (+) Swab	12.2%
Streptococcaceae	H.pylori (-) Swab	12%
Streptococcaceae	H.pylori (+) BAL	4.9%
Veillonellaceae	H.pylori (+) Swab	7%
Veillonellaceae	H.pylori (-) Swab	5.8%
Veillonellaceae	H.pylori (+) BAL	4%

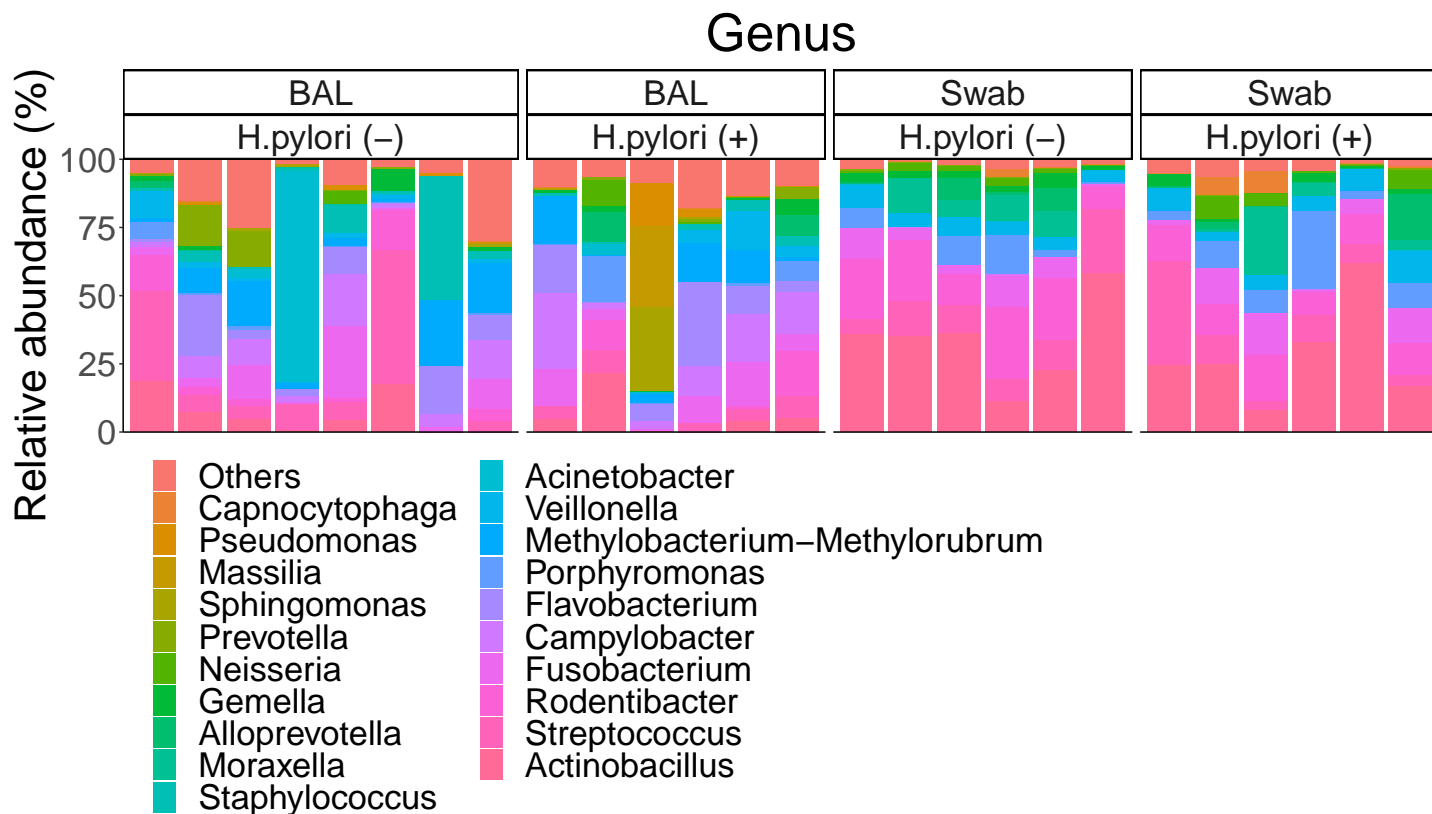


Figure 11: Microbiota Composition at Genus level.

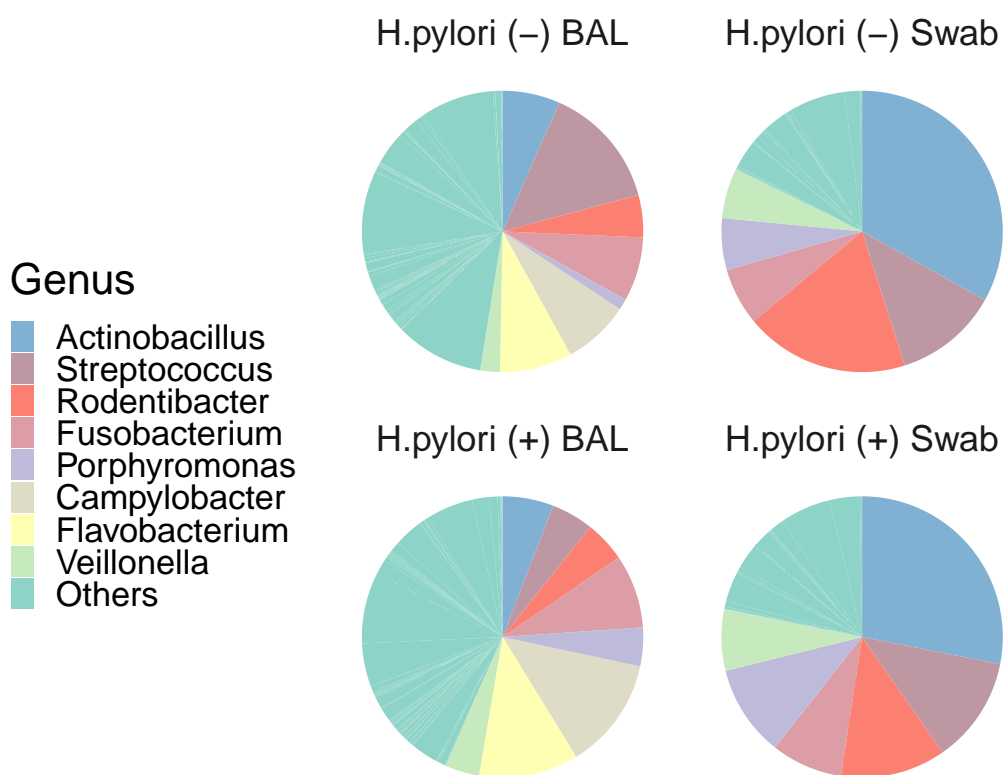


Figure 12: Microbiota Composition at Genus level.

Table 7: Genus Average Relative Abundance

Taxonomy	Sample	Average Percent Abundance
Acinetobacter	H.pylori (-) BAL	10.1%
Actinobacillus	H.pylori (-) Swab	33.1%
Actinobacillus	H.pylori (+) Swab	28.1%
Actinobacillus	H.pylori (-) BAL	6.6%
Actinobacillus	H.pylori (+) BAL	5.9%
Campylobacter	H.pylori (+) BAL	12.9%
Campylobacter	H.pylori (-) BAL	7.7%
Flavobacterium	H.pylori (+) BAL	11.5%
Flavobacterium	H.pylori (-) BAL	8.3%
Fusobacterium	H.pylori (+) BAL	8.5%
Fusobacterium	H.pylori (+) Swab	8.2%
Fusobacterium	H.pylori (-) BAL	7.4%
Fusobacterium	H.pylori (-) Swab	6.6%
Massilia	H.pylori (+) BAL	4.9%
Methylobacterium-Methylobacterium	H.pylori (-) BAL	9.5%
Methylobacterium-Methylobacterium	H.pylori (+) BAL	8.1%
Moraxella	H.pylori (-) Swab	6.4%
Moraxella	H.pylori (+) Swab	5.9%
Porphyromonas	H.pylori (+) Swab	10.5%
Porphyromonas	H.pylori (-) Swab	5.9%
Rodentibacter	H.pylori (-) Swab	18.9%
Rodentibacter	H.pylori (+) Swab	12.1%
Rodentibacter	H.pylori (-) BAL	4.9%
Rodentibacter	H.pylori (+) BAL	4.7%
Sphingomonas	H.pylori (+) BAL	5.4%
Staphylococcus	H.pylori (-) BAL	8.4%
Streptococcus	H.pylori (-) BAL	14.2%
Streptococcus	H.pylori (+) Swab	12.2%
Streptococcus	H.pylori (-) Swab	12%
Streptococcus	H.pylori (+) BAL	4.9%
Veillonella	H.pylori (+) Swab	7%
Veillonella	H.pylori (-) Swab	5.8%

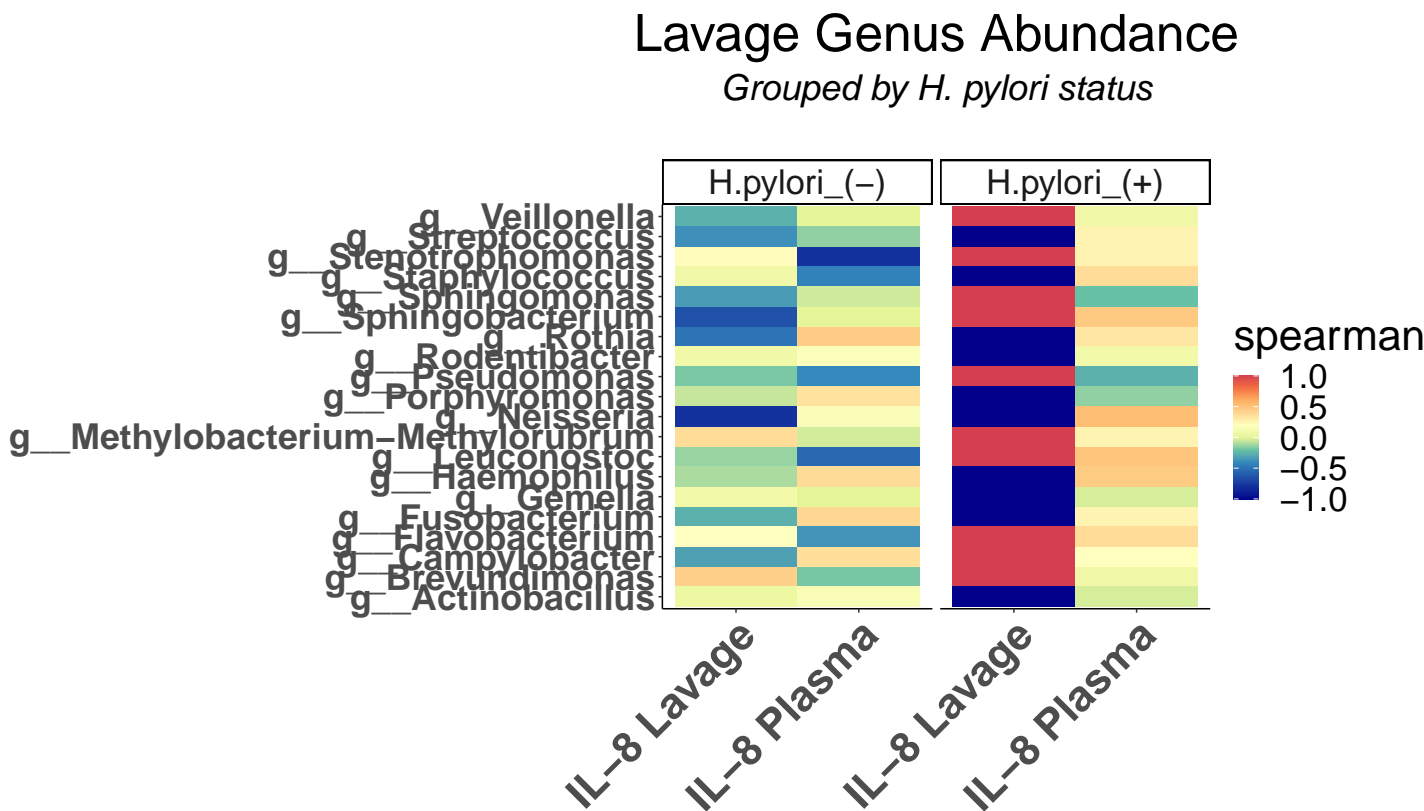


Figure 13: IL8 and lavage genus abundance Spearman correlations separated by *H. pylori* status

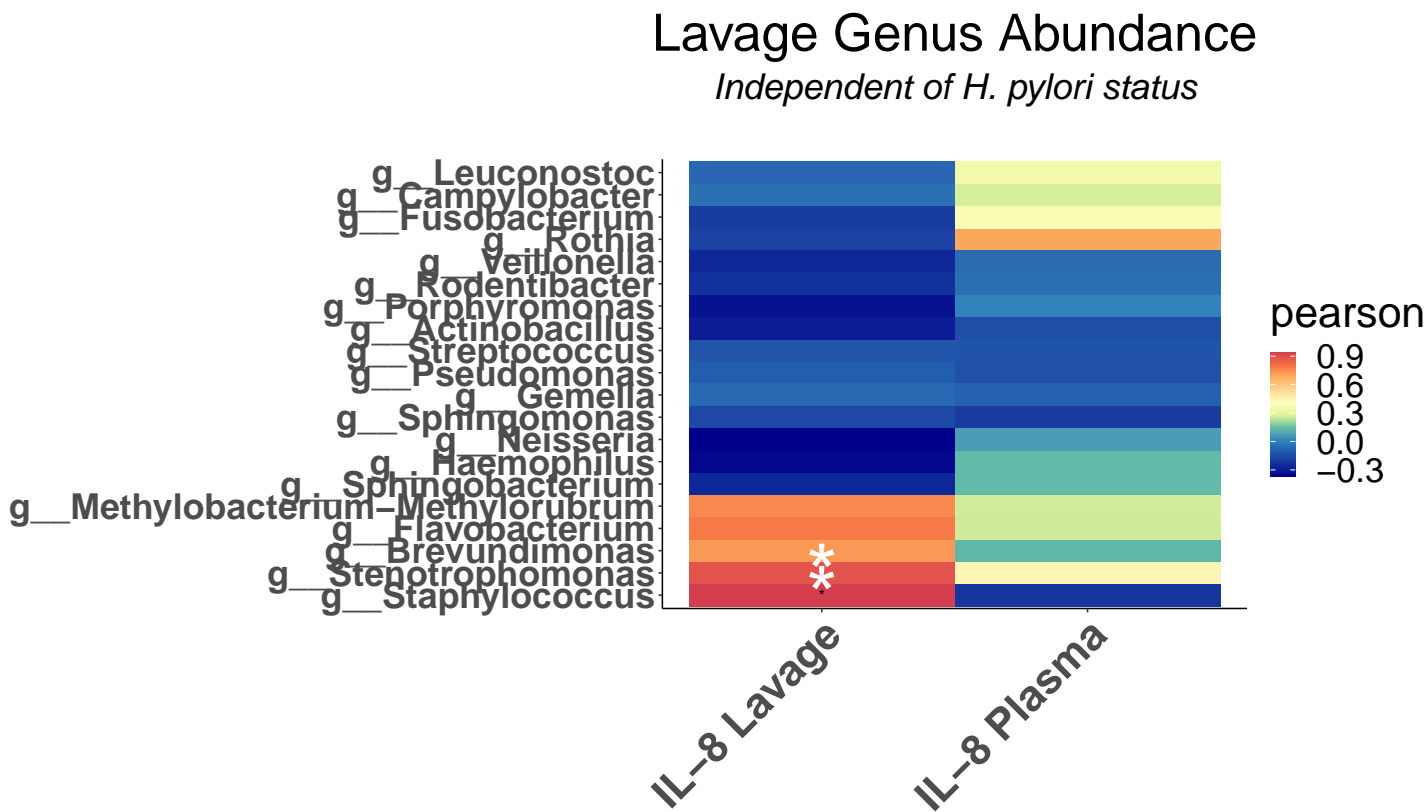


Figure 14: IL8 and lavage genus abundance Spearman correlations independent of *H. pylori* status

Lavage Alpha Diversity

Independent of H. pylori status

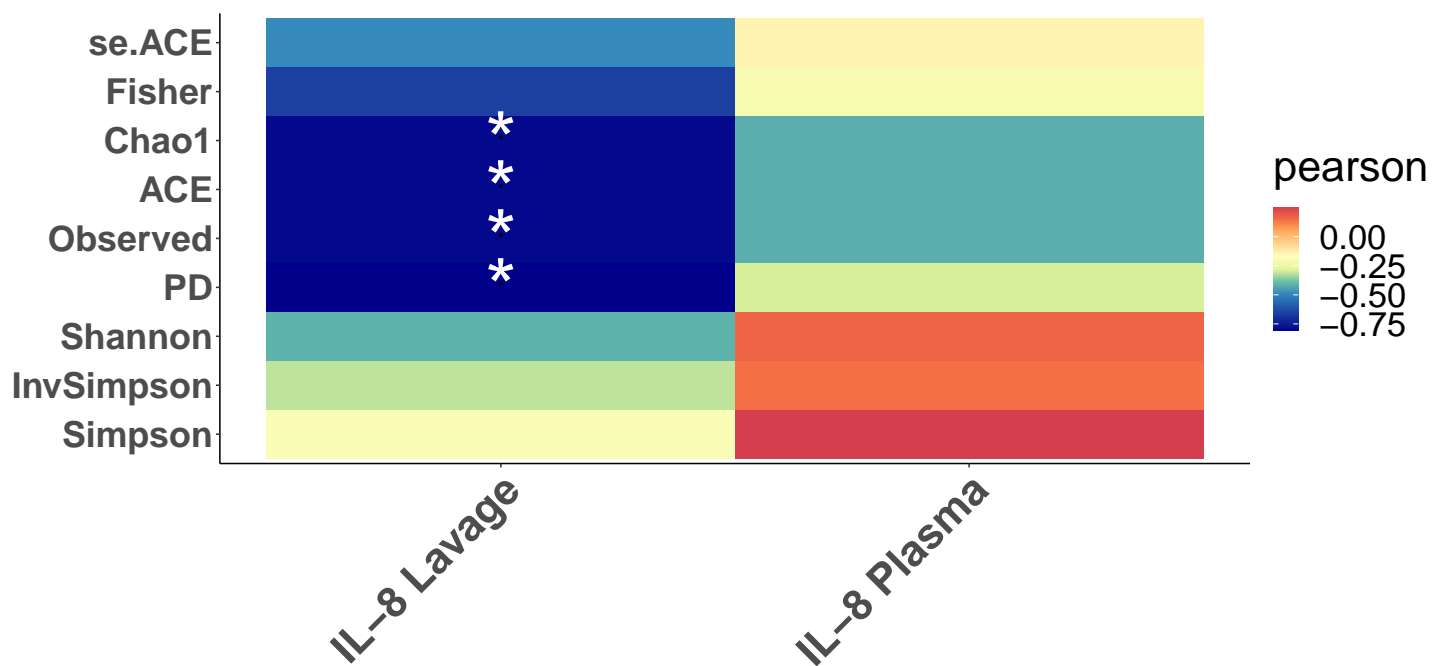


Figure 15: IL8 and lavage alpha diversity Spearman correlations independent of H. pylori status.

Buccal Cavity Genus Abundance

Grouped by *H. pylori* status

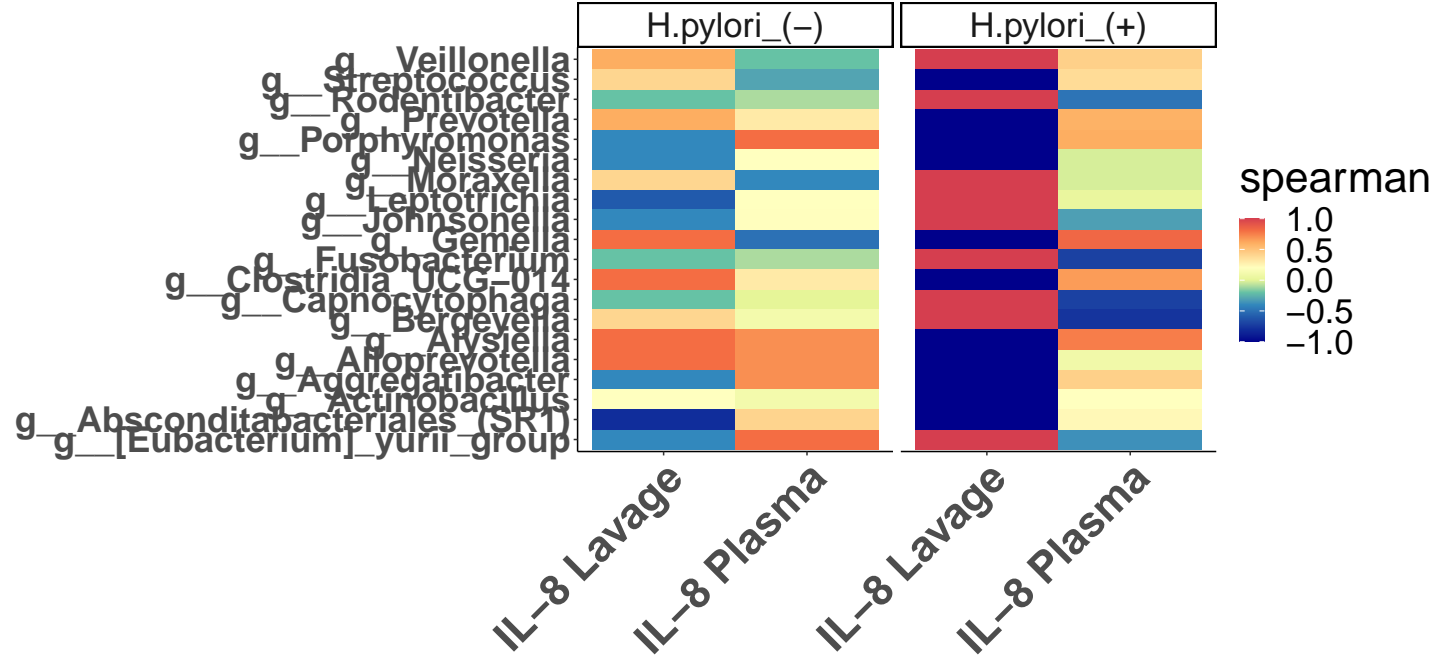


Figure 16: IL8 and Buccal genus abundance Spearman correlations separated by *H. pylori* status

Buccal Cavity Genus Abundance

Independent of *H. pylori* status

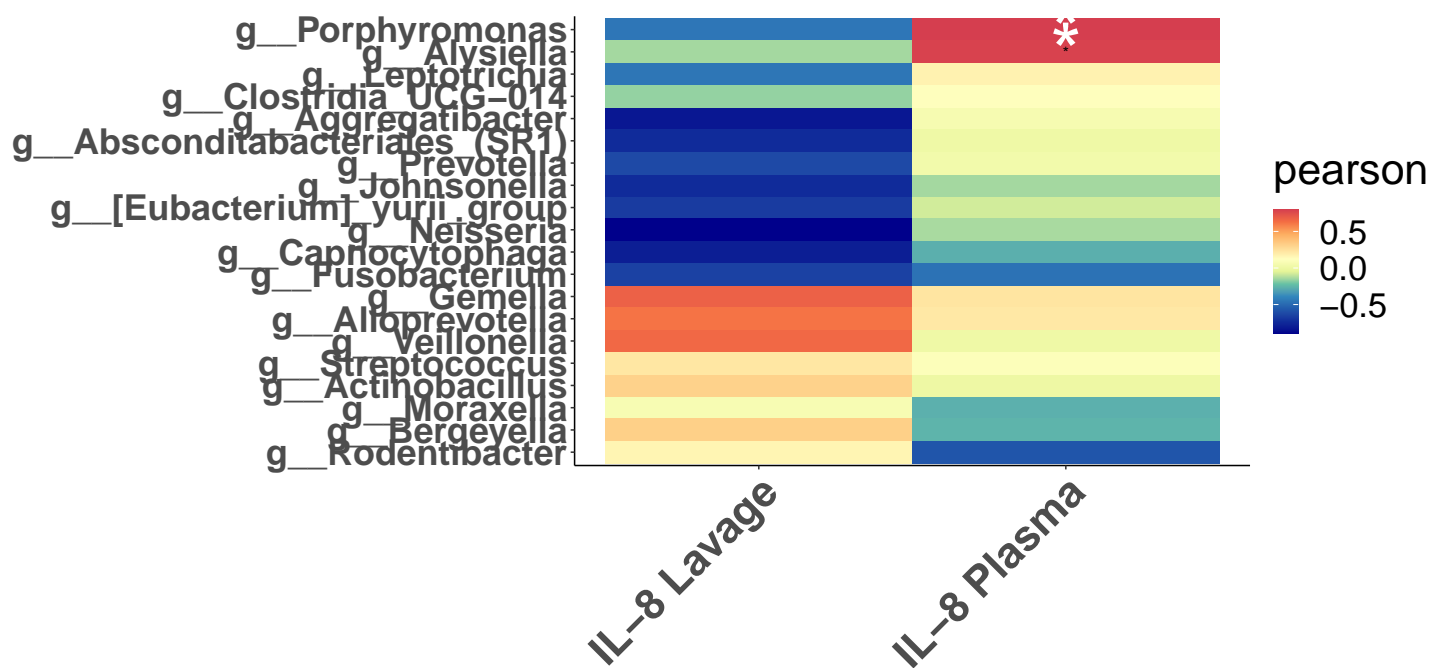


Figure 17: IL8 and Buccal genus abundance Spearman correlations independent of *H. pylori* status

Buccal Cavity Alpha Diversity

Independent of H. pylori status

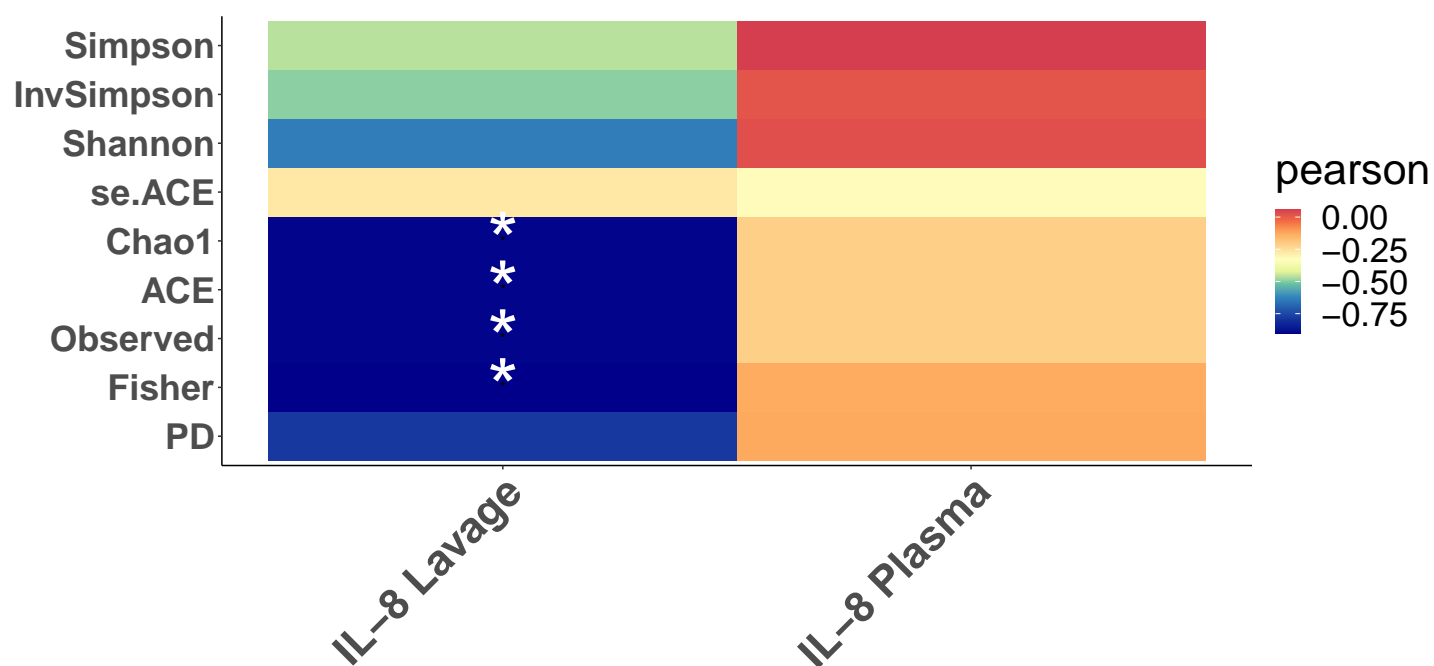


Figure 18: IL8 and Buccal alpha diversity Spearman correlations independent of H. pylori status

Record session information

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## Platform: x86_64-conda-linux-gnu (64-bit)
## Running under: Ubuntu 18.04.6 LTS
##
## Matrix products: default
## BLAS/LAPACK: /srv/conda/envs/notebook/lib/libopenblas-r0.3.20.so
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##  [3] RColorBrewer_1.1-3      tidytree_0.3.9
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