

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

Submitted by Ferrari, Belinda

## Order *Aeolococcales*

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### 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*

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### 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 *Aeolococcus*

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**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*<sup>T5</sup>

**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 *Amunia*

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**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*<sup>T5</sup>

**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 *Nephthysia*

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**Etymology**

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

**Nomenclatural type**

Species *Nephthysia bennettiae*<sup>T5</sup>

**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” » *Nephthysia*

**References**

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

**Registry URL**

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

## Genus *Dormibacter*

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**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*<sup>Ts</sup>

**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 *Aeolococcus gillhamiae*<sup>Ts</sup>

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**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](#)<sup>Ts</sup>

**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*<sup>Ts</sup>

**References**

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

**Registry URL**

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

## Species *Amunia macphersoniae*<sup>Ts</sup>

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**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](#)<sup>Ts</sup>

**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*<sup>Ts</sup>

**References**

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

**Registry URL**

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

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**Species *Dormibacter inghamiae***

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**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](#)<sup>Ts</sup>

**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>

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**Species *Dormibacter spiritus*<sup>Ts</sup>**

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**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](#)<sup>Ts</sup>

**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*<sup>Ts</sup>

**References**

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

**Registry URL**

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

## Species *Nephtysia bennettiae*<sup>Ts</sup>

### 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](#)<sup>Ts</sup>

### 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*<sup>Ts</sup>

### References

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

### Registry URL

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

## 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](https://seqco.de/racset5a1) submitted by Ferrari, Belinda and including 11 new names has been successfully validated.

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