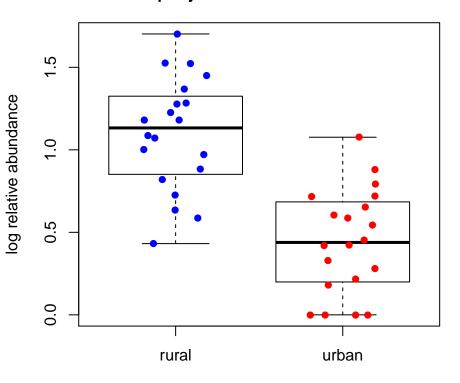
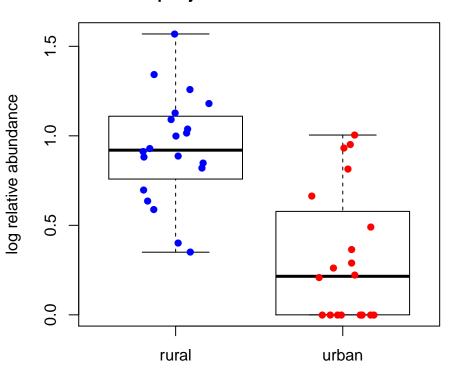
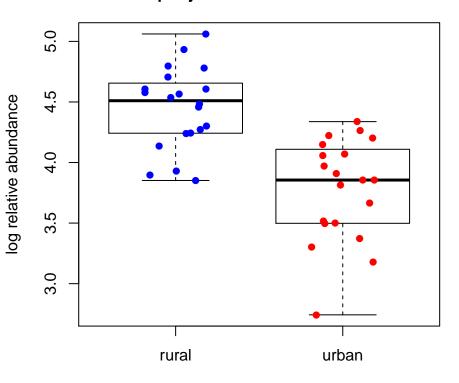
# WGS species: Propionibacterium\_acnes pAdjRuralUrban= 0.000288



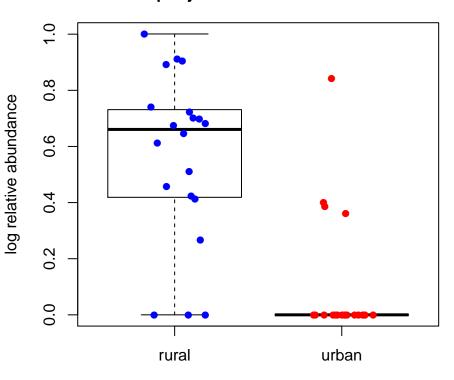
# WGS species: Caulobacter\_vibrioides pAdjRuralUrban= 0.000592



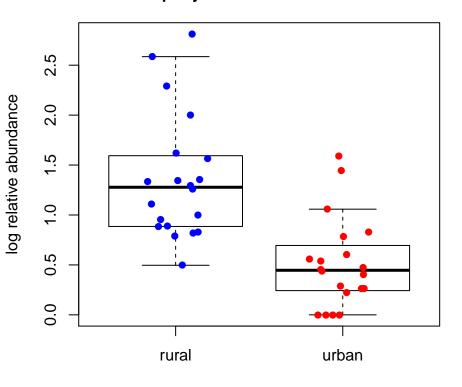
# WGS species: X.Ruminococcus.\_torques pAdjRuralUrban= 0.000754



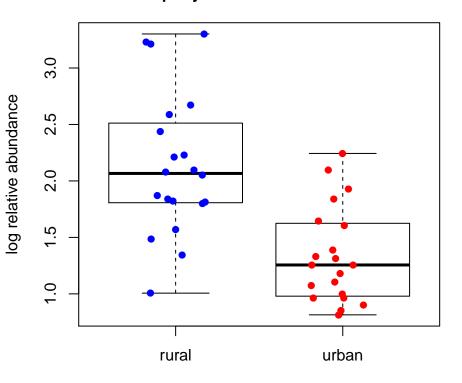
# WGS species: Methylobacterium\_populi pAdjRuralUrban= 0.000807



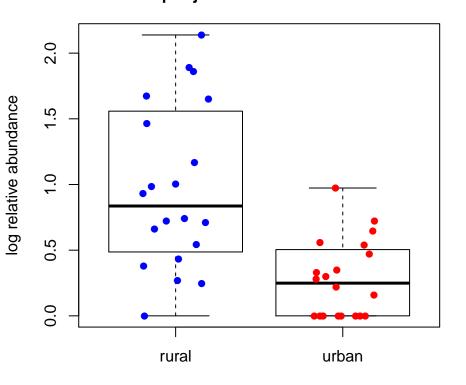
# WGS species: Streptococcus\_gallolyticus pAdjRuralUrban= 0.00365



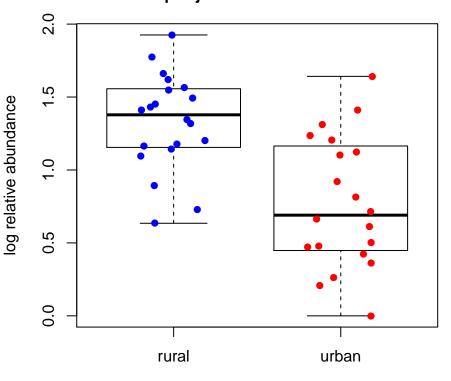
# WGS species: Streptococcus\_sanguinis pAdjRuralUrban= 0.00625



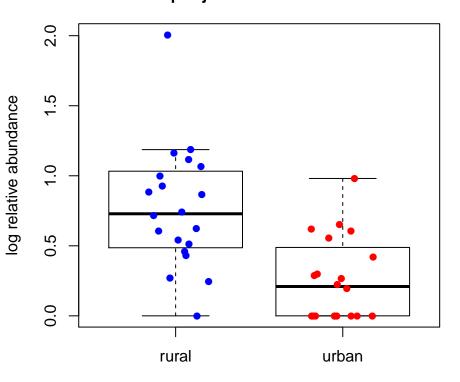
WGS species: Pseudomonas\_syringae\_group\_genomosp.\_ pAdjRuralUrban= 0.00884



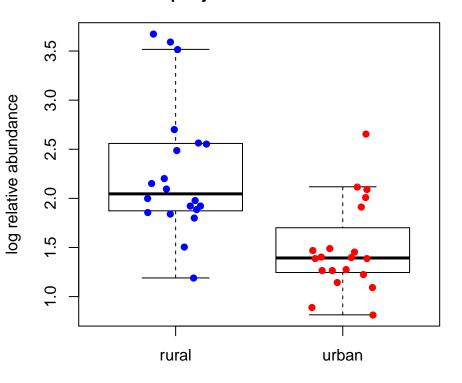
# WGS species: Candidatus\_Koribacter\_versatilis pAdjRuralUrban= 0.0107



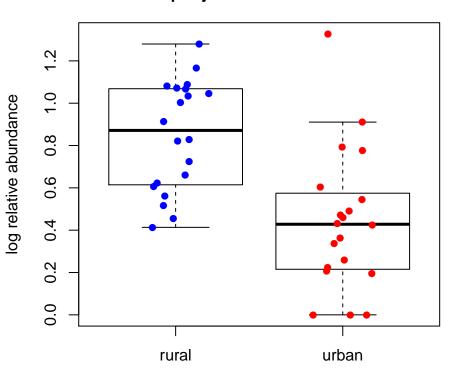
# WGS species: Tepidanaerobacter\_acetatoxydans pAdjRuralUrban= 0.011



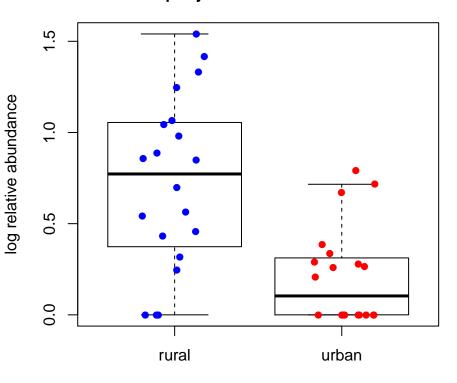
# WGS species: Streptococcus\_oralis pAdjRuralUrban= 0.011



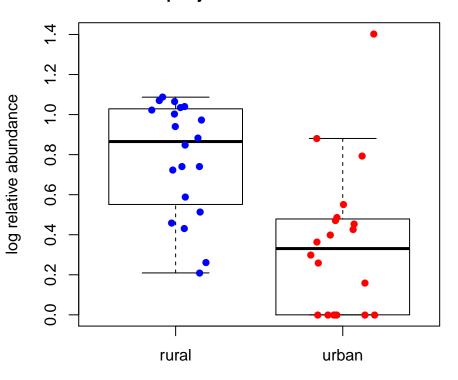
# WGS species: Azorhizobium\_caulinodans pAdjRuralUrban= 0.011



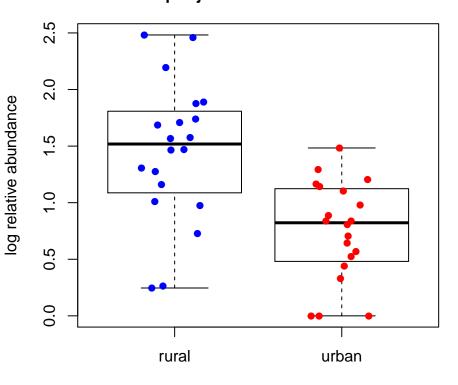
# WGS species: Polaromonas\_naphthalenivorans pAdjRuralUrban= 0.0126



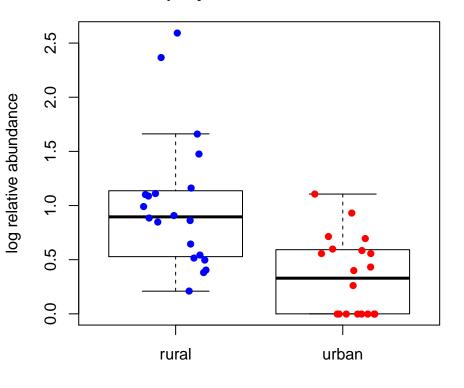
# WGS species: Kineococcus\_radiotolerans pAdjRuralUrban= 0.0126



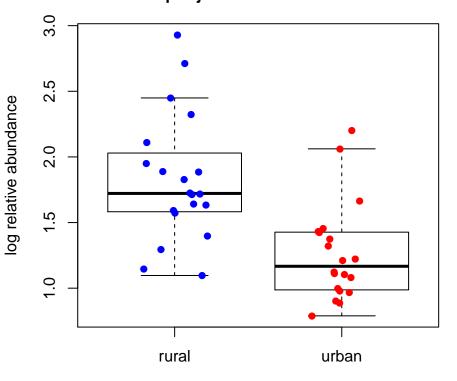
# WGS species: Corynebacterium\_variabile pAdjRuralUrban= 0.0126



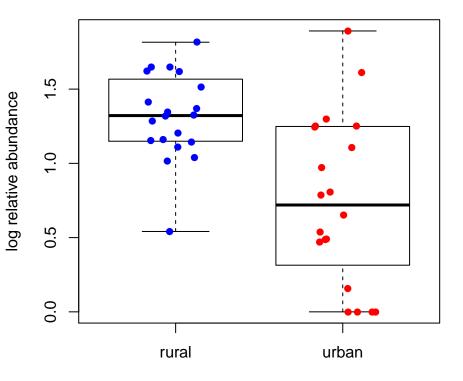
# WGS species: Enterococcus\_casseliflavus pAdjRuralUrban= 0.0126



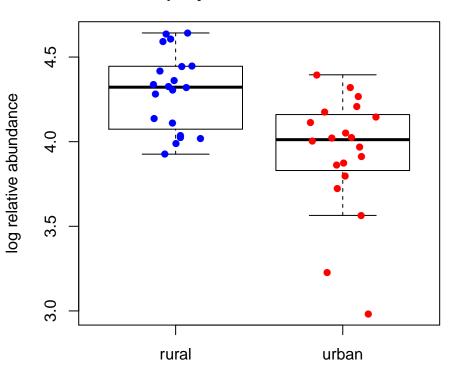
# WGS species: Streptococcus\_pseudopneumoniae pAdjRuralUrban= 0.0126



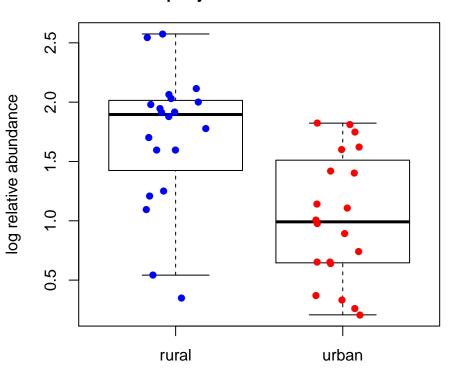
# WGS species: Thioalkalivibrio\_sulfidiphilus pAdjRuralUrban= 0.0219



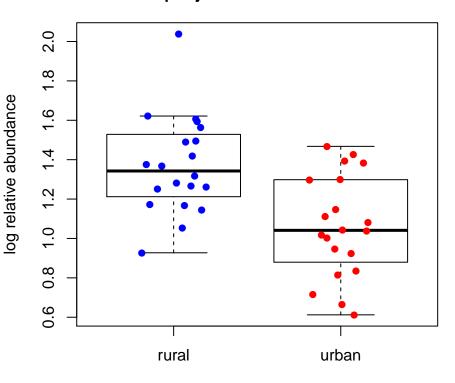
# WGS species: X.Ruminococcus.\_obeum pAdjRuralUrban= 0.0225



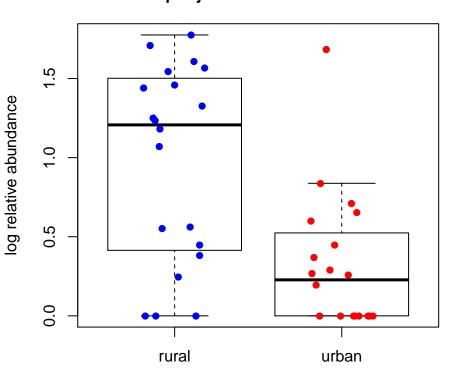
# WGS species: Coriobacterium\_glomerans pAdjRuralUrban= 0.0225



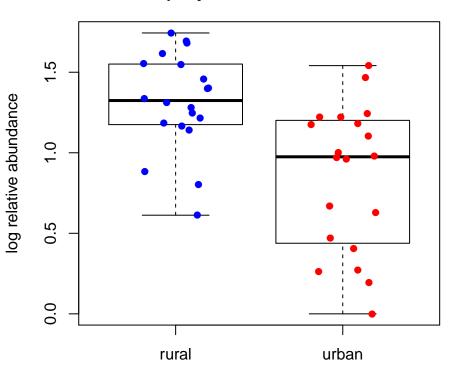
# WGS species: X.Clostridium.\_sticklandii pAdjRuralUrban= 0.0225



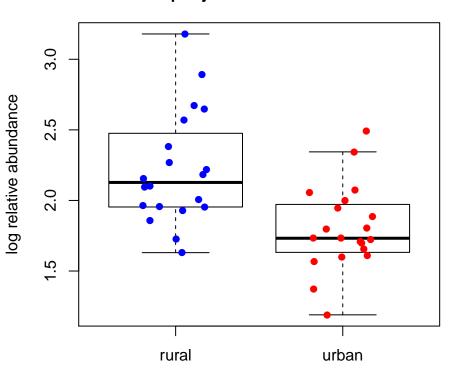
# WGS species: Dechloromonas\_aromatica pAdjRuralUrban= 0.0225



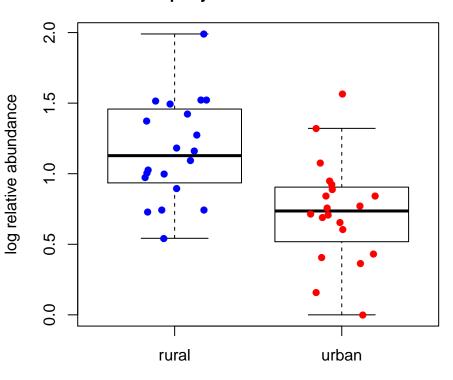
# WGS species: Methylibium\_petroleiphilum pAdjRuralUrban= 0.0242



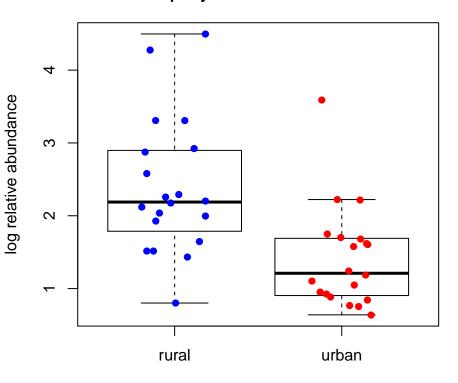
# WGS species: Streptococcus\_mitis pAdjRuralUrban= 0.027



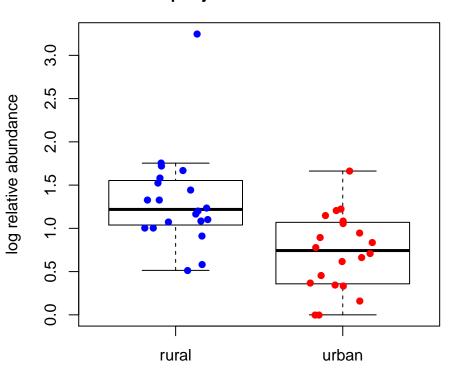
# WGS species: Macrococcus\_caseolyticus pAdjRuralUrban= 0.027



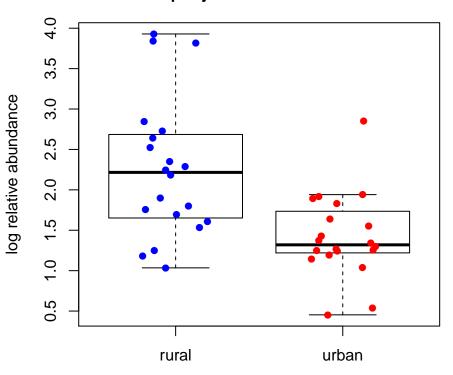
# WGS species: Streptococcus\_anginosus pAdjRuralUrban= 0.027



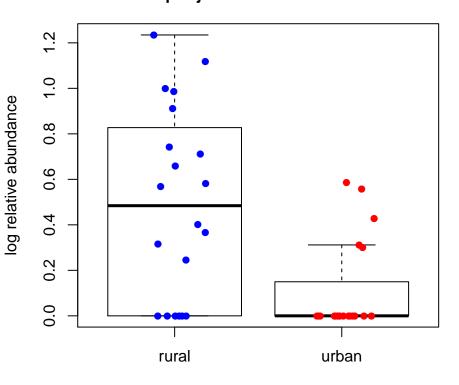
#### WGS species: Staphylococcus\_aureus pAdjRuralUrban= 0.027



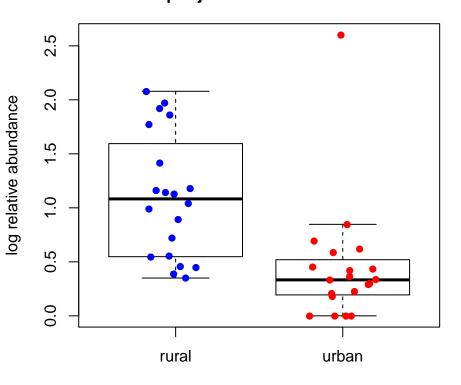
# WGS species: Streptococcus\_gordonii pAdjRuralUrban= 0.027



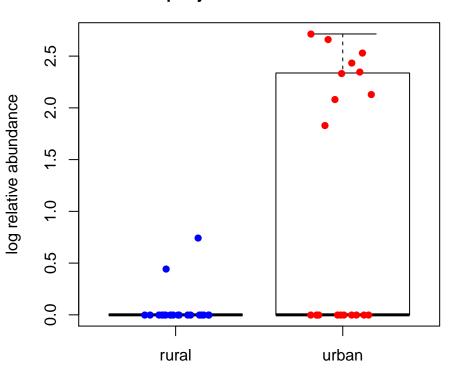
# WGS species: Bradyrhizobium\_oligotrophicum pAdjRuralUrban= 0.0293



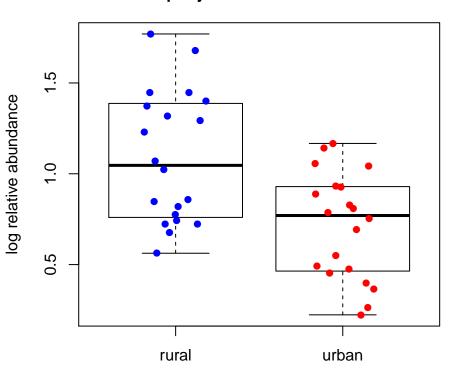
# WGS species: Lactobacillus\_crispatus pAdjRuralUrban= 0.0295



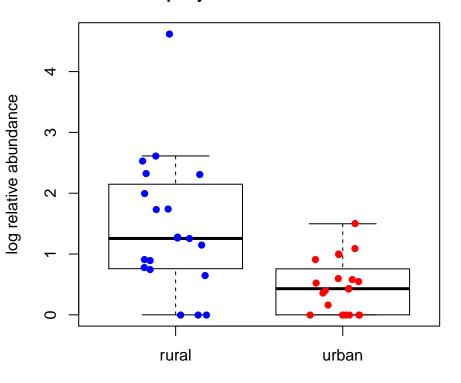
# WGS species: Borrelia\_afzelii pAdjRuralUrban= 0.0304



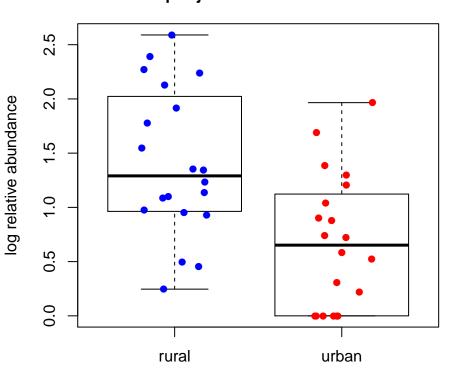
# WGS species: Alkaliphilus\_metalliredigens pAdjRuralUrban= 0.0304



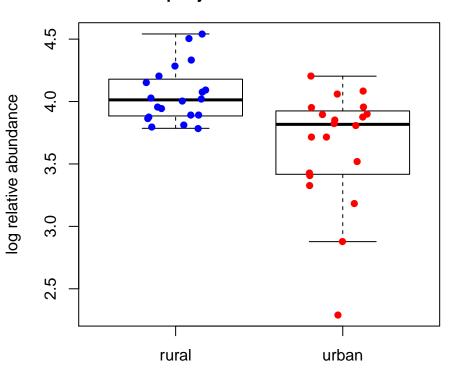
# WGS species: Streptococcus\_infantarius pAdjRuralUrban= 0.0304



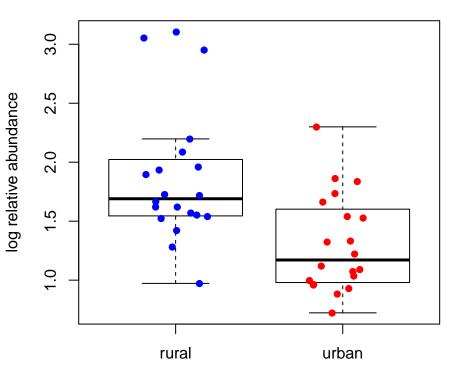
# WGS species: Dyadobacter\_fermentans pAdjRuralUrban= 0.0314



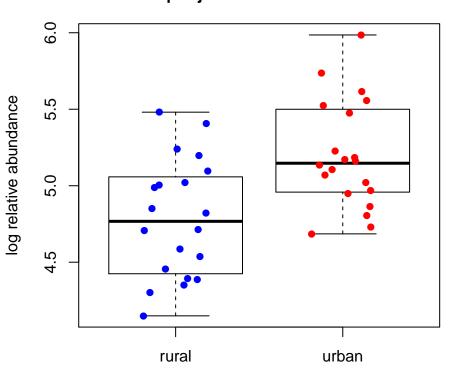
# WGS species: Coprococcus\_catus pAdjRuralUrban= 0.0314



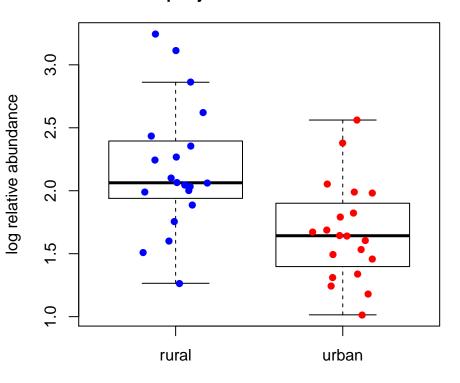
# WGS species: Streptococcus\_oligofermentans pAdjRuralUrban= 0.0314



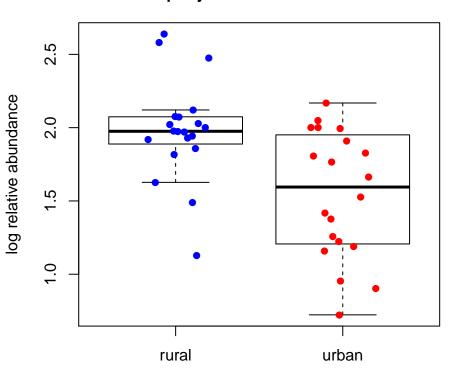
# WGS species: Bacteroides\_xylanisolvens pAdjRuralUrban= 0.0315



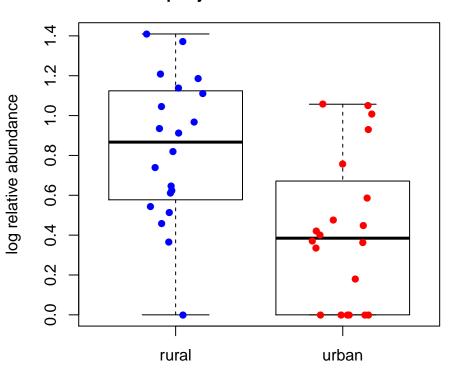
# WGS species: Streptococcus\_pneumoniae pAdjRuralUrban= 0.0315



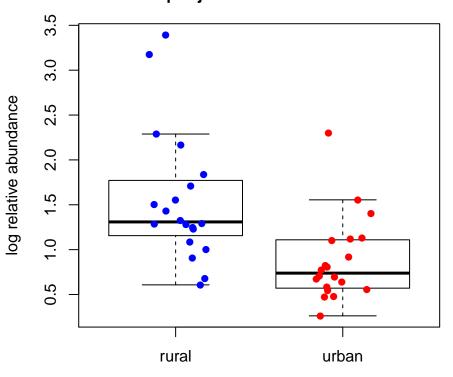
# WGS species: Olsenella\_uli pAdjRuralUrban= 0.0315



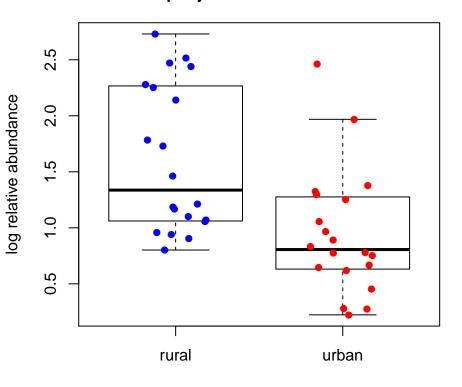
# WGS species: Rhodopirellula\_baltica pAdjRuralUrban= 0.0329



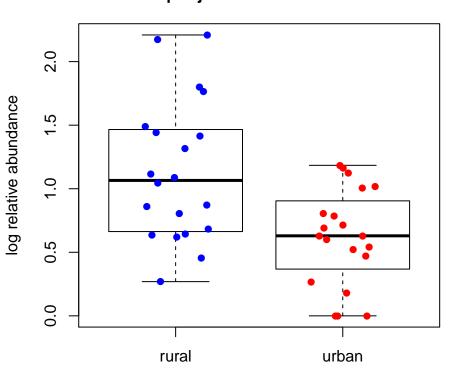
# WGS species: Streptococcus\_constellatus pAdjRuralUrban= 0.0362



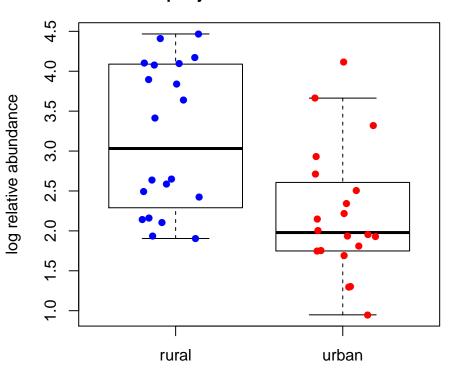
# WGS species: X.Clostridium.\_clariflavum pAdjRuralUrban= 0.0367



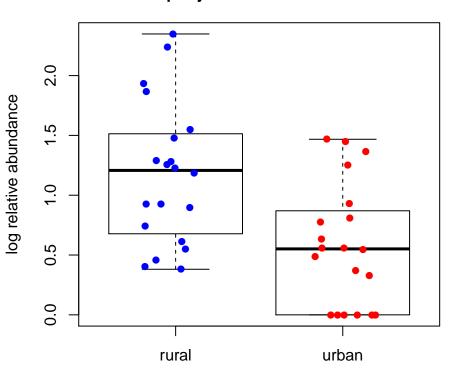
# WGS species: Bacillus\_megaterium pAdjRuralUrban= 0.0367



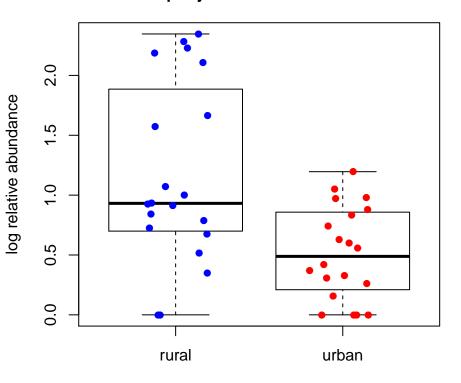
# WGS species: Prevotella\_ruminicola pAdjRuralUrban= 0.0367



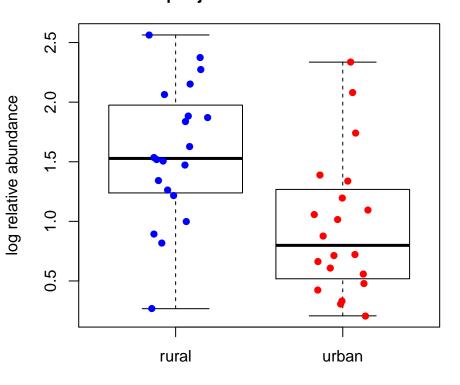
# WGS species: Rothia\_dentocariosa pAdjRuralUrban= 0.0367



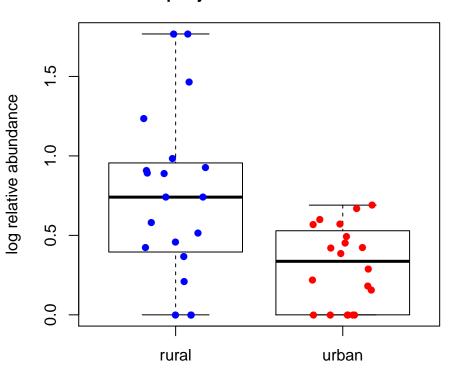
# WGS species: Lactobacillus\_kefiranofaciens pAdjRuralUrban= 0.0414



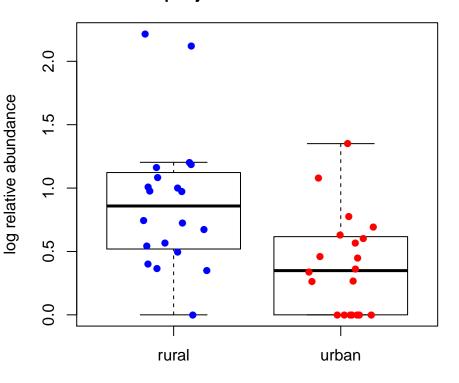
# WGS species: Pseudomonas\_putida pAdjRuralUrban= 0.0445



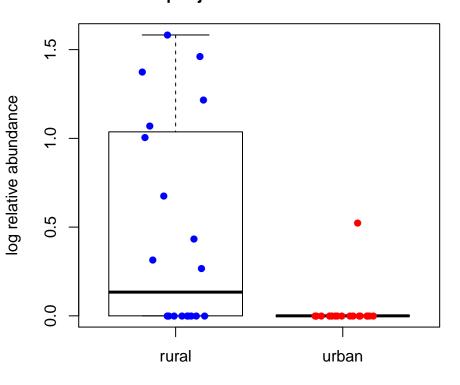
# WGS species: Sphingobium\_japonicum pAdjRuralUrban= 0.0455



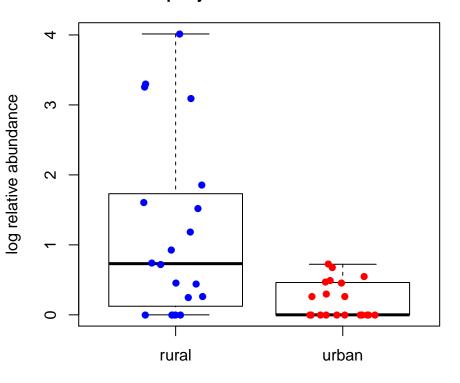
# WGS species: Stigmatella\_aurantiaca pAdjRuralUrban= 0.0455



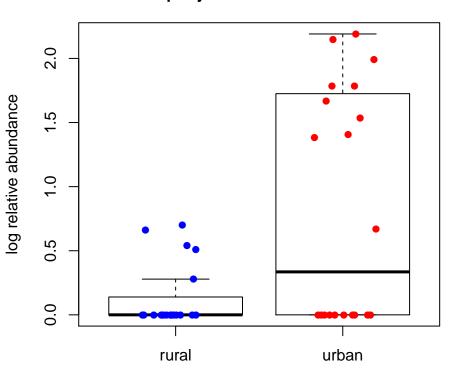
# WGS species: Herpetosiphon\_aurantiacus pAdjRuralUrban= 0.0455



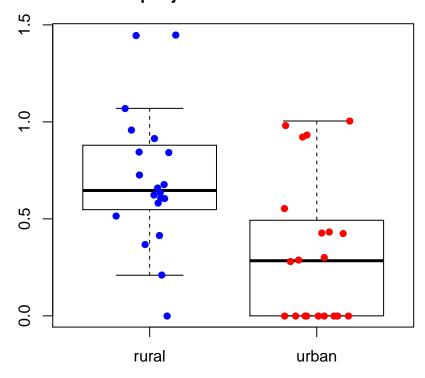
# WGS species: Methanobrevibacter\_smithii pAdjRuralUrban= 0.0455



# WGS species: Borrelia\_burgdorferi pAdjRuralUrban= 0.0455

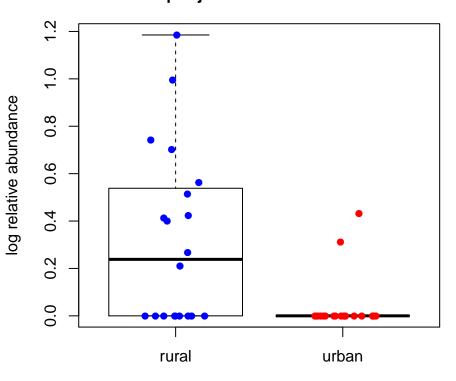


# WGS species: Thermacetogenium\_phaeum pAdjRuralUrban= 0.0469

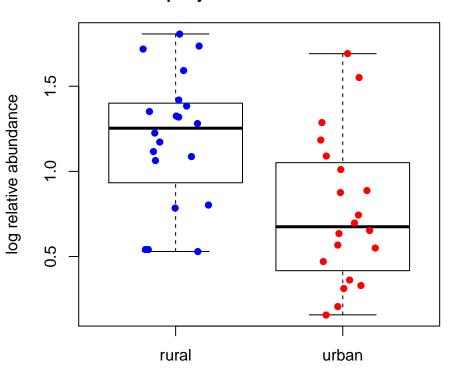


log relative abundance

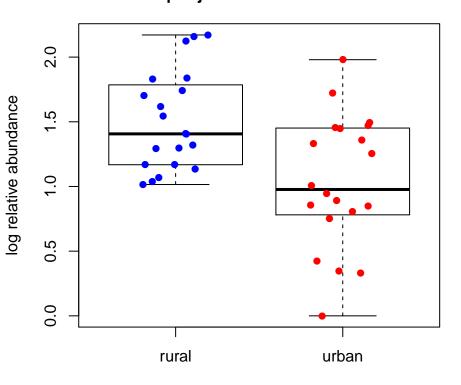
# WGS species: Streptococcus\_phage\_SM1 pAdjRuralUrban= 0.0471



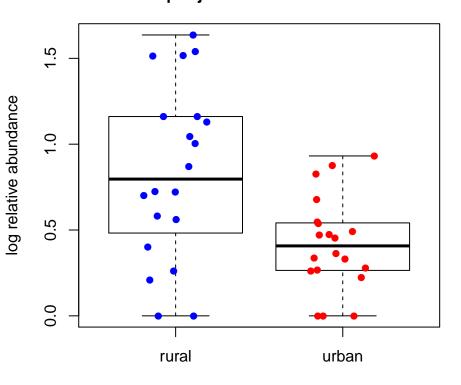
# WGS species: Haliangium\_ochraceum pAdjRuralUrban= 0.0471



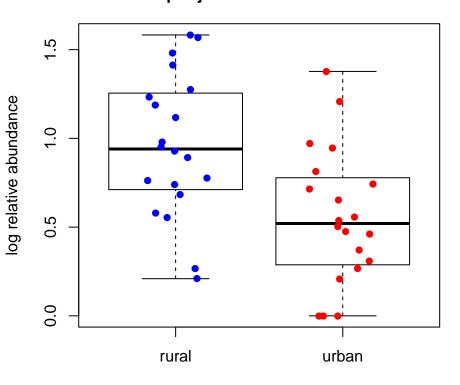
# WGS species: Atopobium\_parvulum pAdjRuralUrban= 0.0471



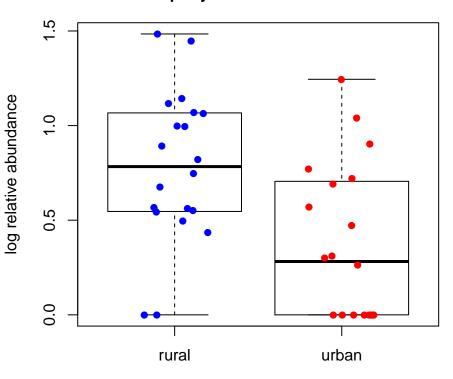
# WGS species: Prochlorococcus\_marinus pAdjRuralUrban= 0.0474



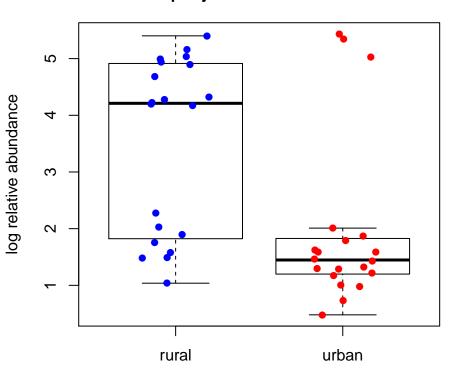
# WGS species: Kocuria\_rhizophila pAdjRuralUrban= 0.0474



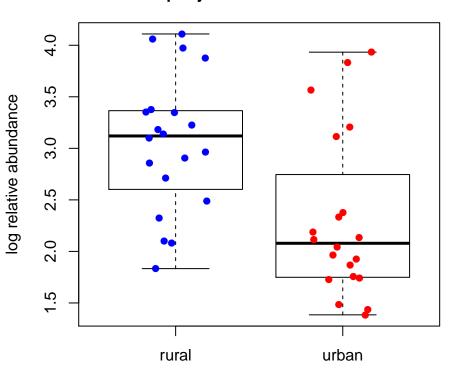
# WGS species: Bradyrhizobium\_sp.\_BTAi1 pAdjRuralUrban= 0.048



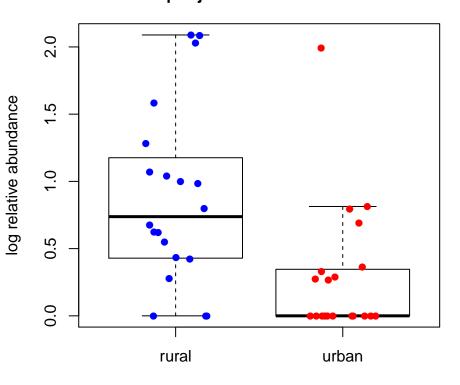
# WGS species: Megamonas\_hypermegale pAdjRuralUrban= 0.048



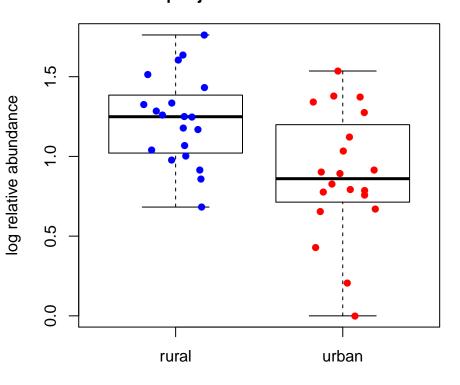
# WGS species: Veillonella\_parvula pAdjRuralUrban= 0.0483



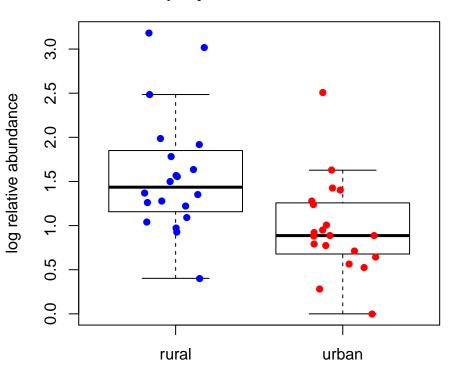
# WGS species: Xylella\_fastidiosa pAdjRuralUrban= 0.0512



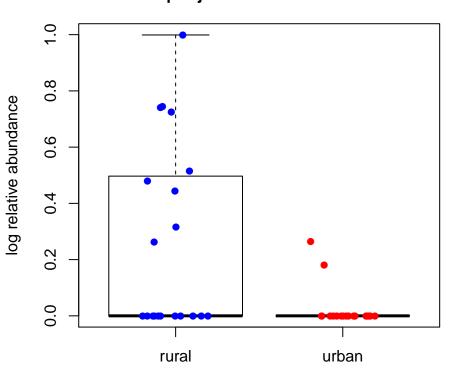
# WGS species: Streptococcus\_equi pAdjRuralUrban= 0.0512



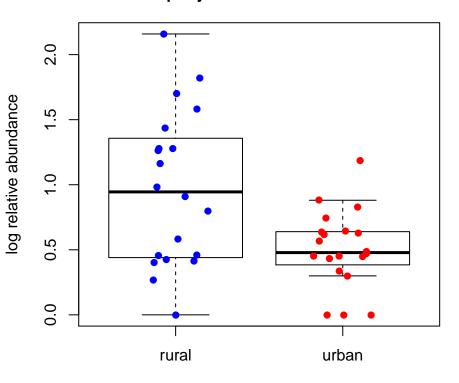
# WGS species: Streptococcus\_intermedius pAdjRuralUrban= 0.0555



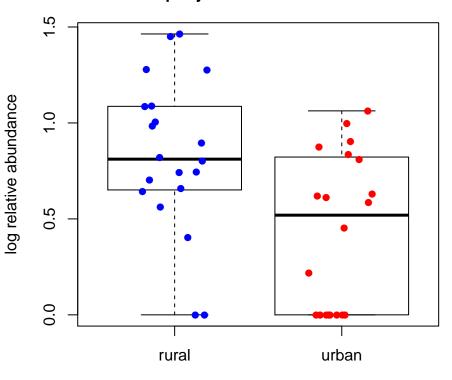
# WGS species: Bacillus\_halodurans pAdjRuralUrban= 0.0564



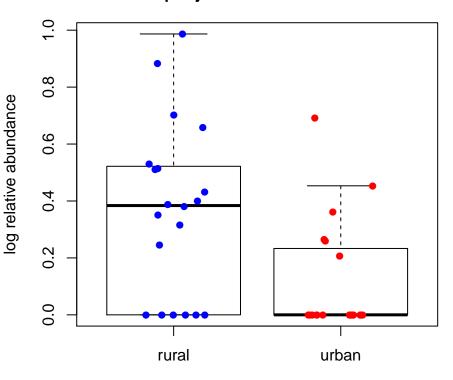
# WGS species: Acholeplasma\_laidlawii pAdjRuralUrban= 0.0564



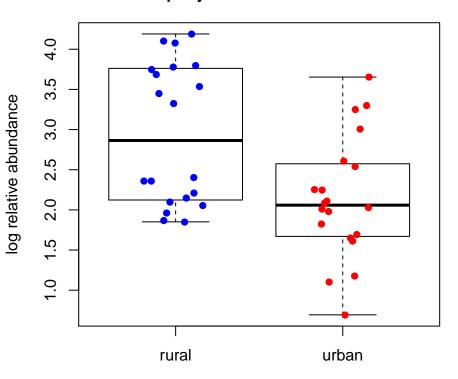
# WGS species: Granulibacter\_bethesdensis pAdjRuralUrban= 0.0564



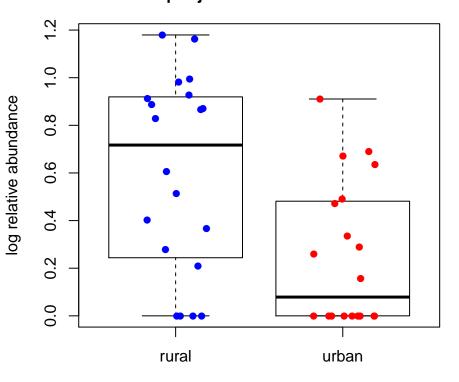
# WGS species: Melissococcus\_plutonius pAdjRuralUrban= 0.0564



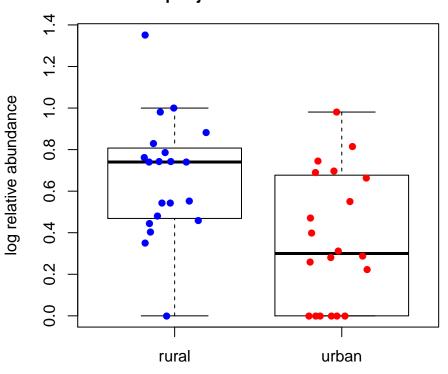
# WGS species: Prevotella\_denticola pAdjRuralUrban= 0.0564



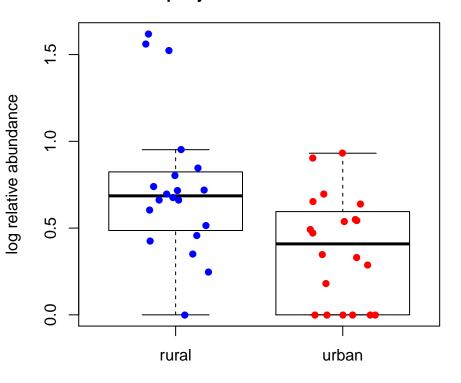
# WGS species: Deinococcus\_peraridilitoris pAdjRuralUrban= 0.0584



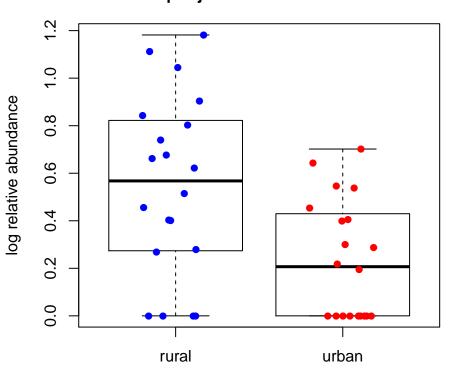
# WGS species: Bacillus\_sp.\_1NLA3E pAdjRuralUrban= 0.0585



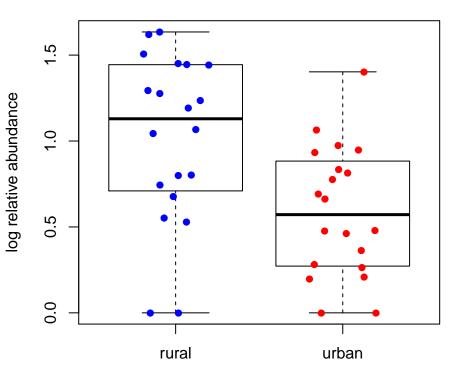
# WGS species: Corynebacterium\_glutamicum pAdjRuralUrban= 0.0589



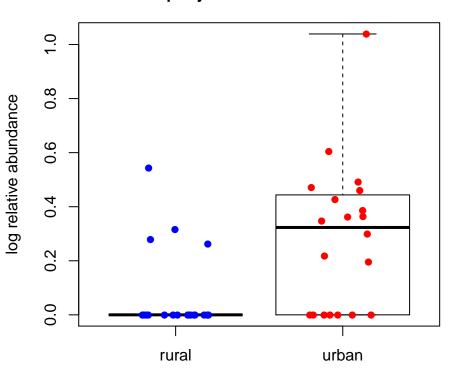
# WGS species: Treponema\_caldaria pAdjRuralUrban= 0.0613



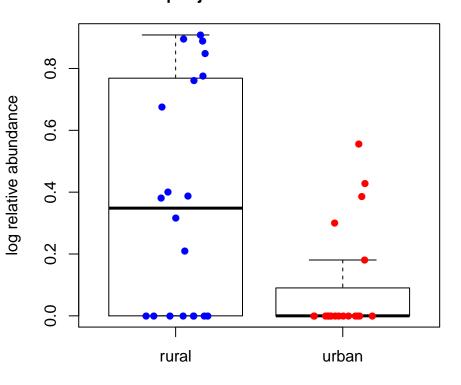
### WGS species: Micavibrio\_aeruginosavorus pAdjRuralUrban= 0.0613



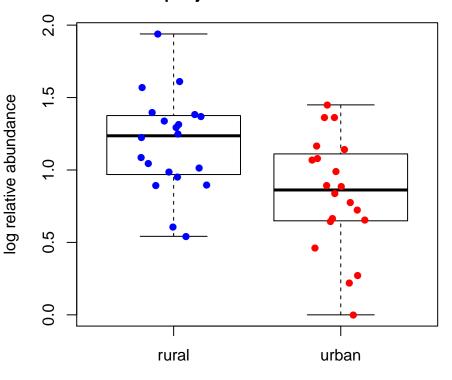
# WGS species: Thermococcus\_sp.\_4557 pAdjRuralUrban= 0.0613



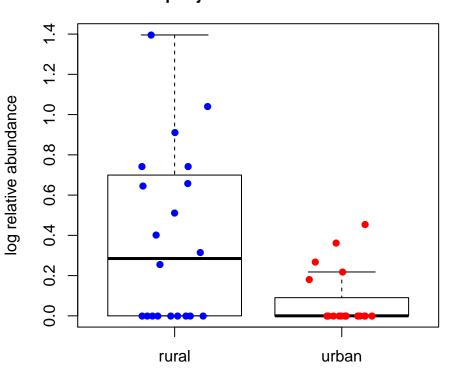
### WGS species: Corynebacterium\_terpenotabidum pAdjRuralUrban= 0.0613



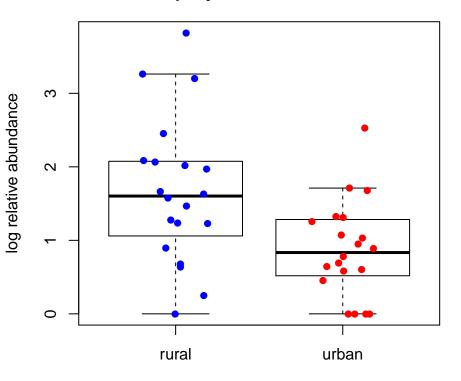
### WGS species: Comamonas\_testosteroni pAdjRuralUrban= 0.0613



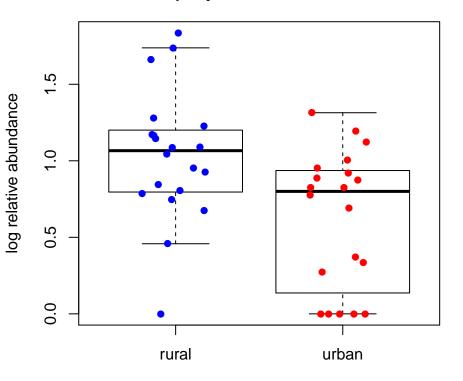
### WGS species: Spiribacter\_sp.\_UAH.SP71 pAdjRuralUrban= 0.0626



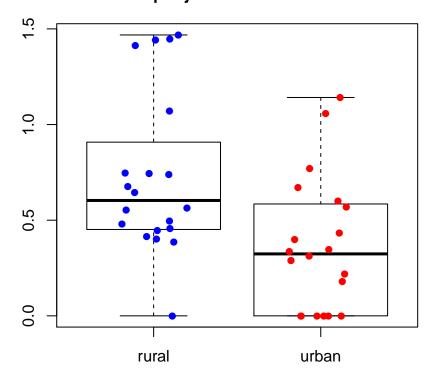
### WGS species: Streptococcus\_mutans pAdjRuralUrban= 0.07



### WGS species: Cryptobacterium\_curtum pAdjRuralUrban= 0.07

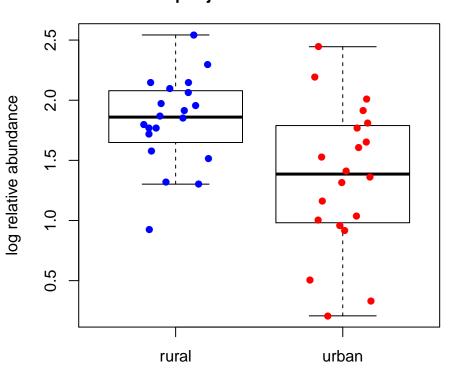


# WGS species: Thiomonas\_intermedia pAdjRuralUrban= 0.07

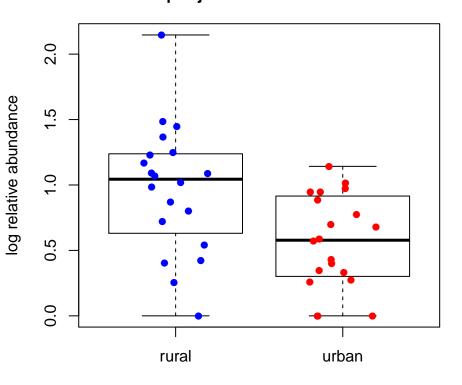


log relative abundance

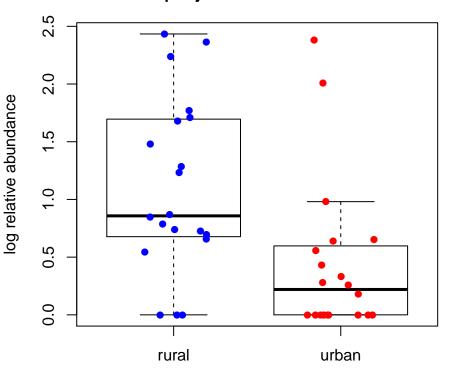
### WGS species: Slackia\_heliotrinireducens pAdjRuralUrban= 0.07



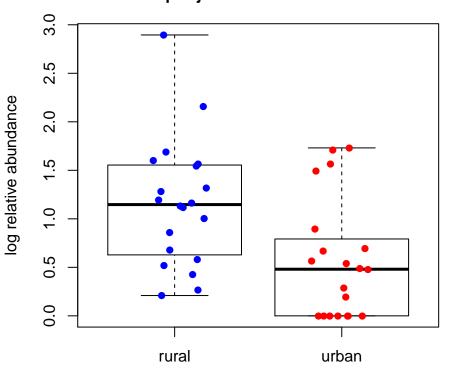
### WGS species: Geobacter\_metallireducens pAdjRuralUrban= 0.0705



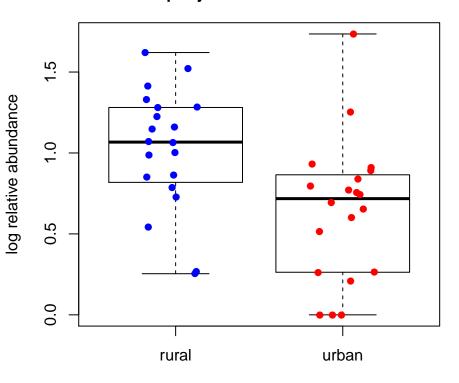
### WGS species: Oligotropha\_carboxidovorans pAdjRuralUrban= 0.0705



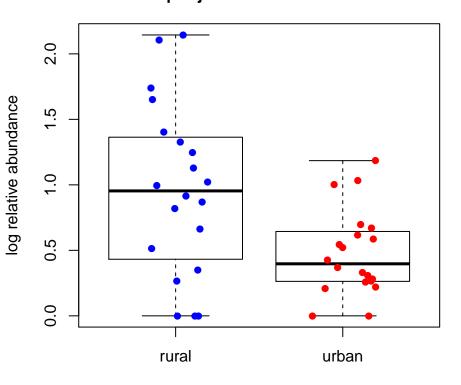
### WGS species: Campylobacter\_concisus pAdjRuralUrban= 0.0705



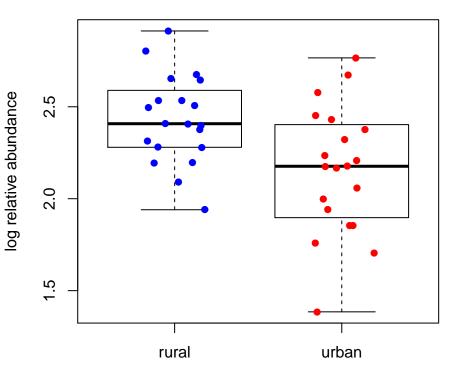
### WGS species: X.Clostridium.\_stercorarium pAdjRuralUrban= 0.0718



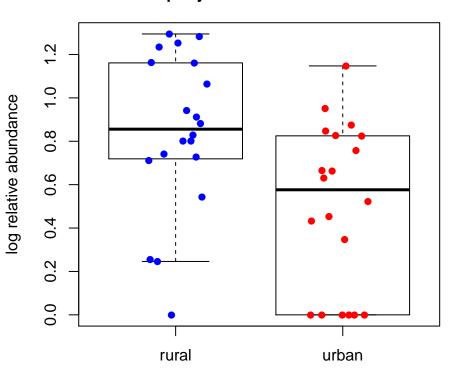
### WGS species: Ilumatobacter\_coccineus pAdjRuralUrban= 0.0719



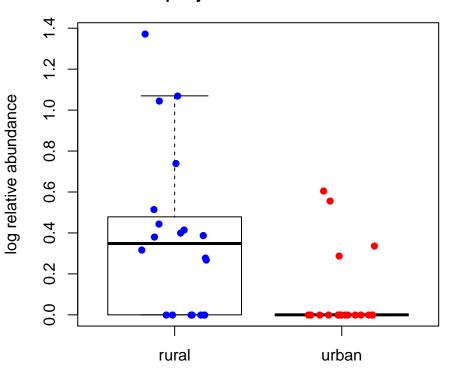
### WGS species: Butyrivibrio\_fibrisolvens pAdjRuralUrban= 0.0726



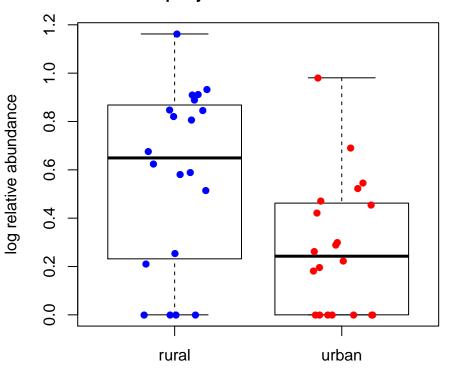
### WGS species: Ignavibacterium\_album pAdjRuralUrban= 0.0738



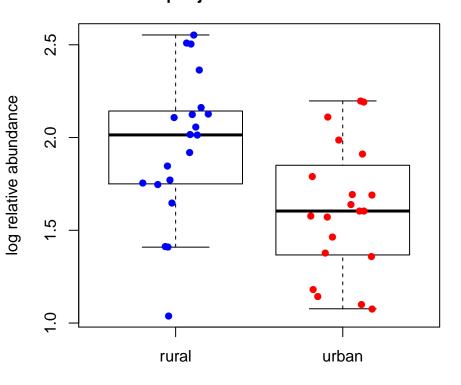
### WGS species: Corynebacterium\_kroppenstedtii pAdjRuralUrban= 0.0738



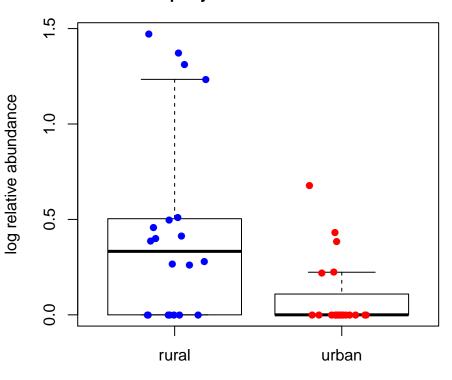
### WGS species: Salinibacter\_ruber pAdjRuralUrban= 0.0743



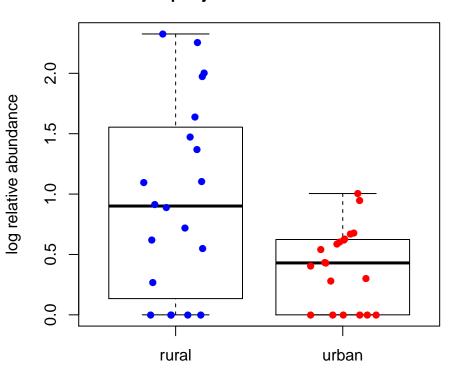
### WGS species: Selenomonas\_ruminantium pAdjRuralUrban= 0.0753



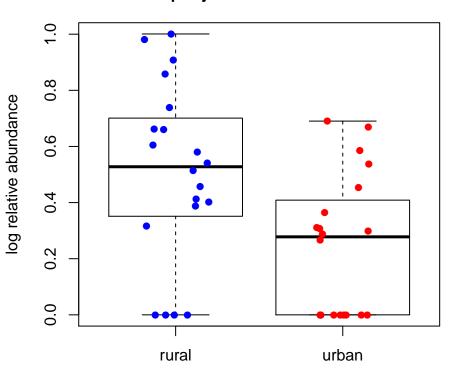
### WGS species: Fervidobacterium\_pennivorans pAdjRuralUrban= 0.077



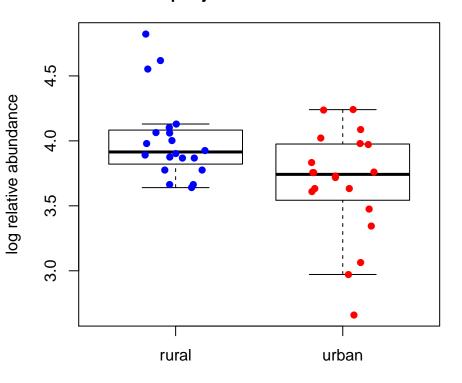
# WGS species: Shewanella\_amazonensis pAdjRuralUrban= 0.077



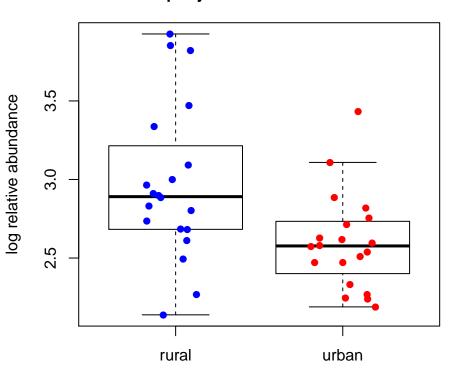
### WGS species: Actinoplanes\_friuliensis pAdjRuralUrban= 0.077



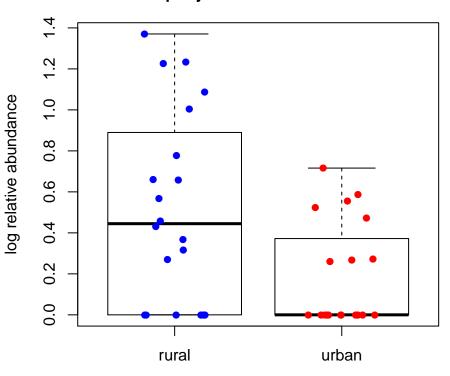
# WGS species: Ruminococcus\_sp.\_SR1.5 pAdjRuralUrban= 0.077



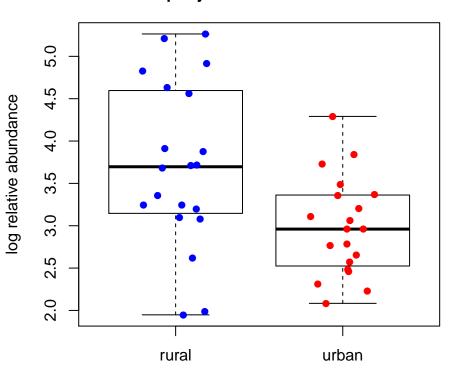
# WGS species: Enterococcus\_faecium pAdjRuralUrban= 0.0801



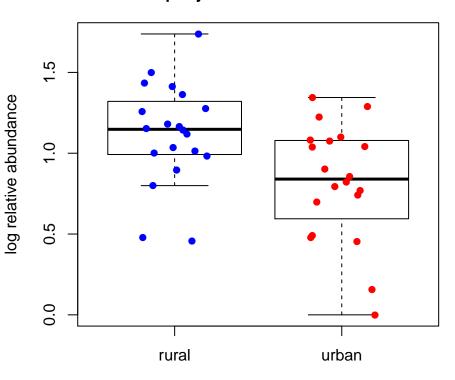
### WGS species: Burkholderia\_glumae pAdjRuralUrban= 0.0811



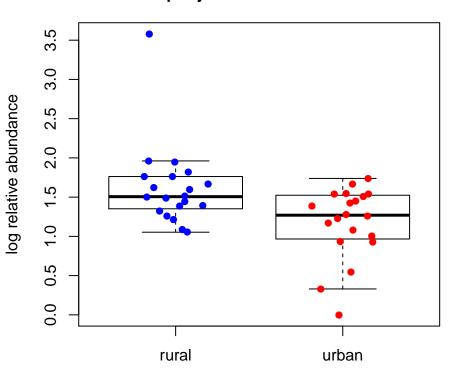
### WGS species: Streptococcus\_salivarius pAdjRuralUrban= 0.0812



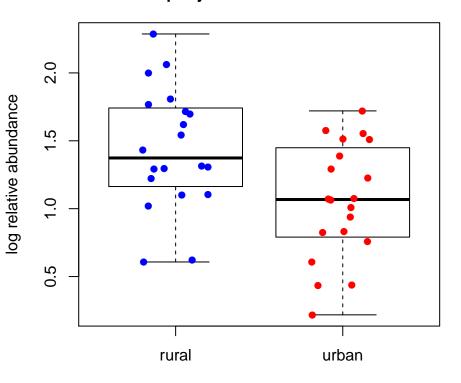
### WGS species: Bacillus\_subtilis pAdjRuralUrban= 0.0833



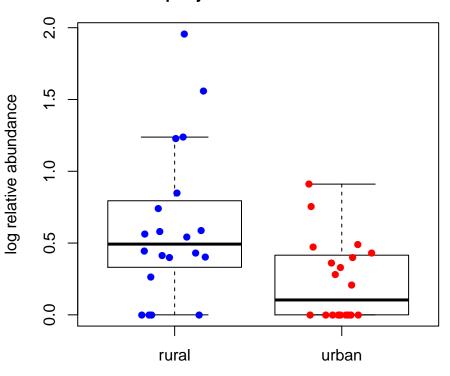
### WGS species: Streptococcus\_lutetiensis pAdjRuralUrban= 0.0833



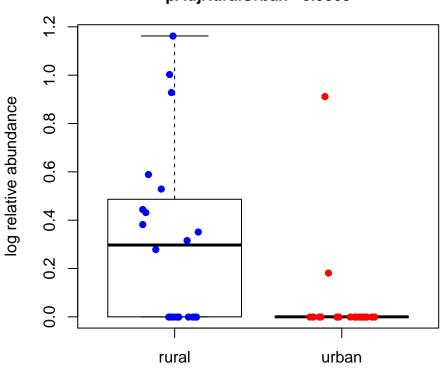
### WGS species: Pseudomonas\_stutzeri pAdjRuralUrban= 0.0833



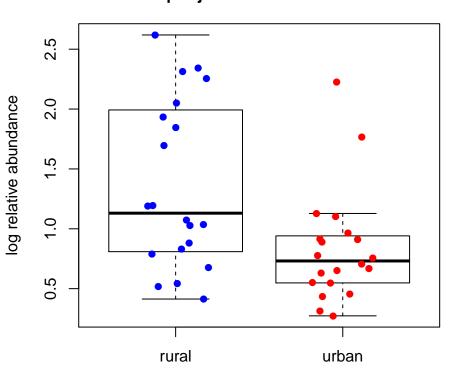
### WGS species: Erythrobacter\_litoralis pAdjRuralUrban= 0.0847



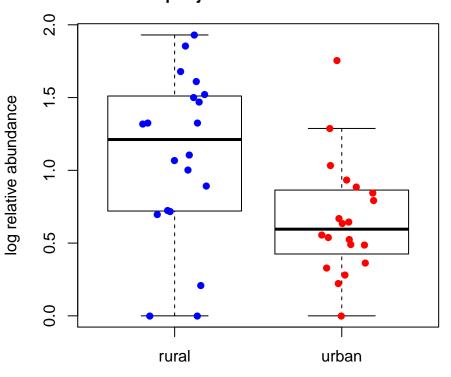
### WGS species: Mycoplasma\_agalactiae pAdjRuralUrban= 0.0865



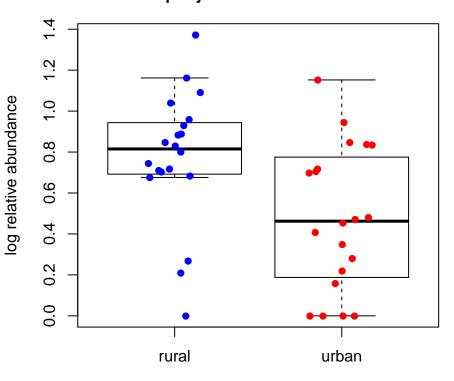
### WGS species: Bacillus\_coagulans pAdjRuralUrban= 0.0868



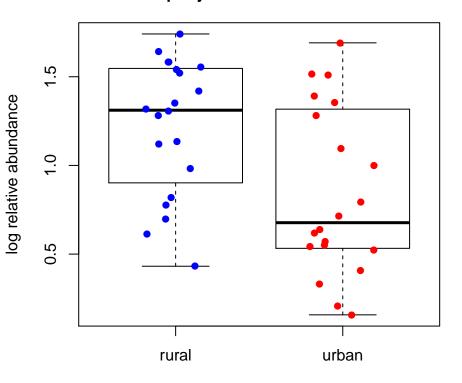
### WGS species: Spirochaeta\_africana pAdjRuralUrban= 0.0868



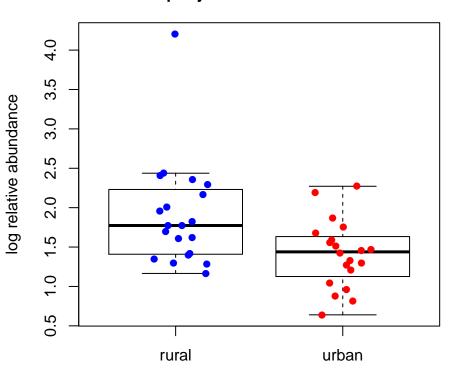
#### WGS species: Corynebacterium\_aurimucosum pAdjRuralUrban= 0.0873



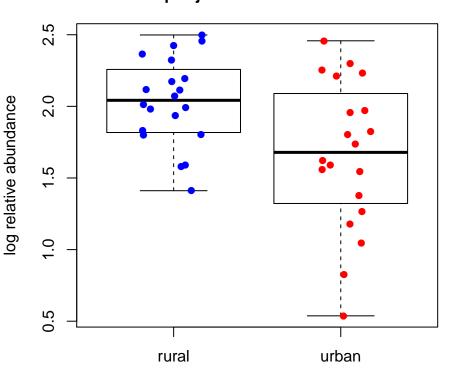
### WGS species: Moorella\_thermoacetica pAdjRuralUrban= 0.0911



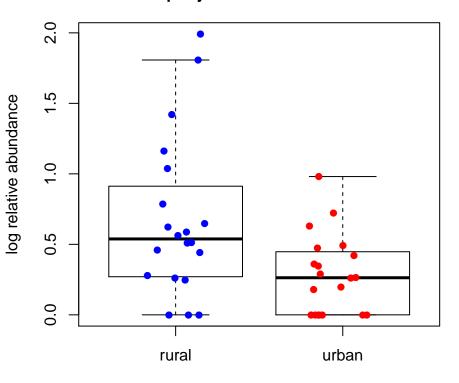
### WGS species: Lactococcus\_lactis pAdjRuralUrban= 0.0914



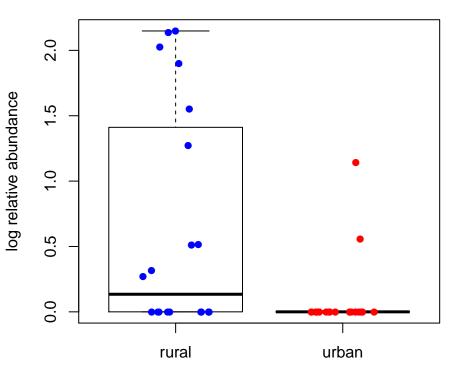
### WGS species: Clostridiales\_genomosp.\_BVAB3 pAdjRuralUrban= 0.0914



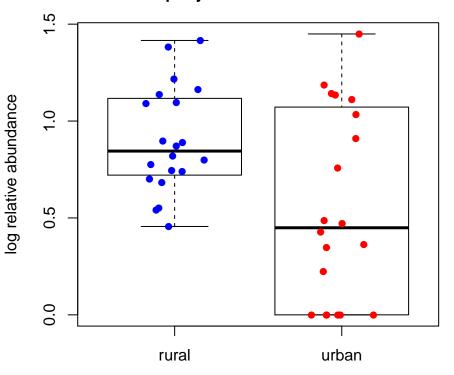
### WGS species: Clostridium\_autoethanogenum pAdjRuralUrban= 0.0914



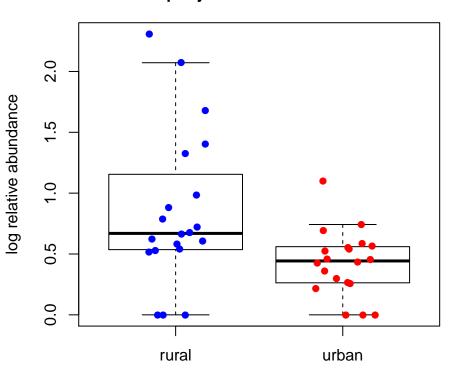
WGS species: Cardinium\_endosymbiont\_of\_Encarsia\_pergand pAdjRuralUrban= 0.0914



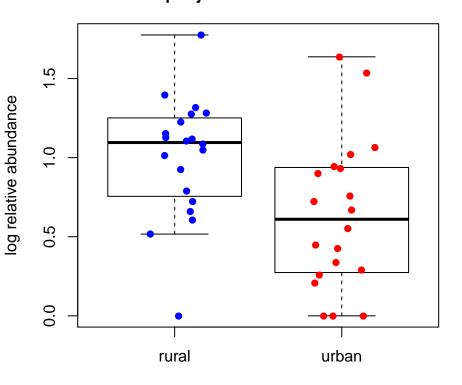
# WGS species: Candidatus\_Chloracidobacterium\_thermophile pAdjRuralUrban= 0.0914



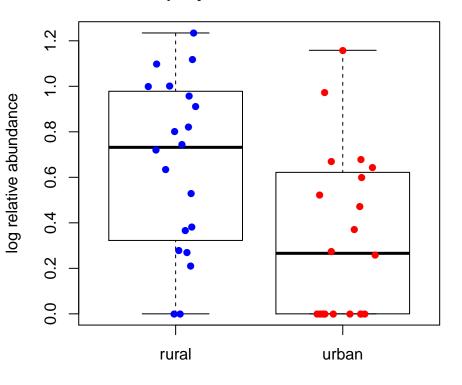
### WGS species: Lactobacillus\_helveticus pAdjRuralUrban= 0.0914



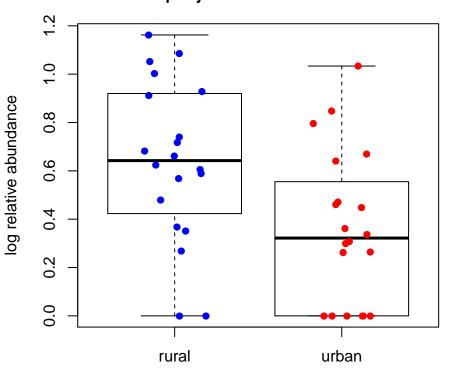
### WGS species: Pelotomaculum\_thermopropionicum pAdjRuralUrban= 0.0914



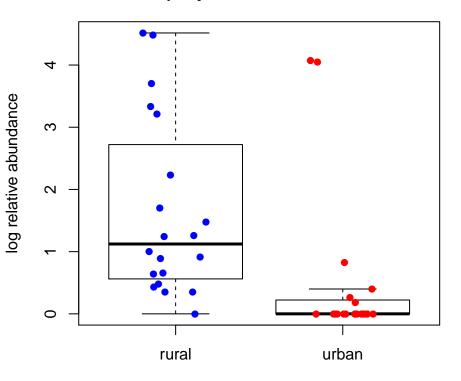
### WGS species: Cupriavidus\_pinatubonensis pAdjRuralUrban= 0.0914



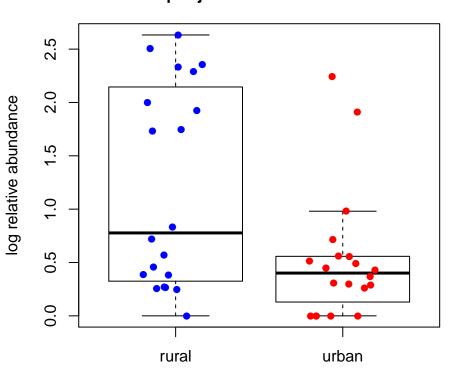
### WGS species: Ruegeria\_pomeroyi pAdjRuralUrban= 0.0916



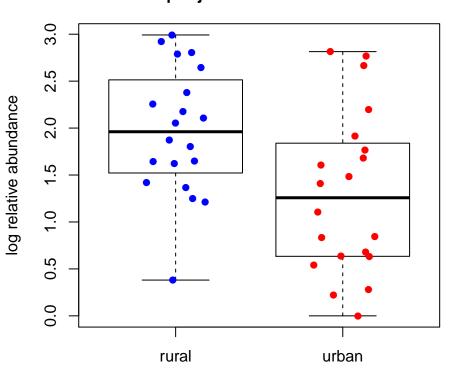
### WGS species: uncultured\_phage\_crAssphage pAdjRuralUrban= 0.0916



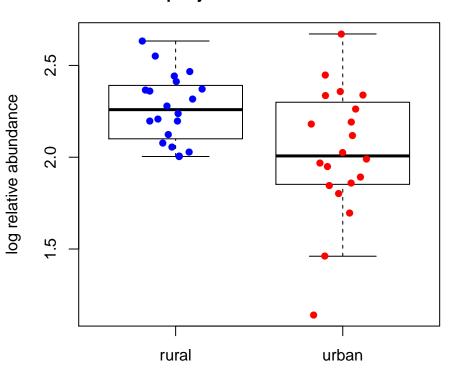
### WGS species: Exiguobacterium\_sp.\_MH3 pAdjRuralUrban= 0.0927



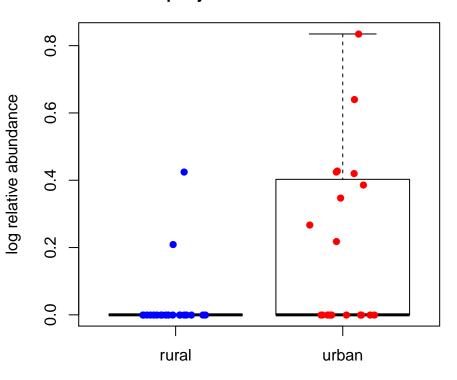
### WGS species: Haemophilus\_influenzae pAdjRuralUrban= 0.0927



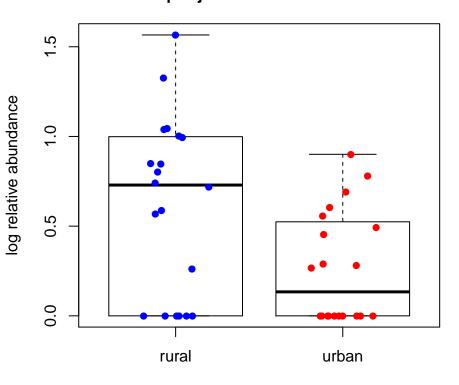
### WGS species: Lachnoclostridium\_phytofermentans pAdjRuralUrban= 0.0927



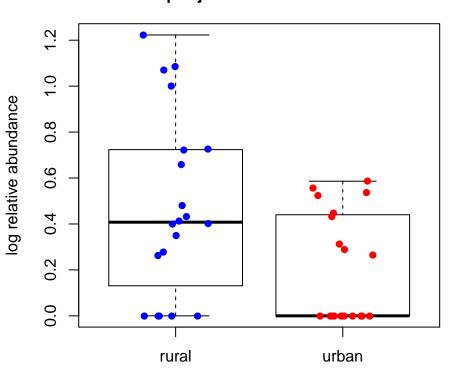
### WGS species: Methanocella\_conradii pAdjRuralUrban= 0.0927



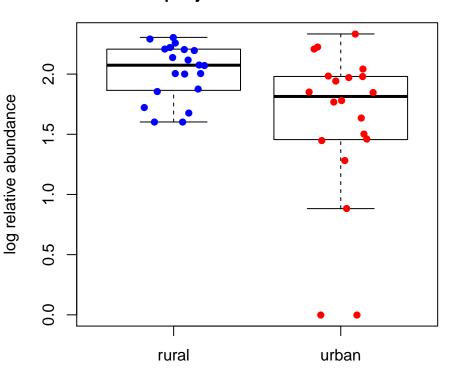
### WGS species: Salinispora\_tropica pAdjRuralUrban= 0.0927



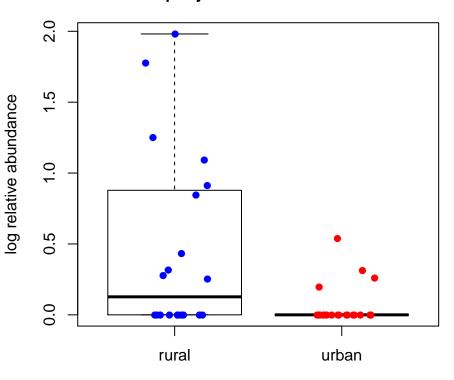
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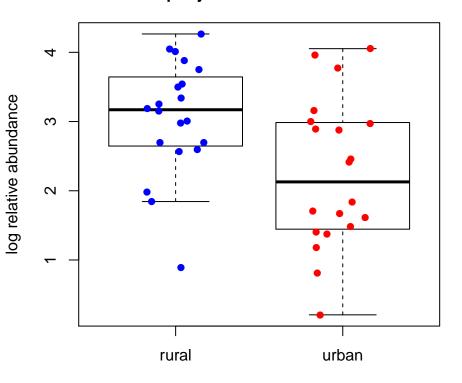
### WGS species: Anaerococcus\_prevotii pAdjRuralUrban= 0.0927



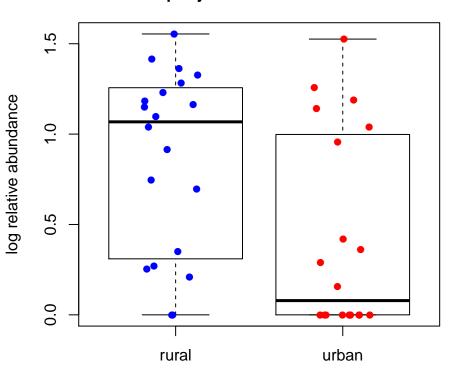
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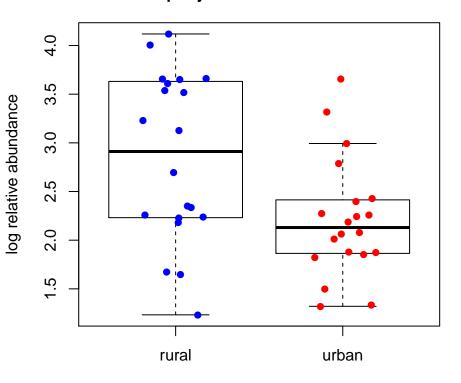
### WGS species: Haemophilus\_parainfluenzae pAdjRuralUrban= 0.0927



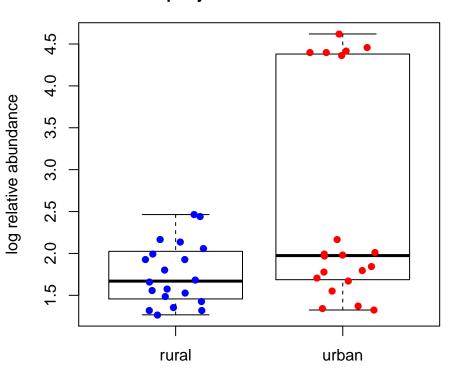
### WGS species: Taylorella\_equigenitalis pAdjRuralUrban= 0.0927



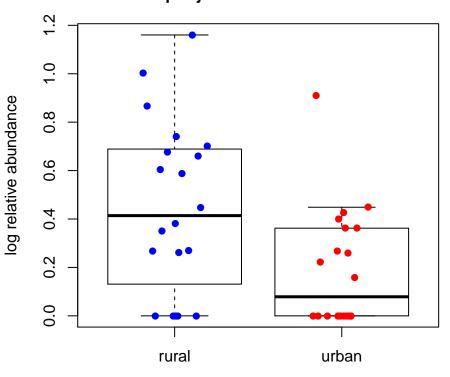
### WGS species: Prevotella\_intermedia pAdjRuralUrban= 0.0927



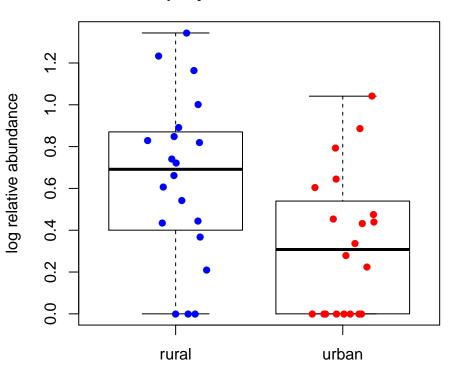
### WGS species: Alteromonas\_macleodii pAdjRuralUrban= 0.0927



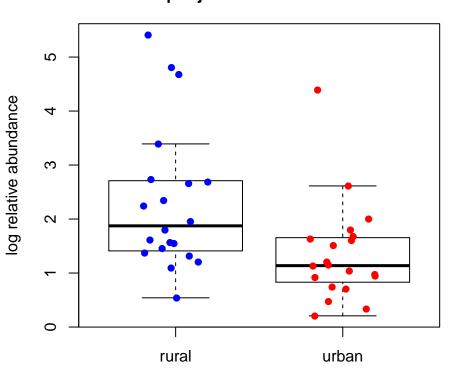
### WGS species: Sphingobium\_chlorophenolicum pAdjRuralUrban= 0.0927



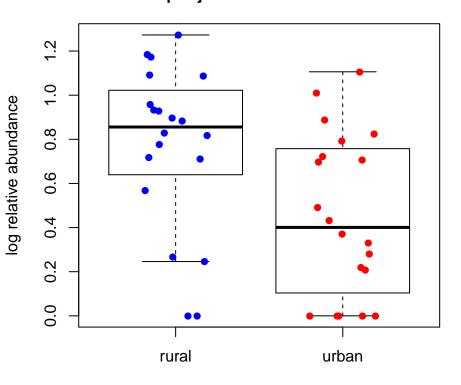
### WGS species: Candidatus\_Nitrospira\_defluvii pAdjRuralUrban= 0.0928



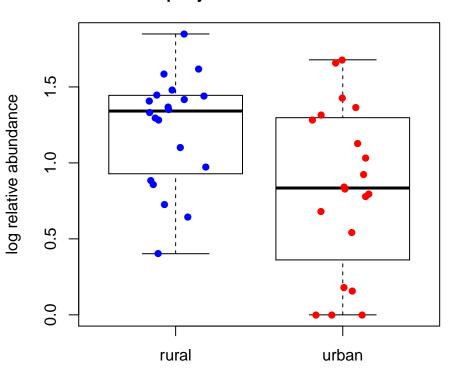
# WGS species: Lactobacillus\_salivarius pAdjRuralUrban= 0.0931



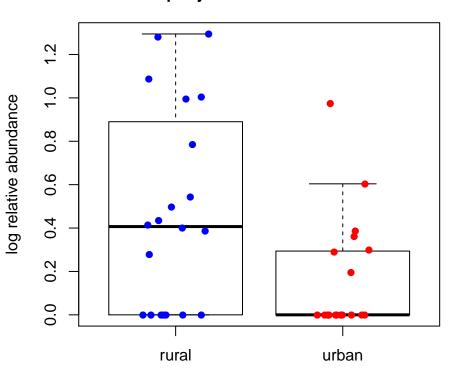
### WGS species: Micrococcus\_luteus pAdjRuralUrban= 0.0931



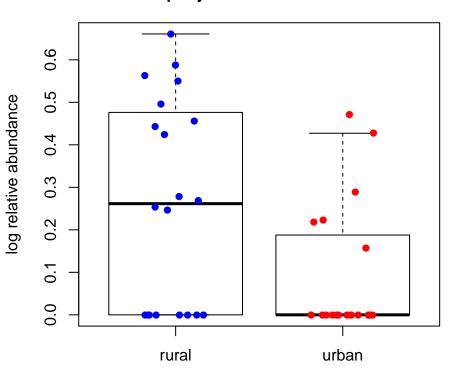
### WGS species: Deinococcus\_proteolyticus pAdjRuralUrban= 0.0931



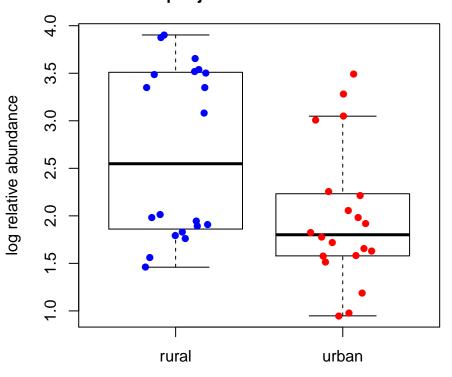
### WGS species: Methylocystis\_sp.\_SC2 pAdjRuralUrban= 0.0931



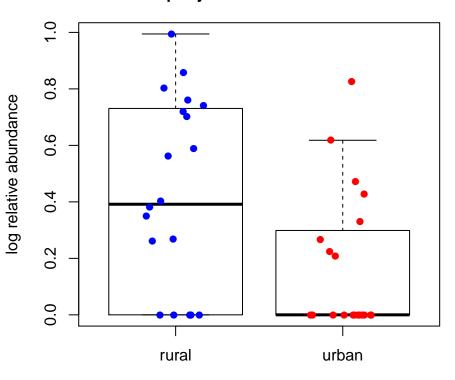
### WGS species: Listeria\_innocua pAdjRuralUrban= 0.0931



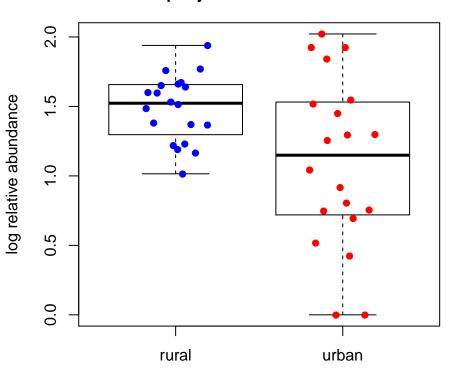
# WGS species: Prevotella\_sp.\_oral\_taxon\_299 pAdjRuralUrban= 0.0931



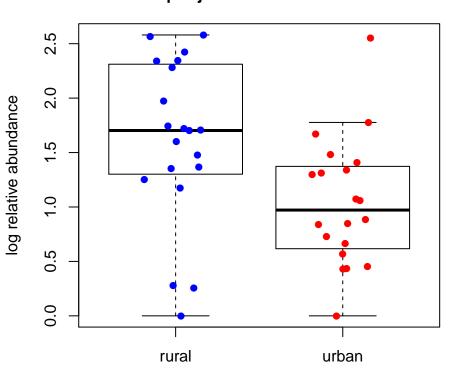
### WGS species: Listeria\_ivanovii pAdjRuralUrban= 0.0931



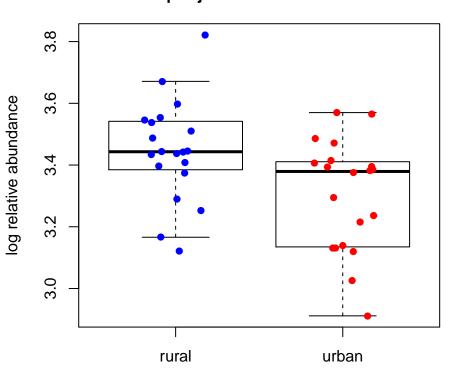
### WGS species: Thermobacillus\_composti pAdjRuralUrban= 0.0939



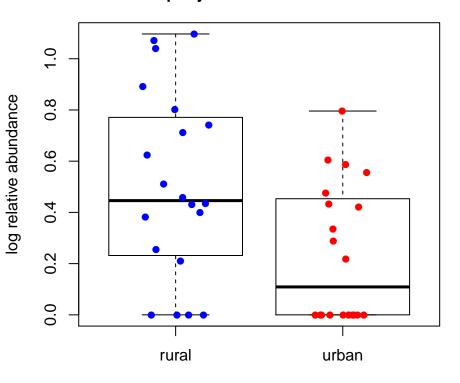
# WGS species: Pedobacter\_saltans pAdjRuralUrban= 0.0939



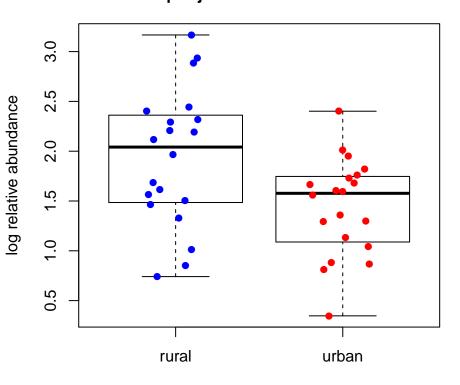
### WGS species: Peptoclostridium\_difficile pAdjRuralUrban= 0.0939



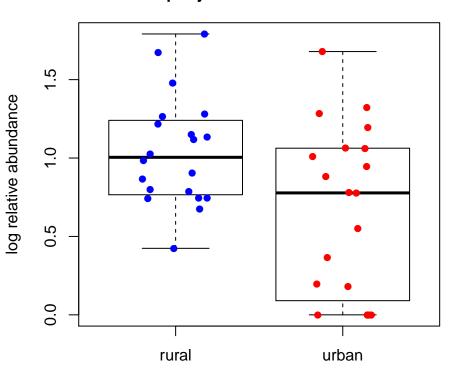
### WGS species: Spiroplasma\_diminutum pAdjRuralUrban= 0.0939



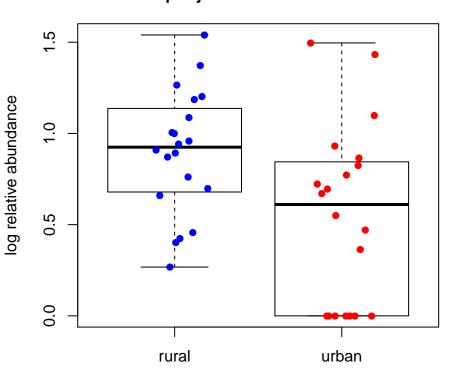
### WGS species: Streptococcus\_sp.\_I.P16 pAdjRuralUrban= 0.0939



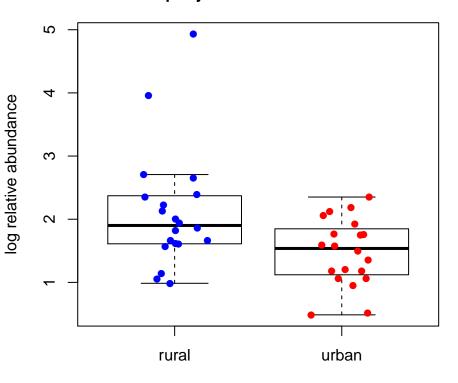
### WGS species: Spirochaeta\_thermophila pAdjRuralUrban= 0.0939



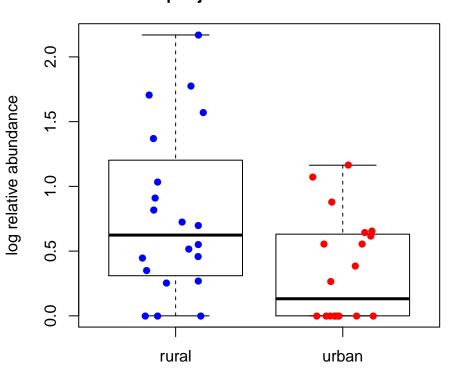
# WGS species: Pseudomonas\_denitrificans pAdjRuralUrban= 0.0939



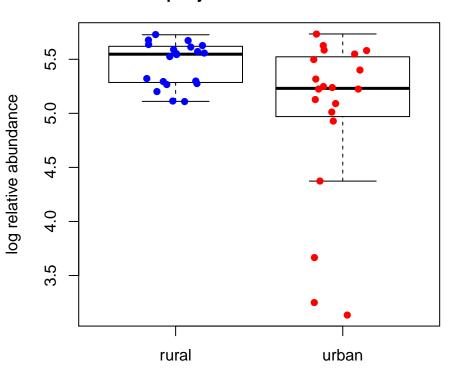
# WGS species: Megasphaera\_elsdenii pAdjRuralUrban= 0.0939



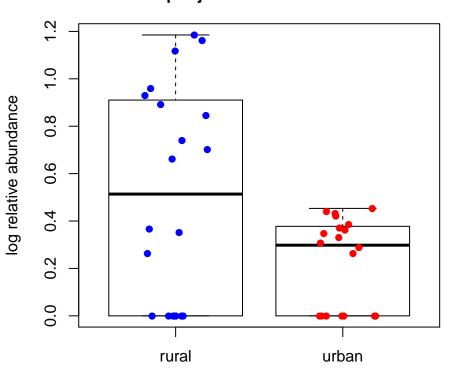
# WGS species: Muricauda\_ruestringensis pAdjRuralUrban= 0.0939



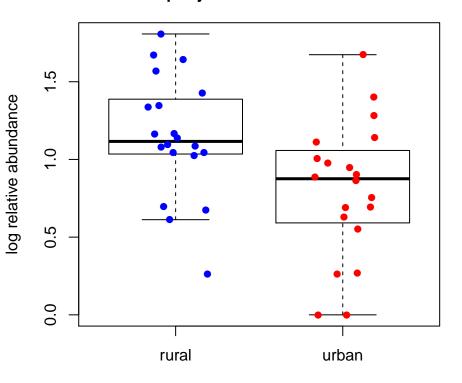
# WGS species: Faecalibacterium\_prausnitzii pAdjRuralUrban= 0.0939



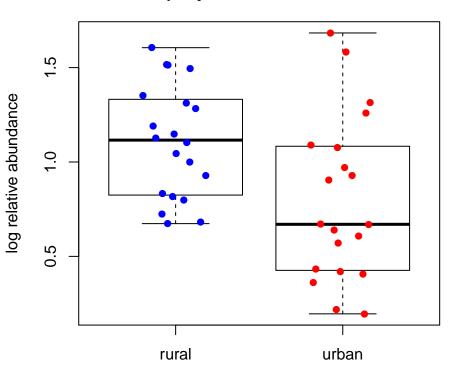
# WGS species: Gordonia\_bronchialis pAdjRuralUrban= 0.0939



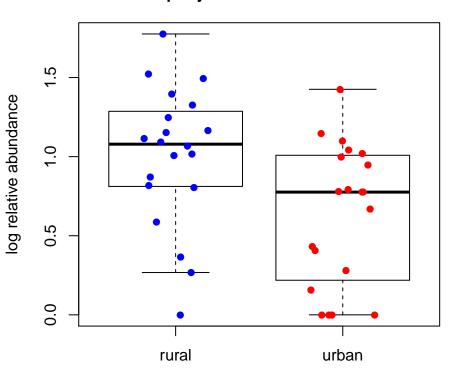
# WGS species: Leptothrix\_cholodnii pAdjRuralUrban= 0.0939



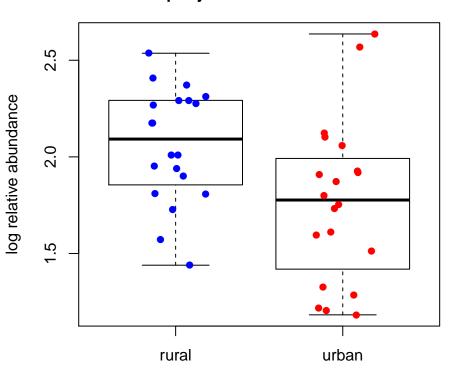
# WGS species: Chromobacterium\_violaceum pAdjRuralUrban= 0.0944



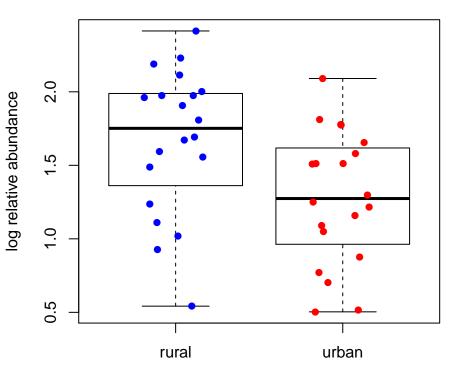
# WGS species: Alicycliphilus\_denitrificans pAdjRuralUrban= 0.0944



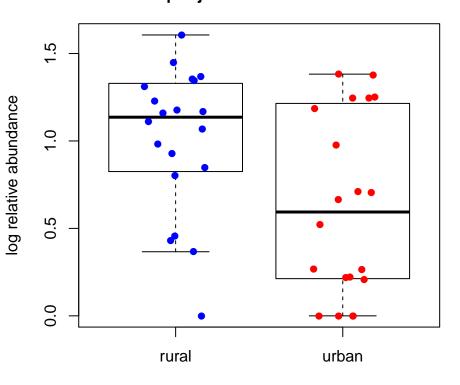
# WGS species: Clostridium\_botulinum pAdjRuralUrban= 0.0957



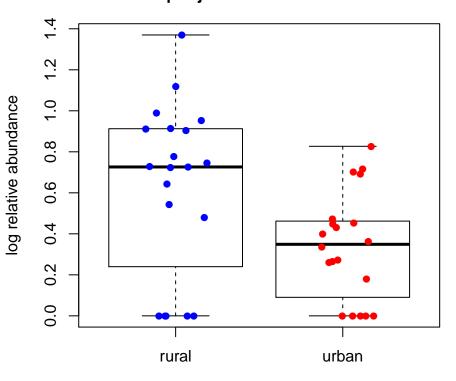
# WGS species: Desulfovibrio\_desulfuricans pAdjRuralUrban= 0.0957



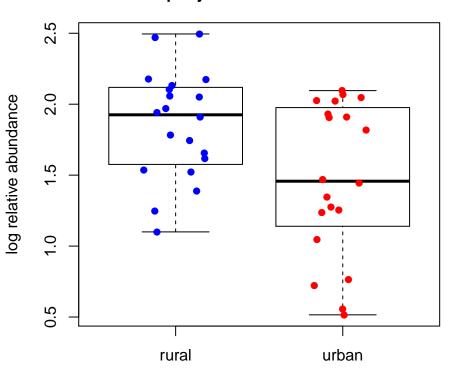
# WGS species: Rhodospirillum\_centenum pAdjRuralUrban= 0.0957



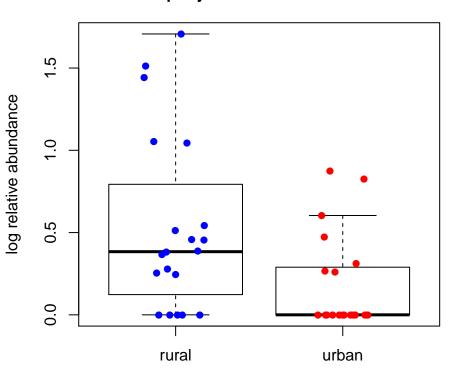
# WGS species: Staphylococcus\_epidermidis pAdjRuralUrban= 0.0982



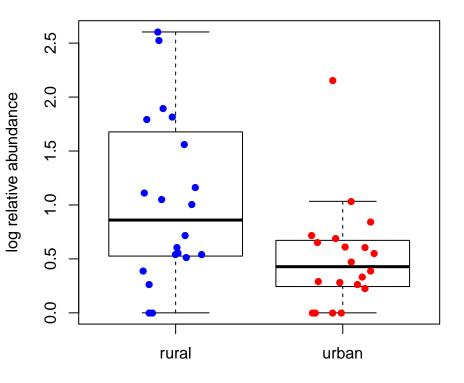
# WGS species: Desulfovibrio\_vulgaris pAdjRuralUrban= 0.0982



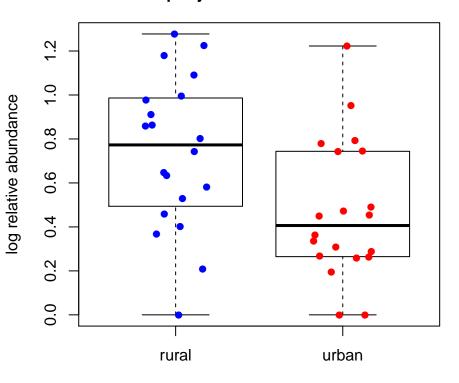
# WGS species: Bradyrhizobium\_sp.\_ORS\_278 pAdjRuralUrban= 0.0982



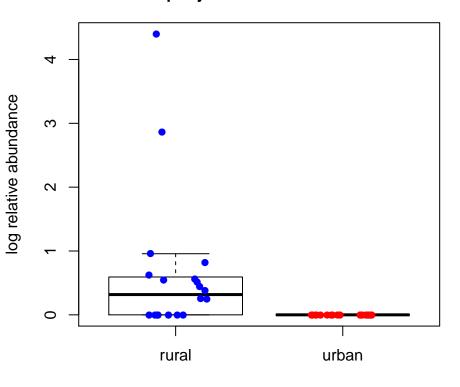
# WGS species: Pseudomonas\_sp.\_VLB120 pAdjRuralUrban= 0.0982



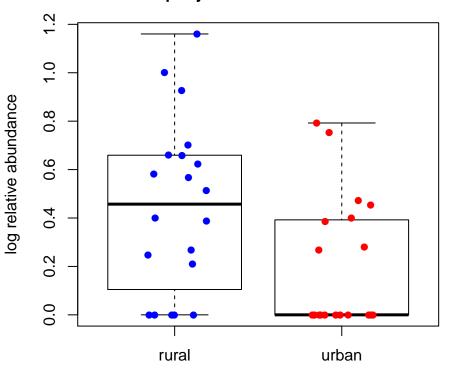
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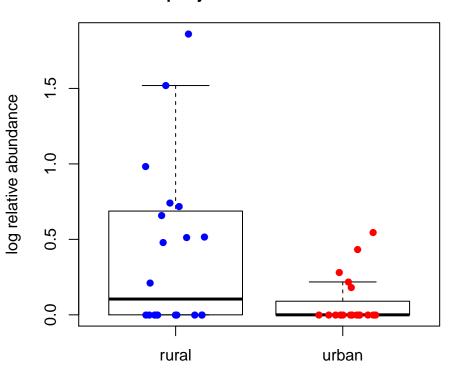
# WGS species: Vibrio\_phage\_pYD38.A pAdjRuralUrban= 0.0995



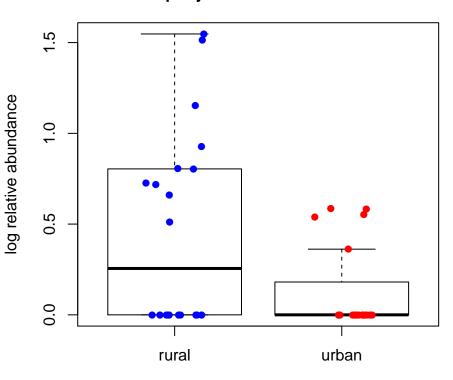
# WGS species: Mycobacterium\_avium pAdjRuralUrban= 0.0995



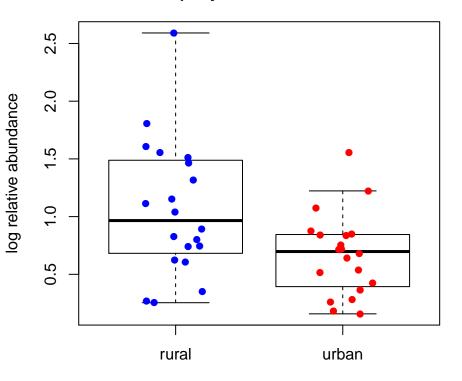
# WGS species: Synechocystis\_sp.\_PCC\_6803 pAdjRuralUrban= 0.0995



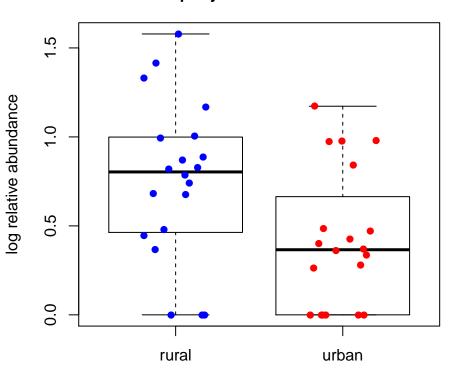
# WGS species: Bartonella\_clarridgeiae pAdjRuralUrban= 0.0995



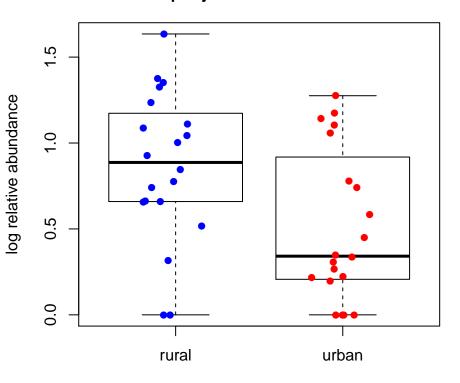
# WGS species: Stenotrophomonas\_maltophilia pAdjRuralUrban= 0.1



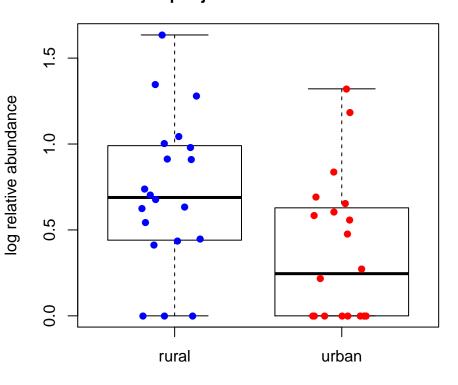
# WGS species: Desulfosporosinus\_orientis pAdjRuralUrban= 0.1



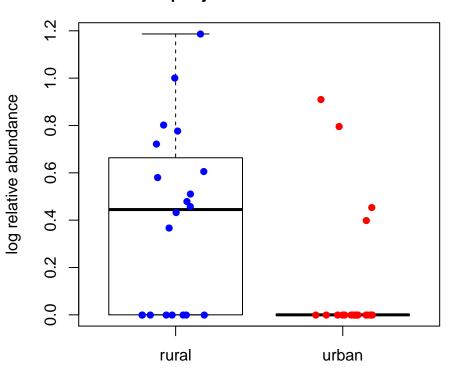
# WGS species: Burkholderia\_xenovorans pAdjRuralUrban= 0.102



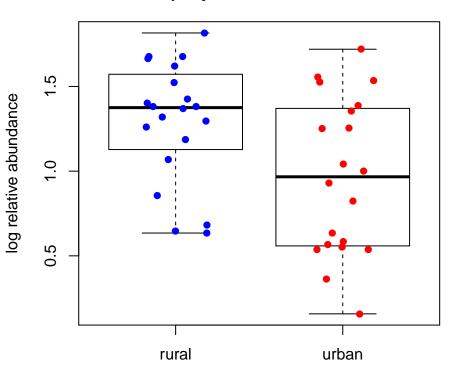
# WGS species: Azoarcus\_sp.\_BH72 pAdjRuralUrban= 0.104



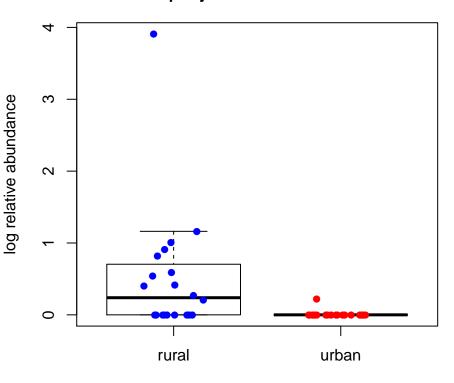
WGS species: Listeria\_seeligeri pAdjRuralUrban= 0.104



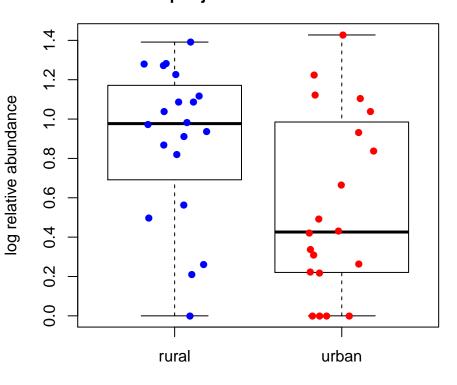
# WGS species: Achromobacter\_xylosoxidans pAdjRuralUrban= 0.105



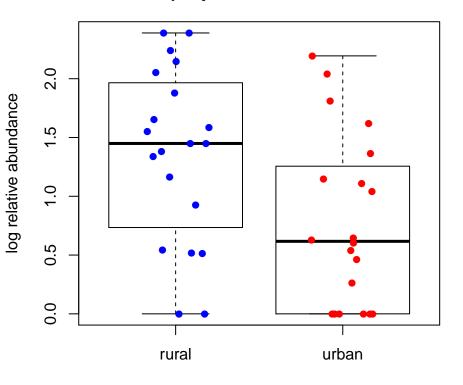
# WGS species: Escherichia\_phage\_phAPEC8 pAdjRuralUrban= 0.106



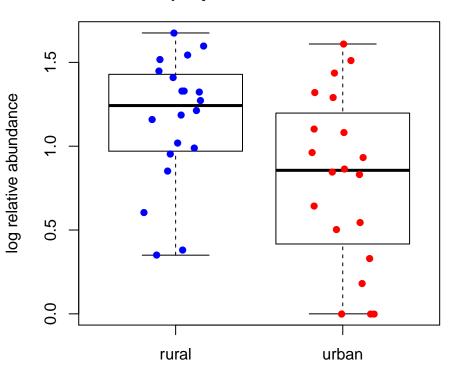
#### WGS species: Corynebacterium\_jeikeium pAdjRuralUrban= 0.106



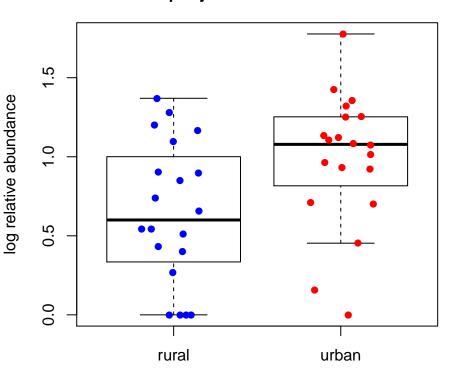
# WGS species: Aggregatibacter\_aphrophilus pAdjRuralUrban= 0.106



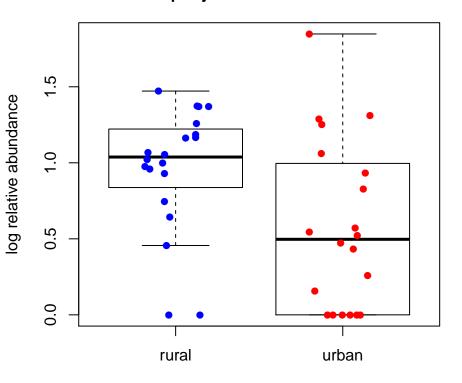
# WGS species: Pseudomonas\_aeruginosa pAdjRuralUrban= 0.106



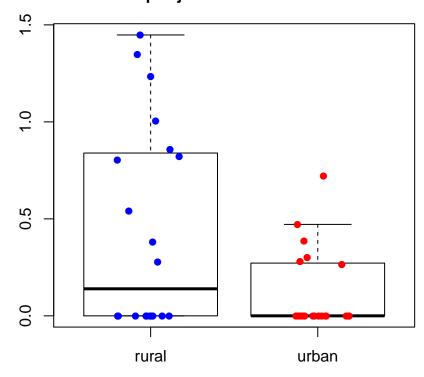
# WGS species: Photobacterium\_profundum pAdjRuralUrban= 0.107



# WGS species: Corallococcus\_coralloides pAdjRuralUrban= 0.108

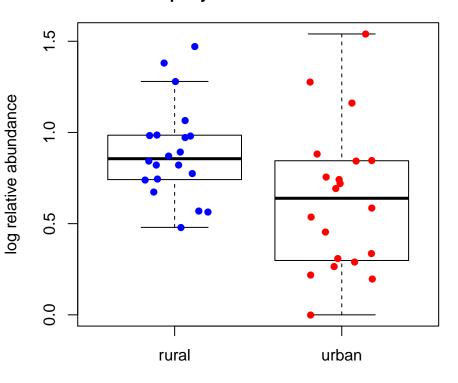


WGS species: Synechococcus\_sp.\_PCC\_7502 pAdjRuralUrban= 0.108

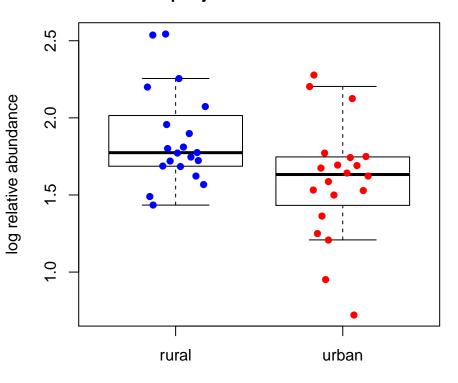


log relative abundance

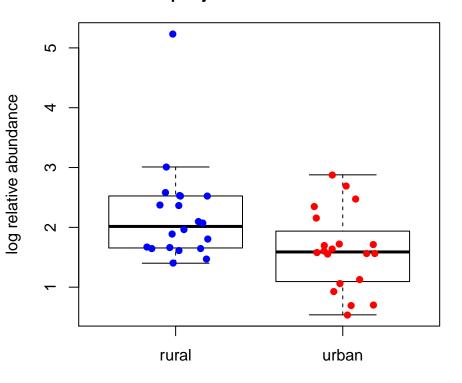
# WGS species: Sebaldella\_termitidis pAdjRuralUrban= 0.108



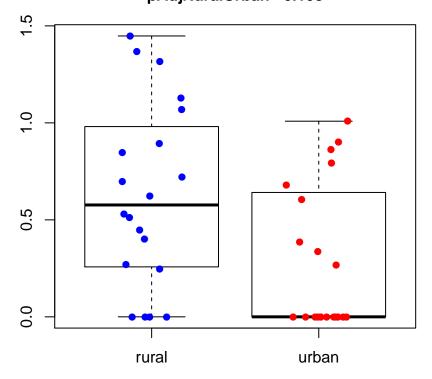
# WGS species: Filifactor\_alocis pAdjRuralUrban= 0.108



# WGS species: Lactobacillus\_ruminis pAdjRuralUrban= 0.108

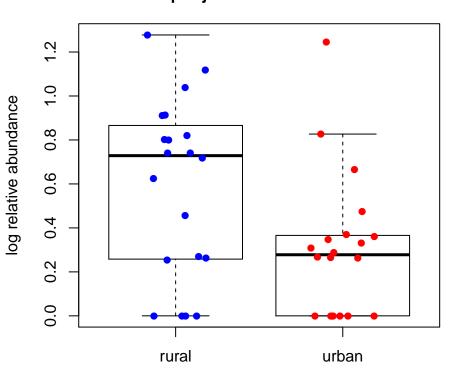


# WGS species: Candidatus\_Accumulibacter\_phosphatis pAdjRuralUrban= 0.108

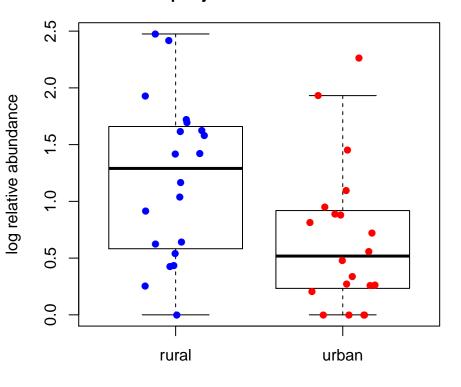


log relative abundance

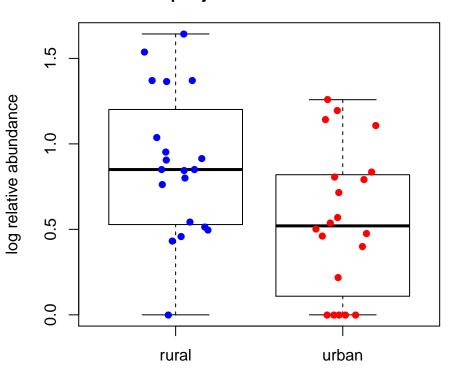
## WGS species: Saccharothrix\_espanaensis pAdjRuralUrban= 0.108



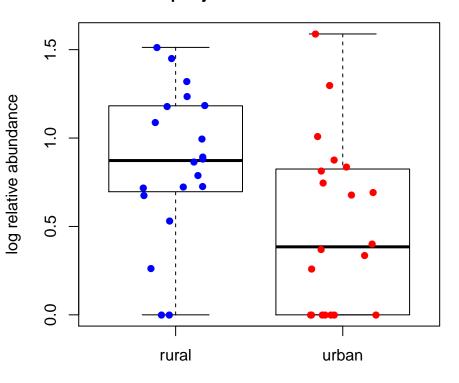
## WGS species: Aromatoleum\_aromaticum pAdjRuralUrban= 0.108



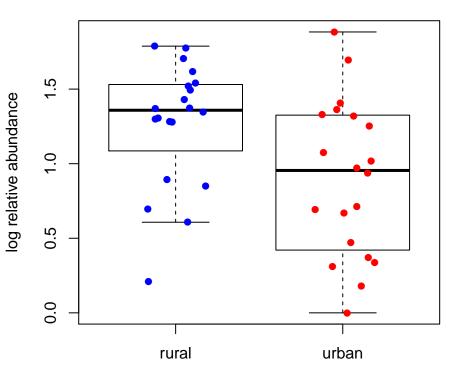
## WGS species: Acidovorax\_sp.\_KKS102 pAdjRuralUrban= 0.108



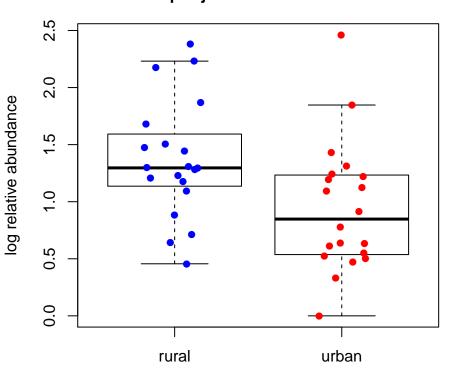
## WGS species: Bordetella\_petrii pAdjRuralUrban= 0.108



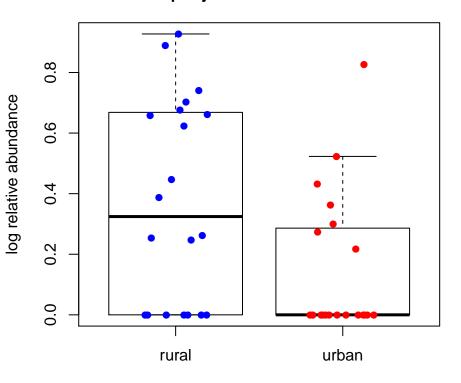
## WGS species: Rhodothermus\_marinus pAdjRuralUrban= 0.108



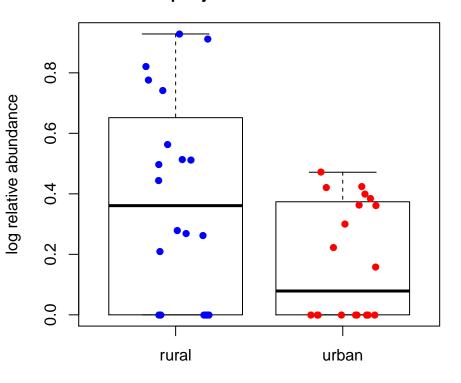
## WGS species: Aeromonas\_hydrophila pAdjRuralUrban= 0.108



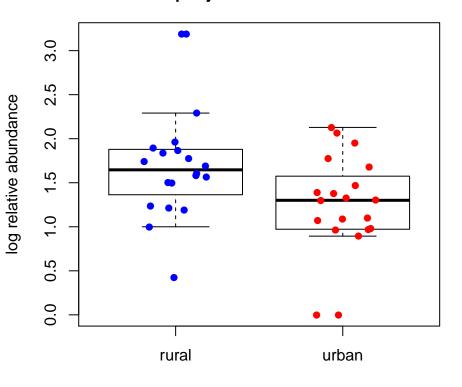
## WGS species: Thermoanaerobacter\_wiegelii pAdjRuralUrban= 0.108



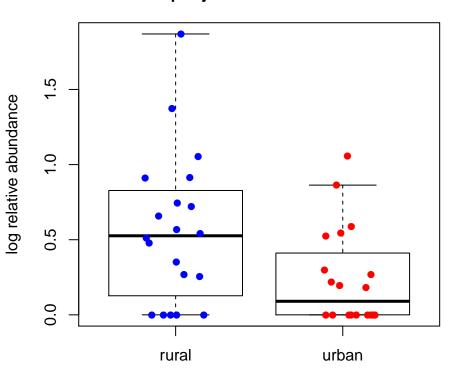
## WGS species: Nostoc\_punctiforme pAdjRuralUrban= 0.109



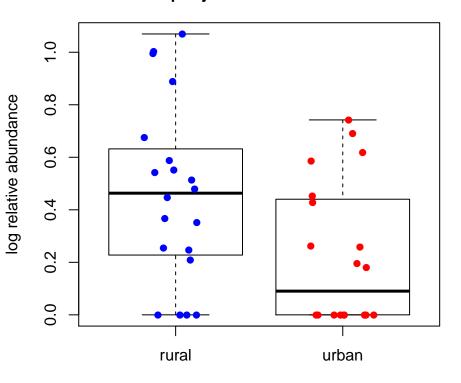
## WGS species: Acidaminococcus\_intestini pAdjRuralUrban= 0.11



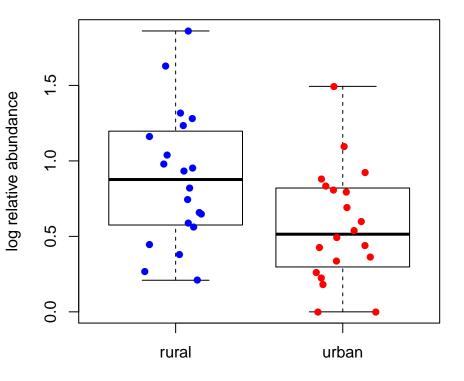
## WGS species: Burkholderia\_rhizoxinica pAdjRuralUrban= 0.112



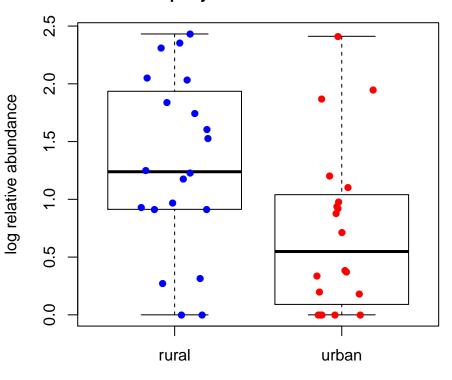
## WGS species: Gordonia\_polyisoprenivorans pAdjRuralUrban= 0.112



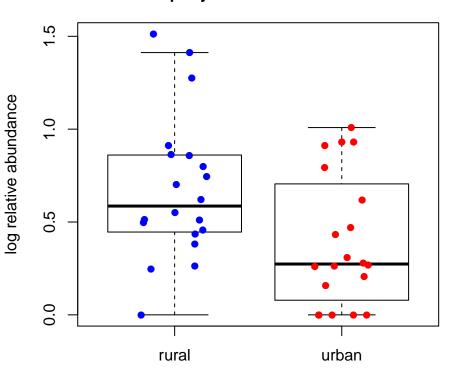
## WGS species: Desulfotomaculum\_gibsoniae pAdjRuralUrban= 0.112



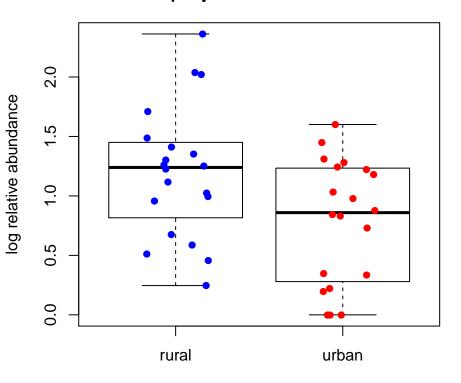
## WGS species: Dehalococcoides\_mccartyi pAdjRuralUrban= 0.113



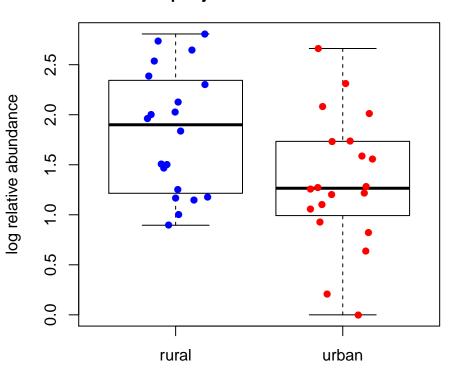
## WGS species: Arthrobacter\_phenanthrenivorans pAdjRuralUrban= 0.113



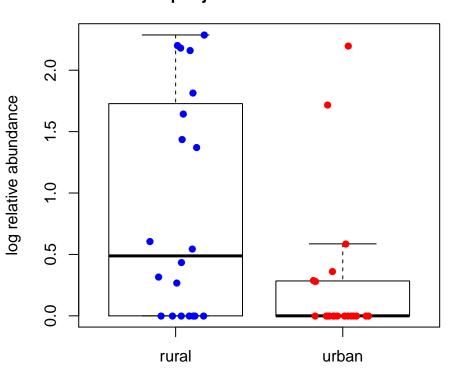
## WGS species: Calditerrivibrio\_nitroreducens pAdjRuralUrban= 0.113



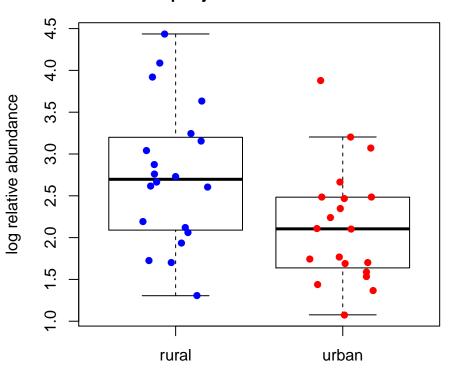
## WGS species: Rothia\_mucilaginosa pAdjRuralUrban= 0.113



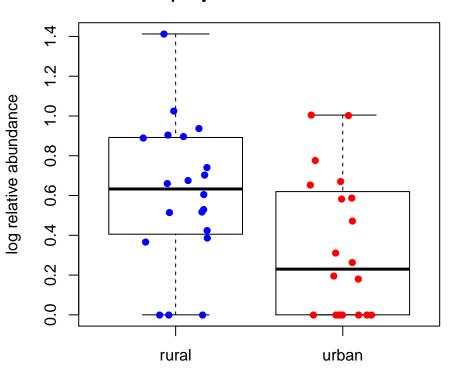
## WGS species: Gordonia\_sp.\_KTR9 pAdjRuralUrban= 0.113



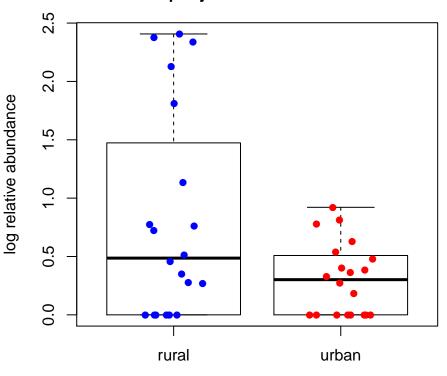
## WGS species: Streptococcus\_parasanguinis pAdjRuralUrban= 0.113



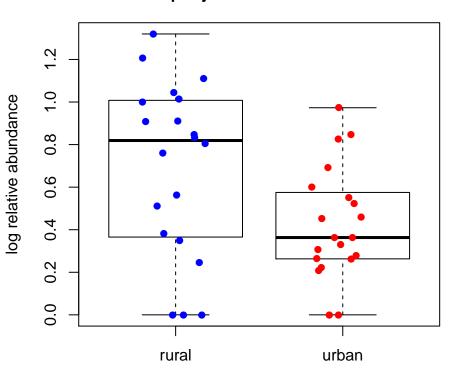
## WGS species: Isoptericola\_variabilis pAdjRuralUrban= 0.113



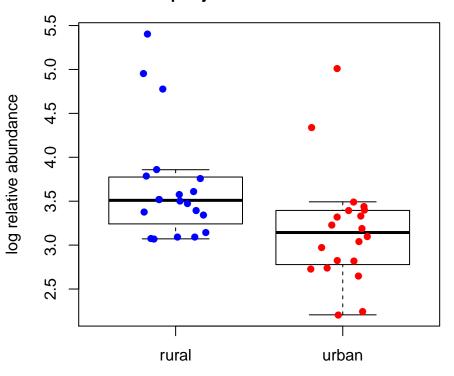
## WGS species: Saprospira\_grandis pAdjRuralUrban= 0.113



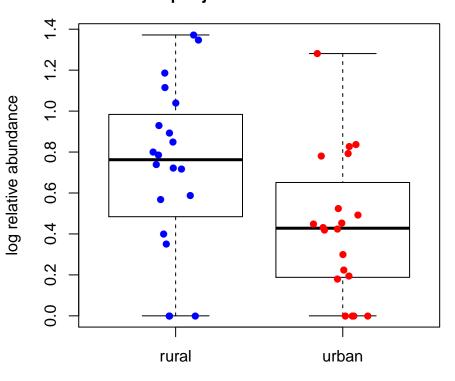
## WGS species: Methylococcus\_capsulatus pAdjRuralUrban= 0.113



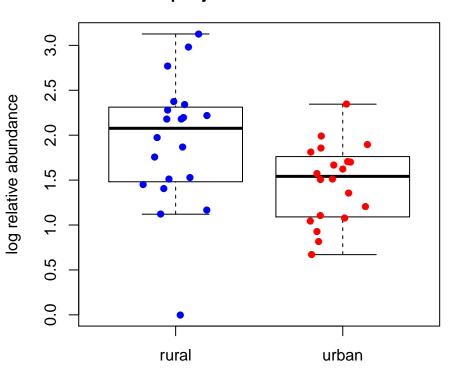
## WGS species: X.Eubacterium.\_siraeum pAdjRuralUrban= 0.114



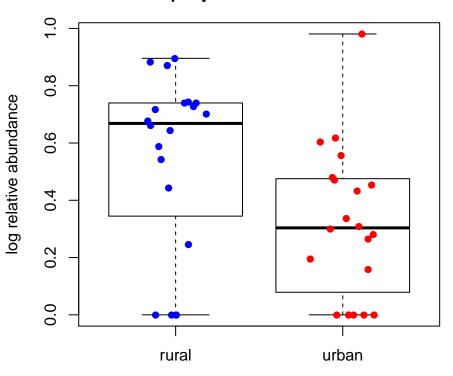
#### WGS species: Desulfobulbus\_propionicus pAdjRuralUrban= 0.114



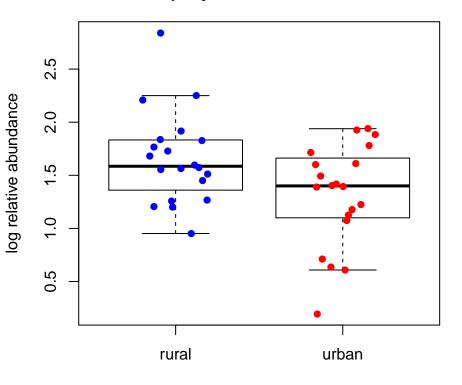
## WGS species: Streptococcus\_sp.\_I.G2 pAdjRuralUrban= 0.117



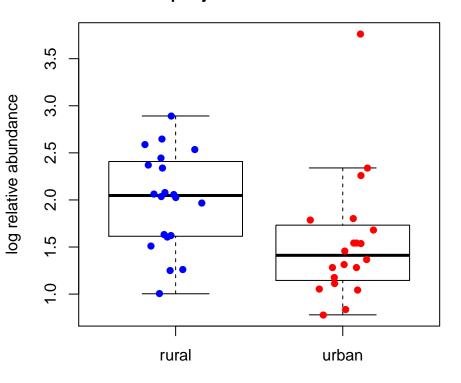
## WGS species: Rhizobium\_tropici pAdjRuralUrban= 0.117



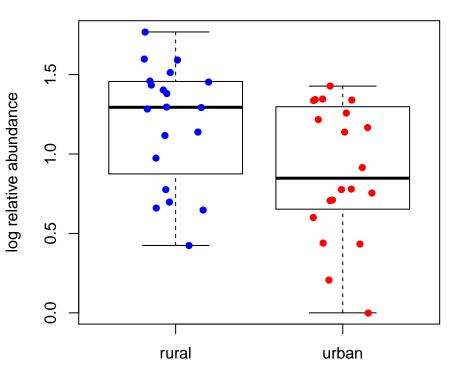
# WGS species: X.Clostridium.\_cellulolyticum pAdjRuralUrban= 0.119



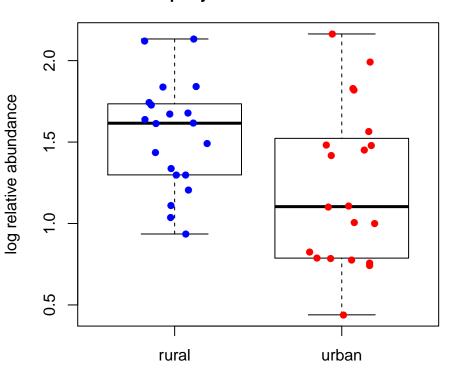
## WGS species: Clostridium\_perfringens pAdjRuralUrban= 0.119



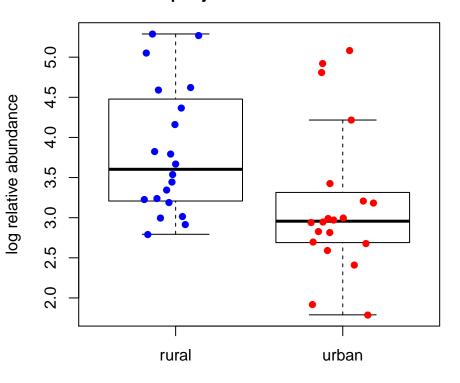
# WGS species: Paenibacillus\_sp.\_Y412MC10 pAdjRuralUrban= 0.119



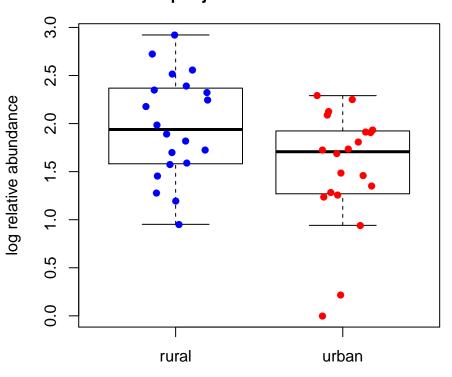
## WGS species: Sorangium\_cellulosum pAdjRuralUrban= 0.119



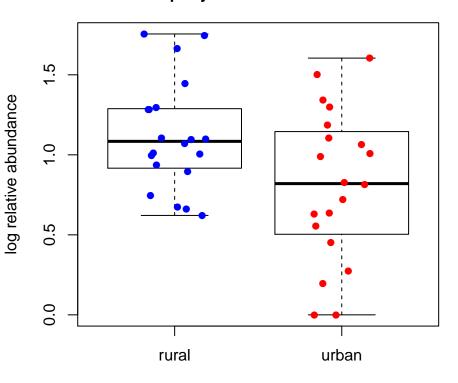
## WGS species: Coprococcus\_sp.\_ART55.1 pAdjRuralUrban= 0.119



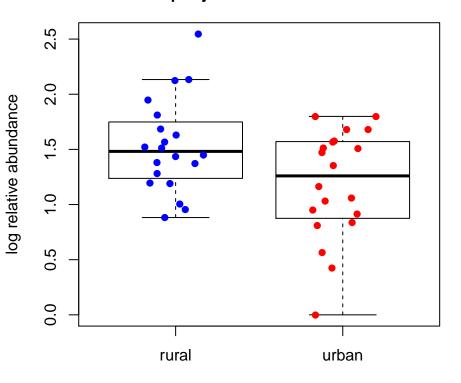
# WGS species: Porphyromonas\_asaccharolytica pAdjRuralUrban= 0.119



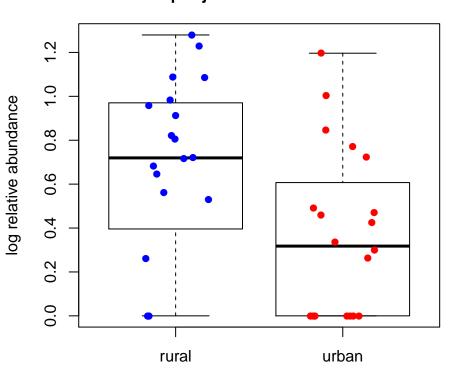
## WGS species: Pseudomonas\_mendocina pAdjRuralUrban= 0.119



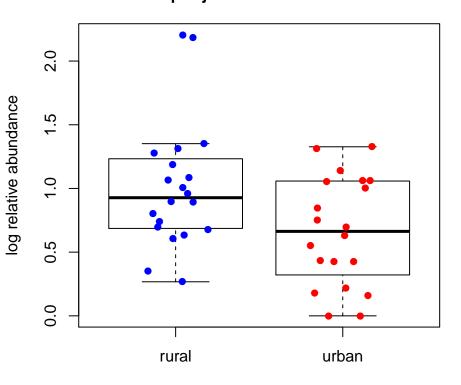
## WGS species: Bifidobacterium\_thermophilum pAdjRuralUrban= 0.119



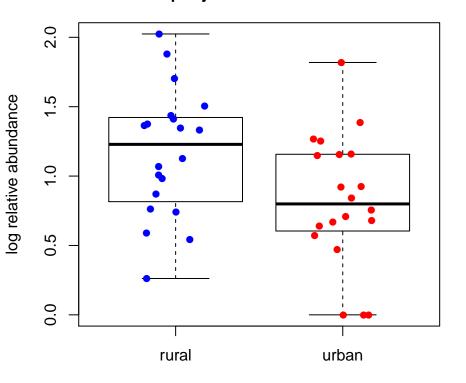
## WGS species: Corynebacterium\_maris pAdjRuralUrban= 0.119



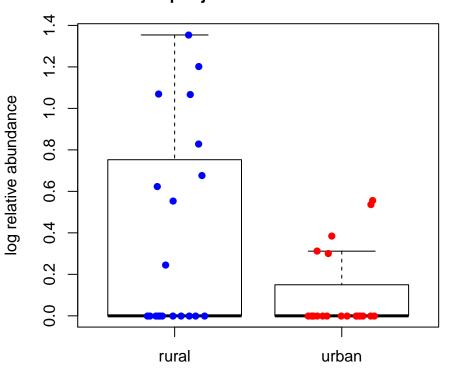
# WGS species: Oceanimonas\_sp.\_GK1 pAdjRuralUrban= 0.124



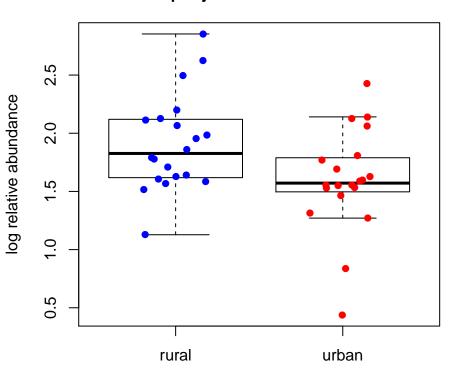
# WGS species: Carboxydothermus\_hydrogenoformans pAdjRuralUrban= 0.124



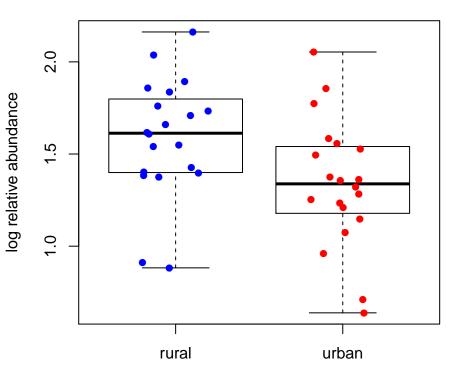
# WGS species: Burkholderia\_pseudomallei pAdjRuralUrban= 0.124



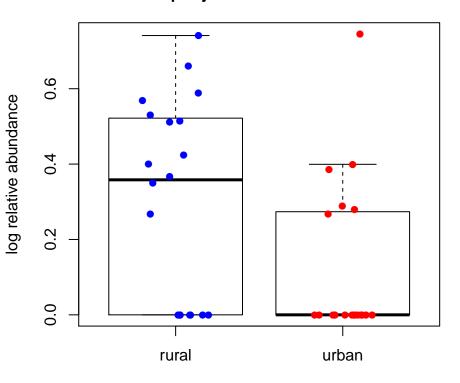
# WGS species: Acidaminococcus\_fermentans pAdjRuralUrban= 0.125



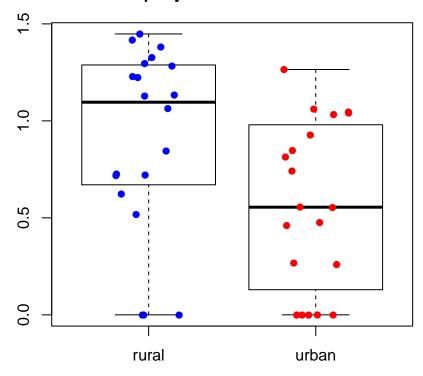
# WGS species: Clostridium\_saccharoperbutylacetonicum pAdjRuralUrban= 0.125



# WGS species: Mycoplasma\_crocodyli pAdjRuralUrban= 0.125

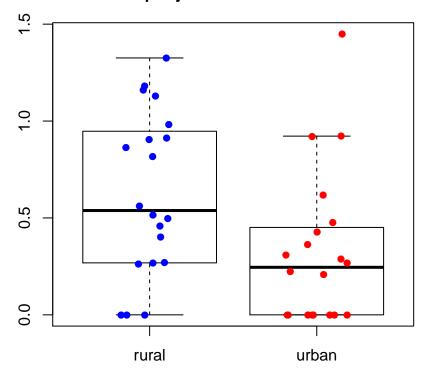


# WGS species: Marivirga\_tractuosa pAdjRuralUrban= 0.125



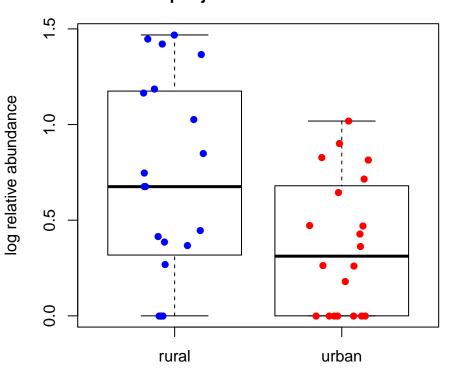
log relative abundance

# WGS species: Desulfotomaculum\_reducens pAdjRuralUrban= 0.125

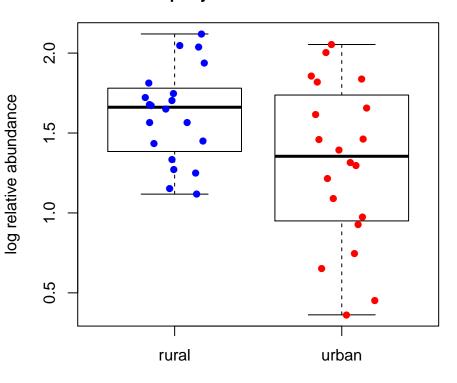


log relative abundance

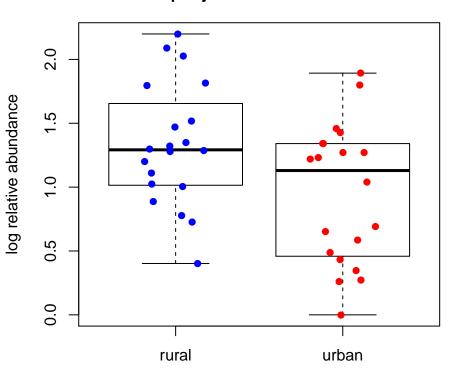
# WGS species: Pelobacter\_carbinolicus pAdjRuralUrban= 0.125



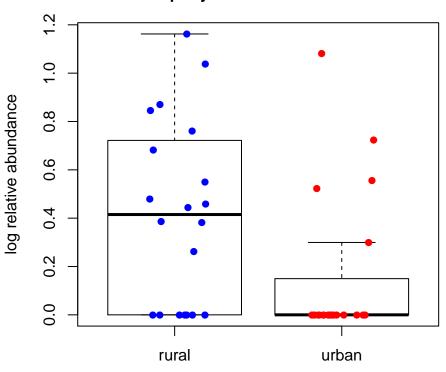
# WGS species: Mobiluncus\_curtisii pAdjRuralUrban= 0.125



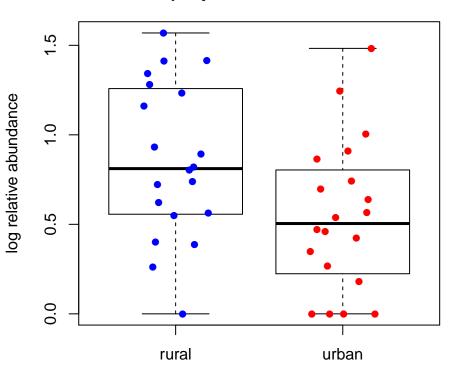
# WGS species: Ralstonia\_pickettii pAdjRuralUrban= 0.125



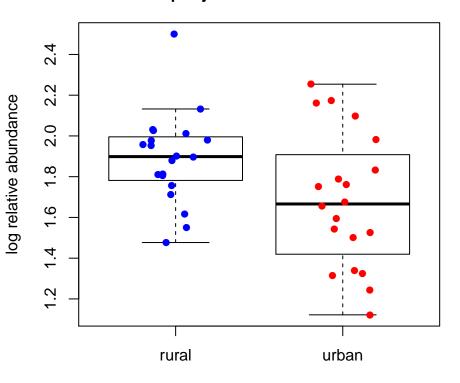
# WGS species: Maricaulis\_maris pAdjRuralUrban= 0.125



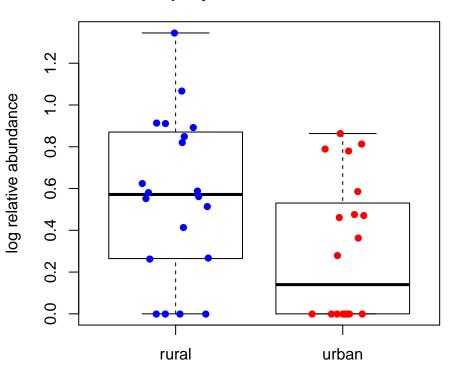
# WGS species: Anaeromyxobacter\_sp.\_Fw109.5 pAdjRuralUrban= 0.125



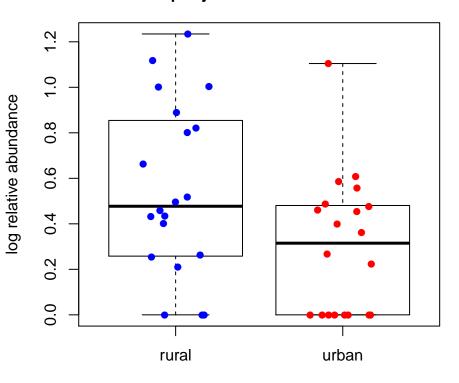
# WGS species: Cellulosilyticum\_lentocellum pAdjRuralUrban= 0.125



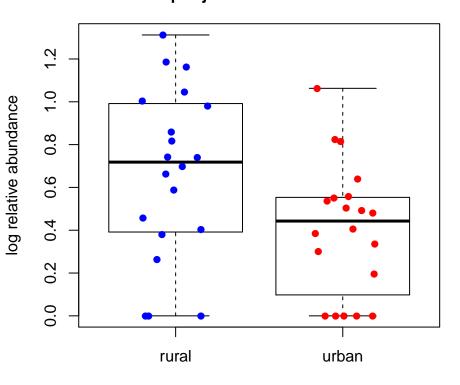
# WGS species: Staphylococcus\_carnosus pAdjRuralUrban= 0.128



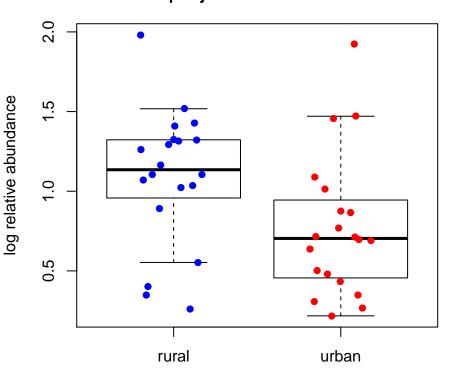
# WGS species: Psychromonas\_ingrahamii pAdjRuralUrban= 0.128



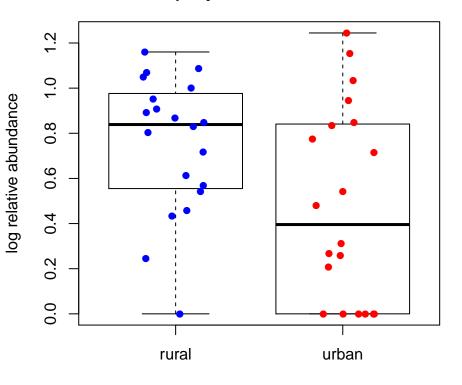
# WGS species: Brachybacterium\_faecium pAdjRuralUrban= 0.128



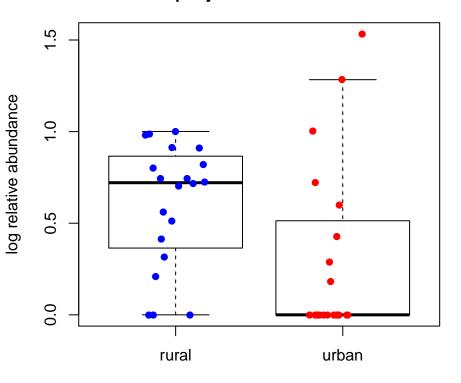
# WGS species: Alicyclobacillus\_acidocaldarius pAdjRuralUrban= 0.129



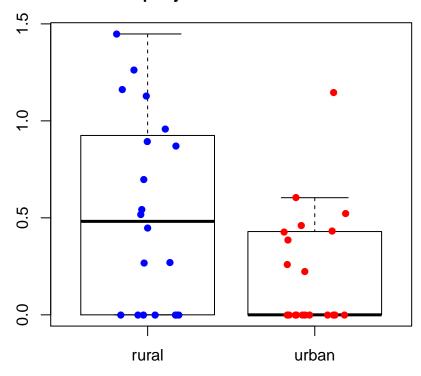
# WGS species: Desulfatibacillum\_alkenivorans pAdjRuralUrban= 0.13



# WGS species: Marinithermus\_hydrothermalis pAdjRuralUrban= 0.13

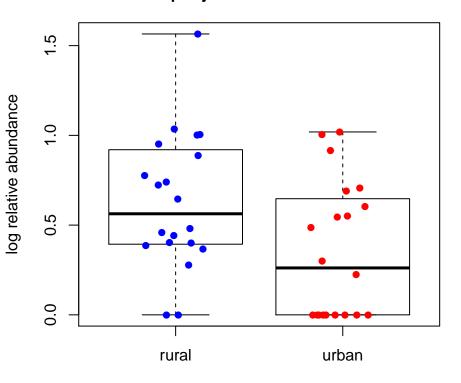


# WGS species: Mycoplasma\_mobile pAdjRuralUrban= 0.131

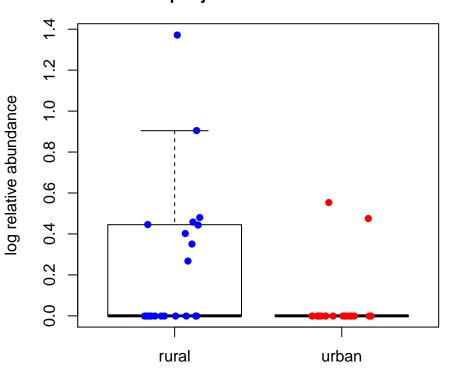


log relative abundance

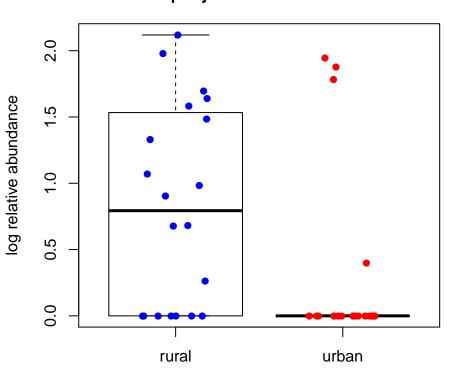
# WGS species: Flavobacterium\_columnare pAdjRuralUrban= 0.131



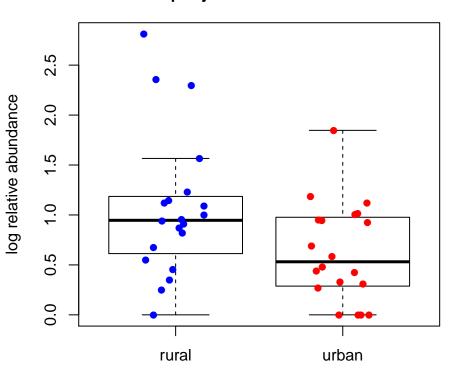
# WGS species: Methylotenera\_mobilis pAdjRuralUrban= 0.132



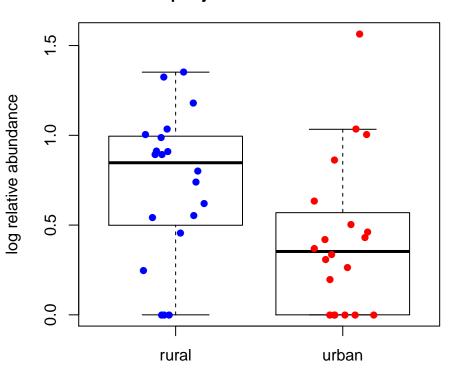
WGS species: Aster\_yellows\_witches..broom\_phytoplasma pAdjRuralUrban= 0.132



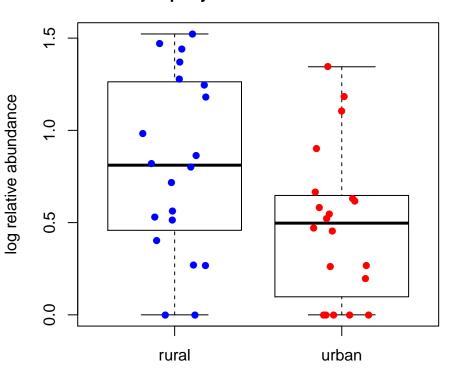
# WGS species: Lactobacillus\_reuteri pAdjRuralUrban= 0.132



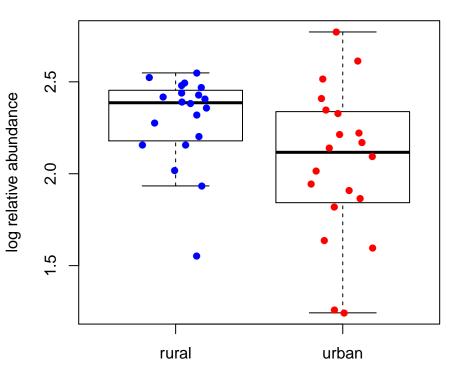
# WGS species: Streptococcus\_uberis pAdjRuralUrban= 0.132



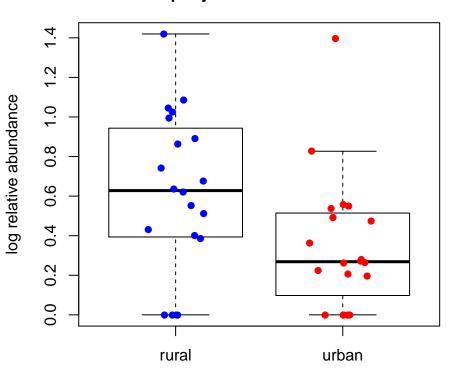
# WGS species: Propionibacterium\_freudenreichii pAdjRuralUrban= 0.134



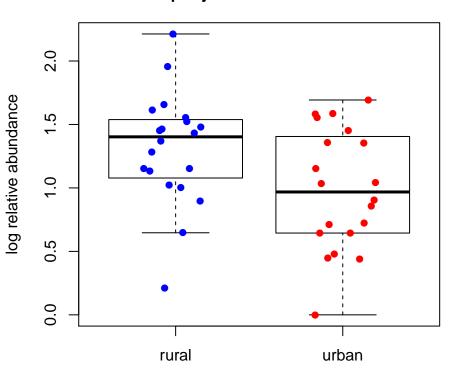
# WGS species: Butyrivibrio\_proteoclasticus pAdjRuralUrban= 0.135



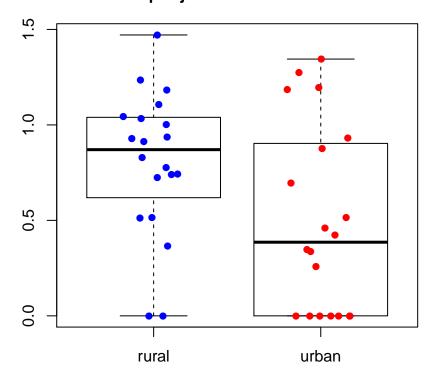
#### WGS species: Rhodospirillum\_photometricum pAdjRuralUrban= 0.135



# WGS species: Variovorax\_paradoxus pAdjRuralUrban= 0.136

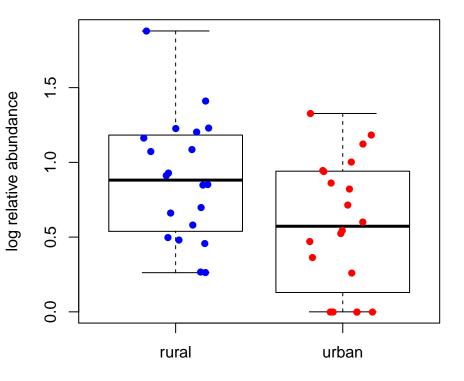


# WGS species: Burkholderia\_sp.\_CCGE1002 pAdjRuralUrban= 0.138

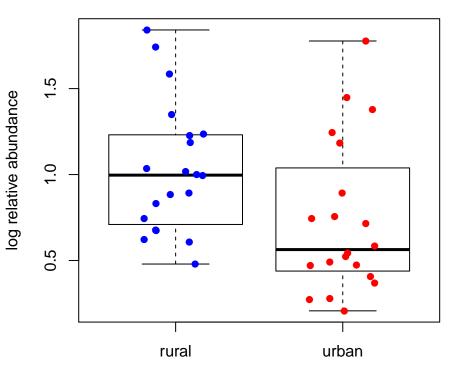


log relative abundance

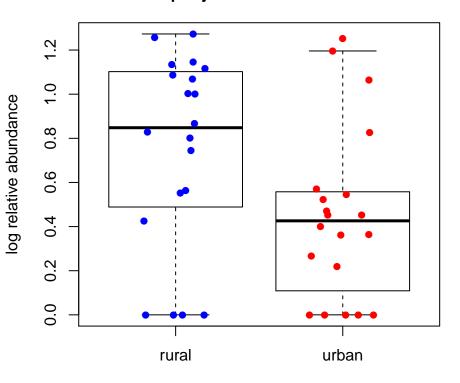
# WGS species: Candidatus\_Solibacter\_usitatus pAdjRuralUrban= 0.14



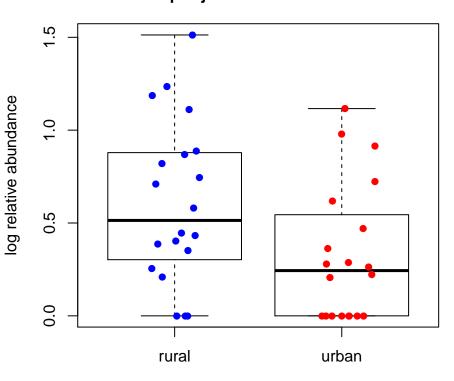
# WGS species: Caldanaerobacter\_subterraneus pAdjRuralUrban= 0.14



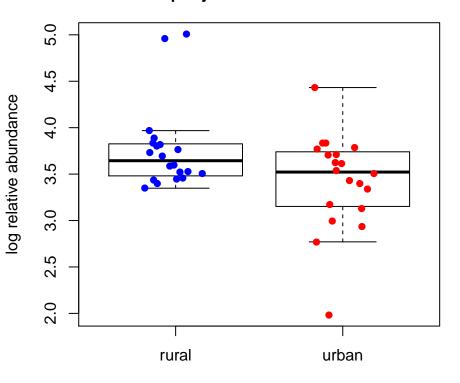
# WGS species: Streptococcus\_iniae pAdjRuralUrban= 0.141



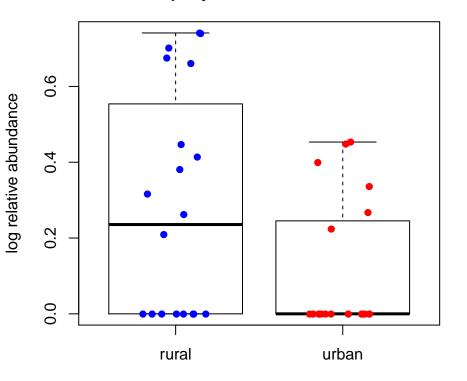
# WGS species: Cyanobacterium\_stanieri pAdjRuralUrban= 0.141



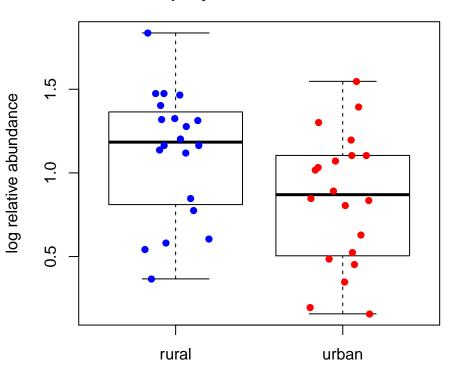
# WGS species: Bifidobacterium\_bifidum pAdjRuralUrban= 0.143



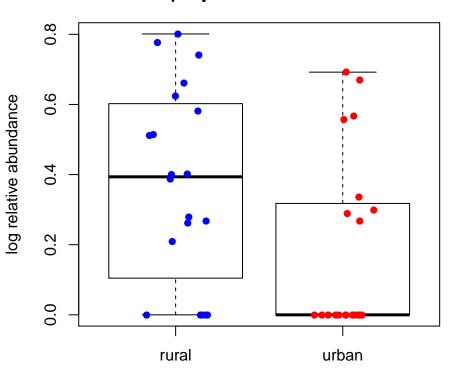
WGS species: Frankia\_symbiont\_of\_Datisca\_glomerata pAdjRuralUrban= 0.143



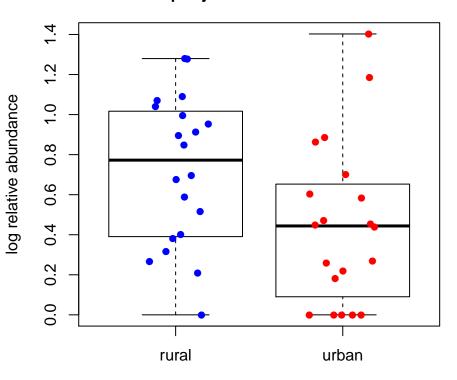
## WGS species: Acholeplasma\_brassicae pAdjRuralUrban= 0.144



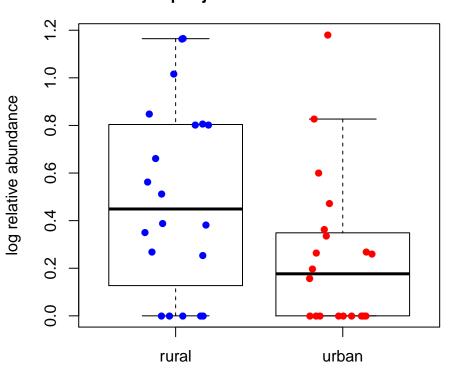
## WGS species: Mycobacterium\_kansasii pAdjRuralUrban= 0.144



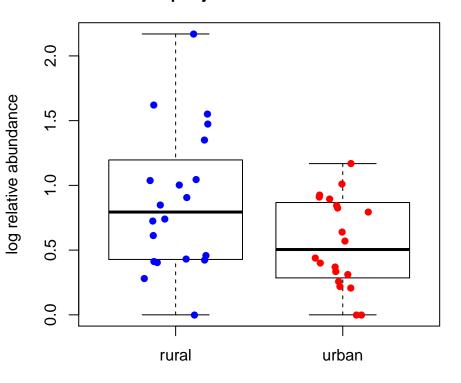
## WGS species: Kytococcus\_sedentarius pAdjRuralUrban= 0.144



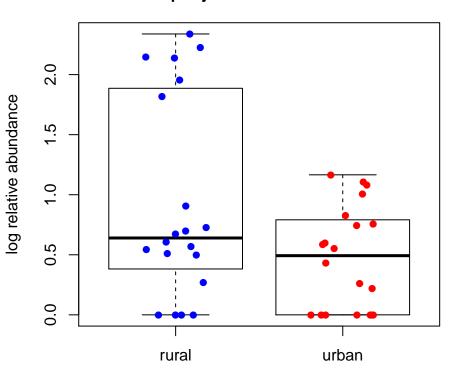
## WGS species: Bacillus\_cellulosilyticus pAdjRuralUrban= 0.144



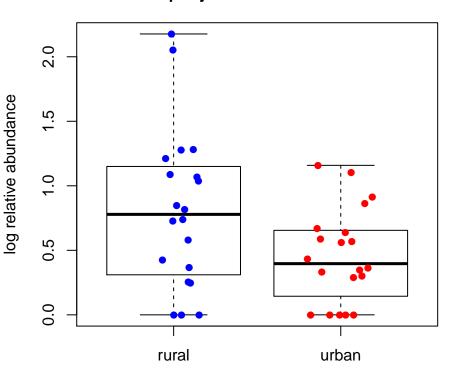
## WGS species: Desulfotomaculum\_ruminis pAdjRuralUrban= 0.144



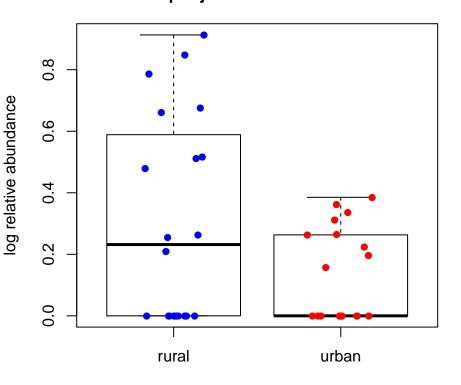
## WGS species: Tolumonas\_auensis pAdjRuralUrban= 0.145



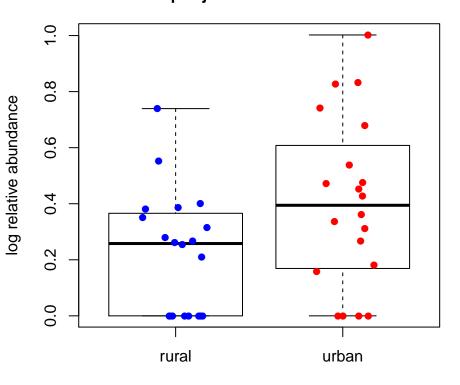
## WGS species: X.Mannheimia.\_succiniciproducens pAdjRuralUrban= 0.145



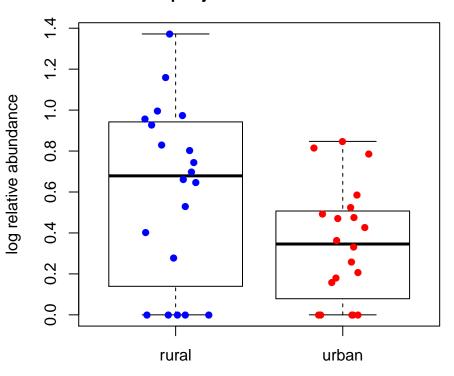
## WGS species: Candidatus\_Midichloria\_mitochondrii pAdjRuralUrban= 0.145



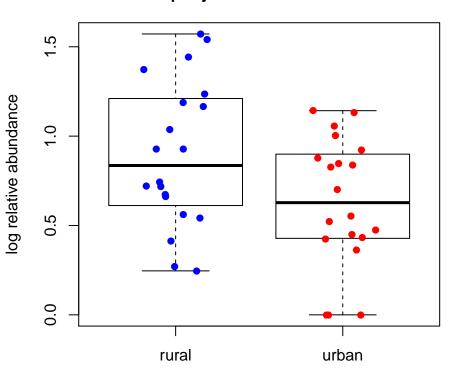
## WGS species: Corynebacterium\_efficiens pAdjRuralUrban= 0.145



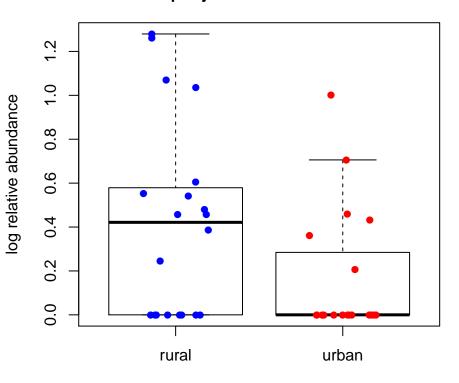
## WGS species: Verrucosispora\_maris pAdjRuralUrban= 0.145



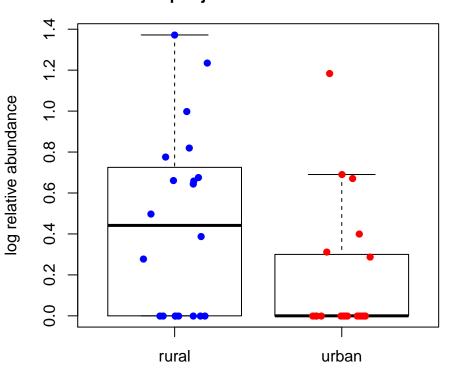
## WGS species: Propionibacterium\_acidipropionici pAdjRuralUrban= 0.145



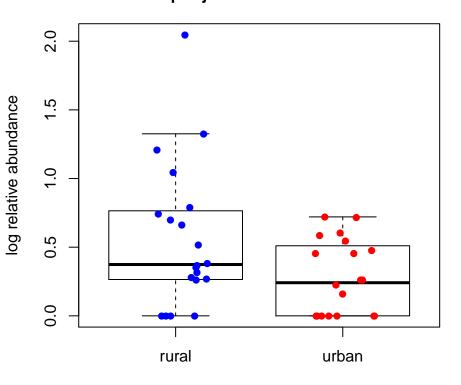
## WGS species: Methylotenera\_versatilis pAdjRuralUrban= 0.146



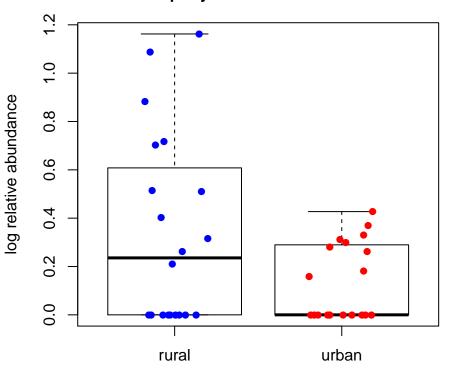
## WGS species: Verminephrobacter\_eiseniae pAdjRuralUrban= 0.146



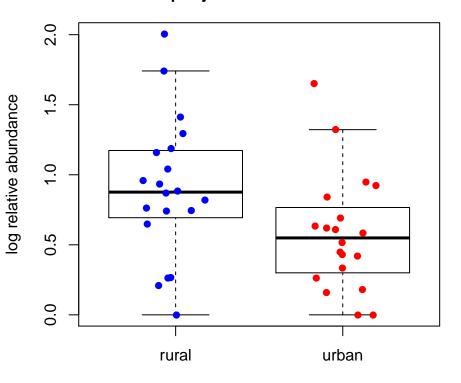
## WGS species: Pediococcus\_claussenii pAdjRuralUrban= 0.146



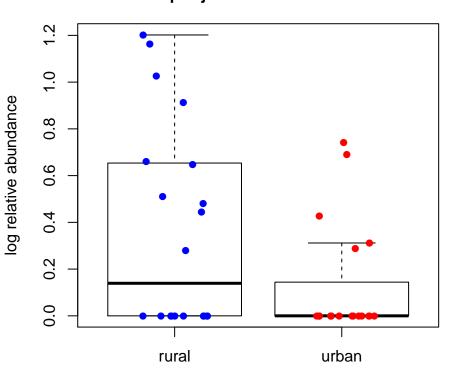
## WGS species: Methanosaeta\_concilii pAdjRuralUrban= 0.146



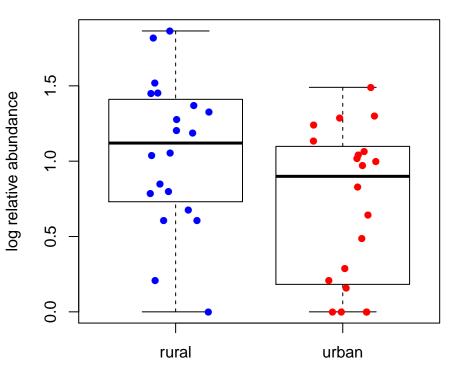
## WGS species: Acidobacterium\_capsulatum pAdjRuralUrban= 0.146



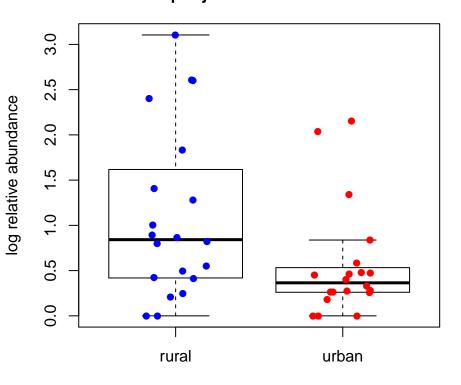
## WGS species: Komagataeibacter\_medellinensis pAdjRuralUrban= 0.147



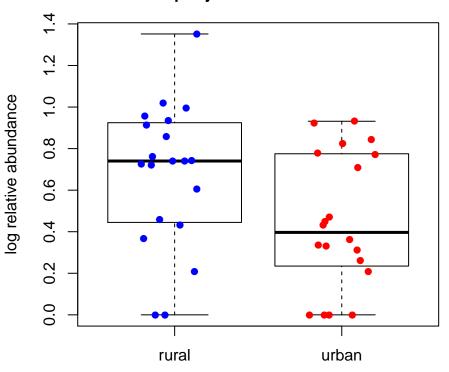
## WGS species: Asticcacaulis\_excentricus pAdjRuralUrban= 0.148



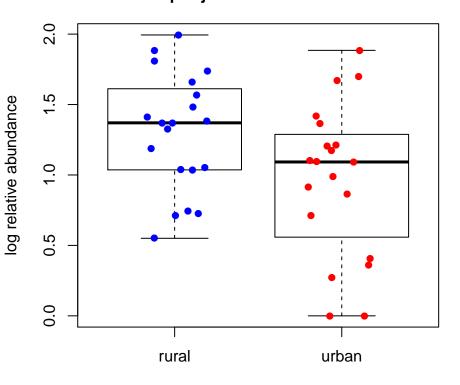
## WGS species: Lactococcus\_garvieae pAdjRuralUrban= 0.148



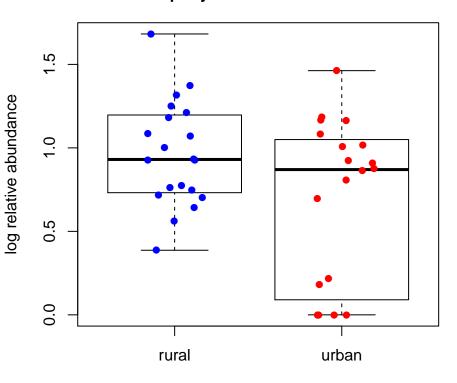
## WGS species: Delftia\_acidovorans pAdjRuralUrban= 0.15



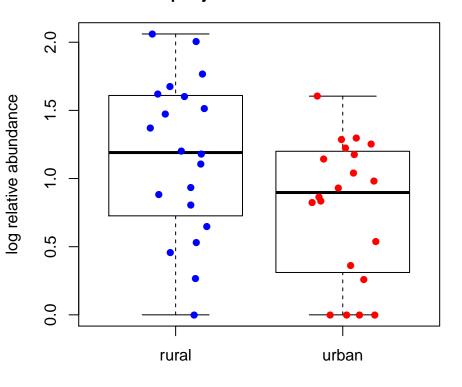
## WGS species: Fibrobacter\_succinogenes pAdjRuralUrban= 0.151



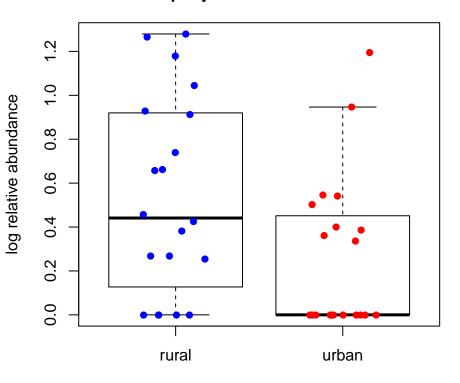
## WGS species: Roseiflexus\_castenholzii pAdjRuralUrban= 0.151



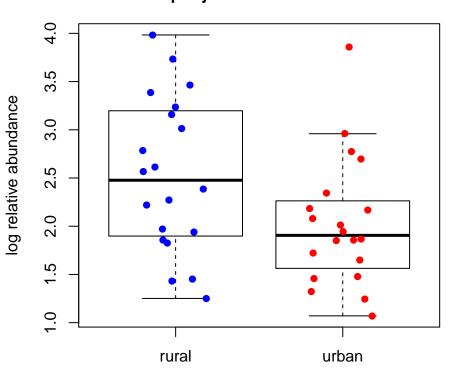
## WGS species: Lawsonia\_intracellularis pAdjRuralUrban= 0.151



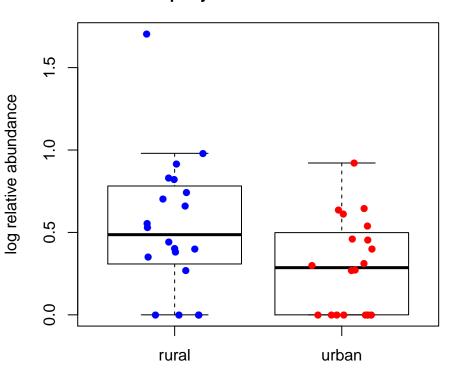
## WGS species: Desulfomonile\_tiedjei pAdjRuralUrban= 0.151



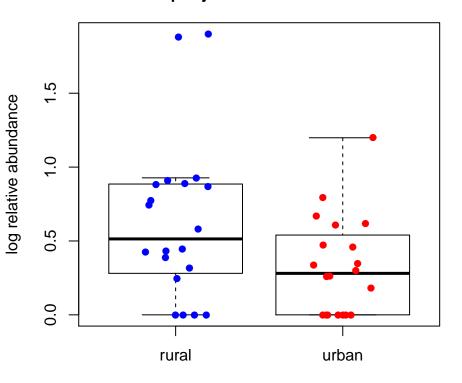
## WGS species: Streptococcus\_thermophilus pAdjRuralUrban= 0.151



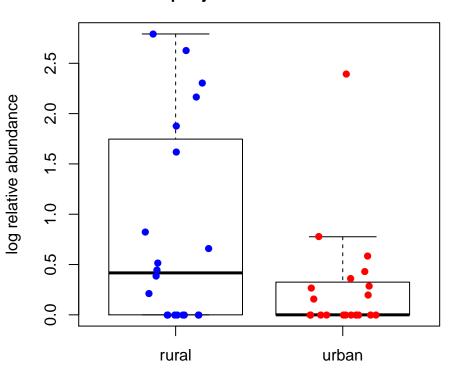
## WGS species: Actinobacillus\_succinogenes pAdjRuralUrban= 0.151



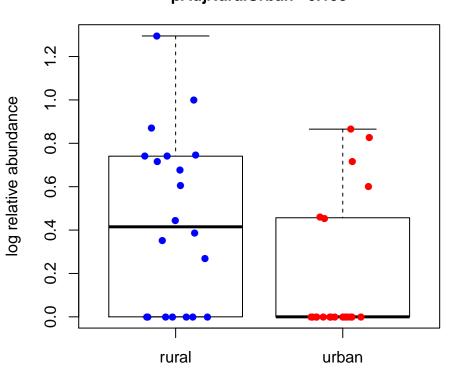
# WGS species: Enterococcus\_hirae pAdjRuralUrban= 0.153



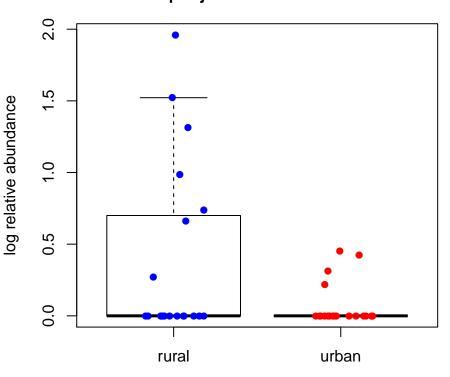
## WGS species: Cytophaga\_hutchinsonii pAdjRuralUrban= 0.153



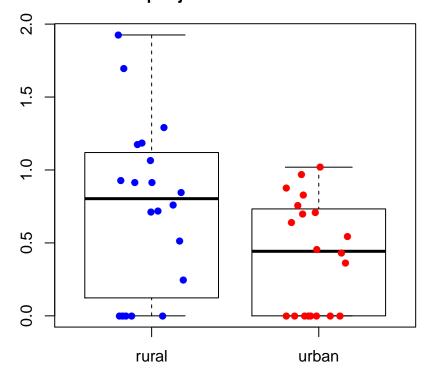
WGS species: Candidatus\_Kinetoplastibacterium\_desouza pAdjRuralUrban= 0.153



## WGS species: Shewanella\_denitrificans pAdjRuralUrban= 0.153

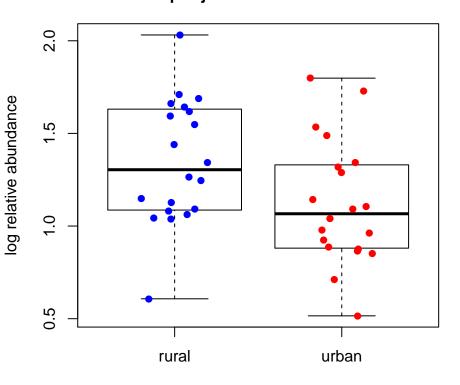


## WGS species: Bibersteinia\_trehalosi pAdjRuralUrban= 0.153

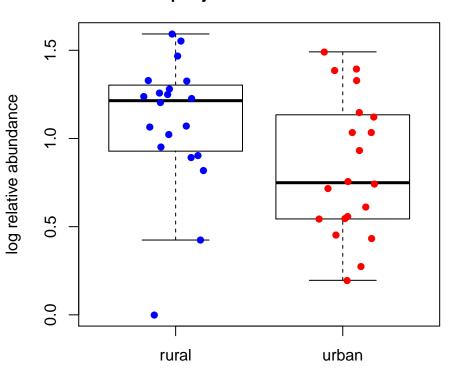


log relative abundance

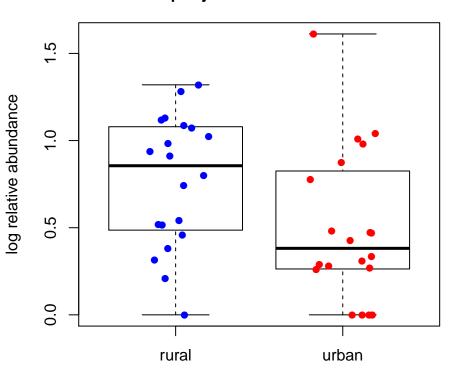
## WGS species: Propionibacterium\_propionicum pAdjRuralUrban= 0.153



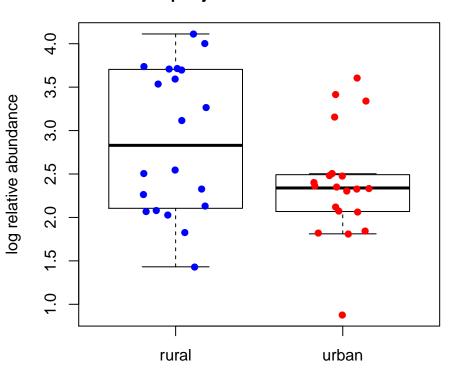
# WGS species: Gloeobacter\_violaceus pAdjRuralUrban= 0.154



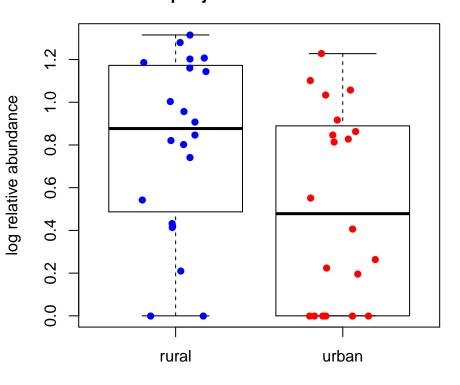
## WGS species: Streptococcus\_parauberis pAdjRuralUrban= 0.154



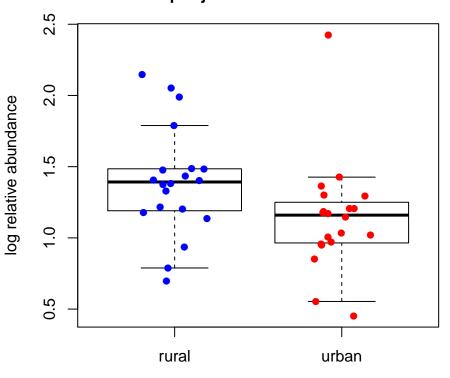
## WGS species: Prevotella\_dentalis pAdjRuralUrban= 0.154



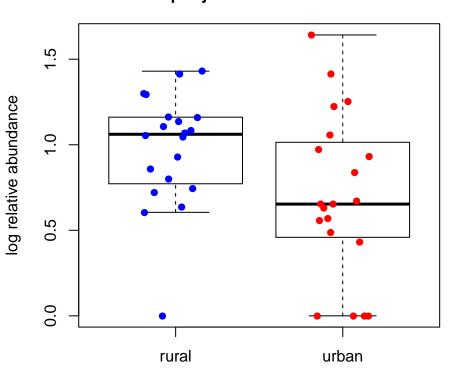
## WGS species: Azospirillum\_brasilense pAdjRuralUrban= 0.154



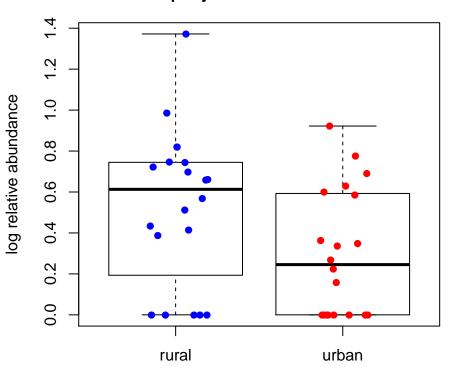
## WGS species: Erysipelothrix\_rhusiopathiae pAdjRuralUrban= 0.154



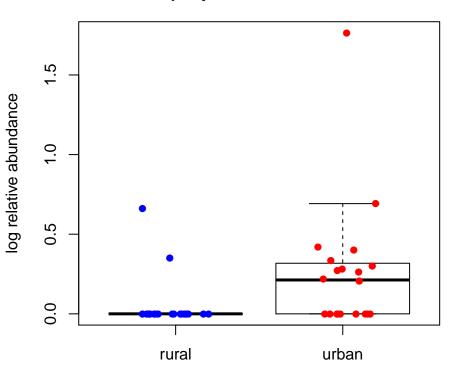
# WGS species: Treponema\_azotonutricium pAdjRuralUrban= 0.154



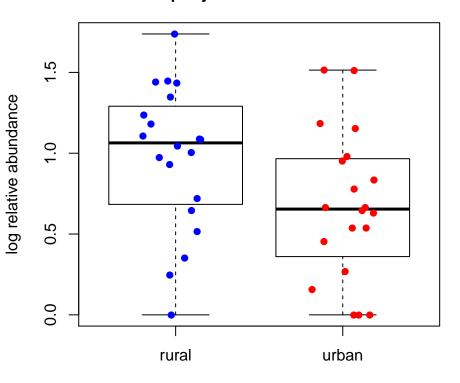
## WGS species: Sulfurovum\_sp.\_NBC37.1 pAdjRuralUrban= 0.154



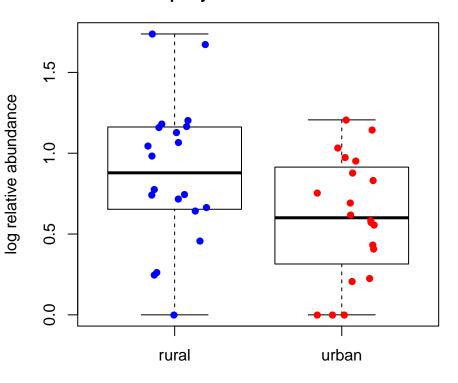
## WGS species: Beijerinckia\_indica pAdjRuralUrban= 0.156



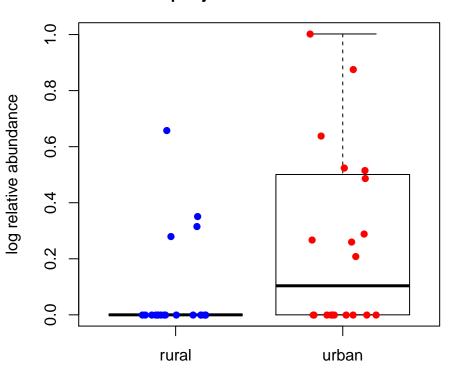
## WGS species: Rubrivivax\_gelatinosus pAdjRuralUrban= 0.156



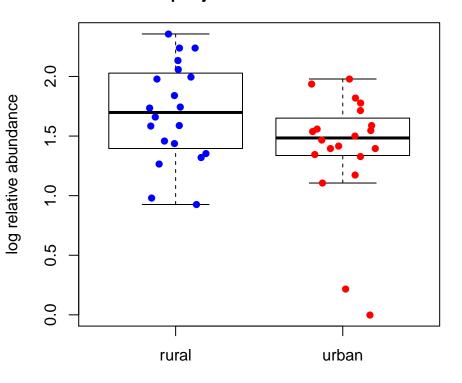
## WGS species: Desulfovibrio\_salexigens pAdjRuralUrban= 0.156



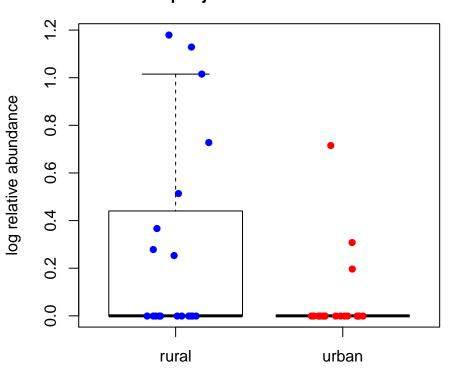
## WGS species: Thermomicrobium\_roseum pAdjRuralUrban= 0.156



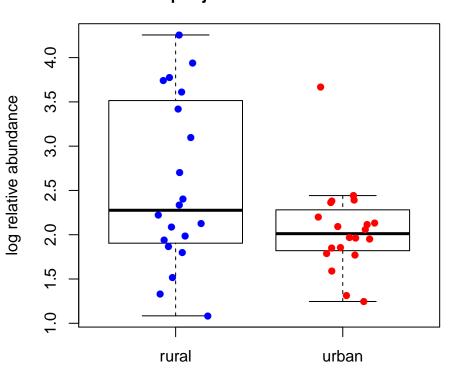
## WGS species: Fibrella\_aestuarina pAdjRuralUrban= 0.156



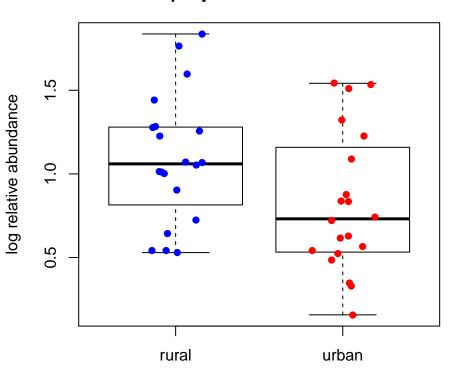
## WGS species: Acinetobacter\_calcoaceticus pAdjRuralUrban= 0.156



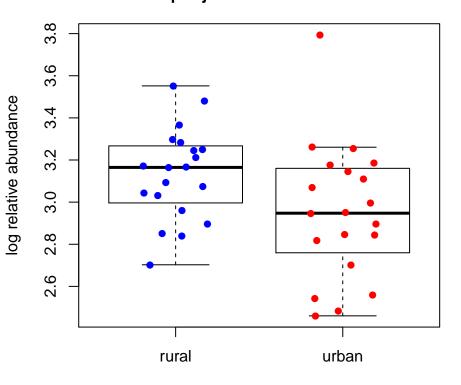
## WGS species: Porphyromonas\_gingivalis pAdjRuralUrban= 0.156



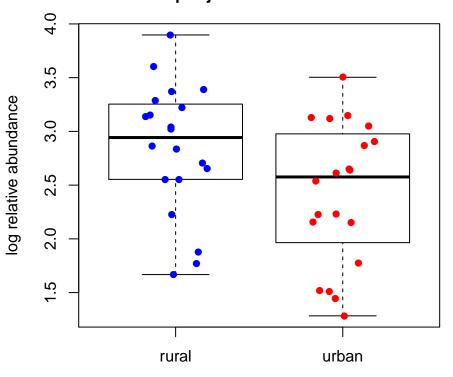
## WGS species: Cyanobium\_gracile pAdjRuralUrban= 0.158



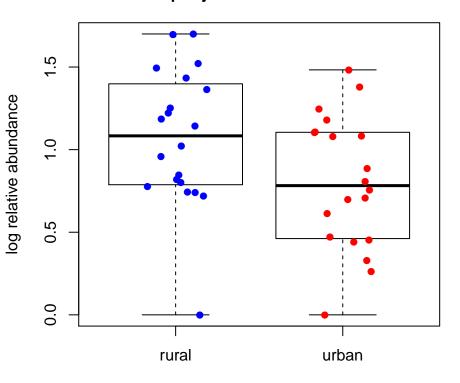
## WGS species: Faecalitalea\_cylindroides pAdjRuralUrban= 0.159



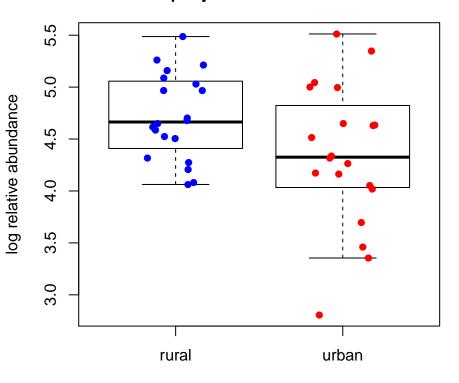
## WGS species: Ruminococcus\_champanellensis pAdjRuralUrban= 0.16



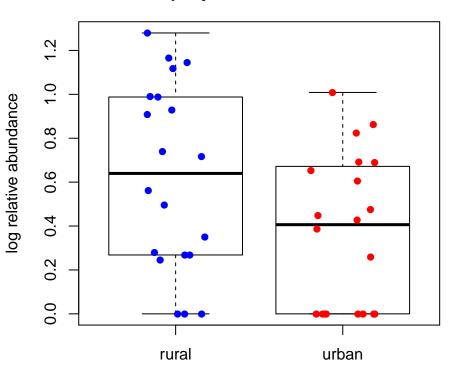
## WGS species: Azospira\_oryzae pAdjRuralUrban= 0.164



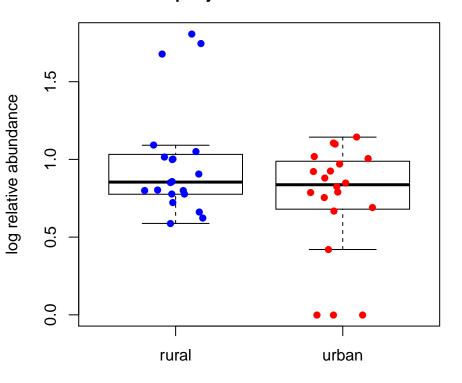
## WGS species: Roseburia\_intestinalis pAdjRuralUrban= 0.166



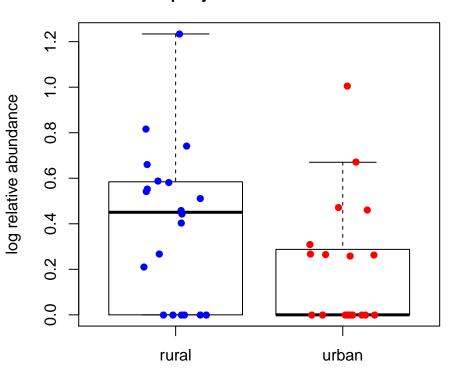
#### WGS species: Rhodobacter\_capsulatus pAdjRuralUrban= 0.167



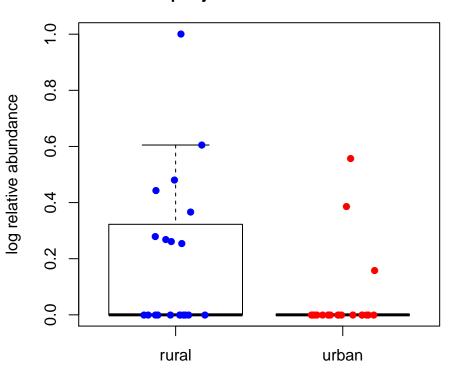
## WGS species: Bacillus\_infantis pAdjRuralUrban= 0.17



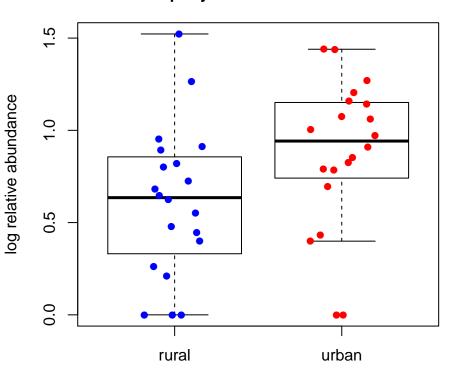
## WGS species: Jonesia\_denitrificans pAdjRuralUrban= 0.171



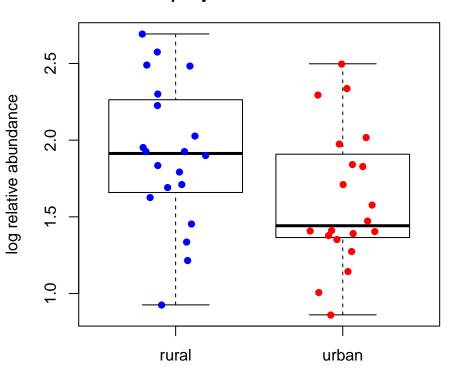
## WGS species: Arthrospira\_platensis pAdjRuralUrban= 0.173



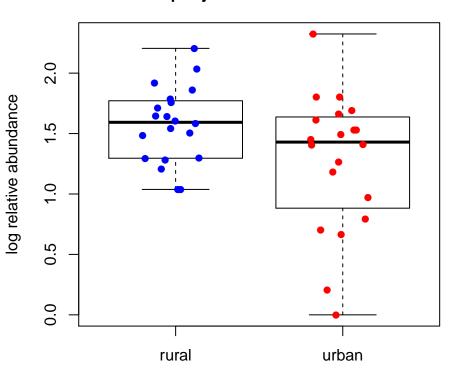
## WGS species: Planctomyces\_brasiliensis pAdjRuralUrban= 0.173



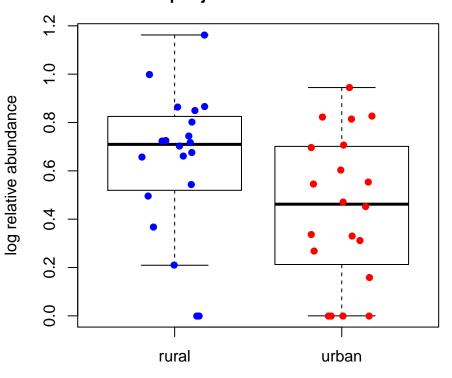
## WGS species: Histophilus\_somni pAdjRuralUrban= 0.174



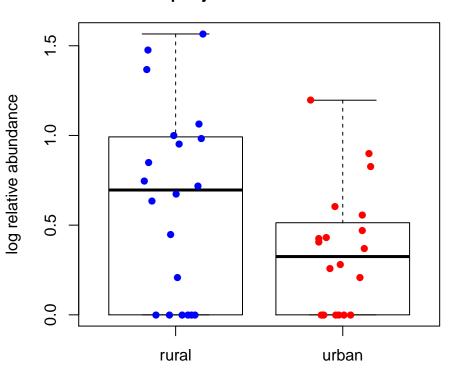
## WGS species: Zymomonas\_mobilis pAdjRuralUrban= 0.174



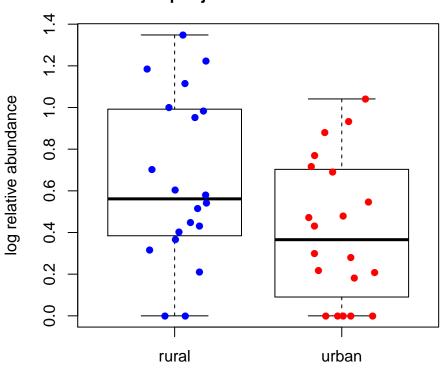
## WGS species: Blastococcus\_saxobsidens pAdjRuralUrban= 0.176



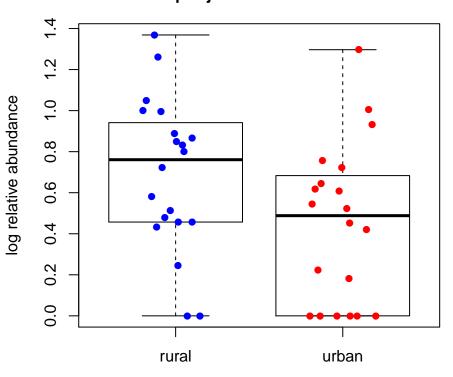
## WGS species: Lacinutrix\_sp.\_5H.3.7.4 pAdjRuralUrban= 0.177



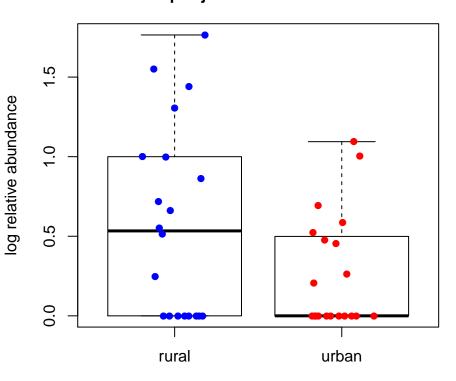
#### WGS species: Propionibacterium\_avidum pAdjRuralUrban= 0.178



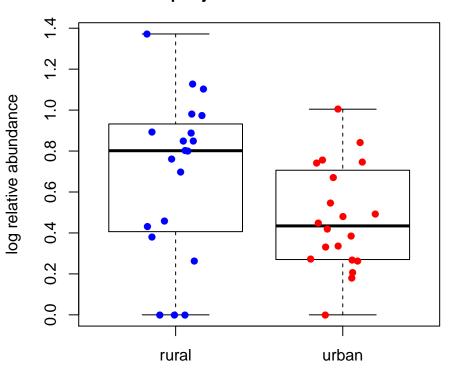
## WGS species: Halanaerobium\_praevalens pAdjRuralUrban= 0.18



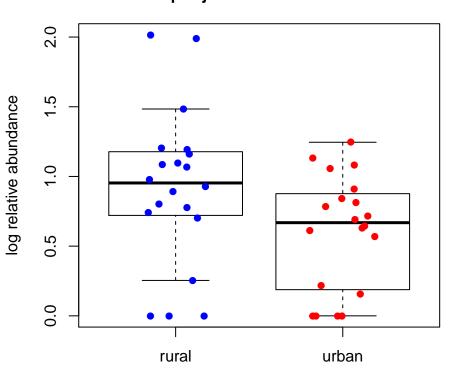
# WGS species: Thermobifida\_fusca pAdjRuralUrban= 0.181



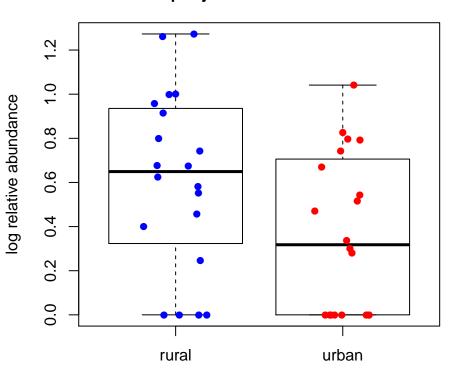
## WGS species: Thermus\_scotoductus pAdjRuralUrban= 0.183



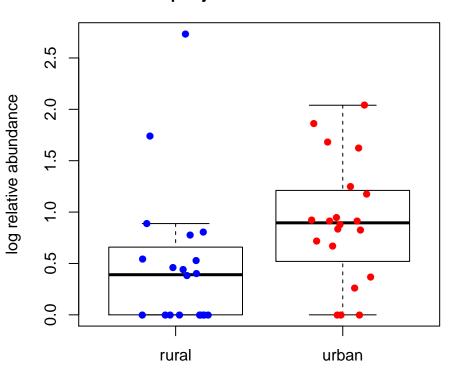
## WGS species: Laribacter\_hongkongensis pAdjRuralUrban= 0.183



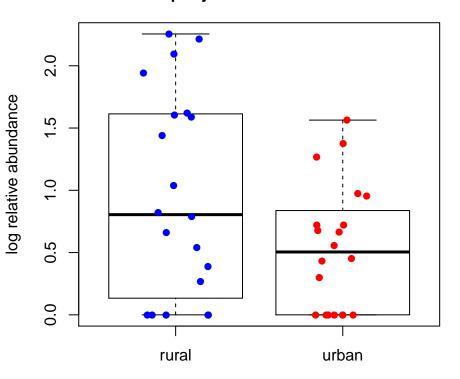
## WGS species: Gemmatimonas\_aurantiaca pAdjRuralUrban= 0.184



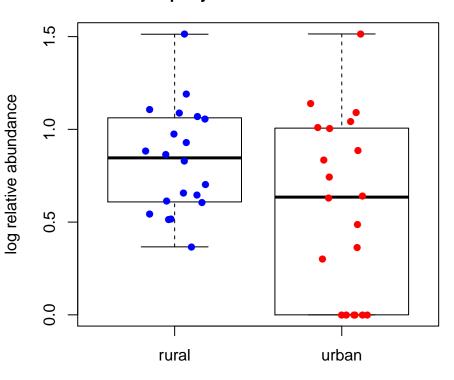
## WGS species: Leuconostoc\_citreum pAdjRuralUrban= 0.184



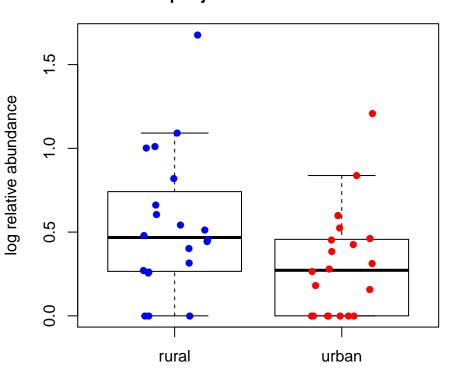
## WGS species: Shewanella\_loihica pAdjRuralUrban= 0.184



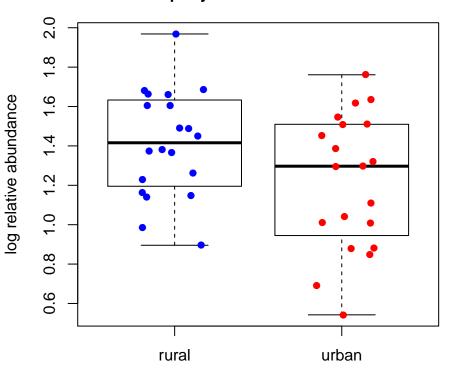
## WGS species: Polymorphum\_gilvum pAdjRuralUrban= 0.185



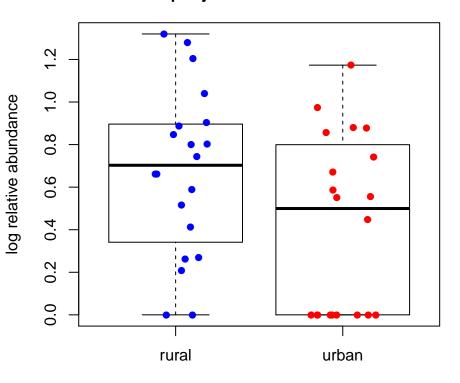
## WGS species: Nocardiopsis\_dassonvillei pAdjRuralUrban= 0.185



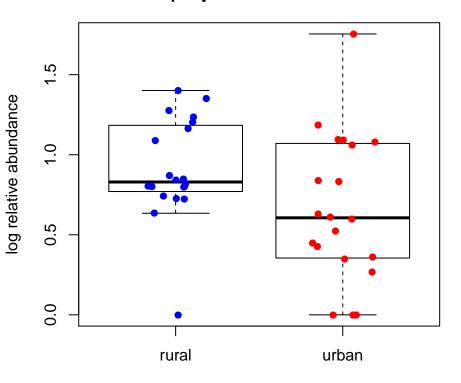
#### WGS species: Paenibacillus\_terrae pAdjRuralUrban= 0.185



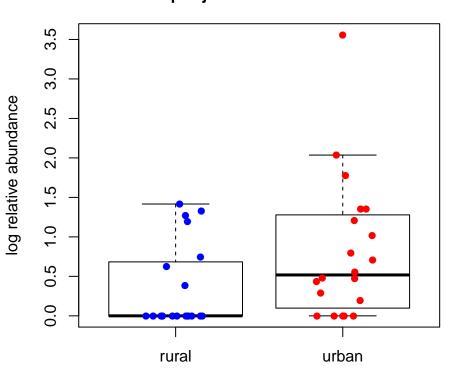
## WGS species: Geobacter\_daltonii pAdjRuralUrban= 0.185



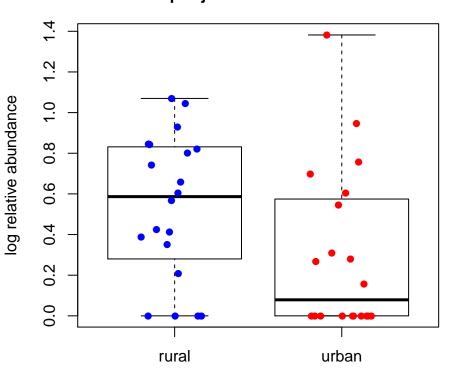
### WGS species: Alkalilimnicola\_ehrlichii pAdjRuralUrban= 0.185



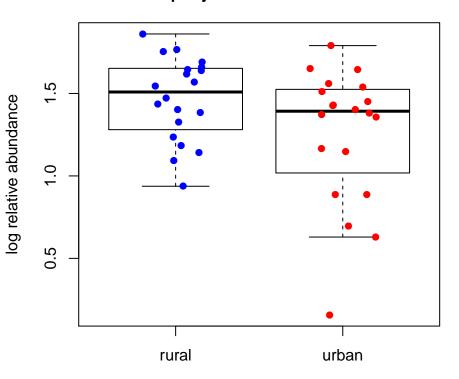
### WGS species: Enterobacteria\_phage\_P1 pAdjRuralUrban= 0.185



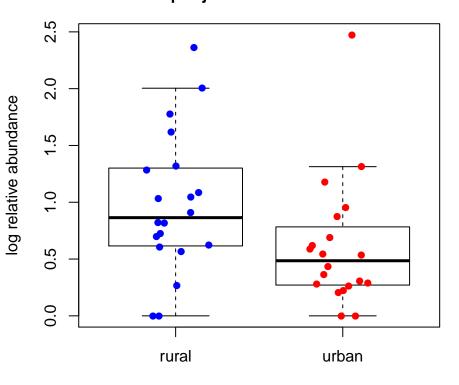
### WGS species: Burkholderia\_cenocepacia pAdjRuralUrban= 0.186



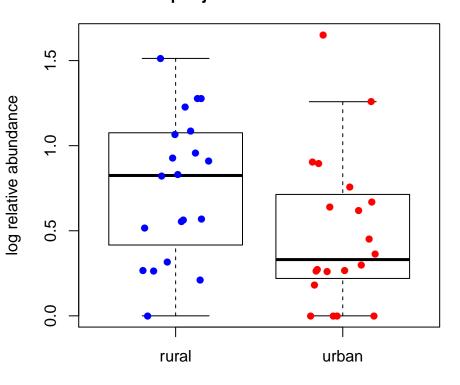
### WGS species: Desulfovibrio\_gigas pAdjRuralUrban= 0.186



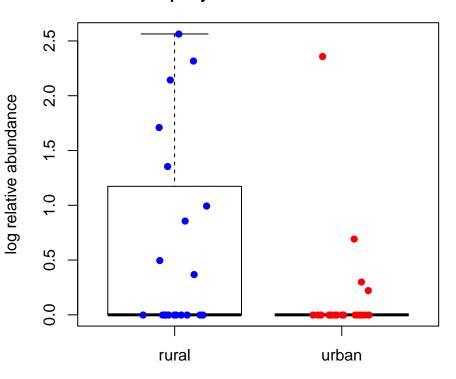
## WGS species: Solitalea\_canadensis pAdjRuralUrban= 0.187



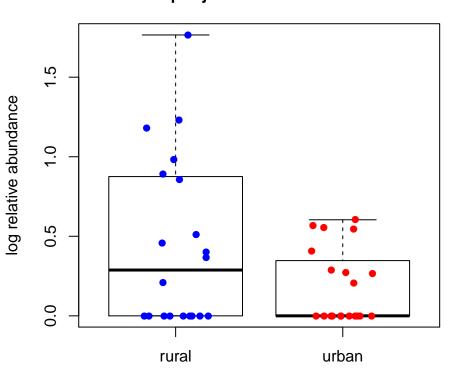
### WGS species: Microbacterium\_testaceum pAdjRuralUrban= 0.188



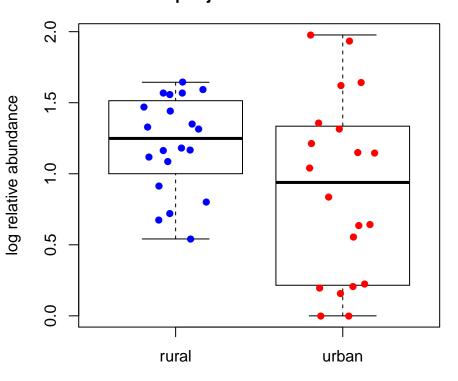
### WGS species: Acaryochloris\_marina pAdjRuralUrban= 0.188



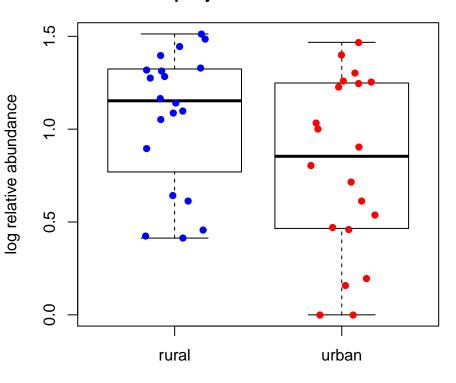
### WGS species: Acidithiobacillus\_caldus pAdjRuralUrban= 0.189



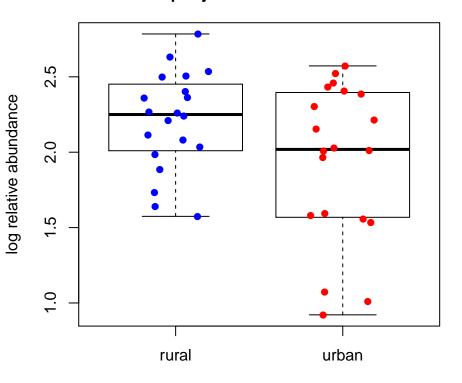
### WGS species: Sphaerochaeta\_globosa pAdjRuralUrban= 0.19



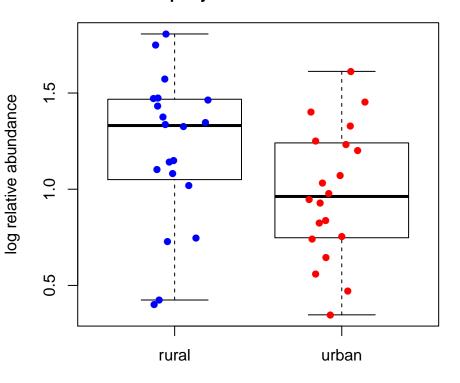
### WGS species: Desulfovibrio\_aespoeensis pAdjRuralUrban= 0.19



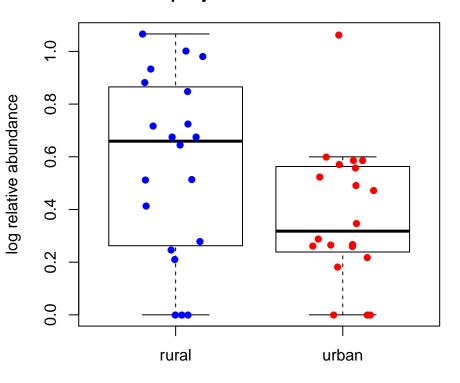
### WGS species: Ethanoligenens\_harbinense pAdjRuralUrban= 0.193



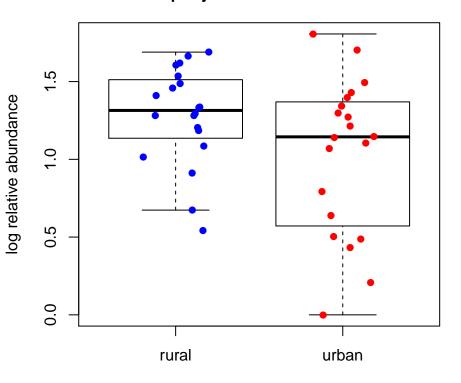
# WGS species: Brevibacillus\_brevis pAdjRuralUrban= 0.194



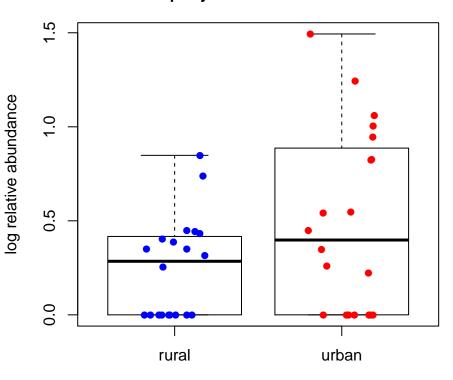
### WGS species: Leifsonia\_xyli pAdjRuralUrban= 0.194



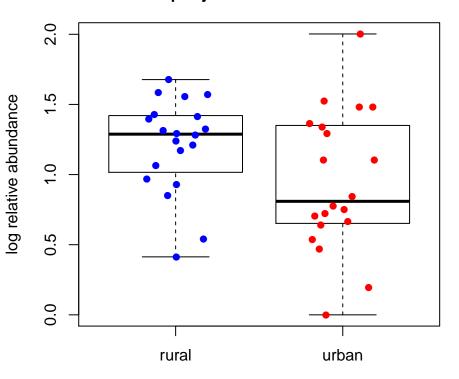
### WGS species: Desulfovibrio\_magneticus pAdjRuralUrban= 0.195



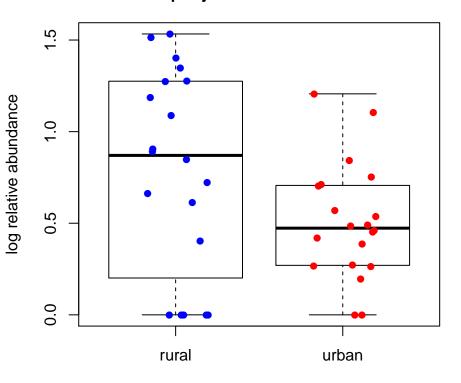
### WGS species: Streptomyces\_albus pAdjRuralUrban= 0.195



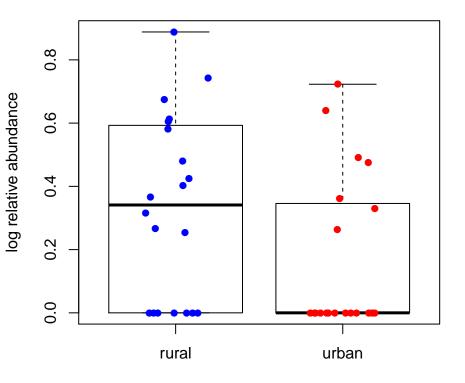
### WGS species: Ralstonia\_solanacearum pAdjRuralUrban= 0.195



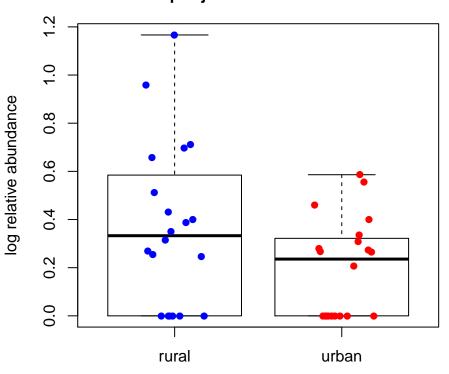
### WGS species: Thermincola\_potens pAdjRuralUrban= 0.196



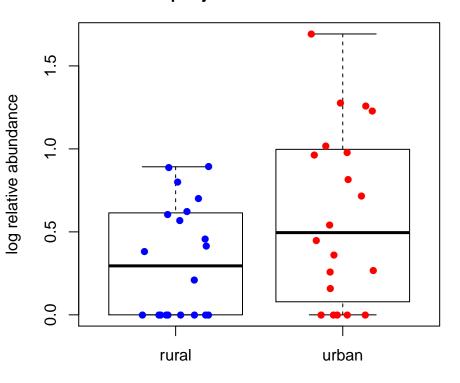
### WGS species: Janthinobacterium\_sp.\_Marseille pAdjRuralUrban= 0.196



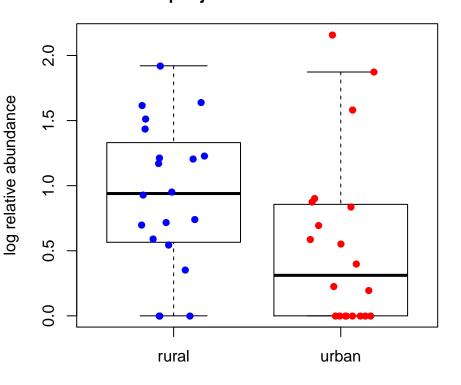
### WGS species: Dictyoglomus\_thermophilum pAdjRuralUrban= 0.198



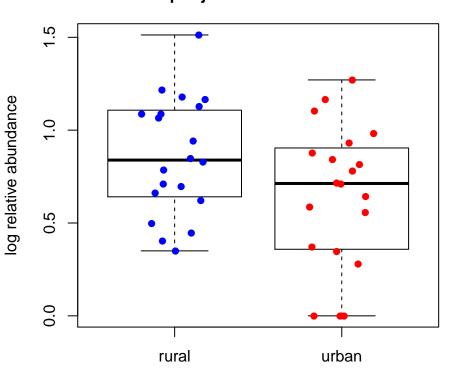
## WGS species: Streptomyces\_hygroscopicus pAdjRuralUrban= 0.198



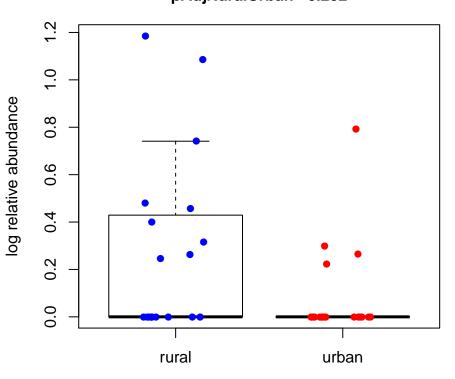
### WGS species: Aggregatibacter\_actinomycetemcomitans pAdjRuralUrban= 0.198



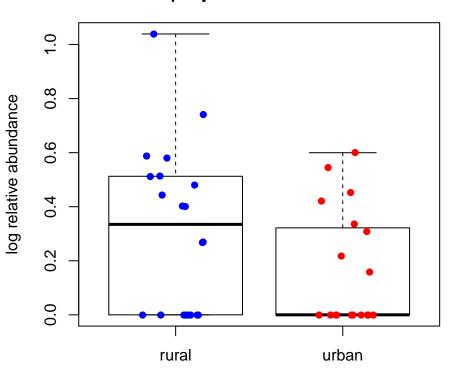
### WGS species: Cupriavidus\_metallidurans pAdjRuralUrban= 0.202



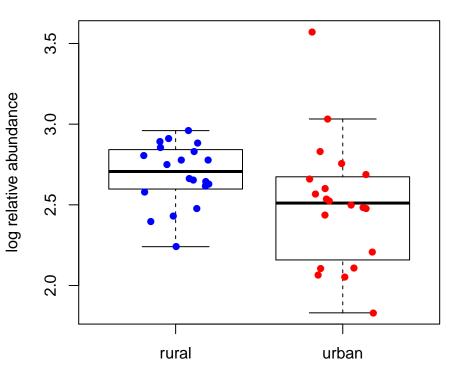
WGS species: Geobacillus\_sp.\_JF8 pAdjRuralUrban= 0.202



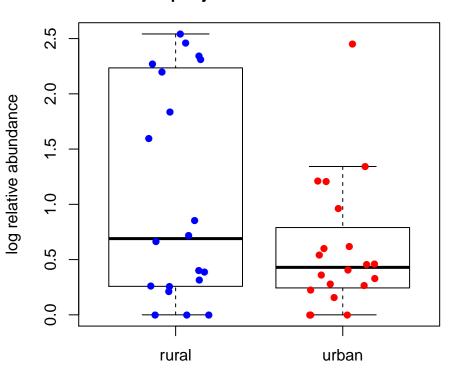
### WGS species: Bacteriovorax\_marinus pAdjRuralUrban= 0.202



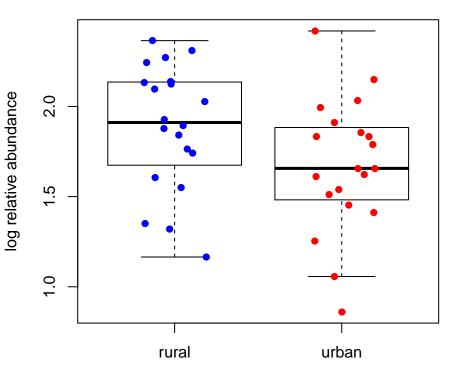
### WGS species: Clostridium\_sp.\_SY8519 pAdjRuralUrban= 0.203



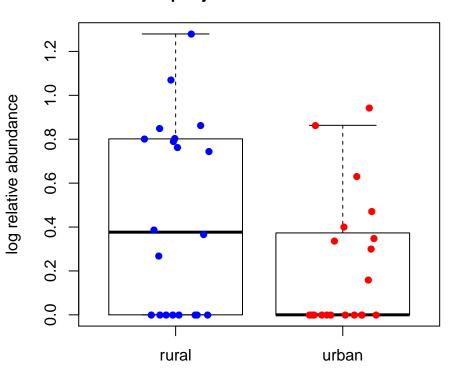
### WGS species: Photorhabdus\_luminescens pAdjRuralUrban= 0.205



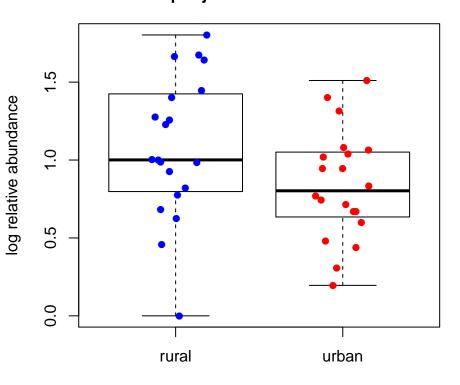
### WGS species: Treponema\_succinifaciens pAdjRuralUrban= 0.205



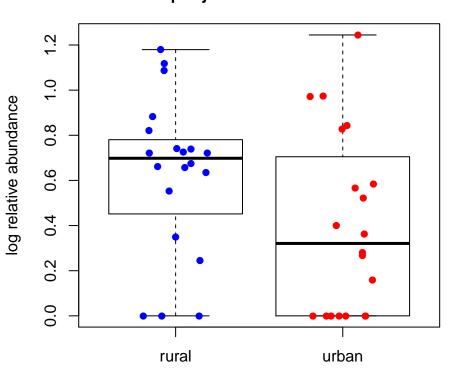
### WGS species: Gallibacterium\_anatis pAdjRuralUrban= 0.205



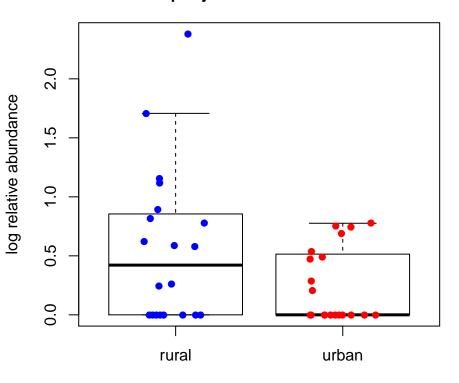
### WGS species: Streptococcus\_agalactiae pAdjRuralUrban= 0.205



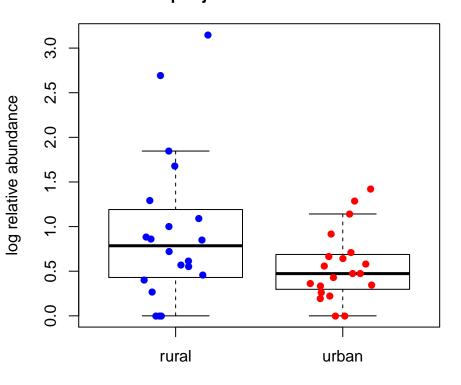
### WGS species: Cupriavidus\_taiwanensis pAdjRuralUrban= 0.205



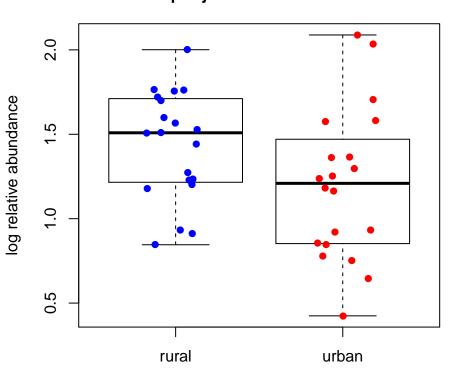
## WGS species: Pedobacter\_heparinus pAdjRuralUrban= 0.205



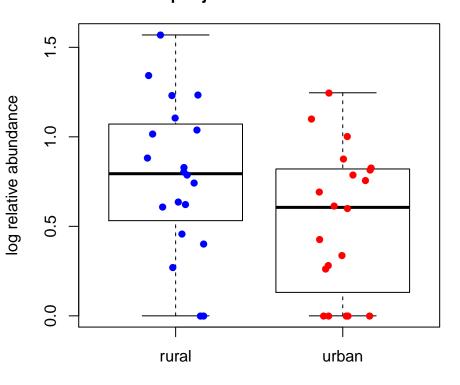
### WGS species: Streptococcus\_macedonicus pAdjRuralUrban= 0.205



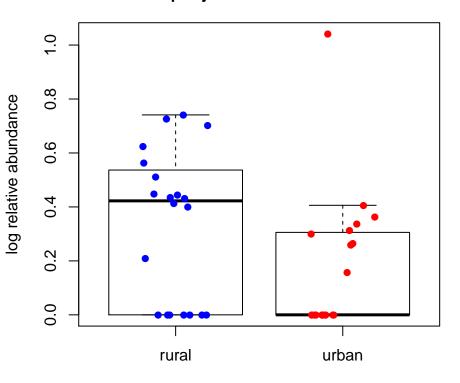
### WGS species: Clostridium\_beijerinckii pAdjRuralUrban= 0.206



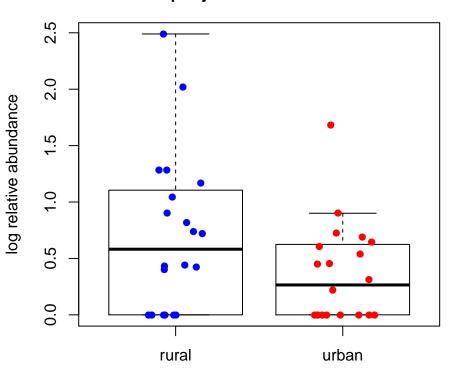
### WGS species: Lysinibacillus\_sphaericus pAdjRuralUrban= 0.206



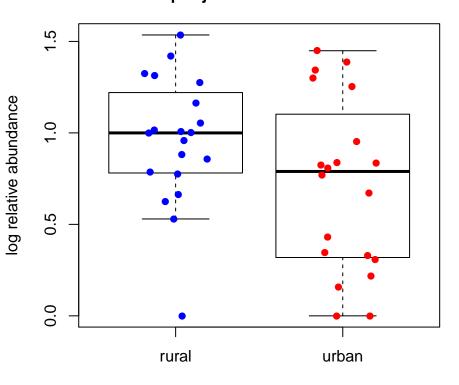
### WGS species: Methanosarcina\_barkeri pAdjRuralUrban= 0.206



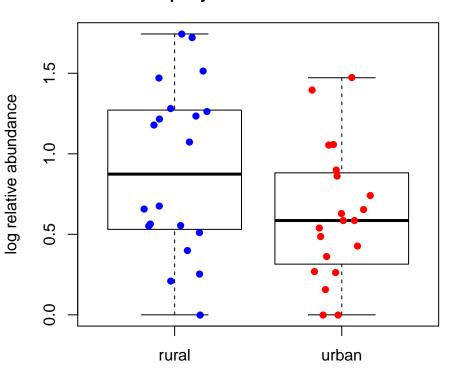
### WGS species: Campylobacter\_hominis pAdjRuralUrban= 0.208



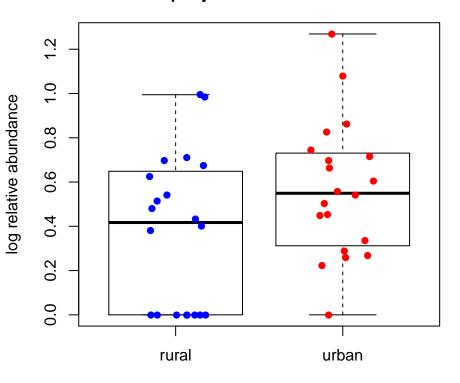
## WGS species: Burkholderia\_sp.\_YI23 pAdjRuralUrban= 0.208



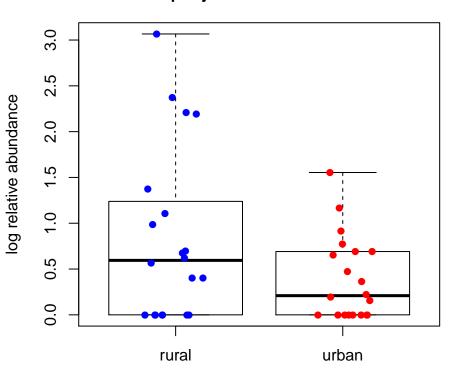
## WGS species: Novosphingobium\_sp.\_PP1Y pAdjRuralUrban= 0.208



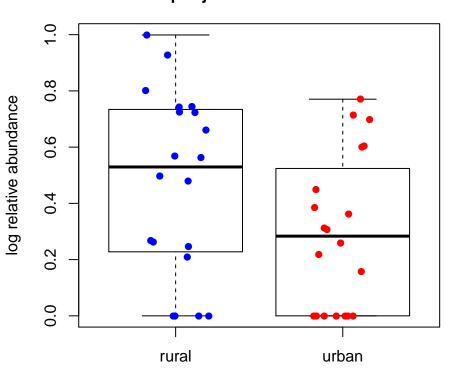
## WGS species: Anabaena\_sp.\_90 pAdjRuralUrban= 0.208



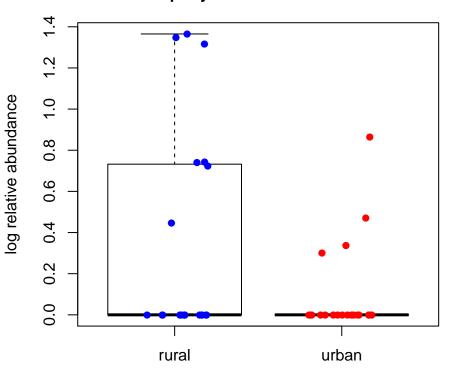
## WGS species: Proteus\_mirabilis pAdjRuralUrban= 0.208



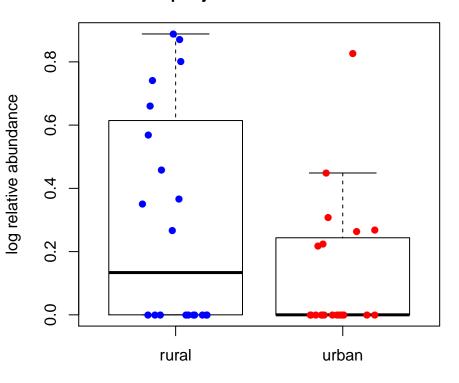
## WGS species: Corynebacterium\_resistens pAdjRuralUrban= 0.208



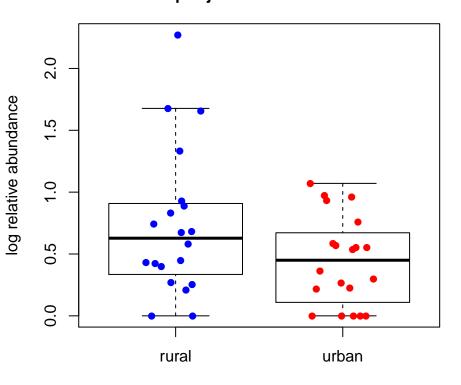
## WGS species: Shewanella\_oneidensis pAdjRuralUrban= 0.208



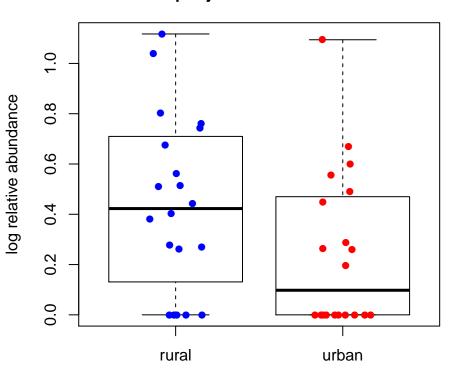
## WGS species: Mycoplasma\_mycoides pAdjRuralUrban= 0.208



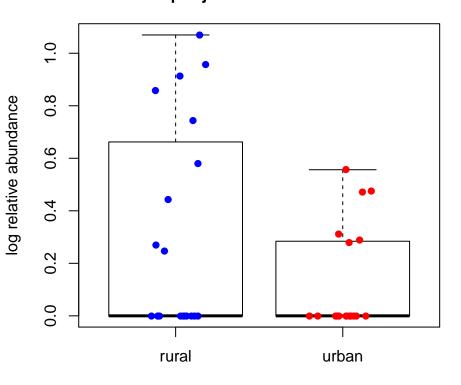
## WGS species: Lactobacillus\_acidophilus pAdjRuralUrban= 0.21



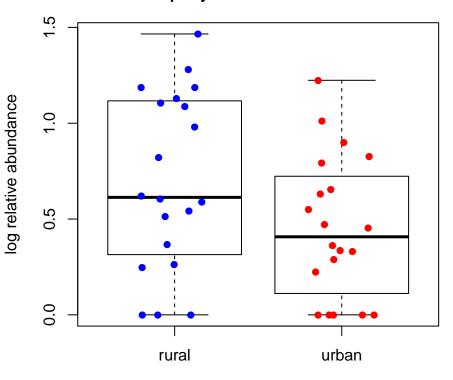
# WGS species: Turneriella\_parva pAdjRuralUrban= 0.21



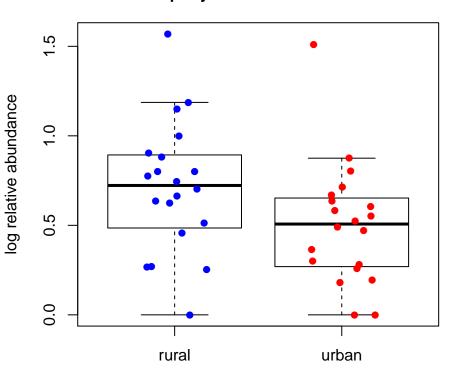
## WGS species: Octadecabacter\_arcticus pAdjRuralUrban= 0.211



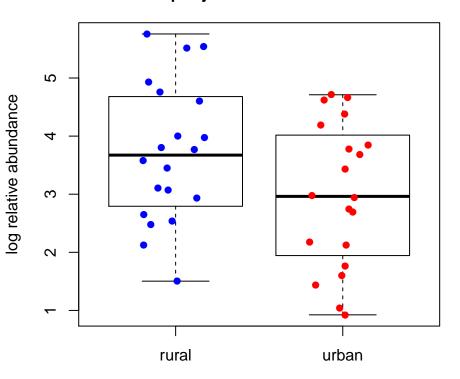
## WGS species: Mannheimia\_haemolytica pAdjRuralUrban= 0.211



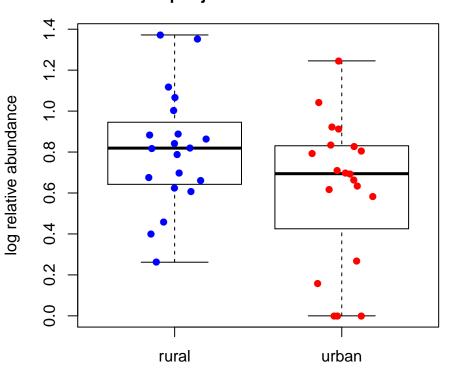
## WGS species: Candidatus\_Desulforudis\_audaxviator pAdjRuralUrban= 0.211



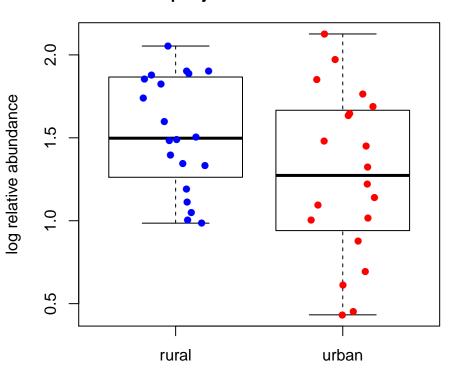
## WGS species: Klebsiella\_pneumoniae pAdjRuralUrban= 0.212



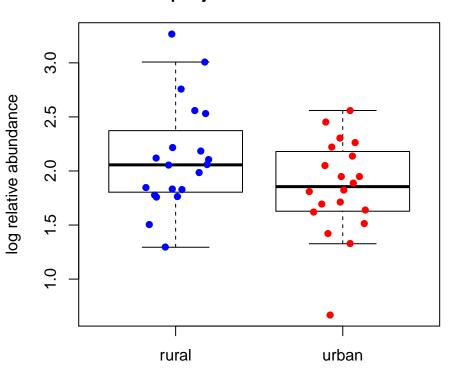
## WGS species: Bacillus\_thuringiensis pAdjRuralUrban= 0.212



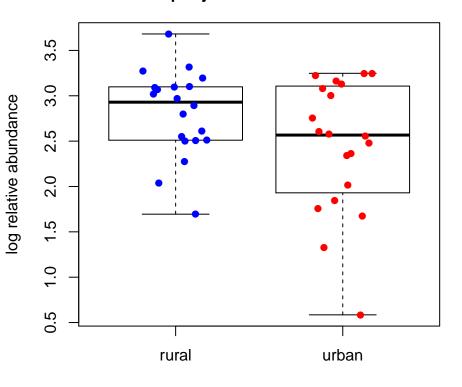
## WGS species: Fretibacterium\_fastidiosum pAdjRuralUrban= 0.212



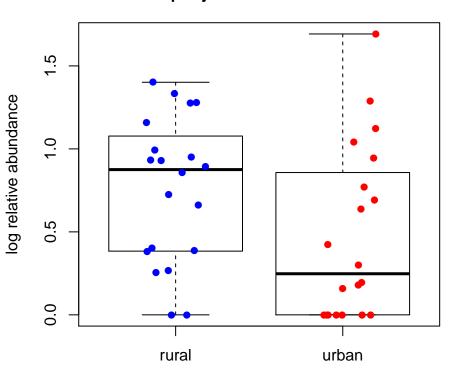
## WGS species: Bifidobacterium\_breve pAdjRuralUrban= 0.212



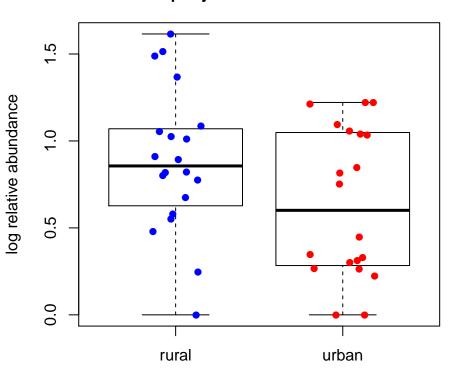
## WGS species: Gordonibacter\_pamelaeae pAdjRuralUrban= 0.214



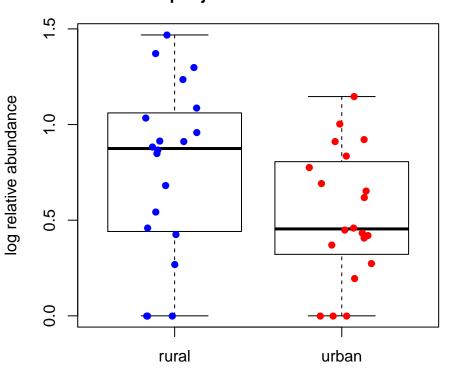
## WGS species: Methylobacillus\_flagellatus pAdjRuralUrban= 0.214



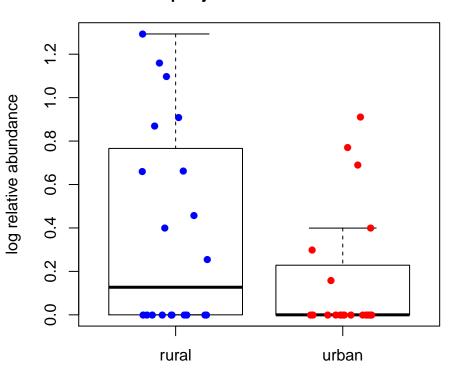
# WGS species: Gottschalkia\_acidurici pAdjRuralUrban= 0.214



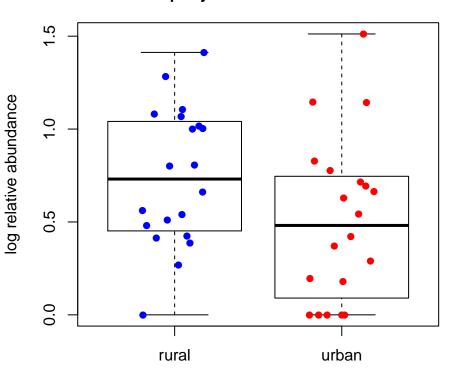
## WGS species: Xylanimonas\_cellulosilytica pAdjRuralUrban= 0.214



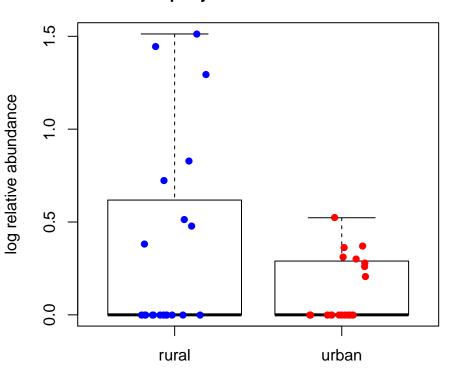
## WGS species: Synechococcus\_sp.\_WH\_7803 pAdjRuralUrban= 0.215



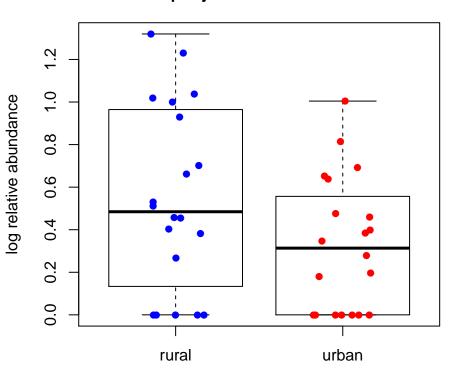
## WGS species: Acetohalobium\_arabaticum pAdjRuralUrban= 0.218



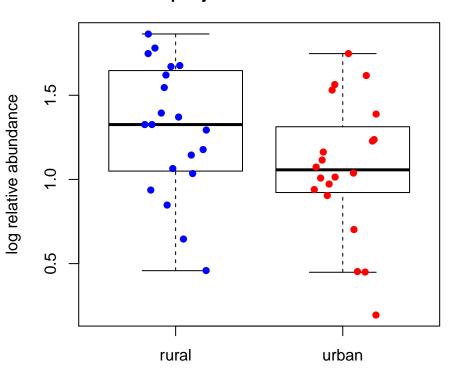
## WGS species: Terriglobus\_saanensis pAdjRuralUrban= 0.218



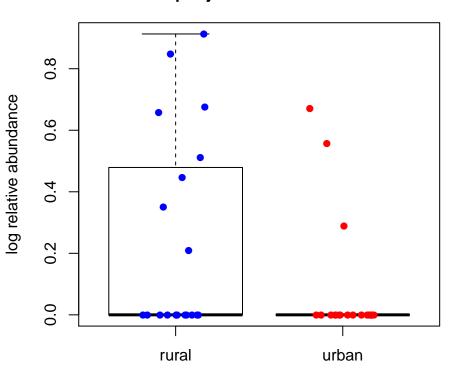
## WGS species: Tsukamurella\_paurometabola pAdjRuralUrban= 0.218



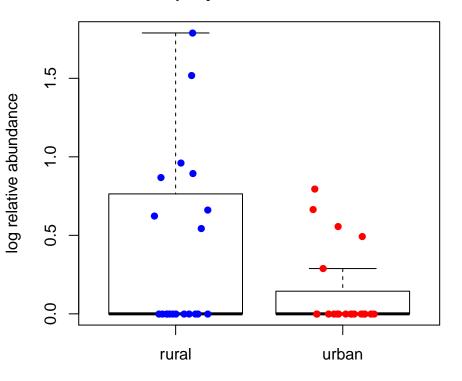
## WGS species: Clostridium\_pasteurianum pAdjRuralUrban= 0.218



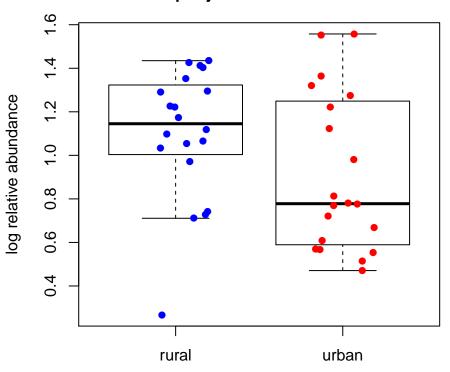
## WGS species: Thermosediminibacter\_oceani pAdjRuralUrban= 0.22



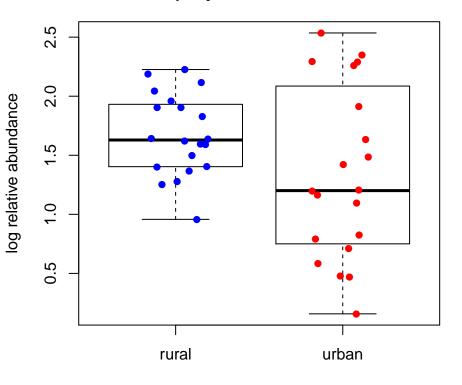
## WGS species: Pseudoalteromonas\_haloplanktis pAdjRuralUrban= 0.22



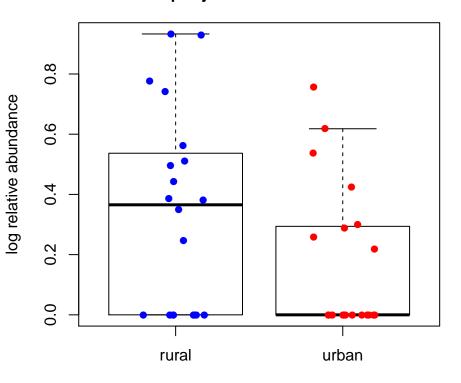
## WGS species: Kyrpidia\_tusciae pAdjRuralUrban= 0.22



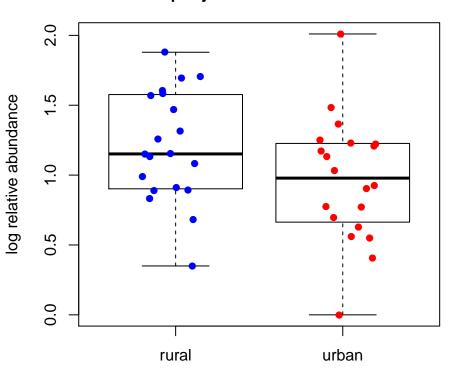
## WGS species: Desulfotomaculum\_kuznetsovii pAdjRuralUrban= 0.22



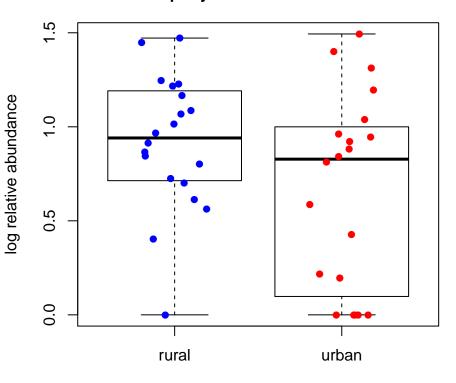
## WGS species: Rivularia\_sp.\_PCC\_7116 pAdjRuralUrban= 0.221



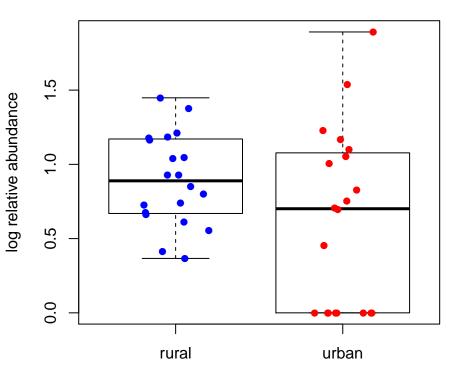
## WGS species: Magnetospirillum\_magneticum pAdjRuralUrban= 0.221



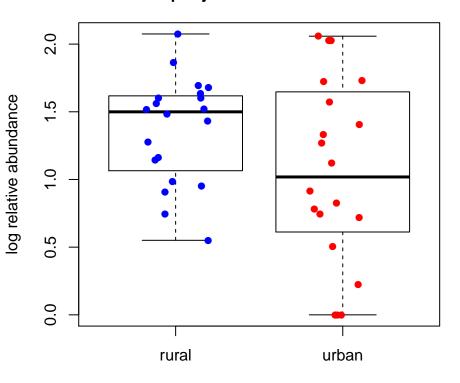
## WGS species: Hyphomicrobium\_denitrificans pAdjRuralUrban= 0.221



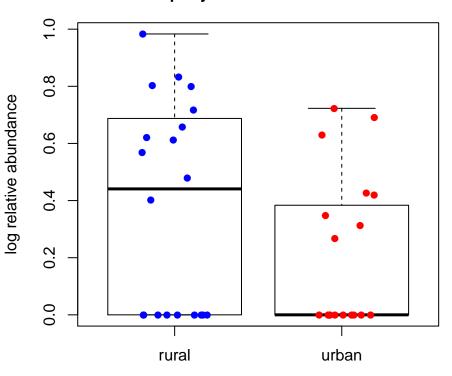
## WGS species: Burkholderia\_phymatum pAdjRuralUrban= 0.221



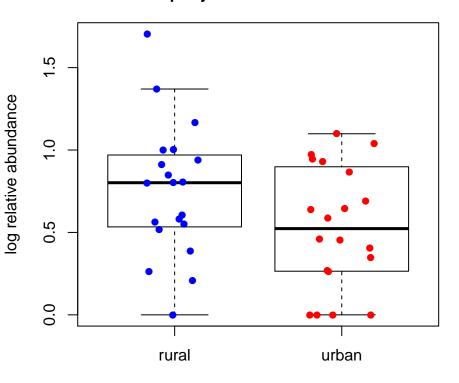
## WGS species: Aeromonas\_veronii pAdjRuralUrban= 0.222



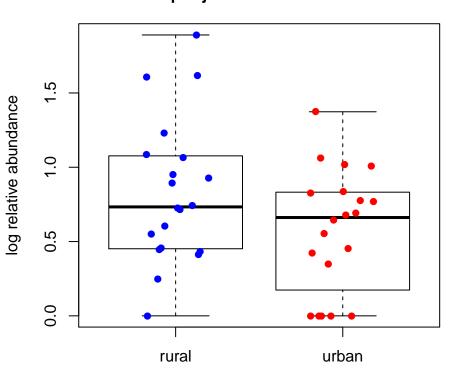
## WGS species: Arcobacter\_butzleri pAdjRuralUrban= 0.222



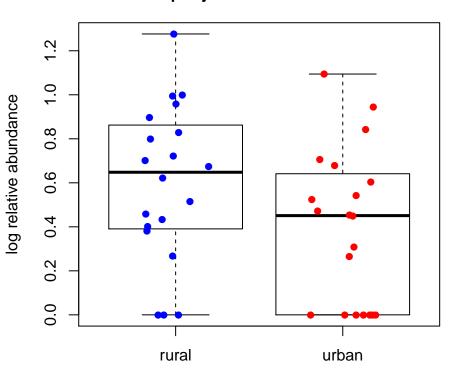
## WGS species: Terriglobus\_roseus pAdjRuralUrban= 0.223



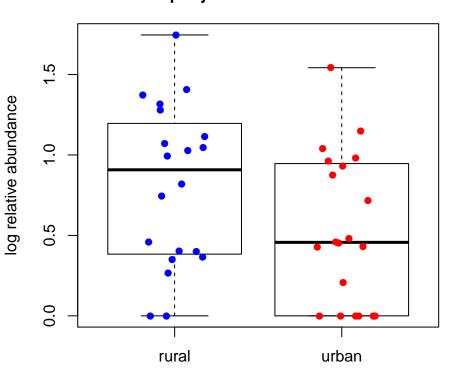
# WGS species: Marinobacter\_hydrocarbonoclasticus pAdjRuralUrban= 0.223



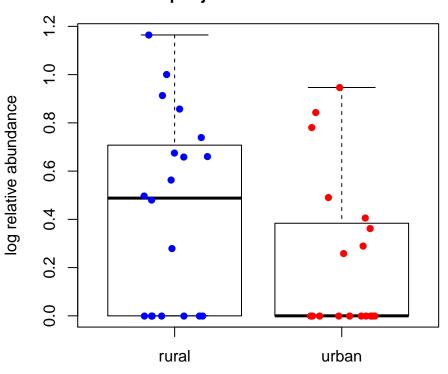
WGS species: Delftia\_sp.\_Cs1.4 pAdjRuralUrban= 0.226



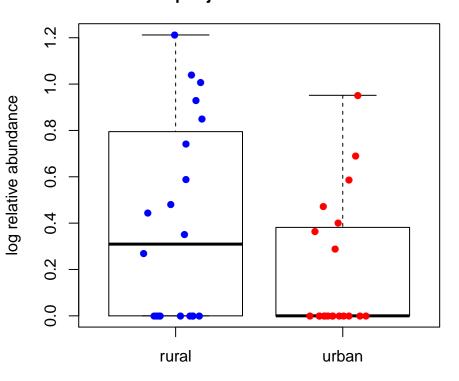
# WGS species: Deinococcus\_radiodurans pAdjRuralUrban= 0.226



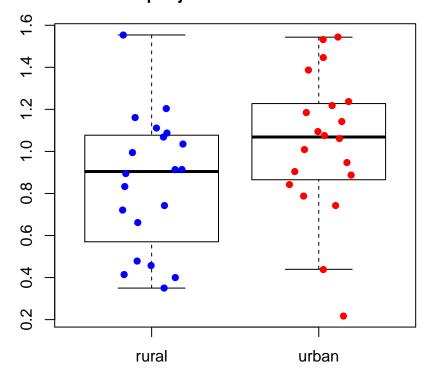
# WGS species: Bordetella\_bronchiseptica pAdjRuralUrban= 0.228



# WGS species: Thermosipho\_africanus pAdjRuralUrban= 0.23

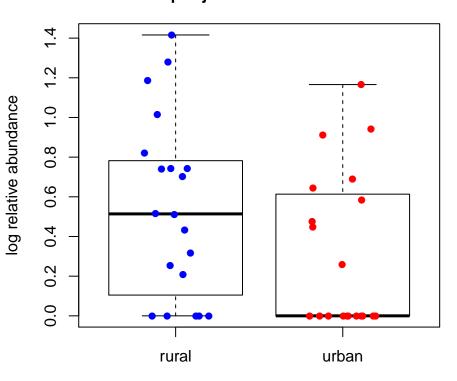


# WGS species: Corynebacterium\_callunae pAdjRuralUrban= 0.232

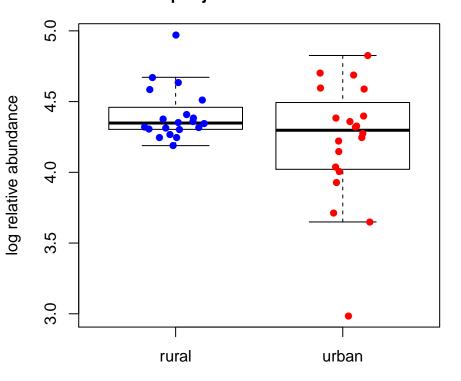


log relative abundance

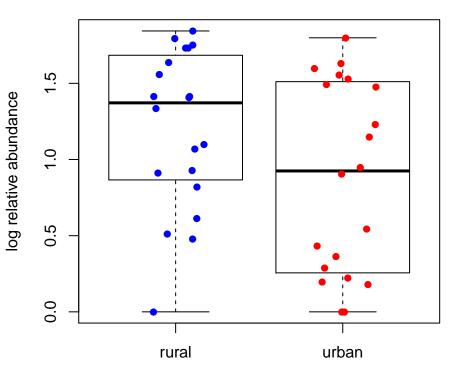
# WGS species: Desulfobacula\_toluolica pAdjRuralUrban= 0.232



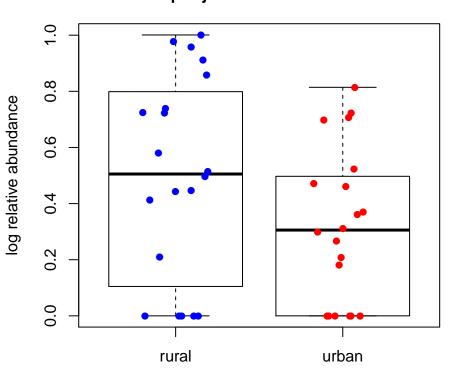
# WGS species: butyrate.producing\_bacterium\_SS3.4 pAdjRuralUrban= 0.233



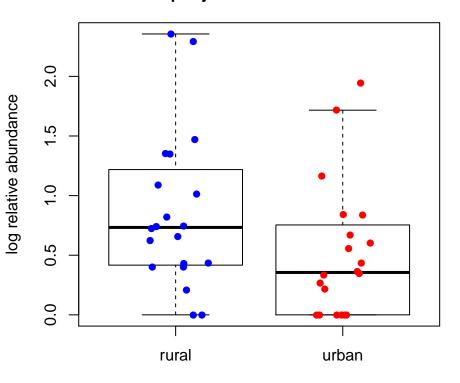
# WGS species: Owenweeksia\_hongkongensis pAdjRuralUrban= 0.233



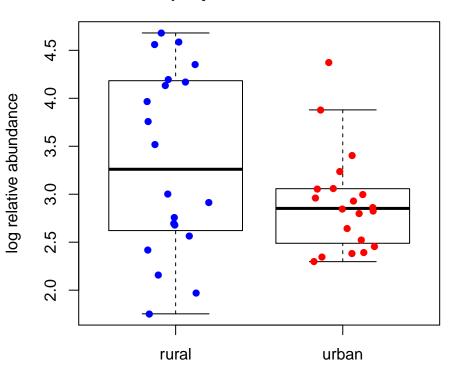
# WGS species: Carnobacterium\_sp.\_WN1359 pAdjRuralUrban= 0.233



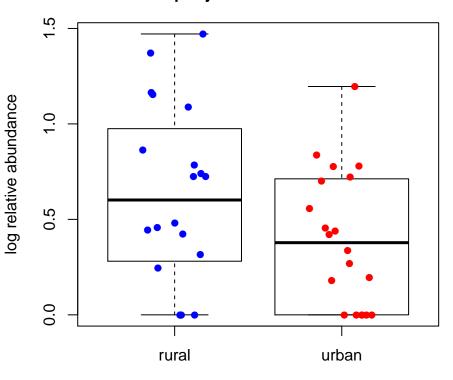
# WGS species: Acinetobacter\_baumannii pAdjRuralUrban= 0.234



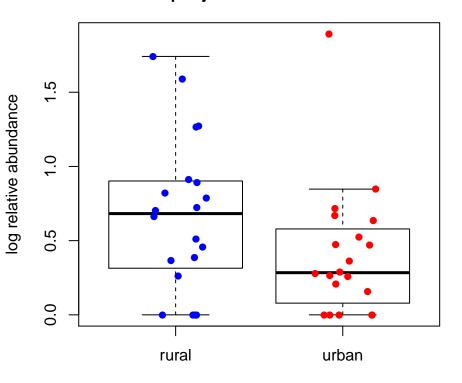
# WGS species: Prevotella\_melaninogenica pAdjRuralUrban= 0.234



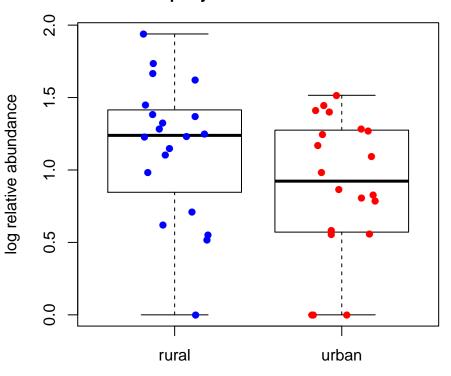
# WGS species: Chromohalobacter\_salexigens pAdjRuralUrban= 0.24



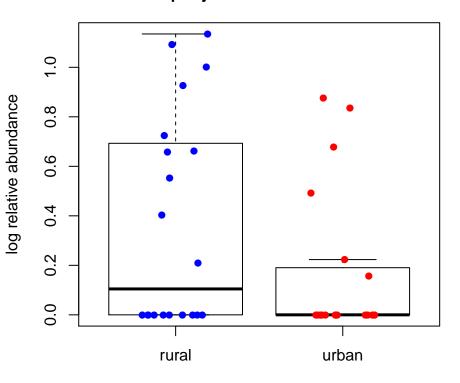
# WGS species: Marinobacter\_adhaerens pAdjRuralUrban= 0.241



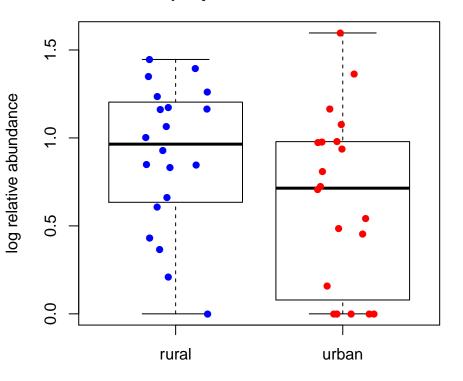
# WGS species: Thioflavicoccus\_mobilis pAdjRuralUrban= 0.241



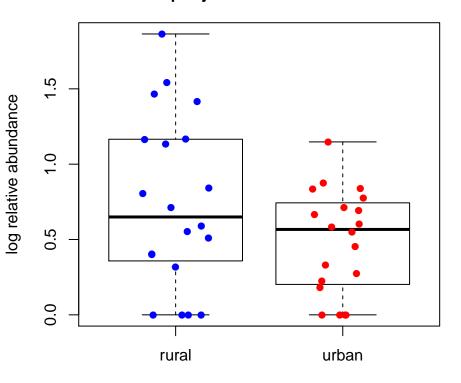
# WGS species: Mesorhizobium\_ciceri pAdjRuralUrban= 0.241



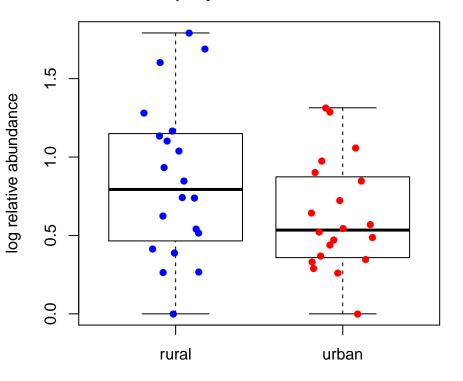
# WGS species: Paracoccus\_denitrificans pAdjRuralUrban= 0.241



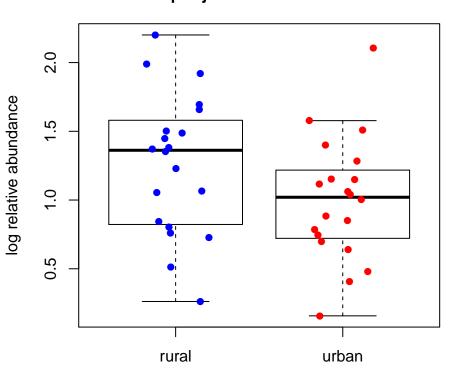
# WGS species: Bdellovibrio\_bacteriovorus pAdjRuralUrban= 0.247



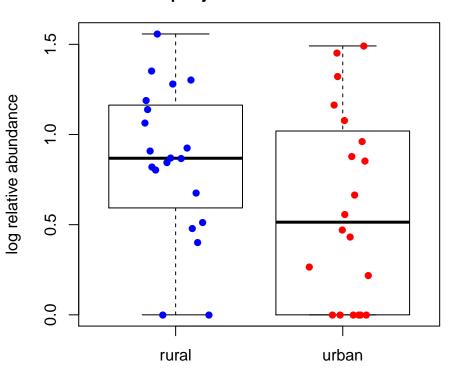
# WGS species: Corynebacterium\_diphtheriae pAdjRuralUrban= 0.25



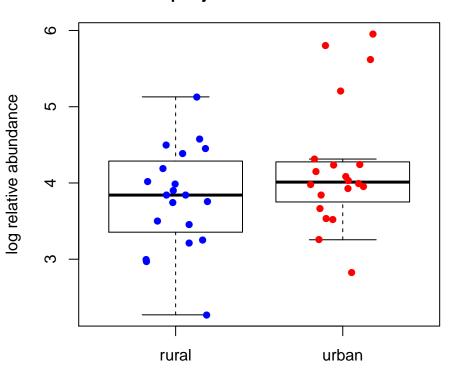
# WGS species: Pseudomonas\_fluorescens pAdjRuralUrban= 0.252



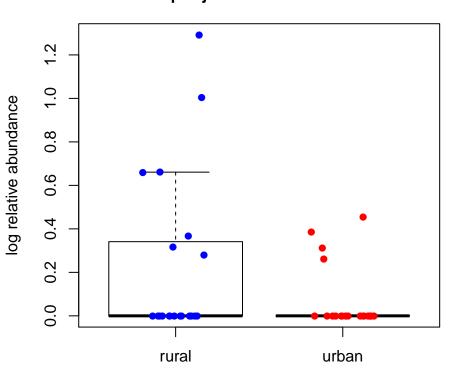
# WGS species: Pseudomonas\_syringae pAdjRuralUrban= 0.252



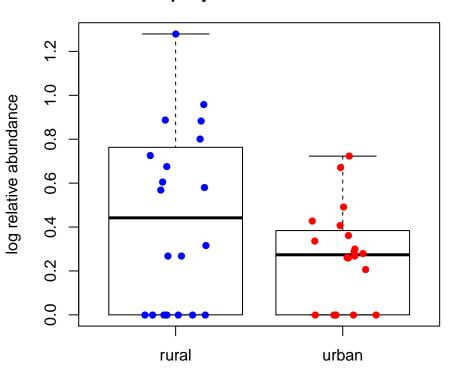
# WGS species: Escherichia\_coli pAdjRuralUrban= 0.252



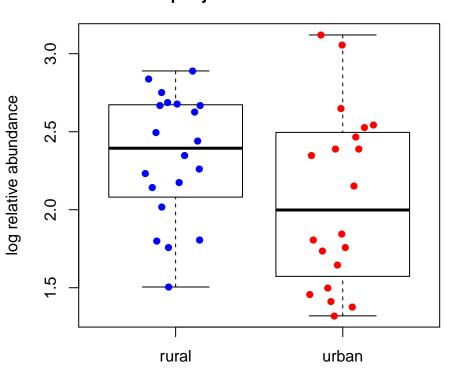
# WGS species: Trichodesmium\_erythraeum pAdjRuralUrban= 0.252



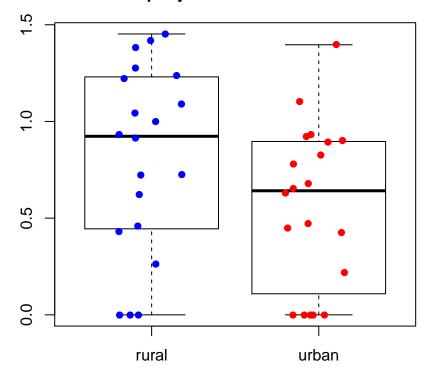
# WGS species: Granulicella\_mallensis pAdjRuralUrban= 0.252



# WGS species: Ruminococcus\_albus pAdjRuralUrban= 0.252

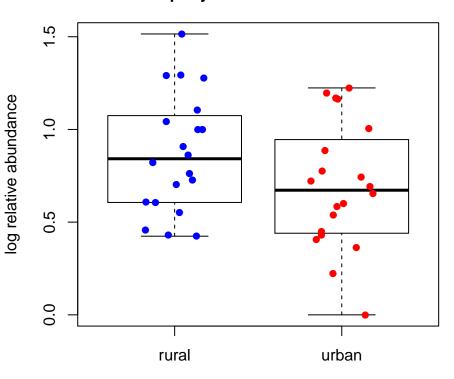


# WGS species: Pseudoxanthomonas\_suwonensis pAdjRuralUrban= 0.252

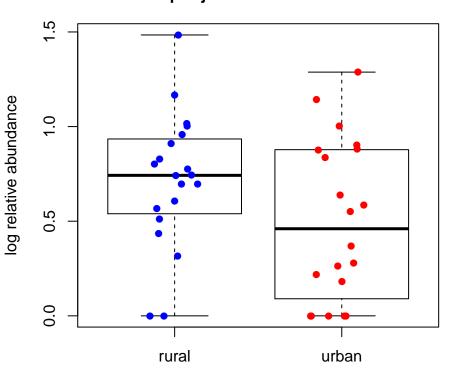


log relative abundance

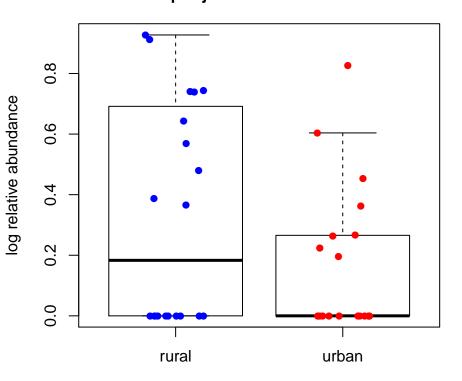
# WGS species: Solibacillus\_silvestris pAdjRuralUrban= 0.252



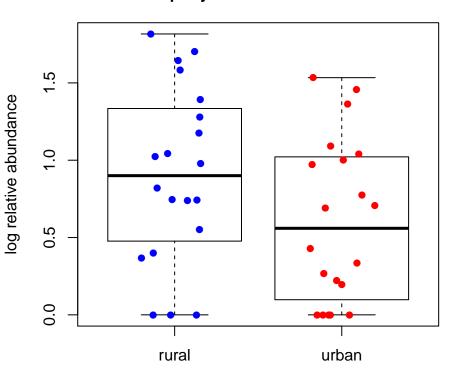
# WGS species: Magnetospirillum\_gryphiswaldense pAdjRuralUrban= 0.253



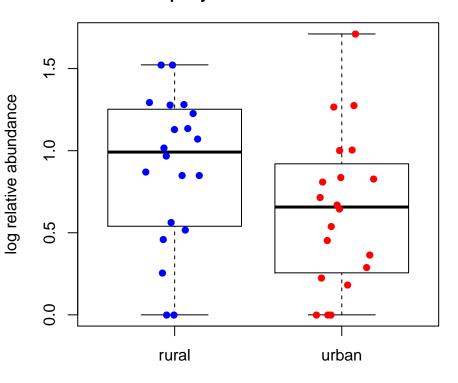
WGS species: Candidatus\_Cloacimonas\_acidaminovorans pAdjRuralUrban= 0.253



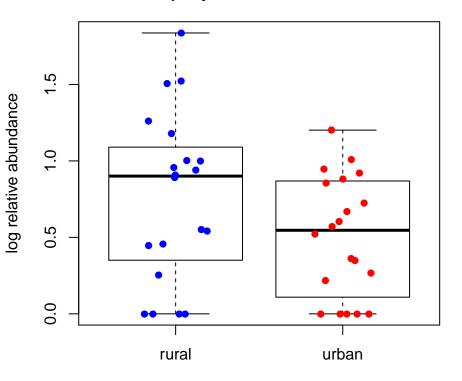
# WGS species: Vibrio\_furnissii pAdjRuralUrban= 0.253



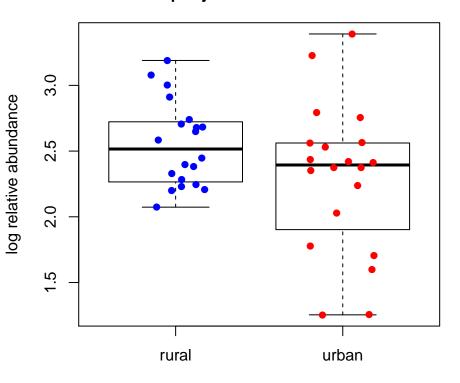
# WGS species: Burkholderia\_thailandensis pAdjRuralUrban= 0.253



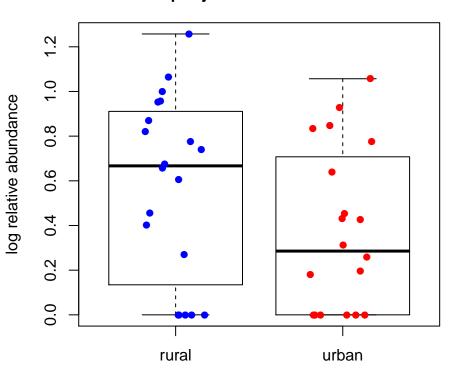
# WGS species: Acetobacter\_pasteurianus pAdjRuralUrban= 0.253



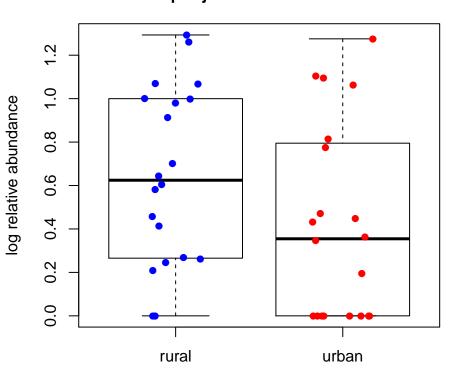
# WGS species: Streptococcus\_pyogenes pAdjRuralUrban= 0.253



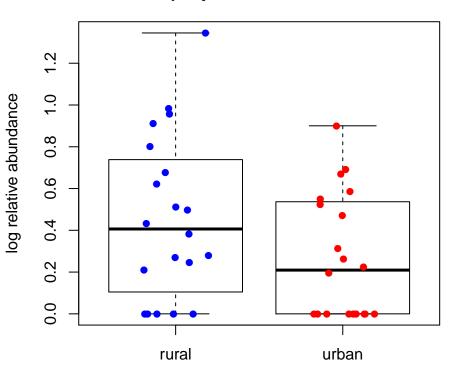
# WGS species: Lactobacillus\_rhamnosus pAdjRuralUrban= 0.255



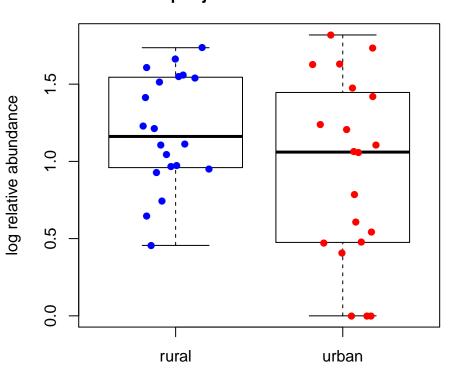
# WGS species: Conexibacter\_woesei pAdjRuralUrban= 0.256



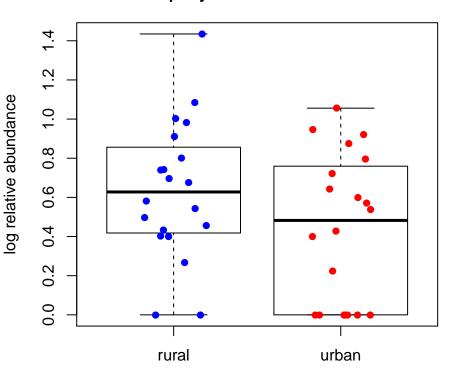
# WGS species: Ketogulonicigenium\_vulgare pAdjRuralUrban= 0.256



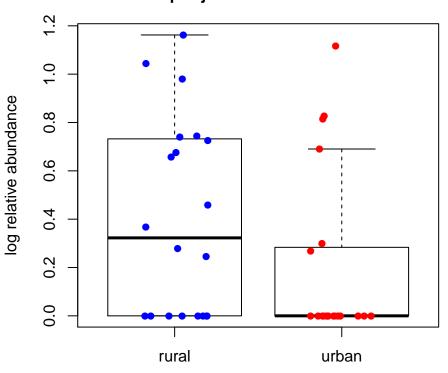
# WGS species: Rhodobacter\_sphaeroides pAdjRuralUrban= 0.257



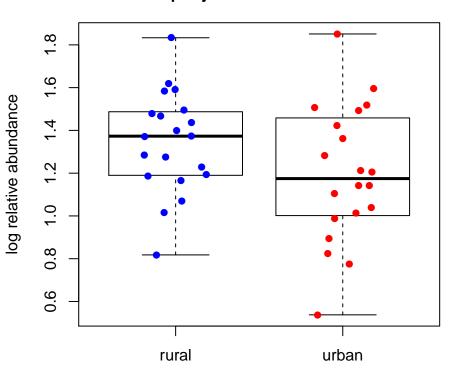
## WGS species: Pseudomonas\_resinovorans pAdjRuralUrban= 0.257



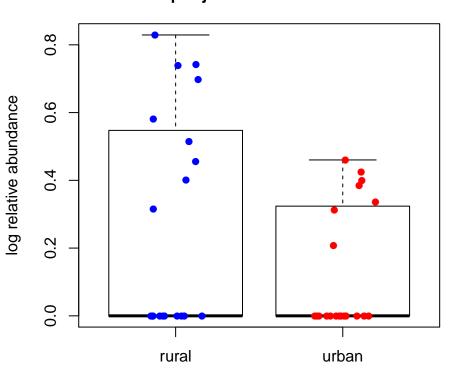
WGS species: Bradyrhizobium\_sp.\_S23321 pAdjRuralUrban= 0.261



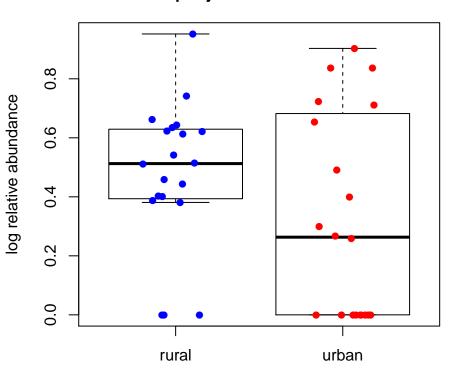
## WGS species: Treponema\_denticola pAdjRuralUrban= 0.262



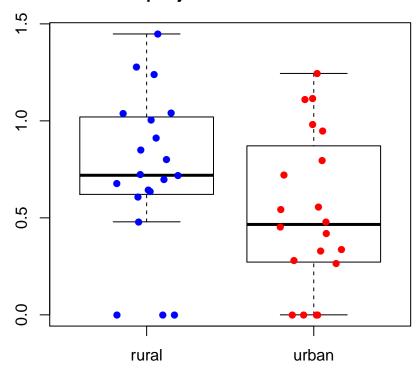
## WGS species: Zobellia\_galactanivorans pAdjRuralUrban= 0.266



# WGS species: Arcobacter\_nitrofigilis pAdjRuralUrban= 0.27

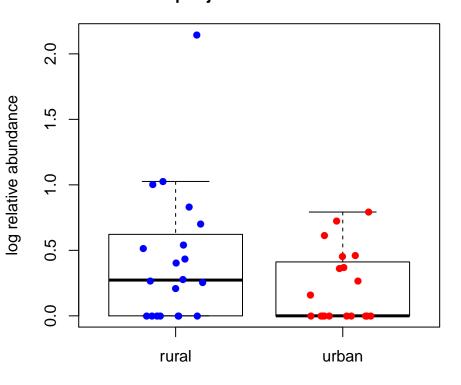


# WGS species: Frateuria\_aurantia pAdjRuralUrban= 0.27

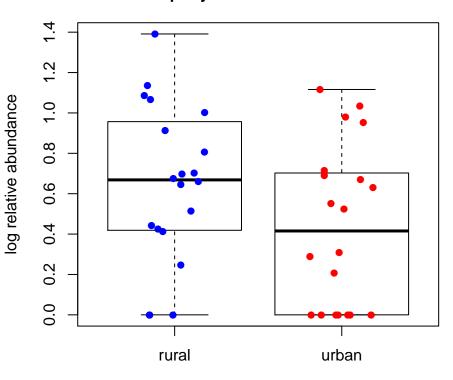


log relative abundance

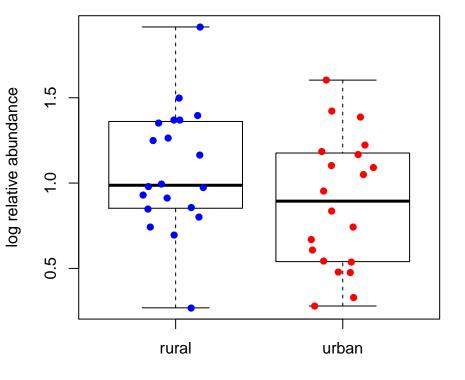
WGS species: Psychrobacter\_sp.\_PRwf.1 pAdjRuralUrban= 0.27



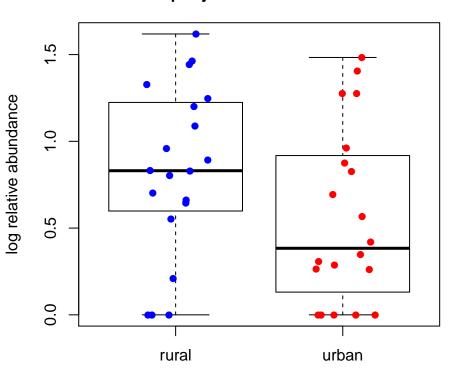
## WGS species: Rhodospirillum\_rubrum pAdjRuralUrban= 0.272



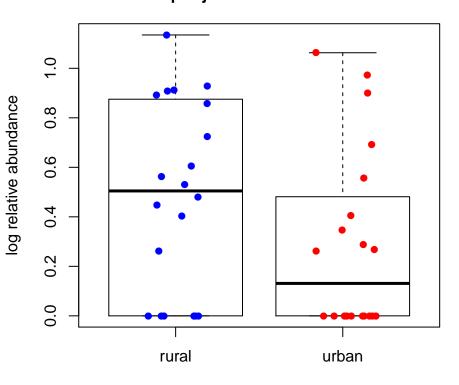
## WGS species: Clostridium\_acetobutylicum pAdjRuralUrban= 0.273



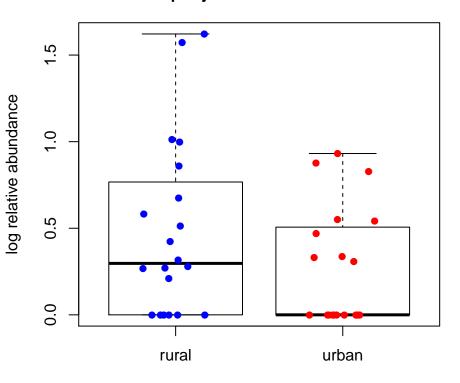
## WGS species: Polaromonas\_sp.\_JS666 pAdjRuralUrban= 0.273



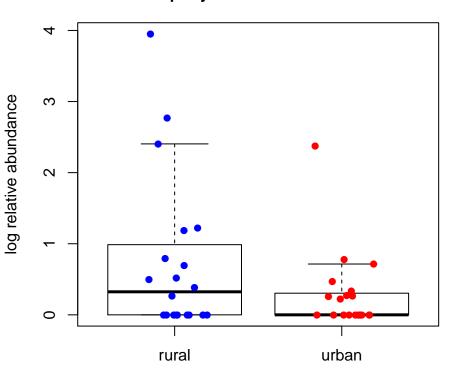
## WGS species: Intrasporangium\_calvum pAdjRuralUrban= 0.277



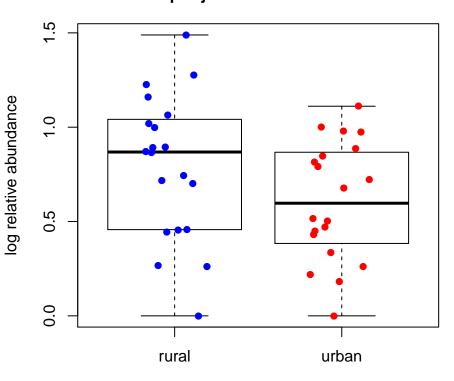
## WGS species: Croceibacter\_atlanticus pAdjRuralUrban= 0.277



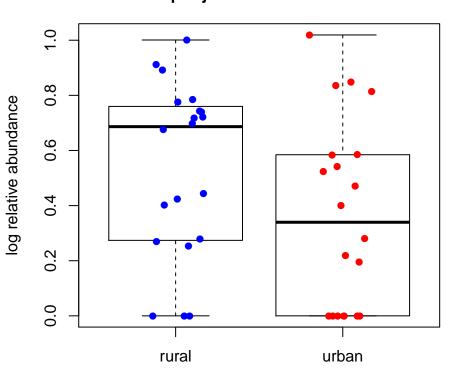
# WGS species: Lactobacillus\_casei pAdjRuralUrban= 0.277



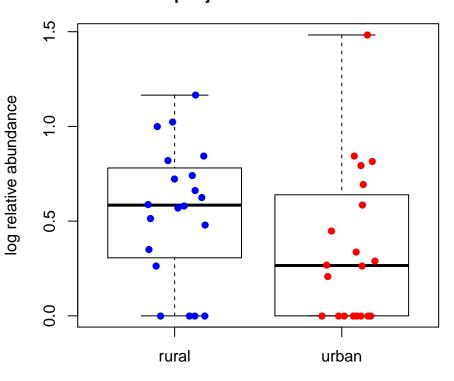
## WGS species: Arthrobacter\_sp.\_FB24 pAdjRuralUrban= 0.277



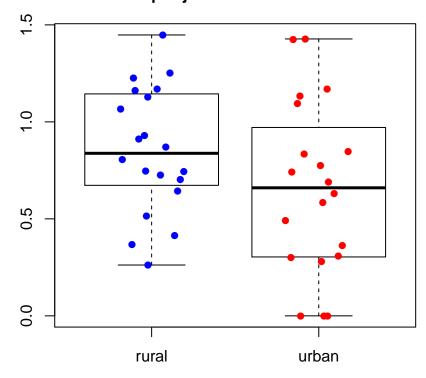
## WGS species: Xanthomonas\_campestris pAdjRuralUrban= 0.277



## WGS species: Burkholderia\_phytofirmans pAdjRuralUrban= 0.28

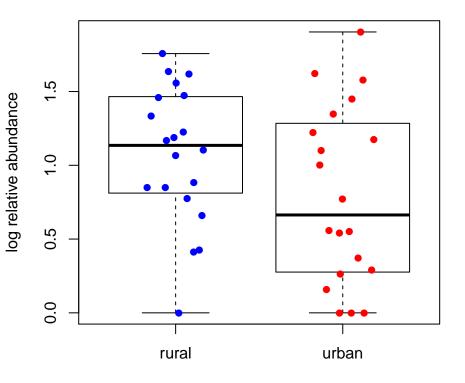


## WGS species: X.Bacillus.\_selenitireducens pAdjRuralUrban= 0.28

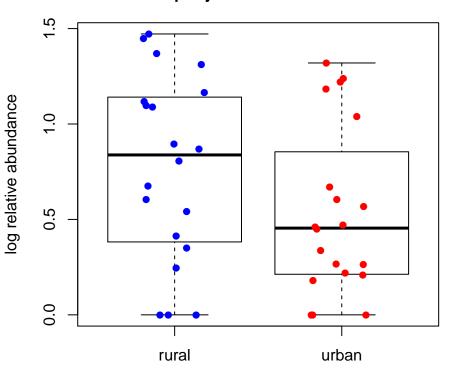


log relative abundance

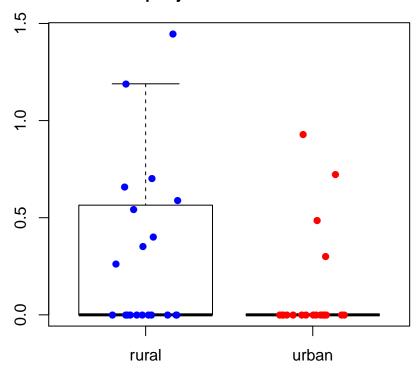
## WGS species: Denitrovibrio\_acetiphilus pAdjRuralUrban= 0.28



## WGS species: alpha\_proteobacterium\_HIMB59 pAdjRuralUrban= 0.28

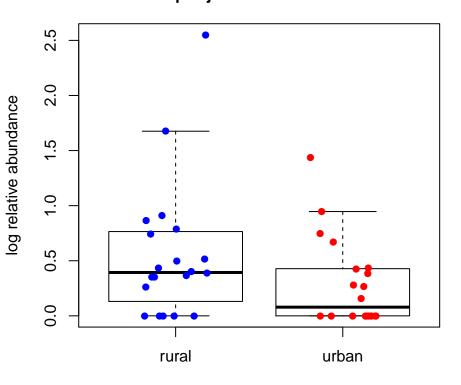


WGS species: Belliella\_baltica pAdjRuralUrban= 0.28

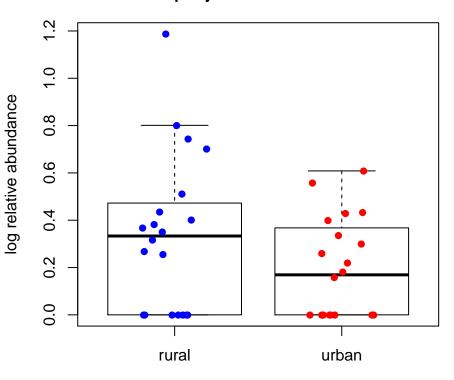


log relative abundance

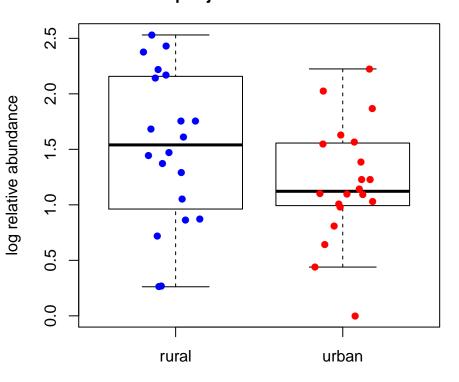
## WGS species: Lactobacillus\_johnsonii pAdjRuralUrban= 0.28



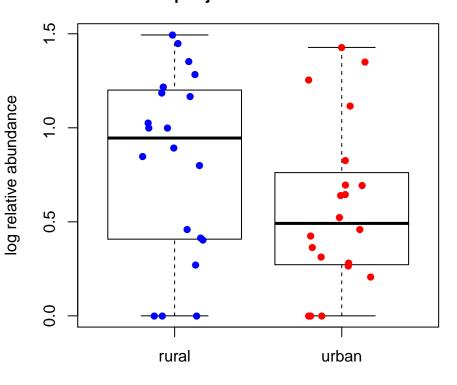
## WGS species: Rhodococcus\_pyridinivorans pAdjRuralUrban= 0.28



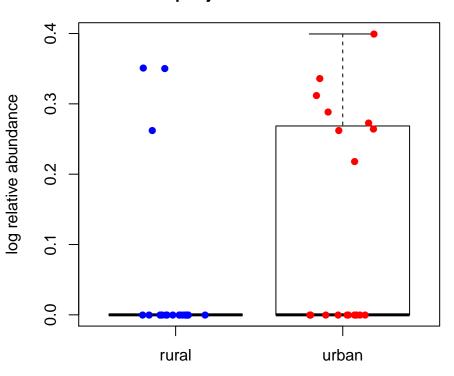
# WGS species: Niastella\_koreensis pAdjRuralUrban= 0.28



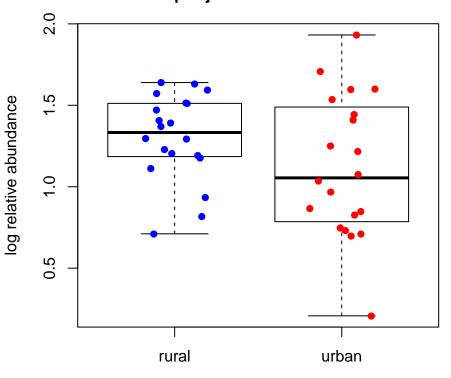
## WGS species: Mycobacterium\_gilvum pAdjRuralUrban= 0.28



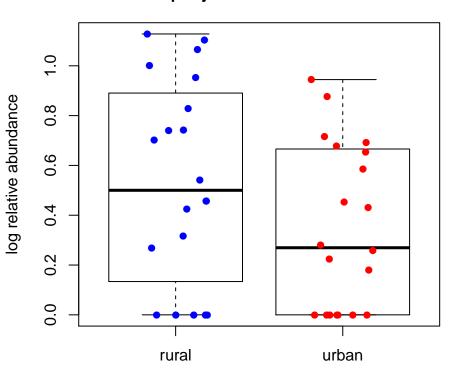
# WGS species: Bartonella\_grahamii pAdjRuralUrban= 0.28



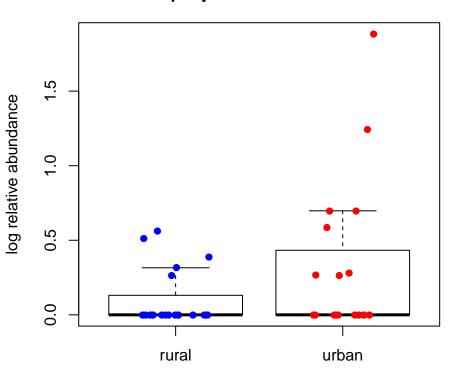
## WGS species: Ruminiclostridium\_thermocellum pAdjRuralUrban= 0.28



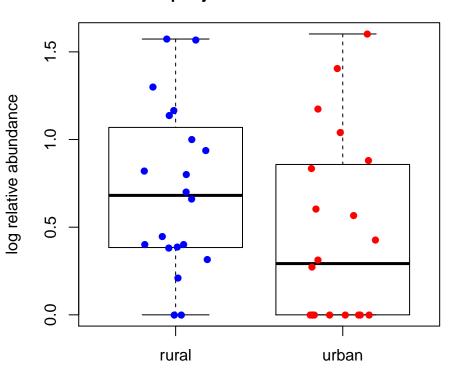
## WGS species: Halobacteroides\_halobius pAdjRuralUrban= 0.285



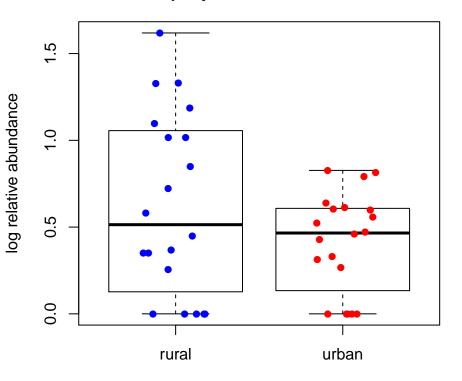
## WGS species: Amycolicicoccus\_subflavus pAdjRuralUrban= 0.285



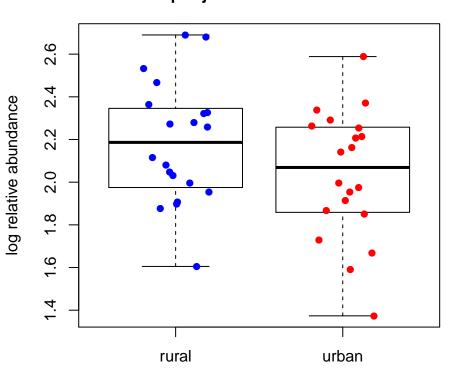
## WGS species: Bacillus\_atrophaeus pAdjRuralUrban= 0.287



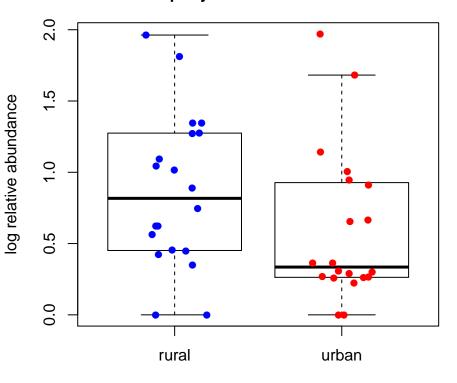
## WGS species: Desulfotomaculum\_acetoxidans pAdjRuralUrban= 0.287



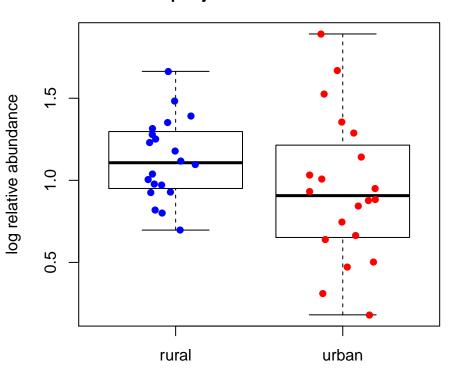
## WGS species: Streptococcus\_pasteurianus pAdjRuralUrban= 0.287



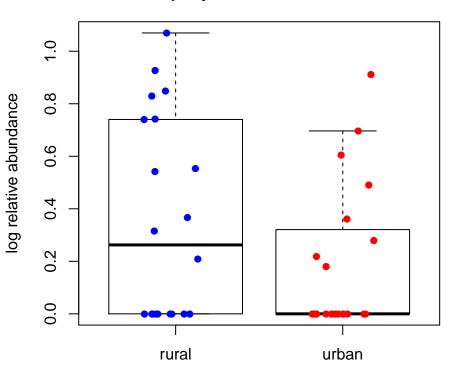
## WGS species: Serratia\_proteamaculans pAdjRuralUrban= 0.287



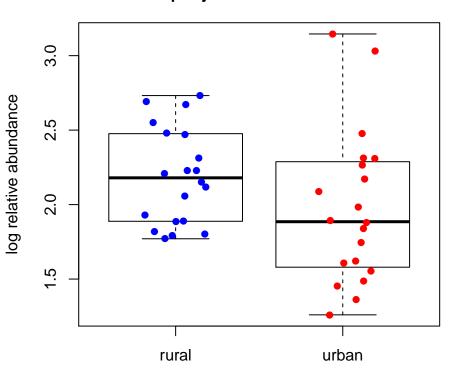
# WGS species: Geobacter\_lovleyi pAdjRuralUrban= 0.288



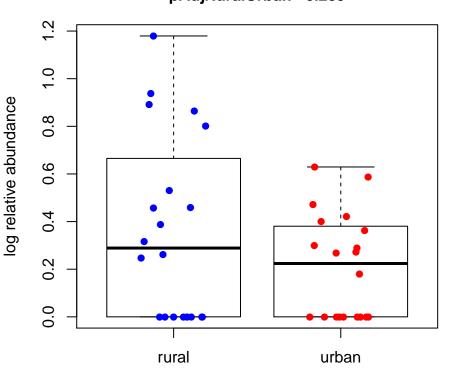
## WGS species: Methylobacterium\_radiotolerans pAdjRuralUrban= 0.288



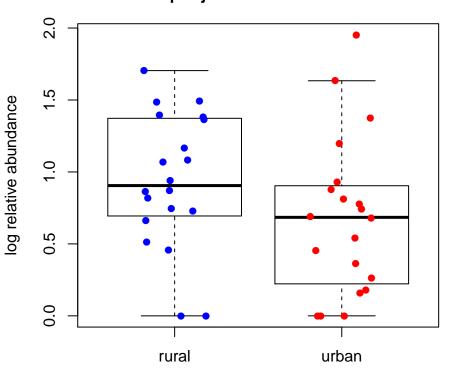
## WGS species: Streptococcus\_suis pAdjRuralUrban= 0.288



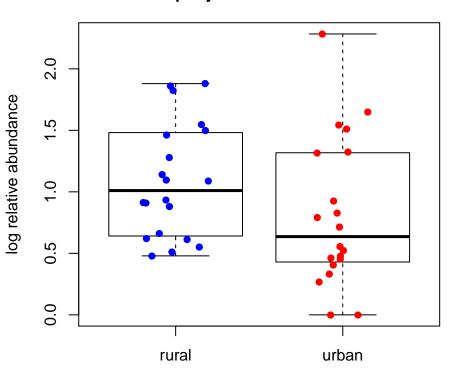
# WGS species: Candidatus\_Arthromitus\_sp.\_SFB.mouse pAdjRuralUrban= 0.289



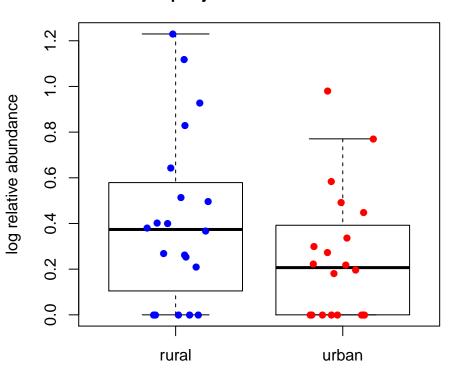
# WGS species: Pseudovibrio\_sp.\_FO.BEG1 pAdjRuralUrban= 0.289



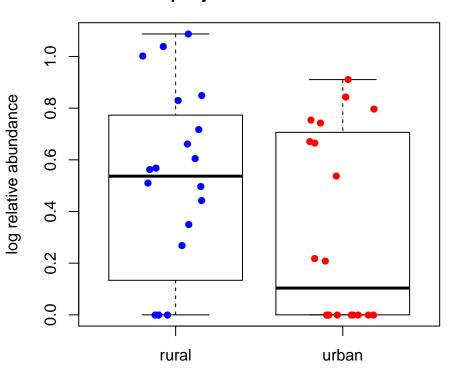
# WGS species: Streptobacillus\_moniliformis pAdjRuralUrban= 0.29



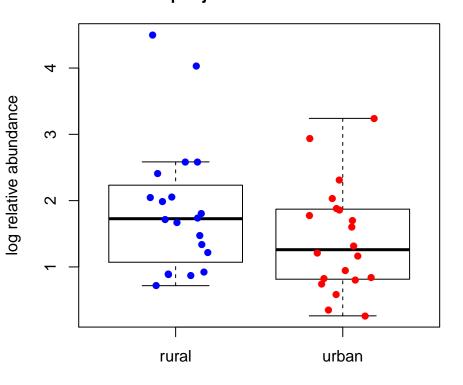
# WGS species: Lactobacillus\_sakei pAdjRuralUrban= 0.292



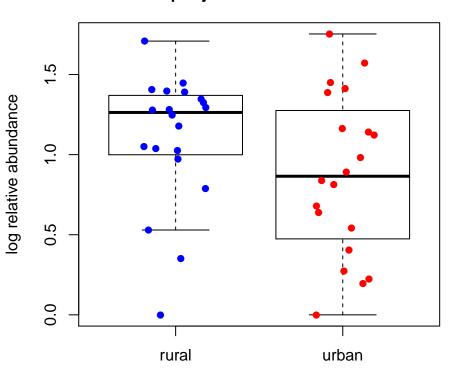
# WGS species: Francisella\_philomiragia pAdjRuralUrban= 0.292



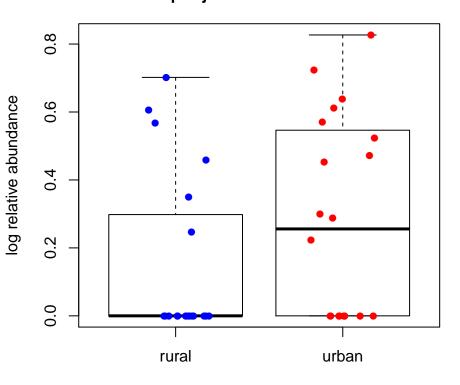
# WGS species: Cronobacter\_sakazakii pAdjRuralUrban= 0.292



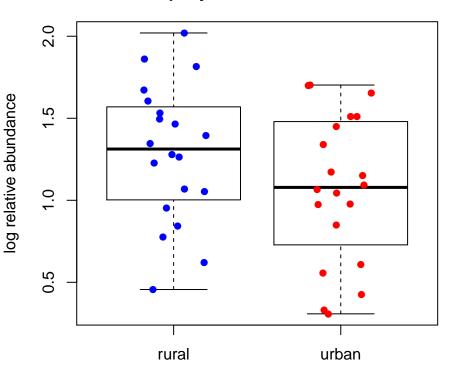
# WGS species: Azoarcus\_sp.\_KH32C pAdjRuralUrban= 0.292



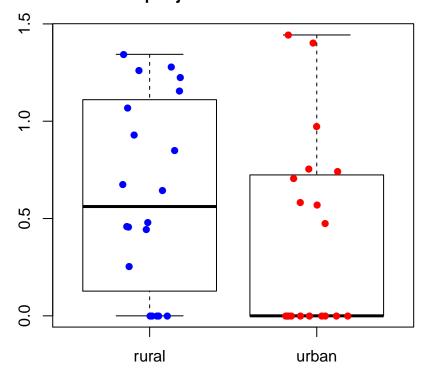
# WGS species: Methanocella\_paludicola pAdjRuralUrban= 0.292



# WGS species: Heliobacterium\_modesticaldum pAdjRuralUrban= 0.292

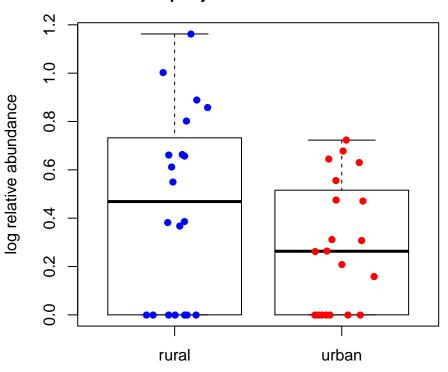


# WGS species: Ochrobactrum\_anthropi pAdjRuralUrban= 0.292

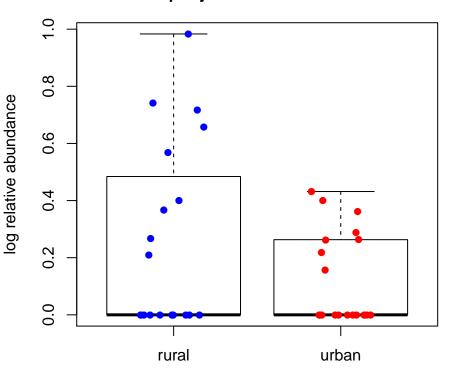


log relative abundance

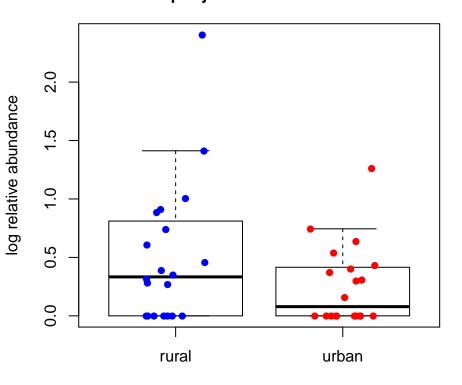
# WGS species: Pirellula\_staleyi pAdjRuralUrban= 0.294



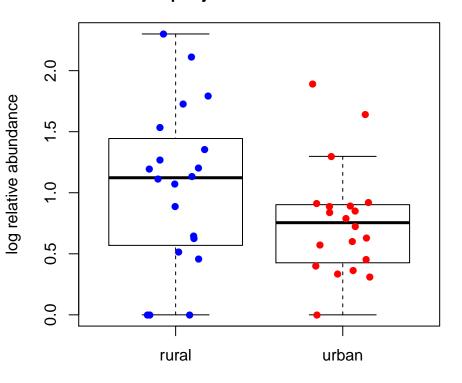
# WGS species: Halothermothrix\_orenii pAdjRuralUrban= 0.294



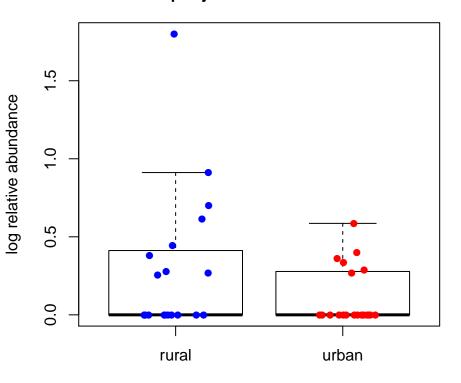
# WGS species: Leuconostoc\_carnosum pAdjRuralUrban= 0.294



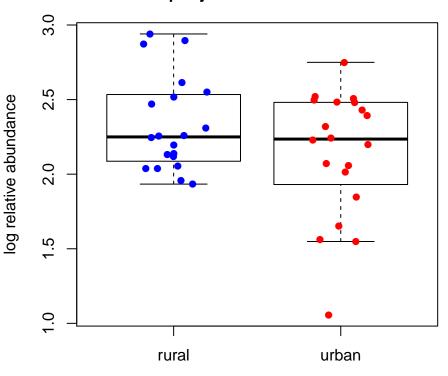
# WGS species: Streptococcus\_dysgalactiae pAdjRuralUrban= 0.294



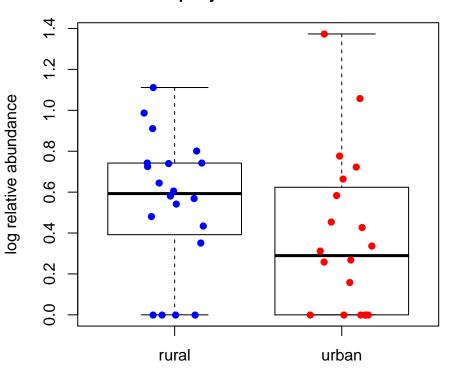
# WGS species: Caldicellulosiruptor\_obsidiansis pAdjRuralUrban= 0.295



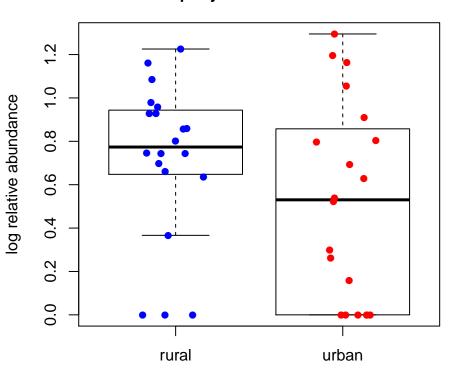
# WGS species: Enterococcus\_faecalis pAdjRuralUrban= 0.295



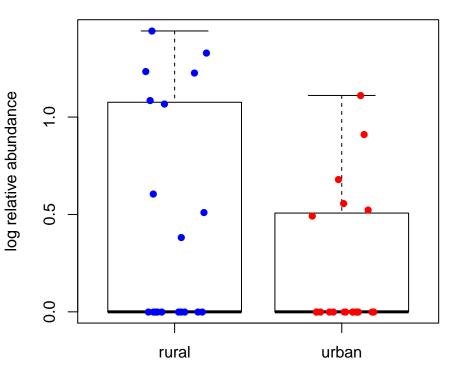
# WGS species: Myxococcus\_xanthus pAdjRuralUrban= 0.3



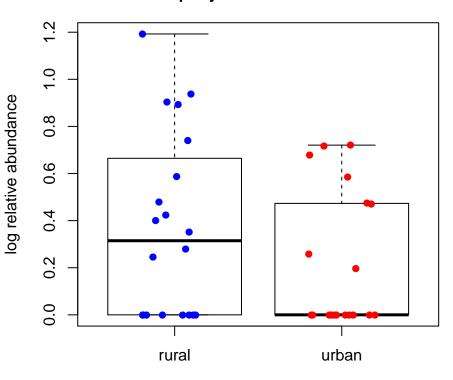
# WGS species: Listeria\_welshimeri pAdjRuralUrban= 0.3



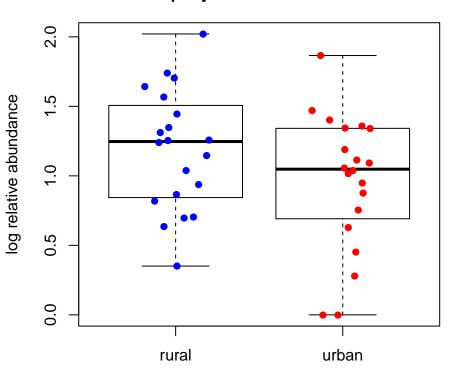
WGS species: Pseudoalteromonas\_sp.\_SM9913 pAdjRuralUrban= 0.3



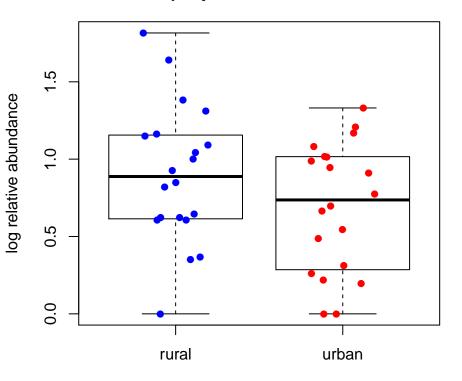
# WGS species: Bradyrhizobium\_japonicum pAdjRuralUrban= 0.3



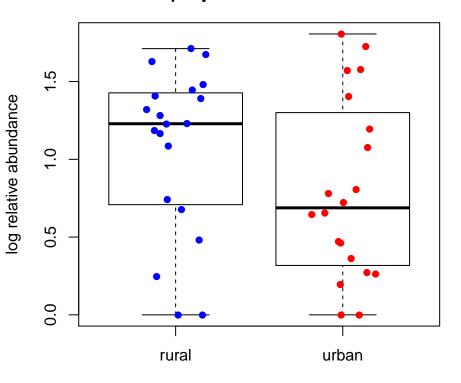
# WGS species: Dichelobacter\_nodosus pAdjRuralUrban= 0.302



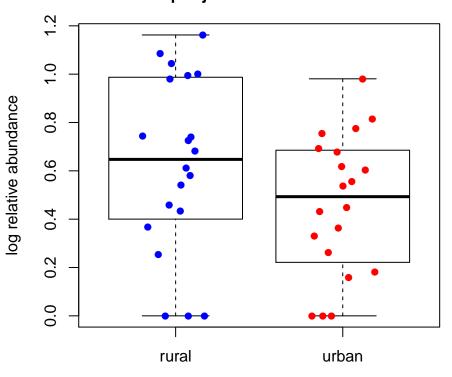
# WGS species: Desulfosporosinus\_acidiphilus pAdjRuralUrban= 0.303



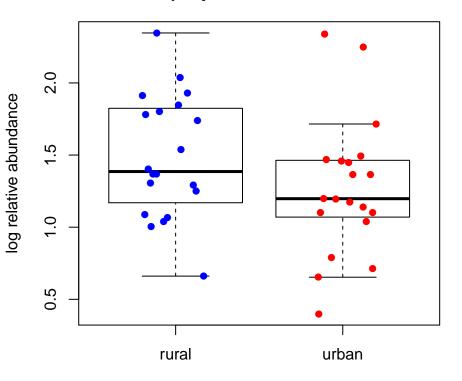
# WGS species: Agrobacterium\_sp.\_H13.3 pAdjRuralUrban= 0.303



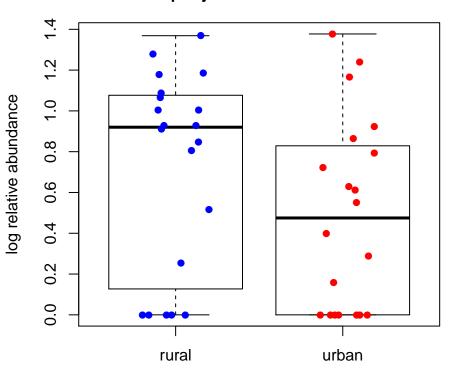
#### WGS species: Mesorhizobium\_opportunistum pAdjRuralUrban= 0.303



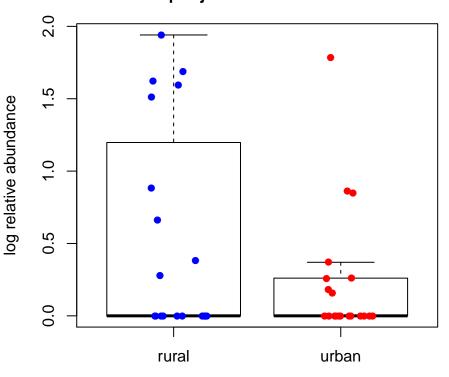
# WGS species: Clostridium\_saccharobutylicum pAdjRuralUrban= 0.303



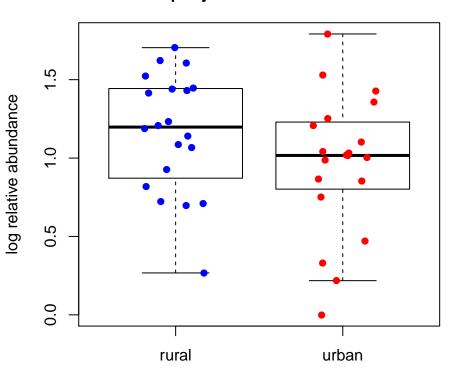
# WGS species: Acidovorax\_avenae pAdjRuralUrban= 0.303



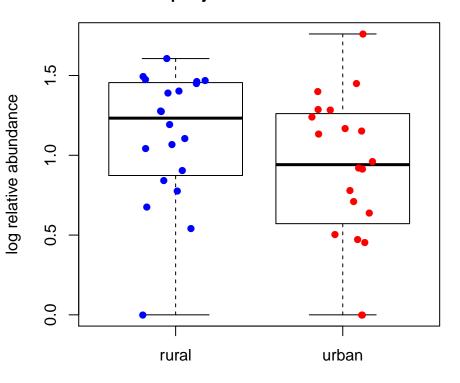
# WGS species: Shewanella\_pealeana pAdjRuralUrban= 0.303



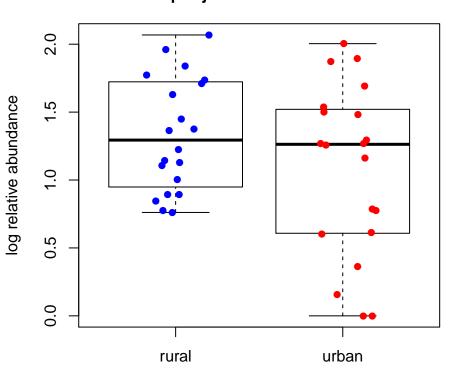
# WGS species: Desulfarculus\_baarsii pAdjRuralUrban= 0.305



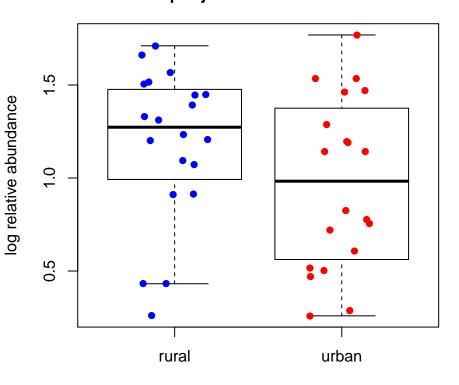
# WGS species: Desulfurispirillum\_indicum pAdjRuralUrban= 0.306



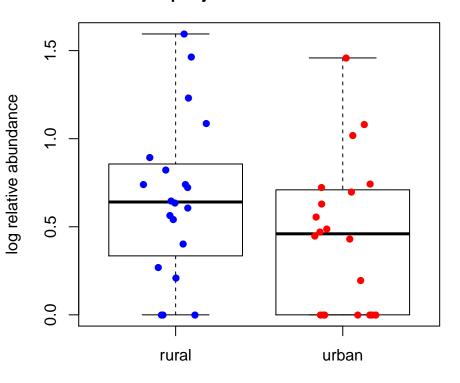
# WGS species: Capnocytophaga\_ochracea pAdjRuralUrban= 0.306



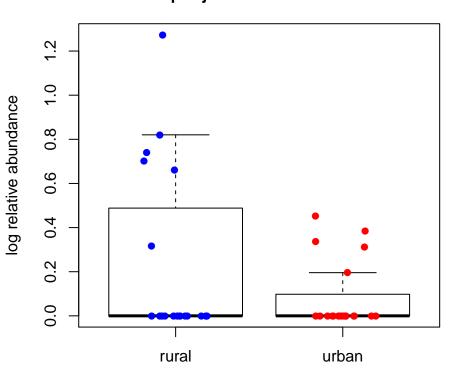
# WGS species: Desulfovibrio\_alaskensis pAdjRuralUrban= 0.306



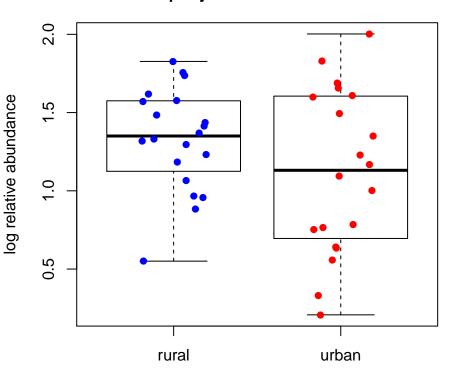
# WGS species: Xenorhabdus\_bovienii pAdjRuralUrban= 0.308



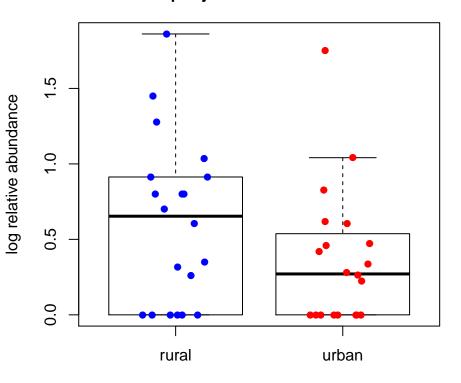
# WGS species: Candidatus\_Hamiltonella\_defensa pAdjRuralUrban= 0.308



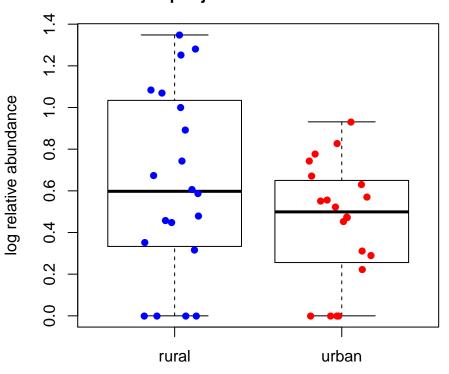
# WGS species: Azospirillum\_lipoferum pAdjRuralUrban= 0.308



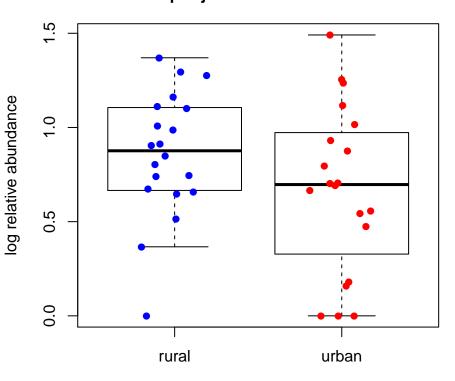
# WGS species: Rhodococcus\_erythropolis pAdjRuralUrban= 0.309



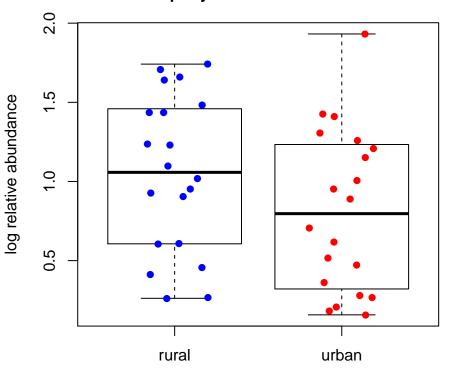
#### WGS species: Deinococcus\_maricopensis pAdjRuralUrban= 0.312



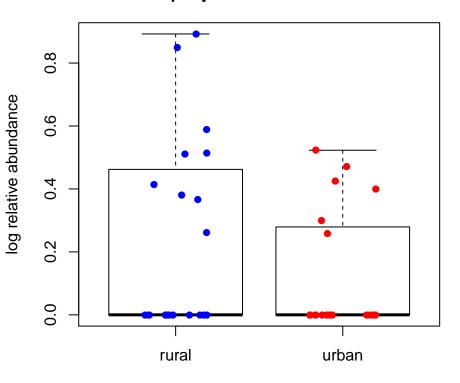
# WGS species: Acholeplasma\_palmae pAdjRuralUrban= 0.312



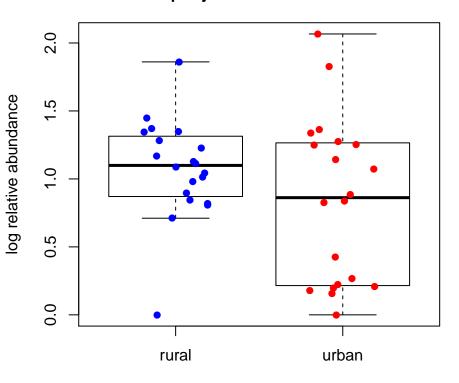
# WGS species: Opitutus\_terrae pAdjRuralUrban= 0.314



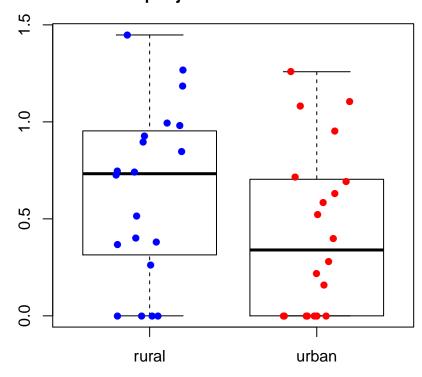
# WGS species: Burkholderia\_sp.\_CCGE1001 pAdjRuralUrban= 0.321



# WGS species: Thauera\_sp.\_MZ1T pAdjRuralUrban= 0.326

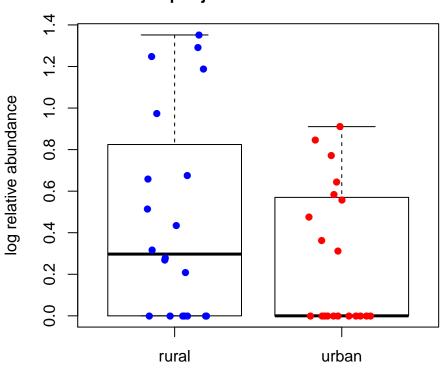


# WGS species: Deinococcus\_geothermalis pAdjRuralUrban= 0.326

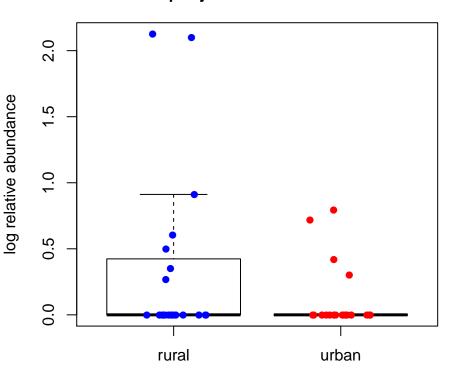


log relative abundance

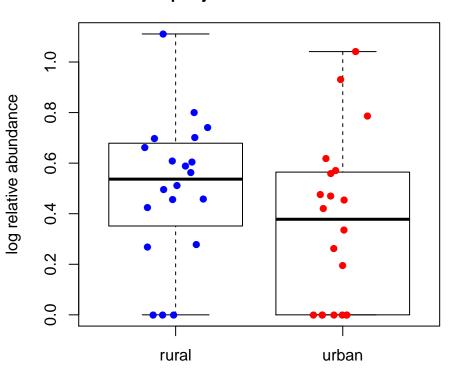
# WGS species: Waddlia\_chondrophila pAdjRuralUrban= 0.326



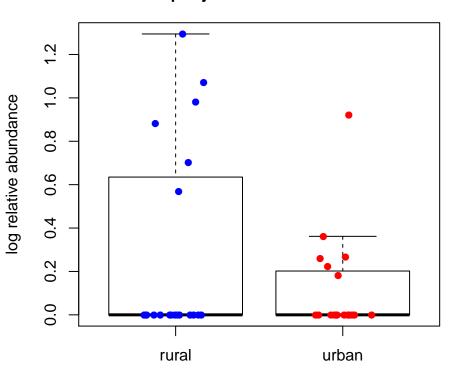
WGS species: Enterobacterial\_phage\_mEp390 pAdjRuralUrban= 0.326



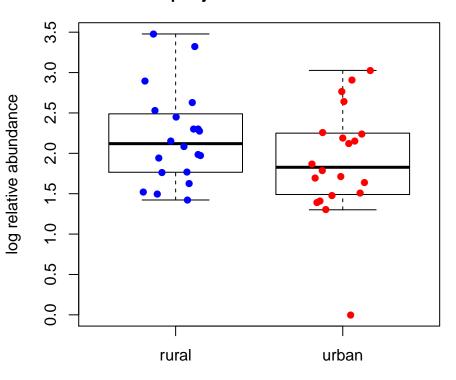
# WGS species: Arcanobacterium\_haemolyticum pAdjRuralUrban= 0.335



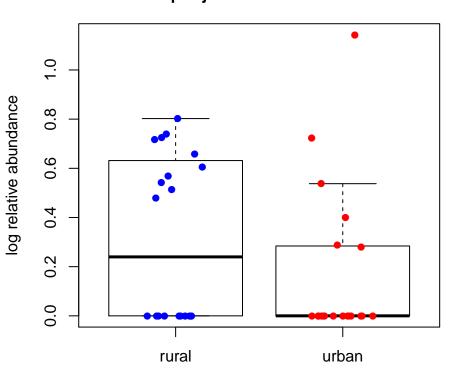
# WGS species: Vibrio\_sp.\_Ex25 pAdjRuralUrban= 0.335



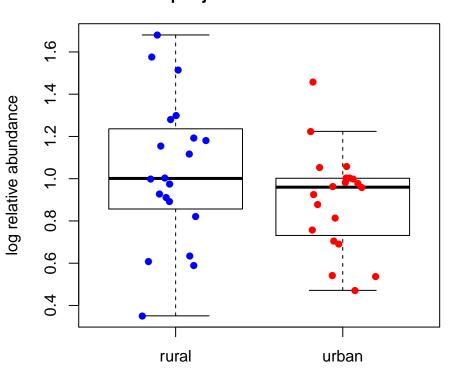
# WGS species: Riemerella\_anatipestifer pAdjRuralUrban= 0.336



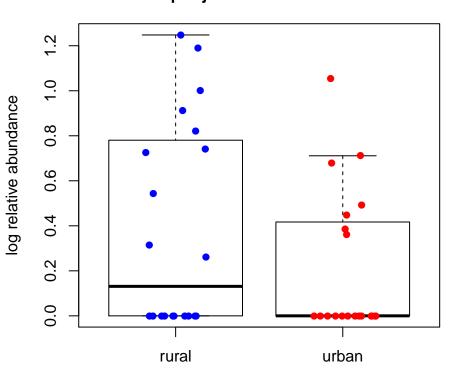
# WGS species: Mycobacterium\_chubuense pAdjRuralUrban= 0.336



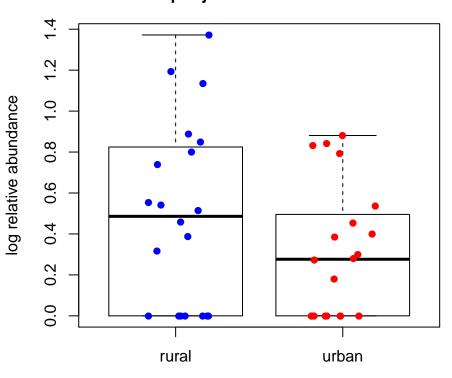
# WGS species: Desulfotomaculum\_carboxydivorans pAdjRuralUrban= 0.336



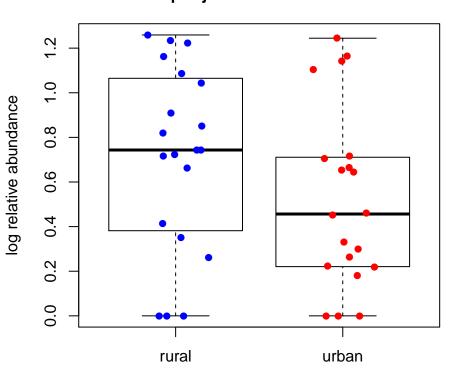
# WGS species: Shewanella\_piezotolerans pAdjRuralUrban= 0.338



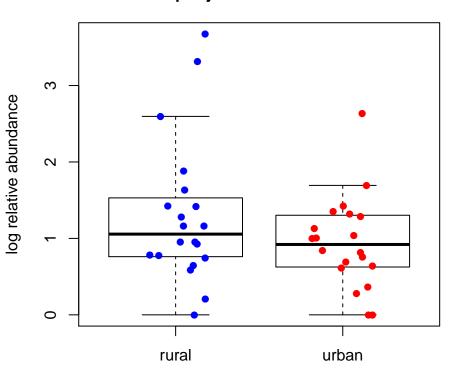
# WGS species: Aminobacterium\_colombiense pAdjRuralUrban= 0.338



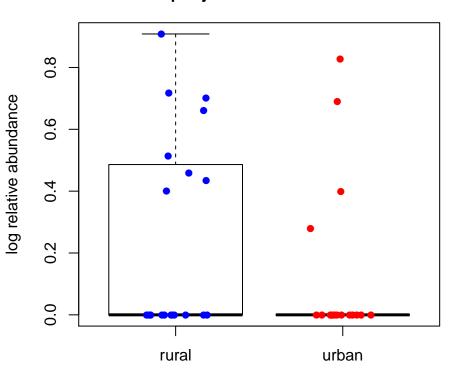
# WGS species: Streptosporangium\_roseum pAdjRuralUrban= 0.339



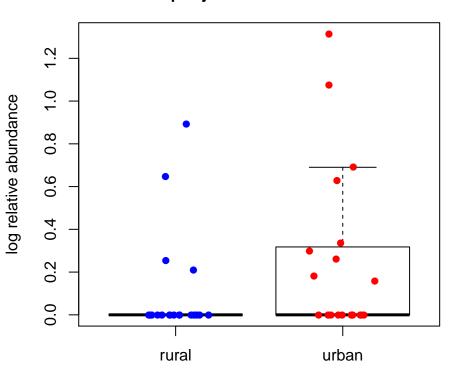
# WGS species: Lactobacillus\_fermentum pAdjRuralUrban= 0.34



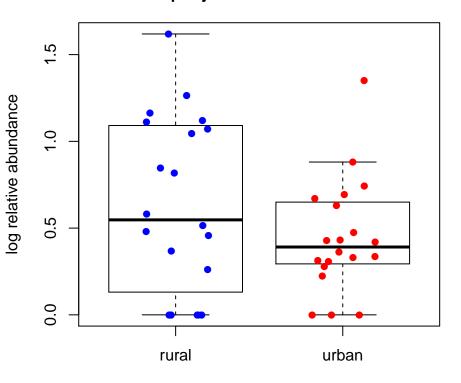
# WGS species: Haloarcula\_hispanica pAdjRuralUrban= 0.341



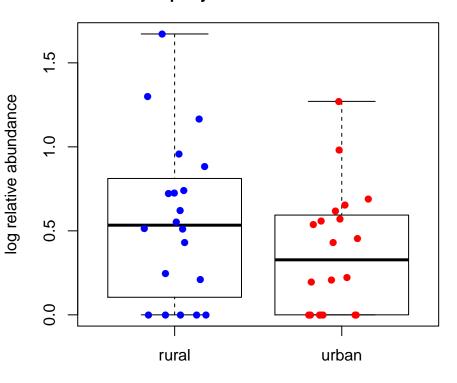
WGS species: Candidatus\_Kinetoplastibacterium\_galatii pAdjRuralUrban= 0.341



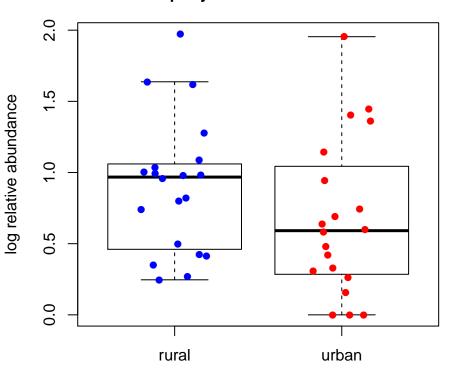
# WGS species: Staphylococcus\_haemolyticus pAdjRuralUrban= 0.341



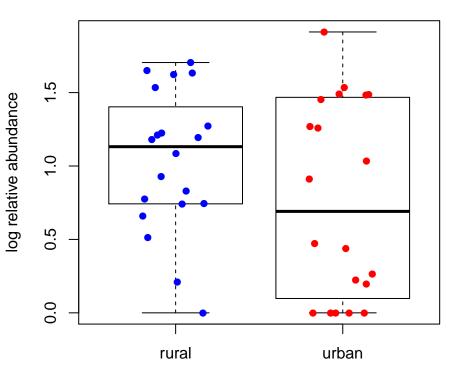
# WGS species: Desulfocapsa\_sulfexigens pAdjRuralUrban= 0.341



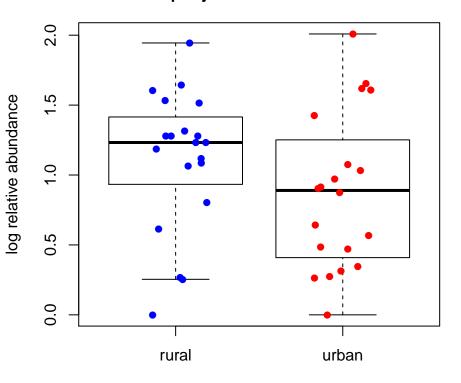
# WGS species: Tistrella\_mobilis pAdjRuralUrban= 0.341



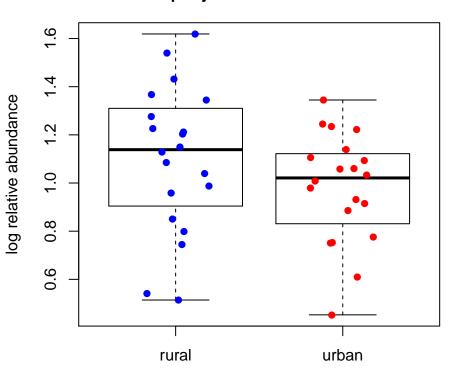
# WGS species: Haemophilus\_parasuis pAdjRuralUrban= 0.341



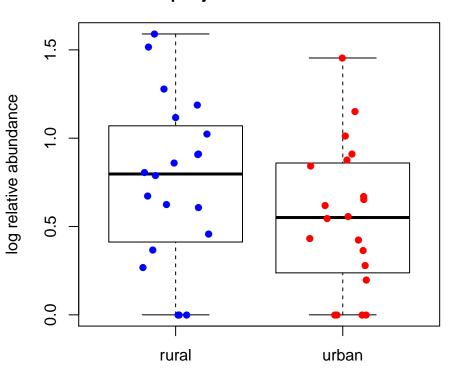
# WGS species: Desulfomicrobium\_baculatum pAdjRuralUrban= 0.343



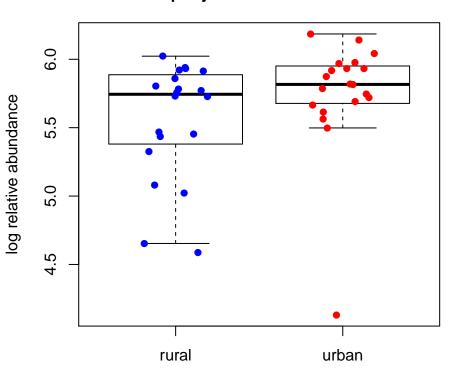
# WGS species: Alkaliphilus\_oremlandii pAdjRuralUrban= 0.343



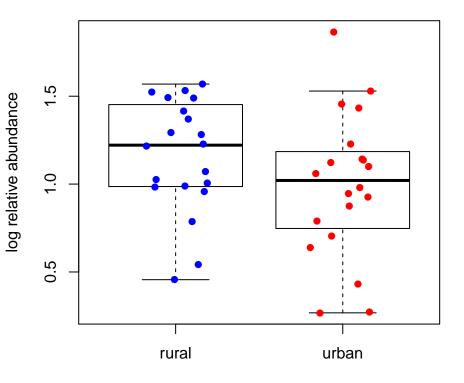
# WGS species: Herbaspirillum\_seropedicae pAdjRuralUrban= 0.343



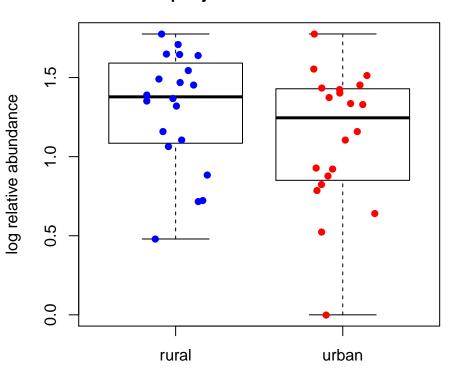
# WGS species: Bacteroides\_vulgatus pAdjRuralUrban= 0.345



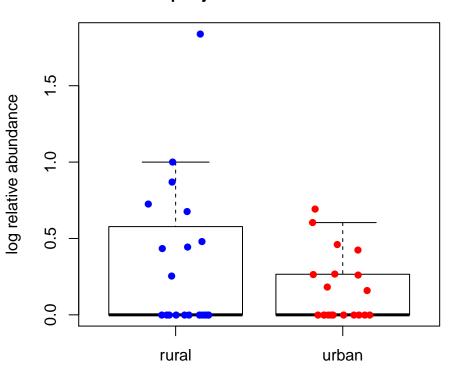
# WGS species: Desulfovibrio\_africanus pAdjRuralUrban= 0.345



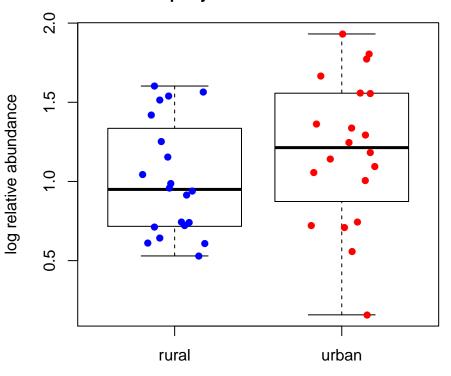
# WGS species: Clostridium\_novyi pAdjRuralUrban= 0.345



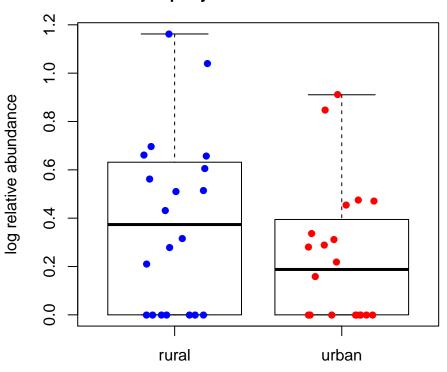
# WGS species: Cyanothece\_sp.\_PCC\_7425 pAdjRuralUrban= 0.345



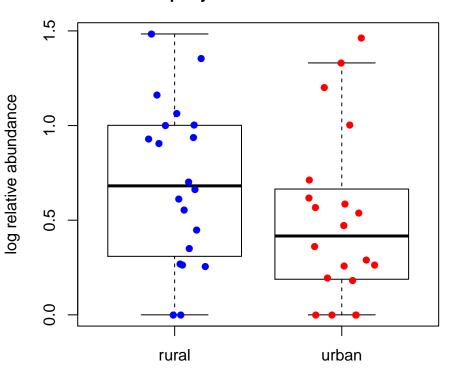
# WGS species: Aeromonas\_salmonicida pAdjRuralUrban= 0.347



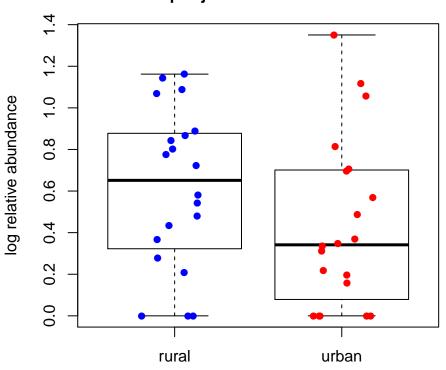
# WGS species: Nocardia\_farcinica pAdjRuralUrban= 0.348



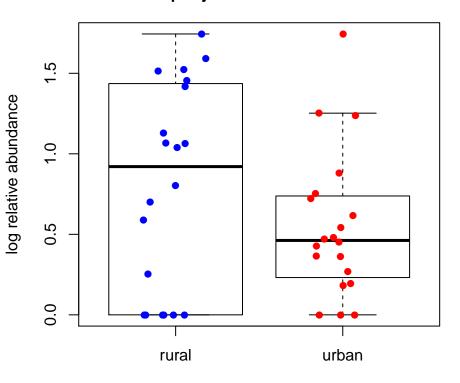
# WGS species: Chlorobium\_chlorochromatii pAdjRuralUrban= 0.349



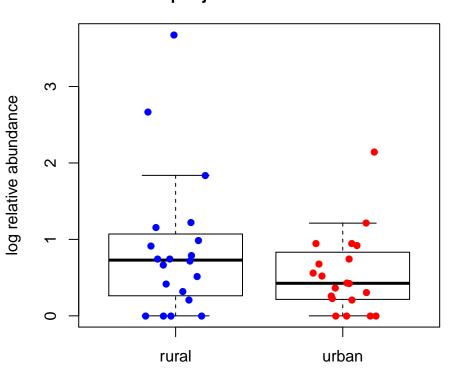
# WGS species: Sanguibacter\_keddieii pAdjRuralUrban= 0.351



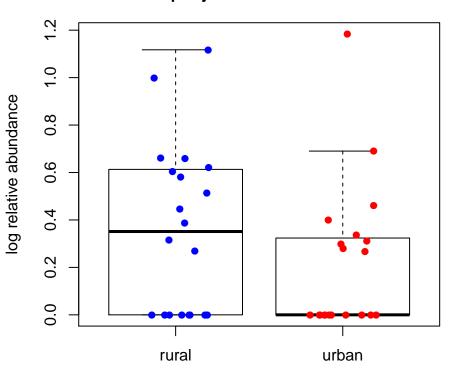
# WGS species: Salinispora\_arenicola pAdjRuralUrban= 0.352



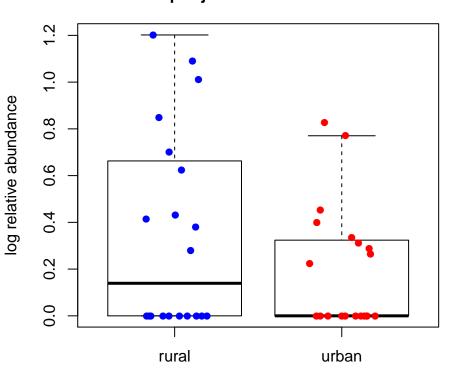
# WGS species: Lactobacillus\_gasseri pAdjRuralUrban= 0.352



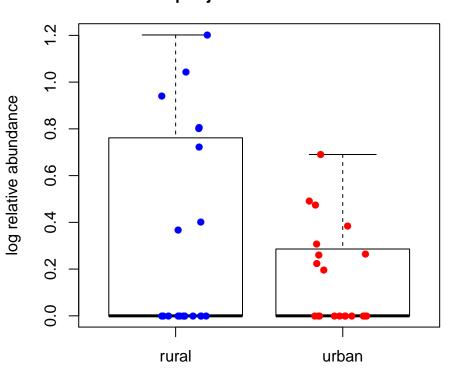
# WGS species: Cellulomonas\_fimi pAdjRuralUrban= 0.353



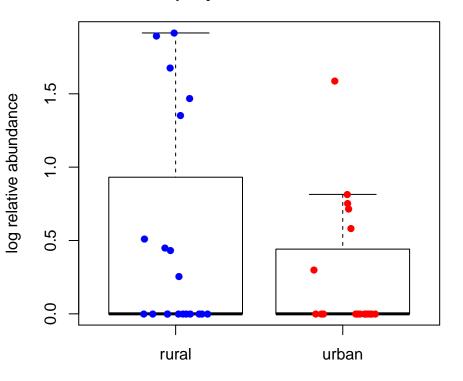
### WGS species: Bacillus\_weihenstephanensis pAdjRuralUrban= 0.353



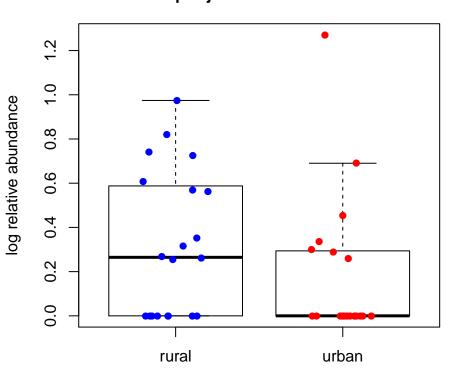
#### WGS species: Methanocella\_arvoryzae pAdjRuralUrban= 0.36



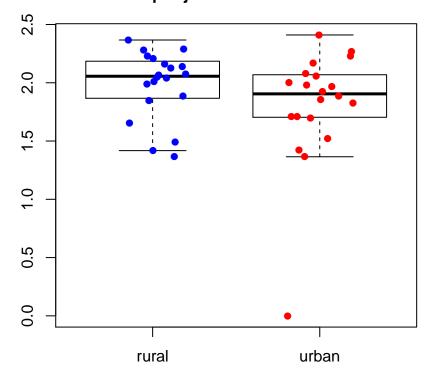
# WGS species: Methanoplanus\_petrolearius pAdjRuralUrban= 0.36



### WGS species: Caldicellulosiruptor\_hydrothermalis pAdjRuralUrban= 0.36

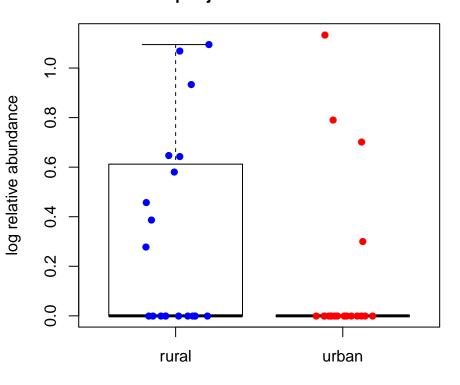


### WGS species: Paludibacter\_propionicigenes pAdjRuralUrban= 0.36

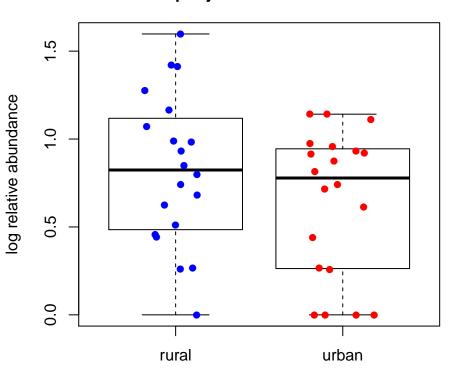


log relative abundance

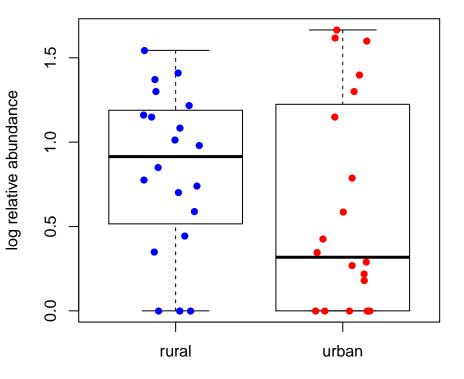
WGS species: Geobacillus\_sp.\_Y4.1MC1 pAdjRuralUrban= 0.36



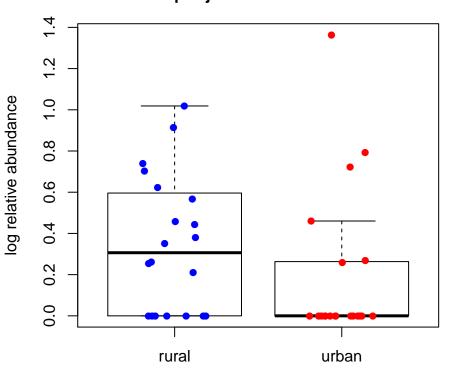
### WGS species: Spirosoma\_linguale pAdjRuralUrban= 0.36



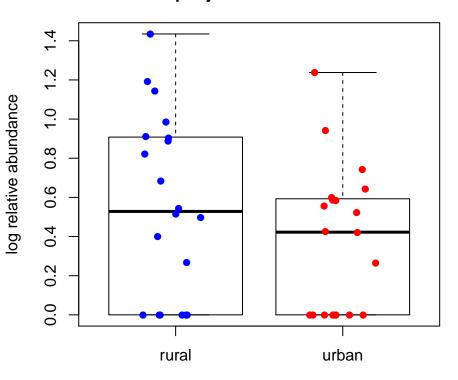
### WGS species: Sulfurihydrogenibium\_azorense pAdjRuralUrban= 0.36



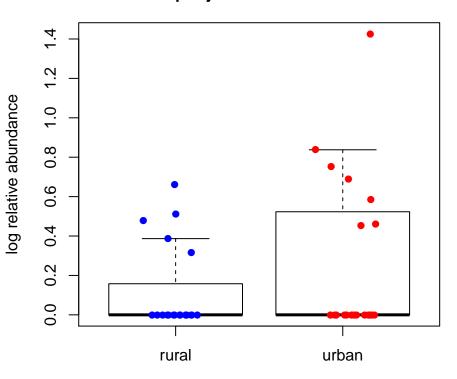
### WGS species: Sulfurospirillum\_barnesii pAdjRuralUrban= 0.36



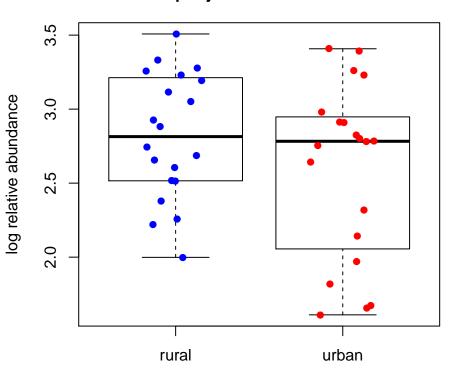
### WGS species: Flavobacterium\_indicum pAdjRuralUrban= 0.36



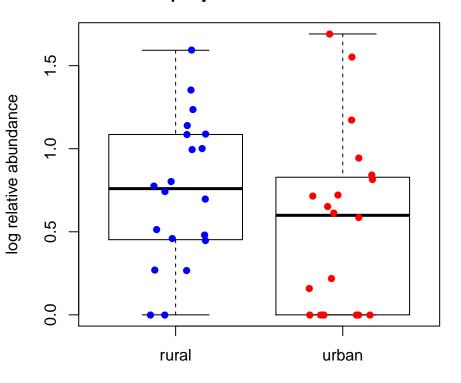
### WGS species: Micromonospora\_aurantiaca pAdjRuralUrban= 0.36



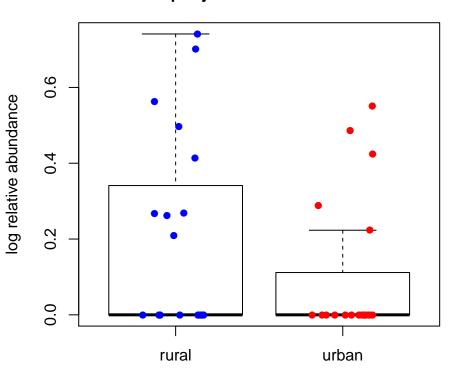
### WGS species: Oscillibacter\_valericigenes pAdjRuralUrban= 0.36



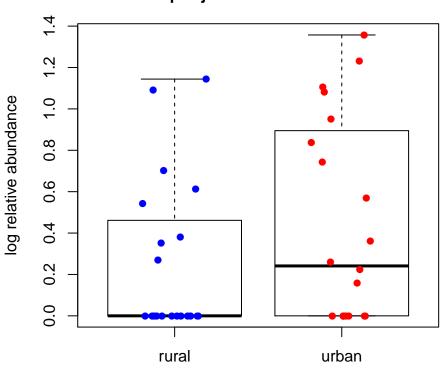
### WGS species: Brevundimonas\_subvibrioides pAdjRuralUrban= 0.361



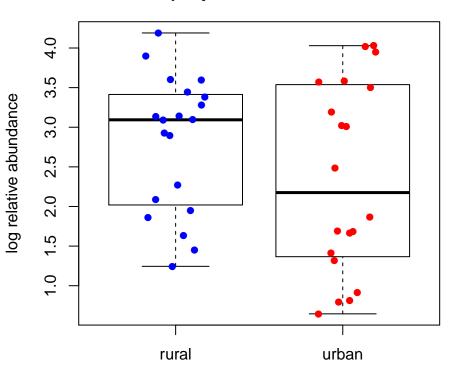
### WGS species: Acinetobacter\_oleivorans pAdjRuralUrban= 0.361



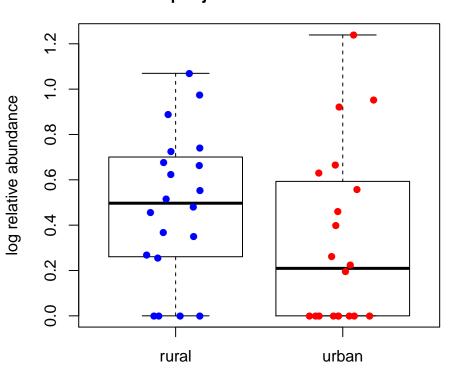
### WGS species: Bartonella\_tribocorum pAdjRuralUrban= 0.361



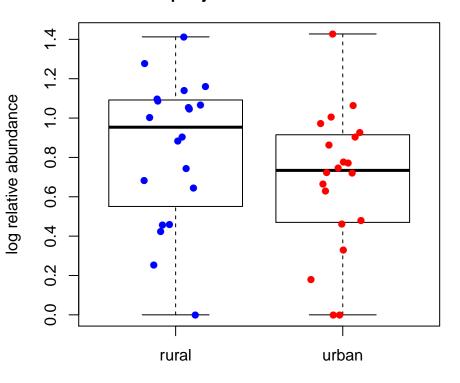
#### WGS species: Adlercreutzia\_equolifaciens pAdjRuralUrban= 0.361



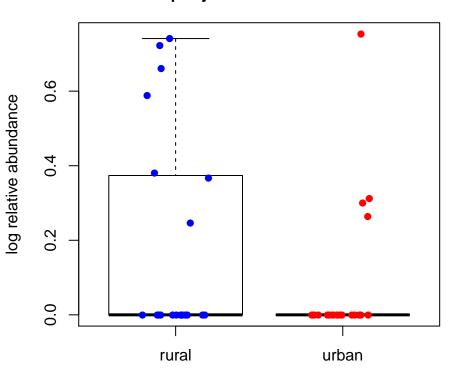
### WGS species: Dinoroseobacter\_shibae pAdjRuralUrban= 0.361



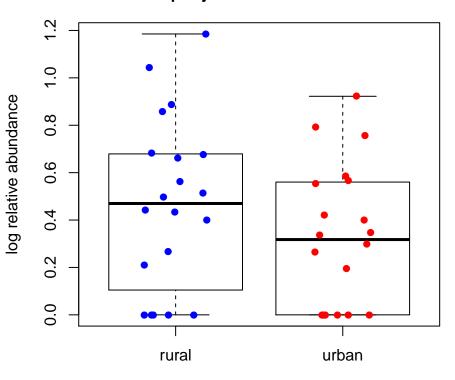
#### WGS species: Streptomyces\_rapamycinicus pAdjRuralUrban= 0.361



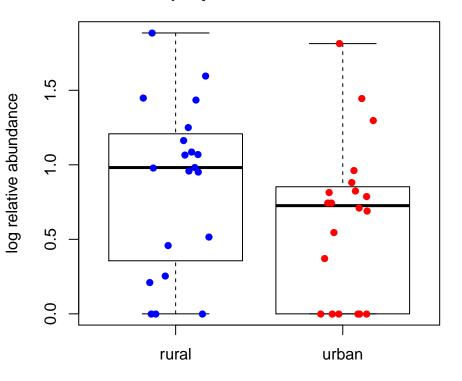
### WGS species: Sulfurospirillum\_deleyianum pAdjRuralUrban= 0.361



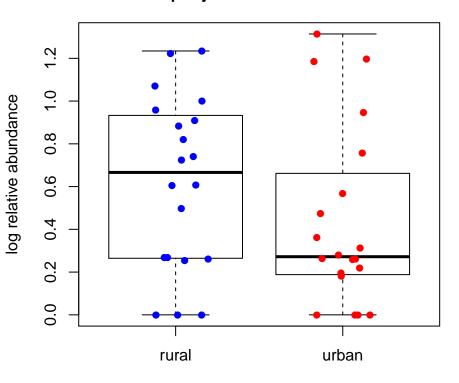
### WGS species: Acidithiobacillus\_ferrooxidans pAdjRuralUrban= 0.361



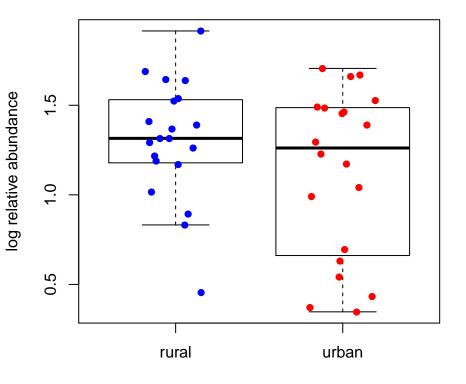
### WGS species: Echinicola\_vietnamensis pAdjRuralUrban= 0.362



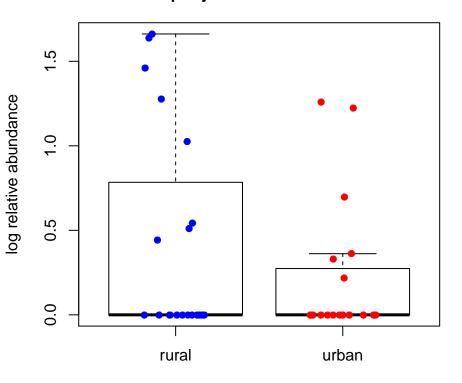
### WGS species: Thermobispora\_bispora pAdjRuralUrban= 0.362



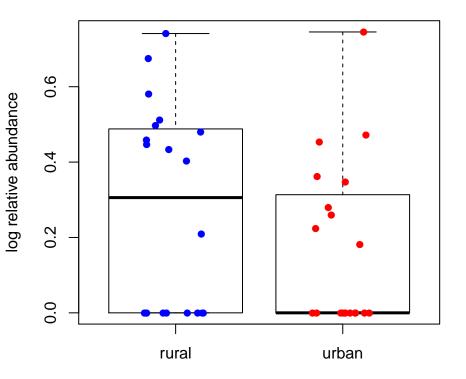
### WGS species: Pelobacter\_propionicus pAdjRuralUrban= 0.362



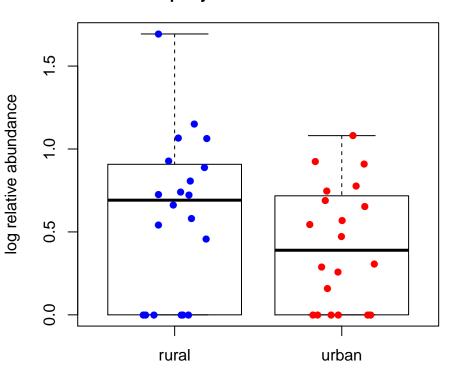
### WGS species: Enterobacteria\_phage\_HK225 pAdjRuralUrban= 0.365



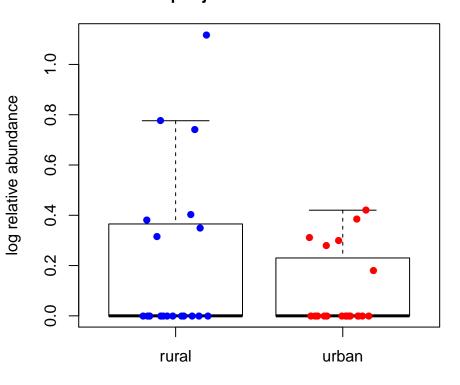
### WGS species: Candidatus\_Endolissoclinum\_faulkneri pAdjRuralUrban= 0.365



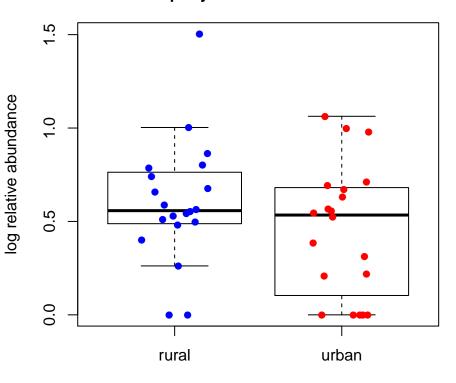
# WGS species: Gramella\_forsetii pAdjRuralUrban= 0.366



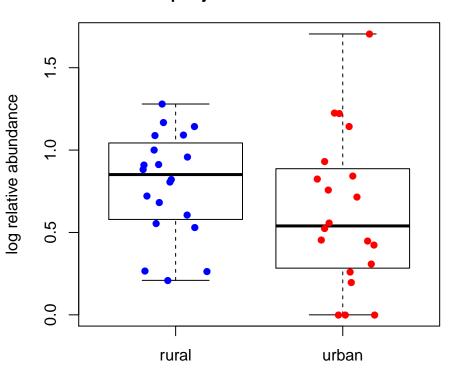
### WGS species: Acinetobacter\_sp.\_ADP1 pAdjRuralUrban= 0.367



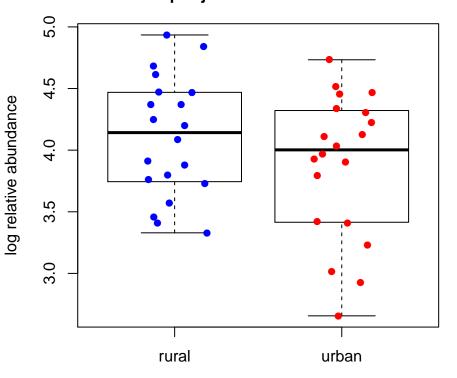
### WGS species: Acidithiobacillus\_ferrivorans pAdjRuralUrban= 0.368



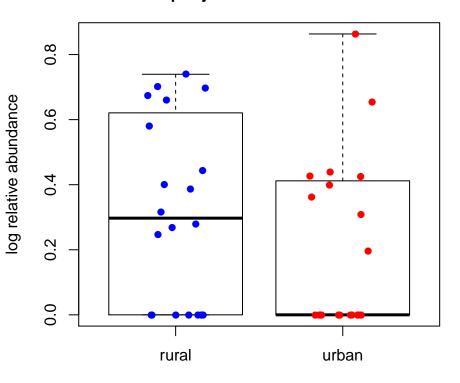
### WGS species: Azotobacter\_vinelandii pAdjRuralUrban= 0.368



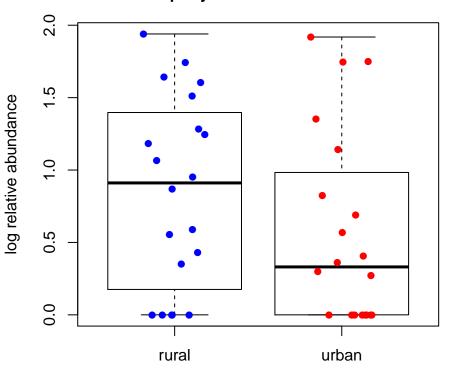
WGS species: butyrate.producing\_bacterium\_SSC.2 pAdjRuralUrban= 0.368



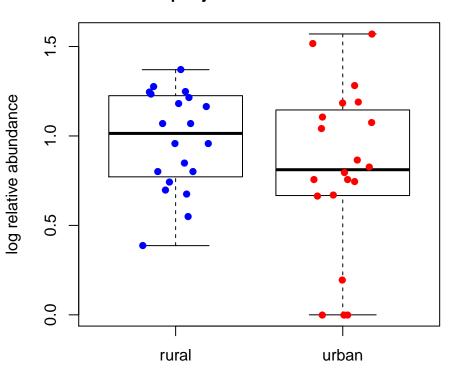
### WGS species: Methylocella\_silvestris pAdjRuralUrban= 0.368



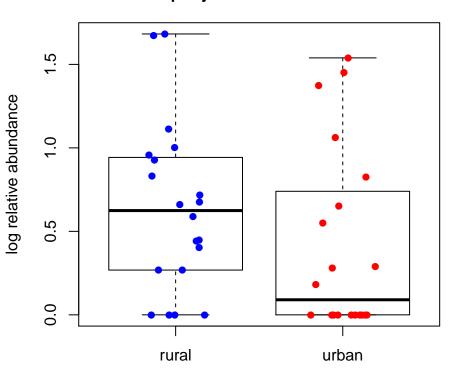
# WGS species: Erwinia\_tasmaniensis pAdjRuralUrban= 0.368



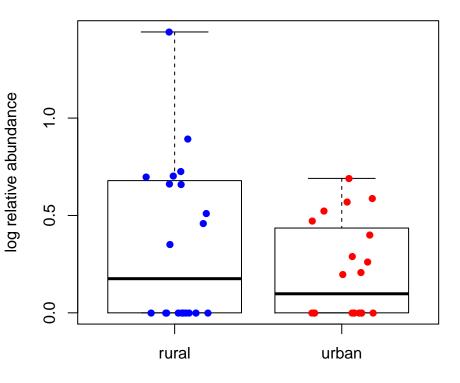
### WGS species: Streptomyces\_griseus pAdjRuralUrban= 0.369



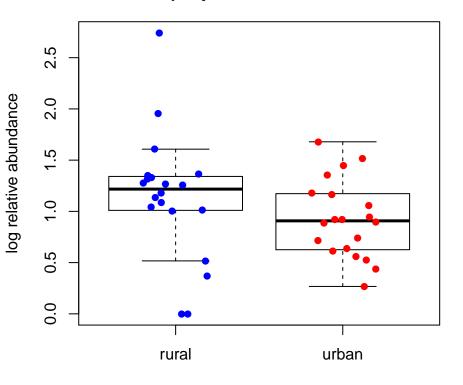
# WGS species: Thermovirga\_lienii pAdjRuralUrban= 0.369



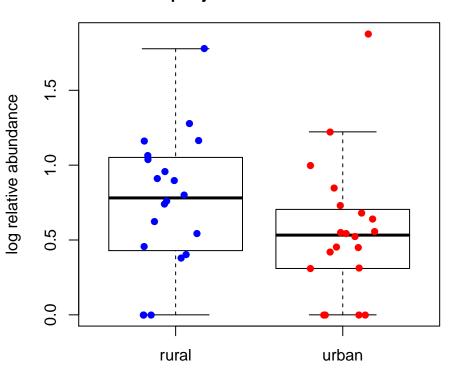
### WGS species: Sphingomonas\_wittichii pAdjRuralUrban= 0.369



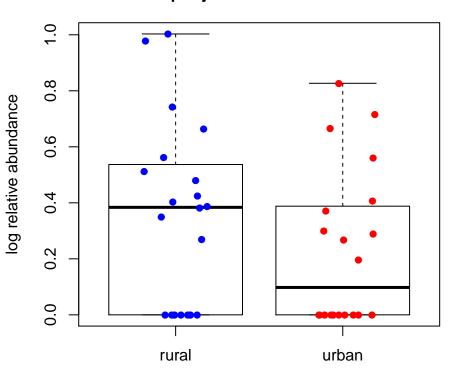
### WGS species: Lactobacillus\_delbrueckii pAdjRuralUrban= 0.369



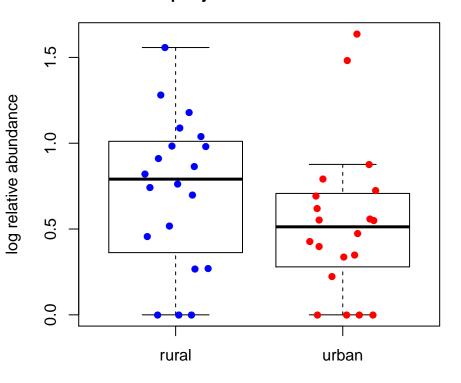
# WGS species: Xanthomonas\_albilineans pAdjRuralUrban= 0.371



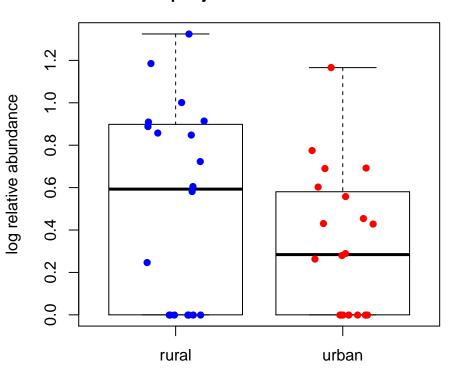
## WGS species: Anabaena\_cylindrica pAdjRuralUrban= 0.371



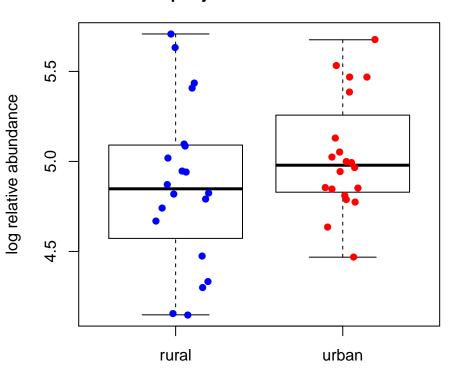
## WGS species: Caldilinea\_aerophila pAdjRuralUrban= 0.372



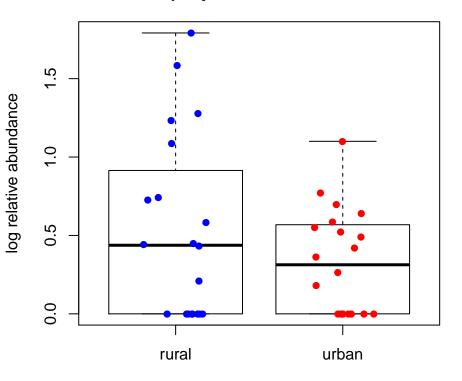
## WGS species: Rhodococcus\_opacus pAdjRuralUrban= 0.374



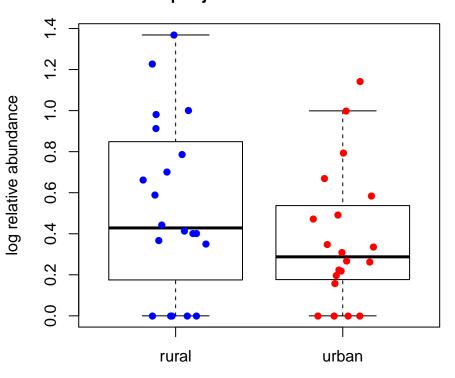
## WGS species: Bacteroides\_fragilis pAdjRuralUrban= 0.376



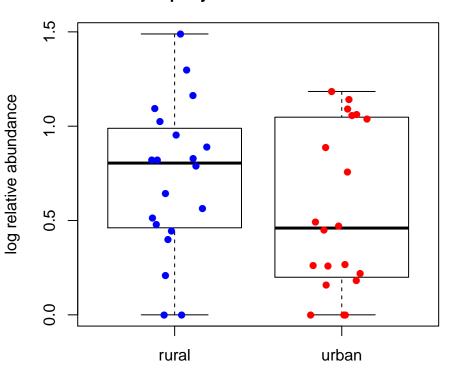
## WGS species: Coraliomargarita\_akajimensis pAdjRuralUrban= 0.377



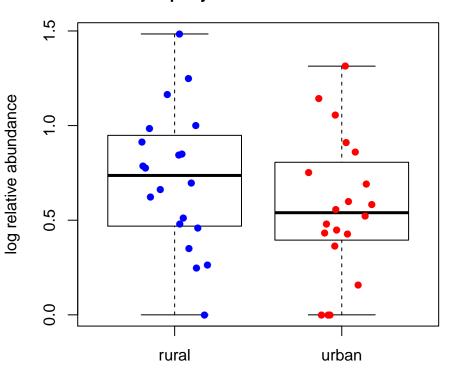
WGS species: Carnobacterium\_sp.\_17.4 pAdjRuralUrban= 0.378



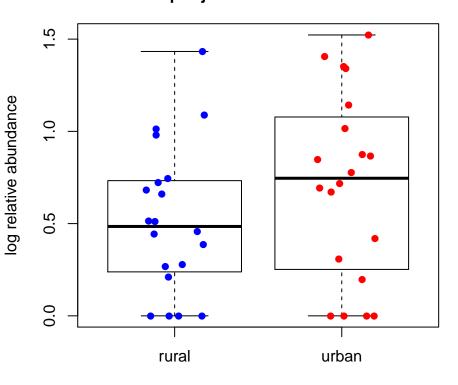
## WGS species: Kitasatospora\_setae pAdjRuralUrban= 0.382



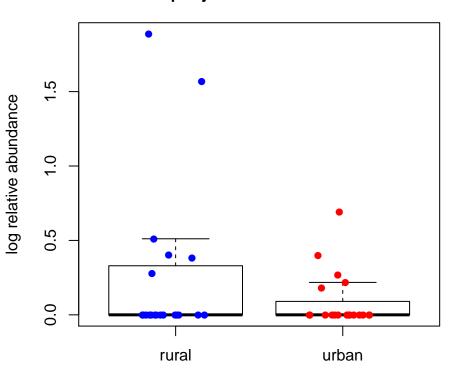
## WGS species: Sulfuricella\_denitrificans pAdjRuralUrban= 0.384



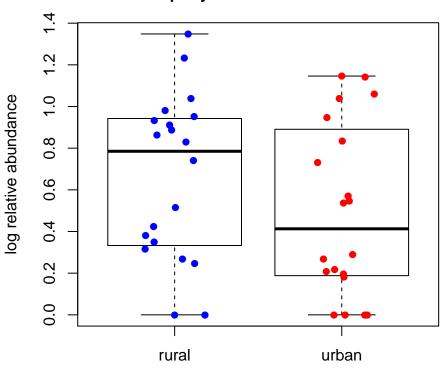
## WGS species: Desulfovibrio\_piezophilus pAdjRuralUrban= 0.385



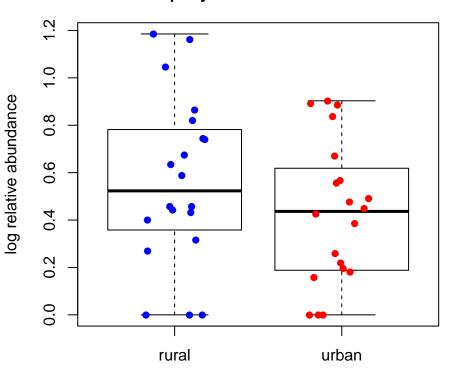
## WGS species: Flexistipes\_sinusarabici pAdjRuralUrban= 0.386



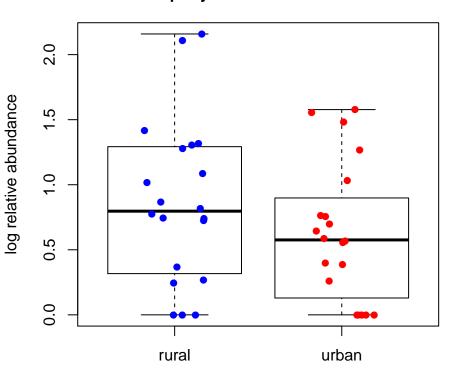
## WGS species: X.Cellvibrio.\_gilvus pAdjRuralUrban= 0.389



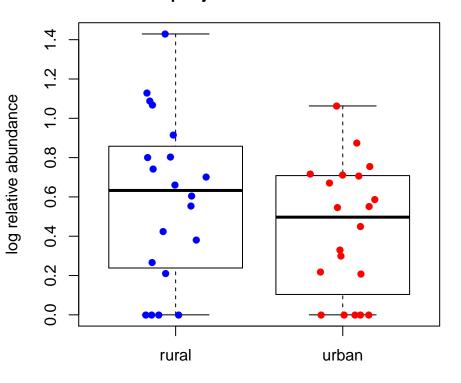
## WGS species: Thermus\_thermophilus pAdjRuralUrban= 0.392



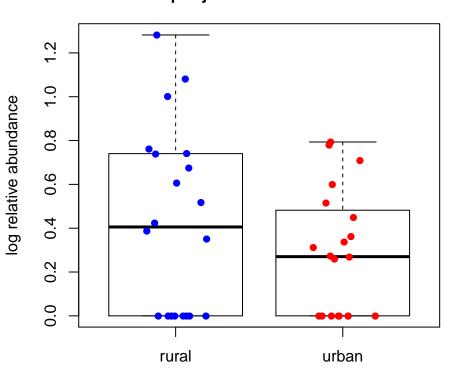
## WGS species: Pasteurella\_multocida pAdjRuralUrban= 0.393



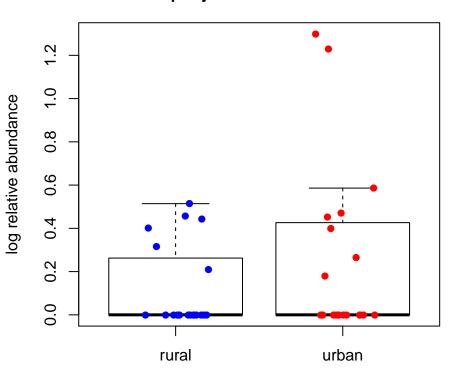
#### WGS species: Novosphingobium\_aromaticivorans pAdjRuralUrban= 0.393



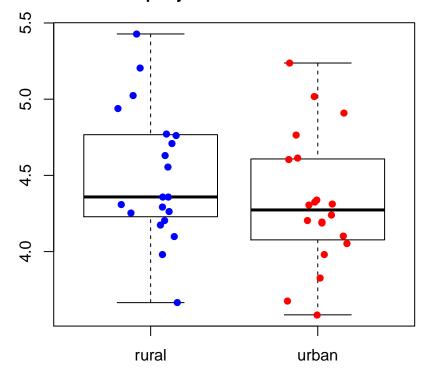
## WGS species: Clostridium\_ljungdahlii pAdjRuralUrban= 0.393



#### WGS species: Coprothermobacter\_proteolyticus pAdjRuralUrban= 0.393

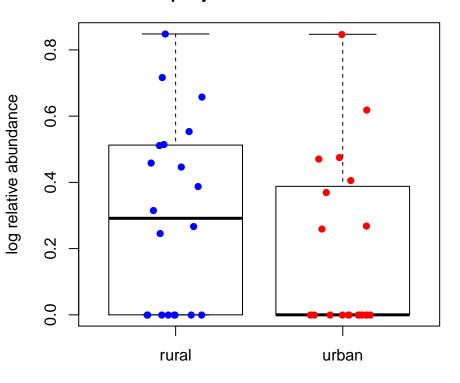


## WGS species: Alistipes\_shahii pAdjRuralUrban= 0.393

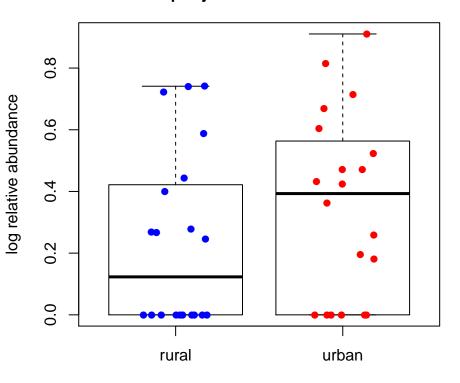


log relative abundance

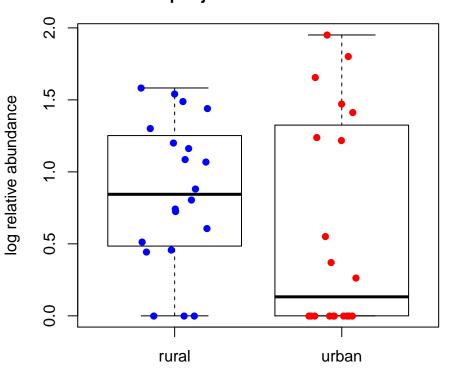
## WGS species: Aliivibrio\_salmonicida pAdjRuralUrban= 0.393



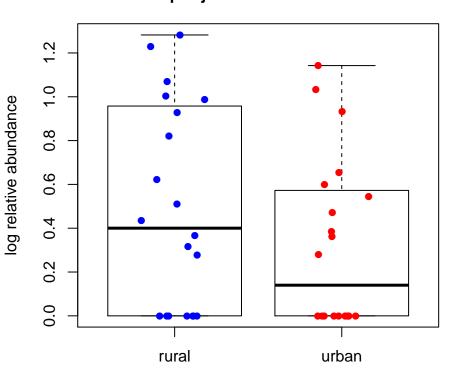
## WGS species: Oscillatoria\_nigro.viridis pAdjRuralUrban= 0.396



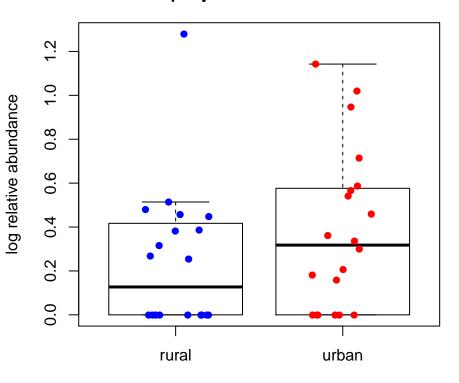
## WGS species: Cyclobacterium\_marinum pAdjRuralUrban= 0.396



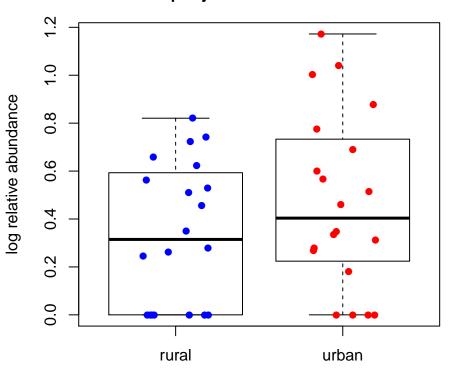
## WGS species: Burkholderia\_multivorans pAdjRuralUrban= 0.396



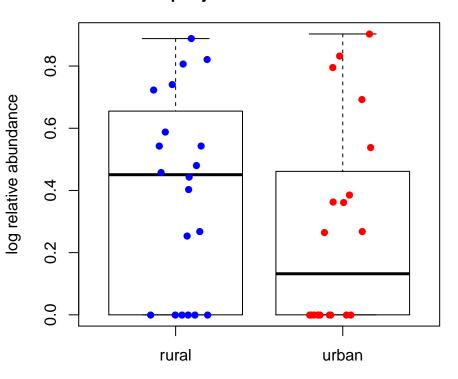
## WGS species: Xanthomonas\_oryzae pAdjRuralUrban= 0.401



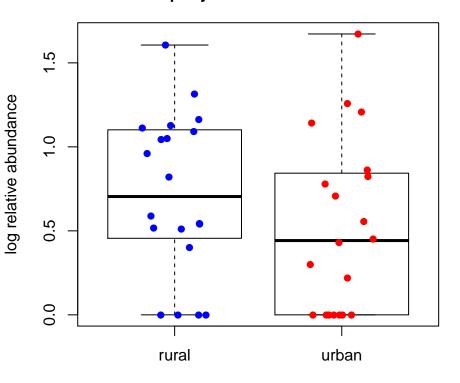
## WGS species: Dictyoglomus\_turgidum pAdjRuralUrban= 0.401



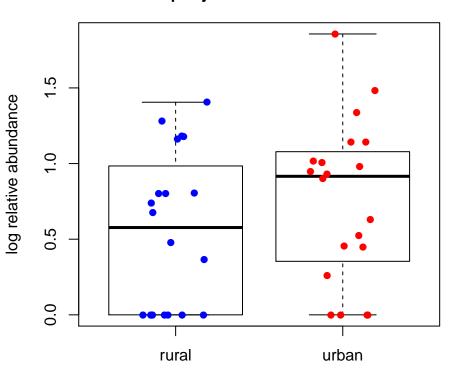
## WGS species: Cellulophaga\_lytica pAdjRuralUrban= 0.401



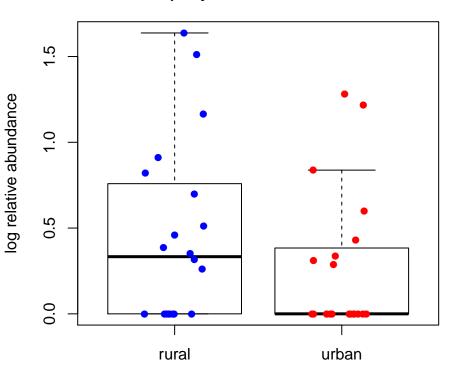
## WGS species: Pseudomonas\_fulva pAdjRuralUrban= 0.402



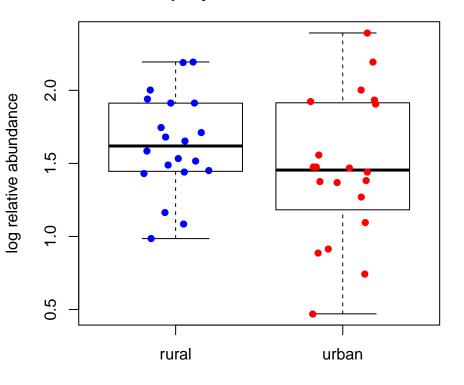
## WGS species: Candidatus\_Tremblaya\_phenacola pAdjRuralUrban= 0.405



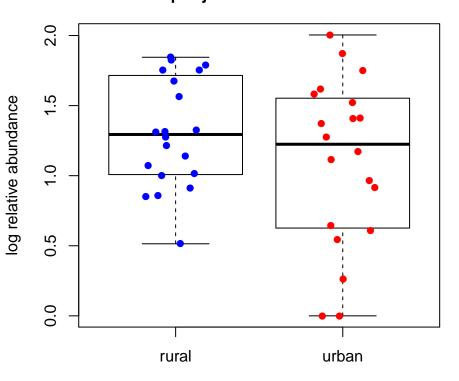
## WGS species: Capnocytophaga\_canimorsus pAdjRuralUrban= 0.405



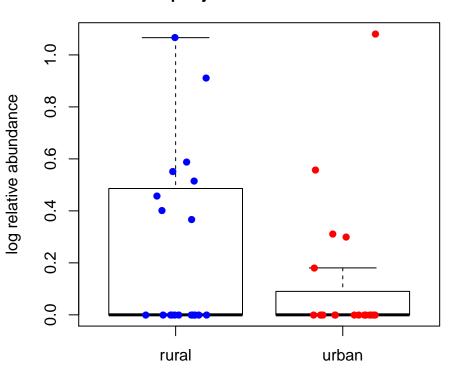
## WGS species: Selenomonas\_sputigena pAdjRuralUrban= 0.406



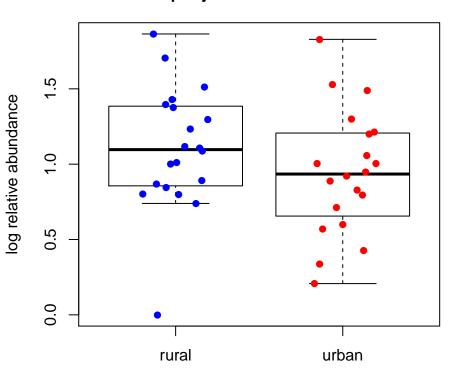
## WGS species: Emticicia\_oligotrophica pAdjRuralUrban= 0.406



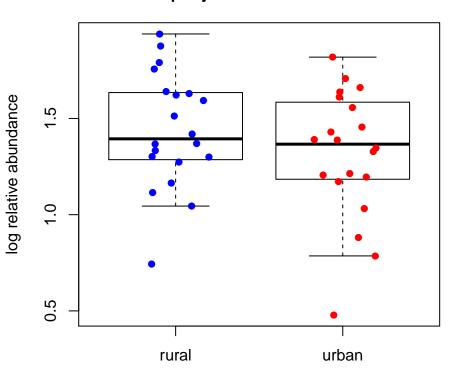
## WGS species: Acidiphilium\_cryptum pAdjRuralUrban= 0.408



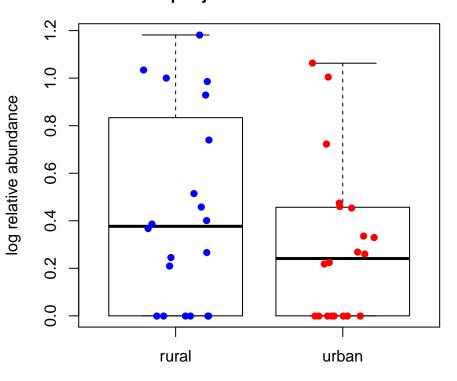
## WGS species: Acetobacterium\_woodii pAdjRuralUrban= 0.408



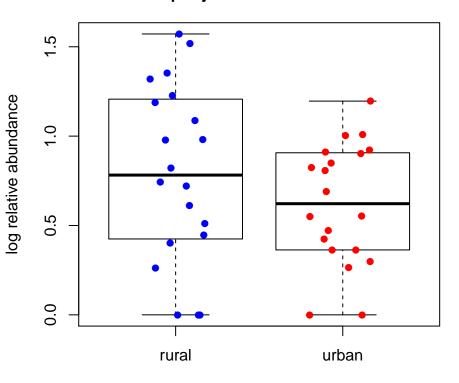
## WGS species: Neisseria\_meningitidis pAdjRuralUrban= 0.408



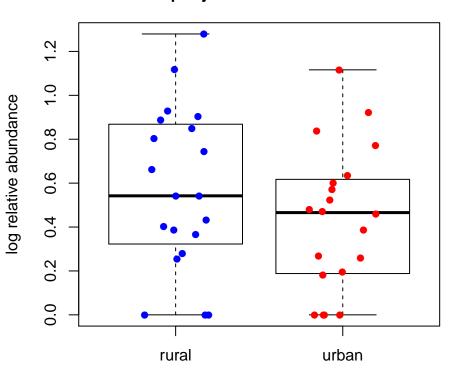
## WGS species: Acidimicrobium\_ferrooxidans pAdjRuralUrban= 0.408



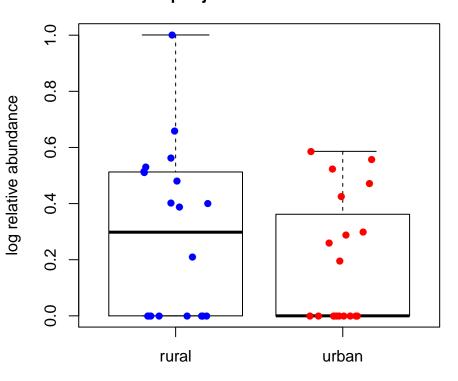
# WGS species: Francisella\_tularensis pAdjRuralUrban= 0.415



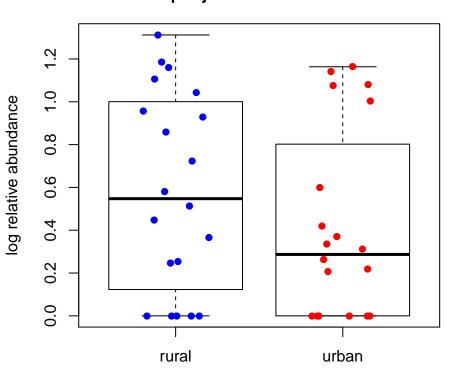
## WGS species: Synechococcus\_sp.\_WH\_8102 pAdjRuralUrban= 0.416



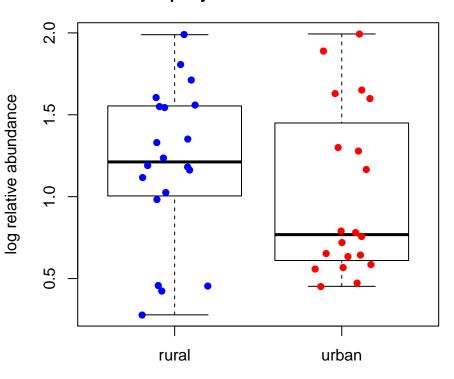
## WGS species: Actinoplanes\_sp.\_SE50.110 pAdjRuralUrban= 0.417



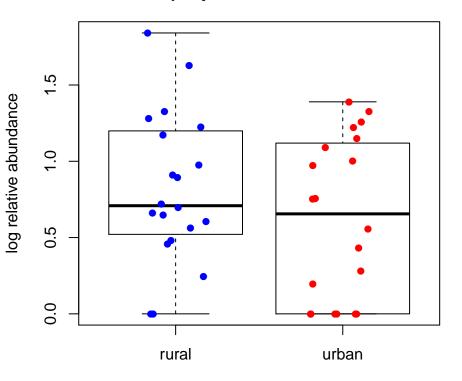
## WGS species: Paracoccus\_aminophilus pAdjRuralUrban= 0.417



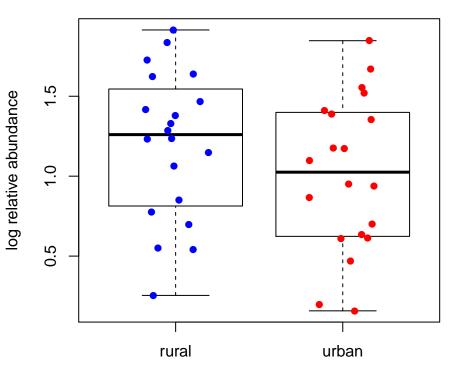
# WGS species: Fluviicola\_taffensis pAdjRuralUrban= 0.418



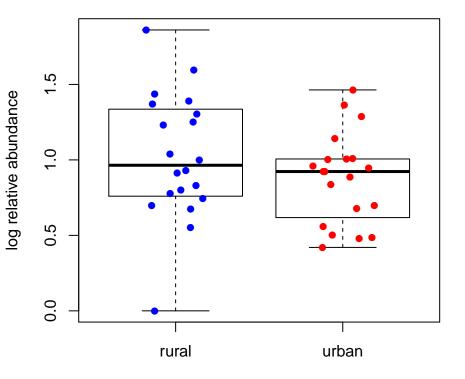
## WGS species: Halanaerobium\_hydrogeniformans pAdjRuralUrban= 0.419



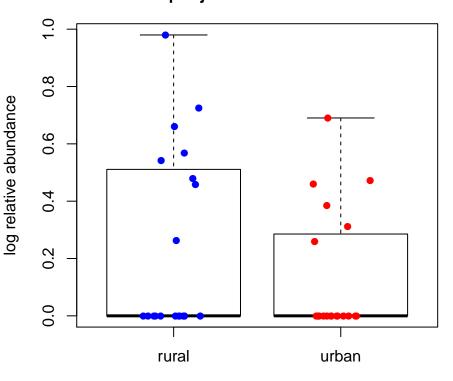
## WGS species: Symbiobacterium\_thermophilum pAdjRuralUrban= 0.42



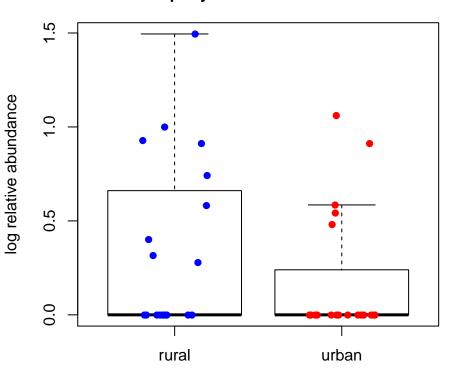
## WGS species: Desulfitobacterium\_hafniense pAdjRuralUrban= 0.42



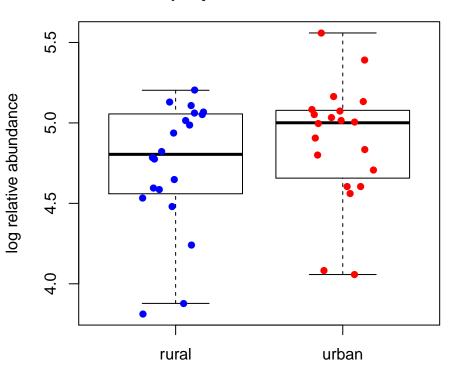
## WGS species: Leptospirillum\_ferrooxidans pAdjRuralUrban= 0.422



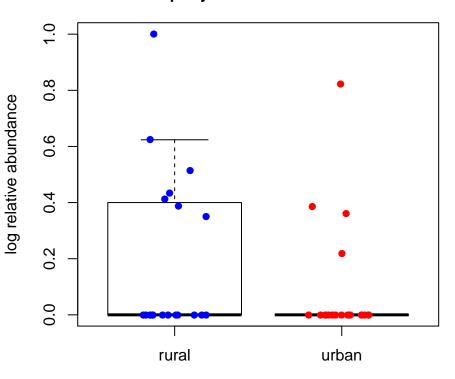
## WGS species: Rahnella\_sp.\_Y9602 pAdjRuralUrban= 0.422



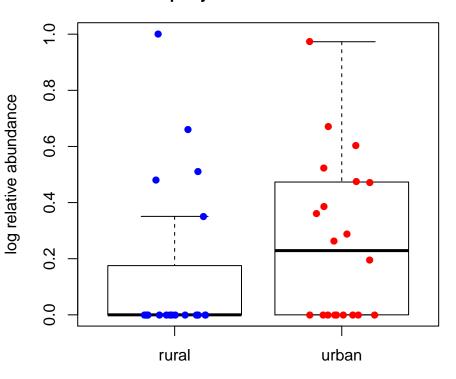
## WGS species: Bacteroides\_thetaiotaomicron pAdjRuralUrban= 0.423



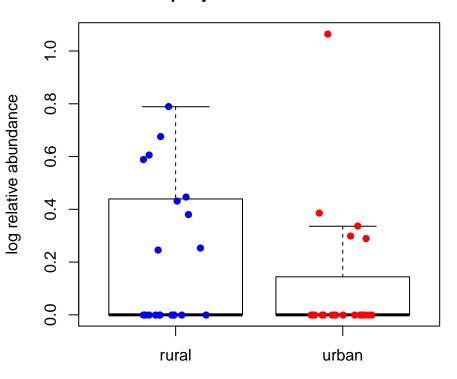
## WGS species: Rickettsia\_prowazekii pAdjRuralUrban= 0.423



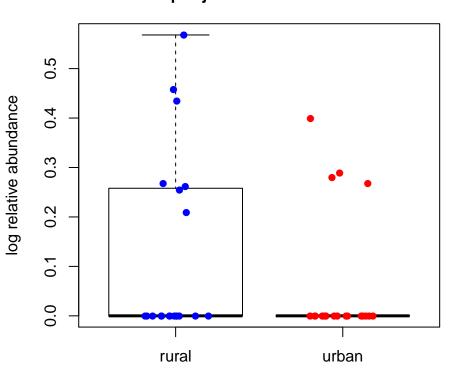
## WGS species: Cellvibrio\_japonicus pAdjRuralUrban= 0.425



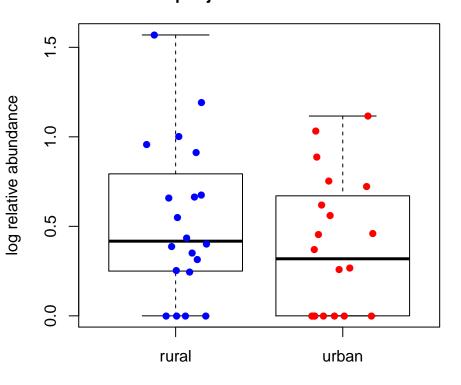
## WGS species: Borrelia\_turicatae pAdjRuralUrban= 0.427



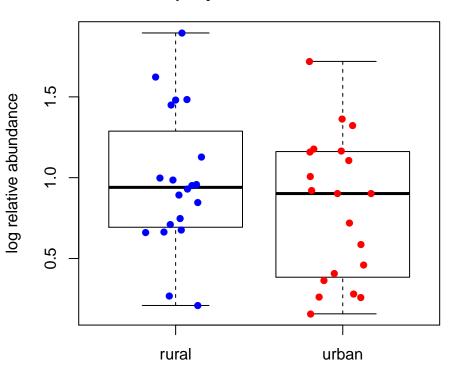
WGS species: Synechococcus\_sp.\_PCC\_6312 pAdjRuralUrban= 0.429



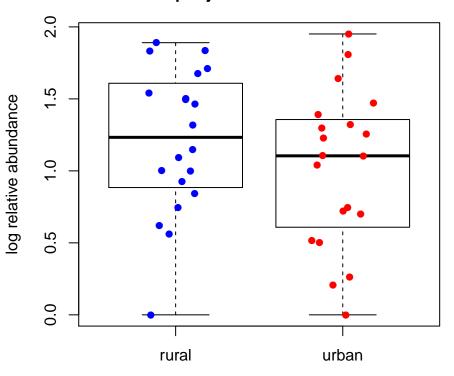
## WGS species: Gloeobacter\_kilaueensis pAdjRuralUrban= 0.43



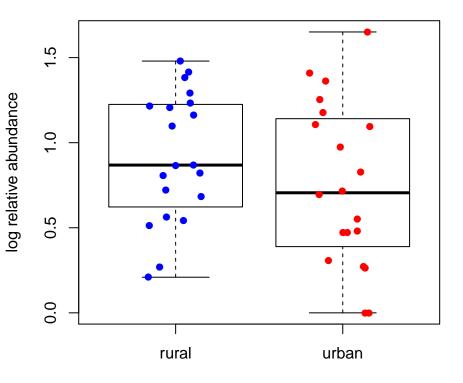
## WGS species: Gallionella\_capsiferriformans pAdjRuralUrban= 0.43



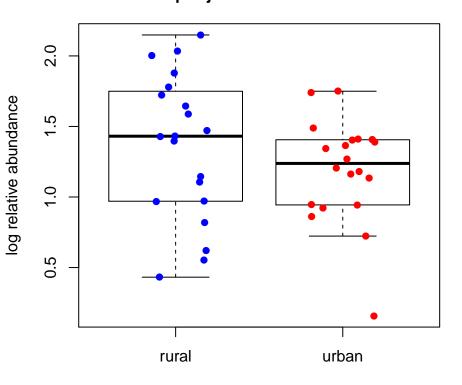
## WGS species: Rhodopseudomonas\_palustris pAdjRuralUrban= 0.43



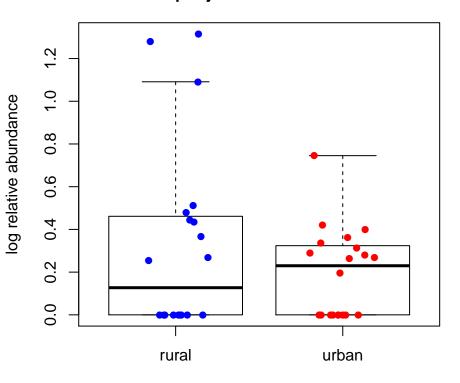
## WGS species: Rhizobium\_leguminosarum pAdjRuralUrban= 0.43



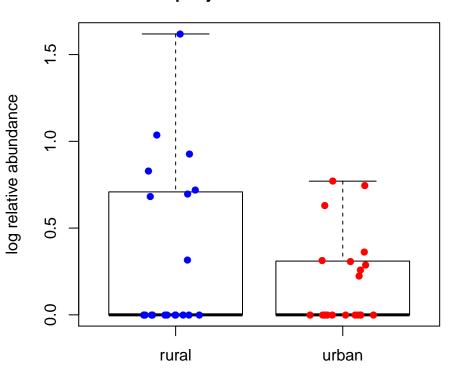
## WGS species: Chitinophaga\_pinensis pAdjRuralUrban= 0.43



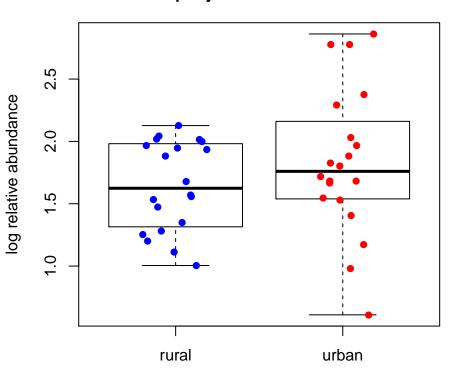
## WGS species: Shewanella\_violacea pAdjRuralUrban= 0.43



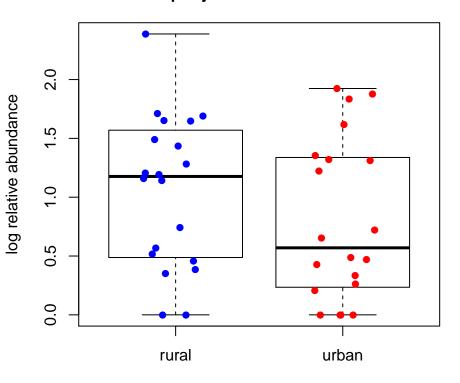
# WGS species: Wolinella\_succinogenes pAdjRuralUrban= 0.43



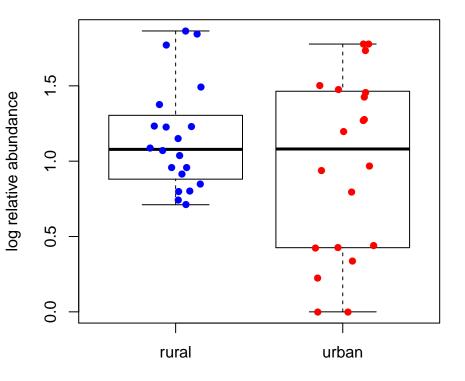
## WGS species: Campylobacter\_coli pAdjRuralUrban= 0.43



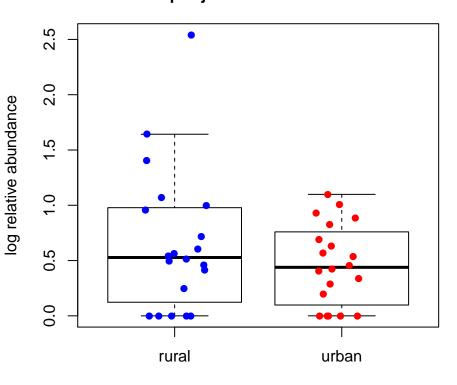
## WGS species: Lactobacillus\_buchneri pAdjRuralUrban= 0.432



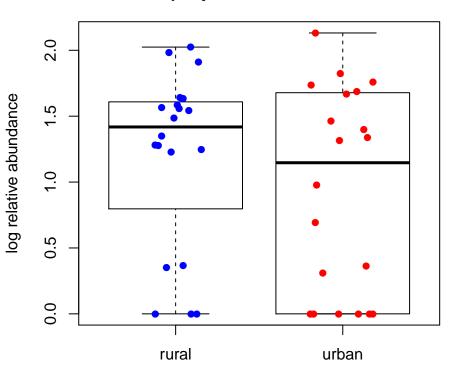
## WGS species: Bacillus\_licheniformis pAdjRuralUrban= 0.435



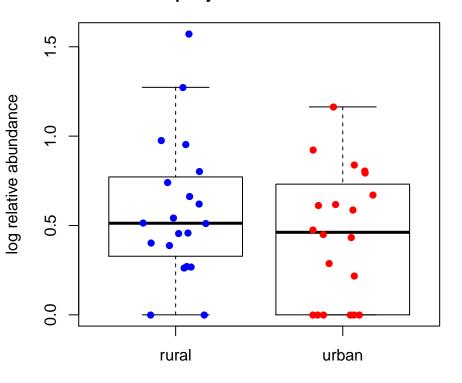
## WGS species: Lactobacillus\_brevis pAdjRuralUrban= 0.439



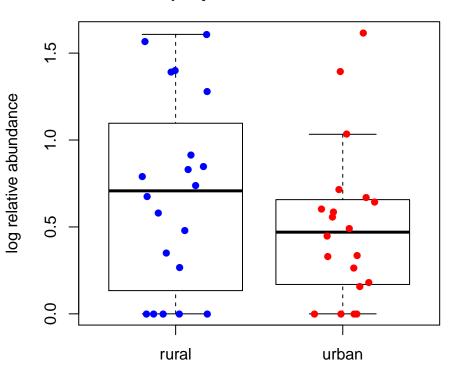
## WGS species: Pectobacterium\_carotovorum pAdjRuralUrban= 0.439



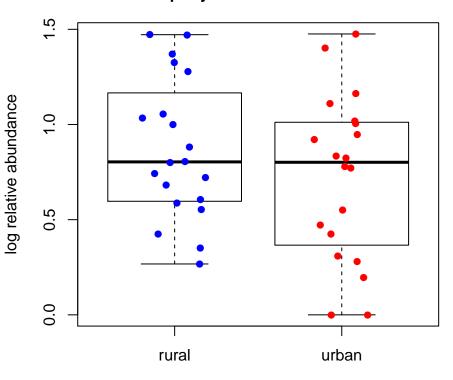
## WGS species: Thioalkalimicrobium\_cyclicum pAdjRuralUrban= 0.44



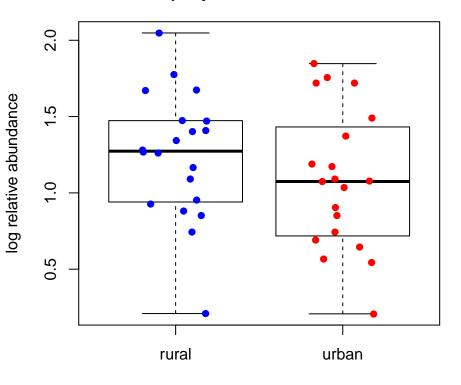
## WGS species: Staphylococcus\_pseudintermedius pAdjRuralUrban= 0.442



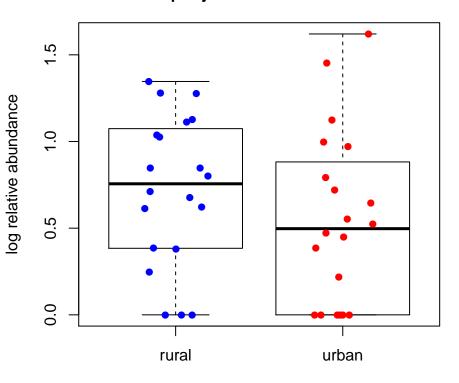
## WGS species: Rhizobium\_sp.\_IRBG74 pAdjRuralUrban= 0.442



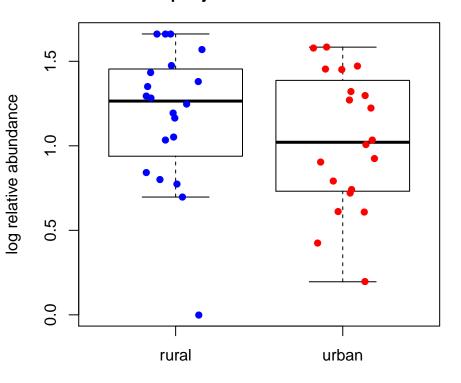
## WGS species: Bifidobacterium\_asteroides pAdjRuralUrban= 0.444



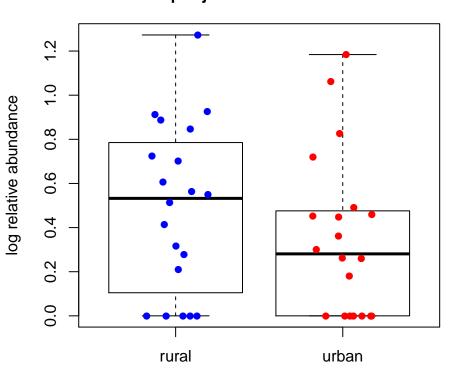
# WGS species: Bordetella\_avium pAdjRuralUrban= 0.447



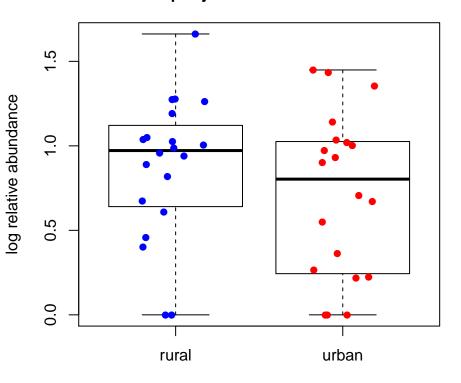
## WGS species: Enterococcus\_sp.\_7L76 pAdjRuralUrban= 0.447



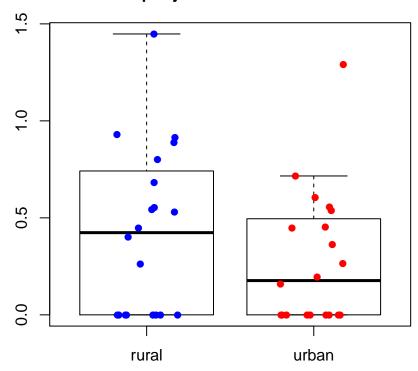
## WGS species: Syntrophus\_aciditrophicus pAdjRuralUrban= 0.447



## WGS species: Sinorhizobium\_medicae pAdjRuralUrban= 0.451

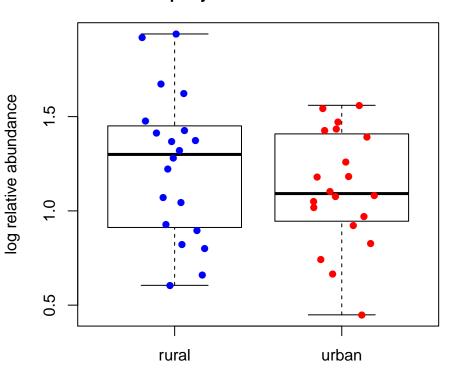


## WGS species: Nocardiopsis\_alba pAdjRuralUrban= 0.451

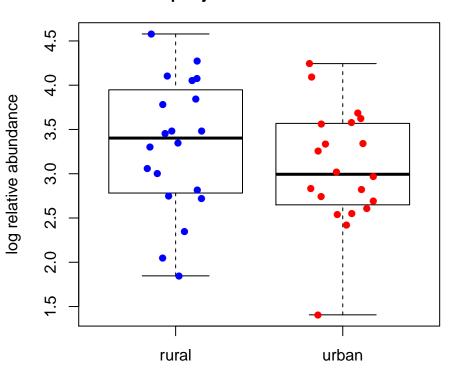


log relative abundance

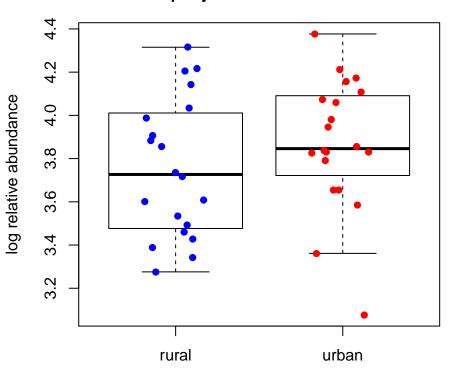
# WGS species: Clostridium\_tetani pAdjRuralUrban= 0.452



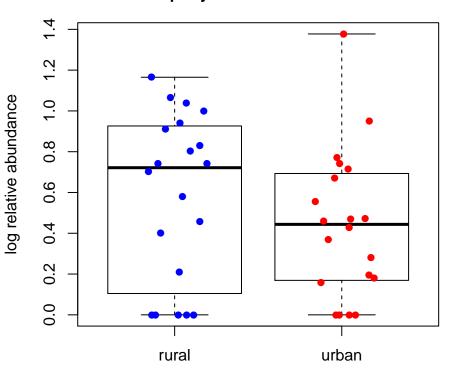
## WGS species: Bifidobacterium\_longum pAdjRuralUrban= 0.454



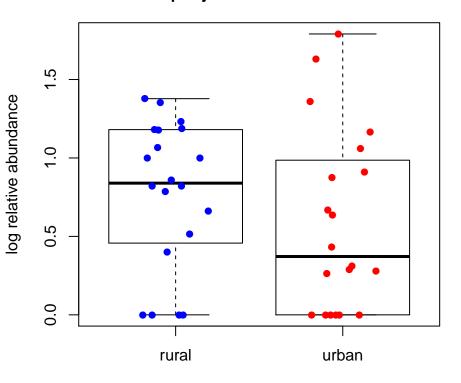
## WGS species: Bacteroides\_helcogenes pAdjRuralUrban= 0.454



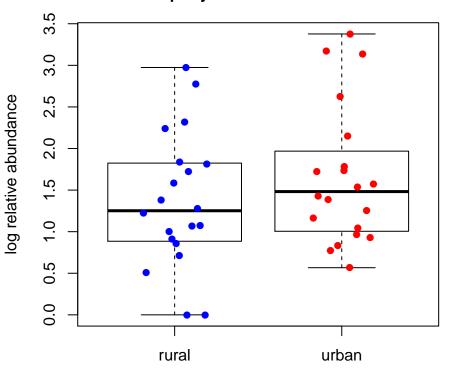
## WGS species: Acidovorax\_citrulli pAdjRuralUrban= 0.454



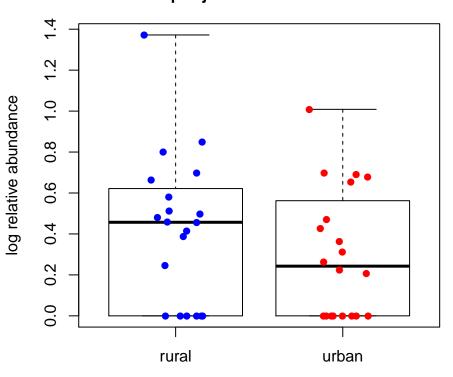
# WGS species: Chlorobium\_limicola pAdjRuralUrban= 0.457



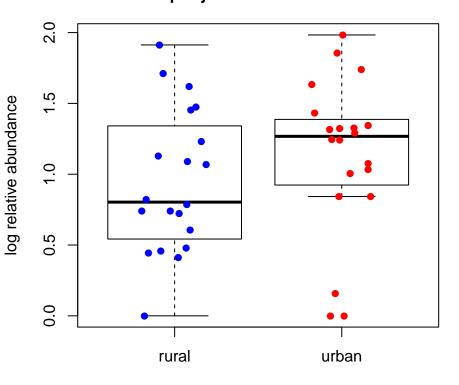
## WGS species: Shigella\_flexneri pAdjRuralUrban= 0.457



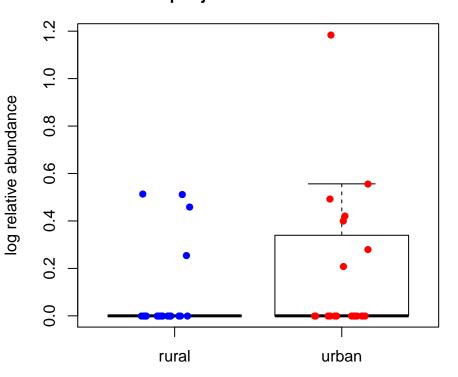
#### WGS species: Sideroxydans\_lithotrophicus pAdjRuralUrban= 0.457



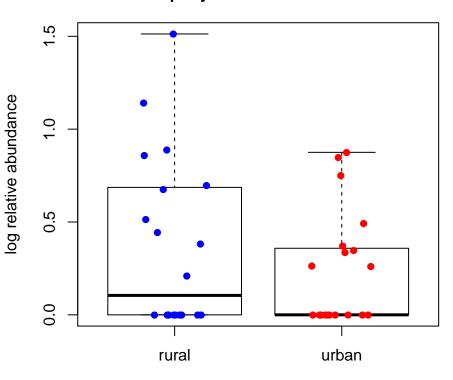
## WGS species: Methanocorpusculum\_labreanum pAdjRuralUrban= 0.457



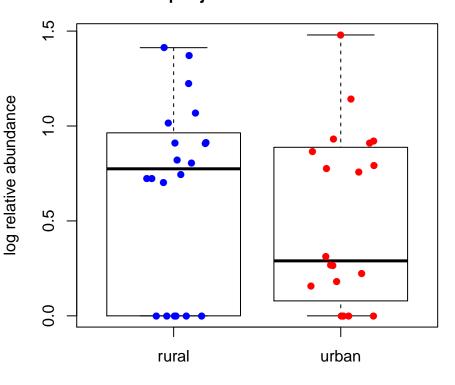
#### WGS species: Thermodesulfobacterium\_geofontis pAdjRuralUrban= 0.457



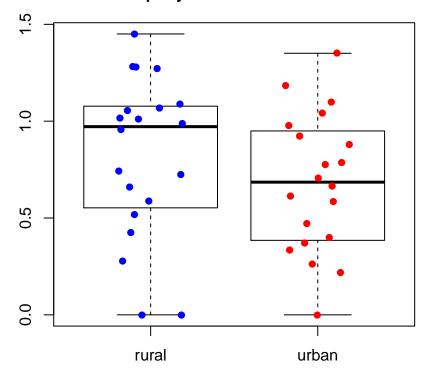
## WGS species: Hahella\_chejuensis pAdjRuralUrban= 0.457



# WGS species: Streptomyces\_bingchenggensis pAdjRuralUrban= 0.457

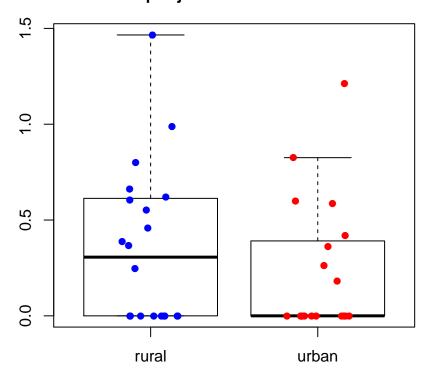


## WGS species: Agrobacterium\_tumefaciens pAdjRuralUrban= 0.457



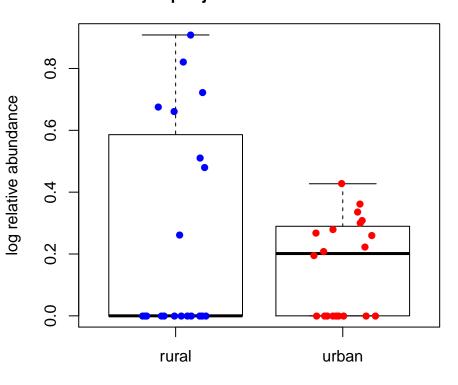
log relative abundance

## WGS species: Microlunatus\_phosphovorus pAdjRuralUrban= 0.457

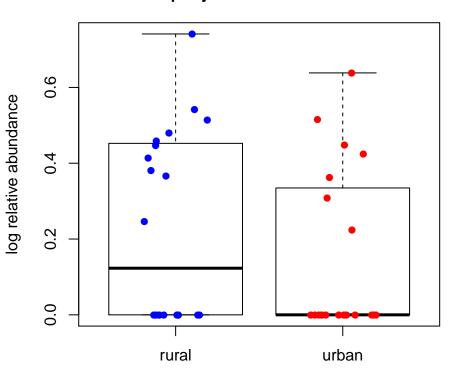


log relative abundance

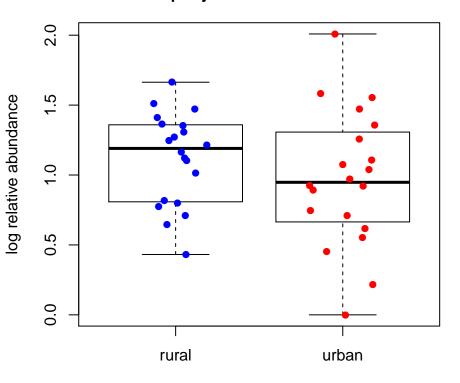
## WGS species: Thiomicrospira\_crunogena pAdjRuralUrban= 0.457



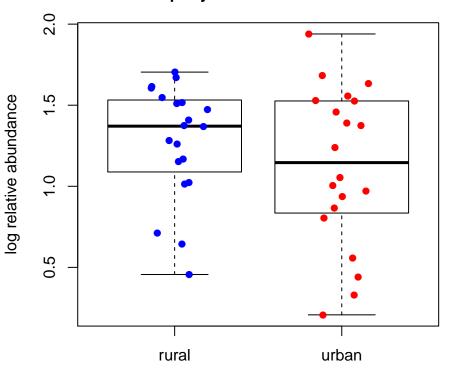
## WGS species: Weeksella\_virosa pAdjRuralUrban= 0.457



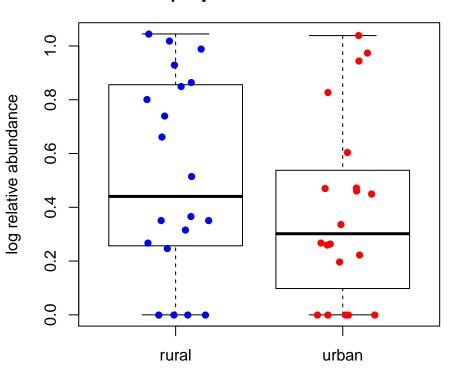
## WGS species: Thermaerobacter\_marianensis pAdjRuralUrban= 0.457



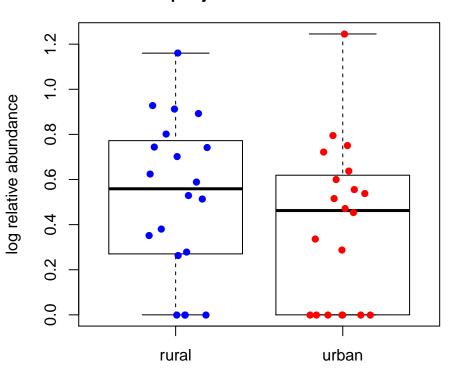
## WGS species: Geobacter\_sp.\_M18 pAdjRuralUrban= 0.457



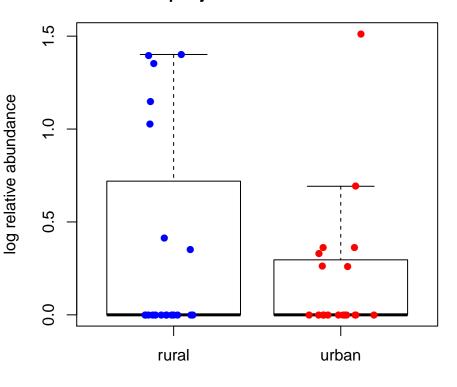
## WGS species: Mycobacterium\_sp.\_JDM601 pAdjRuralUrban= 0.457



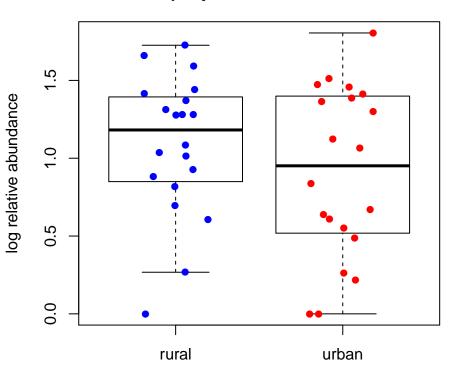
## WGS species: Burkholderia\_sp.\_RPE64 pAdjRuralUrban= 0.457



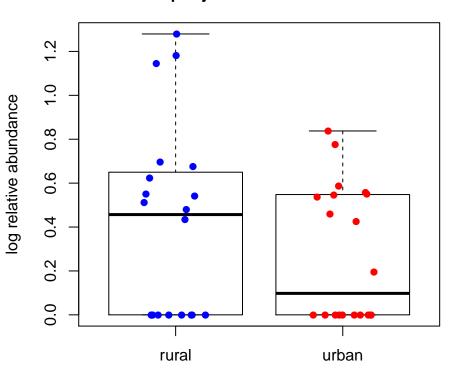
## WGS species: Enterobacteria\_phage\_mEp237 pAdjRuralUrban= 0.461



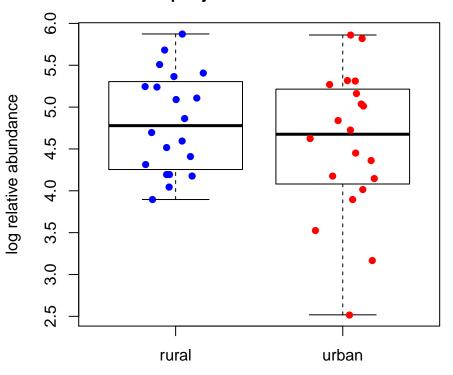
# WGS species: Deinococcus\_deserti pAdjRuralUrban= 0.461



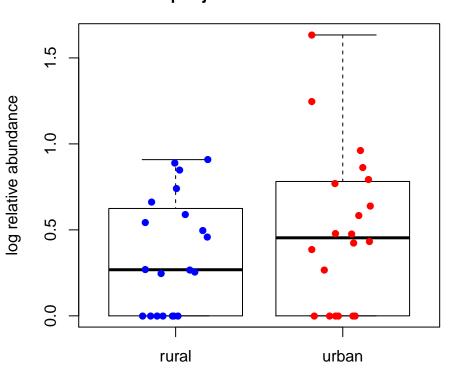
## WGS species: Hyphomicrobium\_nitrativorans pAdjRuralUrban= 0.461



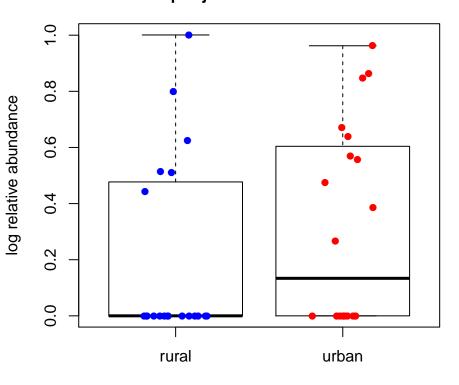
## WGS species: Eubacterium\_rectale pAdjRuralUrban= 0.462



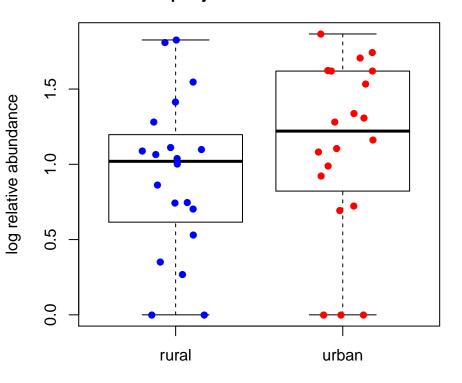
## WGS species: Streptomyces\_venezuelae pAdjRuralUrban= 0.464



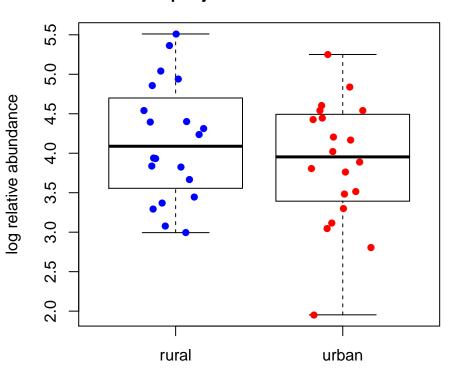
## WGS species: Phaeobacter\_gallaeciensis pAdjRuralUrban= 0.471



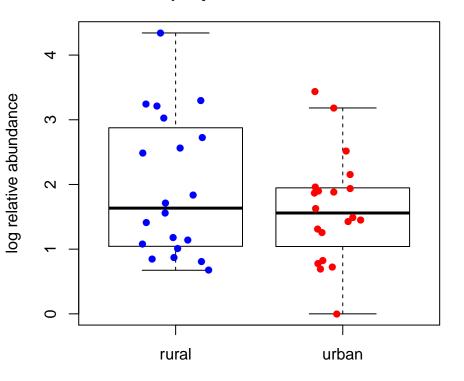
## WGS species: Runella\_slithyformis pAdjRuralUrban= 0.472



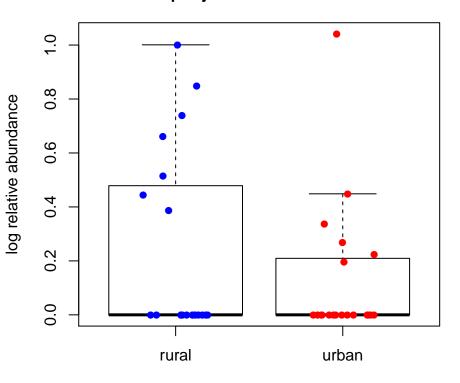
## WGS species: Ruminococcus\_bromii pAdjRuralUrban= 0.473



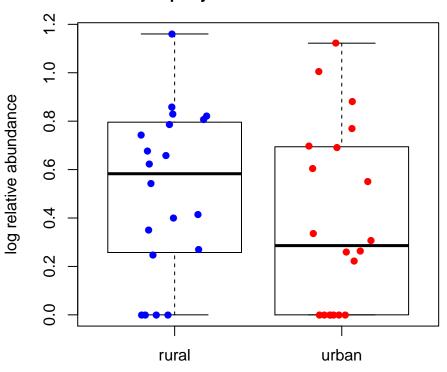
## WGS species: Enterobacter\_aerogenes pAdjRuralUrban= 0.473



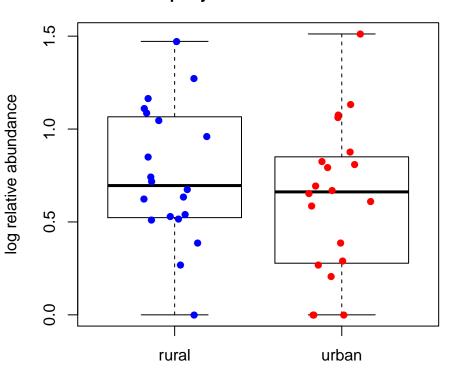
#### WGS species: Candidatus\_Phytoplasma\_mali pAdjRuralUrban= 0.473



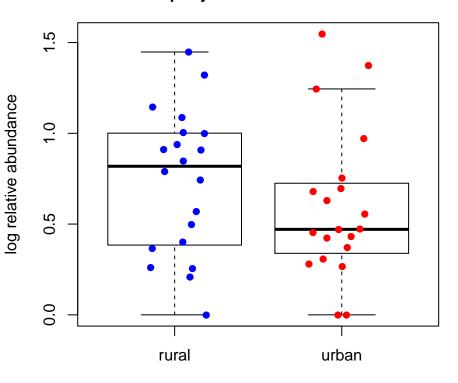
## WGS species: Brachyspira\_intermedia pAdjRuralUrban= 0.473



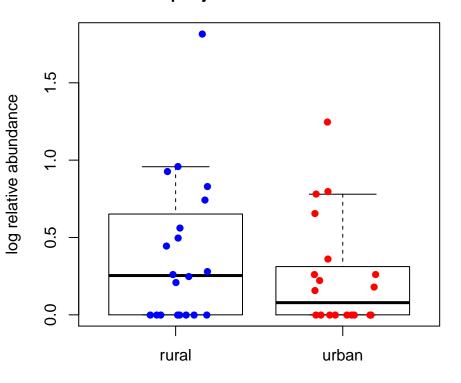
## WGS species: Burkholderia\_gladioli pAdjRuralUrban= 0.475



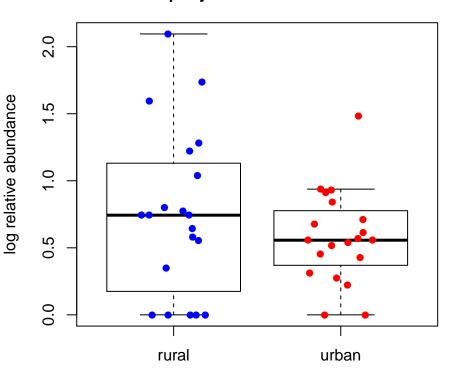
## WGS species: Chlorobaculum\_parvum pAdjRuralUrban= 0.476



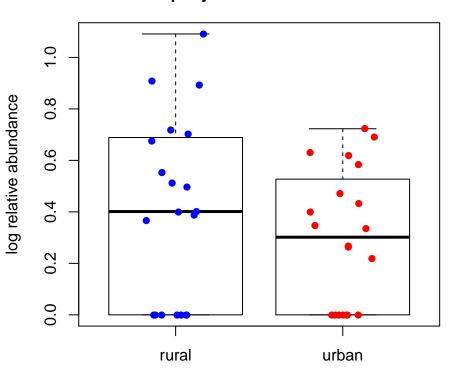
## WGS species: Myxococcus\_fulvus pAdjRuralUrban= 0.478



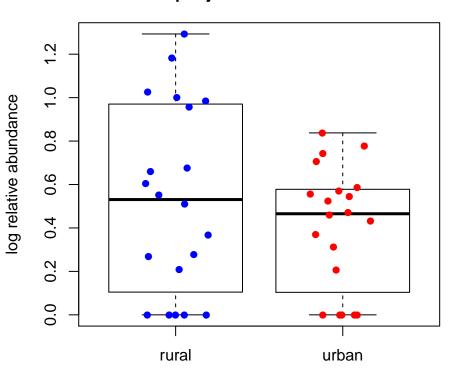
## WGS species: Desulfovibrio\_hydrothermalis pAdjRuralUrban= 0.479



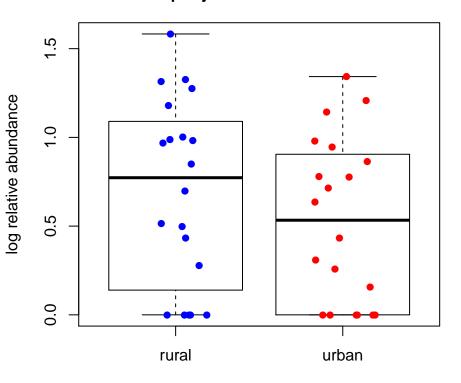
## WGS species: Bacillus\_pumilus pAdjRuralUrban= 0.479



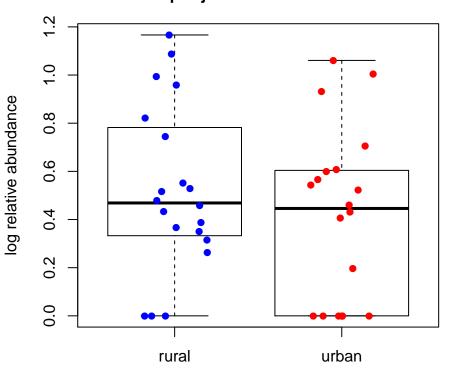
## WGS species: Stackebrandtia\_nassauensis pAdjRuralUrban= 0.48



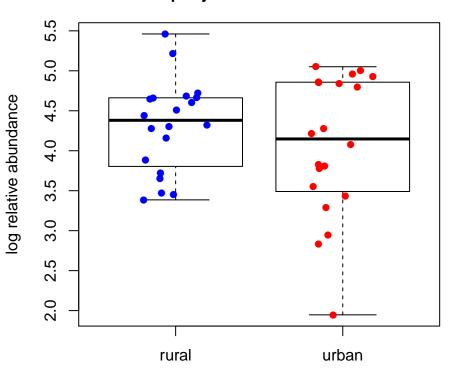
## WGS species: Pelodictyon\_luteolum pAdjRuralUrban= 0.481



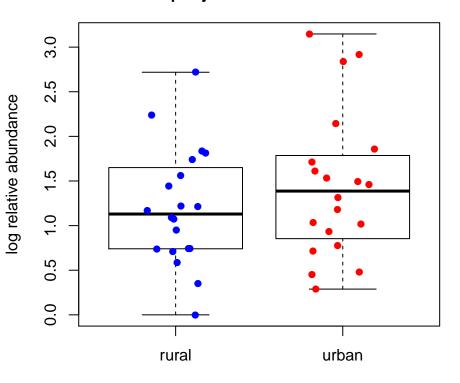
## WGS species: Bacillus\_pseudofirmus pAdjRuralUrban= 0.483



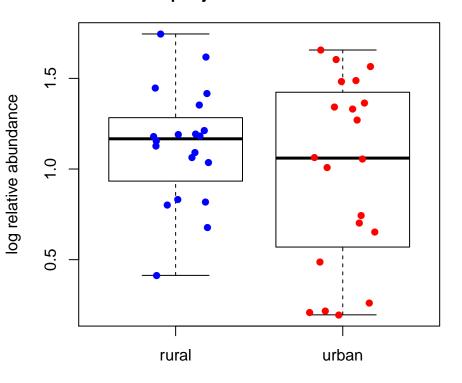
# WGS species: X.Eubacterium.\_eligens pAdjRuralUrban= 0.483



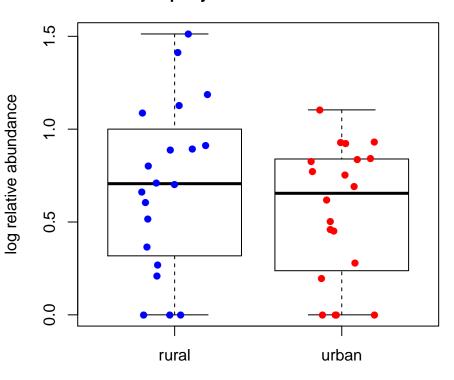
# WGS species: Shigella\_dysenteriae pAdjRuralUrban= 0.483



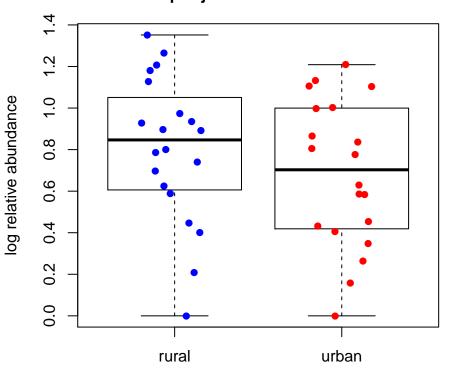
# WGS species: Ramlibacter\_tataouinensis pAdjRuralUrban= 0.484



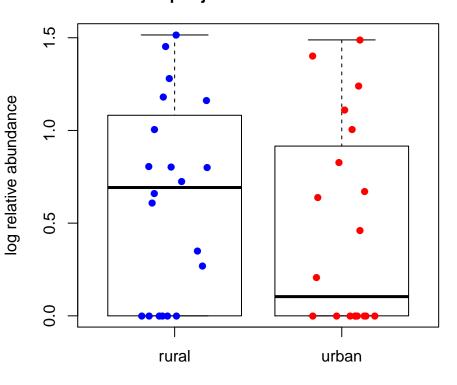
# WGS species: Geobacter\_bemidjiensis pAdjRuralUrban= 0.485



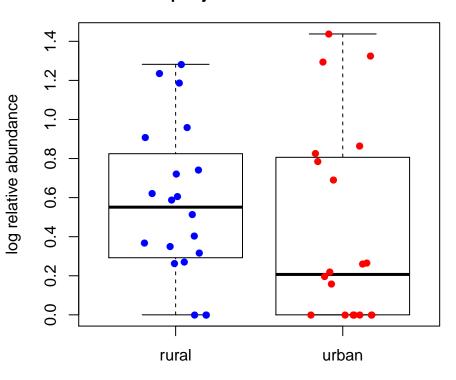
#### WGS species: Desulfobacterium\_autotrophicum pAdjRuralUrban= 0.486



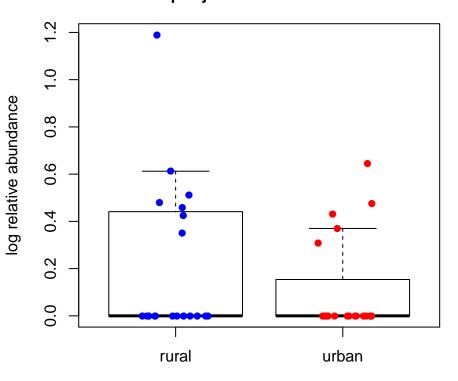
# WGS species: Rhodomicrobium\_vannielii pAdjRuralUrban= 0.488



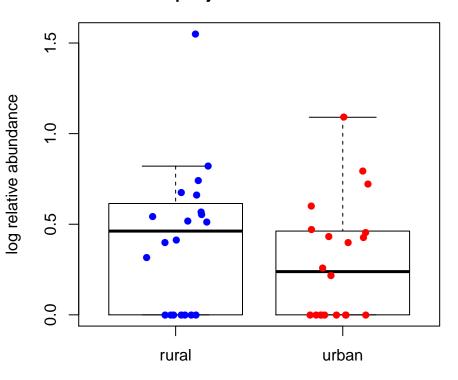
# WGS species: Enterococcus\_mundtii pAdjRuralUrban= 0.488



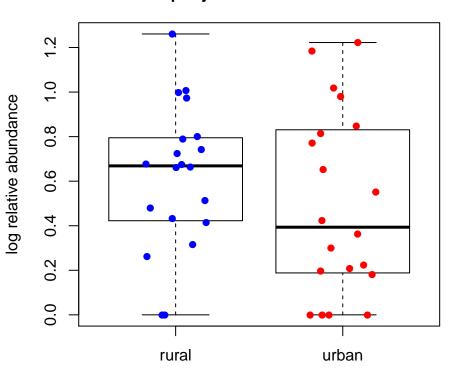
# WGS species: Thermodesulfatator\_indicus pAdjRuralUrban= 0.489



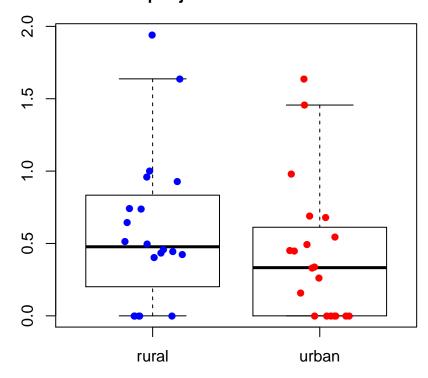
# WGS species: Trichormus\_azollae pAdjRuralUrban= 0.49



# WGS species: Mycoplasma\_synoviae pAdjRuralUrban= 0.491

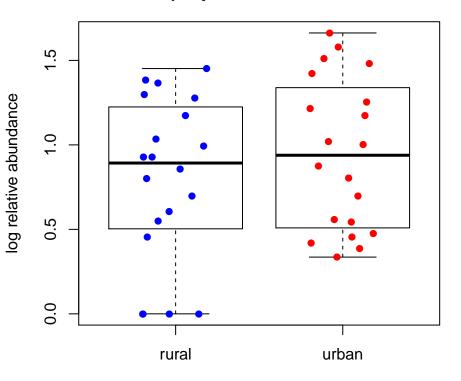


# WGS species: Phenylobacterium\_zucineum pAdjRuralUrban= 0.496

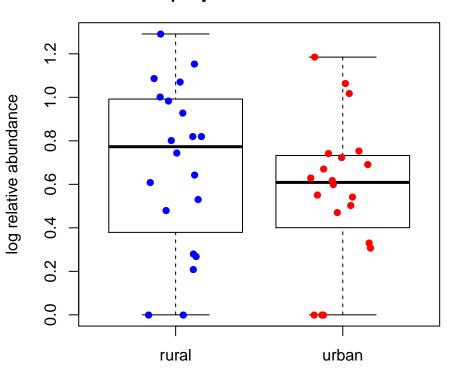


log relative abundance

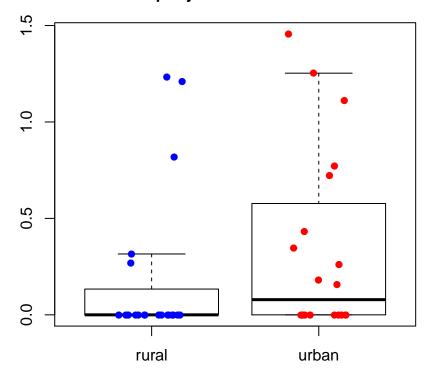
# WGS species: Actinobacillus\_pleuropneumoniae pAdjRuralUrban= 0.497



# WGS species: Listeria\_monocytogenes pAdjRuralUrban= 0.499

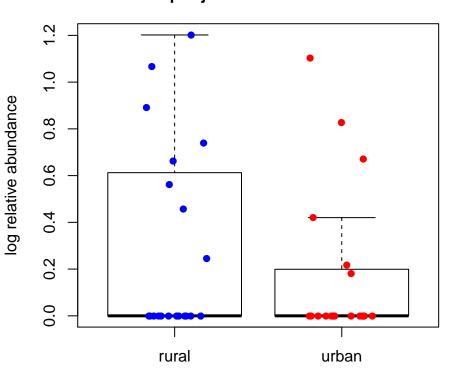


# WGS species: Flavobacterium\_psychrophilum pAdjRuralUrban= 0.5

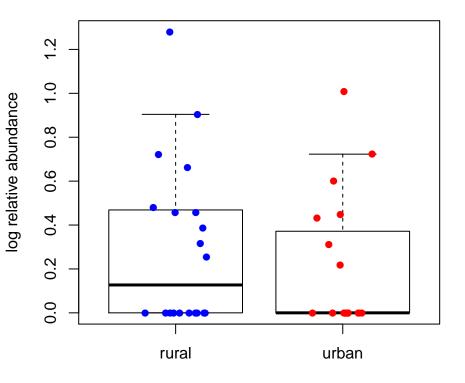


log relative abundance

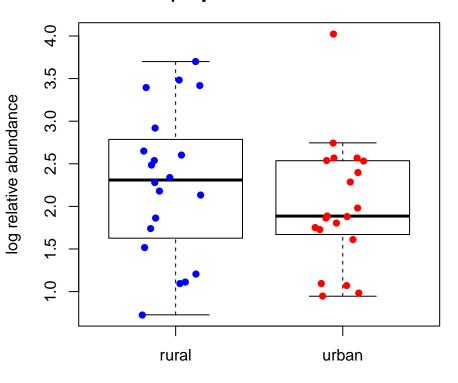
# WGS species: Candidatus\_Phytoplasma\_australiense pAdjRuralUrban= 0.502



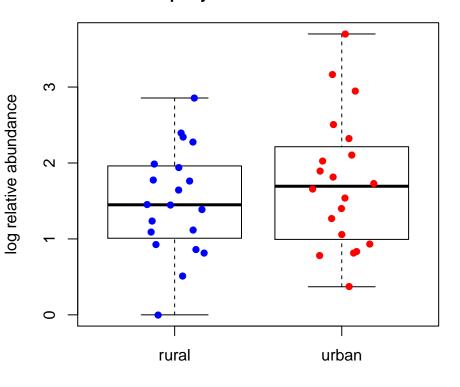
# WGS species: Polynucleobacter\_necessarius pAdjRuralUrban= 0.506



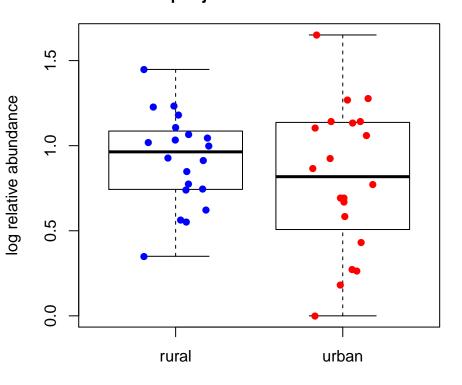
# WGS species: Bifidobacterium\_dentium pAdjRuralUrban= 0.513



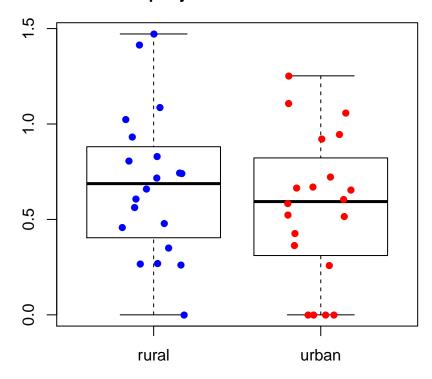
# WGS species: Escherichia\_fergusonii pAdjRuralUrban= 0.514



# WGS species: Treponema\_brennaborense pAdjRuralUrban= 0.515

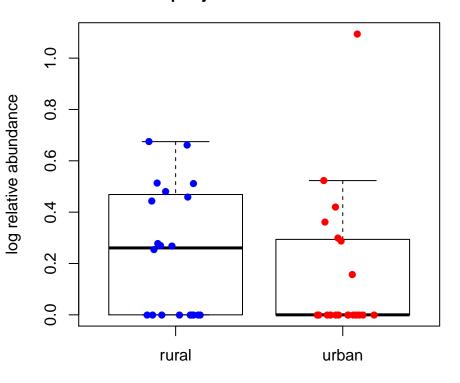


# WGS species: Agrobacterium\_vitis pAdjRuralUrban= 0.515

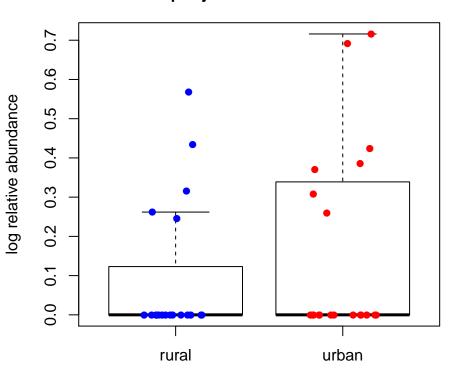


log relative abundance

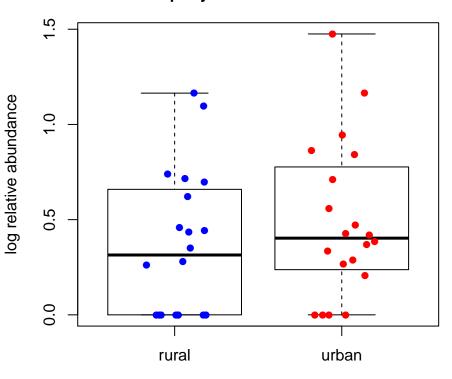
# WGS species: Mycoplasma\_arthritidis pAdjRuralUrban= 0.517



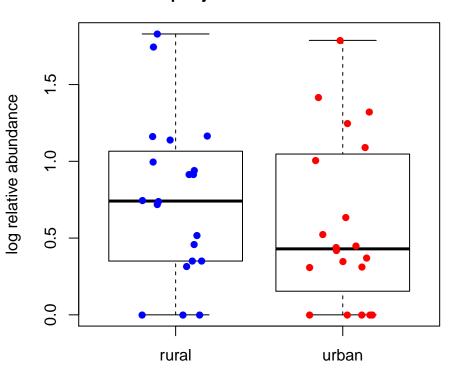
# WGS species: Vibrio\_tasmaniensis pAdjRuralUrban= 0.517



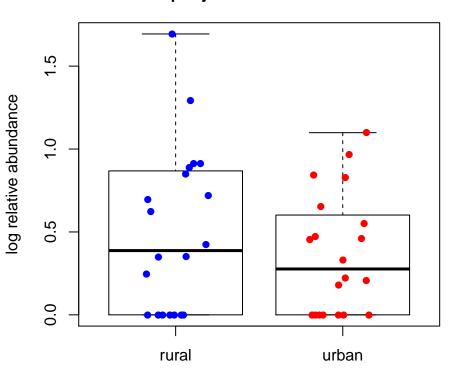
# WGS species: Caldisericum\_exile pAdjRuralUrban= 0.517



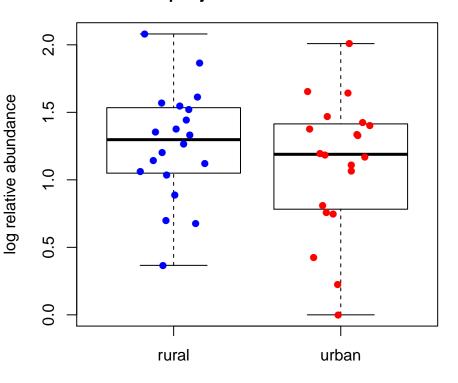
# WGS species: Halothiobacillus\_neapolitanus pAdjRuralUrban= 0.521



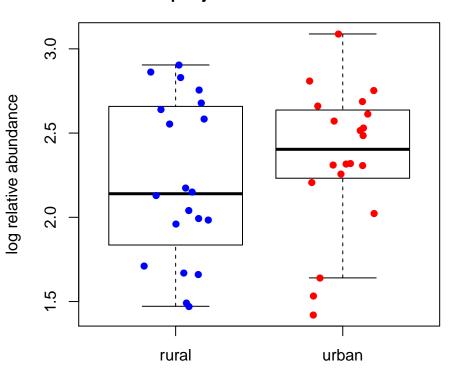
# WGS species: Desulfotalea\_psychrophila pAdjRuralUrban= 0.524



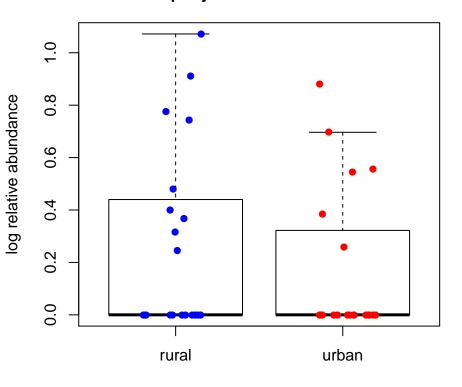
# WGS species: Ferrimonas\_balearica pAdjRuralUrban= 0.527



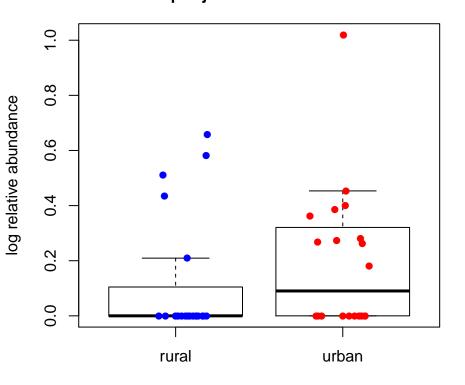
# WGS species: Campylobacter\_jejuni pAdjRuralUrban= 0.528



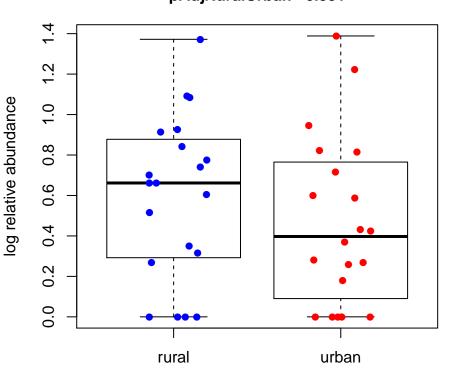
# WGS species: Hydrogenobacter\_thermophilus pAdjRuralUrban= 0.528



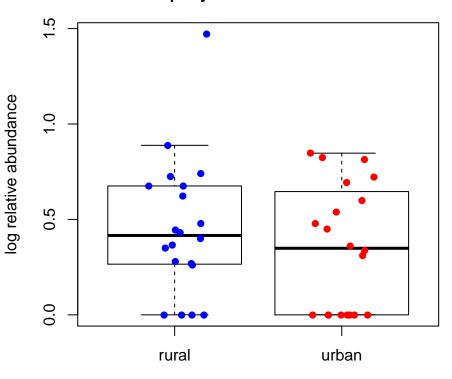
# WGS species: Dehalogenimonas\_lykanthroporepellens pAdjRuralUrban= 0.531



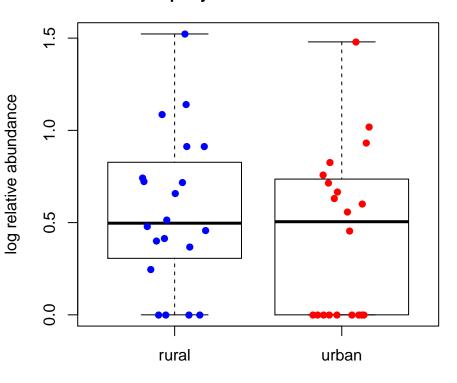
WGS species: Candidatus\_Arthromitus\_sp.\_SFB.rat.Yit pAdjRuralUrban= 0.531



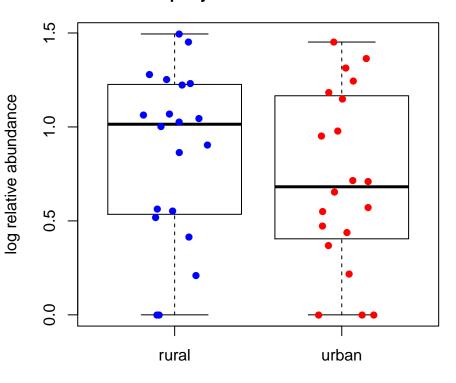
# WGS species: Acidovorax\_sp.\_JS42 pAdjRuralUrban= 0.531



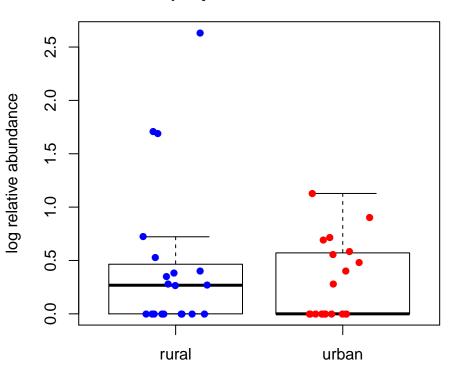
# WGS species: Mesorhizobium\_australicum pAdjRuralUrban= 0.531



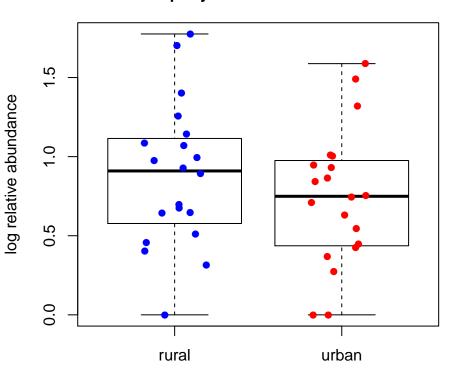
# WGS species: Synechococcus\_sp.\_RCC307 pAdjRuralUrban= 0.532



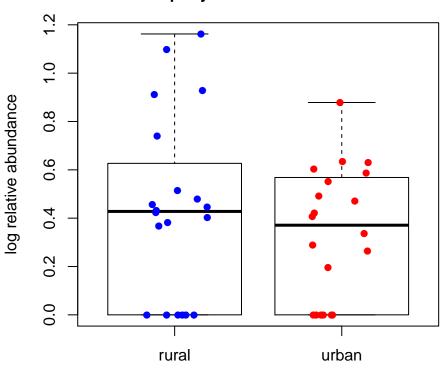
# WGS species: Lactobacillus\_amylovorus pAdjRuralUrban= 0.532



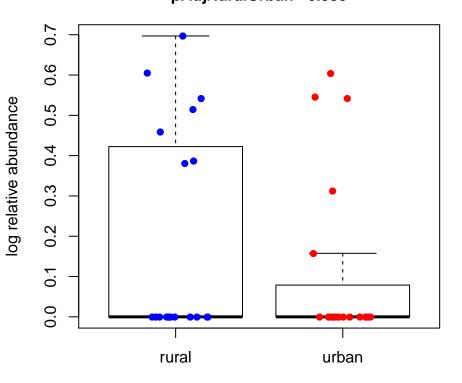
# WGS species: Tetragenococcus\_halophilus pAdjRuralUrban= 0.538



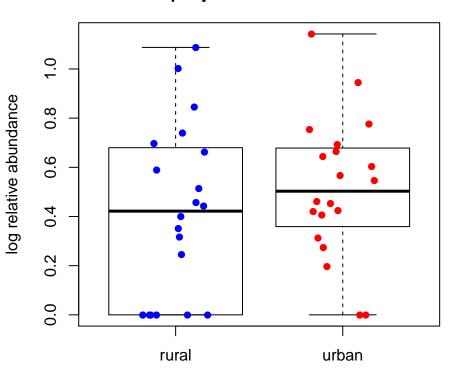
WGS species: Arcobacter\_sp.\_L pAdjRuralUrban= 0.538



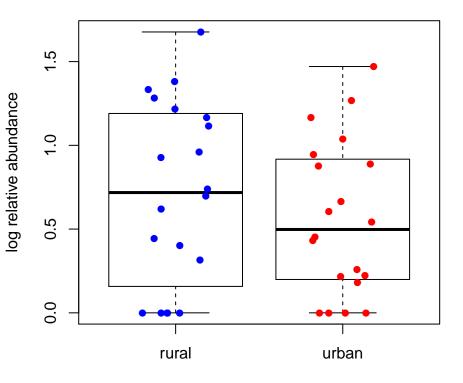
#### WGS species: Candidatus\_Sulfuricurvum\_sp.\_RIFRC.1 pAdjRuralUrban= 0.539



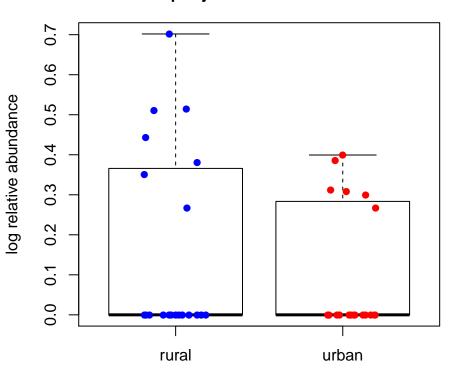
### WGS species: Streptomyces\_sp.\_SirexAA.E pAdjRuralUrban= 0.539



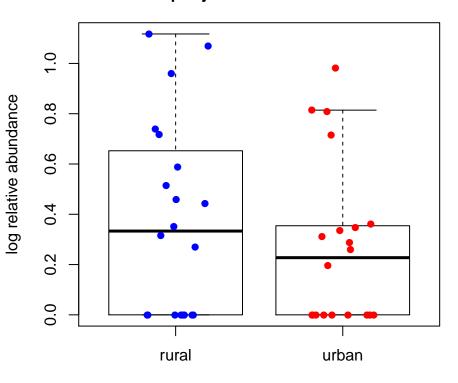
### WGS species: Photorhabdus\_asymbiotica pAdjRuralUrban= 0.539



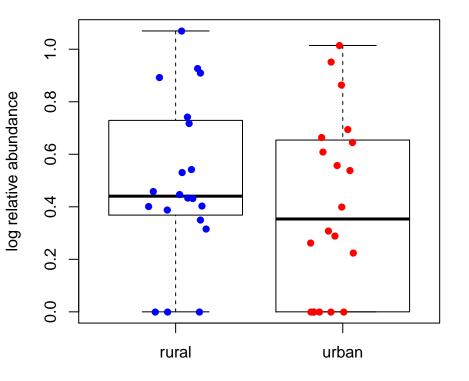
### WGS species: Isosphaera\_pallida pAdjRuralUrban= 0.541



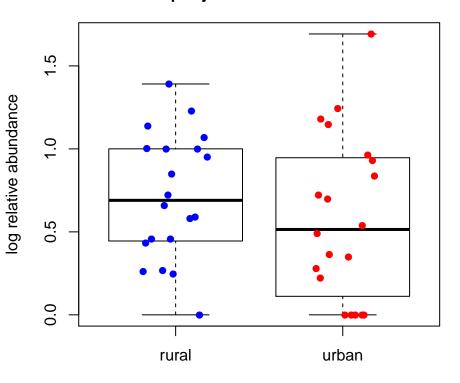
### WGS species: Amycolatopsis\_orientalis pAdjRuralUrban= 0.543



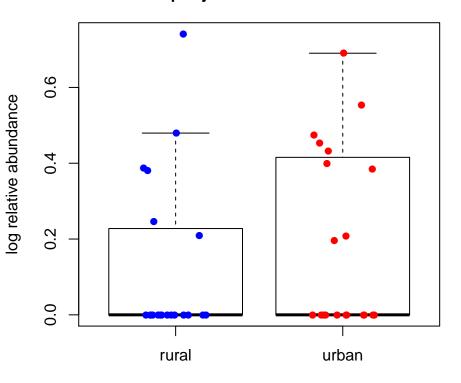
'GS species: Candidatus\_Saccharibacteria\_bacterium\_RAAC3\_ pAdjRuralUrban= 0.543



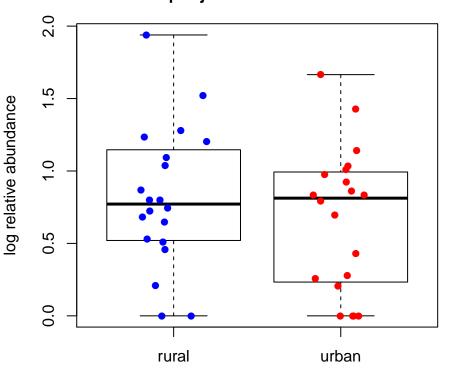
### WGS species: Singulisphaera\_acidiphila pAdjRuralUrban= 0.543



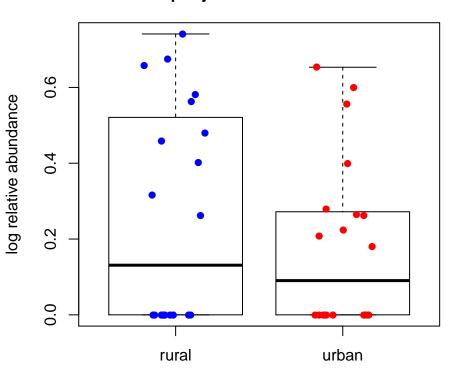
### WGS species: Xanthomonas\_alfalfae pAdjRuralUrban= 0.543



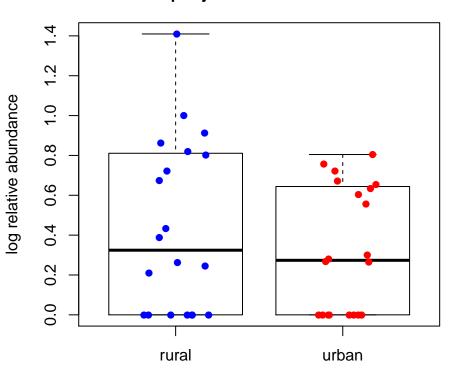
### WGS species: Methylobacterium\_extorquens pAdjRuralUrban= 0.547



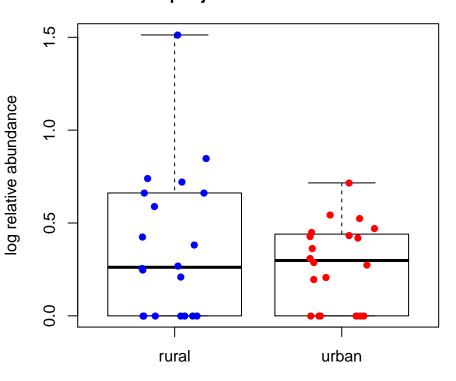
### WGS species: Mesorhizobium\_loti pAdjRuralUrban= 0.548



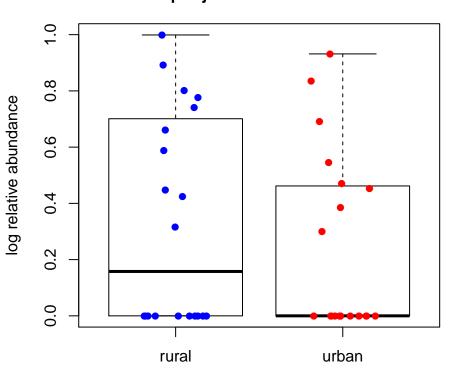
### WGS species: Magnetococcus\_marinus pAdjRuralUrban= 0.548



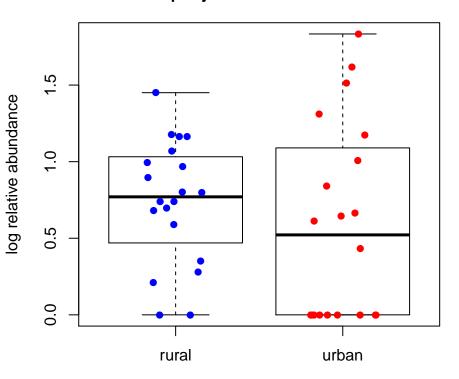
### WGS species: Bacillus\_cytotoxicus pAdjRuralUrban= 0.549



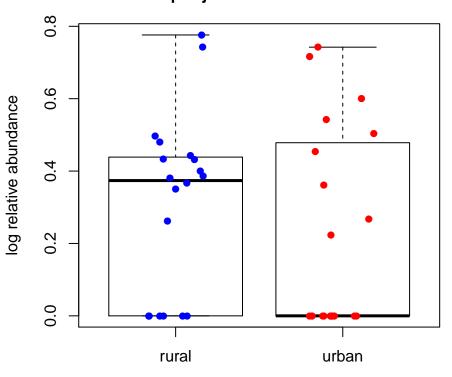
### WGS species: Nitrobacter\_winogradskyi pAdjRuralUrban= 0.551



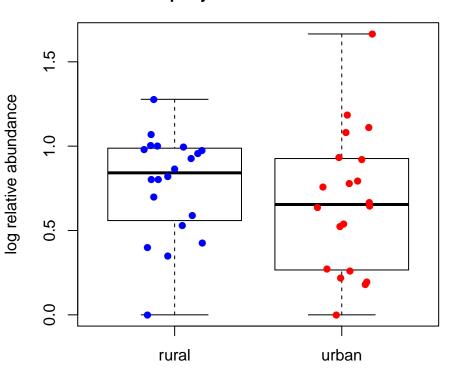
### WGS species: Psychrobacter\_arcticus pAdjRuralUrban= 0.551



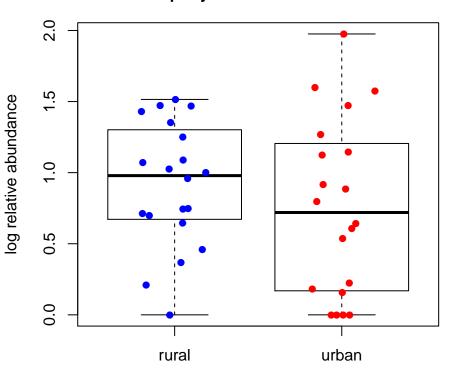
### WGS species: Nitrosomonas\_sp.\_AL212 pAdjRuralUrban= 0.555



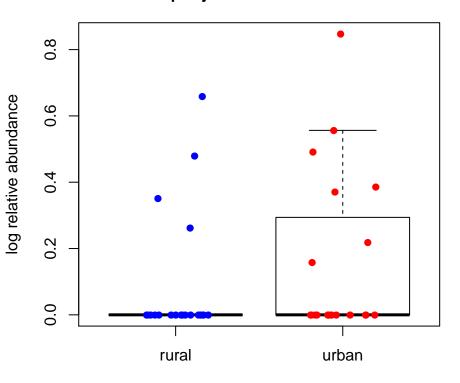
### WGS species: Myxococcus\_stipitatus pAdjRuralUrban= 0.557



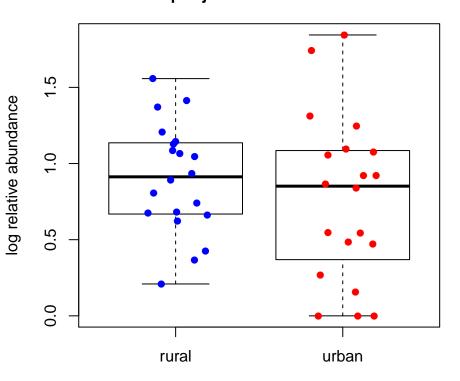
### WGS species: Truepera\_radiovictrix pAdjRuralUrban= 0.557



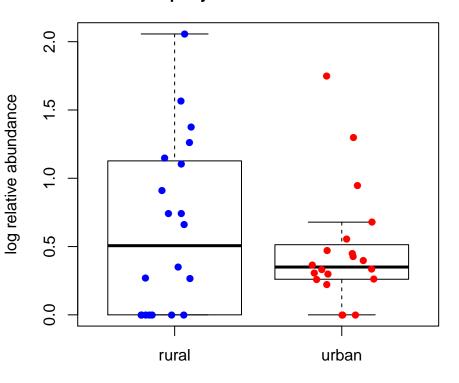
# WGS species: Helicobacter\_bizzozeronii pAdjRuralUrban= 0.561



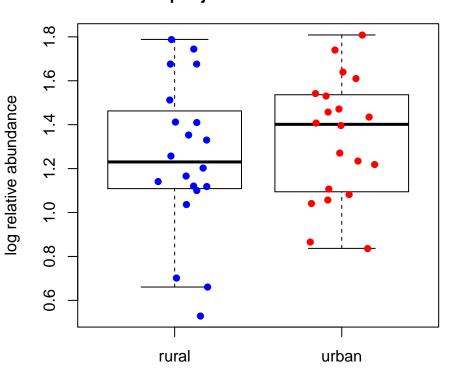
# WGS species: Rhizobium\_etli pAdjRuralUrban= 0.561



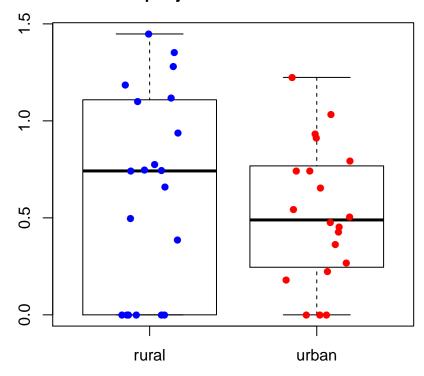
# WGS species: Weissella\_koreensis pAdjRuralUrban= 0.561



### WGS species: Syntrophobotulus\_glycolicus pAdjRuralUrban= 0.561

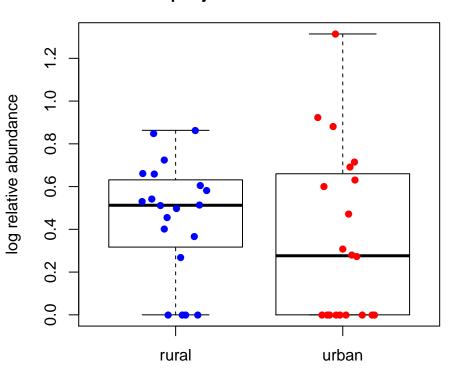


### WGS species: Cupriavidus\_necator pAdjRuralUrban= 0.567

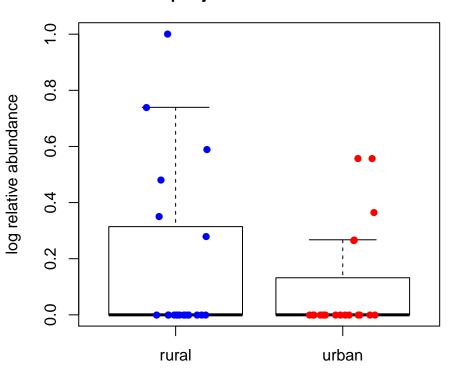


log relative abundance

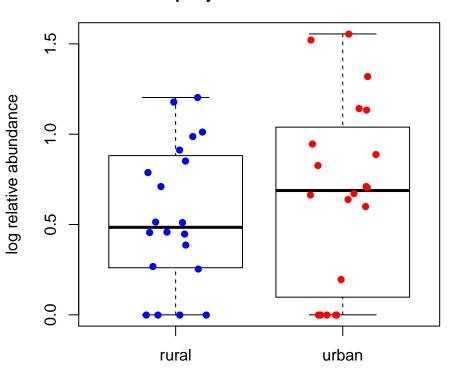
### WGS species: Aliivibrio\_fischeri pAdjRuralUrban= 0.568



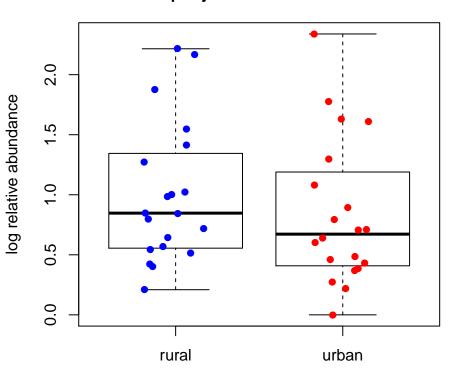
### WGS species: Thermotoga\_neapolitana pAdjRuralUrban= 0.569



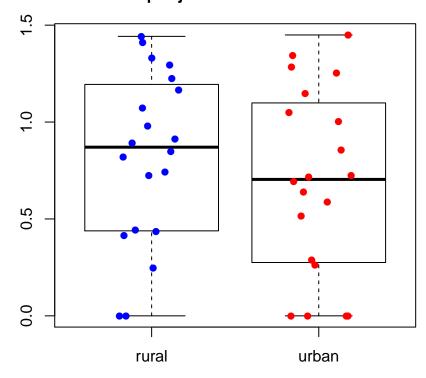
### WGS species: Cylindrospermum\_stagnale pAdjRuralUrban= 0.57



# WGS species: Plautia\_stali\_symbiont pAdjRuralUrban= 0.576

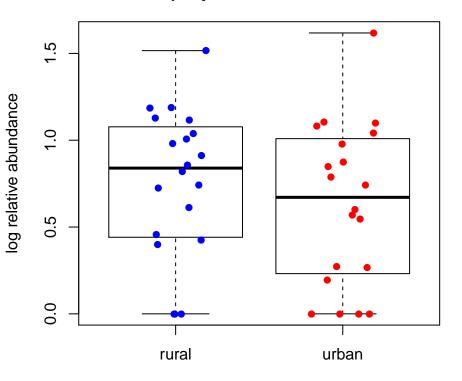


WGS species: Methylobacterium\_sp.\_4.46 pAdjRuralUrban= 0.576

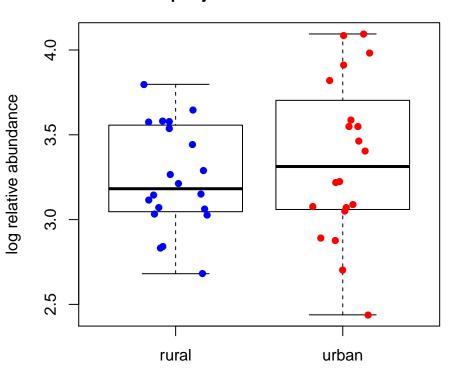


log relative abundance

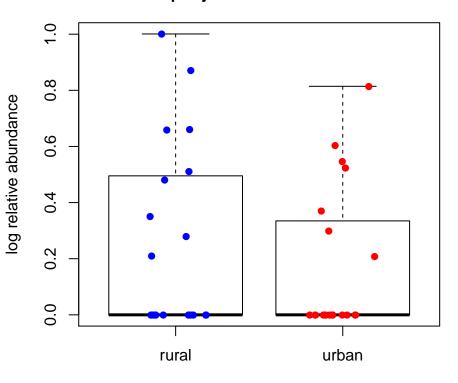
# WGS species: Staphylococcus\_saprophyticus pAdjRuralUrban= 0.579



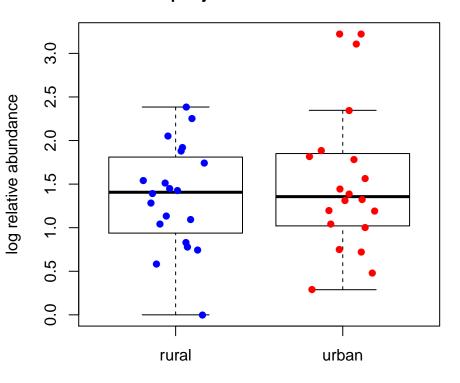
### WGS species: Tannerella\_forsythia pAdjRuralUrban= 0.579



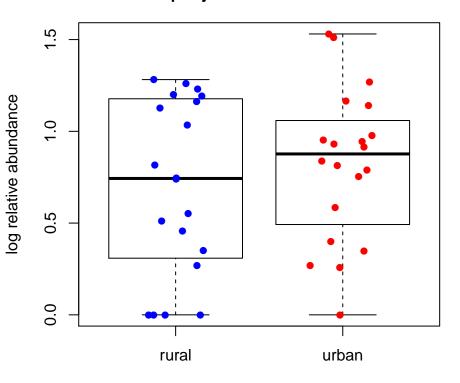
### WGS species: Methanoregula\_formicica pAdjRuralUrban= 0.579



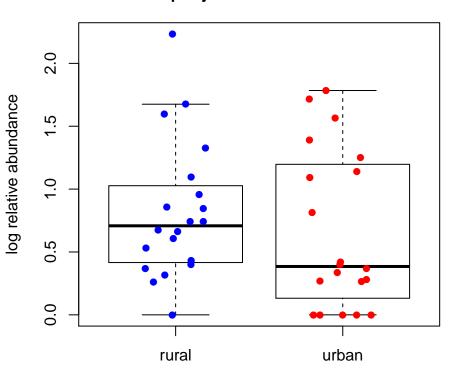
### WGS species: Shigella\_sonnei pAdjRuralUrban= 0.581



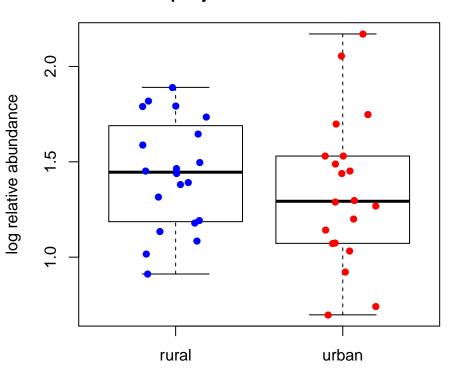
### WGS species: Prosthecochloris\_aestuarii pAdjRuralUrban= 0.581



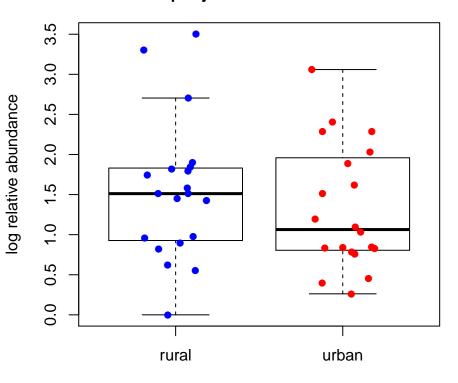
### WGS species: Corynebacterium\_argentoratense pAdjRuralUrban= 0.581



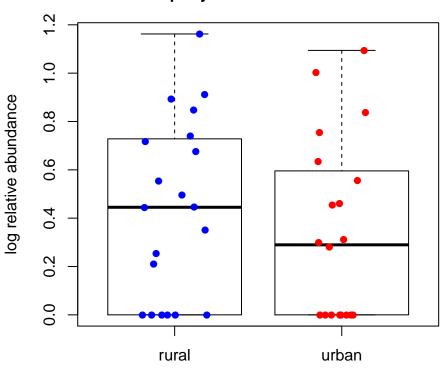
### WGS species: Clostridium\_cellulovorans pAdjRuralUrban= 0.582



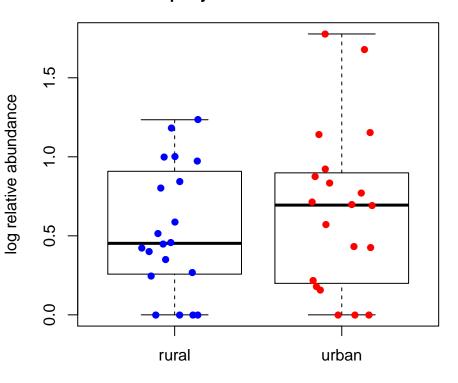
### WGS species: Enterobacter\_asburiae pAdjRuralUrban= 0.586



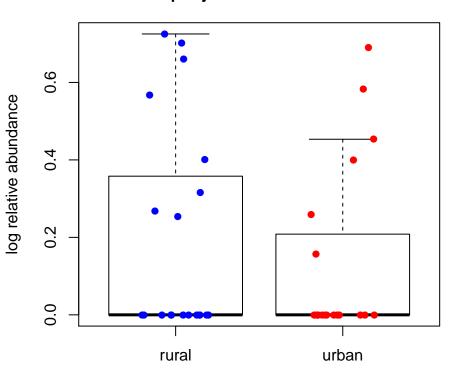
### WGS species: Frankia\_sp.\_Eul1c pAdjRuralUrban= 0.587



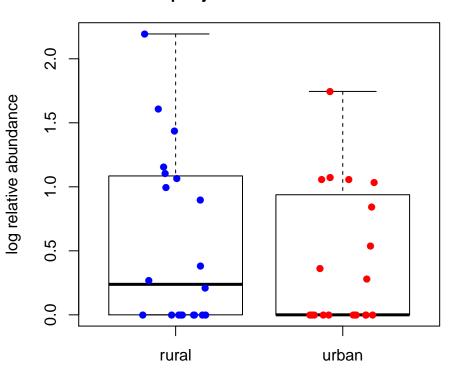
## WGS species: Anaeromyxobacter\_dehalogenans pAdjRuralUrban= 0.587



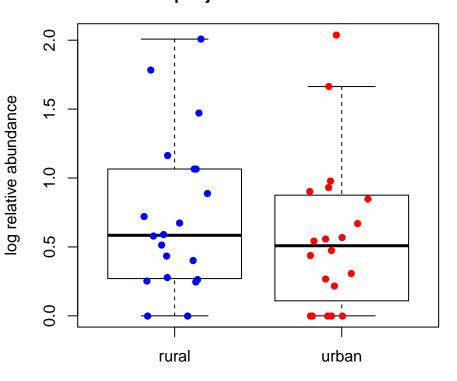
## WGS species: Candidatus\_Carsonella\_ruddii pAdjRuralUrban= 0.588



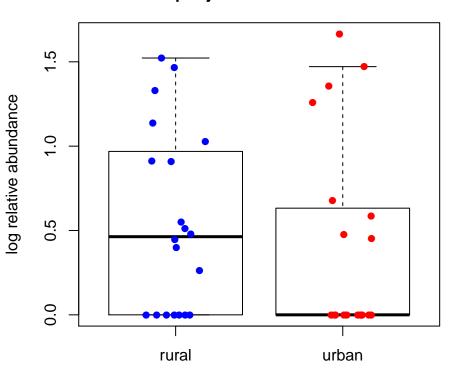
## WGS species: Pectobacterium\_sp.\_SCC3193 pAdjRuralUrban= 0.588



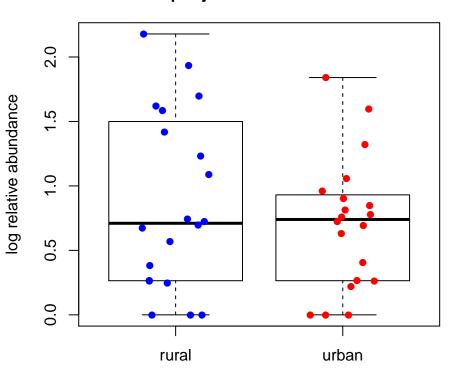
## WGS species: Serratia\_liquefaciens pAdjRuralUrban= 0.59



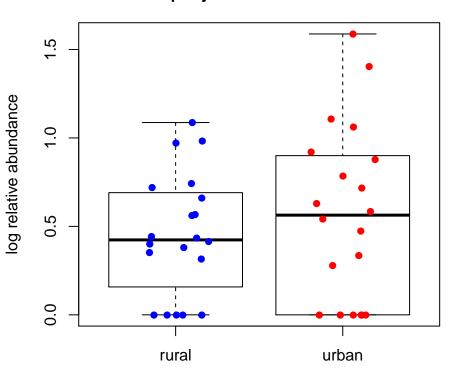
## WGS species: Marinomonas\_posidonica pAdjRuralUrban= 0.59



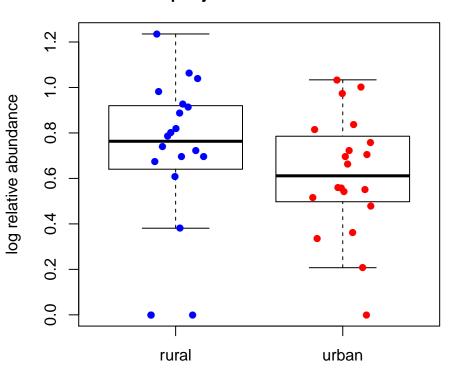
# WGS species: Rahnella\_aquatilis pAdjRuralUrban= 0.592



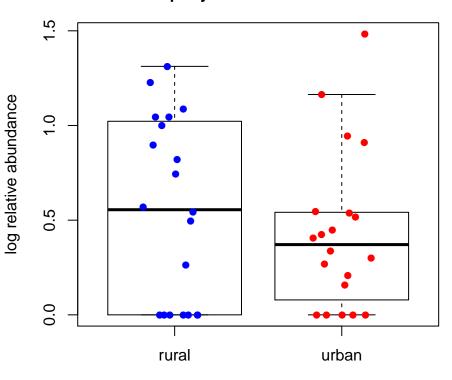
## WGS species: Marinitoga\_piezophila pAdjRuralUrban= 0.593



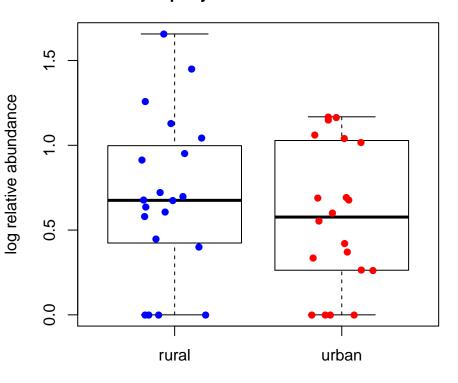
#### WGS species: Paenibacillus\_larvae pAdjRuralUrban= 0.593



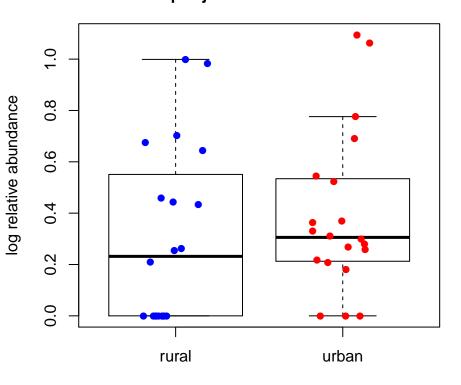
## WGS species: Mycobacterium\_abscessus pAdjRuralUrban= 0.595



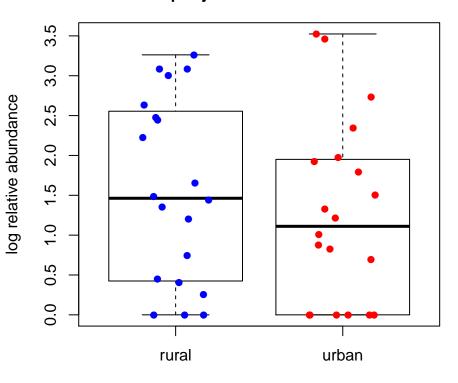
## WGS species: Bacillus\_cereus pAdjRuralUrban= 0.599



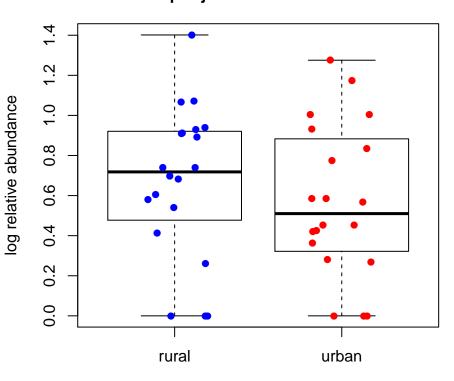
## WGS species: Anoxybacillus\_flavithermus pAdjRuralUrban= 0.606



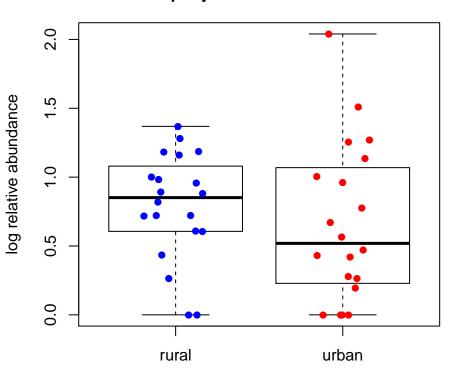
## WGS species: Klebsiella\_variicola pAdjRuralUrban= 0.606



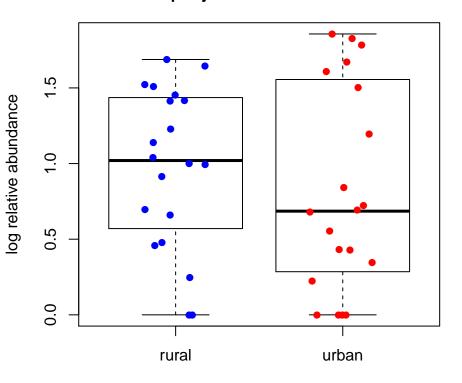
## WGS species: Actinobacillus\_suis pAdjRuralUrban= 0.606



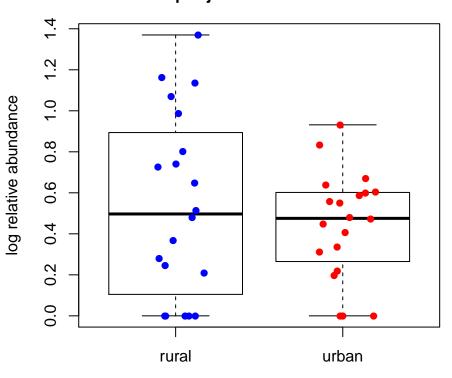
## WGS species: Phycisphaera\_mikurensis pAdjRuralUrban= 0.609



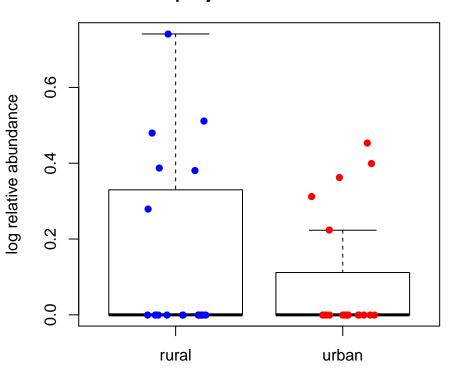
## WGS species: Collimonas\_fungivorans pAdjRuralUrban= 0.609



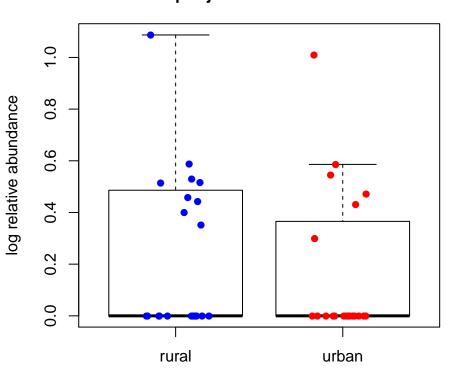
## WGS species: Spirochaeta\_smaragdinae pAdjRuralUrban= 0.61



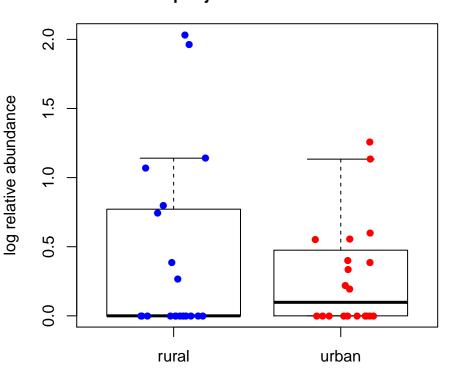
# WGS species: Mycobacterium\_yongonense pAdjRuralUrban= 0.61



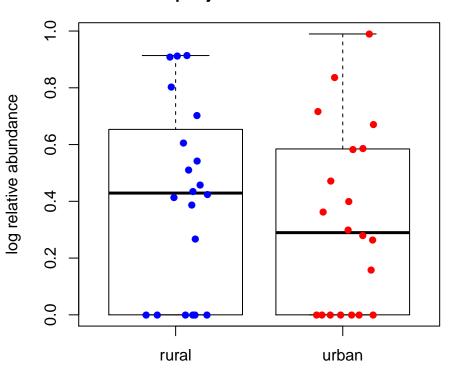
## WGS species: Acidothermus\_cellulolyticus pAdjRuralUrban= 0.61



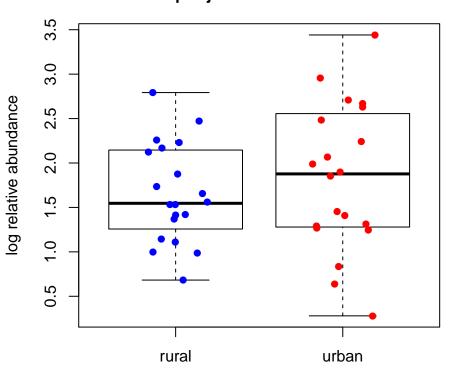
## WGS species: Escherichia\_phage\_HK639 pAdjRuralUrban= 0.61



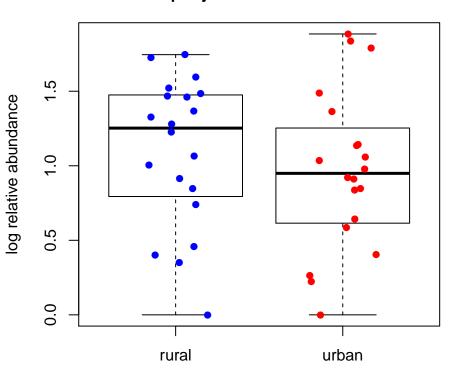
## WGS species: Haemophilus\_ducreyi pAdjRuralUrban= 0.61



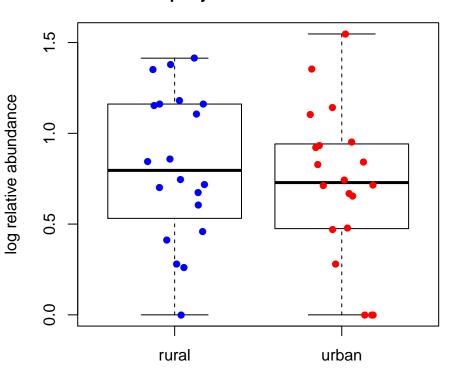
## WGS species: Fusobacterium\_nucleatum pAdjRuralUrban= 0.61



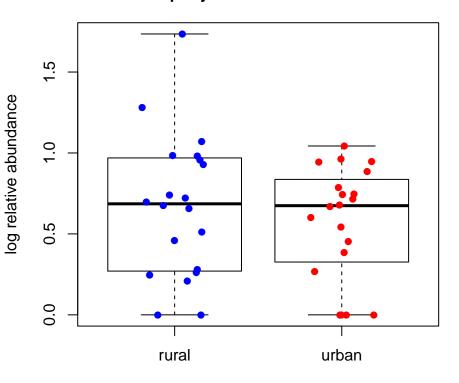
## WGS species: Vibrio\_nigripulchritudo pAdjRuralUrban= 0.611



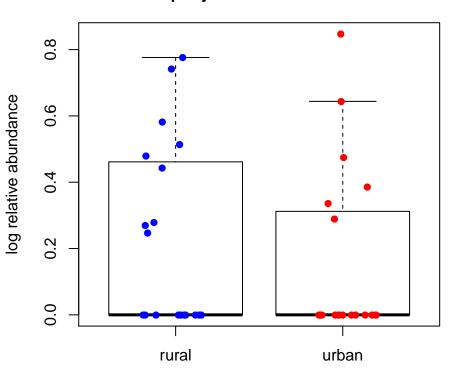
## WGS species: Geobacter\_uraniireducens pAdjRuralUrban= 0.613



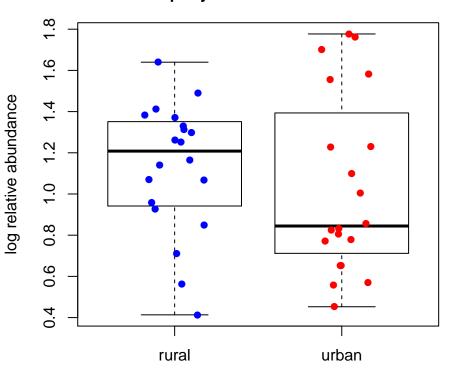
## WGS species: Herminiimonas\_arsenicoxydans pAdjRuralUrban= 0.614



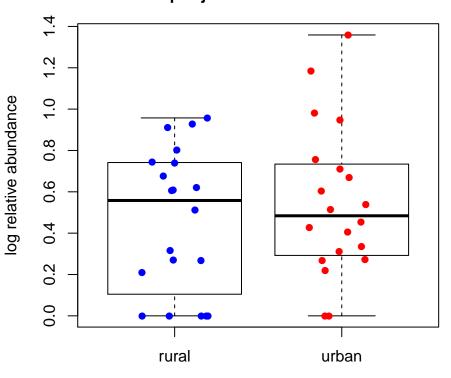
## WGS species: Nostoc\_sp.\_PCC\_7120 pAdjRuralUrban= 0.614



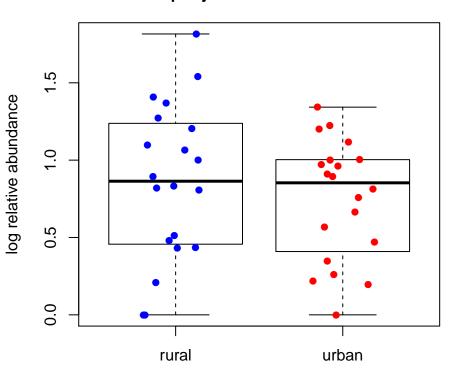
#### WGS species: Paenibacillus\_polymyxa pAdjRuralUrban= 0.614



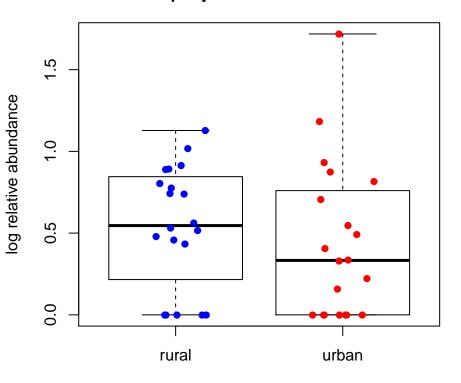
#### WGS species: Spirochaeta\_sp.\_L21.RPul.D2 pAdjRuralUrban= 0.614



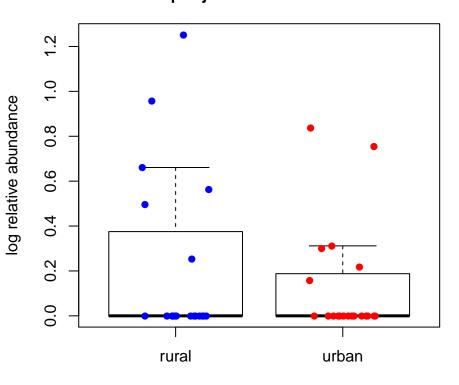
## WGS species: Thermanaerovibrio\_acidaminovorans pAdjRuralUrban= 0.614



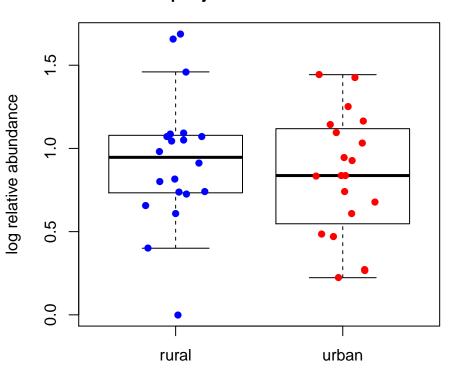
## WGS species: Corynebacterium\_halotolerans pAdjRuralUrban= 0.614



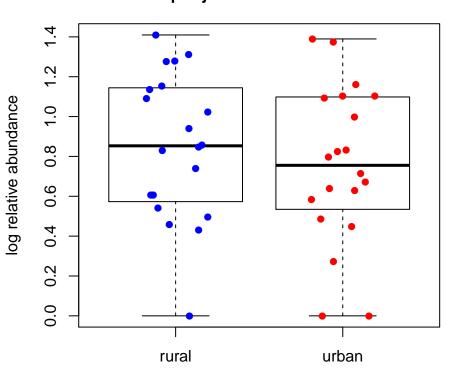
## WGS species: Enterobacteria\_phage\_HK140 pAdjRuralUrban= 0.614



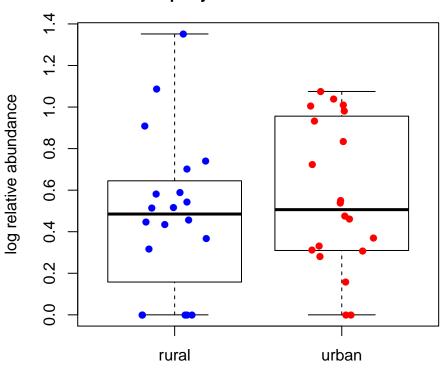
## WGS species: Paenibacillus\_sp.\_JDR.2 pAdjRuralUrban= 0.614



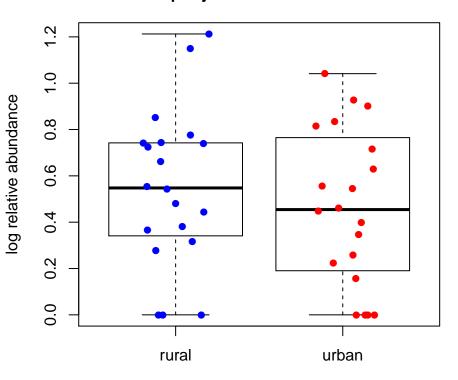
#### WGS species: Desulfitobacterium\_dehalogenans pAdjRuralUrban= 0.614



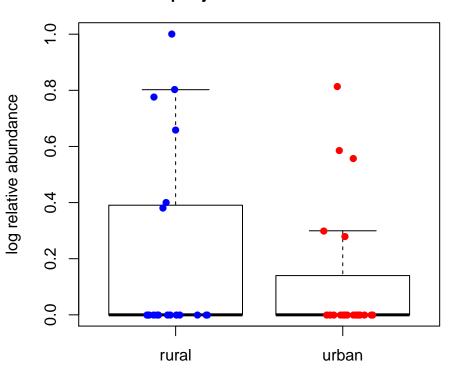
## WGS species: Melioribacter\_roseus pAdjRuralUrban= 0.614



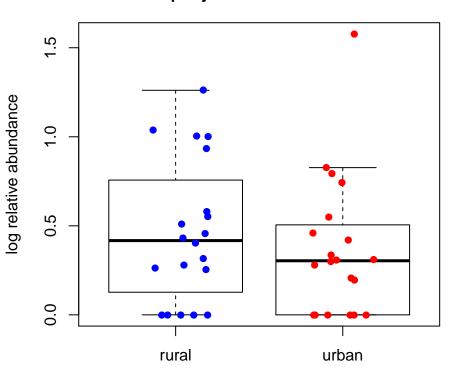
## WGS species: Nautilia\_profundicola pAdjRuralUrban= 0.614



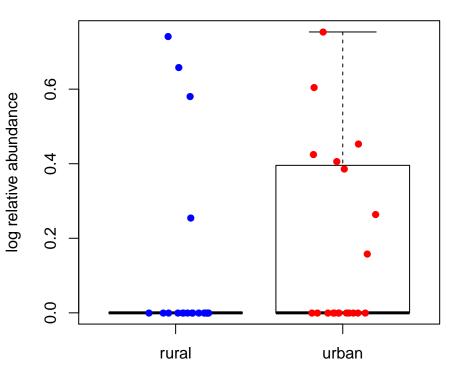
WGS species: Sphingomonas\_sp.\_MM.1 pAdjRuralUrban= 0.614



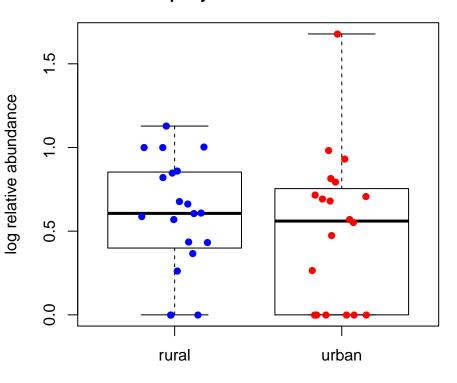
## WGS species: Dokdonia\_sp.\_4H.3.7.5 pAdjRuralUrban= 0.614



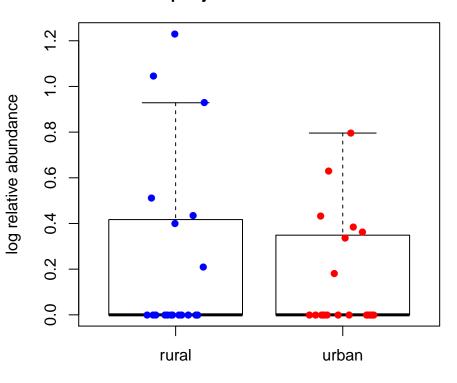
### WGS species: Pseudoalteromonas\_atlantica pAdjRuralUrban= 0.617



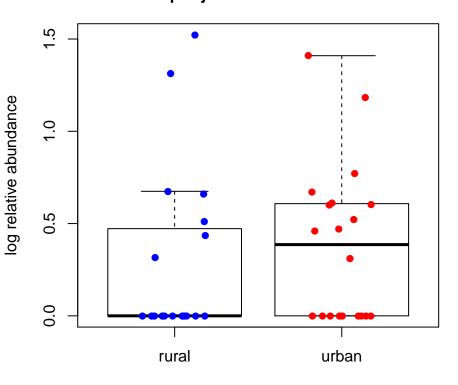
### WGS species: Deinococcus\_gobiensis pAdjRuralUrban= 0.617



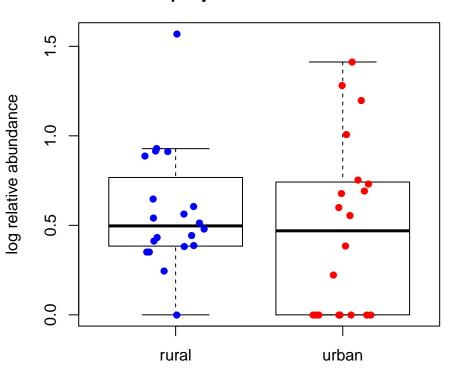
### WGS species: Pectobacterium\_wasabiae pAdjRuralUrban= 0.618



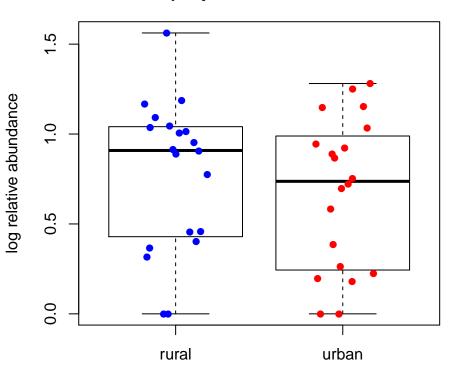
WGS species: Glaciecola\_sp.\_4H.3.7.YE.5 pAdjRuralUrban= 0.619



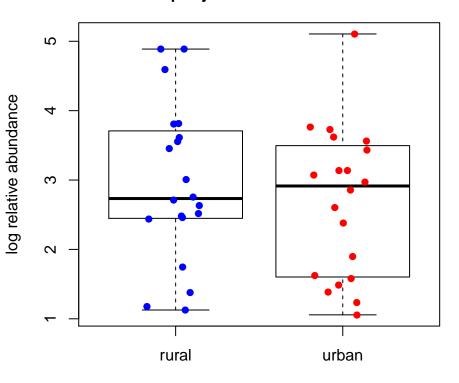
### WGS species: Anaerolinea\_thermophila pAdjRuralUrban= 0.621



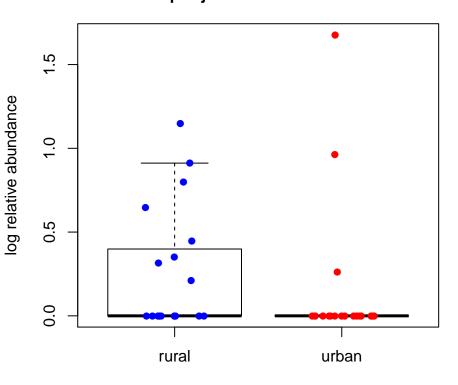
### WGS species: Zunongwangia\_profunda pAdjRuralUrban= 0.621



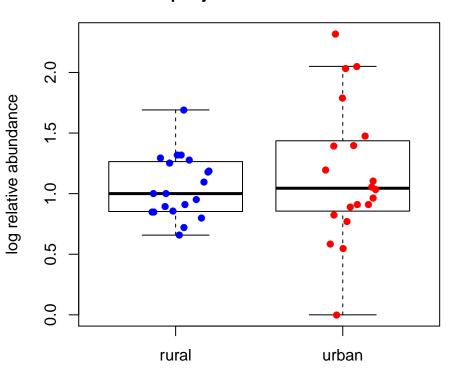
### WGS species: Enterobacter\_cloacae pAdjRuralUrban= 0.621



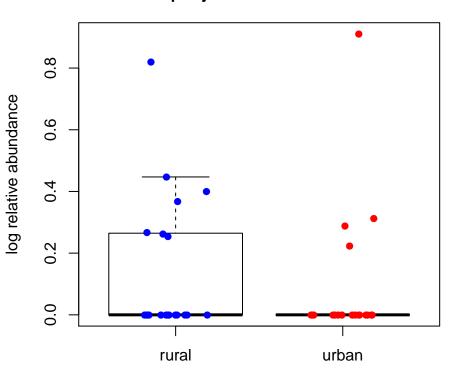
# WGS species: Enterobacteria\_phage\_fiAA91.ss pAdjRuralUrban= 0.621



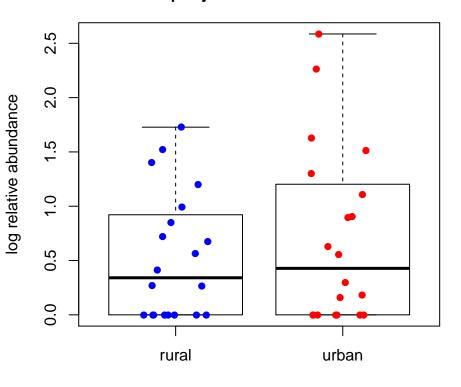
### WGS species: Ilyobacter\_polytropus pAdjRuralUrban= 0.621



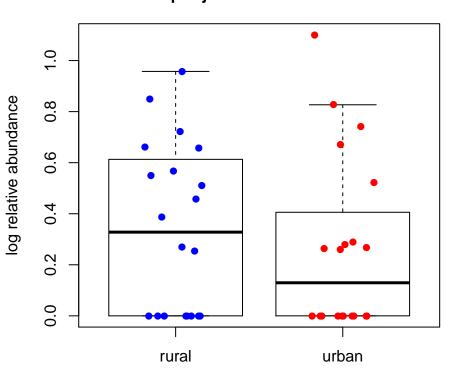
# WGS species: Treponema\_pedis pAdjRuralUrban= 0.623



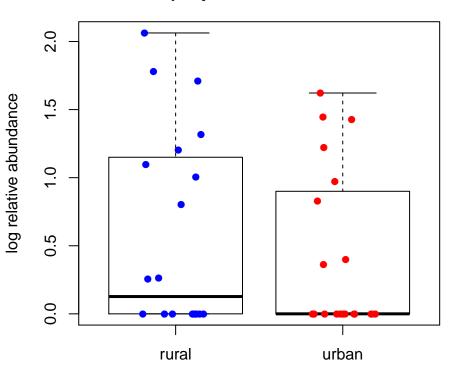
### WGS species: Edwardsiella\_tarda pAdjRuralUrban= 0.623



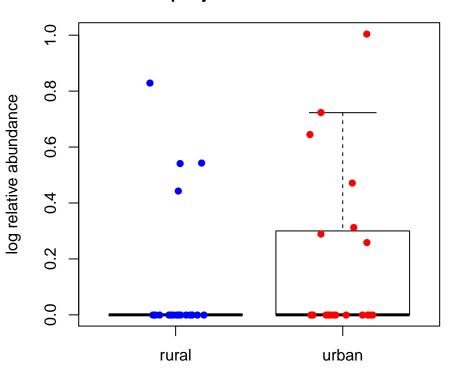
#### WGS species: Thermoanaerobacterium\_xylanolyticum pAdjRuralUrban= 0.623



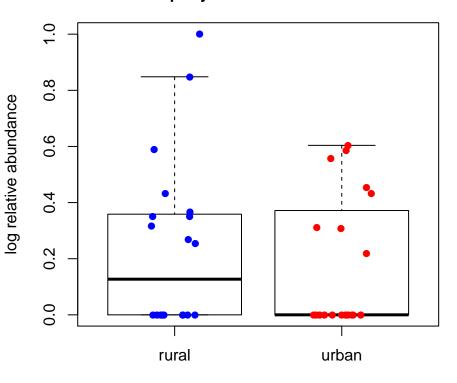
### WGS species: Thermovibrio\_ammonificans pAdjRuralUrban= 0.623



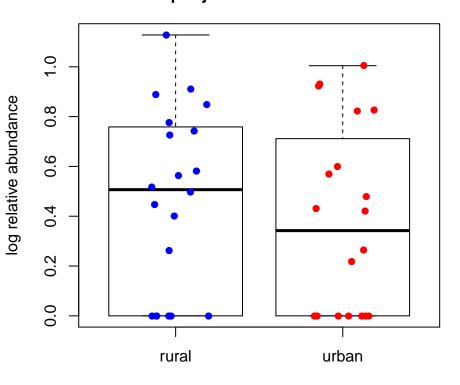
# WGS species: Campylobacter\_lari pAdjRuralUrban= 0.623



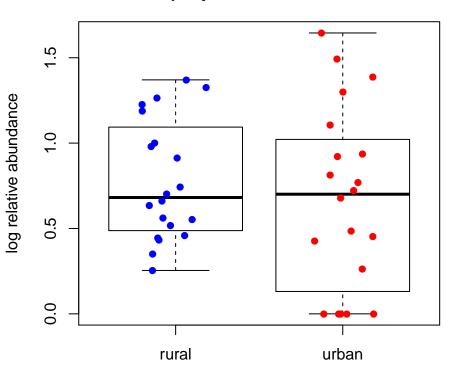
### WGS species: Frankia\_sp.\_EAN1pec pAdjRuralUrban= 0.625



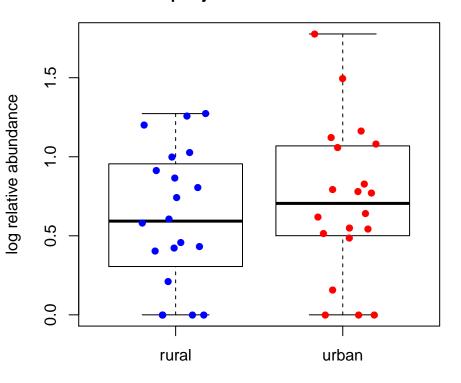
### WGS species: Ammonifex\_degensii pAdjRuralUrban= 0.625



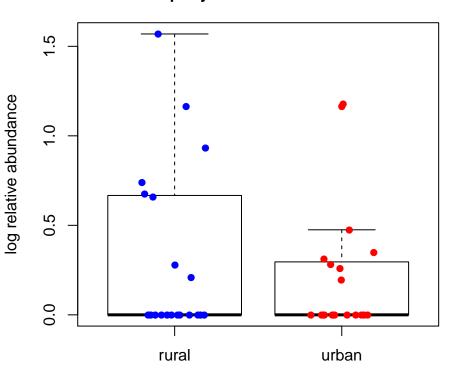
# WGS species: Leisingera\_methylohalidivorans pAdjRuralUrban= 0.627



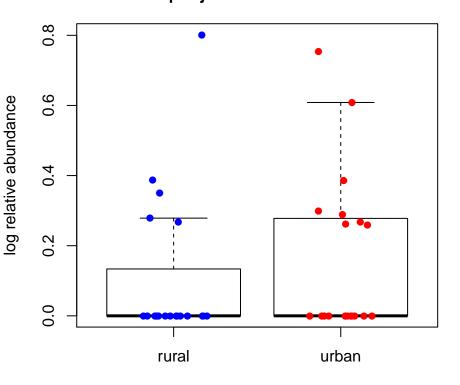
### WGS species: Mycobacterium\_smegmatis pAdjRuralUrban= 0.629



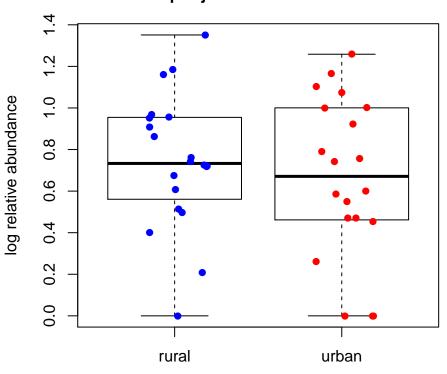
# WGS species: Ornithobacterium\_rhinotracheale pAdjRuralUrban= 0.629



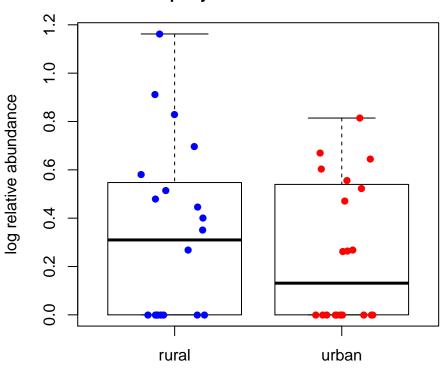
# WGS species: Candidatus\_Portiera\_aleyrodidarum pAdjRuralUrban= 0.632



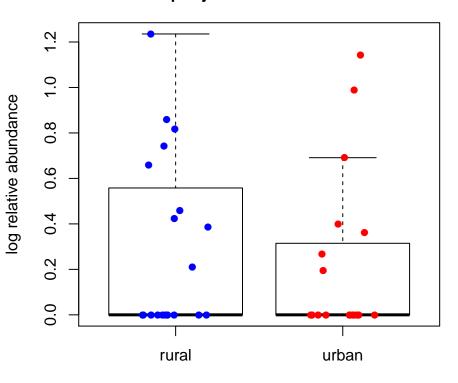
### WGS species: Rhodoferax\_ferrireducens pAdjRuralUrban= 0.632



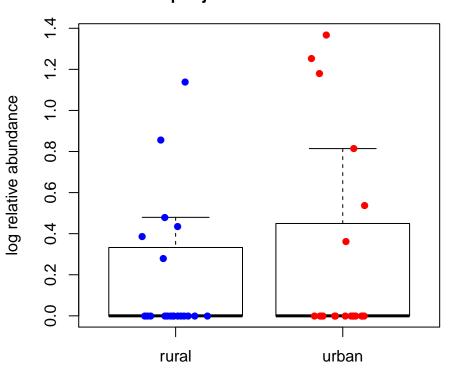
### WGS species: Modestobacter\_marinus pAdjRuralUrban= 0.632



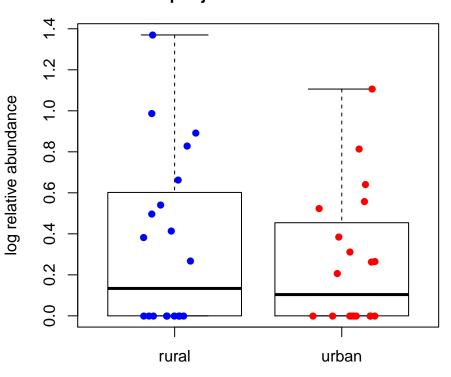
### WGS species: Ehrlichia\_ruminantium pAdjRuralUrban= 0.632



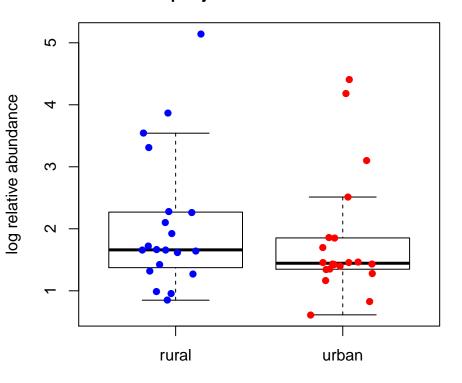
WGS species: Bacteroides\_phage\_B124.14 pAdjRuralUrban= 0.633



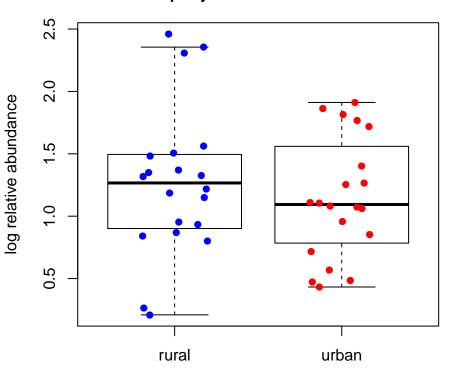
# WGS species: Staphylococcus\_pasteuri pAdjRuralUrban= 0.633



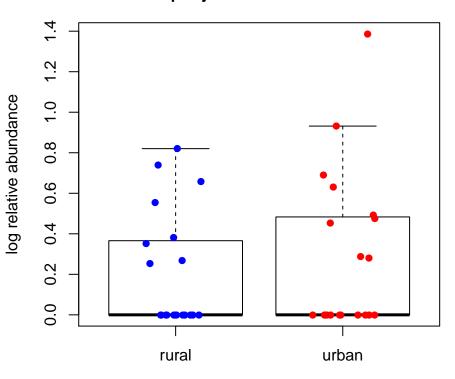
### WGS species: Akkermansia\_muciniphila pAdjRuralUrban= 0.633



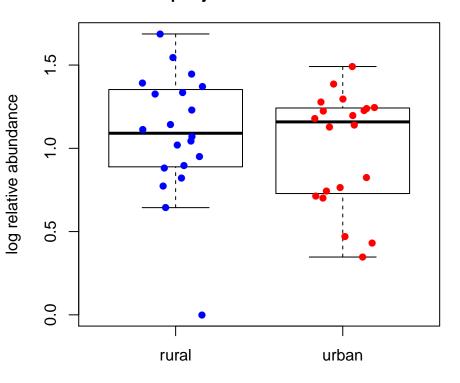
### WGS species: Brachyspira\_pilosicoli pAdjRuralUrban= 0.633



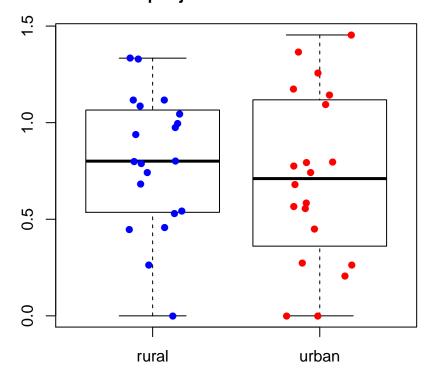
### WGS species: Haloferax\_volcanii pAdjRuralUrban= 0.635



### WGS species: Clostridium\_sp.\_BNL1100 pAdjRuralUrban= 0.639

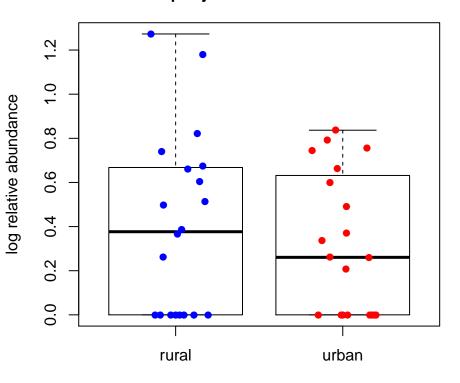


# WGS species: Bacillus\_amyloliquefaciens pAdjRuralUrban= 0.645

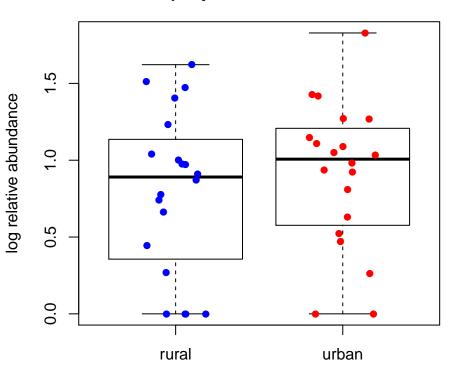


log relative abundance

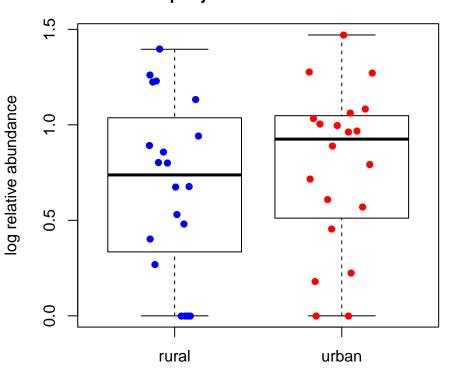
### WGS species: Glaciecola\_psychrophila pAdjRuralUrban= 0.651



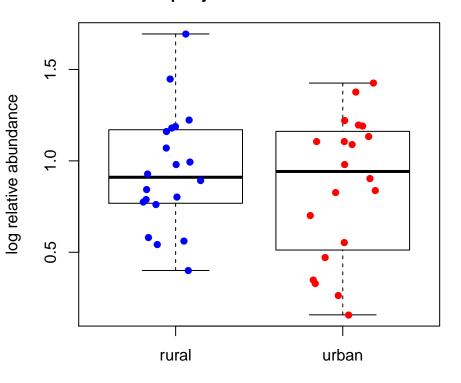
WGS species: Candidatus\_Kinetoplastibacterium\_crithidii pAdjRuralUrban= 0.652



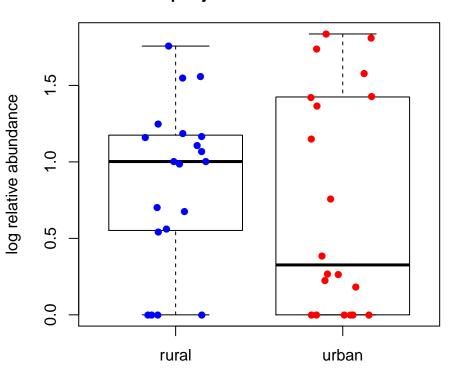
# WGS species: Sulfurimonas\_autotrophica pAdjRuralUrban= 0.652



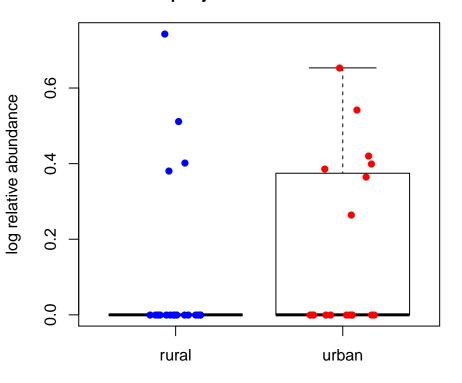
### WGS species: Catenulispora\_acidiphila pAdjRuralUrban= 0.654



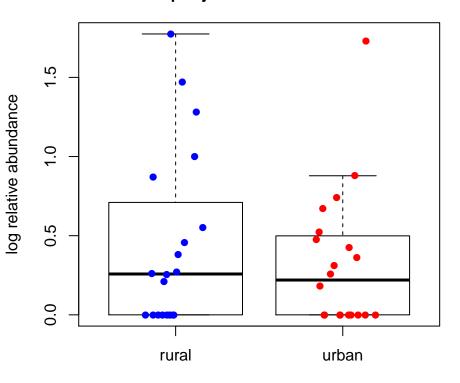
### WGS species: Chloroherpeton\_thalassium pAdjRuralUrban= 0.654



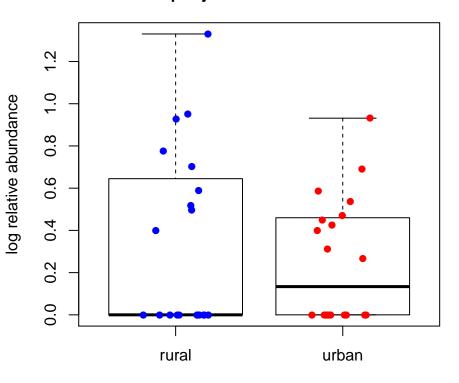
### WGS species: Helicobacter\_cinaedi pAdjRuralUrban= 0.654



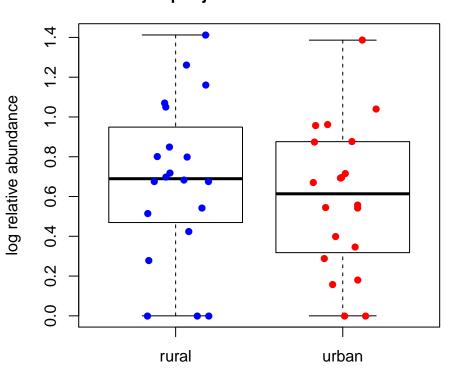
### WGS species: Chlorobium\_phaeobacteroides pAdjRuralUrban= 0.655



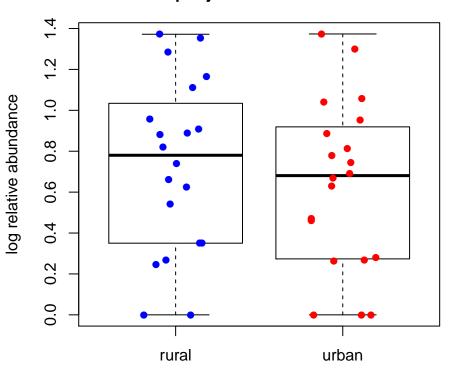
### WGS species: Leptolyngbya\_sp.\_PCC\_7376 pAdjRuralUrban= 0.656



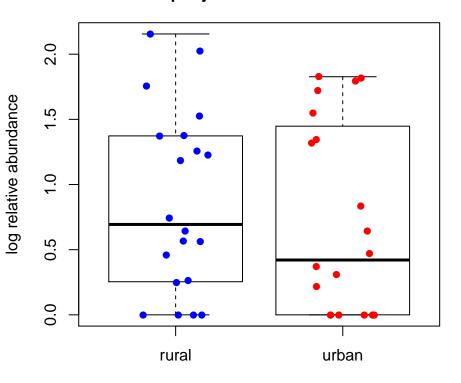
### WGS species: Thermomonospora\_curvata pAdjRuralUrban= 0.656



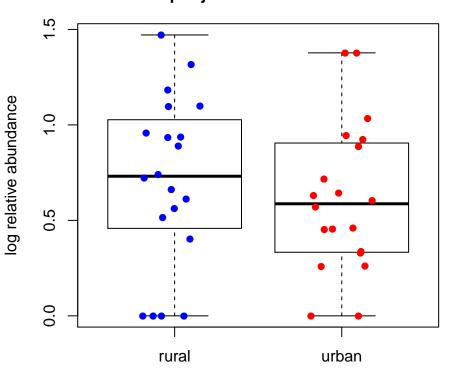
### WGS species: Pandoraea\_sp.\_RB.44 pAdjRuralUrban= 0.66



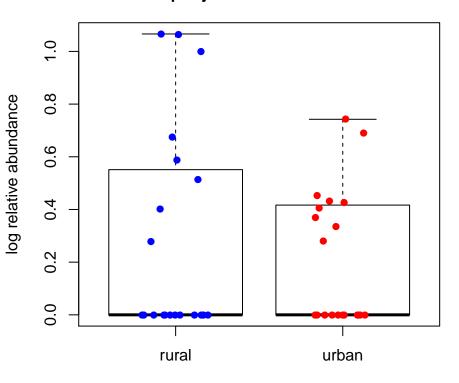
# WGS species: Colwellia\_psychrerythraea pAdjRuralUrban= 0.663



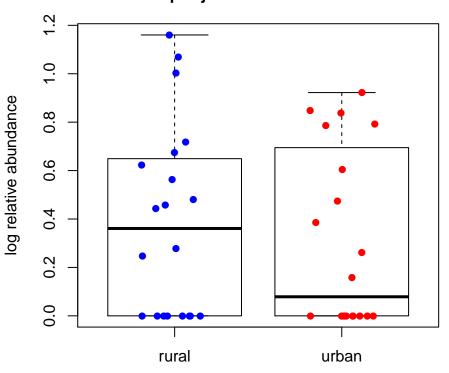
### WGS species: Gluconacetobacter\_diazotrophicus pAdjRuralUrban= 0.664



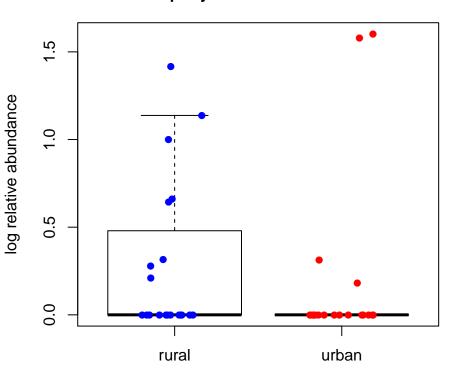
#### WGS species: Liberibacter\_crescens pAdjRuralUrban= 0.666



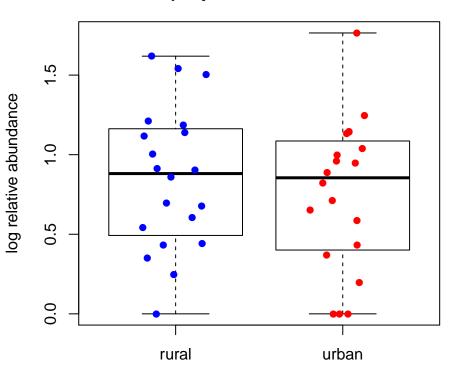
### WGS species: Roseobacter\_litoralis pAdjRuralUrban= 0.666



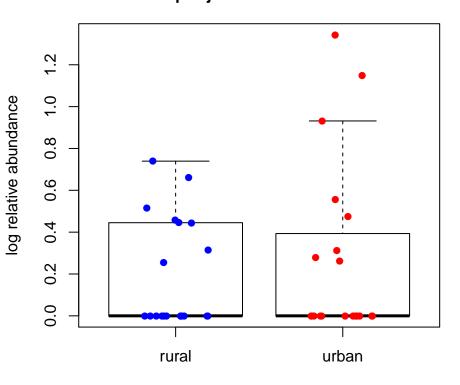
### WGS species: Chlamydia\_trachomatis pAdjRuralUrban= 0.675



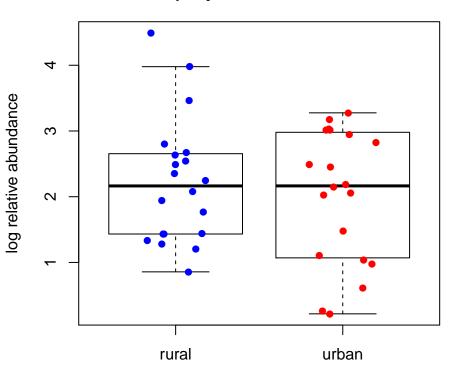
### WGS species: Geitlerinema\_sp.\_PCC\_7407 pAdjRuralUrban= 0.678



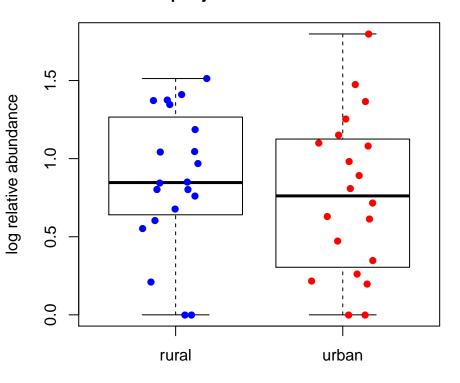
### WGS species: Nitrosococcus\_oceani pAdjRuralUrban= 0.68



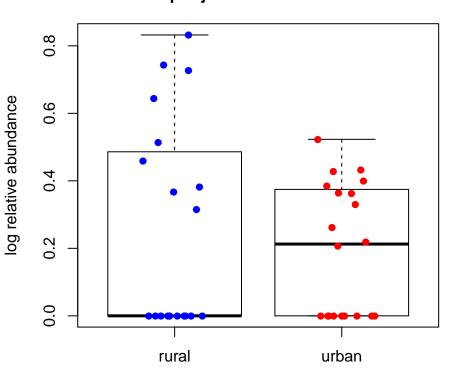
### WGS species: Bifidobacterium\_adolescentis pAdjRuralUrban= 0.68



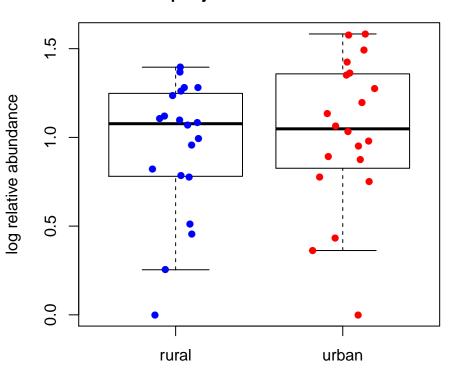
### WGS species: Actinoplanes\_sp.\_N902.109 pAdjRuralUrban= 0.684



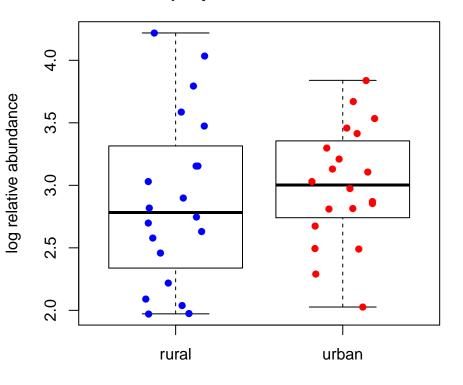
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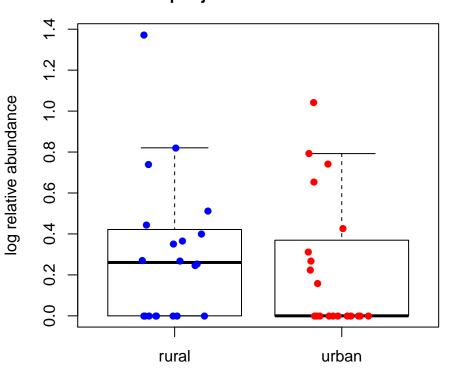
### WGS species: Desulfurivibrio\_alkaliphilus pAdjRuralUrban= 0.684



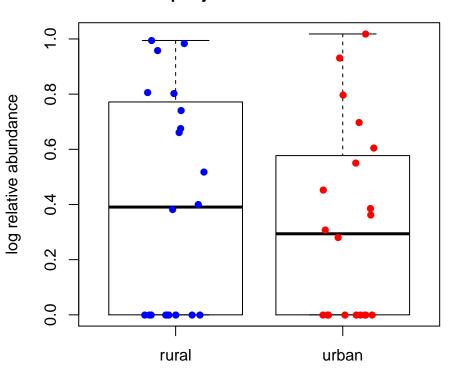
### WGS species: Eggerthella\_lenta pAdjRuralUrban= 0.684



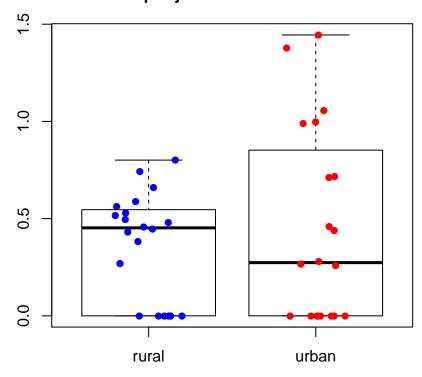
### WGS species: Oceanobacillus\_iheyensis pAdjRuralUrban= 0.684



### WGS species: Mycobacterium\_rhodesiae pAdjRuralUrban= 0.691

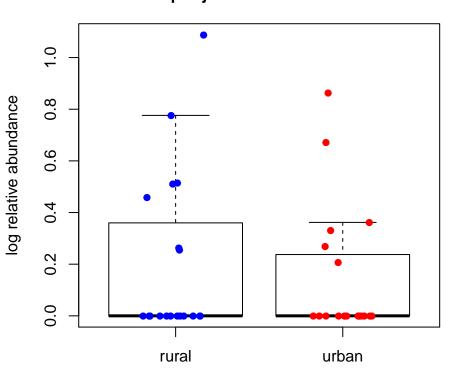


### WGS species: Streptomyces\_davawensis pAdjRuralUrban= 0.691

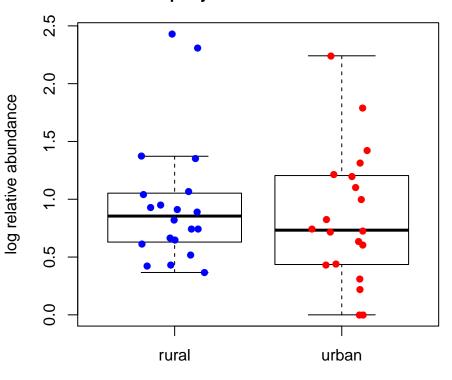


log relative abundance

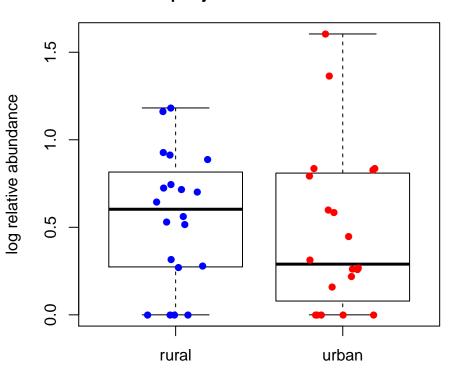
### WGS species: Jannaschia\_sp.\_CCS1 pAdjRuralUrban= 0.692



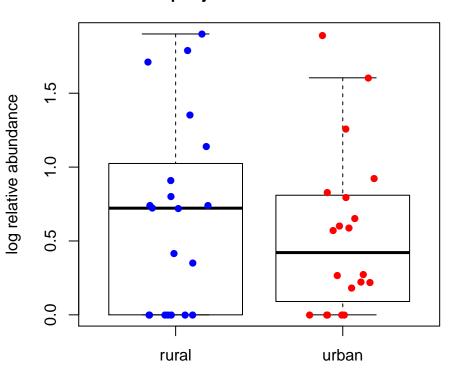
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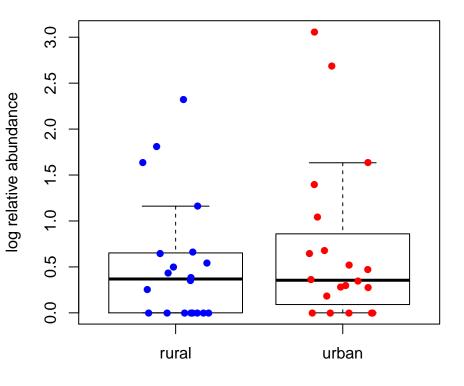
### WGS species: Cellulomonas\_flavigena pAdjRuralUrban= 0.692



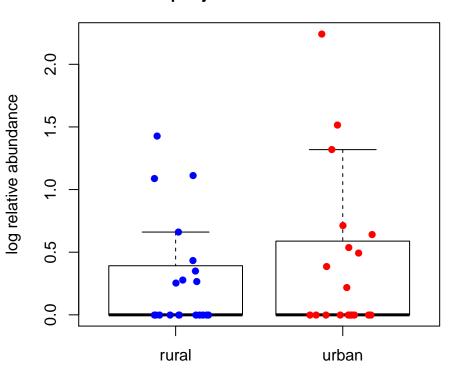
### WGS species: Serratia\_plymuthica pAdjRuralUrban= 0.692



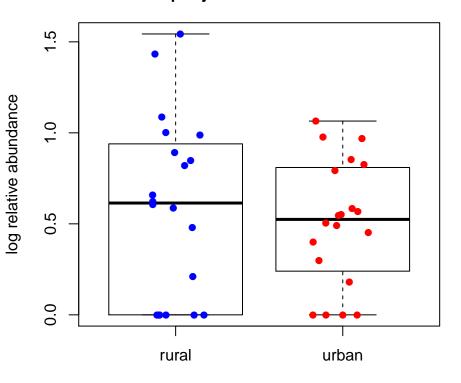
### WGS species: Lactobacillus\_sanfranciscensis pAdjRuralUrban= 0.692



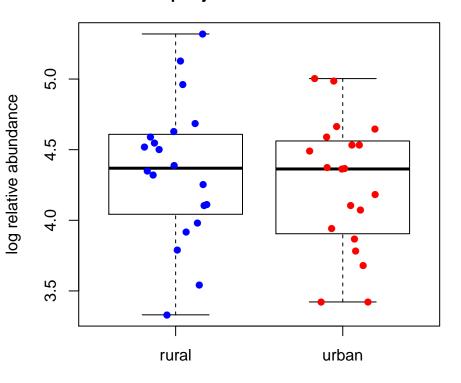
### WGS species: Enterobacteria\_phage\_P2 pAdjRuralUrban= 0.692



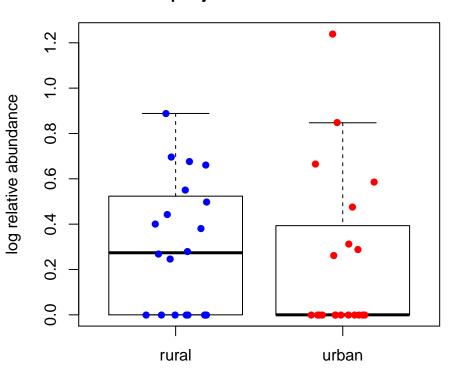
### WGS species: Exiguobacterium\_sp.\_AT1b pAdjRuralUrban= 0.692



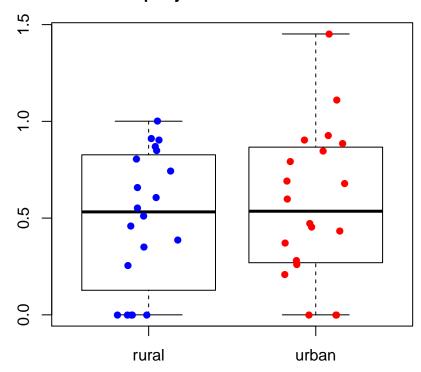
### WGS species: Odoribacter\_splanchnicus pAdjRuralUrban= 0.692



### WGS species: Haloferax\_mediterranei pAdjRuralUrban= 0.693

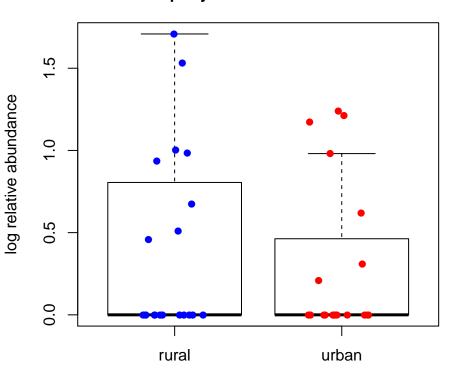


### WGS species: Vibrio\_cholerae pAdjRuralUrban= 0.693

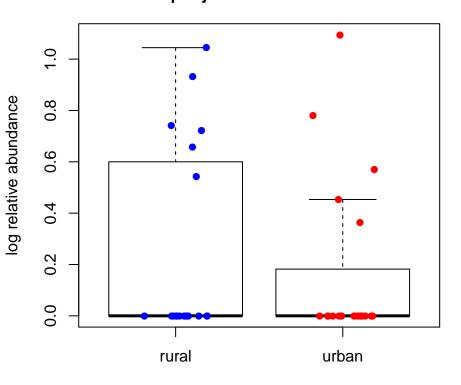


log relative abundance

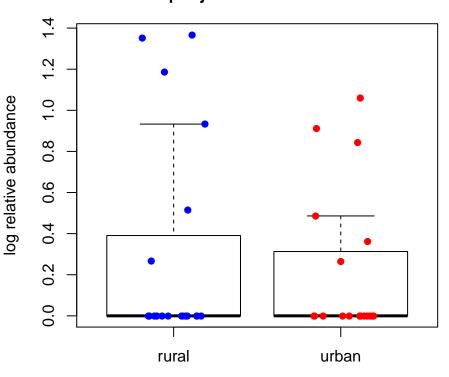
# WGS species: Hirschia\_baltica pAdjRuralUrban= 0.695



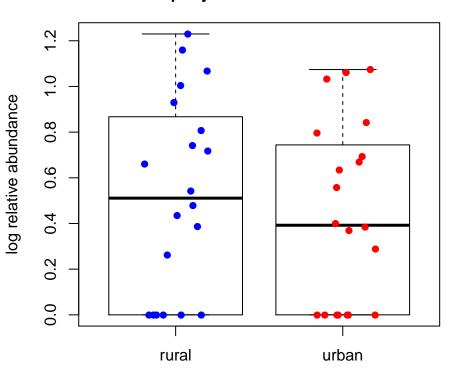
### WGS species: Roseobacter\_denitrificans pAdjRuralUrban= 0.698



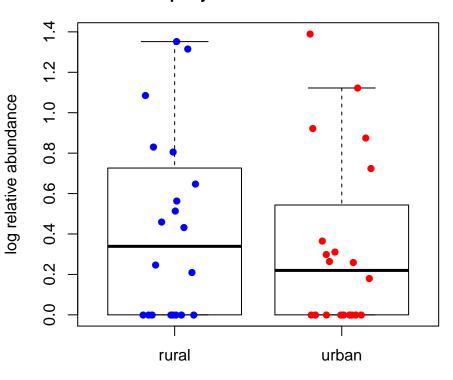
#### WGS species: Streptococcus\_phage\_YMC.2011 pAdjRuralUrban= 0.701



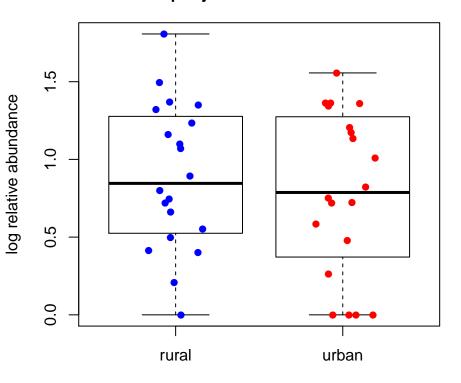
### WGS species: Agrobacterium\_fabrum pAdjRuralUrban= 0.703



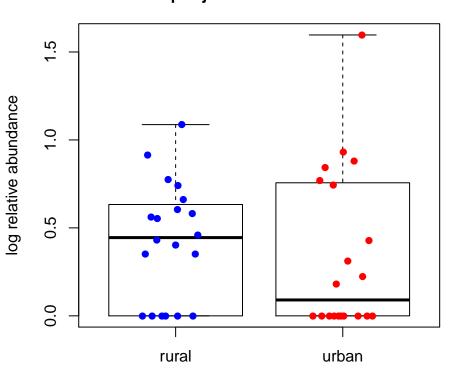
### WGS species: Nitrosomonas\_europaea pAdjRuralUrban= 0.703



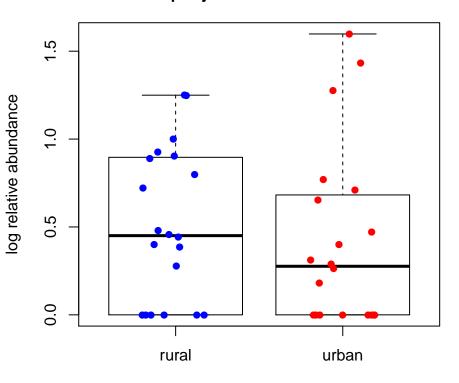
### WGS species: Halomonas\_elongata pAdjRuralUrban= 0.704



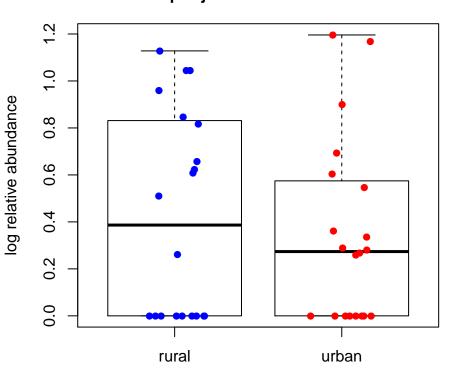
# WGS species: Nitrobacter\_hamburgensis pAdjRuralUrban= 0.704



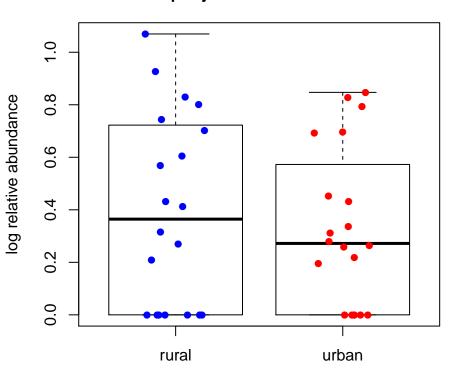
### WGS species: Sphingobium\_sp.\_SYK.6 pAdjRuralUrban= 0.706



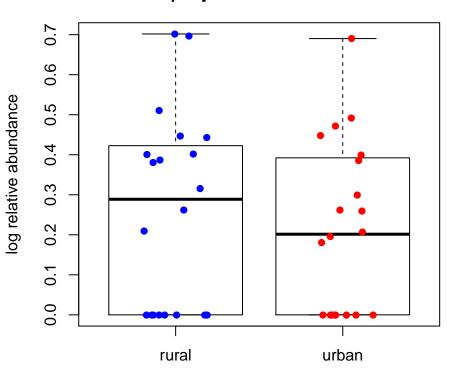
### WGS species: Micromonospora\_sp.\_L5 pAdjRuralUrban= 0.707



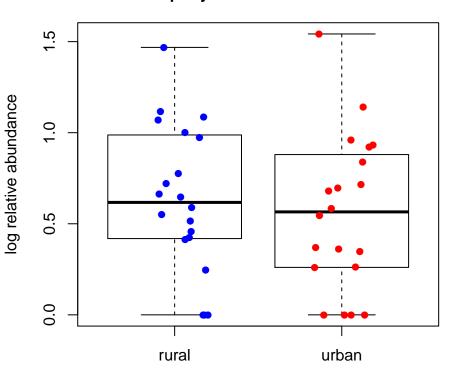
### WGS species: Alcanivorax\_dieselolei pAdjRuralUrban= 0.709



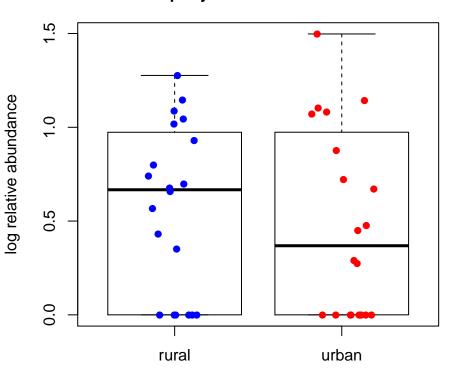
### WGS species: Marinobacter\_sp.\_BSs20148 pAdjRuralUrban= 0.716



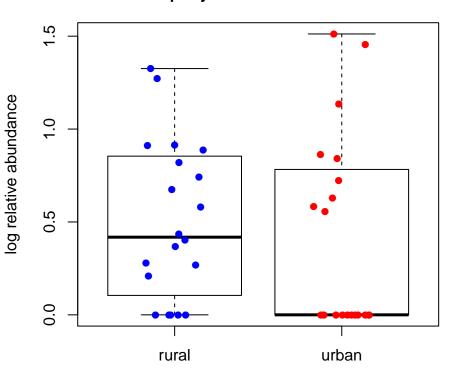
### WGS species: Actinosynnema\_mirum pAdjRuralUrban= 0.716



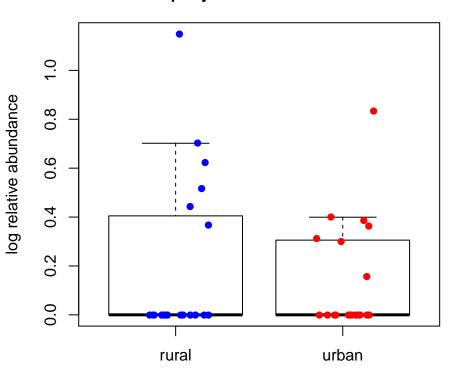
### WGS species: Campylobacter\_curvus pAdjRuralUrban= 0.718



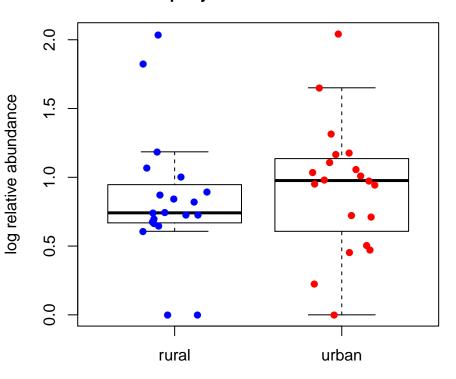
### WGS species: Vibrio\_campbellii pAdjRuralUrban= 0.719



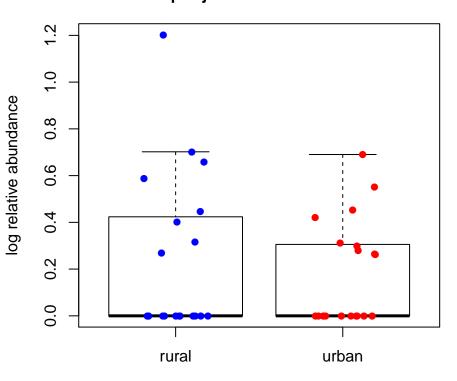
# WGS species: Enterobacteria\_phage\_SfV pAdjRuralUrban= 0.721



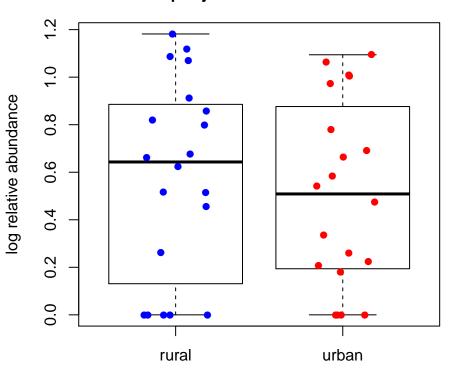
### WGS species: Pantoea\_sp.\_At.9b pAdjRuralUrban= 0.725



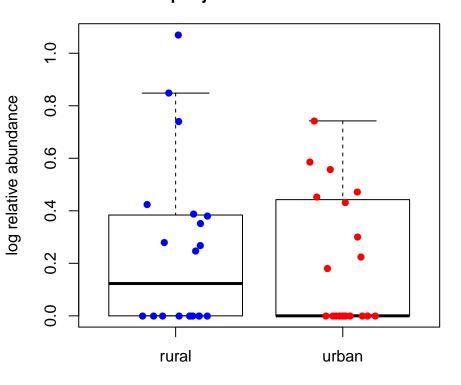
## WGS species: Parvularcula\_bermudensis pAdjRuralUrban= 0.726



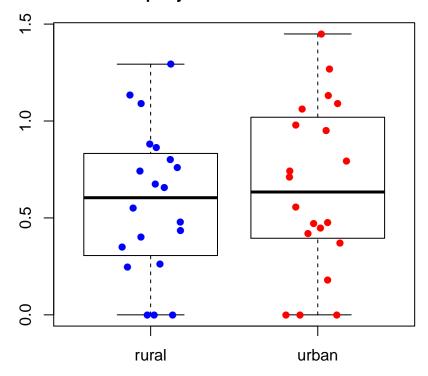
### WGS species: Sphaerobacter\_thermophilus pAdjRuralUrban= 0.726



## WGS species: Synechococcus\_elongatus pAdjRuralUrban= 0.729

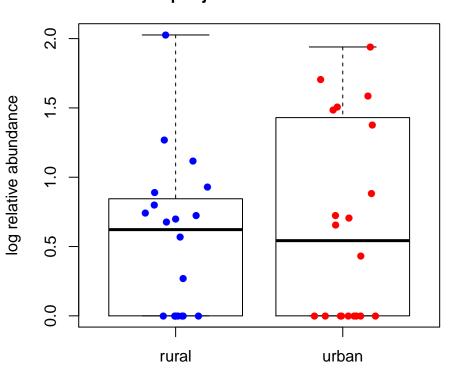


### WGS species: Desulfitobacterium\_dichloroeliminans pAdjRuralUrban= 0.729

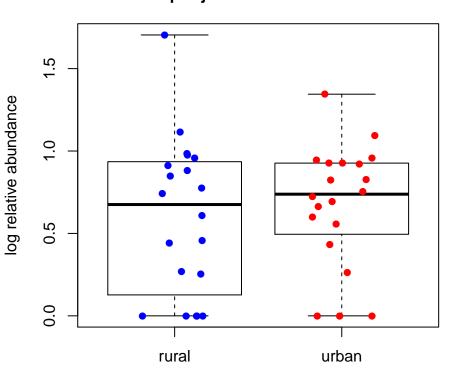


log relative abundance

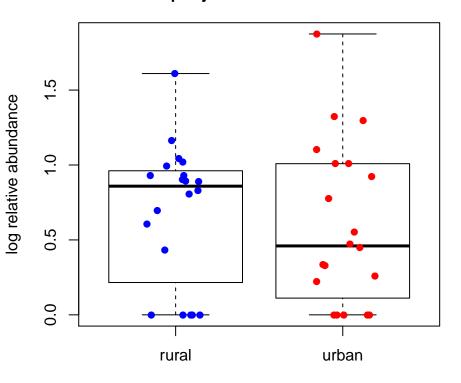
### WGS species: Staphylococcus\_warneri pAdjRuralUrban= 0.732



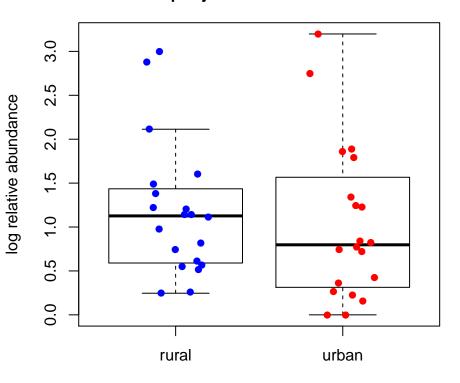
## WGS species: Caldicellulosiruptor\_saccharolyticus pAdjRuralUrban= 0.732



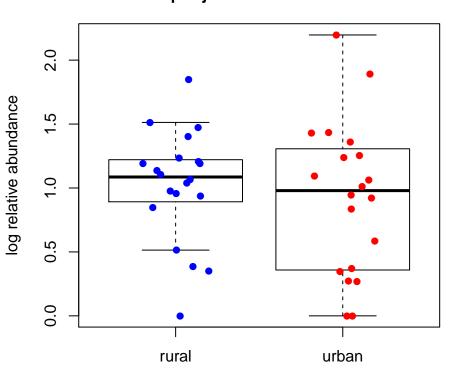
### WGS species: Rhodococcus\_hoagii pAdjRuralUrban= 0.733



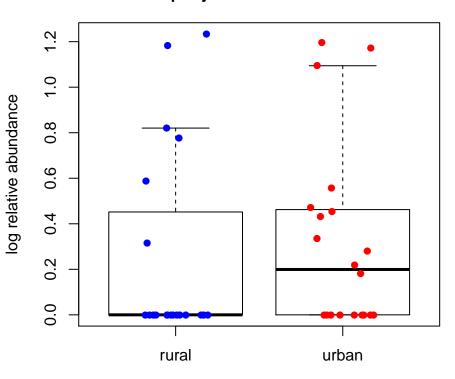
### WGS species: Enterobacter\_sp.\_638 pAdjRuralUrban= 0.735



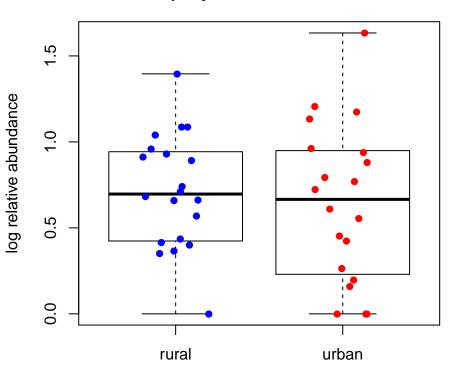
### WGS species: Desulfococcus\_oleovorans pAdjRuralUrban= 0.735



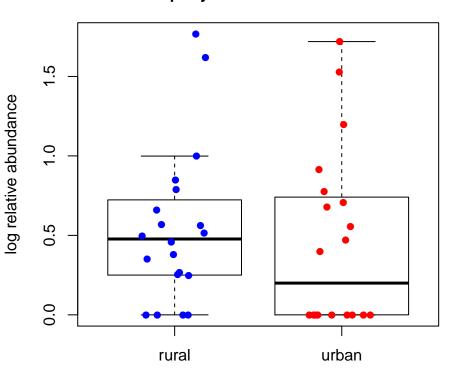
### WGS species: Shewanella\_baltica pAdjRuralUrban= 0.735



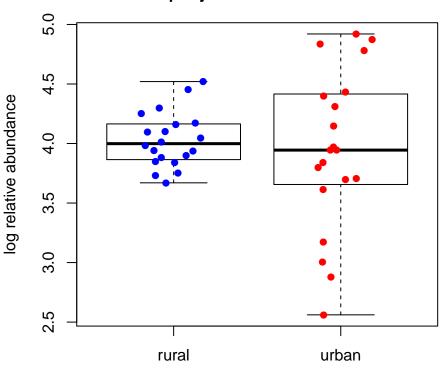
### WGS species: Saccharopolyspora\_erythraea pAdjRuralUrban= 0.735



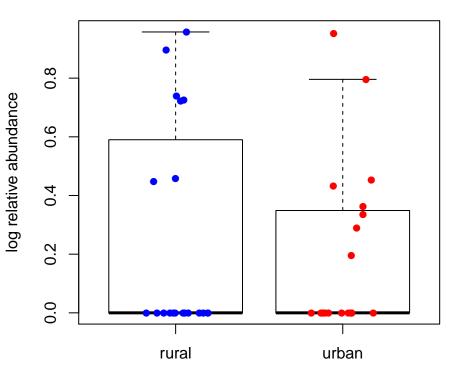
# WGS species: Acidovorax\_ebreus pAdjRuralUrban= 0.737



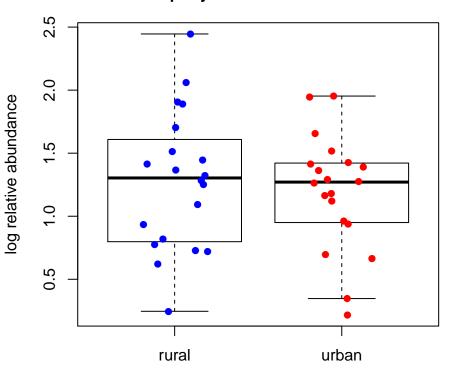
### WGS species: Roseburia\_hominis pAdjRuralUrban= 0.738



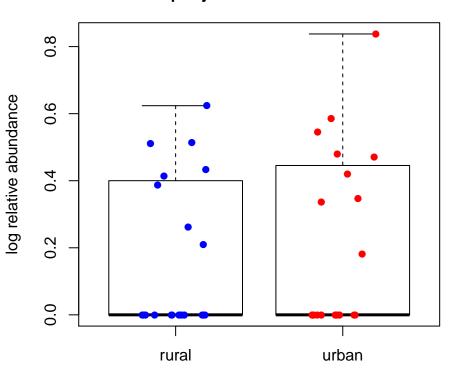
### WGS species: Pelagibacterium\_halotolerans pAdjRuralUrban= 0.743



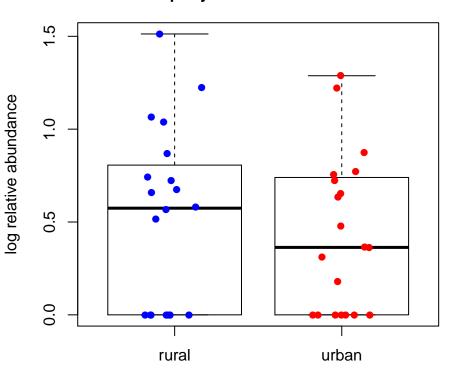
### WGS species: Bifidobacterium\_animalis pAdjRuralUrban= 0.743



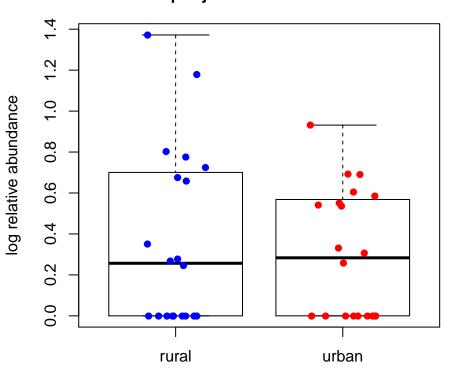
### WGS species: Elusimicrobium\_minutum pAdjRuralUrban= 0.744



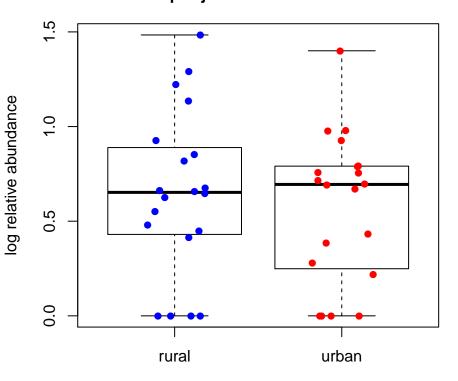
### WGS species: Nocardia\_brasiliensis pAdjRuralUrban= 0.744



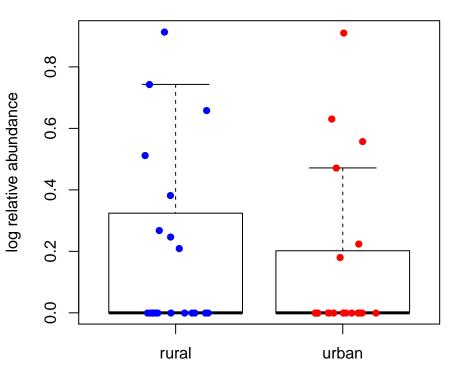
## WGS species: Cyanobacterium\_aponinum pAdjRuralUrban= 0.744



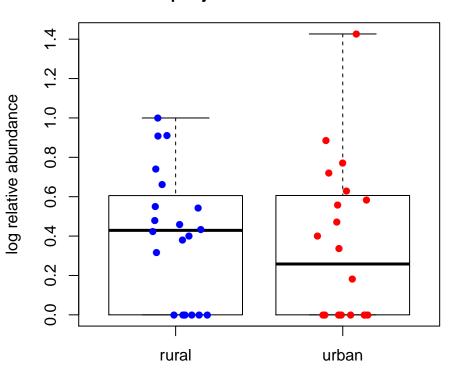
## WGS species: Candidatus\_Puniceispirillum\_marinum pAdjRuralUrban= 0.745



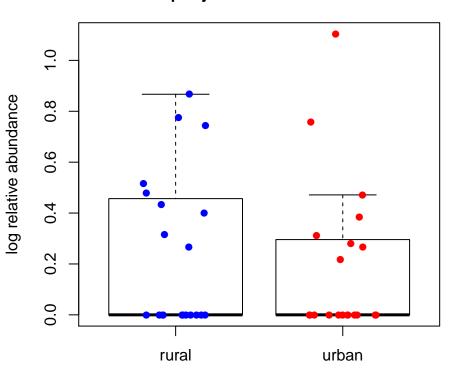
### WGS species: Natranaerobius\_thermophilus pAdjRuralUrban= 0.747



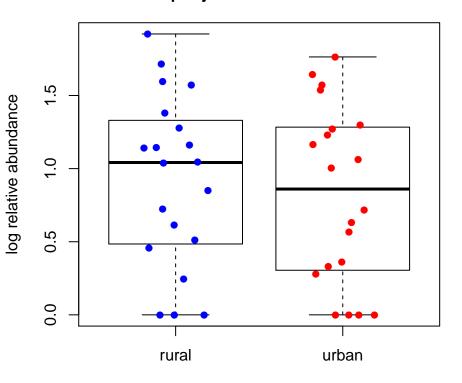
#### WGS species: Mycoplasma\_penetrans pAdjRuralUrban= 0.748



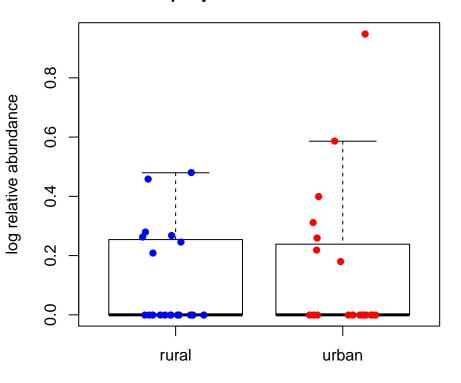
### WGS species: Bartonella\_vinsonii pAdjRuralUrban= 0.756



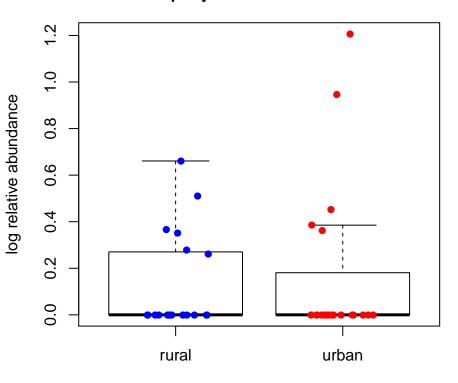
# WGS species: Oenococcus\_oeni pAdjRuralUrban= 0.757



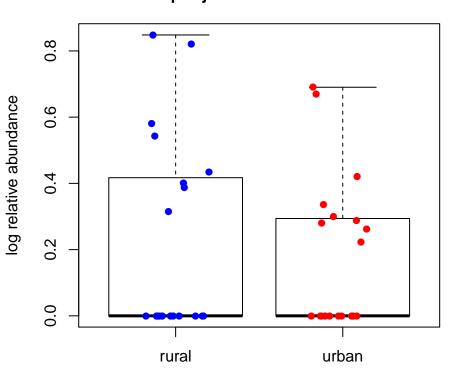
### WGS species: Mycoplasma\_pulmonis pAdjRuralUrban= 0.759



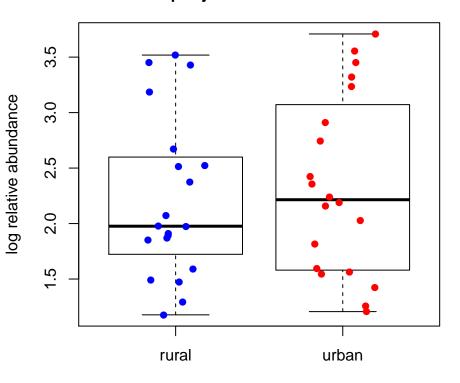
### WGS species: Chamaesiphon\_minutus pAdjRuralUrban= 0.761



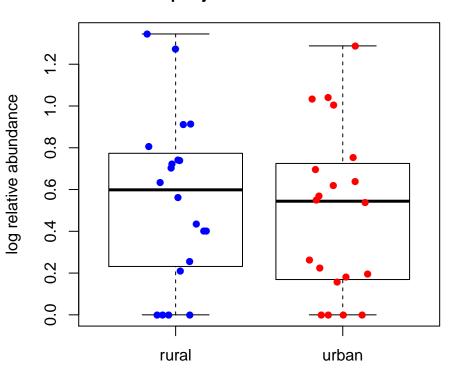
## WGS species: Actinoplanes\_missouriensis pAdjRuralUrban= 0.761



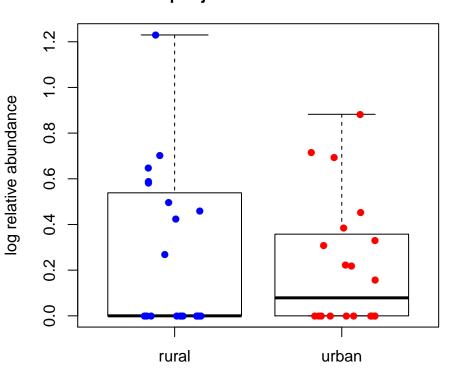
### WGS species: Salmonella\_enterica pAdjRuralUrban= 0.761



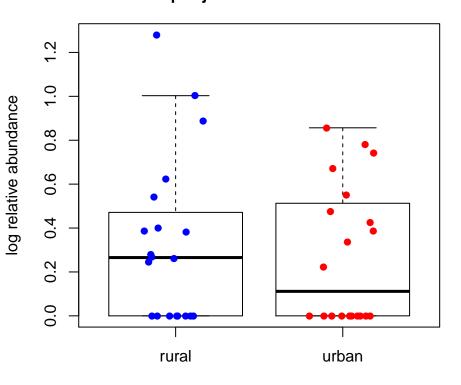
### WGS species: Thiocystis\_violascens pAdjRuralUrban= 0.761



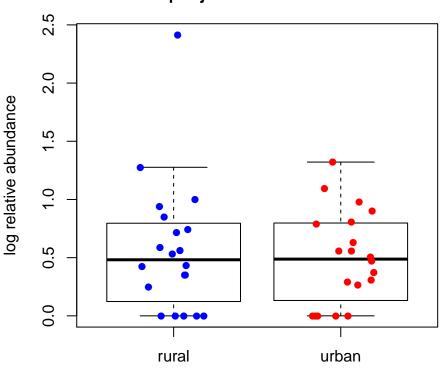
### WGS species: Corynebacterium\_ulcerans pAdjRuralUrban= 0.761



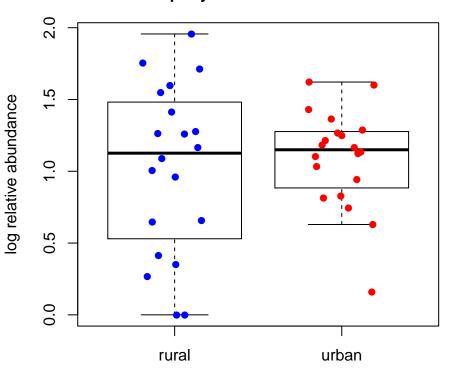
### WGS species: Sphaerochaeta\_coccoides pAdjRuralUrban= 0.761



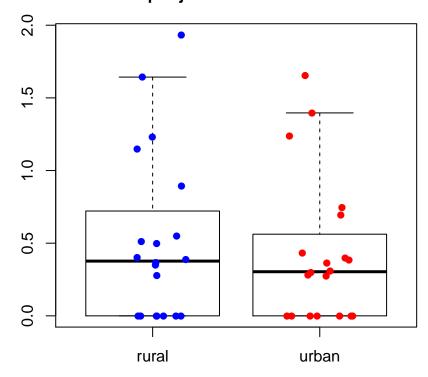
### WGS species: Leuconostoc\_mesenteroides pAdjRuralUrban= 0.761



### WGS species: Polaribacter\_sp.\_MED152 pAdjRuralUrban= 0.761

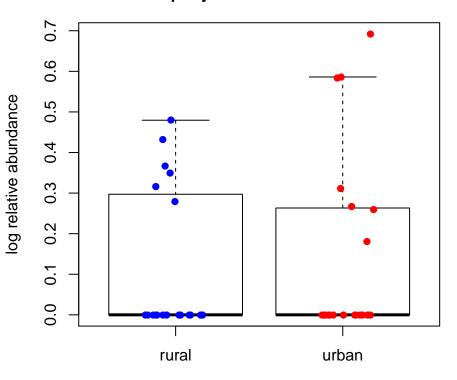


## WGS species: Pectobacterium\_atrosepticum pAdjRuralUrban= 0.761

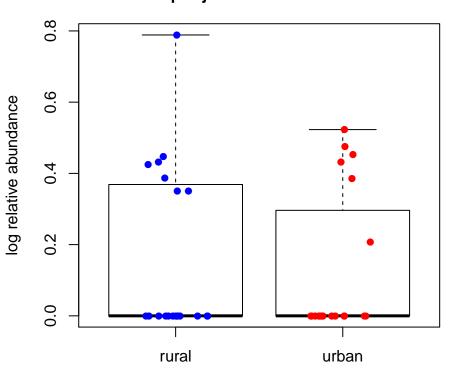


log relative abundance

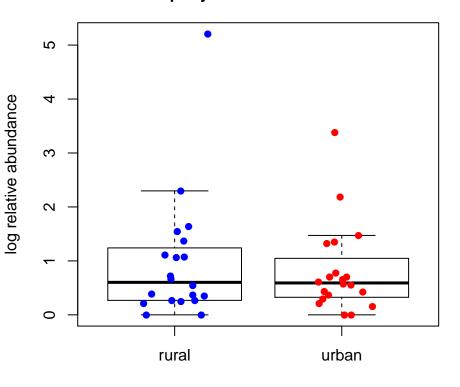
WGS species: Pseudanabaena\_sp.\_PCC\_7367 pAdjRuralUrban= 0.762



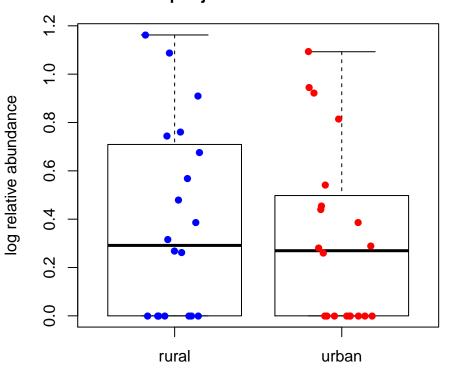
## WGS species: Saccharomonospora\_viridis pAdjRuralUrban= 0.762



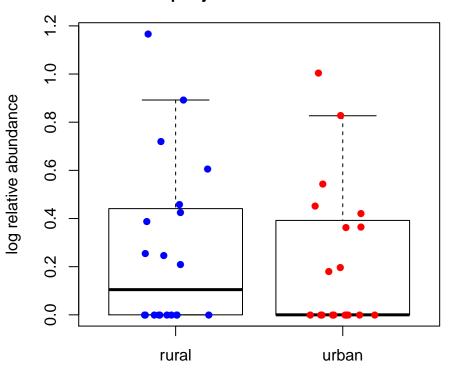
### WGS species: Morganella\_morganii pAdjRuralUrban= 0.765



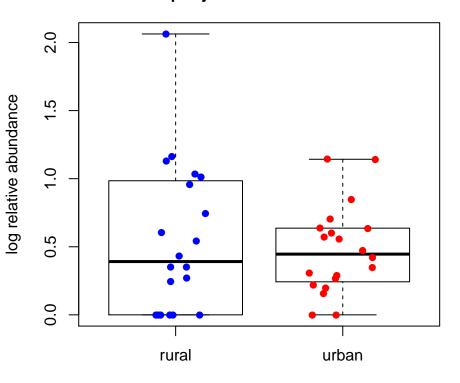
### WGS species: Nakamurella\_multipartita pAdjRuralUrban= 0.769



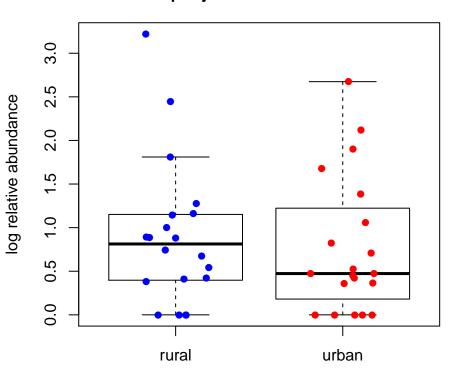
### WGS species: Parachlamydia\_acanthamoebae pAdjRuralUrban= 0.772



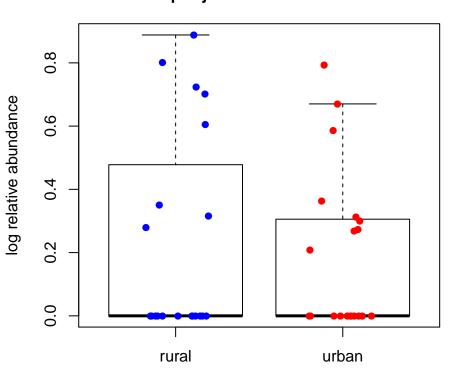
### WGS species: Nitratifractor\_salsuginis pAdjRuralUrban= 0.773



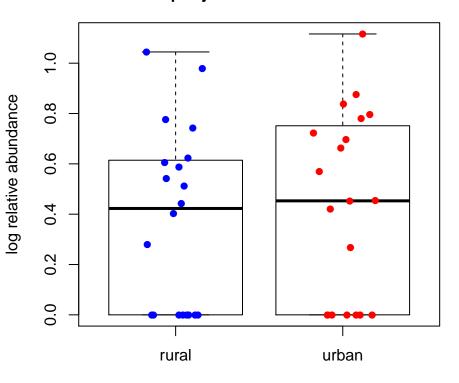
#### WGS species: Lactobacillus\_plantarum pAdjRuralUrban= 0.774



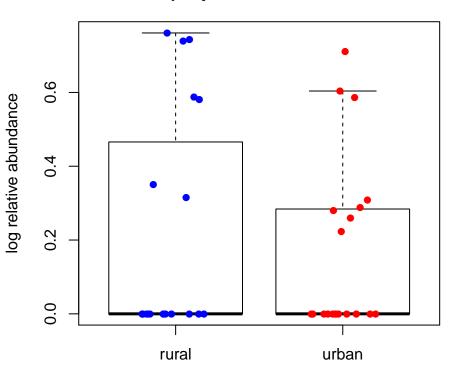
### WGS species: Chthonomonas\_calidirosea pAdjRuralUrban= 0.774



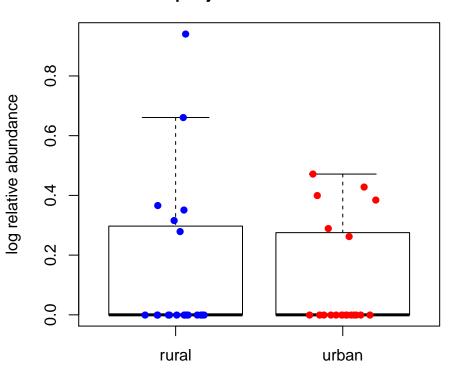
### WGS species: Burkholderia\_sp.\_CCGE1003 pAdjRuralUrban= 0.775



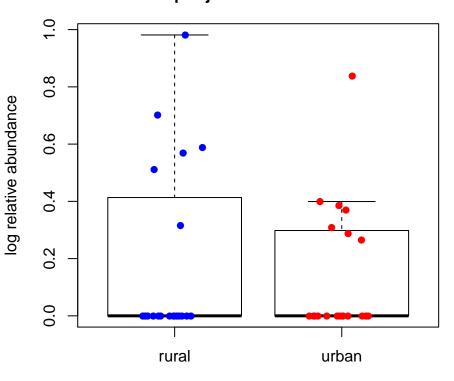
### WGS species: Geobacillus\_sp.\_WCH70 pAdjRuralUrban= 0.779



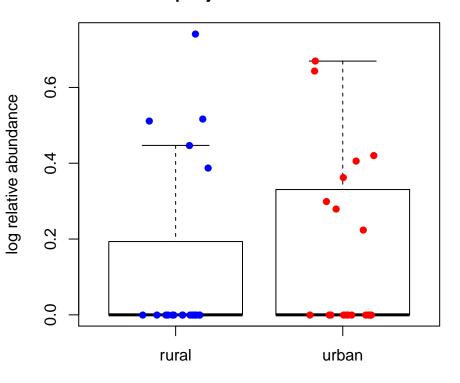
### WGS species: Methanolobus\_psychrophilus pAdjRuralUrban= 0.78



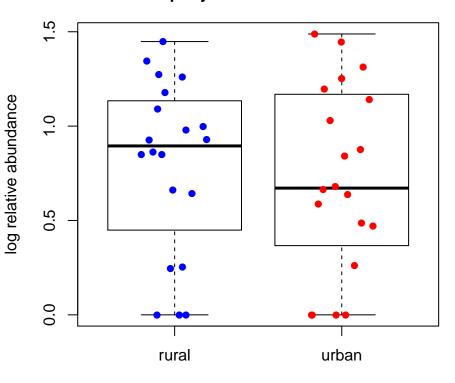
### WGS species: Xanthomonas\_fuscans pAdjRuralUrban= 0.78



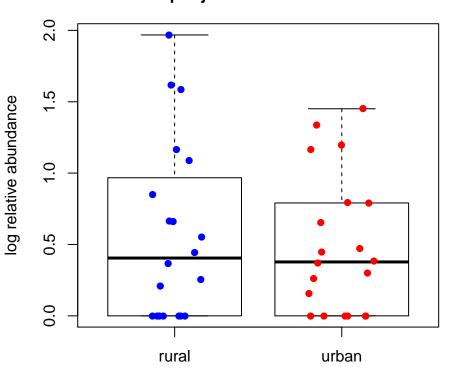
# WGS species: Alteromonas\_sp.\_SN2 pAdjRuralUrban= 0.78



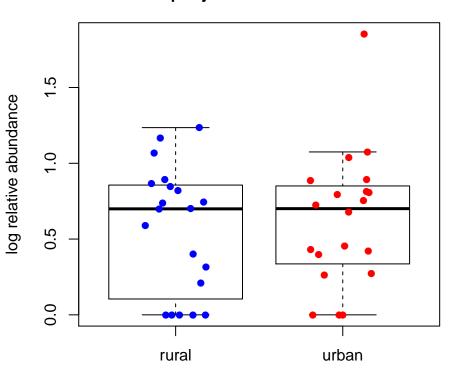
### WGS species: Parvibaculum\_lavamentivorans pAdjRuralUrban= 0.783



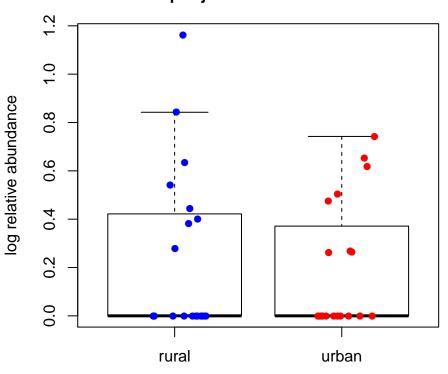
### WGS species: Syntrophomonas\_wolfei pAdjRuralUrban= 0.784



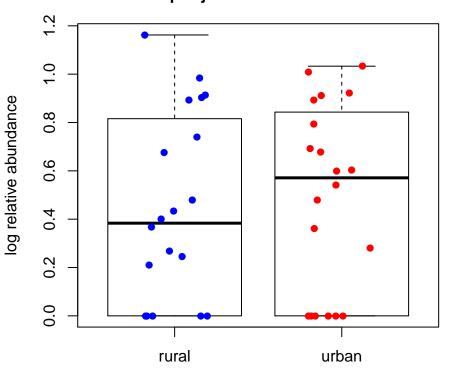
### WGS species: Streptomyces\_scabiei pAdjRuralUrban= 0.784



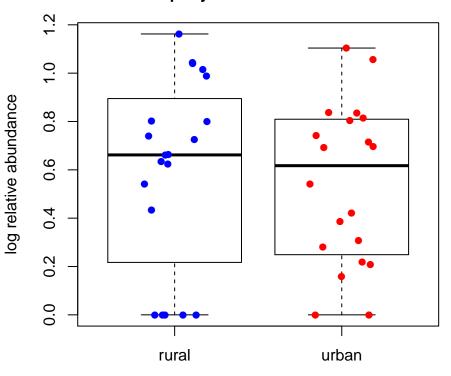
## WGS species: Nitrosospira\_multiformis pAdjRuralUrban= 0.785



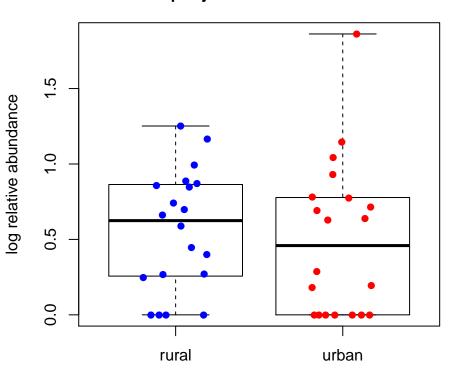
### WGS species: Candidatus\_Sulcia\_muelleri pAdjRuralUrban= 0.786



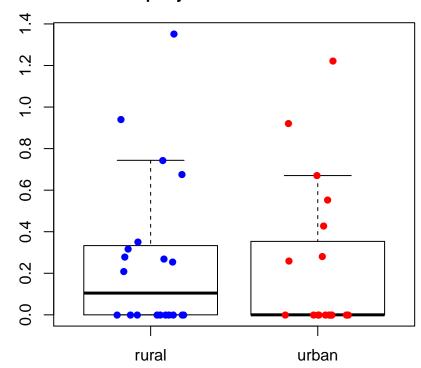
### WGS species: Meiothermus\_ruber pAdjRuralUrban= 0.789



### WGS species: Simiduia\_agarivorans pAdjRuralUrban= 0.792

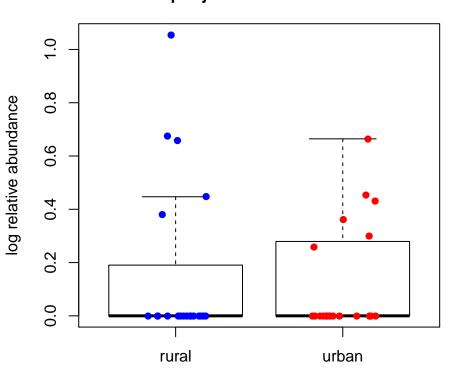


### WGS species: Rhodococcus\_jostii pAdjRuralUrban= 0.793

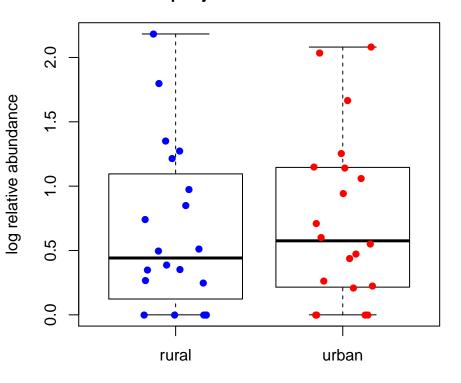


log relative abundance

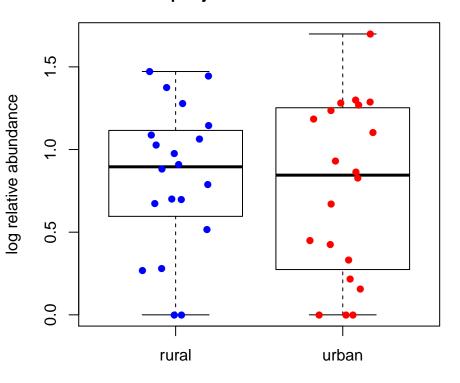
WGS species: uncultured\_Termite\_group\_1\_bacterium pAdjRuralUrban= 0.794



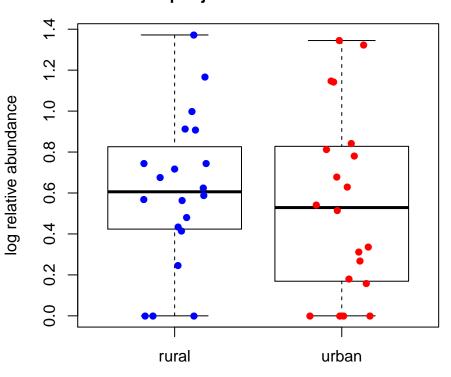
### WGS species: Pantoea\_vagans pAdjRuralUrban= 0.799



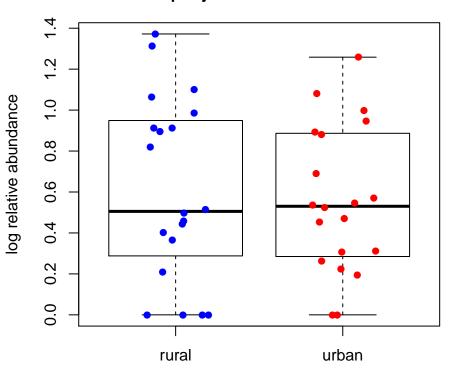
### WGS species: Hyphomonas\_neptunium pAdjRuralUrban= 0.799



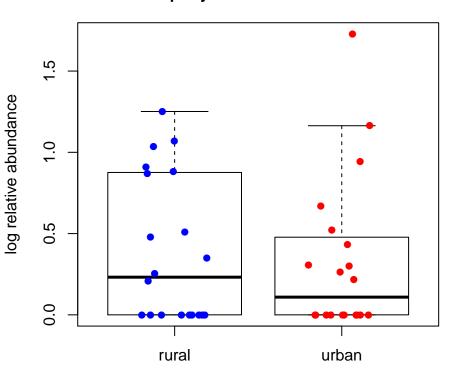
### WGS species: Sinorhizobium\_meliloti pAdjRuralUrban= 0.799



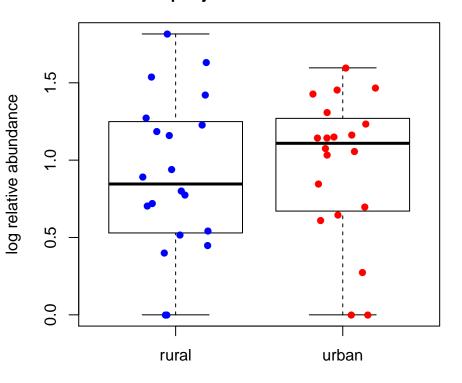
### WGS species: Advenella\_kashmirensis pAdjRuralUrban= 0.799



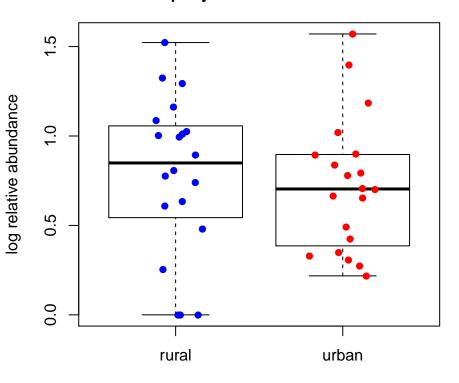
### WGS species: Yersinia\_pestis pAdjRuralUrban= 0.801



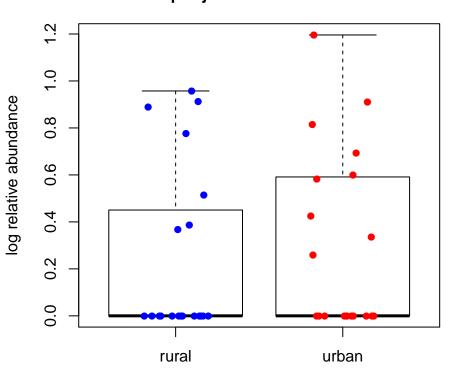
### WGS species: Chlorobaculum\_tepidum pAdjRuralUrban= 0.801



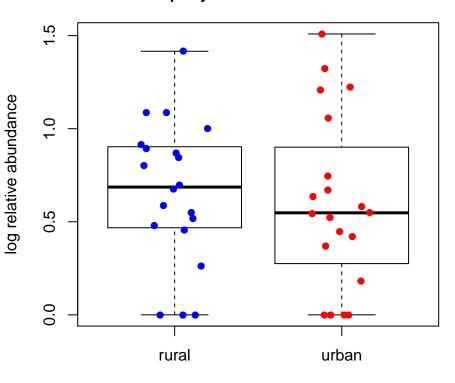
### WGS species: Allochromatium\_vinosum pAdjRuralUrban= 0.801



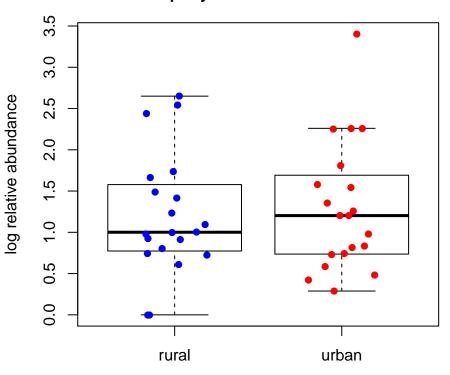
#### WGS species: Candidatus\_Symbiobacter\_mobilis pAdjRuralUrban= 0.803



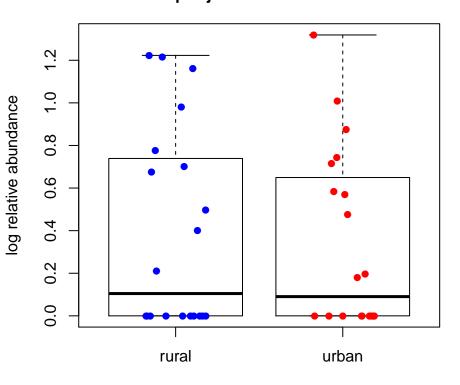
### WGS species: Amycolatopsis\_mediterranei pAdjRuralUrban= 0.805



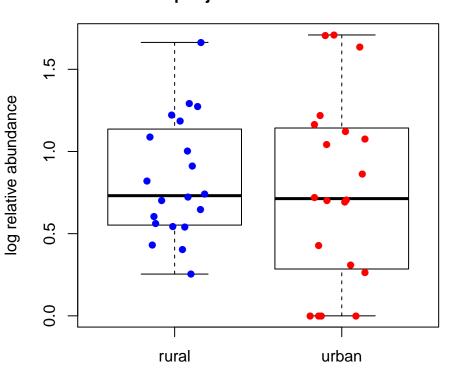
### WGS species: Citrobacter\_koseri pAdjRuralUrban= 0.808



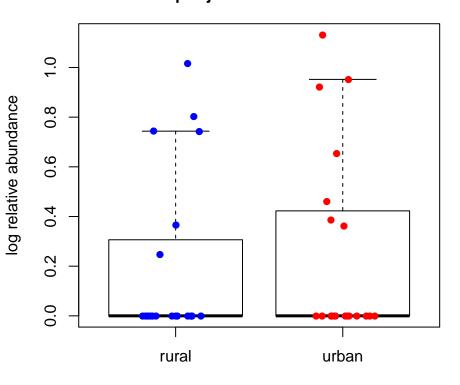
### WGS species: Pseudomonas\_sp.\_TKP pAdjRuralUrban= 0.81



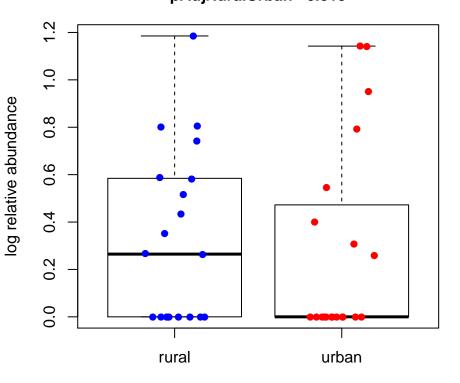
### WGS species: Oceanithermus\_profundus pAdjRuralUrban= 0.81



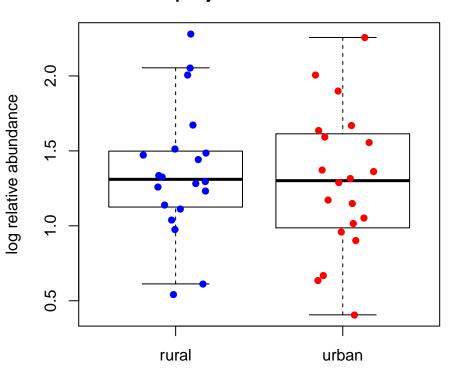
### WGS species: Thermosipho\_melanesiensis pAdjRuralUrban= 0.81



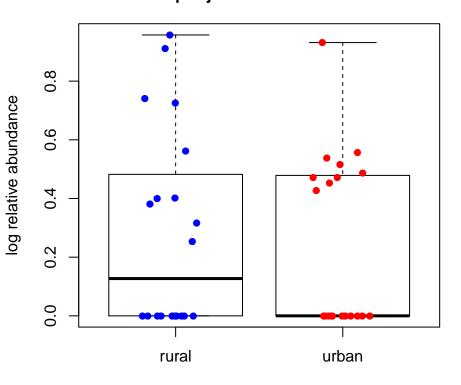
WGS species: Candidatus\_Methanomethylophilus\_alvus pAdjRuralUrban= 0.819



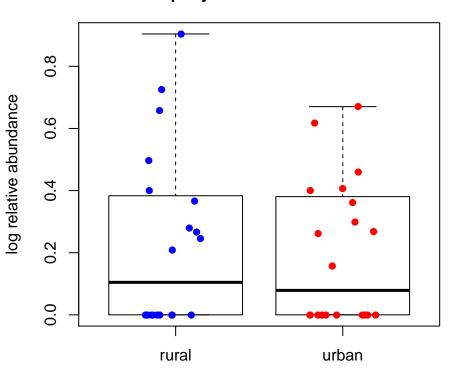
### WGS species: Dickeya\_dadantii pAdjRuralUrban= 0.82



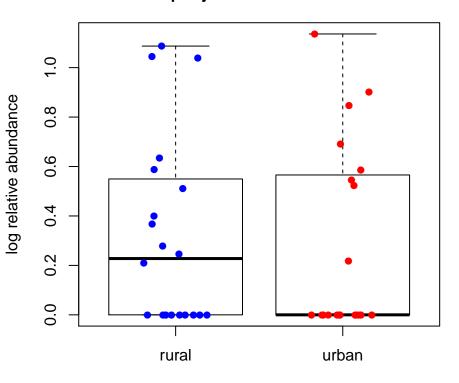
### WGS species: beta\_proteobacterium\_CB pAdjRuralUrban= 0.82



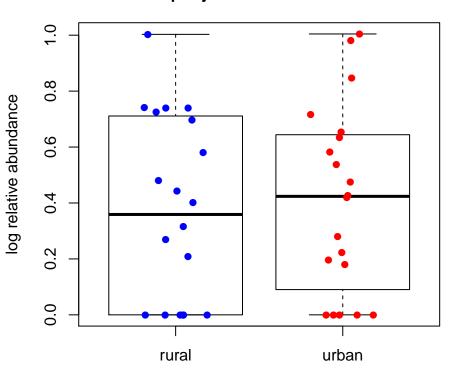
### WGS species: Geobacillus\_thermodenitrificans pAdjRuralUrban= 0.821



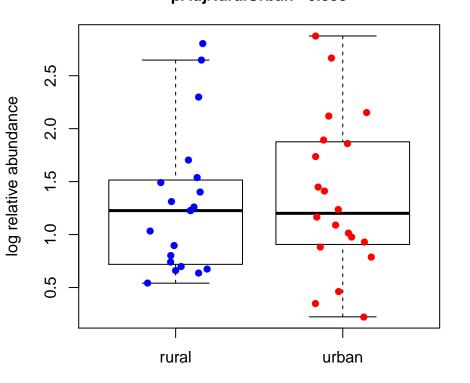
### WGS species: Flexibacter\_litoralis pAdjRuralUrban= 0.822



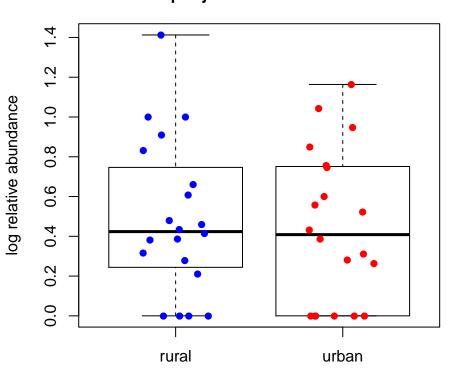
### WGS species: Methylomicrobium\_alcaliphilum pAdjRuralUrban= 0.831



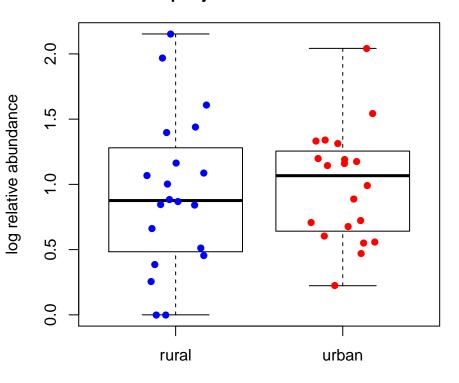
WGS species: Enterobacteriaceae\_bacterium\_strain\_FGI\_5 pAdjRuralUrban= 0.833



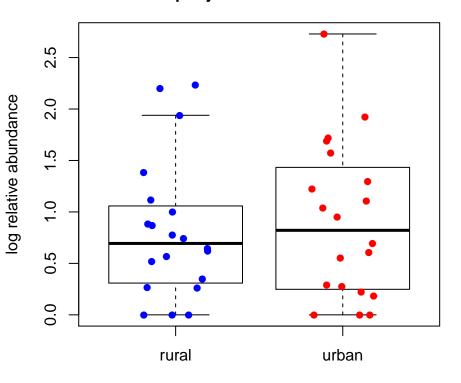
### WGS species: Roseiflexus\_sp.\_RS.1 pAdjRuralUrban= 0.835



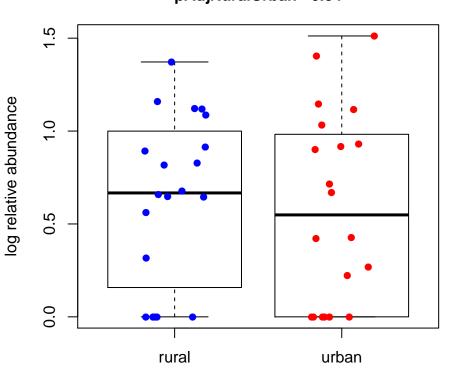
### WGS species: Erwinia\_billingiae pAdjRuralUrban= 0.836



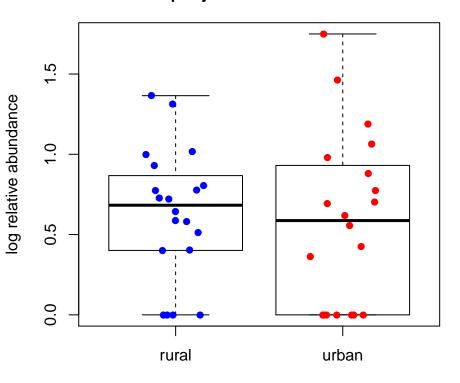
# WGS species: Salmonella\_bongori pAdjRuralUrban= 0.84



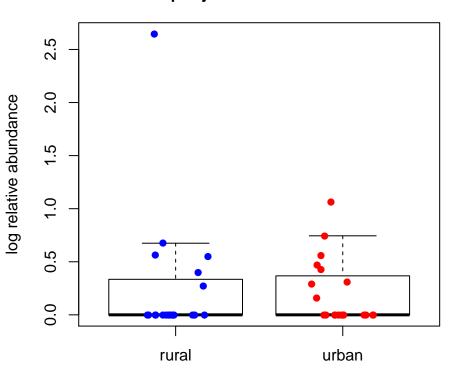
WGS species: Synechococcus\_sp.\_JA.3.3Ab pAdjRuralUrban= 0.84



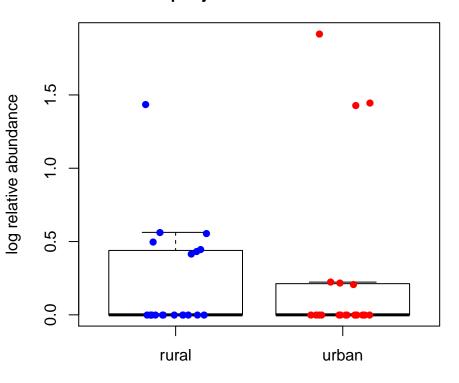
### WGS species: Vibrio\_parahaemolyticus pAdjRuralUrban= 0.844



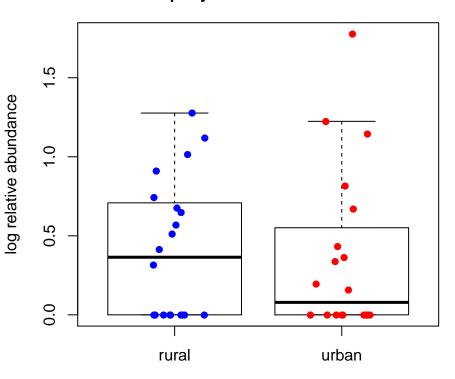
### WGS species: Leuconostoc\_kimchii pAdjRuralUrban= 0.848



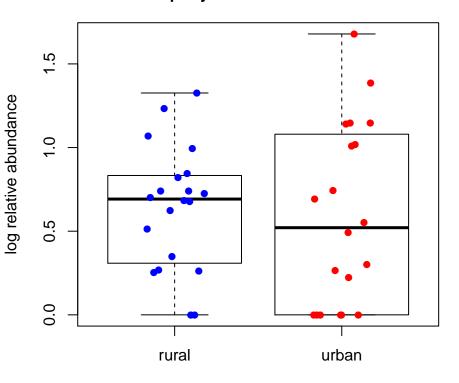
### WGS species: Yersinia\_phage\_L.413C pAdjRuralUrban= 0.848



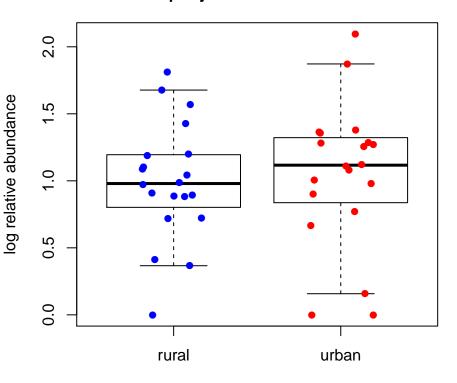
# WGS species: Providencia\_stuartii pAdjRuralUrban= 0.848



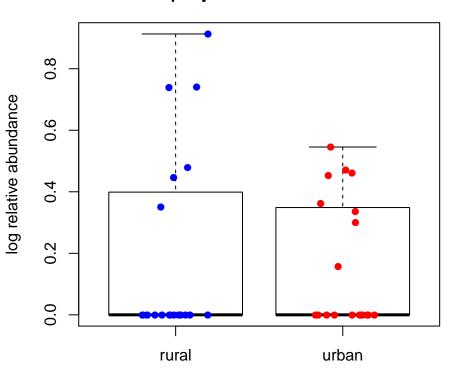
### WGS species: Nocardia\_cyriacigeorgica pAdjRuralUrban= 0.849



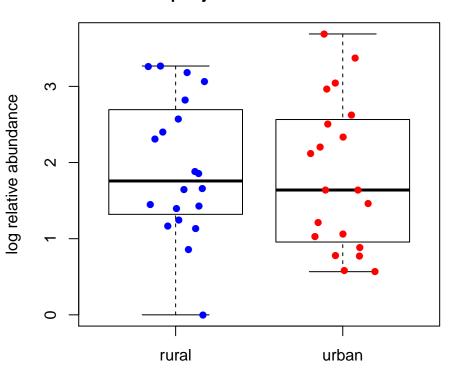
### WGS species: Thiobacillus\_denitrificans pAdjRuralUrban= 0.849



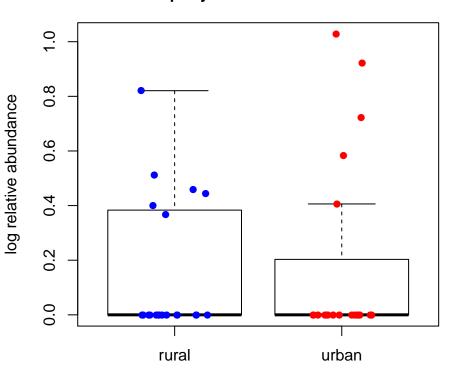
### WGS species: Burkholderia\_phenoliruptrix pAdjRuralUrban= 0.849



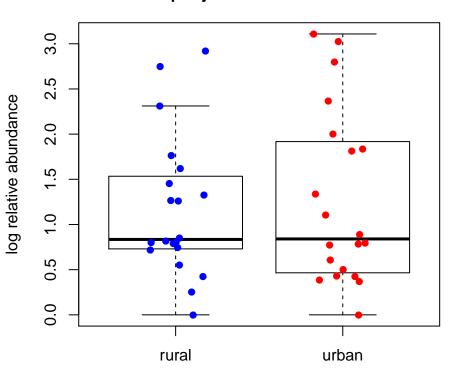
### WGS species: Klebsiella\_oxytoca pAdjRuralUrban= 0.849



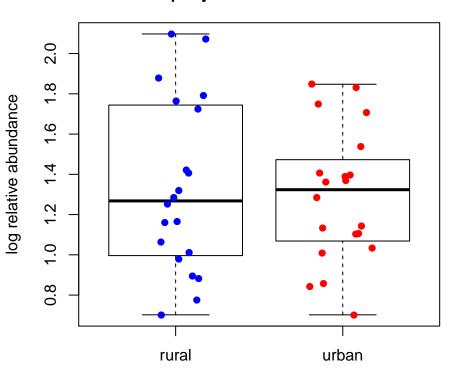
### WGS species: Methanosalsum\_zhilinae pAdjRuralUrban= 0.851



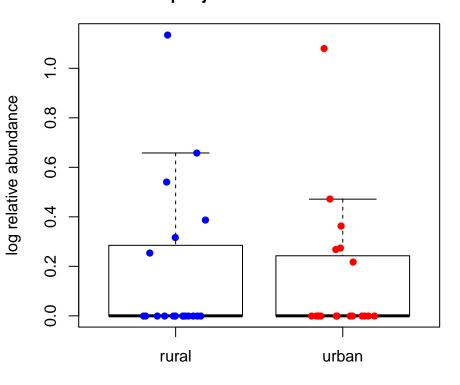
### WGS species: Enterobacter\_lignolyticus pAdjRuralUrban= 0.851



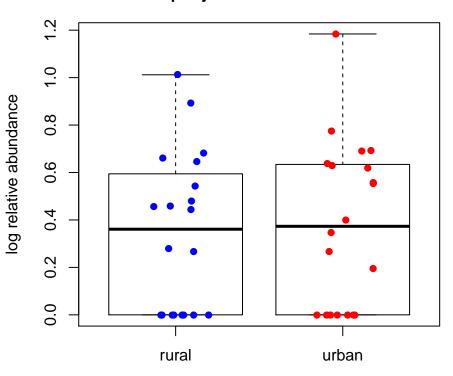
### WGS species: Finegoldia\_magna pAdjRuralUrban= 0.851



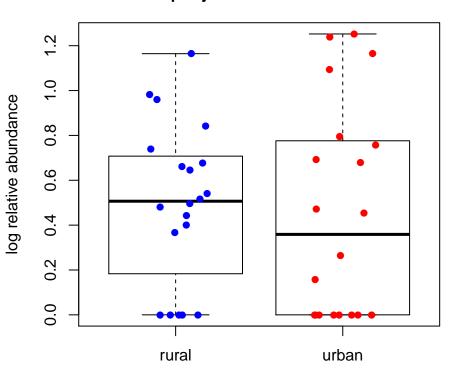
### WGS species: Sulfobacillus\_acidophilus pAdjRuralUrban= 0.855



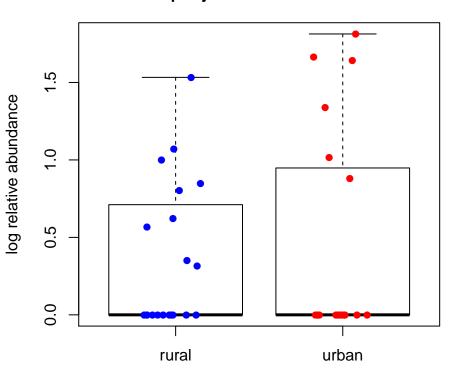
### WGS species: Vibrio\_sp.\_EJY3 pAdjRuralUrban= 0.855



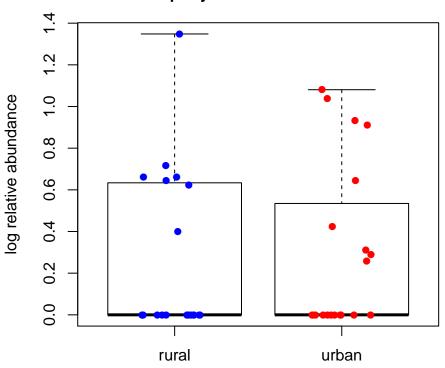
### WGS species: Helicobacter\_pylori pAdjRuralUrban= 0.855



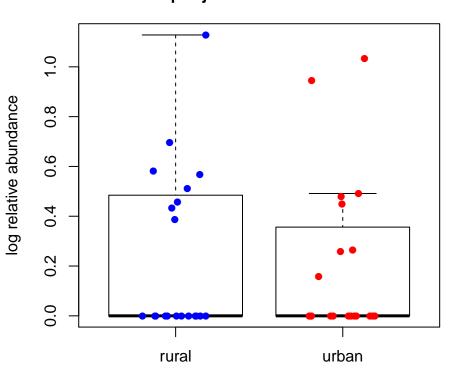
### WGS species: Gloeocapsa\_sp.\_PCC\_7428 pAdjRuralUrban= 0.856



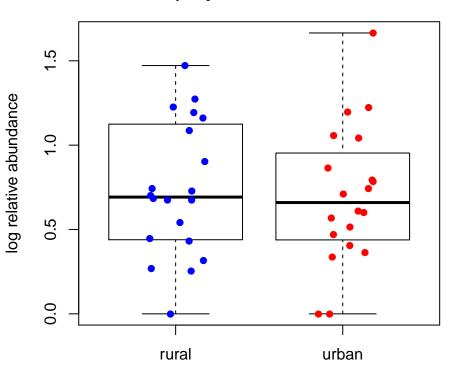
### WGS species: Kangiella\_koreensis pAdjRuralUrban= 0.858



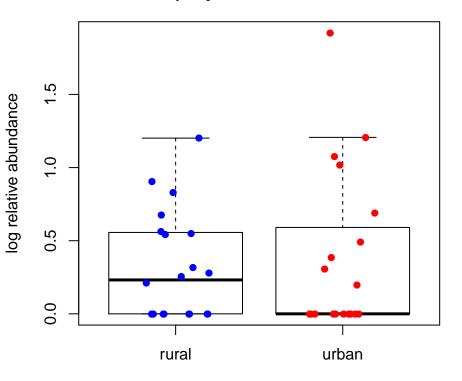
### WGS species: Synechococcus\_sp.\_PCC\_7002 pAdjRuralUrban= 0.858



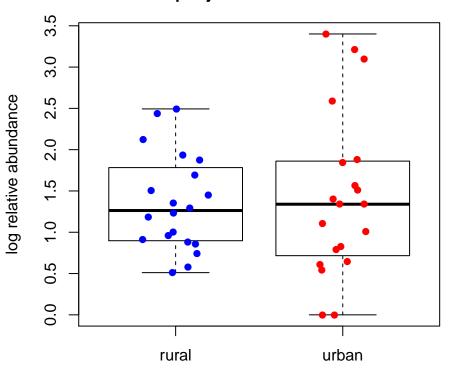
### WGS species: Candidatus\_Methylomirabilis\_oxyfera pAdjRuralUrban= 0.86



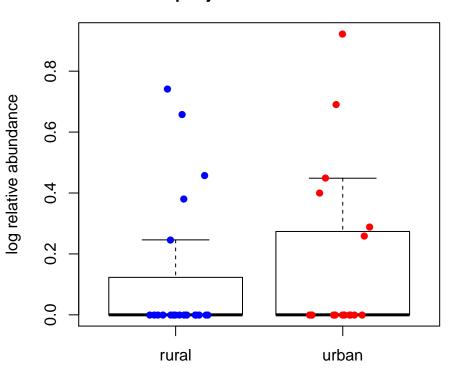
### WGS species: Methanococcus\_maripaludis pAdjRuralUrban= 0.86



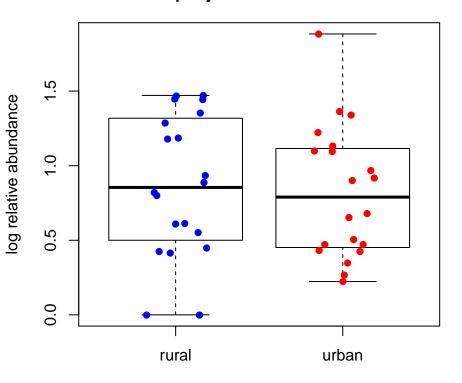
### WGS species: Shigella\_boydii pAdjRuralUrban= 0.86



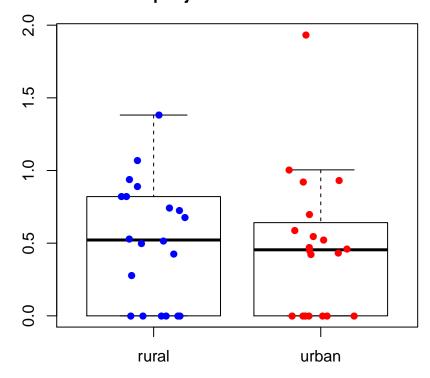
# WGS species: Rickettsia\_felis pAdjRuralUrban= 0.86



# WGS species: Sinorhizobium\_fredii pAdjRuralUrban= 0.86

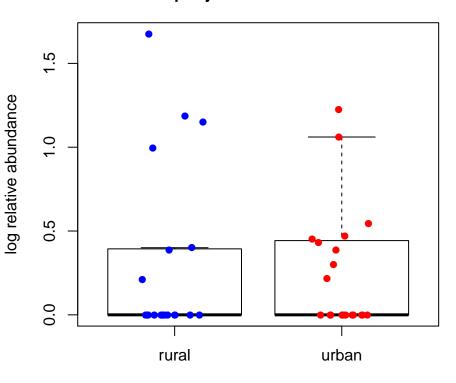


## WGS species: Pseudomonas\_entomophila pAdjRuralUrban= 0.86

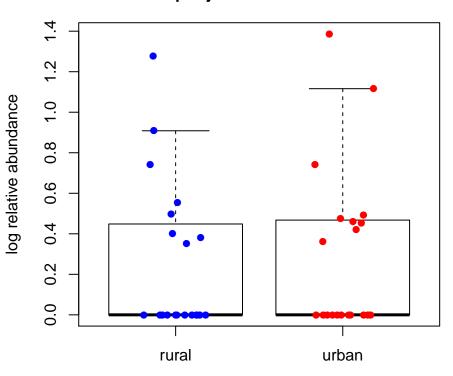


log relative abundance

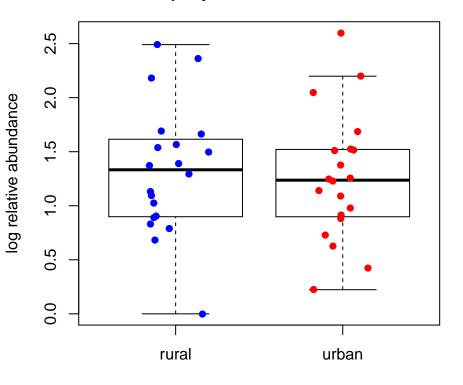
# WGS species: Edwardsiella\_piscicida pAdjRuralUrban= 0.86



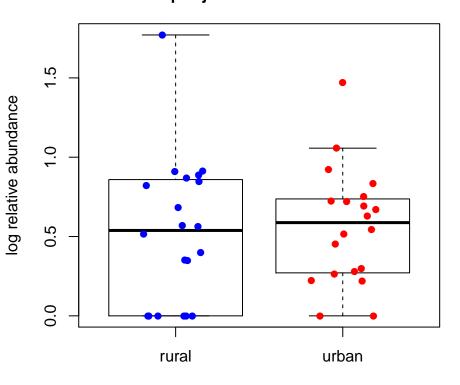
## WGS species: Halalkalicoccus\_jeotgali pAdjRuralUrban= 0.86



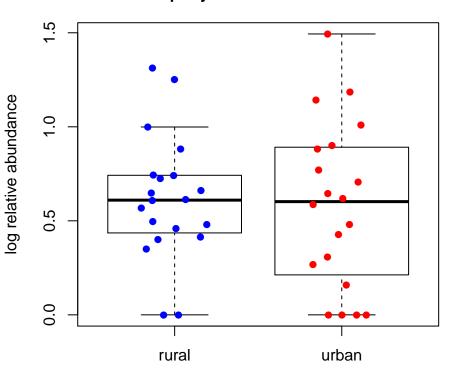
## WGS species: Serratia\_marcescens pAdjRuralUrban= 0.862



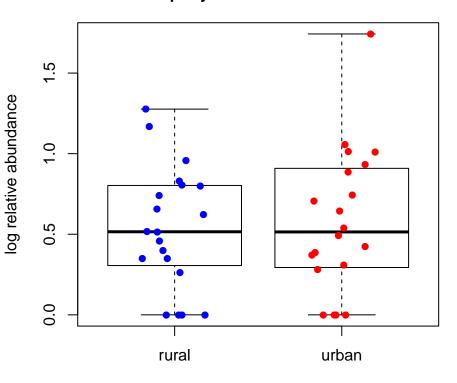
## WGS species: Xenorhabdus\_nematophila pAdjRuralUrban= 0.865



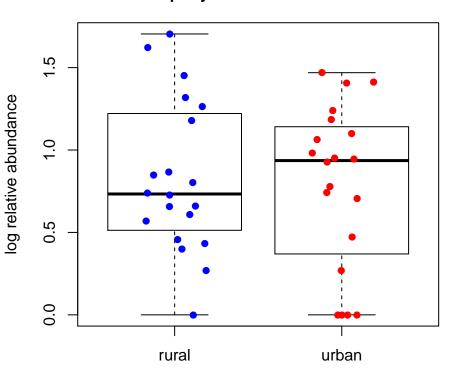
## WGS species: Synechococcus\_sp.\_CC9605 pAdjRuralUrban= 0.865



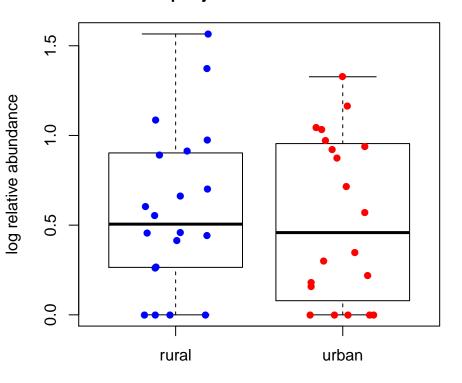
## WGS species: Arthrobacter\_chlorophenolicus pAdjRuralUrban= 0.865



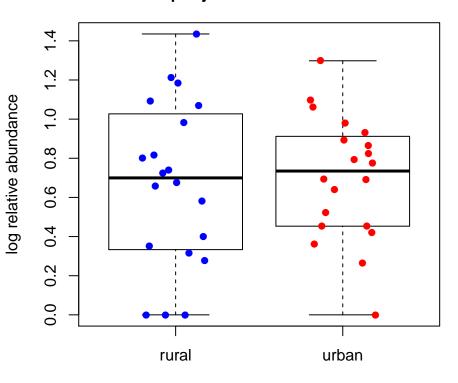
## WGS species: Robiginitalea\_biformata pAdjRuralUrban= 0.868



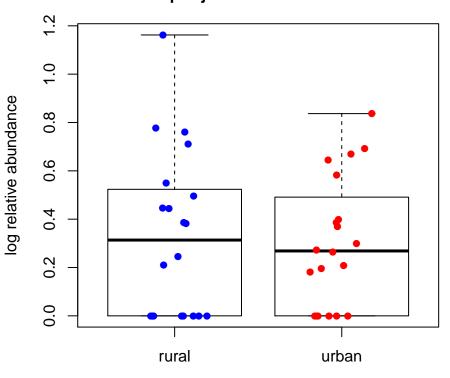
## WGS species: Xanthobacter\_autotrophicus pAdjRuralUrban= 0.875



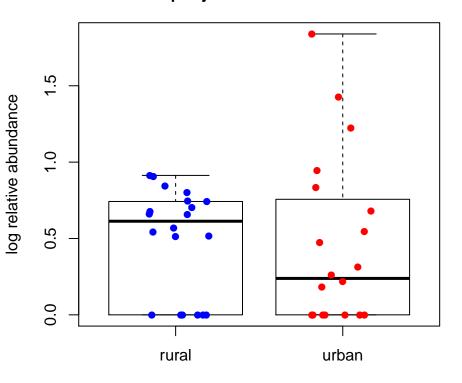
## WGS species: Desulfosporosinus\_meridiei pAdjRuralUrban= 0.876



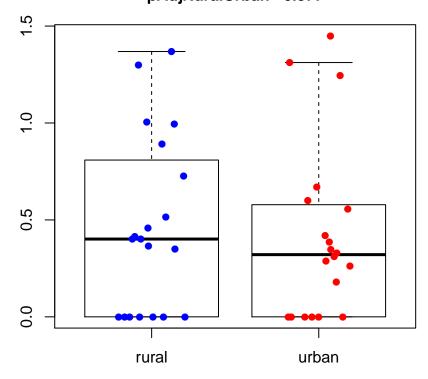
## WGS species: Staphylococcus\_lugdunensis pAdjRuralUrban= 0.877



## WGS species: Methylobacterium\_nodulans pAdjRuralUrban= 0.877

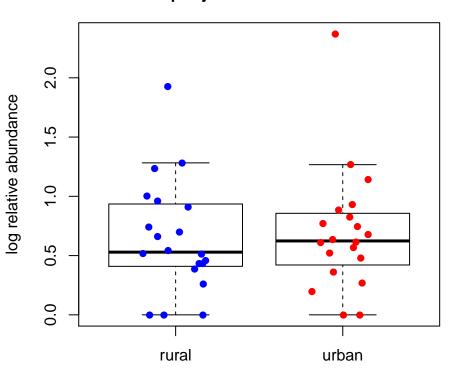


## WGS species: Carnobacterium\_maltaromaticum pAdjRuralUrban= 0.877

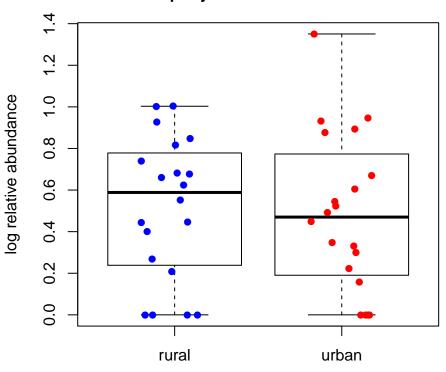


log relative abundance

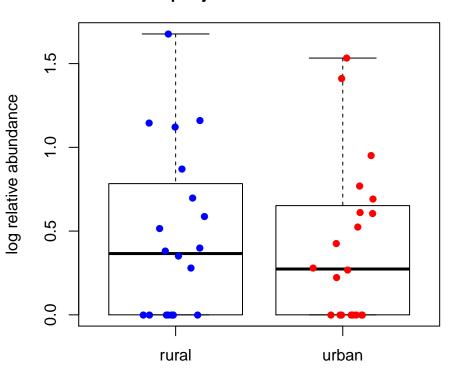
## WGS species: Amphibacillus\_xylanus pAdjRuralUrban= 0.877



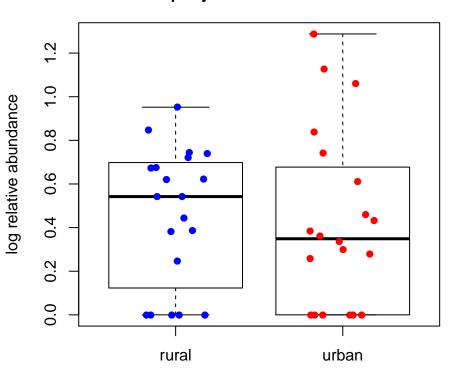
## WGS species: Caulobacter\_segnis pAdjRuralUrban= 0.877



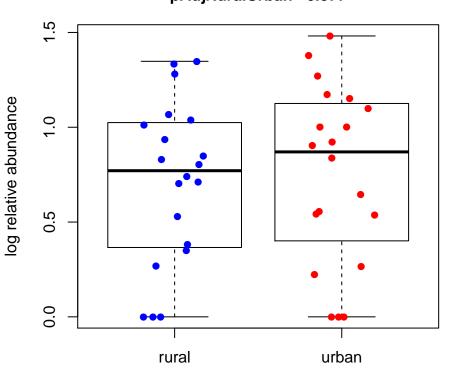
## WGS species: Maribacter\_sp.\_HTCC2170 pAdjRuralUrban= 0.877



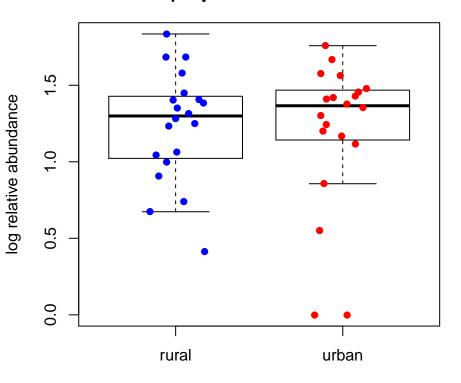
## WGS species: Buchnera\_aphidicola pAdjRuralUrban= 0.877



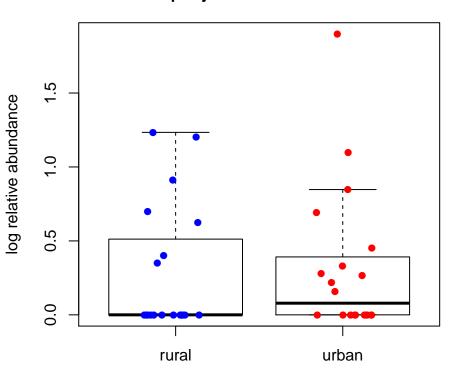
## WGS species: Desulfurobacterium\_thermolithotrophum pAdjRuralUrban= 0.877



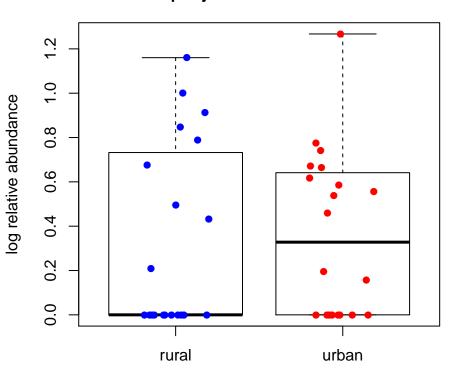
## WGS species: Pusillimonas\_sp.\_T7.7 pAdjRuralUrban= 0.877



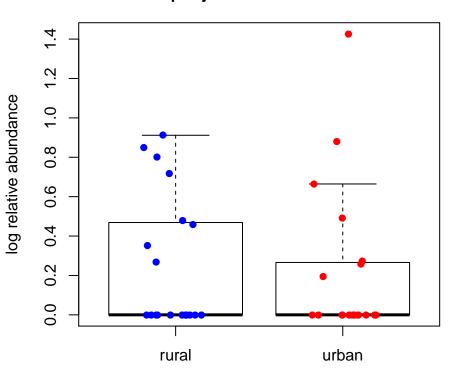
# WGS species: Erwinia\_pyrifoliae pAdjRuralUrban= 0.877



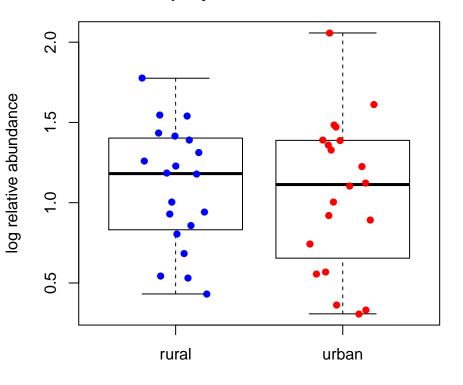
## WGS species: Thermus\_oshimai pAdjRuralUrban= 0.877



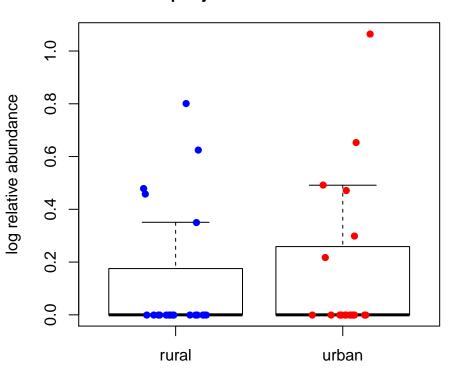
## WGS species: Burkholderia\_ambifaria pAdjRuralUrban= 0.877



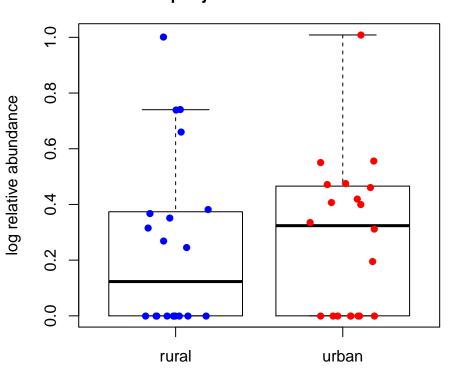
## WGS species: Paenibacillus\_mucilaginosus pAdjRuralUrban= 0.877



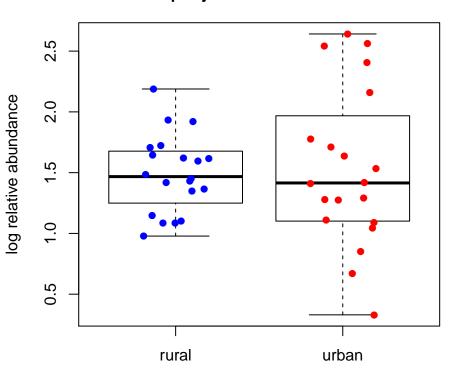
## WGS species: Thalassolituus\_oleivorans pAdjRuralUrban= 0.877



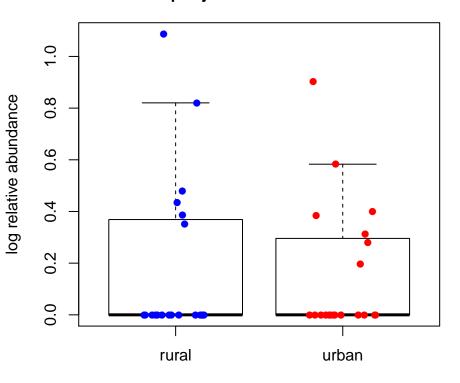
## WGS species: Geodermatophilus\_obscurus pAdjRuralUrban= 0.877



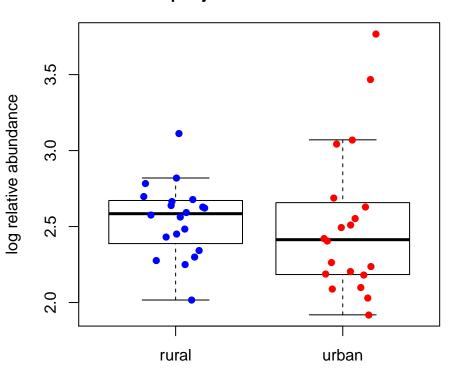
## WGS species: Eggerthella\_sp.\_YY7918 pAdjRuralUrban= 0.877



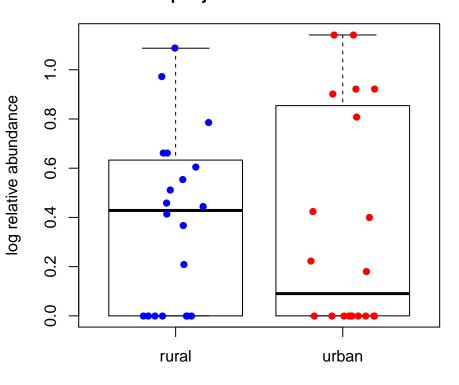
## WGS species: Burkholderia\_lata pAdjRuralUrban= 0.877



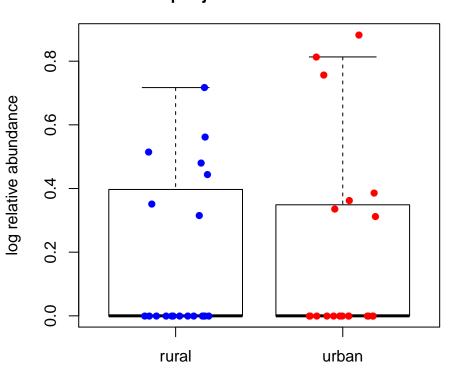
# WGS species: Eubacterium\_limosum pAdjRuralUrban= 0.877



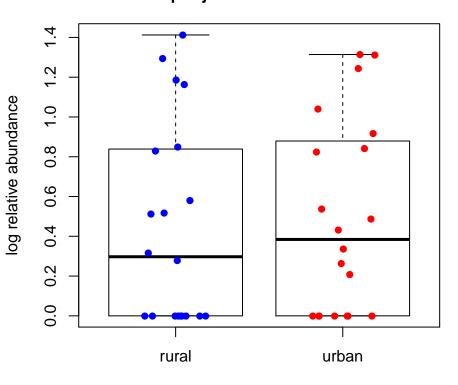
## WGS species: Methylomonas\_methanica pAdjRuralUrban= 0.886



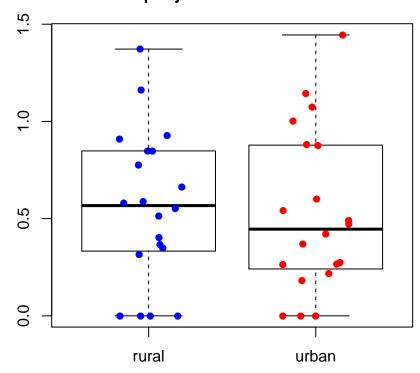
WGS species: Shewanella\_sp.\_W3.18.1 pAdjRuralUrban= 0.886



## WGS species: Spiribacter\_salinus pAdjRuralUrban= 0.886

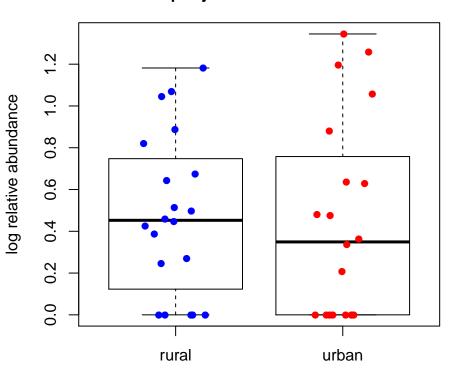


## WGS species: Starkeya\_novella pAdjRuralUrban= 0.889

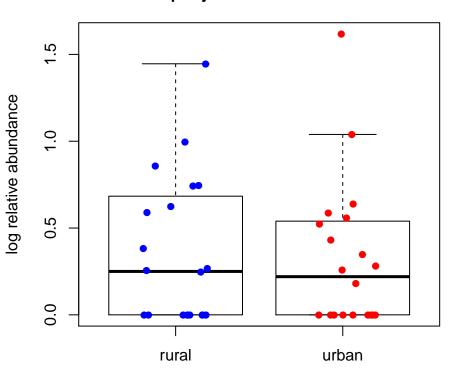


log relative abundance

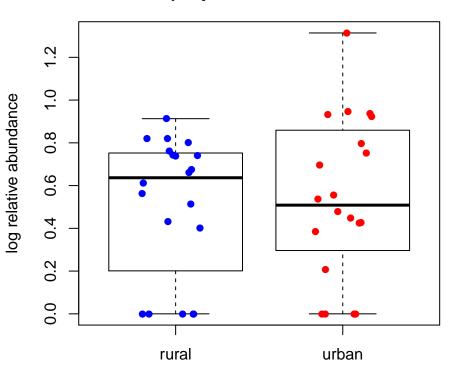
## WGS species: Segniliparus\_rotundus pAdjRuralUrban= 0.889



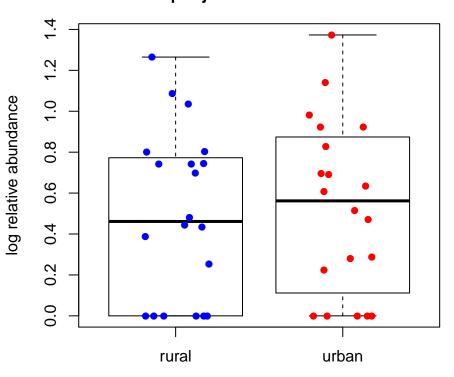
## WGS species: Aequorivita\_sublithincola pAdjRuralUrban= 0.889



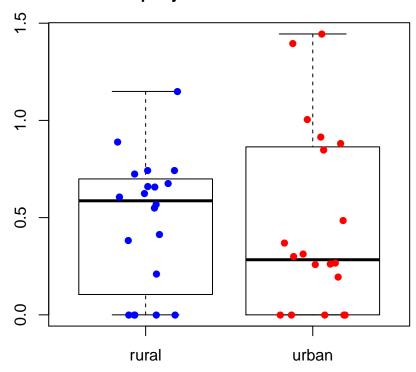
#### WGS species: Pseudoxanthomonas\_spadix pAdjRuralUrban= 0.891



#### WGS species: Teredinibacter\_turnerae pAdjRuralUrban= 0.891

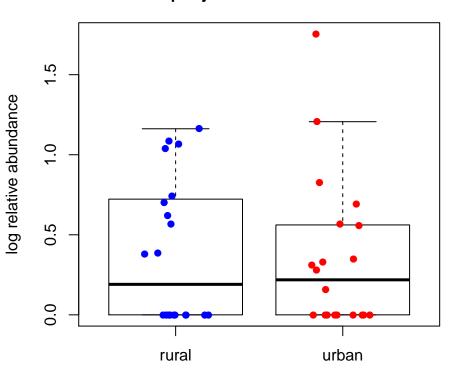


# WGS species: Ruegeria\_sp.\_TM1040 pAdjRuralUrban= 0.891

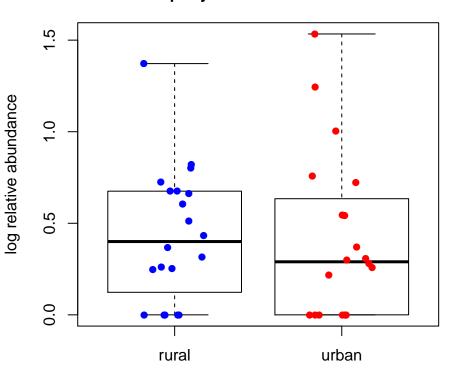


log relative abundance

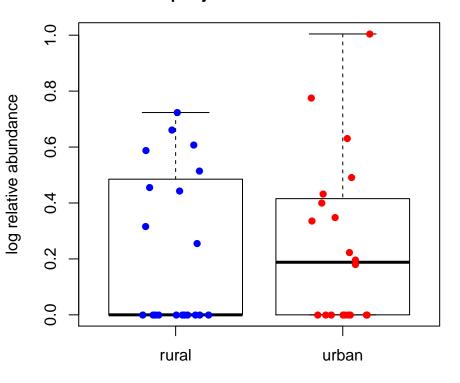
# WGS species: Beutenbergia\_cavernae pAdjRuralUrban= 0.891



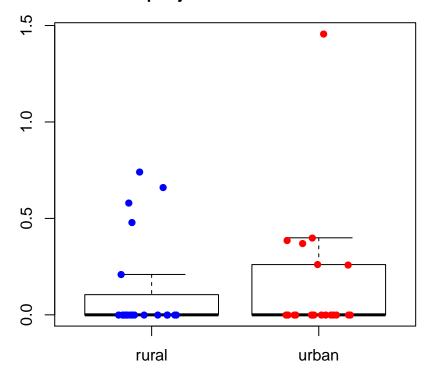
# WGS species: Frankia\_alni pAdjRuralUrban= 0.891



# WGS species: Streptomyces\_violaceusniger pAdjRuralUrban= 0.891

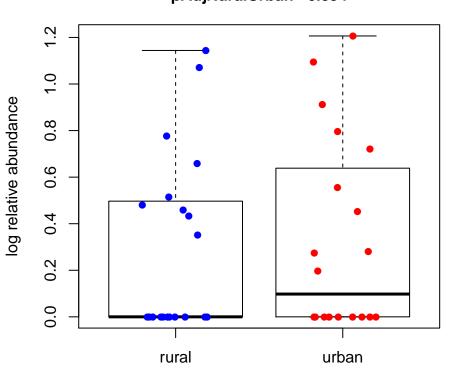


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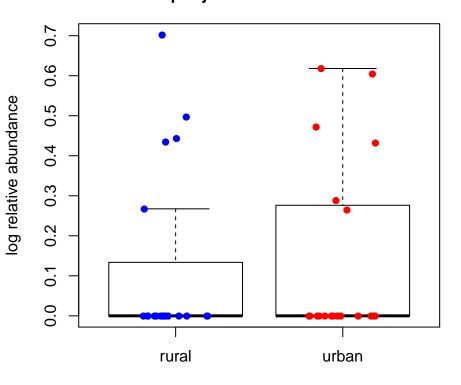


log relative abundance

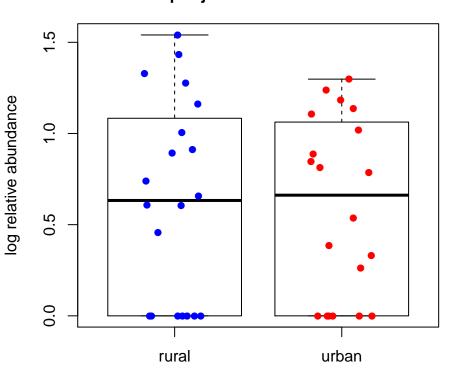
WGS species: candidate\_division\_SR1\_bacterium\_RAAC1\_SR pAdjRuralUrban= 0.894



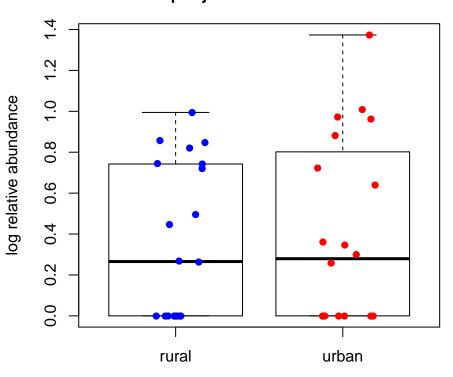
# WGS species: Pseudomonas\_brassicacearum pAdjRuralUrban= 0.894



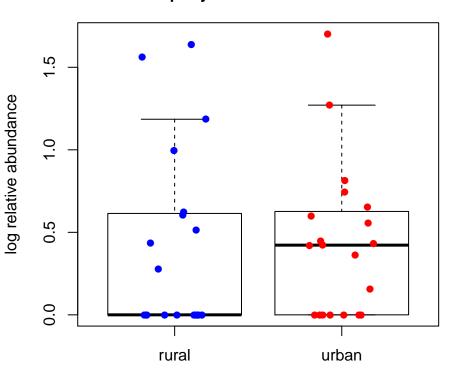
# WGS species: Granulicella\_tundricola pAdjRuralUrban= 0.894



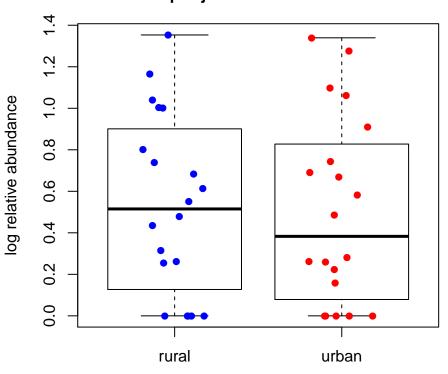
#### WGS species: Hyphomicrobium\_sp.\_MC1 pAdjRuralUrban= 0.894



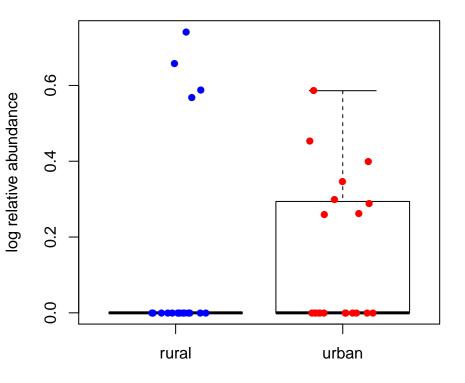
# WGS species: Erwinia\_amylovora pAdjRuralUrban= 0.896



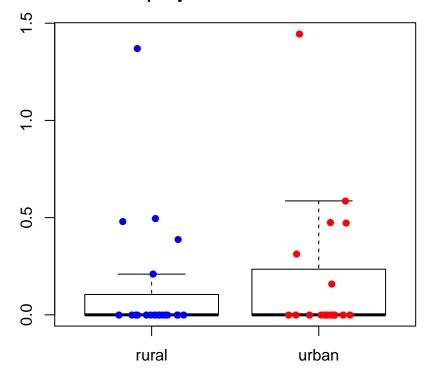
# WGS species: Desulfobacca\_acetoxidans pAdjRuralUrban= 0.896



# WGS species: Candidatus\_Profftella\_armatura pAdjRuralUrban= 0.896

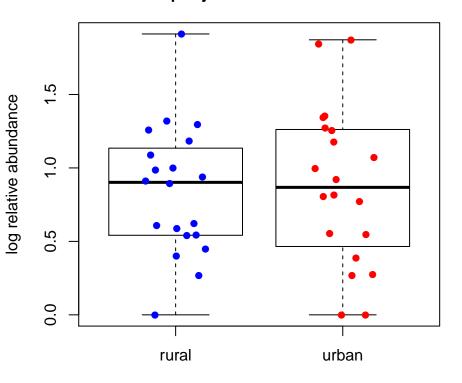


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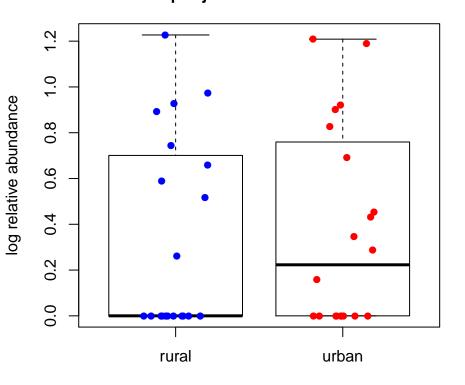


log relative abundance

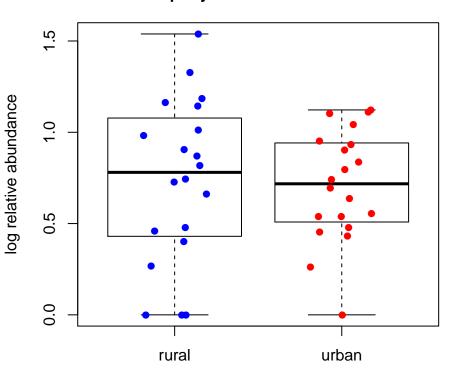
# WGS species: Dickeya\_zeae pAdjRuralUrban= 0.896



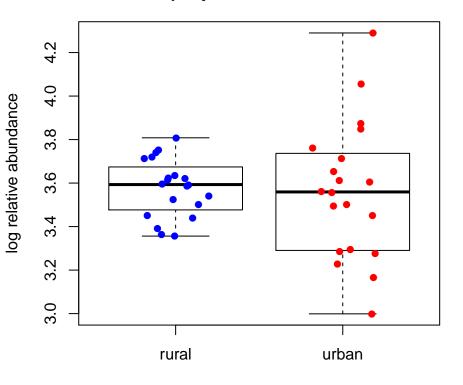
#### WGS species: Methylophaga\_nitratireducenticrescens pAdjRuralUrban= 0.896



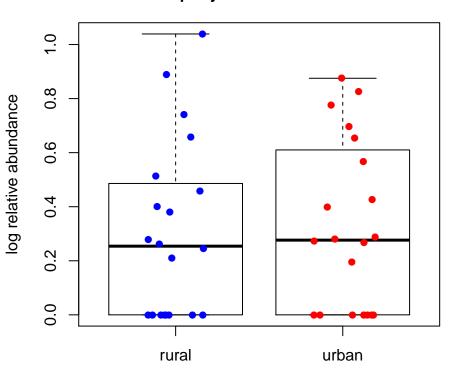
# WGS species: Bradyrhizobium\_diazoefficiens pAdjRuralUrban= 0.897



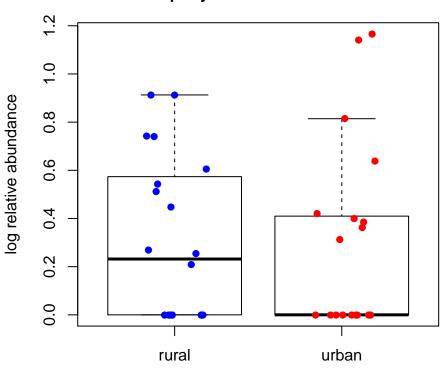
#### WGS species: X.Clostridium.\_saccharolyticum pAdjRuralUrban= 0.898



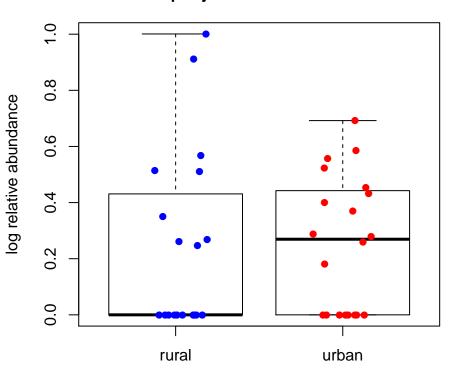
# WGS species: Streptomyces\_collinus pAdjRuralUrban= 0.9



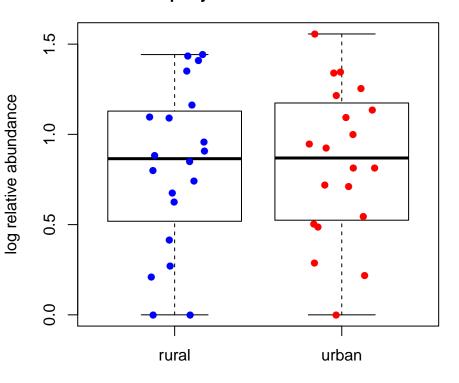
# WGS species: Kribbella\_flavida pAdjRuralUrban= 0.901



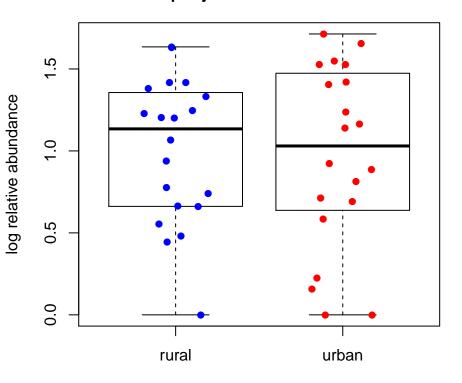
WGS species: Frankia\_sp.\_Ccl3 pAdjRuralUrban= 0.902



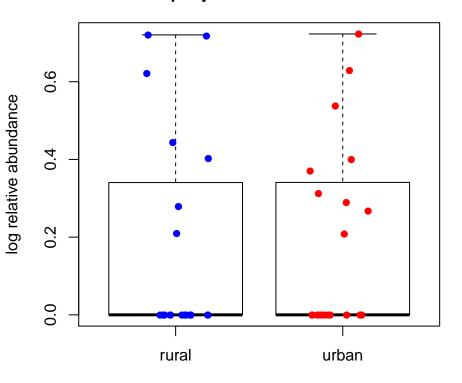
# WGS species: Streptomyces\_coelicolor pAdjRuralUrban= 0.902



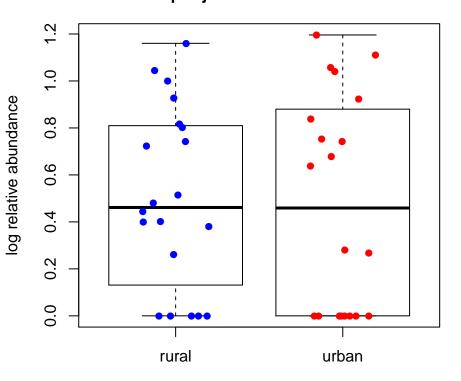
# WGS species: Flavobacterium\_johnsoniae pAdjRuralUrban= 0.902



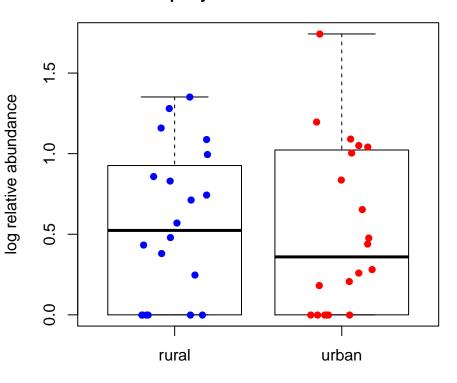
# WGS species: Thermodesulfovibrio\_yellowstonii pAdjRuralUrban= 0.902



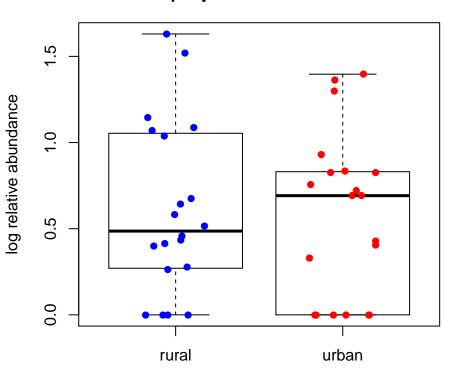
WGS species: Synechococcus\_sp.\_JA.2.3B.a.2.13. pAdjRuralUrban= 0.902



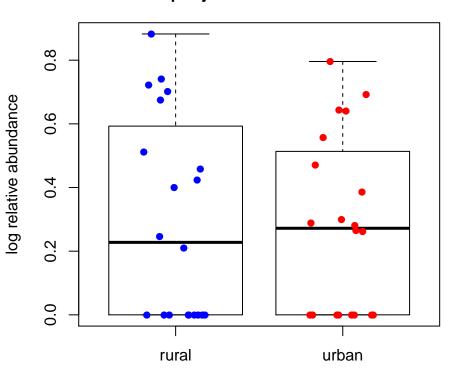
# WGS species: Halorhodospira\_halophila pAdjRuralUrban= 0.902



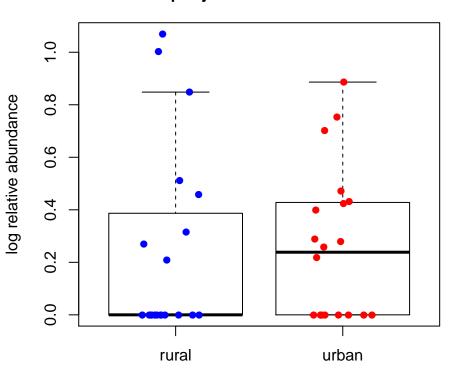
# WGS species: Sulfurihydrogenibium\_sp.\_YO3AOP1 pAdjRuralUrban= 0.903



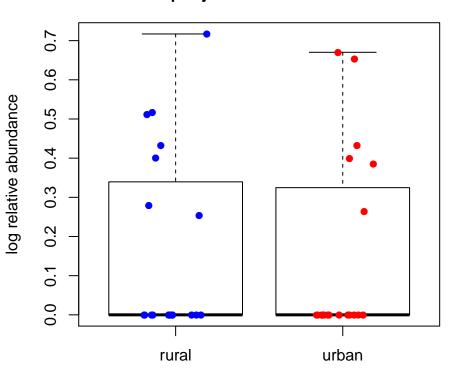
# WGS species: Pseudomonas\_protegens pAdjRuralUrban= 0.903



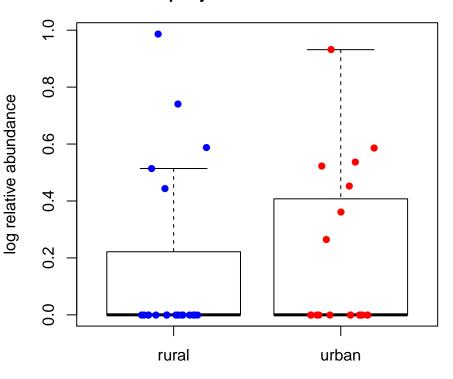
# WGS species: Pseudomonas\_poae pAdjRuralUrban= 0.903



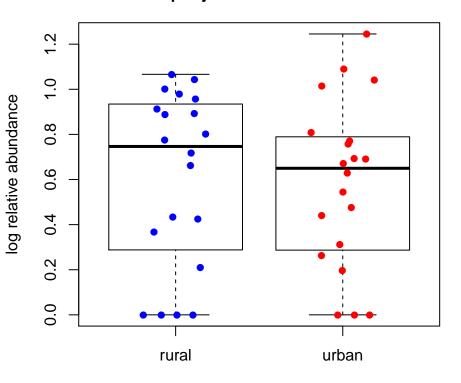
# WGS species: Taylorella\_asinigenitalis pAdjRuralUrban= 0.903



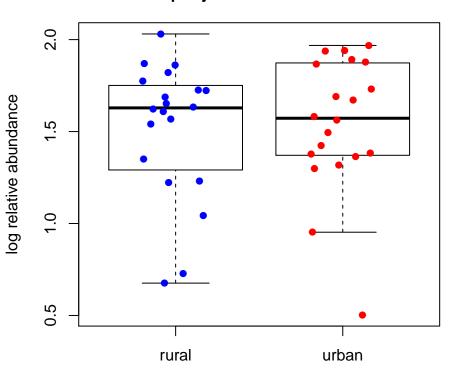
# WGS species: Deferribacter\_desulfuricans pAdjRuralUrban= 0.903



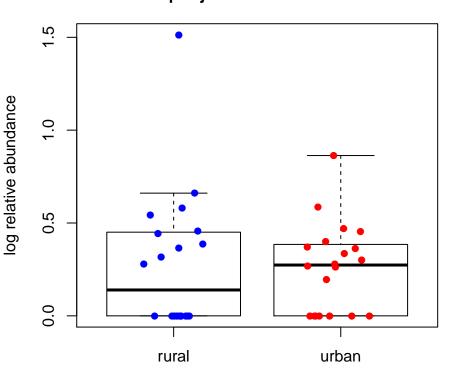
# WGS species: Treponema\_primitia pAdjRuralUrban= 0.903



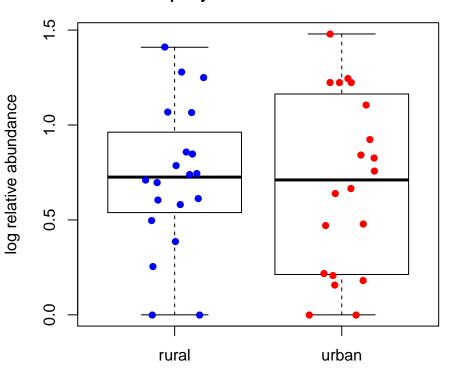
# WGS species: Haliscomenobacter\_hydrossis pAdjRuralUrban= 0.905



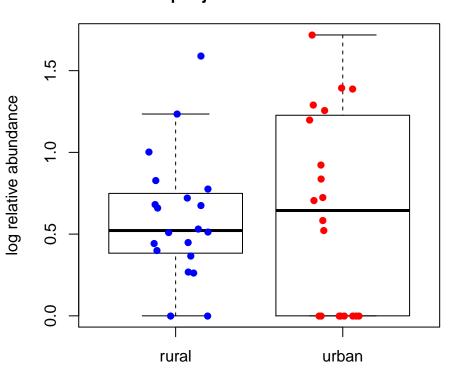
WGS species: Flavobacteriaceae\_bacterium\_3519.10 pAdjRuralUrban= 0.905



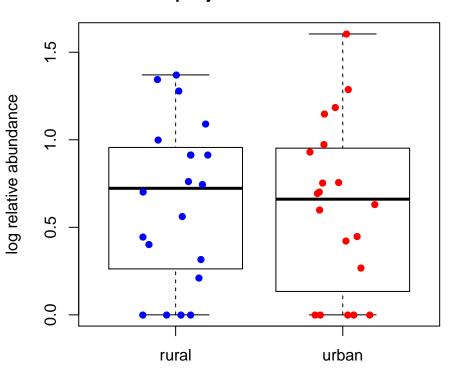
# WGS species: Syntrophobacter\_fumaroxidans pAdjRuralUrban= 0.907



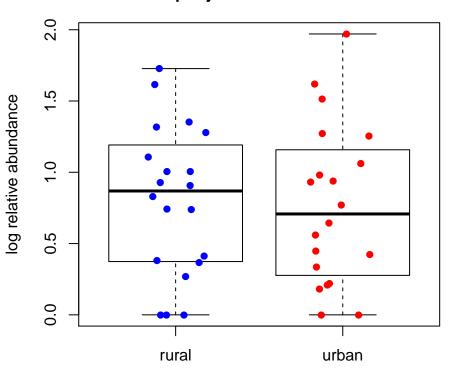
# WGS species: gamma\_proteobacterium\_HdN1 pAdjRuralUrban= 0.907



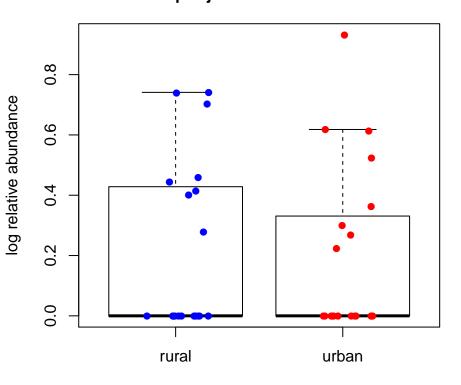
### WGS species: Rhodanobacter\_denitrificans pAdjRuralUrban= 0.91



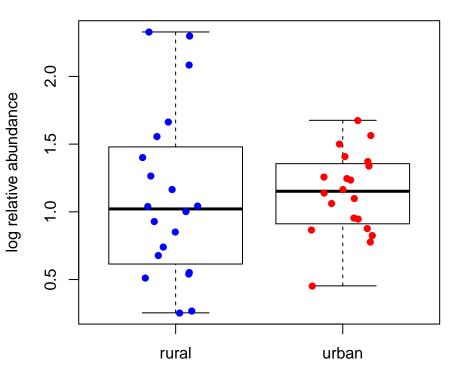
# WGS species: Edwardsiella\_ictaluri pAdjRuralUrban= 0.91



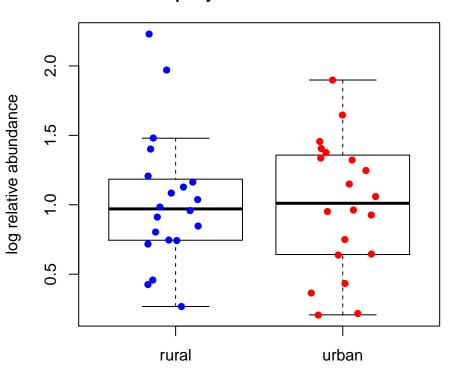
### WGS species: Marinomonas\_sp.\_MWYL1 pAdjRuralUrban= 0.91



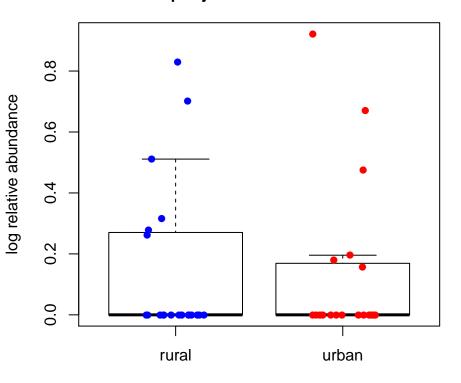
### WGS species: Flavobacterium\_branchiophilum pAdjRuralUrban= 0.91



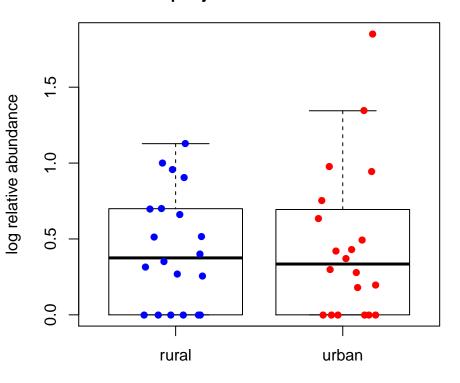
### WGS species: Corynebacterium\_urealyticum pAdjRuralUrban= 0.91



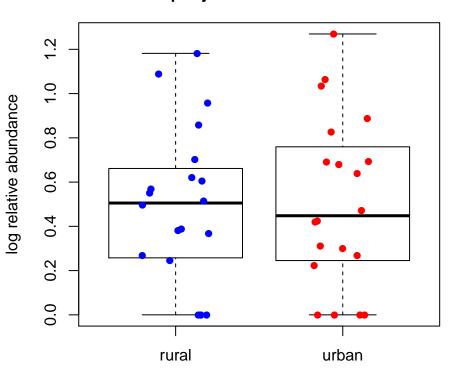
### WGS species: Vibrio\_anguillarum pAdjRuralUrban= 0.914



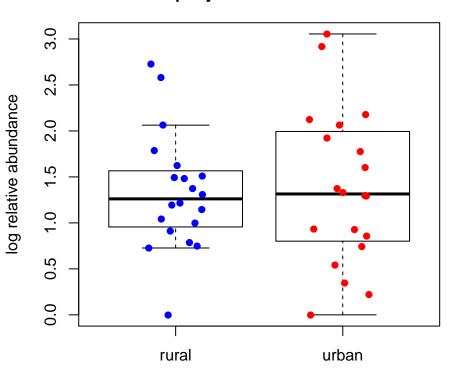
### WGS species: Aerococcus\_urinae pAdjRuralUrban= 0.915



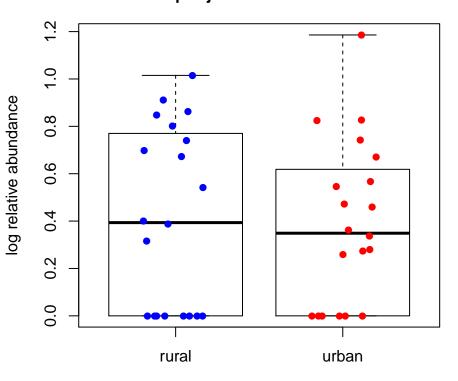
### WGS species: Bacillus\_sp.\_JS pAdjRuralUrban= 0.919



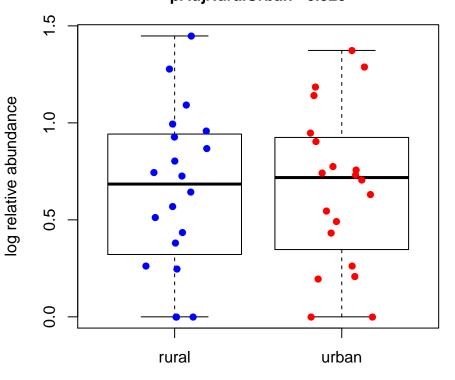
### WGS species: Citrobacter\_rodentium pAdjRuralUrban= 0.92



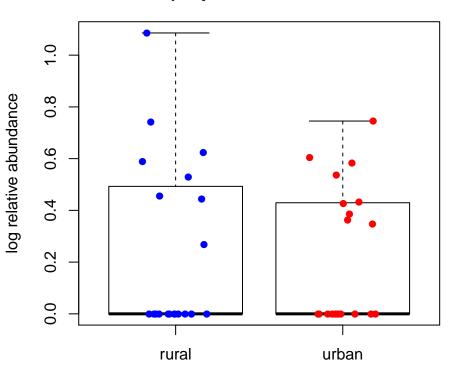
### WGS species: Streptomyces\_fulvissimus pAdjRuralUrban= 0.92



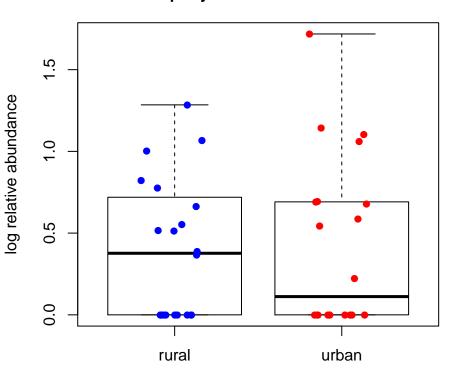
WGS species: Candidatus\_Saccharimonas\_aalborgensis pAdjRuralUrban= 0.923



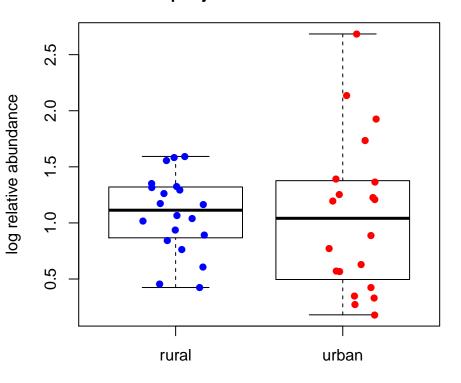
### WGS species: Thermodesulfobium\_narugense pAdjRuralUrban= 0.923



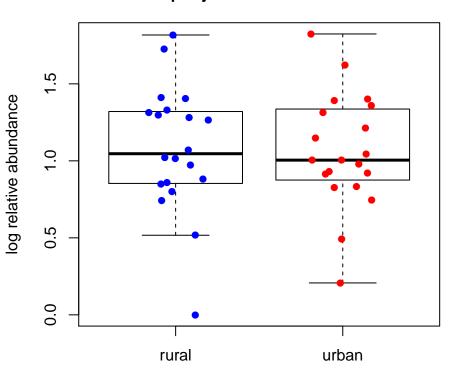
### WGS species: Desulfohalobium\_retbaense pAdjRuralUrban= 0.923



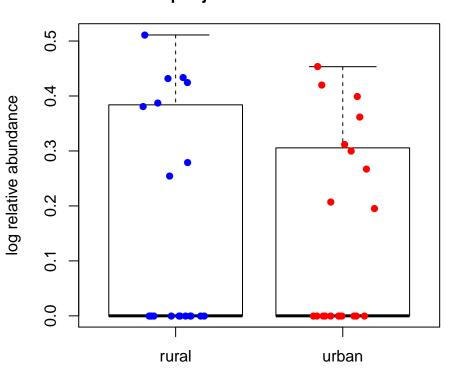
### WGS species: Clavibacter\_michiganensis pAdjRuralUrban= 0.925



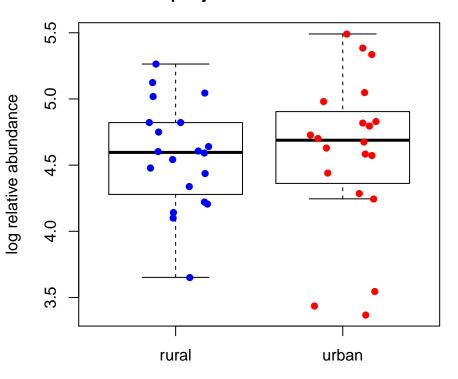
### WGS species: Mahella\_australiensis pAdjRuralUrban= 0.926



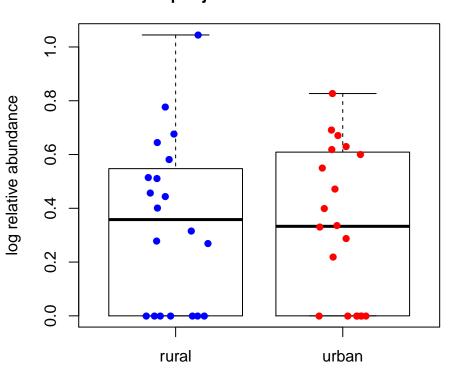
### WGS species: Chroococcidiopsis\_thermalis pAdjRuralUrban= 0.927



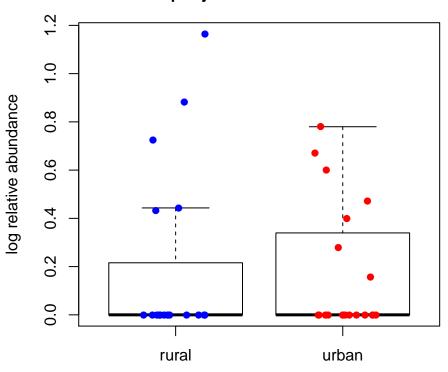
### WGS species: Parabacteroides\_distasonis pAdjRuralUrban= 0.927



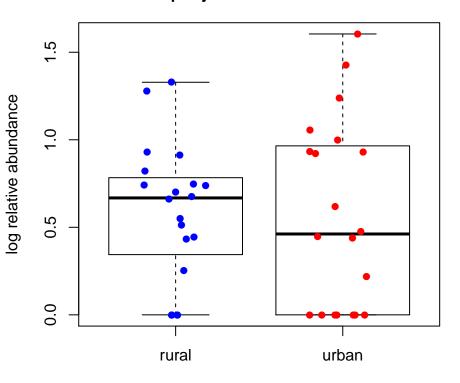
### WGS species: Pseudomonas\_savastanoi pAdjRuralUrban= 0.932



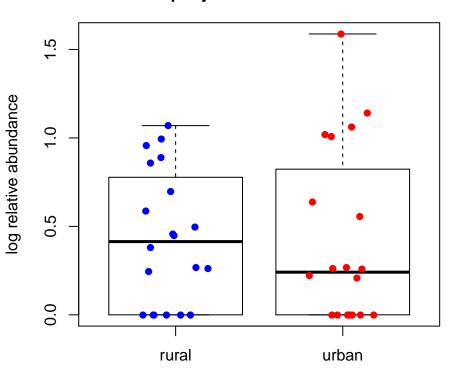
### WGS species: Aquifex\_aeolicus pAdjRuralUrban= 0.932



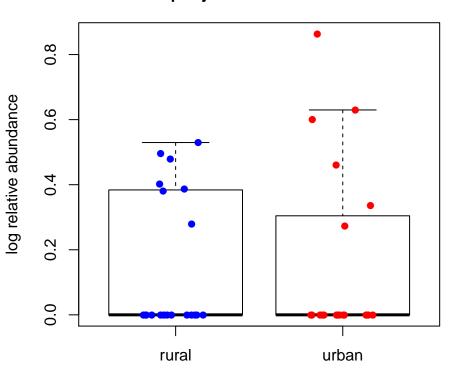
### WGS species: Sphingopyxis\_alaskensis pAdjRuralUrban= 0.936



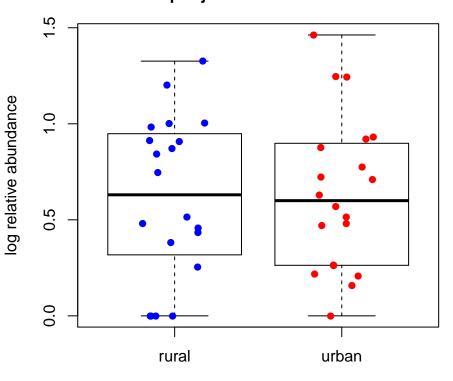
### WGS species: Streptomyces\_cattleya pAdjRuralUrban= 0.938



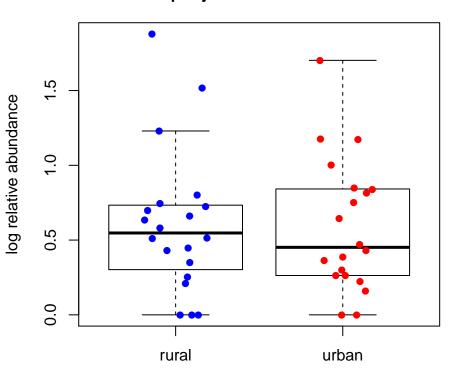
### WGS species: Mycobacterium\_intracellulare pAdjRuralUrban= 0.939



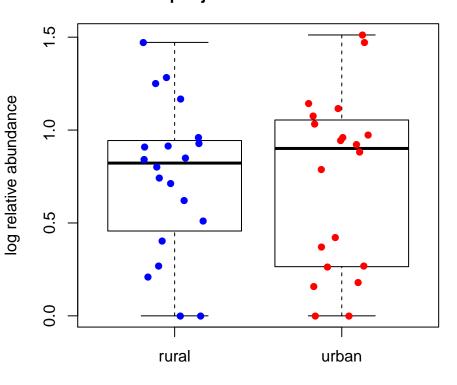
### WGS species: Thioalkalivibrio\_nitratireducens pAdjRuralUrban= 0.939



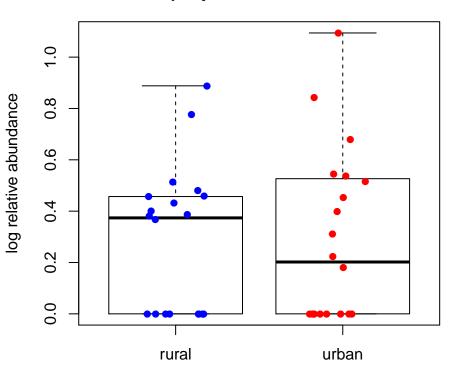
# WGS species: Yersinia\_enterocolitica pAdjRuralUrban= 0.941



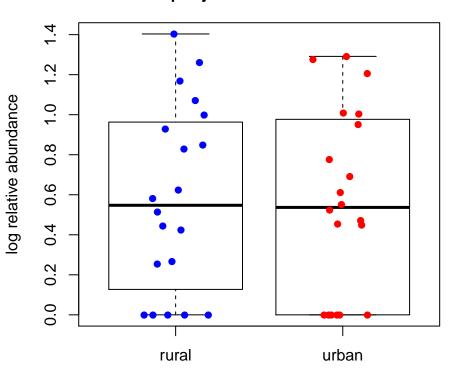
### WGS species: Pseudogulbenkiania\_sp.\_NH8B pAdjRuralUrban= 0.941



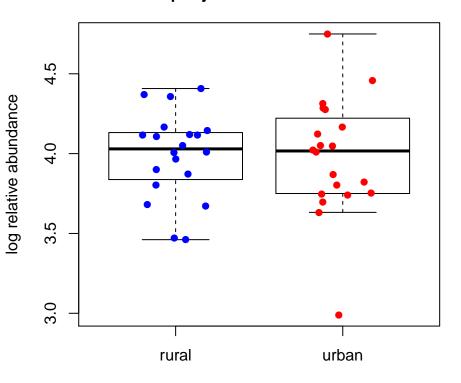
#### WGS species: Caldicellulosiruptor\_owensensis pAdjRuralUrban= 0.943



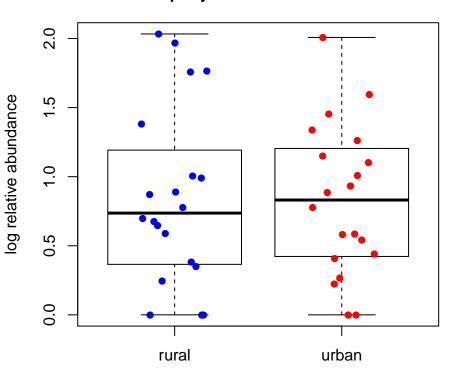
### WGS species: Cellulophaga\_algicola pAdjRuralUrban= 0.943



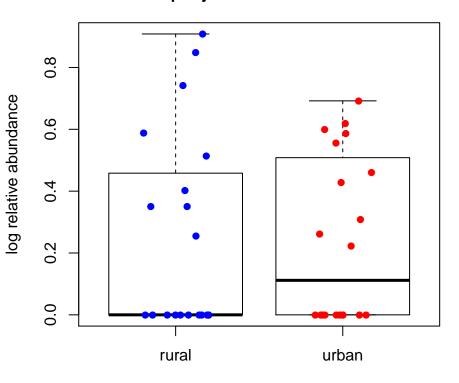
### WGS species: Bacteroides\_salanitronis pAdjRuralUrban= 0.943



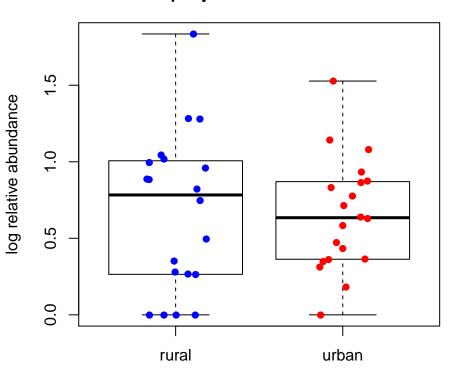
### WGS species: Pantoea\_ananatis pAdjRuralUrban= 0.943



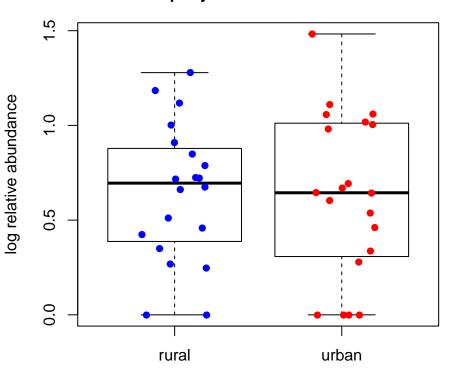
### WGS species: Nitrosomonas\_eutropha pAdjRuralUrban= 0.943



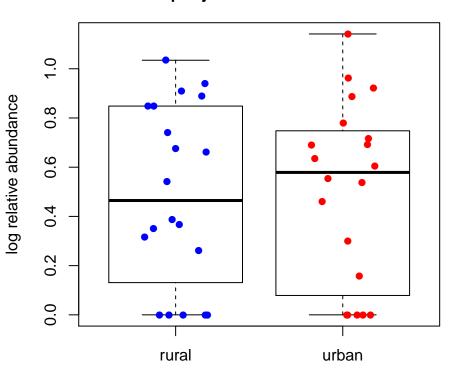
### WGS species: Gluconobacter\_oxydans pAdjRuralUrban= 0.943



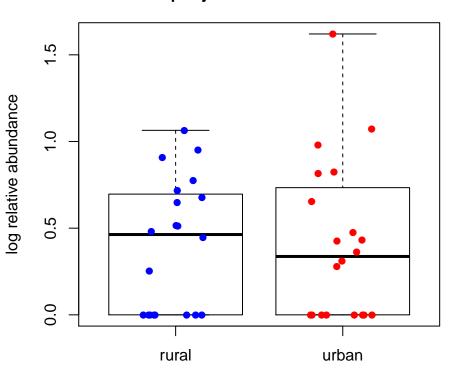
### WGS species: Neisseria\_lactamica pAdjRuralUrban= 0.944



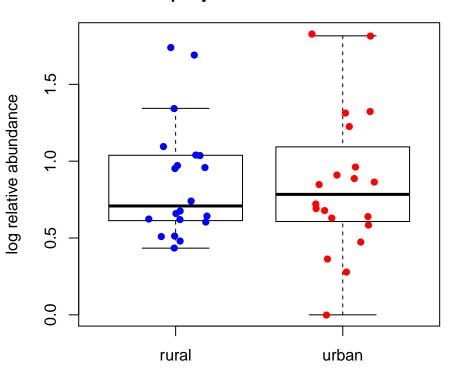
### WGS species: Streptomyces\_avermitilis pAdjRuralUrban= 0.945



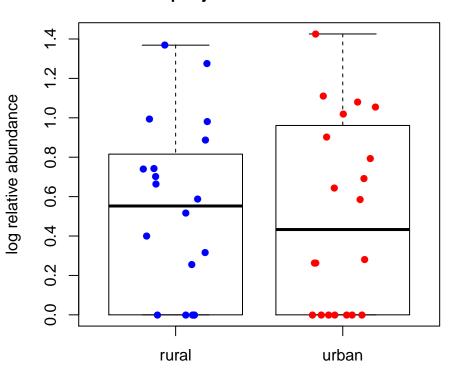
### WGS species: Sphaerochaeta\_pleomorpha pAdjRuralUrban= 0.945



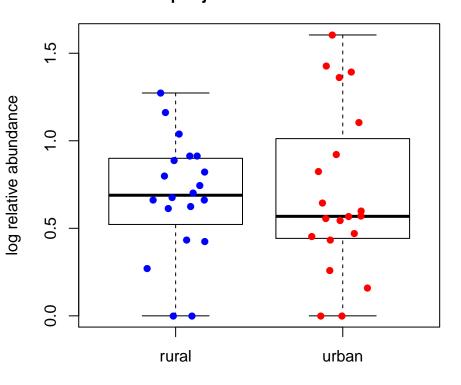
### WGS species: Sphingobacterium\_sp.\_21 pAdjRuralUrban= 0.946



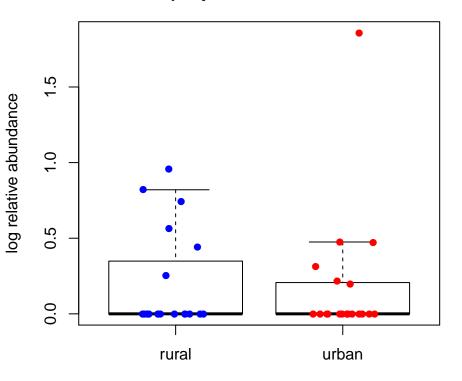
#### WGS species: Thioalkalivibrio\_sp.\_K90mix pAdjRuralUrban= 0.948



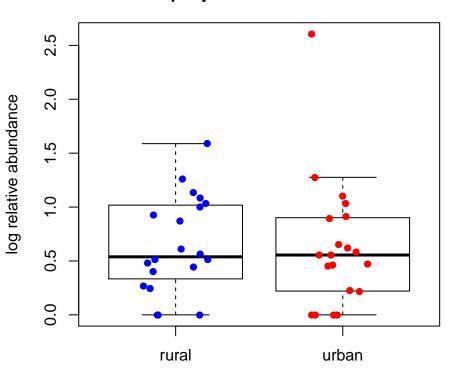
## WGS species: Caulobacter\_sp.\_K31 pAdjRuralUrban= 0.948



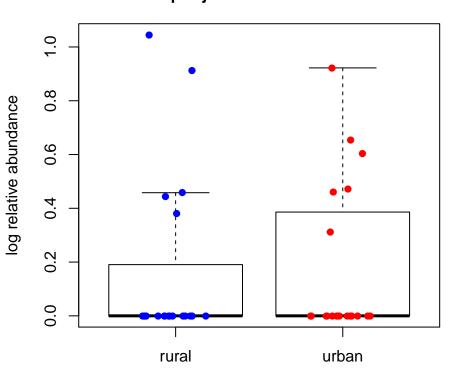
## WGS species: Enterobacteria\_phage\_HK97 pAdjRuralUrban= 0.949



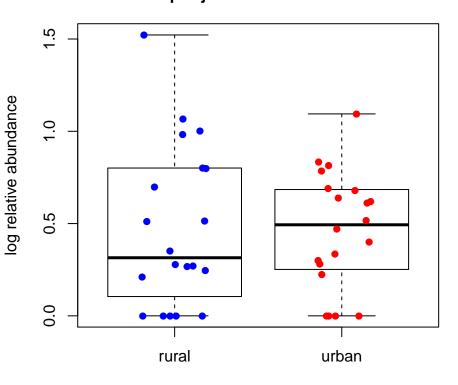
# WGS species: Gardnerella\_vaginalis pAdjRuralUrban= 0.955



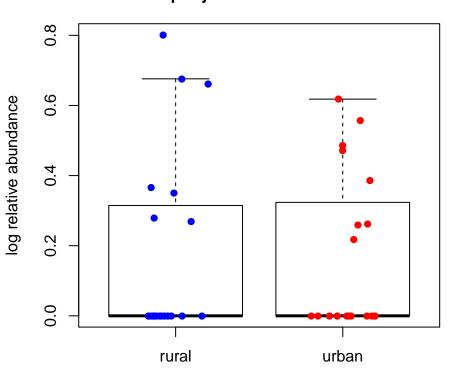
## WGS species: Thiomonas\_arsenitoxydans pAdjRuralUrban= 0.955



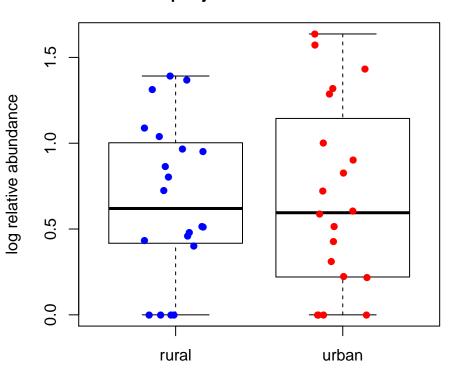
## WGS species: Pediococcus\_pentosaceus pAdjRuralUrban= 0.955



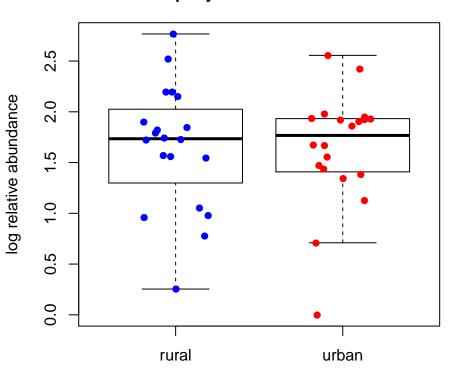
# WGS species: Shewanella\_frigidimarina pAdjRuralUrban= 0.955



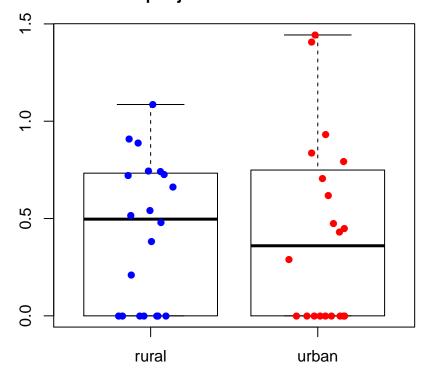
## WGS species: Psychroflexus\_torquis pAdjRuralUrban= 0.959



## WGS species: Leadbetterella\_byssophila pAdjRuralUrban= 0.96

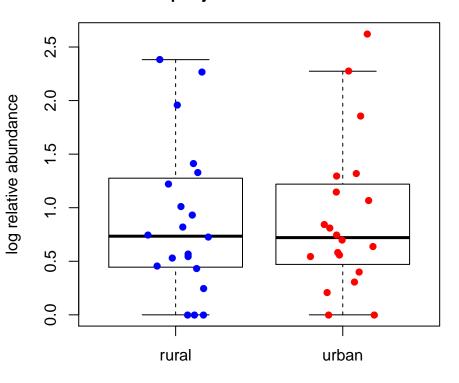


## WGS species: Pseudonocardia\_dioxanivorans pAdjRuralUrban= 0.962

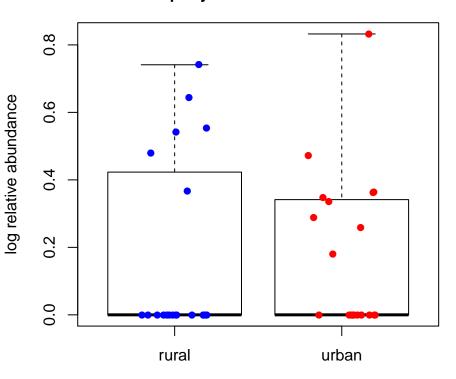


log relative abundance

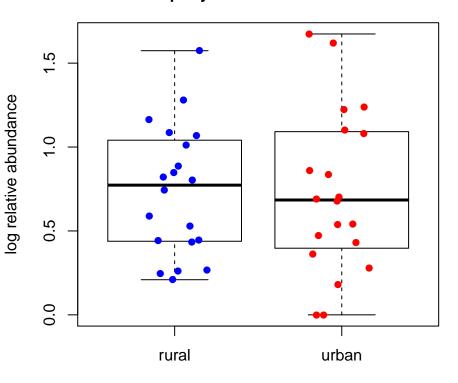
## WGS species: Shimwellia\_blattae pAdjRuralUrban= 0.966



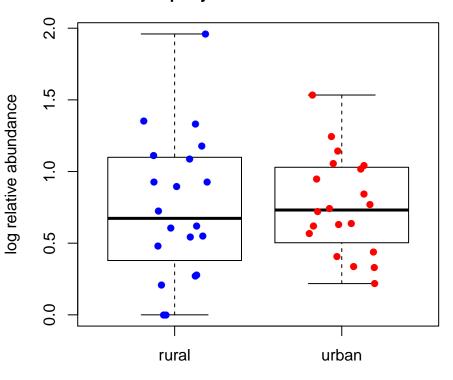
## WGS species: Helicobacter\_felis pAdjRuralUrban= 0.966



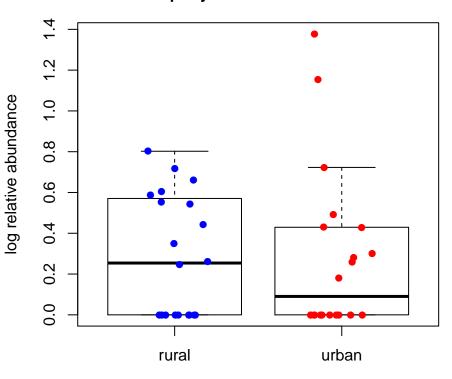
#### WGS species: Nocardioides\_sp.\_JS614 pAdjRuralUrban= 0.966



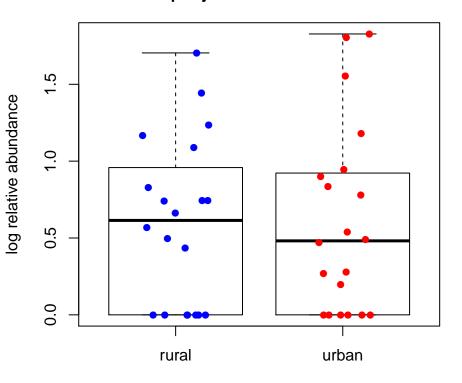
## WGS species: Arthrobacter\_arilaitensis pAdjRuralUrban= 0.967



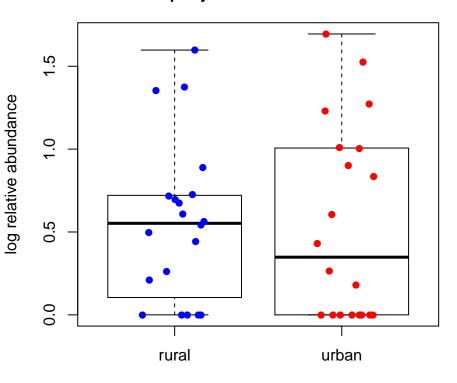
## WGS species: Methanococcus\_voltae pAdjRuralUrban= 0.971



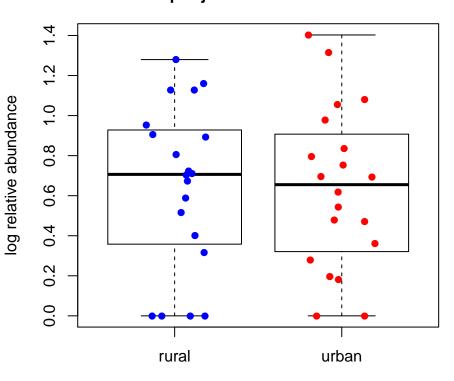
## WGS species: Geobacter\_sp.\_M21 pAdjRuralUrban= 0.974



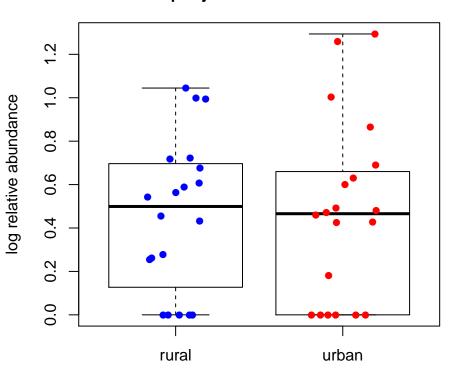
## WGS species: Brachyspira\_murdochii pAdjRuralUrban= 0.974



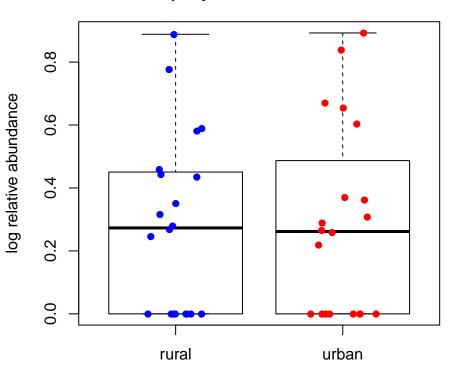
#### WGS species: Geobacter\_sulfurreducens pAdjRuralUrban= 0.974



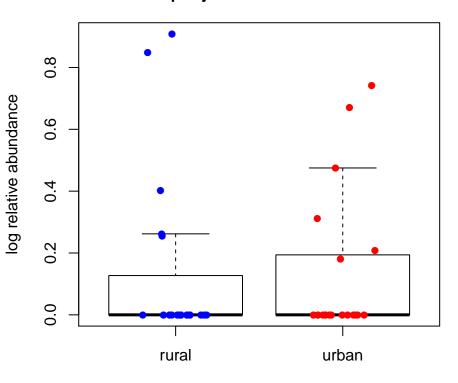
## WGS species: Thermus\_sp.\_CCB\_US3\_UF1 pAdjRuralUrban= 0.974



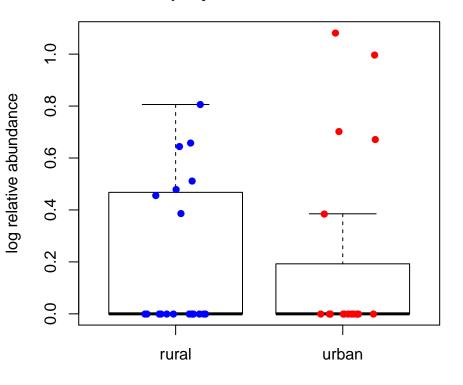
WGS species: Wolbachia\_endosymbiont\_of\_Brugia\_malay pAdjRuralUrban= 0.975



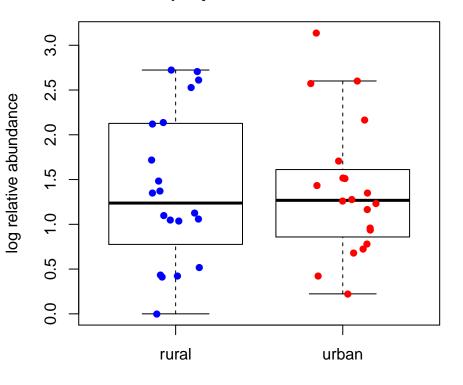
## WGS species: Legionella\_pneumophila pAdjRuralUrban= 0.975



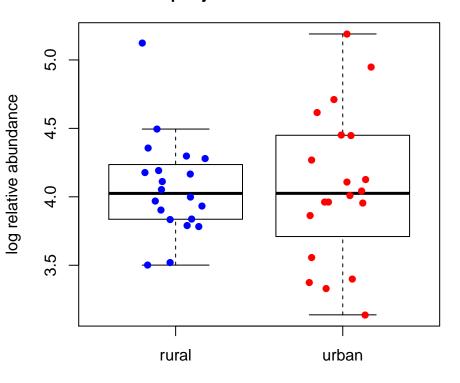
## WGS species: Candidatus\_Zinderia\_insecticola pAdjRuralUrban= 0.976



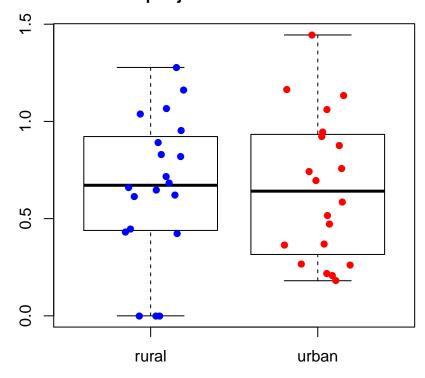
## WGS species: Raoultella\_ornithinolytica pAdjRuralUrban= 0.976



## WGS species: Alistipes\_finegoldii pAdjRuralUrban= 0.977

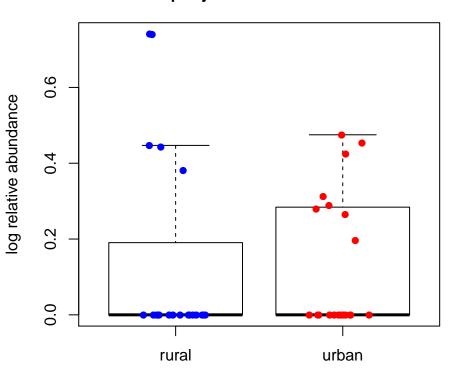


## WGS species: Rubrobacter\_xylanophilus pAdjRuralUrban= 0.979

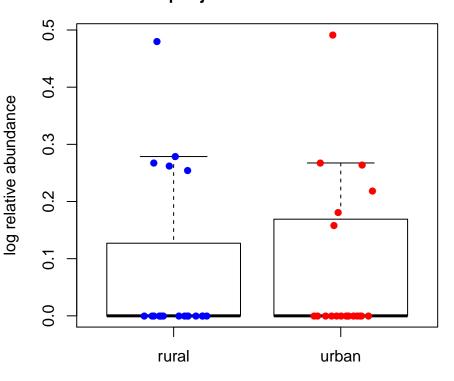


log relative abundance

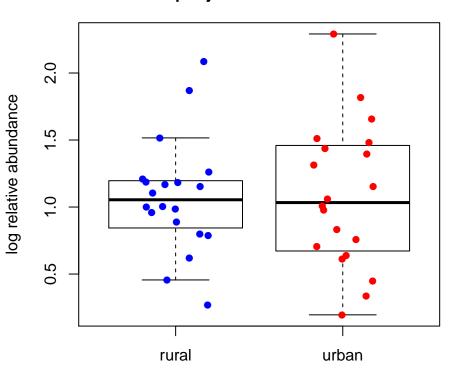
## WGS species: Sulfuricurvum\_kujiense pAdjRuralUrban= 0.979



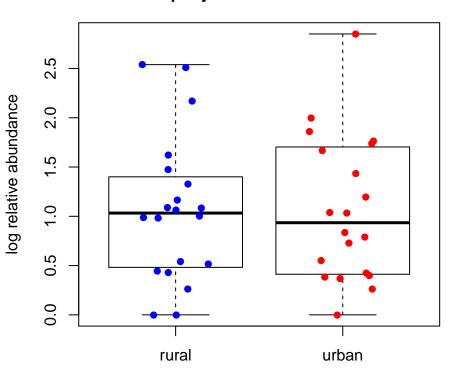
# WGS species: Candidatus\_Ruthia\_magnifica pAdjRuralUrban= 0.979



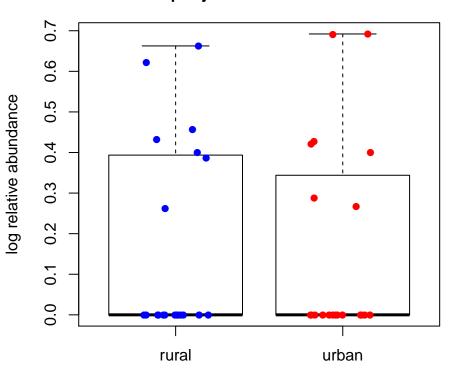
# WGS species: Leptotrichia\_buccalis pAdjRuralUrban= 0.98



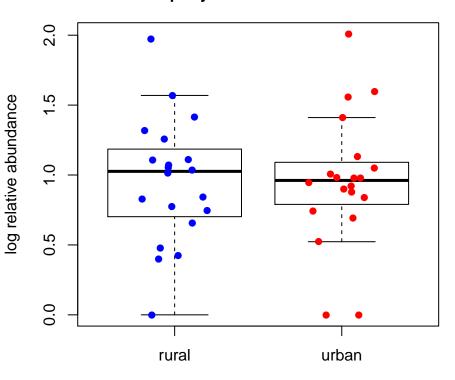
## WGS species: Enterobacter\_sp.\_R4.368 pAdjRuralUrban= 0.992



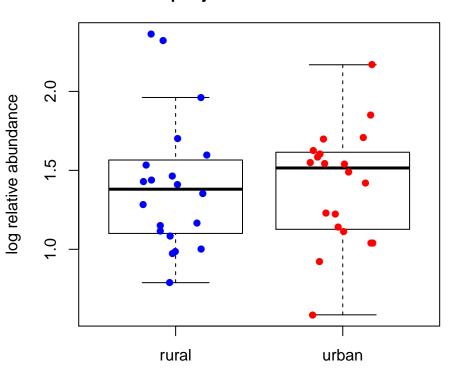
## WGS species: Mycoplasma\_bovis pAdjRuralUrban= 0.992



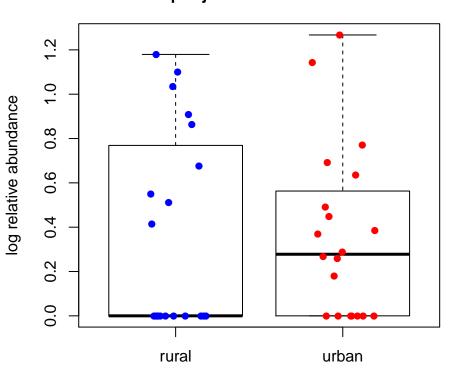
## WGS species: Neisseria\_gonorrhoeae pAdjRuralUrban= 0.992



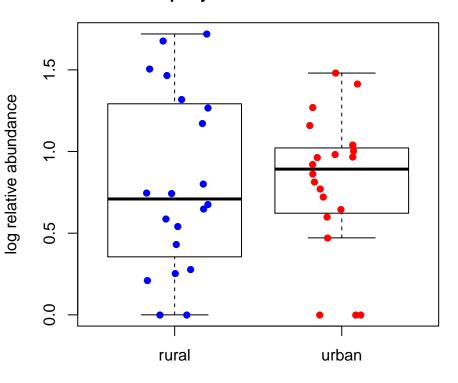
## WGS species: Clostridium\_kluyveri pAdjRuralUrban= 0.994



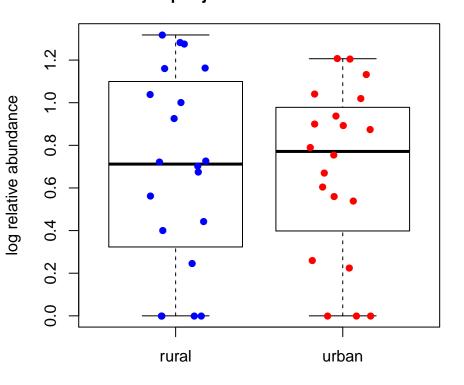
## WGS species: Pseudomonas\_sp.\_UW4 pAdjRuralUrban= 0.994



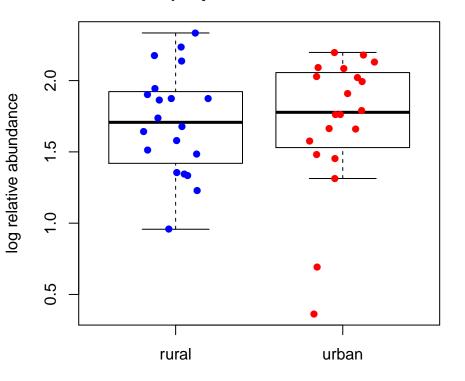
## WGS species: Chlorobium\_phaeovibrioides pAdjRuralUrban= 0.994



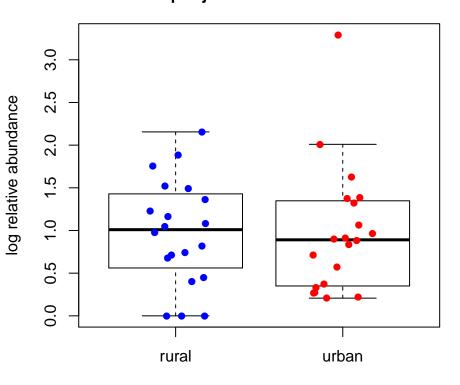
#### WGS species: Thermoanaerobacterium\_thermosaccharolytic pAdjRuralUrban= 0.994



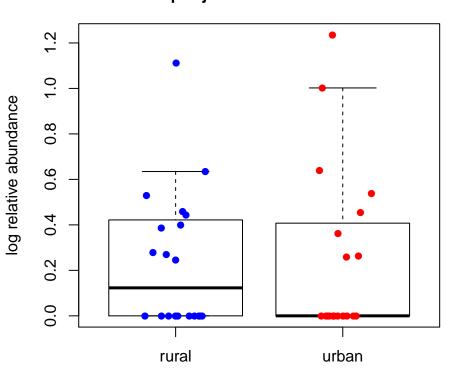
## WGS species: Candidatus\_Azobacteroides\_pseudotrichonymppAdjRuralUrban= 0.994



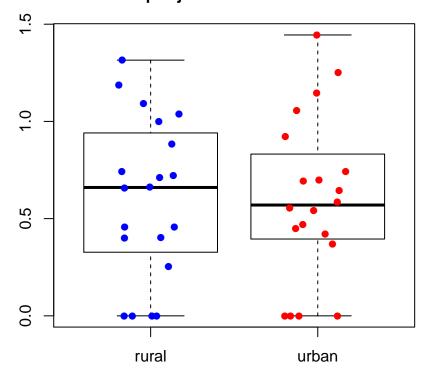
## WGS species: Sodalis\_glossinidius pAdjRuralUrban= 0.994



## WGS species: Brachyspira\_hyodysenteriae pAdjRuralUrban= 0.998

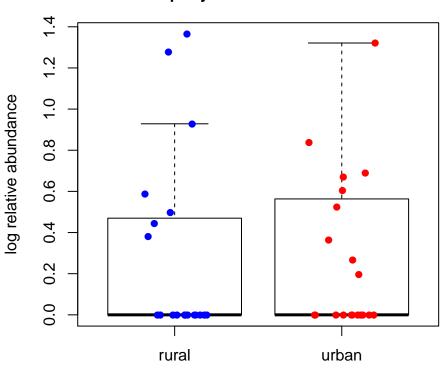


## WGS species: Mycobacterium\_vanbaalenii pAdjRuralUrban= 0.998



log relative abundance

# WGS species: Erwinia\_sp.\_Ejp617 pAdjRuralUrban= 0.998



## WGS species: Burkholderia\_cepacia pAdjRuralUrban= 0.998

