

Rariloculales ord. nov.

Submitted by Thomas, Torsten

Order *Rariloculales*

Etymology

[Ra.ri.lo.cu.la'les] **N.L. masc. n.** *Rariloculus*, referring to the type genus *Rariloculus*; *-ales*, ending to denote an order; **N.L. fem. pl. n.** *Rariloculales*, the *Rariloculus* order

Nomenclatural type

Genus *Rariloculus*

Description

The order of the family Rariloculaceae

Classification

Bacteria » *Pseudomonadota* » *Gammaproteobacteria* » *Rariloculales*

References

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

Registry URL

<https://seqco.de/i:32587>

Order *Spongiifermentales*

Etymology

[Spon.gi.i.fer.men.ta'les] **N.L. neut. n.** *Spongiifermentum*, referring to the type genus *Spongiifermentum*; *-ales*, ending to denote an order; **N.L. fem. pl. n.** *Spongiifermentales*, the *Spongiifermentum* order

Nomenclatural type

Genus *Spongiifermentum*

Description

The order of the family Spongiifermentaceae

Classification

Bacteria » *Pseudomonadota* » *Gammaproteobacteria* » *Spongiifermentales*

References

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

Registry URL

<https://seqco.de/i:32591>

Family *Azophilaceae*

Etymology

[A.zo.phi.la'ce.ae] **N. L. n. masc.** *Azophilus*, referring to the type genus *Azophilus*; *-aceae*, ending to denote a family; **N.L. fem. pl. n.** *Azophilaceae*, the *Azophilus* family

Nomenclatural type

Genus *Azophilus*

Description

A family of the genus *Azophilus*

Classification

Bacteria » *Pseudomonadota* » *Gammaproteobacteria* » *Pseudomonadales* » *Azophilaceae*

References

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

Registry URL

<https://seqco.de/i:32583>

Family *Oxydemutatoraceae*

Etymology

[O.xy.de.mu.ta.to.ra'ce.ae] **N.L. masc. n.** *Oxydemutator*, referring to the type genus *Oxydemutator*; *-aceae*, ending to denote a family; **N.L. fem. pl. n.** *Oxydemutatoraceae*, the *Oxydemutator* family

Nomenclatural type

Genus *Oxydemutator*

Description

The family of the genus *Oxydemutator*

Classification

Bacteria » *Pseudomonadota* » *Gammaproteobacteria* » "Poriferisulfidales" » *Oxydemutatoraceae*

References

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

Registry URL

<https://seqco.de/i:33264>

Family *Rariloculaceae*

Etymology

[Ra.ri.lo.cu.la'ce.ae] **N.L. masc. n.** *Rariloculus*, referring to the type genus *Rariloculus*; *-aceae*, ending to denote a family; **N.L. fem. pl. n.** *Rariloculaceae*, the *Rariloculus* family

Nomenclatural type

Genus *Rariloculus*

Description

The family of the genus *Rariloculus*

Classification

Bacteria » *Pseudomonadota* » *Gammaproteobacteria* » *Rariloculares* » *Rariloculaceae*

References

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

Registry URL

<https://seqco.de/i:32586>

Family *Spongiifermentaceae*

Etymology

[S.pon.gi.i.fer.men.ta'ce.ae] **N.L. neut. n.** *Spongiifermentum*, referring to the type genus *Spongiifermentum*; **-aceae**, ending to denote a family; **N.L. fem. pl. n.** *Spongiifermentaceae*, the *Spongiifermentum* family

Nomenclatural type

Genus *Spongiifermentum*

Description

The family of the genus *Spongiifermentum*

Classification

Bacteria » *Pseudomonadota* » *Gammaproteobacteria* » *Spongiifermentales* » *Spongiifermentaceae*

References

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

Registry URL

<https://seqco.de/i:32590>

Genus *Azophilus*

Etymology

[A.zo.phi'lus] **N.L. pref.**, azo-, pertaining to nitrogen (specifically azo compounds); **N.L. adj. masc.**, philus, friend, loving; **N.L. masc. n.** *Azophilus*, capable of using nitrogen-derived compounds

Nomenclatural type

Species *Azophilus lithoversatilis*^{Ts}

Description

An nitrogen-loving bacterium

Classification

Bacteria » *Pseudomonadota* » *Gammaproteobacteria* » *Pseudomonadales* » *Azophilaceae* » *Azophilus*

References

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

Registry URL

<https://seqco.de/i:32582>

Genus *Oxydemutator*

Etymology

[O.xy.de.mu.ta'tor] **N.L. neut. n.** *oxygenium*, meaning oxygen; **L. masc. n.** *demutator*, meaning changer; **N.L. masc. n.** *Oxydemutator*, changer of oxygen

Nomenclatural type

Species *Oxydemutator thiolithooxidans*^{Ts}

Description

a sponge-associated bacterium that can alter its respiration under different oxic conditions

Classification

Bacteria » *Pseudomonadota* » *Gammaproteobacteria* » "Poriferisulfidales" » *Oxydemutatoraceae* » *Oxydemutator*

References

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

Registry URL

<https://seqco.de/i:33263>

Genus *Rariloculus*

Etymology

[Ra.ri.lo.cu'lus] **L. masc. adj.** *rara*, rare; **L. masc. adj.** *loculus*, a little place; **N.L. masc. n.** *Rariloculus*, a rare bacterium in its habitat

Nomenclatural type

Species *Rariloculus versatilis*^{Ts}

Description

a sponge-associated bacterium found in low abundances in its habitat

Classification

Bacteria » *Pseudomonadota* » *Gammaproteobacteria* » *Rariloculales* » *Rariloculaceae* » *Rariloculus*

References

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

Registry URL

<https://seqco.de/i:32585>

Genus *Spongiifermentum*

Etymology

[Spon.gi.i.fer.men'tum] **L. fem. n.** *spongia*, sponge; **L. neut. n.** *fermentum*, fermentation; **N.L. neut. n.** *Spongiifermentum*, a bacterium with the ability to ferment within the sponge environment

Nomenclatural type

Species *Spongiifermentum lactens*^{Ts}

Description

A bacterium with the ability to ferment within the sponge environment

Classification

Bacteria » *Pseudomonadota* » *Gammaproteobacteria* » *Spongiifermentales* » *Spongiifermentaceae* » *Spongiifermentum*

References

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

Registry URL

<https://seqco.de/i:32589>

Genus *Spongiihabitans*

Etymology

[Spon.gi.i.ha.bi'tans] **L. fem. n.** *spongia*, meaning sponge; **L. pres. part.** *habitans*, meaning inhabitant; **N.L. fem. n.** *Spongiihabitans*, one that lives in a sponge

Nomenclatural type

Species *Spongiihabitans thiooxidans*^{Ts}

Description

A bacterium that lives in a sponge

Classification

Bacteria » *Pseudomonadota* » *Gammaproteobacteria* » *Arenicellales* » *Poriferihabitantaceae* » *Spongiihabitans*

References

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

Registry URL

<https://seqco.de/i:33261>

Species *Azophilus lithoversatilis*^{Ts}

Etymology

[li.tho.ver.sa.ti'lis] **Gr. masc. n.** *lithos*, meaning stone/ inorganic; **L. masc. adj.** *versatilis*, meaning versatile; **N.L. masc. adj.** *lithoversatilis*, using various inorganics

Nomenclatural type

[NCBI Assembly: GCA_028278675.1](#)^{Ts}

Description

A sponge symbiont with versatile lithotrophic metabolism

Classification

Bacteria » *Pseudomonadota* » *Gammaproteobacteria* » *Pseudomonadales* » *Azophilaceae* » *Azophilus* » *Azophilus lithoversatilis*^{Ts}

References

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

Registry URL

<https://seqco.de/i:32581>

Species *Oxydemutator thiolithooxidans*^{Ts}

Etymology

[thi.o.li.tho.o.xi'dans] **Gr. neut. n.** *theion*, meaning sulfur; **Gr. masc. n.** *lithos*, meaning stone; **N.L. pres. part.** *oxidans*, meaning to oxidise; **N.L. part. adj.** *thiolithooxidans*, capable of oxidizing diverse inorganic sulfur compounds

Nomenclatural type

[NCBI Assembly: GCA_028817225.1](#)^{Ts}

Description

A sponge-associated bacterium predicted to be capable of oxidizing diverse inorganic sulfur compounds

Classification

Bacteria » *Pseudomonadota* » *Gammaproteobacteria* » "Poriferisulfidales" » *Oxydemutatoraceae* » *Oxydemutator* » *Oxydemutator thiolithooxidans*^{Ts}

References

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

Registry URL

<https://seqco.de/i:33262>

Species *Rariloculus versatilis*^{Ts}

Etymology

[ver.sa.ti'lis] **L. adj. masc.** *versatilis*, versatile

Nomenclatural type

[NCBI Assembly: GCA_028278665.1](#)^{Ts}

Description

A rare sponge symbiont

Classification

Bacteria » *Pseudomonadota* » *Gammaproteobacteria* » *Rariloculales* » *Rariloculaceae* » *Rariloculus* » *Rariloculus versatilis*^{Ts}

References

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

Registry URL

<https://seqco.de/i:32584>

Species *Spongiifermentum lactens*^{Ts}

Etymology

[lac'tens] **L. neut. adj.** *lactens*, milky

Nomenclatural type

[NCBI Assembly: GCA_028289815.1](#)^{Ts}

Description

Sponge symbiont that is characterized as a facultative chemolithoautotroph, capable of facultative aerobic growth

Classification

Bacteria » *Pseudomonadota* » *Gammaproteobacteria* » *Spongiifermentales* » *Spongiifermentaceae* » *Spongiifermentum* » *Spongiifermentum lactens*^{Ts}

References

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

Registry URL

<https://seqco.de/i:32588>

Species *Spongiihabitans thiooxidans*^{Ts}

Etymology

[thi.o.o.xi'dans] **Gr. neut. n.** *theion*, meaning sulfur; **N.L. pres. part.** *oxidans*, meaning to oxidise; **N.L. part. adj.** *thiooxidans*, sulfur oxidising

Nomenclatural type

[NCBI Assembly: GCA_028817405.1](#)^{Ts}

Description

A sponge symbiont that has the predicted capacity for the oxidation of sulfur compounds

Classification

Bacteria » *Pseudomonadota* » *Gammaproteobacteria* » *Arenicellales* » *Poriferihabitantaceae* » *Spongiihabitans* » *Spongiihabitans thiooxidans*^{Ts}

References

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

Registry URL

<https://seqco.de/i:32610>

References

1. Nguyen et al. (2023). Functional characterization and taxonomic classification of novel gammaproteobacterial diversity in sponges. *Systematic and Applied Microbiology*. [DOI:10.1016/j.syapm.2023.126401](https://doi.org/10.1016/j.syapm.2023.126401)

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:qoodoxg8** submitted by **Thomas, Torsten** and including 16 new names has been successfully validated.

Date of Priority: 2026-01-21 02:38 UTC

DOI: 10.57973/seqcode.r:qoodoxg8

