```
k_Bacteria;p_Actinobacteria;Other;Other;Other
k_Bacteria;p_Actinobacteria;c_Actinobacteria;Other;Other
     k\_Bacteria; p\_Actinobacteria; c\_Actinobacteria; o\_Actinomycetales; Other and a substitution of the context of
     k\_Bacteria; p\_Actinobacteria; c\_Actinobacteria; o\_Actinomycetales; f\_Actinomycetaceae
k_Bacteria;p_Actinobacteria;c_Actinobacteria;o_Actinomycetales;f_Brevibacteriaceae
k_Bacteria;p_Actinobacteria;c_Actinobacteria;o_Actinomycetales;f_Corynebacteriaceae
k_Bacteria;p_Actinobacteria;c_Actinobacteria;o_Actinomycetales;f_Microbacteriaceae
k_Bacteria;p_Actinobacteria;c_Actinobacteria;o_Actinomycetales;f_Micrococcaceae
   k_Bacteria;p_Actinobacteria;c_Actinobacteria;o_Bifidobacteriales;f_Bifidobacteriaceae
k_Bacteria;p_Actinobacteria;c_Coriobacteriia;o_Coriobacteriales;f_Coriobacteriaceae
k_Bacteria;p_Bacteroidetes;Other;Other;Other
k_Bacteria;p_Bacteroidetes;c_Bacteroidia;o_Bacteroidales;Other
k_Bacteria;p_Bacteroidetes;c_Bacteroidia;o_Bacteroidales;f_
k_Bacteria;p_Bacteroidetes;c_Bacteroidia;o_Bacteroidales;f_Bacteroidaceae
     k_Bacteria;p_Bacteroidetes;c_Bacteroidia;o_Bacteroidales;f_Porphyromonadaceae
k_Bacteria;p_Bacteroidetes;c_Bacteroidia;o_Bacteroidales;f_Prevotellaceae
k_Bacteria;p_Bacteroidetes;c_Bacteroidia;o_Bacteroidales;f_Rikenellaceae
   k_Bacteria;p_Bacteroidetes;c_Bacteroidia;o_Bacteroidales;f_S24-7
k_Bacteria;p_Bacteroidetes;c_Bacteroidia;o_Bacteroidales;f_[Barnesiellaceae]
k_Bacteria;p_Bacteroidetes;c_Bacteroidia;o_Bacteroidales;f_[Odoribacteraceae]
  k_Bacteria;p_Bacteroidetes;c_Bacteroidia;o_Bacteroidales;f_[Paraprevotellaceae]
k_Bacteria;p_Bacteroidetes;c_[Saprospirae];o_[Saprospirales];f_Chitinophagaceae
k_Bacteria;p_Cyanobacteria;c_4C0d-2;o_MLE1-12;f_
k_Bacteria;p_Cyanobacteria;c_4C0d-2;o_YS2;f_
k_Bacteria;p_Cyanobacteria;c_Chloroplast;o_Streptophyta;f_
k_Bacteria;p_Deferribacteres;c_Deferribacteres;o_Deferribacterales;f_Deferribacteraceae
   k_Bacteria;p_Firmicutes;Other;Other;Other
k_Bacteria;p_Firmicutes;c_Bacilli;Other;Other
k_Bacteria;p_Firmicutes;c_Bacilli;o_Bacillales;Other
   k_Bacteria;p_Firmicutes;c_Bacilli;o_Bacillales;f_Alicyclobacillaceae
k_Bacteria;p_Firmicutes;c_Bacilli;o_Bacillales;f_Bacillaceae
     k_Bacteria;p_Firmicutes;c_Bacilli;o_Bacillales;f_Planococcaceae
     k_Bacteria;p_Firmicutes;c_Bacilli;o_Bacillales;f_Sporolactobacillaceae
k_Bacteria;p_Firmicutes;c_Bacilli;o_Bacillales;f_Staphylococcaceae
k_Bacteria;p_Firmicutes;c_Bacilli;o_Lactobacillales;Other
k_Bacteria;p_Firmicutes;c_Bacilli;o_Lactobacillales;f_Enterococcaceae
k_Bacteria;p_Firmicutes;c_Bacilli;o_Lactobacillales;f_Lactobacillaceae
   k_Bacteria;p_Firmicutes;c_Bacilli;o_Lactobacillales;f_Streptococcaceae
k_Bacteria;p_Firmicutes;c_Clostridia;Other;Other
k_Bacteria;p_Firmicutes;c_Clostridia;o_Clostridiales;Other
k_Bacteria;p_Firmicutes;c_Clostridia;o_Clostridiales;f_
k_Bacteria;p_Firmicutes;c_Clostridia;o_Clostridiales;f_Christensenellaceae
k_Bacteria;p_Firmicutes;c_Clostridia;o_Clostridiales;f_Clostridiaceae
     \label{lem:k_Bacteria}  k\_Bacteria; p\_Firmicutes; c\_Clostridia; o\_Clostridiales; f\_Dehalobacteriaceae
k_Bacteria;p_Firmicutes;c_Clostridia;o_Clostridiales;f_Eubacteriaceae
k_Bacteria;p_Firmicutes;c_Clostridia;o_Clostridiales;f_Lachnospiraceae
   k_Bacteria;p_Firmicutes;c_Clostridia;o_Clostridiales;f_Peptococcaceae
k_Bacteria;p_Firmicutes;c_Clostridia;o_Clostridiales;f_Peptostreptococcaceae
k_Bacteria;p_Firmicutes;c_Clostridia;o_Clostridiales;f_Ruminococcaceae
k_Bacteria;p_Firmicutes;c_Clostridia;o_Clostridiales;f_Veillonellaceae
k_Bacteria;p_Firmicutes;c_Clostridia;o_Clostridiales;f_[Mogibacteriaceae]
k_Bacteria;p_Firmicutes;c_Erysipelotrichi;o_Erysipelotrichales;f_Erysipelotrichaceae
k Bacteria;p Fusobacteria;c Fusobacteriia;o Fusobacteriales;f Leptotrichiaceae
k_Bacteria;p_Planctomycetes;c_Planctomycetia;o_Gemmatales;f_Gemmataceae
k_Bacteria;p_Proteobacteria;Other;Other;Other
   k_Bacteria;p_Proteobacteria;c_Alphaproteobacteria;Other;Other
k_Bacteria;p_Proteobacteria;c_Alphaproteobacteria;o_Caulobacterales;f_Caulobacteraceae
k_Bacteria;p_Proteobacteria;c_Alphaproteobacteria;o_RF32;f_
k_Bacteria;p_Proteobacteria;c_Alphaproteobacteria;o_Rhizobiales;f_Bradyrhizobiaceae
k_Bacteria;p_Proteobacteria;c_Alphaproteobacteria;o_Rhizobiales;f_Methylobacteriaceae
      k\_Bacteria; p\_Proteobacteria; c\_Alphaproteobacteria; o\_Rhizobiales; f\_Rhizobiaceae
     k_Bacteria;p_Proteobacteria;c_Alphaproteobacteria;o_Rhodospirillales;f_Acetobacteraceae
k_Bacteria;p_Proteobacteria;c_Alphaproteobacteria;o_Rickettsiales;f_mitochondria
k_Bacteria;p_Proteobacteria;c_Alphaproteobacteria;o_Sphingomonadales;f_Sphingomonadaceae
k_Bacteria;p_Proteobacteria;c_Betaproteobacteria;Other;Other
k_Bacteria;p_Proteobacteria;c_Betaproteobacteria;o_Burkholderiales;Other
k_Bacteria;p_Proteobacteria;c_Betaproteobacteria;o_Burkholderiales;f_Alcaligenaceae
k_Bacteria;p_Proteobacteria;c_Betaproteobacteria;o_Burkholderiales;f_Burkholderiaceae
     \label{lem:k_Bacteria} $$k\_Bacteria; p\_Proteobacteria; c\_Betaproteobacteria; o\_Burkholderiales; f\_Comamonadaceae
k_Bacteria;p_Proteobacteria;c_Deltaproteobacteria;Other;Other
k_Bacteria;p_Proteobacteria;c_Deltaproteobacteria;o_Desulfovibrionales;Other
     k\_Bacteria; p\_Proteobacteria; c\_Delta proteobacteria; o\_Desulfovibrionales; f\_Desulfovibrionaceae
k_Bacteria;p_Proteobacteria;c_Gammaproteobacteria;Other;Other
k_Bacteria;p_Proteobacteria;c_Gammaproteobacteria;o_Alteromonadales;Other
k_Bacteria;p_Proteobacteria;c_Gammaproteobacteria;o_Alteromonadales;f_Idiomarinaceae
k_Bacteria;p_Proteobacteria;c_Gammaproteobacteria;o_Enterobacteriales;f_Enterobacteriaceae
k_Bacteria;p_Proteobacteria;c_Gammaproteobacteria;o_Legionellales;f_Coxiellaceae
k_Bacteria;p_Proteobacteria;c_Gammaproteobacteria;o_Oceanospirillales;f_Halomonadaceae
k_Bacteria;p_Proteobacteria;c_Gammaproteobacteria;o_Pasteurellales;f_Pasteurellaceae
k_Bacteria;p_Proteobacteria;c_Gammaproteobacteria;o_Pseudomonadales;f_Moraxellaceae
k_Bacteria;p_Proteobacteria;c_Gammaproteobacteria;o_Pseudomonadales;f_Pseudomonadaceae
k_Bacteria;p_TM7;c_TM7-3;o_;f_
   k_Bacteria;p_TM7;c_TM7-3;o_CW040;f_F16
k_Bacteria;p_Tenericutes;c_Mollicutes;Other;Other
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 $\label{lem:k_Bacteria} $$k\_Bacteria; p\_Tenericutes; c\_Mollicutes; o\_Anaeroplas matales; f\_Anaeroplas mataceae$ 

k\_Bacteria;p\_Verrucomicrobia;c\_Verrucomicrobiae;o\_Verrucomicrobiales;f\_Verrucomicrobiaceae

k\_Bacteria;p\_Tenericutes;c\_Mollicutes;o\_RF39;f\_k\_Bacteria;p\_Verrucomicrobia;Other;Other;Other

Unassignable;Other;Other;Other;OtherUnclassified;Other;Other;Other;Otherk Bacteria;Other;Other;Other;Other