

Supplementary Information for:

Distinct phyllosphere microbiome of wild tomato species in central Peru upon dysbiosis

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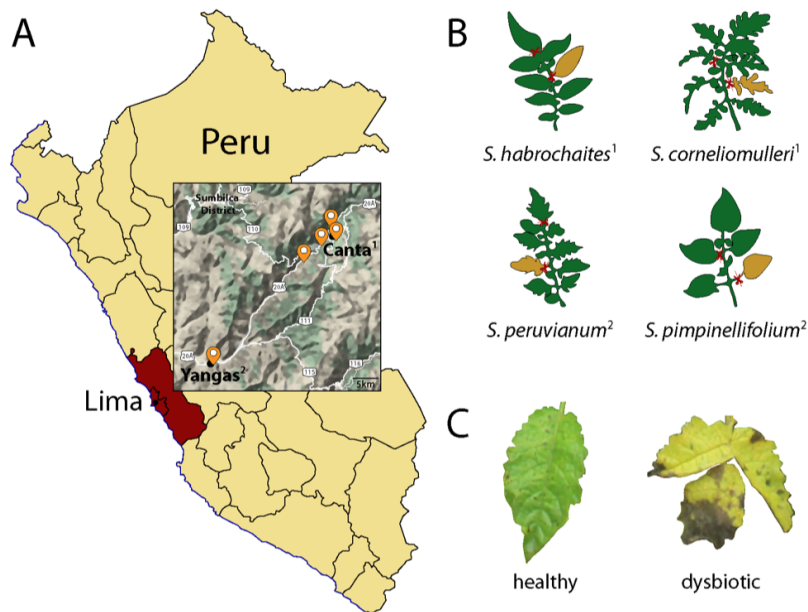
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- Abstract -

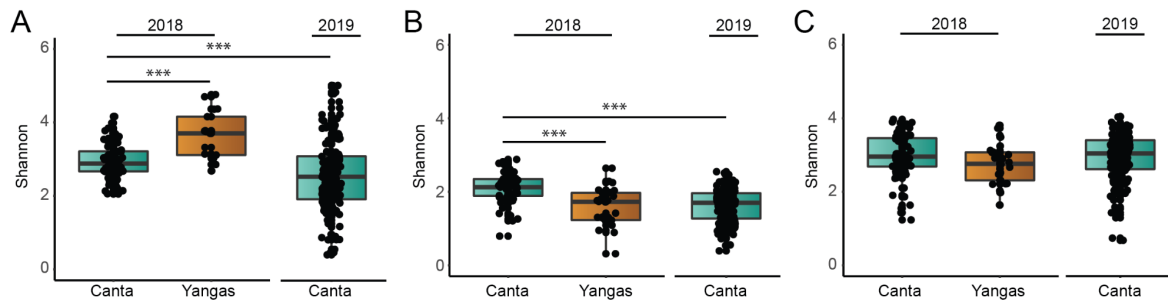
Plants are colonized by myriads of microbes across kingdoms, which affect host development, fitness and reproduction. Hence, plant microbiomes have been explored across a broad range of host species, including model organisms, crops and trees under controlled and natural conditions. Tomato is one of the world's most important vegetable crops, however little is known about the microbiota of wild tomato species. To obtain insights into the tomato microbiota occurring in natural environments, we sampled epiphytic microbes from leaves of four tomato species, *Solanum habrochaites*, *S. corneliomulleri*, *S. peruvianum* and *S. pimpinellifolium*, from two geographical locations within the Lima region of Peru over two consecutive years. Here, a high-throughput sequencing approach was applied to investigate microbial compositions including bacteria, fungi and eukaryotes across tomato species and geographical locations. The phyllosphere microbiome composition varies between hosts and location. Yet, we identified persistent microbes across tomato species that form the tomato microbial core community. In addition, we phenotypically defined healthy and dysbiotic samples and performed a downstream analysis to reveal the impact on microbial community structures. To do so, we compared microbial diversities, unique OTUs, relative abundances of core taxa and microbial hub taxa, as well as co-occurrence network characteristics in healthy and dysbiotic tomato leaves and found that dysbiosis affects the phyllosphere microbial composition in a host species-dependent manner. Yet, overall, the present data suggests an enrichment of plant-promoting microbial taxa in healthy leaves, whereas numerous microbial taxa containing plant pathogens occurred in dysbiotic leaves.

- Supplementary Information -

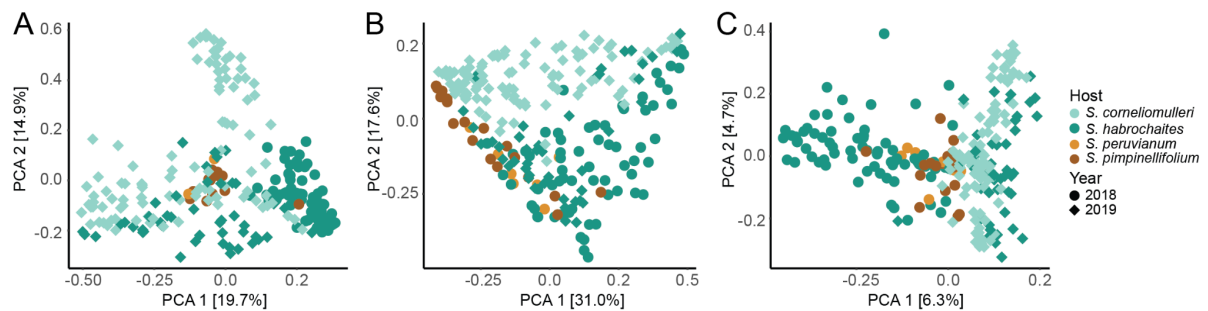


Supplementary Fig. 1: Characteristics of sampled wild tomato species within the Lima region of Peru. A) Map of Peru. Highlighted in red is the Lima province. The inset shows the specific sampling sites around Canta and Yangas. B) Visualization of the distinguishable leaf morphologies for *S. habrochaites* and *S. corneliomulleri* (Canta), *S. peruvianum* and *S. pimpinellifolium* (Yangas). C) Phenotypic classification of healthy and dysbiotic leaves exemplified with *S. habrochaites* leaves.

Microbial richness varies across geographical origin and years

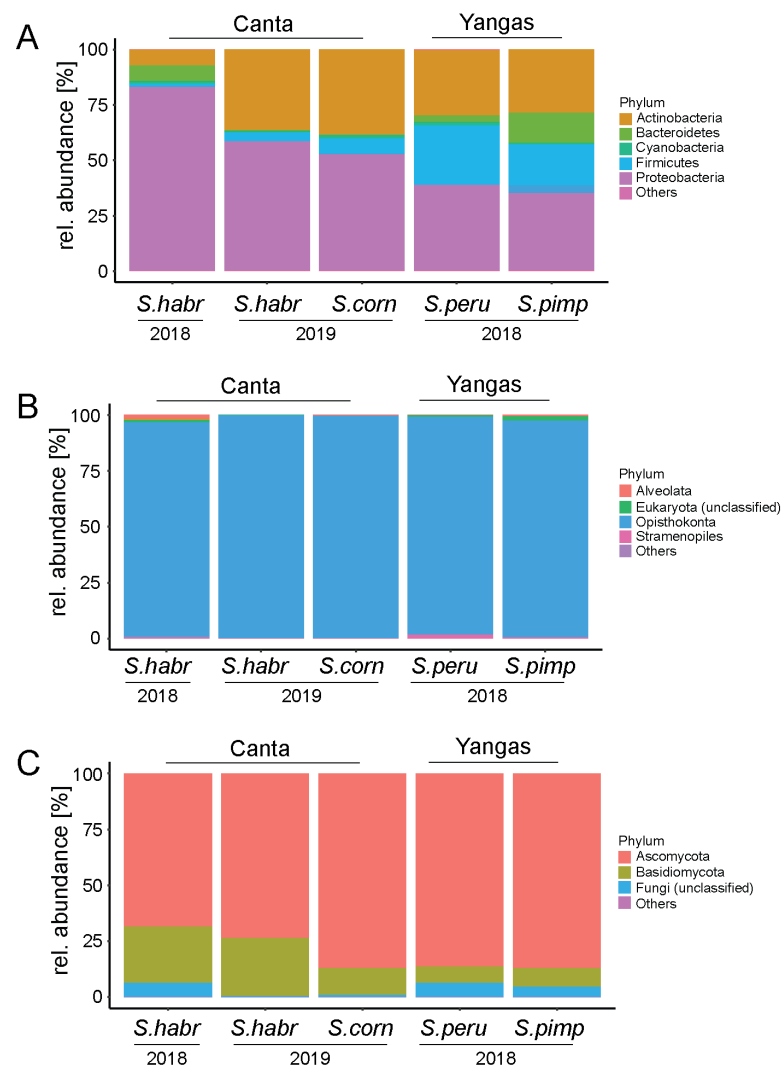


Supplementary Fig. 2: Microbial richness across geographical origin and sampling years. Shannon indices (alpha diversity) were calculated for bacteria (A), eukaryotes (B) and fungi (C). Pairwise-Wilcoxon-Test was performed with “Bonferroni” p-value adjustment using R, *** = <0.001.



Supplementary Fig. 3: Principal component analysis (PCA) of microbiome samples in relation to tomato species and sampling years. PCA's were conducted for A) bacteria, B) eukaryotes and c) fungi. Shown is the PCA on Bray-Curtis dissimilarities displaying two dimensions PCA 1 and PCA2 in the ordination system. Each point represents one leaf sample colored by host species and shaped by sampling years. Permanova (P 999) was conducted using qiime2; $p < 0.001$.

Relative abundance of microbial profiles of *Solanum* spp. on phylum level



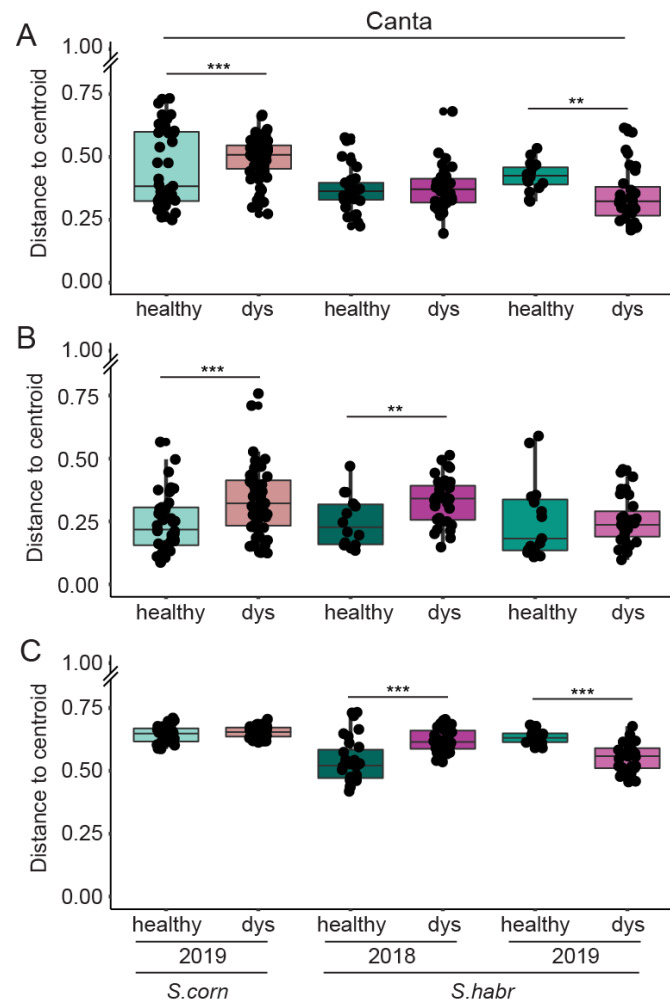
Supplementary Fig. 4: Relative abundance plots rendering host species and sampling years on phylum level. Abbreviations are related to *S. habrochaites* (*S. habr*), *S. cornelimulleri* (*S. corn*), *S. peruvianum* (*S. peru*) and *S. pimpinellifolium* (*S. pimi*). A) Bacterial 16S rRNA, B) eukaryotic 18S rRNA, C) fungal ITS2.

Supplementary Tab. 1: Pairwise Wilcoxon-Test (p.adjust: "bonferroni") comparing tomato species and sampling year against each phyla.

Amplicon	Phylum	Group1	Group 2	p-value
16S rRNA	Actinobacteria	<i>S. peruvianum</i> (2018)	<i>S. habrochaites</i> (2018)	8.05E-39
16S rRNA	Actinobacteria	<i>S. peruvianum</i> (2018)	<i>S. corneliomulleri</i> (2019)	7.82E-29
16S rRNA	Actinobacteria	<i>S. peruvianum</i> (2018)	<i>S. habrochaites</i> (2019)	2.58E-21
16S rRNA	Actinobacteria	<i>S. pimpinellifolium</i> (2018)	<i>S. habrochaites</i> (2018)	3.09E-20
16S rRNA	Actinobacteria	<i>S. habrochaites</i> (2019)	<i>S. habrochaites</i> (2018)	4.96E-11
16S rRNA	Actinobacteria	<i>S. pimpinellifolium</i> (2018)	<i>S. peruvianum</i> (2018)	3.70E-09
16S rRNA	Actinobacteria	<i>S. pimpinellifolium</i> (2018)	<i>S. corneliomulleri</i> (2019)	1.98E-08
16S rRNA	Actinobacteria	<i>S. corneliomulleri</i> (2019)	<i>S. habrochaites</i> (2018)	9.49E-05
16S rRNA	Actinobacteria	<i>S. pimpinellifolium</i> (2018)	<i>S. habrochaites</i> (2019)	9.47E-04
16S rRNA	Actinobacteria	<i>S. corneliomulleri</i> (2019)	<i>S. habrochaites</i> (2019)	2.26E-02
16S rRNA	Bacteroidetes	<i>S. pimpinellifolium</i> (2018)	<i>S. corneliomulleri</i> (2019)	6.84E-09
16S rRNA	Bacteroidetes	<i>S. peruvianum</i> (2018)	<i>S. corneliomulleri</i> (2019)	6.78E-07
16S rRNA	Bacteroidetes	<i>S. peruvianum</i> (2018)	<i>S. habrochaites</i> (2018)	1.81E-05
16S rRNA	Bacteroidetes	<i>S. peruvianum</i> (2018)	<i>S. habrochaites</i> (2019)	3.52E-05
16S rRNA	Bacteroidetes	<i>S. corneliomulleri</i> (2019)	<i>S. habrochaites</i> (2018)	6.75E-05
16S rRNA	Bacteroidetes	<i>S. pimpinellifolium</i> (2018)	<i>S. habrochaites</i> (2018)	1.09E-04
16S rRNA	Bacteroidetes	<i>S. pimpinellifolium</i> (2018)	<i>S. habrochaites</i> (2019)	2.40E-04
16S rRNA	Chloroflexi	<i>S. corneliomulleri</i> (2019)	<i>S. habrochaites</i> (2019)	7.78E-07
16S rRNA	Chloroflexi	<i>S. habrochaites</i> (2019)	<i>S. habrochaites</i> (2018)	1.47E-05
16S rRNA	Firmicutes	<i>S. peruvianum</i> (2018)	<i>S. habrochaites</i> (2018)	1.40E-36
16S rRNA	Firmicutes	<i>S. peruvianum</i> (2018)	<i>S. corneliomulleri</i> (2019)	3.09E-33
16S rRNA	Firmicutes	<i>S. pimpinellifolium</i> (2018)	<i>S. habrochaites</i> (2018)	2.84E-31
16S rRNA	Firmicutes	<i>S. peruvianum</i> (2018)	<i>S. habrochaites</i> (2019)	1.31E-30
16S rRNA	Firmicutes	<i>S. pimpinellifolium</i> (2018)	<i>S. corneliomulleri</i> (2019)	3.09E-22
16S rRNA	Firmicutes	<i>S. pimpinellifolium</i> (2018)	<i>S. habrochaites</i> (2019)	4.08E-19
16S rRNA	Firmicutes	<i>S. pimpinellifolium</i> (2018)	<i>S. peruvianum</i> (2018)	1.60E-08
16S rRNA	Firmicutes	<i>S. habrochaites</i> (2019)	<i>S. habrochaites</i> (2018)	3.36E-06
16S rRNA	Firmicutes	<i>S. corneliomulleri</i> (2019)	<i>S. habrochaites</i> (2018)	1.33E-04
16S rRNA	Fusobacteria	<i>S. pimpinellifolium</i> (2018)	<i>S. habrochaites</i> (2018)	6.48E-03
16S rRNA	Proteobacteria	<i>S. peruvianum</i> (2018)	<i>S. corneliomulleri</i> (2019)	2.35E-45
16S rRNA	Proteobacteria	<i>S. peruvianum</i> (2018)	<i>S. habrochaites</i> (2018)	2.86E-38
16S rRNA	Proteobacteria	<i>S. peruvianum</i> (2018)	<i>S. habrochaites</i> (2019)	8.39E-37
16S rRNA	Proteobacteria	<i>S. pimpinellifolium</i> (2018)	<i>S. corneliomulleri</i> (2019)	8.88E-20
16S rRNA	Proteobacteria	<i>S. pimpinellifolium</i> (2018)	<i>S. peruvianum</i> (2018)	1.02E-17
16S rRNA	Proteobacteria	<i>S. pimpinellifolium</i> (2018)	<i>S. habrochaites</i> (2019)	9.21E-09
16S rRNA	Proteobacteria	<i>S. corneliomulleri</i> (2019)	<i>S. habrochaites</i> (2018)	1.05E-07
16S rRNA	Proteobacteria	<i>S. pimpinellifolium</i> (2018)	<i>S. habrochaites</i> (2018)	1.85E-06
16S rRNA	Proteobacteria	<i>S. corneliomulleri</i> (2019)	<i>S. habrochaites</i> (2019)	1.30E-05

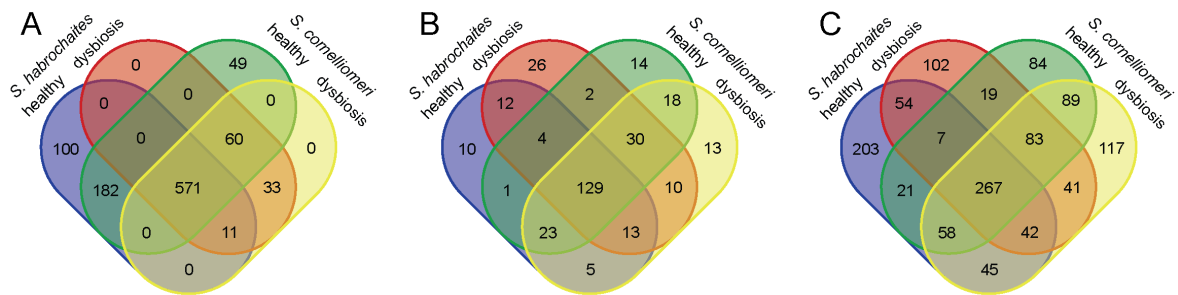
18S rRNA	Amoebozoa	<i>S. pimpinellifolium</i> (2018)	<i>S. habrochaites</i> (2018)	3.20E-03
18S rRNA	Eukaryota_unclassified	<i>S. peruvianum</i> (2018)	<i>S. habrochaites</i> (2019)	1.83E-03
18S rRNA	Eukaryota_unclassified	<i>S. peruvianum</i> (2018)	<i>S. corneliomulleri</i> (2019)	1.86E-03
18S rRNA	Eukaryota_unclassified	<i>S. habrochaites</i> (2019)	<i>S. habrochaites</i> (2018)	5.63E-03
18S rRNA	Eukaryota_unclassified	<i>S. corneliomulleri</i> (2019)	<i>S. habrochaites</i> (2018)	1.16E-02
18S rRNA	Eukaryota_unclassified	<i>S. pimpinellifolium</i> (2018)	<i>S. habrochaites</i> (2019)	2.76E-02
18S rRNA	Opisthokonta	<i>S. peruvianum</i> (2018)	<i>S. corneliomulleri</i> (2019)	5.08E-21
18S rRNA	Opisthokonta	<i>S. peruvianum</i> (2018)	<i>S. habrochaites</i> (2019)	2.14E-16
18S rRNA	Opisthokonta	<i>S. peruvianum</i> (2018)	<i>S. habrochaites</i> (2018)	1.14E-13
18S rRNA	Opisthokonta	<i>S. pimpinellifolium</i> (2018)	<i>S. corneliomulleri</i> (2019)	3.79E-12
18S rRNA	Opisthokonta	<i>S. pimpinellifolium</i> (2018)	<i>S. habrochaites</i> (2019)	1.84E-07
18S rRNA	Opisthokonta	<i>S. corneliomulleri</i> (2019)	<i>S. habrochaites</i> (2018)	7.20E-06
18S rRNA	Opisthokonta	<i>S. pimpinellifolium</i> (2018)	<i>S. peruvianum</i> (2018)	6.67E-05
18S rRNA	Opisthokonta	<i>S. pimpinellifolium</i> (2018)	<i>S. habrochaites</i> (2018)	1.15E-03
ITS2	Ascomycota	<i>S. peruvianum</i> (2018)	<i>S. corneliomulleri</i> (2019)	1.21E-245
ITS2	Ascomycota	<i>S. pimpinellifolium</i> (2018)	<i>S. corneliomulleri</i> (2019)	1.19E-227
ITS2	Ascomycota	<i>S. peruvianum</i> (2018)	<i>S. habrochaites</i> (2018)	2.61E-210
ITS2	Ascomycota	<i>S. pimpinellifolium</i> (2018)	<i>S. habrochaites</i> (2018)	4.78E-159
ITS2	Ascomycota	<i>S. corneliomulleri</i> (2019)	<i>S. habrochaites</i> (2019)	3.70E-151
ITS2	Ascomycota	<i>S. peruvianum</i> (2018)	<i>S. habrochaites</i> (2019)	1.43E-120
ITS2	Ascomycota	<i>S. habrochaites</i> (2019)	<i>S. habrochaites</i> (2018)	5.84E-78
ITS2	Ascomycota	<i>S. pimpinellifolium</i> (2018)	<i>S. habrochaites</i> (2019)	7.64E-55
ITS2	Ascomycota	<i>S. pimpinellifolium</i> (2018)	<i>S. peruvianum</i> (2018)	1.04E-24
ITS2	Ascomycota	<i>S. corneliomulleri</i> (2019)	<i>S. habrochaites</i> (2018)	1.00E-16
ITS2	Basidiomycota	<i>S. peruvianum</i> (2018)	<i>S. corneliomulleri</i> (2019)	6.03E-14
ITS2	Basidiomycota	<i>S. peruvianum</i> (2018)	<i>S. habrochaites</i> (2018)	3.30E-12
ITS2	Basidiomycota	<i>S. corneliomulleri</i> (2019)	<i>S. habrochaites</i> (2019)	1.28E-10
ITS2	Basidiomycota	<i>S. pimpinellifolium</i> (2018)	<i>S. corneliomulleri</i> (2019)	3.05E-10
ITS2	Basidiomycota	<i>S. habrochaites</i> (2019)	<i>S. habrochaites</i> (2018)	2.14E-08
ITS2	Basidiomycota	<i>S. pimpinellifolium</i> (2018)	<i>S. habrochaites</i> (2018)	1.38E-07
ITS2	Basidiomycota	<i>S. peruvianum</i> (2018)	<i>S. habrochaites</i> (2019)	2.22E-05
ITS2	Fungi_unclassified	<i>S. pimpinellifolium</i> (2018)	<i>S. habrochaites</i> (2019)	3.23E-02

Beta-dispersion analysis on Bray-Curtis dissimilarities to compare sample-to-sample variation



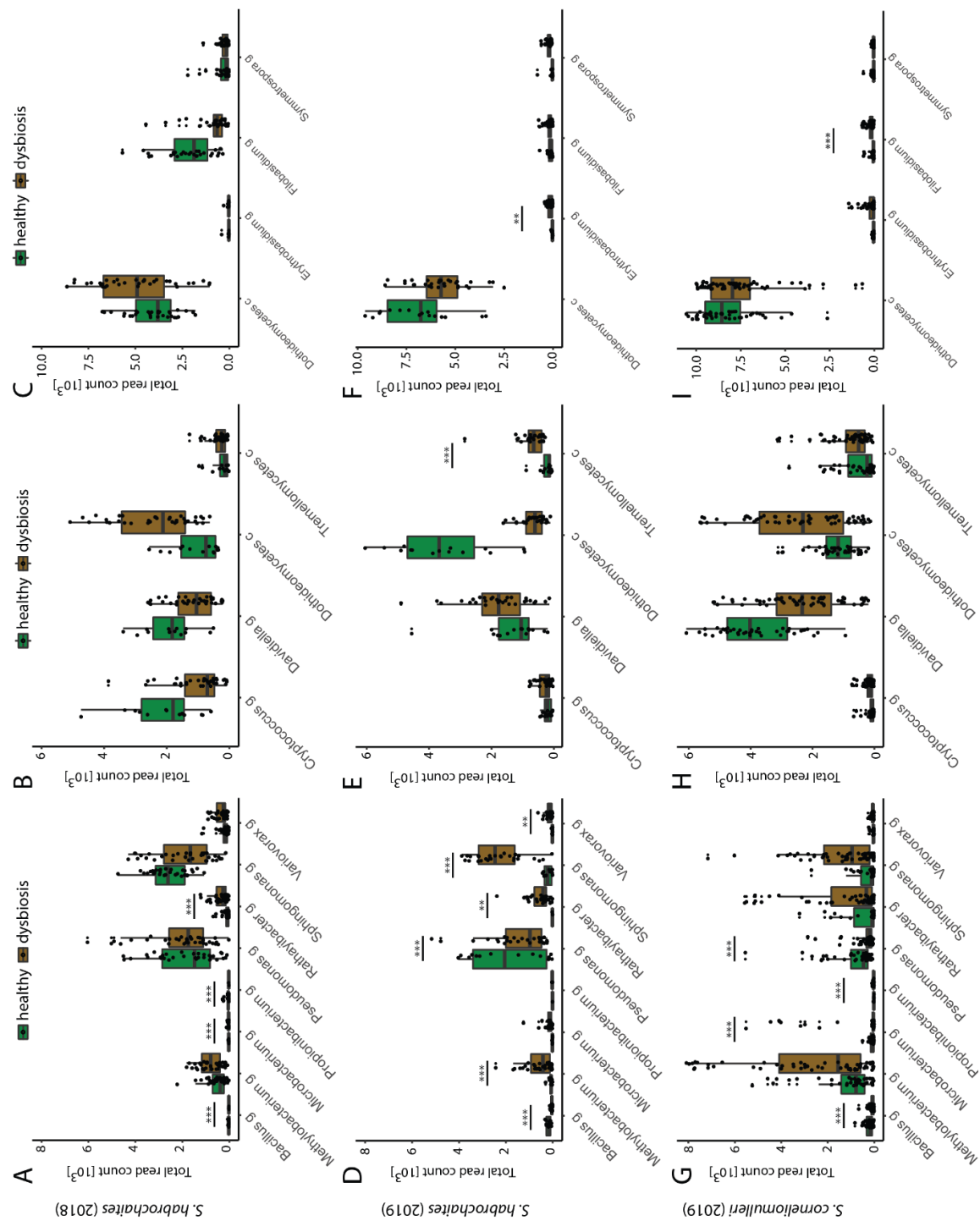
Supplementary Fig. 5: Beta-dispersion analysis on Bray-Curtis dissimilarities to compare sample-to-sample variation. Distance to centroids (“median”) are displayed for data features Host x Year x Symptom in A) bacteria, B) eukaryotes and C) fungi. Statistics: Dunn test, ** p < 0.01, *** p < 0.001.

Shared and unique OTUs in tomato species across Canta in healthy and dysbiotic samples



Supplementary Fig. 6: Shared and unique OTUs in Canta tomato species in healthy and dysbiotic samples. Venn-Diagrams showing occurrence of OTUs (A: bacteria, B: eukaryotes, C: fungi) within and between *S. habrochaites* and *S. corneliomulleri* in healthy

Total read counts of summarized core taxa in healthy and dysbiotic leaves



Supplementary Fig. 7: Total read counts of summarized core taxa on genus (g) or class (c) level across tomato species upon dysbiosis in Canta. ABC) *S. habrochaites* 2018. DEF) *S. habrochaites* 2019. GHI) *S. corneliomulleri* 2019. Pairwise-Wilcoxon-Test between healthy and dysbiotic samples was performed with "Bonferroni" p-value adjustment using R, *** = <0.001 ; ** <0.01, * <0.05.

ENA sample submission information

Supplementary Tab. 2: Sample metadata information paste to the European Nucleotide Archive containing sample collection data and ENA submission details.

Host Species	Year	Location	Area	Latitude	Longitude	Site	Plant	State	Bacteria [16S V5]		Eukaryotes [18S V9]		Fungi [ITS2]	
									Library	ENA Accession	Library	ENA Accession	Library	ENA Accession
S. peruvianum	2018	Peru	Yungas	-11.69946	-76.84604	Site10B	15	infected	CD B5_1	ERS6577294(SAMEA8894384)	CD P96_1	ERS6577554(SAMEA8894644)	D F2_1	ERS6577814(SAMEA8894905)
S. hatrochates	2018	Peru	Canta	-11.5130915	-76.678468	Site54	54	healthy	CD B5_2	ERS6577295(SAMEA8894385)	CD P96_2	ERS6577555(SAMEA8894645)	D F2_2	ERS6577815(SAMEA8894906)
S. hatrochates	2018	Peru	Canta	-11.5130915	-76.678468	Site54	56	healthy	CD B5_3	ERS6577296(SAMEA8894386)	CD P96_3	ERS6577556(SAMEA8894646)	D F2_3	ERS6577816(SAMEA8894907)
S. hatrochates	2018	Peru	Canta	-11.4806049	-76.6372699	Site52	41	healthy	CD B5_4	ERS6577297(SAMEA8894387)	CD P96_4	ERS6577557(SAMEA8894647)	D F2_4	ERS6577817(SAMEA8894908)
S. hatrochates	2018	Peru	Canta	-11.4806049	-76.6372699	Site52	42	infected	CD B5_5	ERS6577298(SAMEA8894388)	CD P96_5	ERS6577558(SAMEA8894648)	D F2_5	ERS6577818(SAMEA8894909)
S. hatrochates	2018	Peru	Canta	-11.5130915	-76.678468	Site53	45	healthy	CD B5_6	ERS6577299(SAMEA8894389)	CD P96_6	ERS6577559(SAMEA8894649)	D F2_6	ERS6577819(SAMEA8894910)
S. hatrochates	2018	Peru	Canta	-11.5130915	-76.678468	Site54	62	healthy	CD B5_7	ERS6577300(SAMEA8894390)	CD P96_7	ERS6577560(SAMEA8894650)	D F2_7	ERS6577820(SAMEA8894911)
S. hatrochates	2018	Peru	Canta	-11.5130915	-76.678468	Site54	48	infected	CD B5_8	ERS6577301(SAMEA8894391)	CD P96_8	ERS6577561(SAMEA8894651)	D F2_8	ERS6577821(SAMEA8894912)
S. hatrochates	2018	Peru	Canta	-11.5130915	-76.678468	Site53	46	healthy	CD B5_9	ERS6577302(SAMEA8894392)	CD P96_9	ERS6577562(SAMEA8894652)	D F2_9	ERS6577822(SAMEA8894913)
S. hatrochates	2018	Peru	Canta	-11.5130915	-76.678468	Site54	50	infected	CD B5_10	ERS6577303(SAMEA8894393)	CD P96_10	ERS6577563(SAMEA8894653)	D F2_10	ERS6577823(SAMEA8894914)
S. hatrochates	2018	Peru	Canta	-11.4806049	-76.6372699	Site52	39	infected	CD B5_11	ERS6577304(SAMEA8894394)	CD P96_11	ERS6577564(SAMEA8894654)	D F2_11	ERS6577824(SAMEA8894915)
S. pimipinellidium	2018	Peru	Yungas	-11.69946	-76.84604	Site10B	18	healthy	CD B5_12	ERS6577305(SAMEA8894395)	CD P96_12	ERS6577565(SAMEA8894655)	D F2_12	ERS6577825(SAMEA8894916)
S. hatrochates	2018	Peru	Canta	-11.5130915	-76.678468	Site54	61	healthy	CD B5_13	ERS6577306(SAMEA8894396)	CD P96_13	ERS6577566(SAMEA8894656)	D F2_13	ERS6577826(SAMEA8894917)
S. hatrochates	2018	Peru	Canta	-11.5130915	-76.678468	Site54	54	infected	CD B5_14	ERS6577307(SAMEA8894397)	CD P96_14	ERS6577567(SAMEA8894657)	D F2_14	ERS6577827(SAMEA8894918)
S. hatrochates	2018	Peru	Canta	-11.4806049	-76.6372699	Site52	41	infected	CD B5_15	ERS6577308(SAMEA8894398)	CD P96_15	ERS6577568(SAMEA8894658)	D F2_15	ERS6577828(SAMEA8894919)
S. hatrochates	2018	Peru	Canta	-11.4806049	-76.6372699	Site52	40	healthy	CD B5_16	ERS6577309(SAMEA8894399)	CD P96_16	ERS6577569(SAMEA8894659)	D F2_16	ERS6577829(SAMEA8894920)
S. hatrochates	2018	Peru	Canta	-11.4806049	-76.6372699	Site52	41	infected	CD B5_17	ERS6577310(SAMEA8894400)	CD P96_17	ERS6577570(SAMEA8894660)	D F2_17	ERS6577830(SAMEA8894921)
S. hatrochates	2018	Peru	Canta	-11.5130915	-76.678468	Site54	58	healthy	CD B5_18	ERS6577311(SAMEA8894401)	CD P96_18	ERS6577571(SAMEA8894661)	D F2_18	ERS6577831(SAMEA8894922)
S. hatrochates	2018	Peru	Canta	-11.5130915	-76.678468	Site54	51	healthy	CD B5_19	ERS6577312(SAMEA8894402)	CD P96_19	ERS6577572(SAMEA8894662)	D F2_19	ERS6577832(SAMEA8894923)
S. hatrochates	2018	Peru	Canta	-11.5130915	-76.678468	Site53	43	infected	CD B5_20	ERS6577313(SAMEA8894403)	CD P96_20	ERS6577573(SAMEA8894663)	D F2_20	ERS6577833(SAMEA8894924)
S. hatrochates	2018	Peru	Canta	-11.5130915	-76.678468	Site54	55	healthy	CD B5_21	ERS6577314(SAMEA8894404)	CD P96_21	ERS6577574(SAMEA8894664)	D F2_21	ERS6577834(SAMEA8894925)
S. hatrochates	2018	Peru	Canta	-11.5130915	-76.678468	Site54	52	infected	CD B5_22	ERS6577315(SAMEA8894405)	CD P96_22	ERS6577575(SAMEA8894665)	D F2_22	ERS6577835(SAMEA8894926)
S. pimipinellidium	2018	Peru	Yungas	-11.69946	-76.84604	Site10B	20	infected	CD B5_23	ERS6577316(SAMEA8894406)	CD P96_23	ERS6577576(SAMEA8894666)	D F2_23	ERS6577836(SAMEA8894927)
S. hatrochates	2018	Peru	Canta	-11.5130915	-76.678468	Site54	61	healthy	CD B5_24	ERS6577317(SAMEA8894407)	CD P96_24	ERS6577577(SAMEA8894667)	D F2_24	ERS6577837(SAMEA8894928)
S. hatrochates	2018	Peru	Canta	-11.4806049	-76.6372699	Site52	38	infected	CD B5_25	ERS6577318(SAMEA8894408)	CD P96_25	ERS6577578(SAMEA8894668)	D F2_25	ERS6577838(SAMEA8894929)
S. hatrochates	2018	Peru	Canta	-11.4806049	-76.6372699	Site52	37	healthy	CD B5_26	ERS6577319(SAMEA8894409)	CD P96_26	ERS6577579(SAMEA8894669)	D F2_26	ERS6577839(SAMEA8894930)
S. hatrochates	2018	Peru	Canta	-11.5130915	-76.678468	Site53	45	infected	CD B5_27	ERS6577320(SAMEA8894410)	CD P96_27	ERS6577580(SAMEA8894670)	D F2_27	ERS6577840(SAMEA8894931)
S. hatrochates	2018	Peru	Canta	-11.4806049	-76.6372699	Site52	36	infected	CD B5_28	ERS6577321(SAMEA8894411)	CD P96_28	ERS6577581(SAMEA8894671)	D F2_28	ERS6577841(SAMEA8894932)
S. hatrochates	2018	Peru	Canta	-11.5130915	-76.678468	Site54	53	infected	CD B5_29	ERS6577322(SAMEA8894412)	CD P96_29	ERS6577582(SAMEA8894672)	D F2_29	ERS6577842(SAMEA8894933)
S. hatrochates	2018	Peru	Canta	-11.5130915	-76.678468	Site54	56	healthy	CD B5_30	ERS6577323(SAMEA8894413)	CD P96_30	ERS6577583(SAMEA8894673)	D F2_30	ERS6577843(SAMEA8894934)
S. peruvianum	2018	Peru	Yungas	-11.69946	-76.84604	Site10B	17	infected	CD B5_31	ERS6577324(SAMEA8894414)	CD P96_31	ERS6577584(SAMEA8894674)	D F2_31	ERS6577844(SAMEA8894935)
S. hatrochates	2018	Peru	Canta	-11.5130915	-76.678468	Site53	43	infected	CD B5_32	ERS6577325(SAMEA8894415)	CD P96_32	ERS6577585(SAMEA8894675)	D F2_32	ERS6577845(SAMEA8894936)
S. hatrochates	2018	Peru	Canta	-11.4806049	-76.6372699	Site52	38	infected	CD B5_33	ERS6577326(SAMEA8894416)	CD P96_33	ERS6577586(SAMEA8894676)	D F2_33	ERS6577846(SAMEA8894937)
S. hatrochates	2018	Peru	Canta	-11.5130915	-76.678468	Site54	57	healthy	CD B5_34	ERS6577327(SAMEA8894417)	CD P96_34	ERS6577587(SAMEA8894677)	D F2_34	ERS6577847(SAMEA8894938)
S. hatrochates	2018	Peru	Canta	-11.5130915	-76.678468	Site54	60	healthy	CD B5_35	ERS6577328(SAMEA8894418)	CD P96_35	ERS6577588(SAMEA8894678)	D F2_35	ERS6577848(SAMEA8894939)
S. hatrochates	2018	Peru	Canta	-11.5130915	-76.678468	Site54	57	healthy	CD B5_36	ERS6577329(SAMEA8894419)	CD P96_36	ERS6577589(SAMEA8894679)	D F2_36	ERS6577849(SAMEA8894940)
S. hatrochates	2018	Peru	Canta	-11.5130915	-76.678468	Site54	53	healthy	CD B5_37	ERS6577330(SAMEA8894420)	CD P96_37	ERS6577590(SAMEA8894680)	D F2_37	ERS6577850(SAMEA8894941)
S. hatrochates	2018	Peru	Canta	-11.4806049	-76.6372699	Site52	36	healthy	CD B5_38	ERS6577331(SAMEA8894421)	CD P96_38	ERS6577591(SAMEA8894681)	D F2_38	ERS6577851(SAMEA8894942)
S. pimipinellidium	2018	Peru	Yungas	-11.69946	-76.84604	Site10B	19	healthy	CD B5_39	ERS6577332(SAMEA8894422)	CD P96_39	ERS6577592(SAMEA8894682)	D F2_39	ERS6577852(SAMEA8894943)
S. hatrochates	2018	Peru	Canta	-11.5130915	-76.678468	Site53	45	infected	CD B5_40	ERS6577333(SAMEA8894423)	CD P96_40	ERS6577593(SAMEA8894683)	D F2_40	ERS6577853(SAMEA8894944)
S. peruvianum	2018	Peru	Yungas	-11.69946	-76.84604	Site10B	17	healthy	CD B5_41	ERS6577334(SAMEA8894424)	CD P96_41	ERS6577594(SAMEA8894684)	D F2_41	ERS6577854(SAMEA8894945)
S. hatrochates	2018	Peru	Canta	-11.5130915	-76.678468	Site53	44	infected	CD B5_42	ERS6577335(SAMEA8894425)	CD P96_42	ERS6577595(SAMEA8894685)	D F2_42	ERS6577855(SAMEA8894946)
S. hatrochates	2018	Peru	Canta	-11.5130915	-76.678468	Site54	52	infected	CD B5_43	ERS6577336(SAMEA8894426)	CD P96_43	ERS6577596(SAMEA8894686)	D F2_43	ERS6577856(SAMEA8894947)
S. pimipinellidium	2018	Peru	Yungas	-11.69946	-76.84604	Site10B	19	infected	CD B5_44	ERS6577337(SAMEA8894427)	CD P96_44	ERS6577597(SAMEA8894687)	D F2_44	ERS6577857(SAMEA8894948)
S. hatrochates	2018	Peru	Canta	-11.5130915	-76.678468	Site53	46	infected	CD B5_45	ERS6577338(SAMEA8894428)	CD P96_45	ERS6577598(SAMEA8894688)	D F2_45	ERS6577858(SAMEA8894949)
S. hatrochates	2018	Peru	Canta	-11.5130915	-76.678468	Site53	46	infected	CD B5_46	ERS6577339(SAMEA8894429)	CD P96_46	ERS6577599(SAMEA8894689)	D F2_46	ERS6577859(SAMEA8894950)
S. pimipinellidium	2018	Peru	Yungas	-11.69946	-76.84604	Site10B	20	healthy	CD B5_47	ERS6577340(SAMEA8894430)	CD P96_47	ERS6577600(SAMEA8894690)	D F2_47	ERS6577860(SAMEA8894951)
S. hatrochates	2018	Peru	Canta	-11.5130915	-76.678468	Site54	60	healthy	CD B5_48	ERS6577341(SAMEA8894431)	CD P96_48	ERS6577601(SAMEA8894691)	D F2_48	ERS6577861(SAMEA8894952)
S. peruvianum	2018	Peru	Yungas	-11.69946	-76.84604	Site10B	16	healthy	CD B5_49	ERS6577342(SAMEA8894432)	CD P96_49	ERS6577602(SAMEA8894692)	D F2_49	ERS6577862(SAMEA8894953)
S. hatrochates	2018	Peru	Canta	-11.4806049	-76.6372699	Site52	39	healthy	CD B5_50	ERS6577343(SAMEA8894433)	CD P96_50	ERS6577603(SAMEA8894693)	D F2_50	ERS6577863(SAMEA8894954)
S. hatrochates	2018	Peru	Canta	-11.5130915	-76.678468	Site54	51	infected	CD B5_51	ERS6577344(SAMEA8894434)	CD P96_51	ERS6577604(SAMEA8894694)	D F2_51	ERS6577864(SAMEA8894955)
S. hatrochates	2018	Peru	Canta	-11.5130915	-76.678468	Site54	49	infected	CD B5_52	ERS6577345(SAMEA8894435)	CD P96_52	ERS6577605(SAMEA8894695)	D F2_52	ERS6577865(SAMEA8894956)
S. hatrochates	2018	Peru	Canta	-11.5130915	-76.678468	Site54	49	healthy	CD B5_53	ERS6577346(SAMEA8894436)	CD P96_53	ERS6577606(SAMEA8894696)	D F2_53	ERS6577866(SAMEA8894957)
S. hatrochates	2018	Peru	Canta	-11.5130915	-76.678468	Site54	59	healthy	CD B5_54	ERS6577347(SAMEA8894437)	CD P96_54	ERS6577607(SAMEA8894697)	D F2_54	ERS6577867(SAMEA8894958)
S. pimipinellidium	2018	Peru	Yungas	-11.69946	-76.84604	Site10B	18	infected	CD B5_55	ERS6577348(SAMEA8894438)	CD P96_55	ERS6577608(SAMEA8894698)	D F2_55	ERS6577868(SAMEA8894959)
S. hatrochates	2018	Peru	Canta	-11.5130915	-76.678468	Site54	62	healthy	CD B5_56	ERS6577349(SAMEA8894439)	CD P96_56	ERS6577609(SAMEA8894699)	D F2_56	ERS6577869(SAMEA8894960)
S. hatrochates	2018	Peru	Canta	-11.4806049	-76.6372699	Site52	40	infected	CD B5_57	ERS6577350(SAMEA8894440)	CD P96_57	ERS6577610(SAMEA8894700)	D F2_57	ERS6577870(SAMEA8894961)
S. hatrochates	2018	Peru	Canta	-11.4806049	-76.6372699	Site52	42	infected	CD B5_58	ERS6577351(SAMEA8894441)	CD P96_58	ERS6577611(SAMEA8894701)	D F2_58	ERS6577871(SAMEA8894962)
S. hatrochates	2018	Peru	Canta	-11.4806049	-76.6372699	Site52	42	healthy	CD B5_59	ERS6577352(SAMEA8894442)	CD P96_59	ERS6577612(SAMEA8894702)	D F2_59	ERS6577872(SAMEA8894963)
S. hatrochates	2018	Peru	Canta	-11.5130915	-76.678468	Site53	47	healthy	CD B5_60	ERS6577353(SAMEA8894443)	CD P96_60	ERS6577613(SAMEA8894703)	D F2_60	ERS6577873(SAMEA8894964)
S. hatrochates	2018	Peru	Canta	-11.4806049	-76.6372699	Site52	37	infected	CD B5_61	ERS6577354(SAMEA8894444)	CD P96_61	ERS6577614(SAMEA8894704)	D F2_61	ERS6577874(SAMEA8894965)
S. peruvianum	2018	Peru	Yungas	-11.69946	-76.84604	Site10B	16	infected	CD B5_62	ERS6577355(SAMEA8894445)	CD P96_62	ERS6577615(SAMEA8894705)	D F2_62	ERS6577875(SAMEA8894966)
S. hatrochates	2018	Peru	Canta	-11.4806049	-76.6372699	Site52	37	infected	CD B5_63	ERS6577356(SAMEA8894446)	CD P96_63	ERS6577616(SAMEA8894706)	D F2_63	ERS6577876(SAMEA8894967)
S. hatrochates	2018	Peru	Canta	-1										

Host Species	Year	Location	Area	Latitude	Longitude	Site	Plant	State	Bacteria [16S V5]		Eukaryotes [18S V8]		Fungi [ITS2]	
									Library	ENA Accession	Library	ENA Accession	Library	ENA Accession
S. habrochaites	2019	Peru	Canta	-11.457461	-76.626274	3	S3, Plant4	infected	G.B5_1	ERS5577402 (SAMEA8894402)	N.P.9_1	ERS5577662 (SAMEA8894753)	N.F2_1	ERS5577022 (SAMEA8895013)
S. corneolium	2019	Peru	Canta	-11.477744	-76.623483	4	S4, Plant3	infected	G.B5_2	ERS5577403 (SAMEA8894403)	N.P.9_2	ERS5577663 (SAMEA8894754)	N.F2_2	ERS5577023 (SAMEA8895014)
S. corneolium	2019	Peru	Canta	-11.477744	-76.623483	4	S4, Plant1	healthy	G.B5_3	ERS5577404 (SAMEA8894404)	N.P.9_3	ERS5577664 (SAMEA8894755)	N.F2_3	ERS5577024 (SAMEA8895015)
S. habrochaites	2019	Peru	Canta	-11.457461	-76.626274	3	S3, Plant4	infected	G.B5_4	ERS5577405 (SAMEA8894405)	N.P.9_4	ERS5577665 (SAMEA8894756)	N.F2_4	ERS5577025 (SAMEA8895016)
S. habrochaites	2019	Peru	Canta	-11.457461	-76.626274	3	S3, Plant1	infected	G.B5_5	ERS5577406 (SAMEA8894406)	N.P.9_5	ERS5577666 (SAMEA8894757)	N.F2_5	ERS5577026 (SAMEA8895017)
S. corneolium	2019	Peru	Canta	-11.477744	-76.623483	4	S4, Plant2	healthy	G.B5_6	ERS5577407 (SAMEA8894407)	N.P.9_6	ERS5577667 (SAMEA8894758)	N.F2_6	ERS5577027 (SAMEA8895018)
S. corneolium	2019	Peru	Canta	-11.477744	-76.623483	4	S4, Plant5	infected	G.B5_7	ERS5577408 (SAMEA8894408)	N.P.9_7	ERS5577668 (SAMEA8894759)	N.F2_7	ERS5577028 (SAMEA8895019)
S. corneolium	2019	Peru	Canta	-11.477744	-76.623483	4	S4, Plant5	infected	G.B5_8	ERS5577409 (SAMEA8894409)	N.P.9_8	ERS5577669 (SAMEA8894760)	N.F2_8	ERS5577029 (SAMEA8895020)
S. corneolium	2019	Peru	Canta	-11.477744	-76.623483	4	S4, Plant4	infected	G.B5_9	ERS5577410 (SAMEA8894410)	N.P.9_9	ERS5577670 (SAMEA8894761)	N.F2_9	ERS5577030 (SAMEA8895021)
S. corneolium	2019	Peru	Canta	-11.477744	-76.623483	4	S4, Plant4	infected	G.B5_10	ERS5577411 (SAMEA8894411)	N.P.9_10	ERS5577671 (SAMEA8894762)	N.F2_10	ERS5577031 (SAMEA8895022)
S. habrochaites	2019	Peru	Canta	-11.457461	-76.626274	3	S3, Plant3	infected	G.B5_11	ERS5577412 (SAMEA8894412)	N.P.9_11	ERS5577672 (SAMEA8894763)	N.F2_11	ERS5577032 (SAMEA8895023)
S. habrochaites	2019	Peru	Canta	-11.457461	-76.626274	3	S3, Plant3	infected	G.B5_12	ERS5577413 (SAMEA8894413)	N.P.9_12	ERS5577673 (SAMEA8894764)	N.F2_12	ERS5577033 (SAMEA8895024)
S. corneolium	2019	Peru	Canta	-11.477744	-76.623483	4	S4, Plant3	infected	G.B5_13	ERS5577414 (SAMEA8894414)	N.P.9_13	ERS5577674 (SAMEA8894765)	N.F2_13	ERS5577034 (SAMEA8895025)
S. corneolium	2019	Peru	Canta	-11.477744	-76.623483	4	S4, Plant2	infected	G.B5_14	ERS5577415 (SAMEA8894415)	N.P.9_14	ERS5577675 (SAMEA8894766)	N.F2_14	ERS5577035 (SAMEA8895026)
S. habrochaites	2019	Peru	Canta	-11.457461	-76.626274	3	S3, Plant2	infected	G.B5_15	ERS5577416 (SAMEA8894416)	N.P.9_15	ERS5577676 (SAMEA8894767)	N.F2_15	ERS5577036 (SAMEA8895027)
S. corneolium	2019	Peru	Canta	-11.477744	-76.623483	4	S4, Plant1	infected	G.B5_16	ERS5577417 (SAMEA8894417)	N.P.9_16	ERS5577677 (SAMEA8894768)	N.F2_16	ERS5577037 (SAMEA8895028)
S. corneolium	2019	Peru	Canta	-11.477744	-76.623483	4	S4, Plant1	healthy	G.B5_17	ERS5577418 (SAMEA8894418)	N.P.9_17	ERS5577678 (SAMEA8894769)	N.F2_17	ERS5577038 (SAMEA8895029)
S. habrochaites	2019	Peru	Canta	-11.457461	-76.626274	3	S3, Plant3	infected	G.B5_18	ERS5577419 (SAMEA8894419)	N.P.9_18	ERS5577679 (SAMEA8894770)	N.F2_18	ERS5577039 (SAMEA8895030)
S. corneolium	2019	Peru	Canta	-11.477744	-76.623483	4	S4, Plant2	infected	G.B5_19	ERS5577420 (SAMEA8894420)	N.P.9_19	ERS5577680 (SAMEA8894771)	N.F2_19	ERS5577040 (SAMEA8895031)
S. corneolium	2019	Peru	Canta	-11.477744	-76.623483	4	S4, Plant4	infected	G.B5_20	ERS5577421 (SAMEA8894421)	N.P.9_20	ERS5577681 (SAMEA8894772)	N.F2_20	ERS5577041 (SAMEA8895032)
S. corneolium	2019	Peru	Canta	-11.477744	-76.623483	4	S4, Plant3	healthy	G.B5_21	ERS5577422 (SAMEA8894422)	N.P.9_21	ERS5577682 (SAMEA8894773)	N.F2_21	ERS5577042 (SAMEA8895033)
S. corneolium	2019	Peru	Canta	-11.477744	-76.623483	4	S4, Plant2	infected	G.B5_22	ERS5577423 (SAMEA8894423)	N.P.9_22	ERS5577683 (SAMEA8894774)	N.F2_22	ERS5577043 (SAMEA8895034)
S. habrochaites	2019	Peru	Canta	-11.457461	-76.626274	3	S3, Plant4	infected	G.B5_23	ERS5577424 (SAMEA8894424)	N.P.9_23	ERS5577684 (SAMEA8894775)	N.F2_23	ERS5577044 (SAMEA8895035)
S. corneolium	2019	Peru	Canta	-11.477744	-76.623483	4	S4, Plant1	infected	G.B5_24	ERS5577425 (SAMEA8894425)	N.P.9_24	ERS5577685 (SAMEA8894776)	N.F2_24	ERS5577045 (SAMEA8895036)
S. habrochaites	2019	Peru	Canta	-11.457461	-76.626274	3	S3, Plant3	infected	G.B5_25	ERS5577426 (SAMEA8894426)	N.P.9_25	ERS5577686 (SAMEA8894777)	N.F2_25	ERS5577046 (SAMEA8895037)
S. corneolium	2019	Peru	Canta	-11.477744	-76.623483	4	S4, Plant3	infected	G.B5_26	ERS5577427 (SAMEA8894427)	N.P.9_26	ERS5577687 (SAMEA8894778)	N.F2_26	ERS5577047 (SAMEA8895038)
S. corneolium	2019	Peru	Canta	-11.477744	-76.623483	4	S4, Plant5	infected	G.B5_27	ERS5577428 (SAMEA8894428)	N.P.9_27	ERS5577688 (SAMEA8894779)	N.F2_27	ERS5577048 (SAMEA8895039)
S. habrochaites	2019	Peru	Canta	-11.457461	-76.626274	3	S3, Plant4	infected	G.B5_28	ERS5577429 (SAMEA8894429)	N.P.9_28	ERS5577689 (SAMEA8894780)	N.F2_28	ERS5577049 (SAMEA8895040)
S. corneolium	2019	Peru	Canta	-11.477744	-76.623483	4	S4, Plant2	infected	G.B5_29	ERS5577430 (SAMEA8894430)	N.P.9_29	ERS5577690 (SAMEA8894781)	N.F2_29	ERS5577050 (SAMEA8895041)
S. corneolium	2019	Peru	Canta	-11.477744	-76.623483	4	S4, Plant2	infected	G.B5_30	ERS5577431 (SAMEA8894431)	N.P.9_30	ERS5577691 (SAMEA8894782)	N.F2_30	ERS5577051 (SAMEA8895042)
S. habrochaites	2019	Peru	Canta	-11.457461	-76.626274	3	S3, Plant1	healthy	G.B5_31	ERS5577432 (SAMEA8894432)	N.P.9_31	ERS5577692 (SAMEA8894783)	N.F2_31	ERS5577052 (SAMEA8895043)
S. corneolium	2019	Peru	Canta	-11.448796	-76.621971	2	S2, Plant2	infected	G.B5_32	ERS5577433 (SAMEA8894433)	N.P.9_32	ERS5577693 (SAMEA8894784)	N.F2_32	ERS5577053 (SAMEA8895044)
S. corneolium	2019	Peru	Canta	-11.477744	-76.623483	4	S4, Plant2	infected	G.B5_33	ERS5577434 (SAMEA8894434)	N.P.9_33	ERS5577694 (SAMEA8894785)	N.F2_33	ERS5577054 (SAMEA8895045)
S. corneolium	2019	Peru	Canta	-11.477744	-76.623483	4	S4, Plant4	infected	G.B5_34	ERS5577435 (SAMEA8894435)	N.P.9_34	ERS5577695 (SAMEA8894786)	N.F2_34	ERS5577055 (SAMEA8895046)
S. corneolium	2019	Peru	Canta	-11.448796	-76.621971	2	S2, Plant2	healthy	G.B5_35	ERS5577436 (SAMEA8894436)	N.P.9_35	ERS5577696 (SAMEA8894787)	N.F2_35	ERS5577056 (SAMEA8895047)
S. habrochaites	2019	Peru	Canta	-11.457461	-76.626274	3	S3, Plant3	infected	G.B5_36	ERS5577437 (SAMEA8894437)	N.P.9_36	ERS5577697 (SAMEA8894788)	N.F2_36	ERS5577057 (SAMEA8895048)
S. corneolium	2019	Peru	Canta	-11.448796	-76.621971	2	S2, Plant2	healthy	G.B5_37	ERS5577438 (SAMEA8894438)	N.P.9_37	ERS5577698 (SAMEA8894789)	N.F2_37	ERS5577058 (SAMEA8895049)
S. corneolium	2019	Peru	Canta	-11.477744	-76.623483	4	S4, Plant3	healthy	G.B5_38	ERS5577439 (SAMEA8894439)	N.P.9_38	ERS5577699 (SAMEA8894790)	N.F2_38	ERS5577059 (SAMEA8895050)
S. corneolium	2019	Peru	Canta	-11.453299	-76.623554	1	S1, Plant4	healthy	G.B5_39	ERS5577440 (SAMEA8894440)	N.P.9_39	ERS5577700 (SAMEA8894791)	N.F2_39	ERS5577060 (SAMEA8895051)
S. corneolium	2019	Peru	Canta	-11.448796	-76.621971	2	S2, Plant2	infected	G.B5_40	ERS5577441 (SAMEA8894441)	N.P.9_40	ERS5577701 (SAMEA8894792)	N.F2_40	ERS5577061 (SAMEA8895052)
S. corneolium	2019	Peru	Canta	-11.477744	-76.623483	4	S4, Plant4	healthy	G.B5_41	ERS5577442 (SAMEA8894442)	N.P.9_41	ERS5577702 (SAMEA8894793)	N.F2_41	ERS5577062 (SAMEA8895053)
S. habrochaites	2019	Peru	Canta	-11.457461	-76.626274	3	S3, Plant4	infected	G.B5_42	ERS5577443 (SAMEA8894443)	N.P.9_42	ERS5577703 (SAMEA8894794)	N.F2_42	ERS5577063 (SAMEA8895054)
S. corneolium	2019	Peru	Canta	-11.477744	-76.623483	4	S4, Plant5	infected	G.B5_43	ERS5577444 (SAMEA8894444)	N.P.9_43	ERS5577704 (SAMEA8894795)	N.F2_43	ERS5577064 (SAMEA8895055)
S. habrochaites	2019	Peru	Canta	-11.457461	-76.626274	3	S3, Plant4	healthy	G.B5_44	ERS5577445 (SAMEA8894445)	N.P.9_44	ERS5577705 (SAMEA8894796)	N.F2_44	ERS5577065 (SAMEA8895056)
S. corneolium	2019	Peru	Canta	-11.453299	-76.623554	1	S1, Plant5	infected	G.B5_45	ERS5577446 (SAMEA8894446)	N.P.9_45	ERS5577706 (SAMEA8894797)	N.F2_45	ERS5577066 (SAMEA8895057)
S. corneolium	2019	Peru	Canta	-11.448796	-76.621971	2	S2, Plant3	infected	G.B5_46	ERS5577447 (SAMEA8894447)	N.P.9_46	ERS5577707 (SAMEA8894798)	N.F2_46	ERS5577067 (SAMEA8895058)
S. habrochaites	2019	Peru	Canta	-11.457461	-76.626274	3	S3, Plant5	infected	G.B5_47	ERS5577448 (SAMEA8894448)	N.P.9_47	ERS5577708 (SAMEA8894799)	N.F2_47	ERS5577068 (SAMEA8895059)
S. corneolium	2019	Peru	Canta	-11.477744	-76.623483	4	S4, Plant4	healthy	G.B5_48	ERS5577449 (SAMEA8894449)	N.P.9_48	ERS5577709 (SAMEA8894800)	N.F2_48	ERS5577069 (SAMEA8895060)
S. habrochaites	2019	Peru	Canta	-11.457461	-76.626274	3	S3, Plant3	infected	G.B5_49	ERS5577450 (SAMEA8894450)	N.P.9_49	ERS5577710 (SAMEA8894801)	N.F2_49	ERS5577070 (SAMEA8895061)
S. corneolium	2019	Peru	Canta	-11.448796	-76.621971	2	S2, Plant1	infected	G.B5_50	ERS5577451 (SAMEA8894451)	N.P.9_50	ERS5577711 (SAMEA8894802)	N.F2_50	ERS5577071 (SAMEA8895062)
S. habrochaites	2019	Peru	Canta	-11.457461	-76.626274	3	S3, Plant2	infected	G.B5_51	ERS5577452 (SAMEA8894452)	N.P.9_51	ERS5577712 (SAMEA8894803)	N.F2_51	ERS5577072 (SAMEA8895063)
S. corneolium	2019	Peru	Canta	-11.477744	-76.623483	4	S4, Plant1	infected	G.B5_52	ERS5577453 (SAMEA8894453)	N.P.9_52	ERS5577713 (SAMEA8894804)	N.F2_52	ERS5577073 (SAMEA8895064)
S. corneolium	2019	Peru	Canta	-11.453299	-76.623554	1	S1, Plant5	healthy	G.B5_53	ERS5577454 (SAMEA8894454)	N.P.9_53	ERS5577714 (SAMEA8894805)	N.F2_53	ERS5577074 (SAMEA8895065)
S. corneolium	2019	Peru	Canta	-11.453299	-76.623554	1	S1, Plant5	healthy	G.B5_54	ERS5577455 (SAMEA8894455)	N.P.9_54	ERS5577715 (SAMEA8894806)	N.F2_54	ERS5577075 (SAMEA8895066)
S. corneolium	2019	Peru	Canta	-11.453299	-76.623554	1	S1, Plant4	infected	G.B5_55	ERS5577456 (SAMEA8894456)	N.P.9_55	ERS5577716 (SAMEA8894807)	N.F2_55	ERS5577076 (SAMEA8895067)
S. habrochaites	2019	Peru	Canta	-11.457461	-76.626274	3	S3, Plant5	infected	G.B5_56	ERS5577457 (SAMEA8894457)	N.P.9_56	ERS5577717 (SAMEA8894808)	N.F2_56	ERS5577077 (SAMEA8895068)
S. corneolium	2019	Peru	Canta	-11.453299	-76.623554	1	S1, Plant2	infected	G.B5_57	ERS5577458 (SAMEA8894458)	N.P.9_57	ERS5577718 (SAMEA8894809)	N.F2_57	ERS5577078 (SAMEA8895069)
S. corneolium	2019	Peru	Canta	-11.477744	-76.623483	4	S4, Plant3	infected	G.B5_58	ERS5577459 (SAMEA8894459)	N.P.9_58	ERS5577719 (SAMEA8894810)	N.F2_58	ERS5577079 (SAMEA8895070)
S. corneolium	2019	Peru	Canta	-11.453299	-76.623554	1	S1, Plant4	infected	G.B5_59	ERS5577460 (SAMEA8894460)	N.P.9_59	ERS5577720 (SAMEA8894811)	N.F2_59	ERS5577080 (SAMEA8895071)
S. corneolium	2019	Peru	Canta	-11.448796	-76.621971	2	S2, Plant1	healthy	G.B5_60	ERS5577461 (SAMEA8894461)	N.P.9_60	ERS5577721 (SAMEA8894812)	N.F2_60	ERS5577081 (SAMEA8895072)
S. corneolium	2019	Peru	Canta	-11.448796	-76.621971	2	S2, Plant2	infected	G.B5_61	ERS5577462 (SAMEA8894462)	N.P.9_61	ERS5577722 (SAMEA8894813)	N.F2_61	ERS5577082 (SAMEA8895073)
S. corneolium	2019	Peru	Canta	-11.453299	-76.623554	1	S1, Plant1	healthy	G.B5_62	ERS5577463 (SAMEA8894463)	N.P.9_62	ERS5577723 (SAMEA8894814)	N.F2_62	ERS5577083 (SAMEA8895074)
S. corneolium	2019	Peru	Canta	-11.477744	-76.623483	4	S4, Plant3	infected	G.B5_63	ERS5577464 (SAMEA8894464)	N.P.9_63	ERS5577724 (SAMEA8894815)	N.F2_63	ERS5577084 (SAMEA8895075)
S. corneolium	2019	Peru	Canta	-11.453299	-76.623554	1	S1, Plant3	infected	G.B5_64	ERS5577465 (SAMEA8894465)	N.P.9_64	ERS5577725 (SAMEA8894816)	N.F2_64	ERS5577085 (SAMEA8895076)
S. corneolium	2019	Peru	Canta	-11.477744	-									

Host Species	Year	Location	Area	Latitude	Longitude	Site	Plant	State	Bacteria [16S V5]		Eukaryotes [18S V9]		Fungi [ITS2]	
									Library	ENA Accession	Library	ENA Accession	Library	ENA Accession
<i>S. cornelomulieri</i>	2019	Peru	Canta	-11.453299	-76.623654	1	S1_Plant2	healthy	G.B5_112	ERS6577512 SAMEA8894602	N.P9_112	ERS6577772 SAMEA8894963	N.F2_112	ERS6578032 SAMEA8895123
<i>S. cornelomulieri</i>	2019	Peru	Canta	-11.448796	-76.621971	2	S2_Plant5	healthy	G.B5_113	ERS6577513 SAMEA8894603	N.P9_113	ERS6577773 SAMEA8894964	N.F2_113	ERS6578033 SAMEA8895124
<i>S. habrochaites</i>	2019	Peru	Canta	-11.457461	-76.626274	3	S3_Plant1	infected	G.B5_114	ERS6577514 SAMEA8894604	N.P9_114	ERS6577774 SAMEA8894965	N.F2_114	ERS6578034 SAMEA8895125
<i>S. cornelomulieri</i>	2019	Peru	Canta	-11.448796	-76.621971	2	S2_Plant1	healthy	G.B5_115	ERS6577515 SAMEA8894605	N.P9_115	ERS6577775 SAMEA8894966	N.F2_115	ERS6578035 SAMEA8895126
<i>S. cornelomulieri</i>	2019	Peru	Canta	-11.448796	-76.621971	2	S2_Plant4	infected	G.B5_116	ERS6577516 SAMEA8894606	N.P9_116	ERS6577776 SAMEA8894967	N.F2_116	ERS6578036 SAMEA8895127
<i>S. cornelomulieri</i>	2019	Peru	Canta	-11.448796	-76.621971	2	S2_Plant5	infected	G.B5_117	ERS6577517 SAMEA8894607	N.P9_117	ERS6577777 SAMEA8894968	N.F2_117	ERS6578037 SAMEA8895128
<i>S. cornelomulieri</i>	2019	Peru	Canta	-11.453299	-76.623654	1	S1_Plant1	infected	G.B5_118	ERS6577518 SAMEA8894608	N.P9_118	ERS6577778 SAMEA8894969	N.F2_118	ERS6578038 SAMEA8895129
<i>S. cornelomulieri</i>	2019	Peru	Canta	-11.453299	-76.623654	1	S1_Plant2	healthy	G.B5_119	ERS6577519 SAMEA8894609	N.P9_119	ERS6577779 SAMEA8894970	N.F2_119	ERS6578039 SAMEA8895130
<i>S. cornelomulieri</i>	2019	Peru	Canta	-11.448796	-76.621971	2	S2_Plant5	infected	G.B5_120	ERS6577520 SAMEA8894610	N.P9_120	ERS6577780 SAMEA8894971	N.F2_120	ERS6578040 SAMEA8895131
<i>S. habrochaites</i>	2019	Peru	Canta	-11.457461	-76.626274	3	S3_Plant3	healthy	G.B5_121	ERS6577521 SAMEA8894611	N.P9_121	ERS6577781 SAMEA8894972	N.F2_121	ERS6578041 SAMEA8895132
<i>S. cornelomulieri</i>	2019	Peru	Canta	-11.453299	-76.623654	1	S1_Plant1	healthy	G.B5_122	ERS6577522 SAMEA8894612	N.P9_122	ERS6577782 SAMEA8894973	N.F2_122	ERS6578042 SAMEA8895133
<i>S. habrochaites</i>	2019	Peru	Canta	-11.457461	-76.626274	3	S3_Plant2	infected	G.B5_123	ERS6577523 SAMEA8894613	N.P9_123	ERS6577783 SAMEA8894974	N.F2_123	ERS6578043 SAMEA8895134
<i>S. cornelomulieri</i>	2019	Peru	Canta	-11.448796	-76.621971	2	S2_Plant3	healthy	G.B5_124	ERS6577524 SAMEA8894614	N.P9_124	ERS6577784 SAMEA8894975	N.F2_124	ERS6578044 SAMEA8895135
<i>S. cornelomulieri</i>	2019	Peru	Canta	-11.453299	-76.623654	1	S1_Plant2	healthy	G.B5_125	ERS6577525 SAMEA8894615	N.P9_125	ERS6577785 SAMEA8894976	N.F2_125	ERS6578045 SAMEA8895136
<i>S. habrochaites</i>	2019	Peru	Canta	-11.457461	-76.626274	3	S3_Plant3	healthy	G.B5_126	ERS6577526 SAMEA8894616	N.P9_126	ERS6577786 SAMEA8894977	N.F2_126	ERS6578046 SAMEA8895137
<i>S. habrochaites</i>	2019	Peru	Canta	-11.457461	-76.626274	3	S3_Plant2	infected	G.B5_127	ERS6577527 SAMEA8894617	N.P9_127	ERS6577787 SAMEA8894978	N.F2_127	ERS6578047 SAMEA8895138
<i>S. habrochaites</i>	2019	Peru	Canta	-11.457461	-76.626274	3	S3_Plant1	healthy	G.B5_128	ERS6577528 SAMEA8894618	N.P9_128	ERS6577788 SAMEA8894979	N.F2_128	ERS6578048 SAMEA8895139
<i>S. cornelomulieri</i>	2019	Peru	Canta	-11.477744	-76.623483	4	S4_Plant1	infected	G.B5_129	ERS6577529 SAMEA8894619	N.P9_129	ERS6577789 SAMEA8894980	N.F2_129	ERS6578049 SAMEA8895140
<i>S. cornelomulieri</i>	2019	Peru	Canta	-11.453299	-76.623654	1	S1_Plant4	infected	G.B5_130	ERS6577530 SAMEA8894620	N.P9_130	ERS6577790 SAMEA8894981	N.F2_130	ERS6578050 SAMEA8895141
<i>S. cornelomulieri</i>	2019	Peru	Canta	-11.448796	-76.621971	2	S2_Plant1	infected	G.B5_131	ERS6577531 SAMEA8894621	N.P9_131	ERS6577791 SAMEA8894982	N.F2_131	ERS6578051 SAMEA8895142
<i>S. cornelomulieri</i>	2019	Peru	Canta	-11.448796	-76.621971	2	S2_Plant4	healthy	G.B5_132	ERS6577532 SAMEA8894622	N.P9_132	ERS6577792 SAMEA8894983	N.F2_132	ERS6578052 SAMEA8895143
<i>S. cornelomulieri</i>	2019	Peru	Canta	-11.453299	-76.623654	1	S1_Plant1	infected	G.B5_133	ERS6577533 SAMEA8894623	N.P9_133	ERS6577793 SAMEA8894984	N.F2_133	ERS6578053 SAMEA8895144
<i>S. cornelomulieri</i>	2019	Peru	Canta	-11.453299	-76.623654	1	S1_Plant1	infected	G.B5_134	ERS6577534 SAMEA8894624	N.P9_134	ERS6577794 SAMEA8894985	N.F2_134	ERS6578054 SAMEA8895145
<i>S. habrochaites</i>	2019	Peru	Canta	-11.457461	-76.626274	3	S3_Plant2	healthy	G.B5_135	ERS6577535 SAMEA8894625	N.P9_135	ERS6577795 SAMEA8894986	N.F2_135	ERS6578055 SAMEA8895146
<i>S. habrochaites</i>	2019	Peru	Canta	-11.457461	-76.626274	3	S3_Plant5	healthy	G.B5_136	ERS6577536 SAMEA8894626	N.P9_136	ERS6577796 SAMEA8894987	N.F2_136	ERS6578056 SAMEA8895147
<i>S. habrochaites</i>	2019	Peru	Canta	-11.457461	-76.626274	3	S3_Plant3	healthy	G.B5_137	ERS6577537 SAMEA8894627	N.P9_137	ERS6577797 SAMEA8894988	N.F2_137	ERS6578057 SAMEA8895148
<i>S. habrochaites</i>	2019	Peru	Canta	-11.457461	-76.626274	3	S3_Plant2	healthy	G.B5_138	ERS6577538 SAMEA8894628	N.P9_138	ERS6577798 SAMEA8894989	N.F2_138	ERS6578058 SAMEA8895149
<i>S. cornelomulieri</i>	2019	Peru	Canta	-11.477744	-76.623483	4	S4_Plant4	healthy	G.B5_139	ERS6577539 SAMEA8894629	N.P9_139	ERS6577799 SAMEA8894990	N.F2_139	ERS6578059 SAMEA8895150
<i>S. habrochaites</i>	2019	Peru	Canta	-11.457461	-76.626274	3	S3_Plant5	healthy	G.B5_140	ERS6577540 SAMEA8894630	N.P9_140	ERS6577800 SAMEA8894991	N.F2_140	ERS6578060 SAMEA8895151
<i>S. cornelomulieri</i>	2019	Peru	Canta	-11.448796	-76.621971	2	S2_Plant5	healthy	G.B5_141	ERS6577541 SAMEA8894631	N.P9_141	ERS6577801 SAMEA8894992	N.F2_141	ERS6578061 SAMEA8895152
<i>S. habrochaites</i>	2019	Peru	Canta	-11.457461	-76.626274	3	S3_Plant1	healthy	G.B5_142	ERS6577542 SAMEA8894632	N.P9_142	ERS6577802 SAMEA8894993	N.F2_142	ERS6578062 SAMEA8895153
<i>S. cornelomulieri</i>	2019	Peru	Canta	-11.453299	-76.623654	1	S1_Plant2	infected	G.B5_143	ERS6577543 SAMEA8894633	N.P9_143	ERS6577803 SAMEA8894994	N.F2_143	ERS6578063 SAMEA8895154
<i>S. cornelomulieri</i>	2019	Peru	Canta	-11.448796	-76.621971	2	S2_Plant2	infected	G.B5_144	ERS6577544 SAMEA8894634	N.P9_144	ERS6577804 SAMEA8894995	N.F2_144	ERS6578064 SAMEA8895155
<i>S. cornelomulieri</i>	2019	Peru	Canta	-11.477744	-76.623483	4	S4_Plant2	healthy	G.B5_145	ERS6577545 SAMEA8894635	N.P9_145	ERS6577805 SAMEA8894996	N.F2_145	ERS6578065 SAMEA8895156
<i>S. habrochaites</i>	2019	Peru	Canta	-11.457461	-76.626274	3	S3_Plant5	healthy	G.B5_146	ERS6577546 SAMEA8894636	N.P9_146	ERS6577806 SAMEA8894997	N.F2_146	ERS6578066 SAMEA8895157
<i>S. habrochaites</i>	2019	Peru	Canta	-11.457461	-76.626274	3	S3_Plant1	infected	G.B5_147	ERS6577547 SAMEA8894637	N.P9_147	ERS6577807 SAMEA8894998	N.F2_147	ERS6578067 SAMEA8895158
<i>S. habrochaites</i>	2019	Peru	Canta	-11.457461	-76.626274	3	S3_Plant4	healthy	G.B5_148	ERS6577548 SAMEA8894638	N.P9_148	ERS6577808 SAMEA8894999	N.F2_148	ERS6578068 SAMEA8895159
<i>S. cornelomulieri</i>	2019	Peru	Canta	-11.448796	-76.621971	2	S2_Plant1	infected	G.B5_149	ERS6577549 SAMEA8894639	N.P9_149	ERS6577809 SAMEA8895000	N.F2_149	ERS6578069 SAMEA8895160
<i>S. cornelomulieri</i>	2019	Peru	Canta	-11.448796	-76.621971	2	S2_Plant5	healthy	G.B5_150	ERS6577550 SAMEA8894640	N.P9_150	ERS6577810 SAMEA8895001	N.F2_150	ERS6578070 SAMEA8895161
<i>S. cornelomulieri</i>	2019	Peru	Canta	-11.453299	-76.623654	1	S1_Plant1	healthy	G.B5_151	ERS6577551 SAMEA8894641	N.P9_151	ERS6577811 SAMEA8895002	N.F2_151	ERS6578071 SAMEA8895162
<i>S. habrochaites</i>	2019	Peru	Canta	-11.457461	-76.626274	3	S3_Plant4	infected	G.B5_152	ERS6577552 SAMEA8894642	N.P9_152	ERS6577812 SAMEA8895003	N.F2_152	ERS6578072 SAMEA8895163
<i>S. habrochaites</i>	2019	Peru	Canta	-11.457461	-76.626274	3	S3_Plant4	healthy	G.B5_153	ERS6577553 SAMEA8894643	N.P9_153	ERS6577813 SAMEA8895004	N.F2_153	ERS6578073 SAMEA8895164