

Register list proposing *Elulimicrobium humile* sp. nov. gen. nov. and their lineage

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Abstract

The lineage of *Elulimicrobium humile*, from freshwater metagenomes.

Phylum *Elulimicrobiota*

Etymology

[E.lu.li.mi.cro.bi.o'ta] N.L. neut. n. *Elulimicrobium*, referring to the type genus *Elulimicrobium*; *-ota*, ending to denote a phylum; N.L. neut. pl. n. *Elulimicrobiota*, the *Elulimicrobium* phylum

Nomenclatural type

Genus *Elulimicrobium*

Description

The phylum is defined on the basis of comparative genome analysis on the genus *Elulimicrobium* with respect to currently determined genomes from the closest relatives within the “Patescibacteria” clade. *Elulimicrobium* is the designated type genus of the phylum.

Classification

Bacteria » *Elulimicrobiota*

References

Effective publication: Rodriguez-R et al., 2020 [1]

Registry URL

<https://seqco.de/i:575>

Class *Elulimicrobiia*

Etymology

[E.lu.li.mi.cro.bi'i.a] N.L. neut. n. *Elulimicrobium*, referring to the type genus *Elulimicrobium*; *-ia*, ending to denote a class; N.L. neut. pl. n. *Elulimicrobiia*, the *Elulimicrobium* class

Nomenclatural type

Genus *Elulimicrobium*

Description

The class is defined on the basis of comparative genome analysis on the genus *Elulimicrobium* with respect to currently determined genomes from the closest relatives within the “Patescibacteria” clade. *Elulimicrobium* is the designated type genus of the class.

Classification

Bacteria » *Elulimicrobiota* » *Elulimicrobiia*

References

Effective publication: Rodriguez-R et al., 2020 [1]

Corrigendum: Oren, Garrity, 2022 [2] (from “*Elulimicrobia*”)

Registry URL

<https://seqco.de/i:574>

Order *Elulimicrobiales*

Etymology

[E.lu.li.mi.cro.bi.a'les] **N.L. neut. n.** *Elulimicrobium*, referring to the type genus *Elulimicrobium*; *-ales*, ending to denote an order; **N.L. fem. pl. n.** *Elulimicrobiales*, the *Elulimicrobium* order

Nomenclatural type

Genus *Elulimicrobium*

Description

The properties of the order are the same as for the representative genus *Elulimicrobium*, which is the designated type genus of the order.

Classification

Bacteria » *Elulimicrobiota* » *Elulimicrobiia* » *Elulimicrobiales*

References

Effective publication: Rodriguez-R et al., 2020 [1]

Registry URL

<https://seqco.de/i:573>

Family *Elulimicrobiaceae*

Etymology

[E.lu.li.mi.cro.bi.a.ce'ae] **N.L. neut. n.** *Elulimicrobium*, referring to the type genus *Elulimicrobium*; *-aceae*, ending to denote a family; **N.L. fem. pl. n.** *Elulimicrobiaceae*, the *Elulimicrobium* family

Nomenclatural type

Genus *Elulimicrobium*

Description

The properties of the family are the same as for the representative genus *Elulimicrobium*, which is the designated type genus of the family.

Classification

Bacteria » *Elulimicrobiota* » *Elulimicrobiia* » *Elulimicrobiales* » *Elulimicrobiaceae*

References

Effective publication: Rodriguez-R et al., 2020 [1]

Registry URL

<https://seqco.de/i:572>

Genus *Elulimicrobium*

Etymology

[E.lu.li.mi.cro'bi.um] **N.L. fem. n.** *elula*, from Akkadian n. *elūlu*, and from there to Hebrew n. *Elul* (לול), the month of harvest in the Akkadian calendar typically corresponding to the annual period of detection for this group (August-September); **N.L. neut. n.** *microbium*, microbe; **N.L. neut. n.** *Elulimicrobium*, a microbe from the month of harvest

Nomenclatural type

Species *Elulimicrobium humile*^{Ts}

Description

The genus is established on the basis of phylogenetic reconstruction including the type species *Elulimicrobium humile* and other members of the group "Patescibacteria". The type species is *Elulimicrobium humile*

Classification

Bacteria » *Elulimicrobiota* » *Elulimicrobiia* » *Elulimicrobiales* » *Elulimicrobiaceae* » *Elulimicrobium*

References

Effective publication: Rodriguez-R et al., 2020 [1]

Registry URL

<https://seqco.de/i:515>

Species *Elulimicrobium humile*^{Ts}

Etymology

[hu.mi'le] L. neut. adj. *humile*, humble, low

Nomenclatural type

[NCBI Assembly: GCA_009919195.1](#)^{Ts}

Description

This species displays a consistently low abundance when detected between the months of July and October, and a geographic range restricted to the tree northernmost lakes on the Chattahoochee River (USA): lakes Lanier, West Point, and Eufaula. According to the genome assembly, WB6_2A_207 is 3.79 Mbp long with 1,298 contigs (N50: 4 kbp) and 34.3% G+C content. It includes 4,108 predicted proteins as well as 90 non-coding RNA loci (87 tRNA, 1 rRNA, and 2 tmRNA). The estimated coding density is 94.1%. Based on genome annotation, this organism is predicted to have sucrose and oxidase activity and the capability of gelatin and arginine dihydrolase activity. The type material is the genome WB6_2A_207, deposited in the NCBI database with Genome Accession RGCK00000000 and BioSample SAMN10223143.

Classification

Bacteria » *Elulimicrobiota* » *Elulimicrobiia* » *Elulimicrobiales* » *Elulimicrobiaceae* » *Elulimicrobium* » *Elulimicrobium humile*^{Ts}

References

Effective publication: Rodriguez-R et al., 2020 [1]

Registry URL

<https://seqco.de/i:516>

References

1. Rodriguez-R et al. (2020). Iterative subtractive binning of freshwater chronoserries metagenomes identifies over 400 novel species and their ecologic preferences. *Environmental Microbiology*. DOI:10.1111/1462-2920.15112
2. Oren, Garrity (2022). CANDIDATUS LIST No. 3. Lists of names of prokaryotic Candidatus taxa. *International Journal of Systematic and Evolutionary Microbiology*. DOI:10.1099/ijsem.0.005186

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:abw4_f8a submitted by **Rodriguez-R, Luis M** and including 6 new names has been successfully validated.

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