

Species *Zwartia planktonica*

Etymology

[plan.kto.ni'ca] **N.L. fem. adj.** *planktonica*, living in the plankton of lakes, planktonic; from Gr. masc. adj. planktos, wandering.

Nomenclatural type

[NCBI Assembly: GCA_965234315.1](#) ^{Ts}

Reference Strain

[Strain sc|0038969](#): RE-10

Description

Type strain is *Zwartia planktonica* RE-10 (GCA_965234315.1), isolated from 0.5 m depth from the Římov Reservoir, Czechia (date: 2019-04-23), *via* high-throughput dilution to extinction cultivation. RE-10 has a genome size of 4.5 Mbp with a genomic GC content of 52%, contains 6 rRNA genes and 44 tRNAs. The genome is complete, consisting of a circular chromosome. No genes for flagellar or pilus assembly and chemotaxis were annotated. Pathways for cyanate, urea and taurine degradation, thiosulfate oxidation (Sox pathway), glycolate oxidation, and the biosynthesis of all amino acids were predicted. Further, pathways for thiamine, riboflavin, NAD, pantothenate, coenzyme A, THF, ubiquinone, and heme biosynthesis were identified. The closest cultivated relative is *Zwartia hollandica* LF4-65 (GCF_019923725.1), with an average amino acid identity of 71.2% and average nucleotide identity of 71.6%. Current GTDB classification (R220): d__Bacteria; p__Pseudomonadota; c__Gammaproteobacteria; o__Burkholderiales; f__Burkholderiaceae; g__Zwartia; s__Zwartia sp030832095.

Classification

Bacteria » *Pseudomonadota* » *Betaproteobacteria* » *Burkholderiales* » *Alcaligenaceae* » *Zwartia* » *Zwartia planktonica*

References

Effective publication: Salcher et al., 2025 [1]

Registry URL

<https://seqco.de/i:48732>

References

1. Salcher et al. (2025). Bringing the uncultivated microbial majority of freshwater ecosystems into culture. *Nature Communications*. [DOI:10.1038/s41467-025-63266-9](https://doi.org/10.1038/s41467-025-63266-9)