

Genus *Planktophila*

Etymology

[Plan.kto.phi'la] **N.L. neut. n.** *plankton*, plankton; **N.L. fem. adj.** *phila*, friendly to; **N.L. fem. adj.** *Planktophila*, the friend fo plankton

Nomenclatural type

Species *Planktophila limnetica*^{Ts}

Description

The name *Planktophila* was initially proposed in Jezbera et al. 2009 based on an enrichment culture, with 'Ca. *Planktophila limnetica*' strain MWH-EgelM2-3.acl as type strain. Initial description: Represented by the aerobic strain MWH-EgelM2-3.acl, which was isolated from a small lake near Salzburg, Austria. Curved rods with lengths of 1.0–1.5 mm and diameters of 0.4–0.5 mm. No pure culture is available. Contained in a stable mixed culture together with 'Candidatus *Limnoluna rubra*' and a *Polynucleobacter necessarius* subsp. *asymbioticus* strain. The mixed culture grows well in liquid NSY medium. Supplementation of NSY medium with L-alanine results in an increase of the relative proportion of 'Ca. *Planktophila limnetica*' by more than one order of magnitude. 'Ca. *Planktophila limnetica*' can be recognized by the presence of the diagnostic oligonucleotide sequence 5'-GAAACTTGGTGGCATCRCCG-3' in the 16S rRNA gene (positions 183–193, E. coli numbering). Phylogenetic analysis of the 16S rRNA gene sequence indicated the affiliation of the Candidatus taxon with the order Actinomycetales. The genus description was later amended with the first genome-sequenced strains (Neuenschwander et al. 2018) and strain *Planktophila limnetica* MMS-VB-114 (GCF_002288365.1) as type strain.

Classification

Bacteria » *Actinomycetota* » *Actinomycetes* » *Nanopelagicales* » *Nanopelagicaceae* » *Planktophila*

References

Effective publication: Neuenschwander et al., 2018 [1]
Original (not valid) publication: Jezbera et al., 2009 [2]

Registry URL

<https://seqco.de/i:23847>

References

1. Neuenschwander et al. (2018). Microdiversification in genome-streamlined ubiquitous freshwater Actinobacteria. *The ISME Journal*. DOI:10.1038/ismej.2017.156
2. Jezbera et al. (2009). 'Candidatus *Planktophila limnetica*', an actinobacterium representing one of the most numerically important taxa in freshwater bacterioplankton. *INTERNATIONAL JOURNAL OF SYSTEMATIC AND EVOLUTIONARY MICROBIOLOGY*. DOI:10.1099/ijs.0.010199-0