Comparative analysis of taxonomies for metagenomics analyses

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The basis of metagenomic reaserch is assigning sequenced reads to certain taxonomic units. This is mostly done using one of the four taxonomies NCBI, RDP, SILVA or Greengenes and a classifier based either on read alignments or kmer spectra. The outcome of this crucial step depends on the chosen taxonomy as well as on the tool.

We present a visual comparison of the four taxonomies and contrast the specificity of different tools used in 16s RNA analysis (with different taxonomies). Differences are presented in a very concise visual way exploiting the nice hierarchical structure of taxonomic classifications.