```
k_Bacteria;p_Acidobacteria;c_Acidobacteria-5;o_;f_
           k_Bacteria;p_Acidobacteria;c_Acidobacteria-6;o_iii1-15;f
 k_Bacteria;p_Acidobacteria;c_Acidobacteria-6;o_iii1-15;f_RB40
k_Bacteria;p_Acidobacteria;c_Solibacteres;o_Solibacterales;f_Solibacteraceae
            \label{lem:k_Bacteria} $$k\_Bacteria; p\_Acidobacteria; c\_[Chloracidobacteria]; o\_RB41; f\_Acidobacteria; c\_[Chloracidobacteria]; o\_RB41; f\_Bacteria; c\_[Chloracidobacteria]; o\_RB41; c
            k\_Bacteria; p\_Acidobacteria; c\_[Chloracidobacteria]; o\_RB41; f\_Ellin6075
           k_Bacteria;p_Actinobacteria;c_Acidimicrobiia;o_Acidimicrobiales;f_
k_Bacteria;p_Actinobacteria;c_Acidimicrobiia;o_Acidimicrobiales;f_EB1017
 k_Bacteria;p_Actinobacteria;c_Acidimicrobiia;o_Acidimicrobiales;f_lamiaceae
k_Bacteria;p_Actinobacteria;c_Actinobacteria;o_Actinomycetales;f_Intrasporangiaceae
       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_Actinomycetales;f_Micromonosporaceae
            k\_Bacteria; p\_Actinobacteria; c\_Actinobacteria; o\_Actinomycetales; f\_Mycobacteriaceae
k_Bacteria;p_Actinobacteria;c_Actinobacteria;o_Actinomycetales;f_Nakamurellaceae
k_Bacteria;p_Actinobacteria;c_Actinobacteria;o_Actinomycetales;f_Nocardioidaceae
             k\_Bacteria; p\_Actinobacteria; c\_Actinobacteria; o\_Actinomycetales; f\_Pseudonocardiaceae
           k\_Bacteria; p\_Actinobacteria; c\_Actinobacteria; o\_Actinomycetales; f\_Streptomycetaceae
 k_Bacteria;p_Actinobacteria;c_MB-A2-108;o_0319-7L14;f_
k_Bacteria;p_Actinobacteria;c_Thermoleophilia;o_Gaiellales;f_Gaiellaceae
k_Bacteria;p_Actinobacteria;c_Thermoleophilia;o_Solirubrobacterales;f_
k_Bacteria;p_Actinobacteria;c_Thermoleophilia;o_Solirubrobacterales;f_Solirubrobacteraceae
 k_Bacteria;p_Bacteroidetes;c_Cytophagia;o_Cytophagales;f_Cytophagaceae
k_Bacteria;p_Bacteroidetes;c_Flavobacteriia;o_Flavobacteriales;f_Flavobacteriaceae
k_Bacteria;p_Bacteroidetes;c_Sphingobacteriia;o_Sphingobacteriales;f_
k_Bacteria;p_Bacteroidetes;c_[Saprospirae];o_[Saprospirales];f_Chitinophagaceae
k_Bacteria;p_Bacteroidetes;c_[Saprospirae];o_[Saprospirales];f_Saprospiraceae
 k_Bacteria;p_Chloroflexi;c_Ellin6529;o_;f_
          l k_Bacteria;p_Chloroflexi;c_S085;o_;f_
k_Bacteria;p_Chloroflexi;c_TK10;o_;f_
             k\_Bacteria; p\_Chloroflexi; c\_TK17; o\_mle1-48; f\_
k_Bacteria;p_Firmicutes;c_Bacilli;o_Bacillales;f_Bacillaceae
k_Bacteria;p_Gemmatimonadetes;c_Gemm-1;o__;f_
            k\_Bacteria; p\_Gemmatimonadetes; c\_Gemmatimonadetes; o\_Ellin5290; f\_
            k\_Bacteria; p\_Gemmatimonadetes; c\_Gemmatimonadetes; o\_Gemmatimonadales; f\_Ellin 5301
k_Bacteria;p_Nitrospirae;c_Nitrospira;o_Nitrospirales;f_0319-6A21
k_Bacteria;p_Nitrospirae;c_Nitrospira;o_Nitrospirales;f_Nitrospiraceae
k_Bacteria;p_Planctomycetes;c_Planctomycetia;o_Gemmatales;f_Gemmataceae k_Bacteria;p_Planctomycetes;c_Planctomycetia;o_Pirellulales;f_Pirellulaceae
            k\_Bacteria; p\_Proteobacteria; c\_Alphaproteobacteria; o\_Rhizobiales; f\_Bradyrhizobiaceae
k_Bacteria;p_Proteobacteria;c_Alphaproteobacteria;o_Rhizobiales;f_Hyphomicrobiaceae
k_Bacteria;p_Proteobacteria;c_Alphaproteobacteria;o_Rhizobiales;f_Phyllobacteriaceae
           k\_Bacteria; p\_Proteobacteria; c\_Alphaproteobacteria; o\_Rhodospirillales; f\_Rhodospirillales; f\_Rhodospir
 k_Bacteria;p_Proteobacteria;c_Alphaproteobacteria;o_Rhodospirillales;f_Rhodospirillaceae
k_Bacteria;p_Proteobacteria;c_Alphaproteobacteria;o_Sphingomonadales;f_Sphingomonadaceae
             {\tt k\_Bacteria; p\_Proteobacteria; c\_Betaproteobacteria; o\_Burkholderiales; f\_Comamonadaceae}
 k_Bacteria;p_Proteobacteria;c_Betaproteobacteria;o_Ellin6067;f_
 k_Bacteria;p_Proteobacteria;c_Betaproteobacteria;o_IS-44;f_
    k_Bacteria;p_Proteobacteria;c_Betaproteobacteria;o_MND1;f_
k_Bacteria;p_Proteobacteria;c_Betaproteobacteria;o_SC-I-84;f_
           {\tt k\_Bacteria;p\_Proteobacteria;c\_Deltaproteobacteria;o\_Myxococcales;f\_Reltations and the proteobacteria and the 
      k_Bacteria;p_Proteobacteria;c_Deltaproteobacteria;o_Myxococcales;f_Haliangiaceae
k_Bacteria;p_Proteobacteria;c_Deltaproteobacteria;o_Syntrophobacterales;f_Syntrophobacteraceae
k_Bacteria;p_Proteobacteria;c_Gammaproteobacteria;o_Acidithiobacillales;f_
       ■ k_Bacteria;p__Proteobacteria;c__Gammaproteobacteria;o__Pseudomonadales;f__Pseudomonadaceae
k_Bacteria;p_Proteobacteria;c_Gammaproteobacteria;o_Thiotrichales;f_Piscirickettsiaceae
            {\tt k\_Bacteria; p\_Proteobacteria; c\_Gamma proteobacteria; o\_Xanthomonadales; f\_Sinobacteraceaes and {\tt k\_Bacteria; p\_Proteobacteria; b_Sinobacteraceaes and {\tt k\_Bacteria; b_
       k_Bacteria;p_Proteobacteria;c_Gammaproteobacteria;o_Xanthomonadales;f_Xanthomonadaceae
k_Bacteria;p_Verrucomicrobia;c_Opitutae;o_Opitutales;f_Opitutaceae
 k_Bacteria;p_Verrucomicrobia;c_Verrucomicrobiae;o_Verrucomicrobiales;f_Verrucomicrobiaceae
 k_Bacteria;p_Verrucomicrobia;c_[Pedosphaerae];o_[Pedosphaerales];f_
k_Bacteria;p_Verrucomicrobia;c_[Pedosphaerae];o_[Pedosphaerales];f_Ellin517
           \label{lem:k_Bacteria} $$k\_Bacteria; p\_Verrucomicrobia; c\_[Pedosphaerae]; o\_[Pedosphaerales]; f\_auto67\_4W$
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 $\label{lem:k_Bacteria} $$k_Bacteria; p_Verrucomicrobia; c_[Spartobacteria]; o_[Chthoniobacterales]; f_[Chthoniobacteraceae]$$

 $\begin{tabular}{l} k_Archaea;p$_Crenarchaeota;c$_Thaumarchaeota;o$_Nitrososphaerales;f$_Nitrososphaeraceae$ \end{tabular}$