

Table S2 - Input dataset for CatPCA analysis.

¹ Name	² Niche	³ Sampling Site	⁴ Genera
JC1	1	JC	Variovorax sp.
JC2	1	JC	Azospirillum sp.
JC3	1	JC	Rhizobium sp.
JC4	1	JC	Achromobacter sp.
JC5	1	JC	Rhizobium sp.
JC6	1	JC	Rhizobium sp.
JC7	1	JC	Stenotrophomonas sp.
JC8	1	JC	Rhizobium sp.
JC9	1	JC	Ochrobactrum sp.
JC10	1	JC	Pseudomonas sp.
JC11	1	JC	Serratia sp.
JC12	1	JC	Xanthomonas sp.
JC13	1	JC	Luteibacter sp.
JC14	1	JC	Rhizobium sp.
JC15	1	JC	Pseudomonas sp.
JC16	1	JC	Enterobacter sp.
JC17	1	JC	Enterobacter sp.
JC18	1	JC	Pseudomonas sp.
JC19	1	JC	Enterobacter sp.
JC20	1	JC	Rhizobium sp.
JC21	1	JC	Cedecea sp.
JC22	1	JC	Enterobacter sp.
JC23	1	JC	Enterobacter sp.
JC24	1	JC	Serratia sp.
JC25	1	JC	Serratia sp.
JC26	1	JC	Enterobacter sp.
JC27	1	JC	Serratia sp.

JC28	1	JC	Enterobacter sp.
JC29	1	JC	Enterobacter sp.
JC30	1	JC	Cedecea sp.
JC31	2	JC	Pseudomonas sp.
JC32	2	JC	Pseudomonas sp.
JC33	2	JC	unidentified
JC34	2	JC	unidentified
JC35	2	JC	Rhizobium sp.
JC36	2	JC	Rhizobium sp.
JC37	2	JC	Rhizobium sp.
JC38	2	JC	Pseudomonas sp.
JC39	2	JC	Rhizobium sp.
JC40	2	JC	Pseudomonas sp.
JC41	2	JC	Azospirillum sp.
JC42	2	JC	Azospirillum sp.
JC43	2	JC	Azospirillum sp.
JC44	2	JC	Azospirillum sp.
JC45	2	JC	Enterobacter sp.
JC46	2	JC	Azospirillum sp.
JC47	2	JC	Azospirillum sp.
JC48	2	JC	Pseudomonas sp.
JC49	2	JC	Azospirillum sp.
JC50	2	JC	Pedobacter sp.
JC51	2	JC	Burkholderia sp.
JC52	2	JC	Luteibacter sp.
JC53	2	JC	Pandoraea sp.
JC55	2	JC	Enterobacter sp.
JC56	2	JC	Enterobacter sp.
JC57	2	JC	Cedecea sp.
JC58	2	JC	Cedecea sp.
JC59	2	JC	Burkholderia sp.
JC60	2	JC	Cedecea sp.

SB2	1	SB	Rhizobium sp.
SB3	1	SB	Pseudomonas sp.
SB4	1	SB	Xanthomonas sp.
SB5	1	SB	Rhizobium sp.
SB6	1	SB	Pseudomonas sp.
SB7	1	SB	Pseudomonas sp.
SB8	1	SB	Pseudomonas sp.
SB9	1	SB	Pseudomonas sp.
SB10	1	SB	Pseudomonas sp.
SB11	1	SB	Rhizobium sp.
SB12	1	SB	Rhizobium sp.
SB13	1	SB	Azospirillum sp.
SB14	1	SB	Rhizobium sp.
SB15	1	SB	Pseudomonas sp.
SB16	1	SB	unidentified
SB17	1	SB	Serratia sp.
SB18	1	SB	Serratia sp.
SB19	1	SB	Pseudomonas sp.
SB20	1	SB	Pseudomonas sp.
SB21	1	SB	Sphingomonas sp.
SB22	1	SB	Leclercia sp.
SB23	1	SB	Herbaspirillum sp.
SB24	1	SB	Herbaspirillum sp.
SB25	1	SB	Erwinia sp.
SB26	1	SB	Serratia sp.
SB27	1	SB	Serratia sp.
SB28	1	SB	Herbaspirillum sp.
SB29	1	SB	Herbaspirillum sp.
SB30	1	SB	Serratia sp.
SB31	2	SB	Pseudomonas sp.
SB32	2	SB	Pseudomonas sp.
SB33	2	SB	Rhizobium sp.

SB34	2	SB	Rhizobium sp.
SB35	2	SB	Leclercia sp.
SB36	2	SB	Rhizobium sp.
SB37	2	SB	Rhizobium sp.
SB38	2	SB	Pseudomonas sp.
SB39	2	SB	Rhizobium sp.
SB40	2	SB	Pseudomonas sp.
SB41	2	SB	Azospirillum sp.
SB42	2	SB	Sphingomonas sp.
SB43	2	SB	Azospirillum sp.
SB44	2	SB	Azospirillum sp.
SB45	2	SB	Herbaspirillum sp.
SB46	2	SB	Caulobacter sp.
SB47	2	SB	Azospirillum sp.
SB48	2	SB	Pseudomonas sp.
SB49	2	SB	Pseudomonas sp.
SB50	2	SB	Xanthomonas sp.
SB51	2	SB	unidentified
SB52	2	SB	Cedecea sp.
SB53	2	SB	Cedecea sp.
SB54	2	SB	Leclercia sp.
SB55	2	SB	Cedecea sp.
SB56	2	SB	Leclercia sp.
SB57	2	SB	Leclercia sp.
SB58	2	SB	Leclercia sp.
SB59	2	SB	Enterobacter sp.
SB60	2	SB	Enterobacter sp.
VA1	1	VA	Microbacterium sp.
VA2	1	VA	Acinetobacter sp.
VA3	1	VA	Sphingobium sp.
VA4	1	VA	Azorhizobium sp.
VA5	1	VA	Achromobacter sp.

VA6	1	VA	Azospirillum sp.
VA7	1	VA	Sphingomonas sp.
VA8	1	VA	Leclercia sp.
VA9	1	VA	unidentified
VA10	1	VA	Pseudomonas sp.
VA11	1	VA	Leclercia sp.
VA12	1	VA	unidentified
VA13	1	VA	Pseudomonas sp.
VA14	1	VA	Burkholderia sp.
VA15	1	VA	Azorhizobium sp.
VA16	1	VA	Ochrobactrum sp.
VA17	1	VA	Novosphingobium sp.
VA18	1	VA	Enterobacter sp.
VA19	1	VA	Pseudomonas sp.
VA20	1	VA	Serratia sp.
VA21	1	VA	Hafnia sp.
VA23	1	VA	unidentified
VA24	1	VA	unidentified
VA25	1	VA	Hafnia sp.
VA26	1	VA	unidentified
VA27	1	VA	Hafnia sp.
VA28	1	VA	Raoultella sp.
VA29	1	VA	Hafnia sp.
VA30	1	VA	Hafnia sp.
VA31	2	VA	Azorhizobium sp.
VA32	2	VA	Rhizobium sp.
VA33	2	VA	Stenotrophomonas sp.
VA35	2	VA	Rhizobium sp.
VA36	2	VA	Rhizobium sp.
VA37	2	VA	Pantoea sp.
VA38	2	VA	Lysobacter sp.
VA39	2	VA	Azorhizobium sp.

VA40	2	VA	<i>Pseudomonas</i> sp.
VA41	2	VA	<i>Ochrobactrum</i> sp.
VA42	2	VA	<i>Rhizobium</i> sp.
VA43	2	VA	unidentified
VA44	2	VA	<i>Rhizobium</i> sp.
VA45	2	VA	unidentified
VA46	2	VA	unidentified
VA47	2	VA	unidentified
VA48	2	VA	<i>Burkholderia</i> sp.
VA49	2	VA	unidentified
VA50	2	VA	<i>Pantoea</i> sp.
VA51	2	VA	<i>Acinetobacter</i> sp.
VA52	2	VA	<i>Pseudomonas</i> sp.
VA53	2	VA	<i>Burkholderia</i> sp.
VA54	2	VA	<i>Serratia</i> sp.
VA55	2	VA	<i>Serratia</i> sp.
VA56	2	VA	<i>Burkholderia</i> sp.
VA57	2	VA	<i>Serratia</i> sp.
VA58	2	VA	<i>Rhizobium</i> sp.
VA59	2	VA	<i>Burkholderia</i> sp.
VA60	2	VA	<i>Dyella</i> sp.
CM1	1	CM	<i>Stenotrophomonas</i> sp.
CM2	1	CM	<i>Pseudomonas</i> sp.
CM3	1	CM	<i>Pseudomonas</i> sp.
CM4	1	CM	<i>Pseudomonas</i> sp.
CM5	1	CM	<i>Stenotrophomonas</i> sp.
CM6	1	CM	<i>Pseudomonas</i> sp.
CM7	1	CM	<i>Pseudomonas</i> sp.
CM8	1	CM	<i>Pseudomonas</i> sp.
CM9	1	CM	<i>Pseudomonas</i> sp.
CM10	1	CM	<i>Pseudomonas</i> sp.
CM11	1	CM	<i>Pseudomonas</i> sp.

CM12	1	CM	<i>Pseudomonas</i> sp.
CM13	1	CM	<i>Pseudomonas</i> sp.
CM14	1	CM	<i>Herbaspirillum</i> sp.
CM15	1	CM	<i>Pseudomonas</i> sp.
CM16	1	CM	<i>Pseudomonas</i> sp.
CM17	1	CM	<i>Pseudomonas</i> sp.
CM18	1	CM	<i>Pseudomonas</i> sp.
CM19	1	CM	<i>Pseudomonas</i> sp.
CM20	1	CM	<i>Stenotrophomonas</i> sp.
CM21	1	CM	<i>Burkholderia</i> sp.
CM22	1	CM	<i>Burkholderia</i> sp.
CM23	1	CM	<i>Burkholderia</i> sp.
CM24	1	CM	<i>Burkholderia</i> sp.
CM25	1	CM	<i>Burkholderia</i> sp.
CM26	1	CM	<i>Burkholderia</i> sp.
CM27	1	CM	<i>Burkholderia</i> sp.
CM28	1	CM	<i>Enterobacter</i> sp.
CM29	1	CM	<i>Burkholderia</i> sp.
CM30	1	CM	<i>Burkholderia</i> sp.
CM6,1	1	CM	<i>Pseudomonas</i> sp.
CM19.1	1	CM	<i>Pseudomonas</i> sp.
CM31	2	CM	<i>Stenotrophomonas</i> sp.
CM32	2	CM	<i>Achromobacter</i> sp.
CM33	2	CM	<i>Microbacterium</i> sp.
CM34	2	CM	<i>Microbacterium</i> sp.
CM35	2	CM	<i>Microbacterium</i> sp.
CM36	2	CM	<i>Pseudomonas</i> sp.
CM37	2	CM	unidentified
CM38	2	CM	<i>Pseudomonas</i> sp.
CM39	2	CM	<i>Pseudomonas</i> sp.
CM40	2	CM	<i>Pseudomonas</i> sp.
CM41	2	CM	<i>Burkholderia</i> sp.

CM42	2	CM	Burkholderia sp.
CM43	2	CM	Burkholderia sp.
CM44	2	CM	Burkholderia sp.
CM45	2	CM	Burkholderia sp.
CM46	2	CM	Burkholderia sp.
CM47	2	CM	Burkholderia sp.
CM48	2	CM	Burkholderia sp.
CM49	2	CM	Dyella sp.
CM50	2	CM	Burkholderia sp.
CM51	2	CM	Burkholderia sp.
CM52	2	CM	Burkholderia sp.
CM54	2	CM	Burkholderia sp.
CM55	2	CM	Burkholderia sp.
CM57	2	CM	Burkholderia sp.
CM58	2	CM	Burkholderia sp.
CM59	2	CM	Burkholderia sp.
CM33.1	2	CM	Rhizobium sp.
CM52.1	2	CM	Burkholderia sp.
GM1	1	GM	Stenotrophomonas sp.
GM2	1	GM	Stenotrophomonas sp.
GM3	1	GM	Stenotrophomonas sp.
GM4	1	GM	Pseudomonas sp.
GM5	1	GM	Pseudomonas sp.
GM6	1	GM	Stenotrophomonas sp.
GM7	1	GM	Achromobacter sp.
GM8	1	GM	Pseudomonas sp.
GM9	1	GM	Pseudomonas sp.
GM10	1	GM	Stenotrophomonas sp.
GM11	1	GM	Klebsiella sp.
GM12	1	GM	Klebsiella sp.
GM13	1	GM	Pseudomonas sp.
GM14	1	GM	Enterobacter sp.

GM15	1	GM	Rhizobium sp.
GM16	1	GM	Pseudomonas sp.
GM17	1	GM	Enterobacter sp.
GM18	1	GM	unidentified
GM19	1	GM	Pseudomonas sp.
GM20	1	GM	Pseudomonas sp.
GM22	1	GM	Burkholderia sp.
GM23	1	GM	Klebsiella sp.
GM24	1	GM	Burkholderia sp.
GM25	1	GM	Burkholderia sp.
GM26	1	GM	Burkholderia sp.
GM27	1	GM	Burkholderia sp.
GM29	1	GM	Burkholderia sp.
GM30	1	GM	Burkholderia sp.
GM31	2	GM	Pseudomonas sp.
GM32	2	GM	Pseudomonas sp.
GM33	2	GM	Enterobacter sp.
GM34	2	GM	Citrobacter sp.
GM35	2	GM	Pseudomonas sp.
GM36	2	GM	Pseudomonas sp.
GM37	2	GM	Pseudomonas sp.
GM38	2	GM	Pseudomonas sp.
GM39	2	GM	Pseudomonas sp.
GM40	2	GM	Pseudomonas sp.
GM41	2	GM	Pseudomonas sp.
GM42	2	GM	Chryseobacterium sp.
GM43	2	GM	Pseudomonas sp.
GM44	2	GM	Pseudomonas sp.
GM45	2	GM	Burkholderia sp.
GM46	2	GM	Stenotrophomonas sp.
GM47	2	GM	Pseudomonas sp.
GM48	2	GM	Pseudomonas sp.

GM49	2	GM	<i>Pseudomonas</i> sp.
GM50	2	GM	<i>Luteibacter</i> sp.
GM51	2	GM	<i>Klebsiella</i> sp.
GM53	2	GM	<i>Burkholderia</i> sp.
GM54	2	GM	<i>Burkholderia</i> sp.
GM55	2	GM	<i>Burkholderia</i> sp.
GM57	2	GM	<i>Burkholderia</i> sp.
GM58	2	GM	<i>Rhizobium</i> sp.
GM59	2	GM	<i>Pantoea</i> sp.
GM60	2	GM	<i>Luteibacter</i> sp.
GM40.1	2	GM	unidentified
GM45.1	2	GM	unidentified
BV1	1	BV	<i>Stenotrophomonas</i> sp.
BV2	1	BV	<i>Achromobacter</i> sp.
BV3	1	BV	<i>Pseudomonas</i> sp.
BV4	1	BV	<i>Stenotrophomonas</i> sp.
BV5	1	BV	<i>Stenotrophomonas</i> sp.
BV6	1	BV	<i>Pseudomonas</i> sp.
BV7	1	BV	<i>Pseudomonas</i> sp.
BV8	1	BV	<i>Xanthomonas</i> sp.
BV9	1	BV	<i>Pseudomonas</i> sp.
BV10	1	BV	<i>Salmonella</i> sp.
BV11	1	BV	<i>Herbaspirillum</i> sp.
BV12	1	BV	<i>Pseudomonas</i> sp.
BV13	1	BV	<i>Herbaspirillum</i> sp.
BV14	1	BV	<i>Herbaspirillum</i> sp.
BV15	1	BV	<i>Xanthomonas</i> sp.
BV16	1	BV	<i>Enterobacter</i> sp.
BV17	1	BV	<i>Enterobacter</i> sp.
BV18	1	BV	<i>Xanthomonas</i> sp.
BV20	1	BV	<i>Herbaspirillum</i> sp.
BV21	1	BV	<i>Pantoea</i> sp.

BV22	1	BV	Enterobacter sp.
BV23	1	BV	Shigella sp.
BV24	1	BV	Shigella sp.
BV25	1	BV	Shigella sp.
BV26	1	BV	Pantoea sp.
BV27	1	BV	Pantoea sp.
BV28	1	BV	Pantoea sp.
BV29	1	BV	Shigella sp.
BV30	1	BV	Shigella sp.
BV23.1	1	BV	Enterobacter sp.
BV31	2	BV	Chryseobacterium sp.
BV32	2	BV	Pseudomonas sp.
BV33	2	BV	Pantoea sp.
BV34	2	BV	Salmonella sp.
BV35	2	BV	Enterobacter sp.
BV36	2	BV	Kluyvera sp.
BV37	2	BV	Salmonella sp.
BV38	2	BV	Salmonella sp.
BV40	2	BV	Enterobacter sp.
BV43	2	BV	Pantoea sp.
BV45	2	BV	Burkholderia sp.
BV47	2	BV	Burkholderia sp.
BV49	2	BV	Burkholderia sp.
BV50	2	BV	Dyella sp.
BV52	2	BV	Burkholderia sp.
BV53	2	BV	Burkholderia sp.
BV56	2	BV	Burkholderia sp.
BV57	2	BV	Burkholderia sp.
BV59	2	BV	Enterobacter sp.
BV60	2	BV	Burkholderia sp.
BV40.1	2	BV	Enterobacter sp.

¹Name: isolate identification.

²Niche: 1 = roots; 2 = rhizospheric soil.

³Sampling site: JC = Júlio de Castilhos, SB = São Borja, VA = Vacaria, CM = Campina das Missões, GM = Guarani das Missões, and BV = Boa Vista do Cadeado.

⁴Genera: according to partial 16S rRNA gene sequencing.