

Order *Omnitrophales*

Etymology

[Om.ni.tro.pha'les] N.L. masc. n. *Omnitrophus*, referring to the type genus *Omnitrophus*; *-ales*, ending to denote an order; N.L. fem. pl. n. *Omnitrophales*, the *Omnitrophus* order

Nomenclatural type

Genus *Omnitrophus*

Description

This order belongs to the class *Omnitrophia*, in the phylum *Omnitrophota*. Cell sizes vary within the order, with most observed cells and DNA recovered from serial-filtration experiments associated with small cell size. Several members encode very large ORFs putatively involved in adhesion, and ADP/ATP translocases. Genomic predictions indicate respiratory pathways as predominantly conserved in the order for energy metabolism. Genomes of this order have been recovered from freshwater, groundwater, wastewater, geothermal springs, saline sediment, soil and engineered environments. Samples from which assemblies were derived were taken under aerobic conditions at circumneutral pH, where reported. The nomenclatural type of the order is the genus *Omnitrophus*.

Classification

Bacteria » *Omnitrophota* » *Omnitrophia* » *Omnitrophales*

References

Effective publication: Seymour et al., 2023 [1]

Registry URL

<https://seqco.de/i:23662>

References

1. Seymour et al. (2023). Hyperactive nanobacteria with host-dependent traits pervade Omnitrophota. *Nature Microbiology*. [DOI:10.1038/s41564-022-01319-1](https://doi.org/10.1038/s41564-022-01319-1)