

Table S2: Phylogenetic distribution of bacteria detected in mite taxa

Bacterial taxa				Mite taxa (number of mite species in literature)														
Phylum	Order	Genus	Bacterial biology*	No. mite spp.	No. references [†]	Mesostigmata				Sarcoptiformes				Trombidiformes				
						Dermansysoidea (46)	Phytoseioide (10)	Rhodacaroidae (1)	Eviphidoidea (1)	Acaroidea (7)	Analgoidea (2)	Glycyphagoidea (5)	Hemisarcoptoidea (1)	Opioidea (1)	Sarcoptoidea (2)	Cheyletoidea (8)	Erythraeoidea (2)	Tetranychoidae (23)
Actinobacteria	Actinomycetales	<i>Brevibacterium</i>	Sap.	3	3	X				X			X					
		<i>Corynebacterium</i>	Sap., Path.	2	2									X				
		<i>Acaricomes</i>	SymbA.	1	2		X											
		<i>Kocuria</i>	Sap.	4	3					X	X	X	X					
		<i>Micrococcus</i>	Sap.	1	1						X							
		<i>Sanguibacter</i>	Sap.	1	1									X				
		<i>Microbacterium</i>	Sap.	1	1									X				
		<i>Mycobacterium</i>	OpPath.	1	1		X											
		<i>Propionibacterium</i>	OpPath.	2	2										X	X		
		<i>Streptomyces</i>	Sap.	1	1		X											
<i>Tsukamurella</i>	OpPath.	1	1		X													
Tenericutes	Entomoplasmatales	<i>Spiroplasma</i>	SymbA., OpPath.	9	7	X	X	X	X							X	X	
	Mycoplasmatales	<i>Mycoplasma</i>	Sap., OpPath.	2	1	X								X				
Firmicutes	Erysipelotrichales	<i>Erysipelothrix</i>	Path.	1	6	X												
	Clostridiales	<i>Eubacterium</i>	Sap., OpPath.	1	1	X												
		<i>Aerococcus</i>	Path.	1	1	X												
	Lactobacillales	<i>Alloiooccus</i>	Sap., OpPath.	1	1									X				
		<i>Enterococcus</i>	Op.Path	3	3	X					X		X					
		<i>Vagococcus</i>	Sap., OpPath.	1	1	X												
		<i>Lactobacillus</i>	Sap.	1	1	X												
		<i>Leuconostoc</i>	Sap.	1	1									X				
		<i>Weissella</i>	Sap.	1	1	X												
		<i>Lactococcus</i>	Sap.	1	1					X								
		<i>Streptococcus</i>	Op.Path.	3	3						X		X		X			
		Bacillales	<i>Bacillus</i>	Sap.	9	12	X				X	X	X	X		X		X
			<i>Lysinibacillus</i>	Sap.	1	1					X							
	<i>Oceanobacillus</i>		Sap.	2	2					X			X					
	<i>Virgibacillus</i>		Sap.	1	1					X								
	<i>Listeria</i>		Path.	1	1	X												
	<i>Sporolactobacillus</i>		Sap.	1	1									X				
	<i>Jeotgalicoccus</i>		Sap.	1	1	X												
	<i>Staphylococcus</i>	Sap., OpPath.	10	7	X				X	X	X	X		X	X			
Spirochaetes	Spirochaetales	<i>Borrelia</i>	Path.	10	5	X		X									X	
Bacteroidetes	Bacteroidales	<i>Bacteroides</i>	Sap., OpPath.	1	1								X					
		<i>Prevotella</i>	Op.Path	1	1													
	Cytophagales	<i>Cardinium</i>	SymbA.	31	26	X	X			X	X	X	X	X			X	
		<i>Ohtaekwangia</i>	Sap.	1	1					X								
	Flavobacteriales	<i>Myroides</i>	Sap., OpPath.	2	2	X				X								
		<i>Elizabethkingia</i>	Op.Path.	1	1									X				
Chlamydiae	Chlamydiales	<i>Chlamydia</i>	Path.	2	2	X												
Proteobacteria (α)	Rhizobiales	<i>Bartonella</i>	Path.	16	12	X				X	X	X			X		X	

		<i>Afipia</i>	Sap.	1	1				X													
		<i>Ochrobactrum</i>	Sap.	1	1																	X
		<i>Devosia</i>	Sap.	1	1			X														
		<i>Rhizomicrobium</i>	Sap.	1	1					X												
		<i>Phyllobacterium</i>	Sap.	1	1																	X
		<i>Rhizobium</i>	Sap.	3	3					X	X			X								
	<i>Rhodobacterales</i>	<i>Paracoccus</i>	Sap.	1	1									X								
	<i>Rickettsiales</i>	<i>Anaplasma</i>	Path.	14	2			X														X
		<i>Ehrlichia</i>	Path.	1	2																	
		<i>Rickettsia</i>	Path., SymbA.	11	13			X	X													X
		<i>Orientia</i>	Path.	32	61																	X
		<i>Wolbachia</i>	SymbA., SymbN.	31	38			X	X												X	X
	<i>Sphingomonadales</i>	<i>Sphingomonas</i>	Sap.	1	1									X			X					X
<i>Proteobacteria</i> (β)	<i>Burkholderiales</i>	<i>Alcaligenes</i>	Sap., OpPath.	2	2			X						X								
		<i>Delftia</i>	Sap.	1	1			X														
		<i>Pelomonas</i>	Sap.	1	1									X								
		<i>Polaromonas</i>	Sap.	1	1			X														
		<i>Duganella</i>	Sap.	1	1																	X
		<i>Massilia</i>	Sap.	1	1									X								
	<i>Neisseriales</i>	<i>Snodgrassella</i>	SymbA.	1	1																	X
<i>Proteobacteria</i> (γ)	<i>Chromatiales</i>	<i>Curacaobacter</i>	Sap.	1	1																	X
	<i>Enterobacteriales</i>	<i>Enterobacter</i>	OpPath.	2	2				X					X								
		<i>Erwinia</i>	Sap.	1	1																	X
		<i>Escherichia</i>	OpPath.	4	4			X						X								X
		<i>Ewingella</i>	OpPath.	1	1																	
		<i>Klebsiella</i>	Sap., OpPath.	1	1									X								
		<i>Morganella</i>	OpPath.	1	1																	X
		<i>Proteus</i>	Sap., OpPath.	1	1			X														
		<i>Pantoea</i>	Sap., OpPath.	3	3									X								X
		<i>Providencia</i>	Sap., OpPath.	3	2			X						X	X							
		<i>Salmonella</i>	Sap., Path	8	8			X						X								
		<i>Serratia</i>	SymbA, OpPath.	6	10				X					X	X							X
		<i>Xenorhabdus</i>	SymbN,	2	1									X	X							
		<i>Yersinia</i>	Path.	1	1			X														
	<i>Legionellales</i>	<i>Coxiella</i>	Path.	9	5			X														
		<i>Rickettsiella</i>	SymbA.	2	5			X	X													
	<i>Pasteurellales</i>	<i>Haemophilus</i>	OpPath.	1	1																	X
		<i>Pasteurella</i>	Path.	1	3			X														
	<i>Pseudomonadales</i>	<i>Acinetobacter</i>	Sap.	5	4			X						X								X
		<i>Psychrobacter</i>	Sap.	2	2			X														
		<i>Pseudomonas</i>	Sap., OpPath.	5	5			X						X	X							
	<i>Thiotrichales</i>	<i>Francisella</i>	Path.	10	7			X														
	<i>Xanthomonadales</i>	<i>Stenotrophomonas</i>	Sap., OpPath.	1	1									X								
		<i>Schineria</i>	SymbA.	1	1			X														

*Bacteria were grouped according to their biological characteristics: OpPath. = opportunistic pathogen (vertebrate), Path. = pathogen (vertebrate), Sap. = saprophyte, SymbA = symbiont (arthropod), SymbN = symbiont (nematode).

† For a full list of references, see Table S3.