

Register list for 4 new names including *Nitronatura plena* sp. nov.

Submitted by Sereika, Mantas

Abstract

Names for 2 microbial species and 2 genera, related to nitrogen metabolism.

Genus *Nitronatura*

Etymology

[Ni.tro.na.tu'ra] **N.L. pref.** *nitro-*, pertaining to nitrate; **L. fem. n.** *natura*, nature; **N.L. fem. n.** *Nitronatura*, nitrogen and nature, symbolizing a lineage associated with nitrogen cycling in natural ecosystems

Nomenclatural type

Species *Nitronatura plena*^{Ts}

Description

Genus formerly known as Palsa-1315 under GTDB R226. The description of the genus is the same as for its nomenclatural type *Nitronatura plena*.

Classification

Bacteria » *Nitrospirota* » *Nitrospiria* » *Nitrospirales* » *Nitrospiraceae* » *Nitronatura*

References

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

Registry URL

<https://seqco.de/i:54883>

Genus *Nitrososappho*

Etymology

[Ni.tro.so.sap'pho] **N.L. pref.** *nitroso-*, full of natron, nitrous; **N.L. fem. n.** *Sappho*, latinized form of the Greek poet's name Σαπφώ; **N.L. fem. n.** *Nitrososappho*, a nitrous-oxide producing organism honoring the poet Sappho (Σαπφώ), used as a metaphor for resilience and persistence, in this case, of an archaeal ammonia oxidizer found in environmentally disturbed or constrained habitats

Nomenclatural type

Species *Nitrososappho danica*^{Ts}

Description

Genus formerly known as TA-21 under GTDB R226. The description of the genus is the same as for its nomenclatural type *Nitrososappho danica*.

Classification

Archaea » *Thermoproteota* » *Nitrososphaeria* » *Nitrososphaerales* » *Nitrososphaeraceae* » *Nitrososappho*

References

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

Registry URL

<https://seqco.de/i:54885>

Species *Nitronatura plena*^{Ts}

Etymology

[ple'na] **L. fem. adj.** *plena*, full or complete, referring to the capacity for complete ammonia oxidation by clade B comammox

Nomenclatural type

[NCBI Assembly: GCA_974707355.1](#)^{Ts}

Description

Species established on the basis of ANI comparisons to GTDB R226. The type genome was recovered from sphagnum acid bog soil. Based on metabolic reconstruction, *Nitronatura plena* is aerobic, capable of ammonia and nitrite oxidation. The type genome contains comammox metabolism genes, including *amoA*, *amoB*, *amoC*, *nxrAB*, and *hao*.

Classification

Bacteria » *Nitrospirota* » *Nitrospira* » *Nitrospirales* » *Nitrospiraceae* » *Nitronatura* » *Nitronatura plena*^{Ts}

References

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

Registry URL

<https://seqco.de/i:54882>

Species *Nitrososappho danica*^{Ts}

Etymology

[da.ni'ca] **N.L. fem. adj.** *danica*, Danish, referring to the origin of the sample and wide distribution in Denmark

Nomenclatural type

[NCBI Assembly: GCA_974504955.1](#)^{Ts}

Description

Species established on the basis of ANI comparisons to GTDB R226. The type genome was recovered from urban sediment of a rainwater basin. Based on metabolic reconstruction, *Nitrososappho danica* is aerobic, capable of ammonia oxidation, and encodes genes for urea use.

Classification

Archaea » *Thermoproteota* » *Nitrososphaeria* » *Nitrososphaerales* » *Nitrososphaeraceae* » *Nitrososappho* » *Nitrososappho danica*^{Ts}

References

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

Registry URL

<https://seqco.de/i:54884>

References

1. Singleton et al. (2025). The Microflora Danica atlas of Danish environmental microbiomes. *Nature*. DOI:10.1038/s41586-025-09794-2

Register List Certificate of Validation

On behalf of the *Committee on the Systematics of Prokaryotes Described from Sequence Data* (SeqCode Committee), we hereby certify that the Register List **seqco.de/r:xueh5m88** submitted by **Sereika, Mantas** and including 4 new names has been successfully validated.

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