

Register list for 11 new names in Dormibacterota including *Aeolococcaceae* fam. nov.

Submitted by Ferrari, Belinda

Order *Aeolococcales*

Etymology

[Ae.o.lo.coc'cales] N.L. **masc. n.** *Aeolococcus*, after the Greek god Aeolus, referring to extremely windy conditions of the Antarctic environment; *-ales*, ending denoting an order; N.L. **fem. pl. n.** *Aeolococcales*, the *Aeolococcus* order

Nomenclatural type

Genus *Aeolococcus*

Description

Based on phylogenomic analysis of 120 concatenated single copy proteins. MSA was generated with GTDB-Tk v1.3.0 and tree was reconstructed with RaxML v8.2.12.

Classification

Bacteria » "Dormibacterota" » "Dormibacteria" » *Aeolococcales*

References

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

Registry URL

<https://seqco.de/i:48789>

Family *Aeolococcaceae*

Etymology

[Ae.o.lo.coc.ca.ce'ae] N.L. **masc. n.** *Aeolococcus*, after the Greek god Aeolus, referring to extremely windy conditions of the Antarctic environment; *-aceae*, ending denoting a family; N.L. **fem. pl. n.** *Aeolococcaceae*, the *Aeolococcus* family

Nomenclatural type

Genus *Aeolococcus*

Description

Based on phylogenomic analysis of 120 concatenated single copy proteins. MSA was generated with GTDB-Tk v1.3.0 and tree was reconstructed with RaxML v8.2.12.

Classification

Bacteria » "Dormibacterota" » "Dormibacteria" » *Aeolococcales* » *Aeolococcaceae*

References

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

Registry URL

<https://seqco.de/i:48987>

Genus *Amunia*

Etymology

[A.mu'ni.a] **N.L. fem. n.** *Amunia*, after Amun, ancient Egyptian god of wind and vivifying breath.

Nomenclatural type

Species *Amunia macphersoniae*^{Ts}

Description

Based on phylogenomic analysis of 120 concatenated single copy proteins. MSA was generated with GTDB-Tk v1.3.0 and tree was reconstructed with RaxML v8.2.12.

Classification

Bacteria » “Dormibacterota” » “Dormibacteria” » *Aeolococcales* » *Aeolococcaceae* » *Amunia*

References

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

Registry URL

<https://seqco.de/i:49057>

Genus *Nephtysia*

Etymology

[Neph.thys'ia] **Gr. fem. n.** *Nephtys*, ancient Egyptian goddess Nephtys, associated with deserts and darkness; **N.L. fem. n.** *Nephtysia*, after ancient Egyptian goddess Nephtys, associated with deserts and darkness, referring to the place of origin.

Nomenclatural type

Species *Nephtysia bennettiae*^{Ts}

Description

Based on phylogenomic analysis of 120 concatenated single copy proteins. MSA was generated with GTDB-Tk v1.3.0 and tree was reconstructed with RaxML v8.2.12.

Classification

Bacteria » “Dormibacterota” » “Dormibacteria” » “Dormibacterales” » “Dormibacteraceae” » *Nephtysia*

References

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

Registry URL

<https://seqco.de/i:49054>

Genus *Aeolococcus*

Etymology

[Ae.o.lo.coc'cus] **Gr. masc. n.** *Aiolos*, Greek god, ruler of the winds; **Gr. masc. n.** *kokkos*, berry, referring to the coccoid morphology of cells); **N.L. masc. n.** *Aeolococcus*, after the Greek god Aeolus, referring to extremely windy conditions of the Antarctic environment

Nomenclatural type

Species *Aeolococcus gillhamiae*^{Ts}

Description

Based on phylogenomic analysis of 120 concatenated single copy proteins. MSA was generated with GTDB-Tk v1.3.0 and tree was reconstructed with RaxML v8.2.12.

Classification

Bacteria » “Dormibacterota” » “Dormibacteria” » *Aeolococcales* » *Aeolococcaceae* » *Aeolococcus*

References

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

Registry URL

<https://seqco.de/i:49050>

Genus *Dormibacter*

Etymology

[Dor.mi.bac'ter] L. v. *dormio*, to sleep; N.L. masc. n. *bacter*, a rod; N.L. masc. n. *Dormibacter*, a dormant rod

Nomenclatural type

Species *Dormibacter spiritus*^{Ts}

Description

Type genus of Dormibacterota. Genus defined based on phylogenomics of 38 conserved marker genes and the lack of any named close relative at the time.

Classification

Bacteria » "Dormibacterota" » "Dormibacteria" » "Dormibacterales" » "Dormibacteraceae" » *Dormibacter*

References

Effective publication: Montgomery et al., 2021 [1]
Original (not valid) publication: Ji et al., 2017 [2]

Registry URL

<https://seqco.de/i:39408>

Species *Amunia macphersoniae*^{Ts}

Etymology

[mac.pher'so.ni.ae] N.L. gen. n. *macphersoniae*, in honor of Australian Subantarctic voyager and pioneer Hope Macpherson.

Nomenclatural type

[NCBI Assembly: GCA_016464795.1](#)^{Ts}

Description

Based on phylogenomic analysis of 120 concatenated single copy proteins. MSA was generated with GTDB-Tk v1.3.0 and tree was reconstructed with RaxML v8.2.12.

Classification

Bacteria » "Dormibacterota" » "Dormibacteria" » *Aeolococcales* » *Aeolococcaceae* » *Amunia* » *Amunia macphersoniae*^{Ts}

References

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

Registry URL

<https://seqco.de/i:49058>

Species *Aeolococcus gillhamiae*^{Ts}

Etymology

[gill'ham.i.ae] N.L. gen. n. *gillhamiae*, in honor of Australian Subantarctic voyager and pioneer Mary Gillham.

Nomenclatural type

[NCBI Assembly: GCA_003244045.1](#)^{Ts}

Description

Based on phylogenomic analysis of 120 concatenated single copy proteins. MSA was generated with GTDB-Tk v1.3.0 and tree was reconstructed with RaxML v8.2.12.

Classification

Bacteria » “Dormibacterota” » “Dormibacteria” » *Aeolococcales* » *Aeolococcaceae* » *Aeolococcus* » *Aeolococcus gillhamiae*^{Ts}

References

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

Registry URL

<https://seqco.de/i:49056>

Species *Nephtysia bennettiae*^{Ts}

Etymology

[ben'net.ti.ae] N.L. gen. n. *bennettiae*, in honor of Australian Subantarctic voyager and pioneer Isobel Bennett

Nomenclatural type

[NCBI Assembly: GCA_016464775.1](#)^{Ts}

Description

Based on phylogenomic analysis of 120 concatenated single copy proteins. MSA was generated with GTDB-Tk v1.3.0 and tree was reconstructed with RaxML v8.2.12.

Classification

Bacteria » “Dormibacterota” » “Dormibacteria” » “Dormibacterales” » “Dormibacteraceae” » *Nephtysia* » *Nephtysia bennettiae*^{Ts}

References

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

Registry URL

<https://seqco.de/i:49055>

Species *Dormibacter inghamiae*

Etymology

[ingh.am'i.ae] N.L. gen. n. *inghamiae*, in honor of Susan Ingham, a Australian Subantarctic voyager, pioneer of subantarctic research on wildlife

Nomenclatural type

[NCBI Assembly: GCA_016464725.1](#)^{Ts}

Description

Based on phylogenomic analysis of 120 concatenated single copy proteins. MSA was generated with GTDB-Tk v1.3.0 and tree was reconstructed with RaxML v8.2.12.

Classification

Bacteria » “Dormibacterota” » “Dormibacteria” » “Dormibacterales” » “Dormibacteraceae” » *Dormibacter* » *Dormibacter inghamiae*

References

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

Registry URL

<https://seqco.de/i:49053>

Species *Dormibacter spiritus*^{Ts}

Etymology

[spi'ri.tus] L. masc. gen. n. *spiritus*, of air; in reference to the use of atmospheric gases.

Nomenclatural type

[NCBI Assembly: GCA_003244185.1](#)^{Ts}

Description

Based on phylogenomic analysis of 120 concatenated single copy proteins. MSA was generated with GTDB-Tk v1.3.0 and tree was reconstructed with RaxML v8.2.12.

Classification

Bacteria » “Dormibacterota” » “Dormibacteria” » “Dormibacterales” » “Dormibacteraceae” » *Dormibacter* » *Dormibacter spiritus*^{Ts}

References

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

Registry URL

<https://seqco.de/i:49052>

References

1. Montgomery et al. (2021). Persistence and resistance: survival mechanisms of *Candidatus* Dormibacterota from nutrient-poor Antarctic soils. *Environmental Microbiology*. [DOI:10.1111/1462-2920.15610](https://doi.org/10.1111/1462-2920.15610)
2. Ji et al. (2017). Atmospheric trace gases support primary production in Antarctic desert surface soil. *Nature*. [DOI:10.1038/nature25014](https://doi.org/10.1038/nature25014)

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/racset5a1 submitted by Ferrari, Belinda and including 11 new names has been successfully validated.

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