

Register list for 8 new names including *Aridivitia* classis nov.

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Class *Aridivitia*

Etymology

[A.ri.di.vi'ti.a.] **N.L. fem. n.** *Aridivita*, the type genus of the family; **L. neut. pl. suff. -ia**, ending to denote a class; **N.L. neut. pl. n.** *Aridivitia*, the Aridivita class

Nomenclatural type

Genus *Aridivita*

Description

Order formerly known as "[CADDZG01](#)" in GTDB R226. The description of the class is the same as for its type genus *Aridivita*.

Classification

Bacteria » *Actinomycetota* » *Aridivitia*

References

Effective publication: Ortiz et al., 2021 [1]
Assigned taxonomically: Ortiz et al., 2021 [1]

Registry URL

<https://seqco.de/i:49037>

Order *Aridivitales*

Etymology

[A.ri.di.vi.ta'les] **N.L. fem. n.** *Aridivita*, the type genus of the family; **L. fem. pl. suff. -ales**, ending to denote an order; **N.L. fem. pl. n.** *Aridivitales*, the Aridivita order

Nomenclatural type

Genus *Aridivita*

Description

Order formerly known as "[CADDZG01](#)" in GTDB R226. The description of the family is the same as for its type genus *Aridivita*.

Classification

Bacteria » *Actinomycetota* » *Aridivitia* » *Aridivitales*

References

Effective publication: Ortiz et al., 2021 [1]
Assigned taxonomically: Ortiz et al., 2021 [1]

Registry URL

<https://seqco.de/i:52911>

Family *Aridivitaceae*

Etymology

[A.ri.di.vi.ta'ce.ae] **N.L. fem. n.** *Aridivita*, the type genus of the family; **L. fem. pl. suff.** -*aceae*, ending to denote a family; **N.L. fem. pl. n.** *Aridivitaceae*, family of the genus *Aridivita*

Nomenclatural type

Genus *Aridivita*

Description

Family formerly known as "[WHSQ01](#)" in GTDB R226. The description of the family is the same as for its type genus *Aridivita*.

Classification

Bacteria » *Actinomycetota* » *Aridivitia* » *Aridivitales* » *Aridivitaceae*

References

Effective publication: Ortiz et al., 2021 [1]
Assigned taxonomically: Ortiz et al., 2021 [1]

Registry URL

<https://seqco.de/i:52910>

Family *Edaphomicrobiaceae*

Etymology

[E.da.pho.mi.cro.bi.a'ce.ae] **N.L. neut. n.** *Edaphomicrobium*, the type genus of the family; **L. fem. pl. suff.** -*aceae*, ending to denote a family; **N.L. fem. pl. n.** *Edaphomicrobiaceae*, family of the genus *Edaphomicrobium*

Nomenclatural type

Genus *Edaphomicrobium*

Description

Family formerly known as "[CSP1-4](#)" in GTDB R226. The description of the family is the same as for its type genus *Edaphomicrobium*.

Classification

Bacteria » *Chloroflexota* » *Candidatus* Limnocyndria » *Candidatus* Limnocyndrales » *Edaphomicrobiaceae*

References

Effective publication: Ortiz et al., 2021 [1]

Registry URL

<https://seqco.de/i:52914>

Genus *Aridivita*

Etymology

[A.ri.di.vi'ta.] **L. masc. adj.** *aridus*, dry; **L. fem. n.** *vita*, life; **N.L. fem. n.** *Aridivita*, a dry life

Nomenclatural type

Species *Aridivita willemsiae*^{Ts}

Description

An actinobacterial genus that thrives in arid desert soils. The genus is formerly known as "[JACCZU01](#)" in GTDB R202 to R226.

Classification

Bacteria » *Actinomycetota* » *Aridivitia* » *Aridivitales* » *Aridivitaceae* » *Aridivita*

References

Effective publication: Ortiz et al., 2021 [1]
Assigned taxonomically: Ortiz et al., 2021 [1]

Registry URL

<https://seqco.de/i:52908>

Genus *Edaphomicrobium*

Etymology

[E.da.pho.mi.cro'bi.um.] **Gr. neut. n.** *edaphos*, soil; **N.L. neut. n.** *microbium*, a microbe; **N.L. neut. n.** *Edaphomicrobium*, a soil microbe

Nomenclatural type

Species *Edaphomicrobium janssenii*^{Ts}

Description

A Chloroflexota genus that thrives in arid desert soils. The genus is formerly known as "[CF-46](#)" in GTDB R202 to R226.

Classification

Bacteria » *Chloroflexota* » *Candidatus* Limnocyndria » *Candidatus* Limnocyndrales » *Edaphomicrobiaceae* » *Edaphomicrobium*

References

Effective publication: Ortiz et al., 2021 [1]
Assigned taxonomically: Ortiz et al., 2021 [1]

Registry URL

<https://seqco.de/i:52912>

Species *Aridivita willemsiae*^{Ts}

Etymology

[wi.llem'si.æ] **N.L. gen. n.** *willemsiae*, of Willems, named after Anne Willems, for her contributions to Antarctic microbiology using isolation-based approaches

Nomenclatural type

[NCBI Assembly: GCA_013695835.1](#)^{Ts}

Description

An actinobacterial bacterium represented a high-quality metagenome-assembled genome (MAG), recovered from desert soils from the Mackay Glacier region, Antarctica. The bacterium is predicted to be capable of aerotrophic growth (growth of on atmospheric substrates), using H₂ (via a high-affinity group 1h [NiFe]-hydrogenase) and CO (via a Form I carbon monoxide dehydrogenase) as energy and electron sources to fix CO₂ (via CBB cycle mediated by a Type IE RuBisCO). The species is proposed to serve as the nomenclatural type for the *Aridivita* genus, named after Anne Willems, for her contributions to Antarctic microbiology using isolation-based approaches.

Classification

Bacteria » *Actinomycetota* » *Aridivitia* » *Aridivitales* » *Aridivitaceae* » *Aridivita* » *Aridivita willemsiae*^{Ts}

References

Effective publication: Ortiz et al., 2021 [1]
Assigned taxonomically: Ortiz et al., 2021 [1]

Registry URL

<https://seqco.de/i:23574>

Species *Edaphomicrobium janssenii*^{Ts}

Etymology

[jans.sen'i.i.] **N.L. gen. n.** *janssenii*, of Janssen, named after Peter H. Janssen, for his pioneering isolation-based studies that first described this lineage (Ellin6529)

Nomenclatural type

[NCBI Assembly: GCA_013698095.1](#)^{Ts}

Description

A Chloroflexota bacterium represented a high-quality metagenome-assembled genome (MAG), recovered from desert soils from the Mackay Glacier region, Antarctica. The bacterium is predicted to be an atmospheric hydrogen oxidizer using H₂ (via a high-affinity group 1h [NiFe]-hydrogenase) from air as a key energy source for survival in oligotrophic desert soils. The species is proposed to serve as the nomenclatural type for the *Edaphomicrobium* genus, and honors Peter H. Janssen, for his pioneering isolation-based studies that first described the class lineage of this bacterium ([Ellin6529](#), later named as Limnocyndria).

Classification

Bacteria » *Chloroflexota* » *Candidatus Limnocyndria* » *Candidatus Limnocyndrales* » *Edaphomicrobiaceae* » *Edaphomicrobium* » *Edaphomicrobium janssenii*^{Ts}

References

Effective publication: Ortiz et al., 2021 [1]
Assigned taxonomically: Ortiz et al., 2021 [1]

Registry URL

<https://seqco.de/i:52913>

References

1. Ortiz et al. (2021). Multiple energy sources and metabolic strategies sustain microbial diversity in Antarctic desert soils. *Proceedings of the National Academy of Sciences*.
[DOI:10.1073/pnas.2025322118](https://doi.org/10.1073/pnas.2025322118)

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:lfje5-e8** submitted by **Leung, Pok Man** and including 8 new names has been successfully validated.

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