

Register list for 16 new names including *Songiisocius variivorans* sp. nov.

Submitted by Thomas, Torsten

Order *Songiisociales*

Etymology

[Spon.gi.i.so.ci.a'les] N.L. masc. n. *Songiisocius*, referring to the type genus *Songiisocius*; *-ales*, ending to denote an order; N.L. fem. pl. n. *Songiisociales*, the *Songiisocius* order

Nomenclatural type

Genus *Songiisocius*

Classification

Bacteria » *Actinomycetota* » *Acidimicrobiia* » *Songiisociales*

References

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

Registry URL

<https://seqco.de/i:24022>

Family *Hopanoidiivorantaceae*

Etymology

[Ho.pa.no.i.di.i.vo.ran.ta'ce.ae] N.L. n. neut. *Hopanoidiivorans*, referring to the type genus *Hopanoidiivorans*; *-aceae*, ending to denote a family; N.L. fem. pl. n. *Hopanoidiivorantaceae*, the *Hopanoidiivorans* family

Nomenclatural type

Genus *Hopanoidiivorans*

Classification

Bacteria » *Actinomycetota* » *Acidimicrobiia* » *Acidimicrobiales* » *Hopanoidiivorantaceae*

References

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

Registry URL

<https://seqco.de/i:24024>

Family *Poriferisodalaceae*

Etymology

[Po.ri.fe.ri.so.da.la'ce.ae] N.L. masc. n. *Poriferisodalis*, referring to the type genus *Poriferisodalis*; *-aceae*, ending to denote a family; N.L. fem. pl. n. *Poriferisodalaceae*, the *Poriferisodalis* family

Nomenclatural type

Genus *Poriferisodalis*

Classification

Bacteria » *Actinomycetota* » *Acidimicrobiia* » *Acidimicrobiales* » *Poriferisodalaceae*

References

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

Registry URL

<https://seqco.de/i:24025>

Family *Spongiisociaceae*

Etymology

[Spon.gi.i.so.ci.a'ce.ae] **N.L. masc. n.** *Spongiisocius*, referring to the type genus *Spongiisocius*; *-aceae*, ending to denote a family; **N.L. fem. pl. n.** *Spongiisociaceae*, the *Spongiisocius* family

Nomenclatural type

Genus *Spongiisocius*

Classification

Bacteria » *Actinomycetota* » *Acidimicrobiia* » *Spongiisociales* » *Spongiisociaceae*

References

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

Registry URL

<https://seqco.de/i:24021>

Family *Aldehydirespiratoraceae*

Etymology

[Al.de.hy.di.res.pi.ra.to.ra'ce.ae] **N.L. masc. n.** *Aldehydirespirator*, referring to the type genus *Aldehydirespirator*; *-aceae*, ending to denote a family; **N.L. fem. pl. n.** *Aldehydirespiratoraceae*, the *Aldehydirespirator* family

Nomenclatural type

Genus *Aldehydirespirator*

Classification

Bacteria » *Actinomycetota* » *Acidimicrobiia* » *Acidimicrobiales* » *Aldehydirespiratoraceae*

References

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

Registry URL

<https://seqco.de/i:24023>

Genus *Aldehydirespirator*

Etymology

[Alde.hy.di.res.pi.ra'tor] **N.L. neut. n.** *aldehydum*, aldehyde; **L. verb** *respiro*, to breathe; **N.L. masc. n.** *Aldehydirespirator*, one that breathes aldehydes

Nomenclatural type

Species *Aldehydirespirator catecholifindens*^{T5}

Classification

Bacteria » *Actinomycetota* » *Acidimicrobiia* » *Acidimicrobiales* » *Aldehydirespiratoraceae* » *Aldehydirespirator*

References

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

Registry URL

<https://seqco.de/i:24018>

Genus *Songiisocius*

Etymology

[Spon.gi.i.so'ci.us] L. fem. n. *spongia*, sponge; L. masc. n. *socius*, companion; N.L. masc. n. *Songiisocius*, the companion of a sponge

Nomenclatural type

Species *Songiisocius variivorans*^{Ts}

Classification

Bacteria » *Actinomycetota* » *Acidimicrobiia* » *Songiisociales* » *Songiisociaceae* » *Songiisocius*

References

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

Registry URL

<https://seqco.de/i:23714>

Genus *Poriferisocius*

Etymology

[Po.ri.fe.ri.so'ci.us] N.L. fem. n. *Porifera*, referring to the phylum for sponges; L. masc. n. *socius*, companion; N.L. masc. n. *Poriferisocius*, a companion of a sponge

Nomenclatural type

Species *Poriferisocius aerobius*^{Ts}

Classification

Bacteria » *Actinomycetota* » *Acidimicrobiia* » *Acidimicrobiales* » *Hopanoidiivorantaceae* » *Poriferisocius*

References

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

Registry URL

<https://seqco.de/i:23719>

Genus *Poriferisodalis*

Etymology

[Po.ri.fe.ri.so'da.lis] N.L. fem. n. *Porifera*, referring to the phylum for sponges; L. n. masc. *sodalis*, companion; N.L. masc. n. *Poriferisodalis*, a companion of a sponge

Nomenclatural type

Species *Poriferisodalis multihospitum*^{Ts}

Classification

Bacteria » *Actinomycetota* » *Acidimicrobiia* » *Acidimicrobiales* » *Poriferisodalaceae* » *Poriferisodalis*

References

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

Registry URL

<https://seqco.de/i:23720>

Genus *Hopanoidiivorans*

Etymology

[Ho.pa.no.i.di.i.vo'rans] **N.L. neut. n.** *hopanoidium*, hopanoid; **L. pres. part.** *vorans*, eating; **N.L. neut. n.** *Hopanoidivorans*, one that eats hopanoids

Nomenclatural type

Species *Hopanoidivorans cymbastelae*^{Ts}

Classification

Bacteria » *Actinomycetota* » *Acidimicrobiia* » *Acidimicrobiales* » *Hopanoidivorantaceae* » *Hopanoidivorans*

References

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

Registry URL

<https://seqco.de/i:23718>

Species *Spongiisocius variivorans*^{Ts}

Etymology

[va.ri.i.vo'rans] **L. masc. adj.** *varius*, diverse; **L. pres. part.** *vorans*, eating; **N.L. masc. adj.** *variivorans*, one with diversified eating

Nomenclatural type

[NCBI Assembly: GCA_028279005.1](#)^{Ts}

Description

Symbiont associated with 31 sponge species. Predicted to be capable of utilizing multiple different types of electron donors, including sn-glycerol 3-phosphate, (S)-hydroxyglutarate, (S)-lactate, (S)-2-hydroxybutanoate, choline, glycolate, and FADH₂.

Classification

Bacteria » *Actinomycetota* » *Acidimicrobiia* » *Spongiisociales* » *Spongiisociaceae* » *Spongiisocius* » *Spongiisocius variivorans*^{Ts}

References

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

Registry URL

<https://seqco.de/i:23655>

Species *Poriferisocius aerobius*^{Ts}

Etymology

[ae.ro'bi.us] **Gr. masc. n.** *aer*, air; **Gr. masc. n.** *bios*, life; **N.L. masc. adj.** *aerobius*, one who lives with air

Nomenclatural type

[NCBI Assembly: GCA_028278955.1](#)^{Ts}

Description

Symbiont found to be enriched in sponge microbiomes, and no other environments.

Classification

Bacteria » *Actinomycetota* » *Acidimicrobiia* » *Acidimicrobiales* » *Hopanoidivorantaceae* » *Poriferisocius* » *Poriferisocius aerobius*^{Ts}

References

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

Registry URL

<https://seqco.de/i:23658>

Species *Poriferisocius anaerobius*

Etymology

[a.nae.ro'bi.us] Gr. pref. *an-*, not; Gr. masc. n. *aer*, air; Gr. masc. n. *bios*, life; N.L. masc. adj. *anaerobius*, one who lives without air

Nomenclatural type

[NCBI Assembly: GCA_028278785.1](#)^{Ts}

Description

Symbiont found to be enriched in sponge microbiomes, and no other environments. Predicted to be capable of growth under anoxic conditions with fumarate and hydrogen peroxide as electron acceptors

Classification

Bacteria » *Actinomycetota* » *Acidimicrobiia* » *Acidimicrobiales* » *Hopanoidiivorantaceae* » *Poriferisocius* » *Poriferisocius anaerobius*

References

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

Registry URL

<https://seqco.de/i:23659>

Species *Poriferisodalis multihospitum*^{Ts}

Etymology

[mu.lt.i.hos.pi'tum] L. masc. adj. *multus*, numerous; L. masc. n. *hospes*, a host; N.L. masc. adj. *multihospitum*, one who lives with multiple hosts

Nomenclatural type

[NCBI Assembly: GCA_028278755.1](#)^{Ts}

Description

Sponge symbiont found in many sponges species and predict to be a facultatively aerobic chemoorganoheterotroph and capable of assimilating nitrogen, sulfur, and carbon from diverse sources.

Classification

Bacteria » *Actinomycetota* » *Acidimicrobiia* » *Acidimicrobiales* » *Poriferisodalaceae* » *Poriferisodalis* » *Poriferisodalis multihospitum*^{Ts}

References

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

Registry URL

<https://seqco.de/i:23660>

Species *Aldehydirespirator catecholifindens*^{Ts}

Etymology

[ca.te.cho.li.fin'dens] N.L. neut. n. *catecholum*, catechol; L. v. *findo*, to split; N.L. masc. part. adj. *catecholifindens*, one with the ability to split catechols

Nomenclatural type

[NCBI Assembly: GCA_028283245.1](#)^{Ts}

Description

Sponge-derived acidimicrobiial species with the predicted capability to degrade catechol. Its electron transport chain may also rely on acetaldehyde reduction for menaquinol/menaquinone cycling

Classification

Bacteria » *Actinomycetota* » *Acidimicrobiia* » *Acidimicrobiales* » *Aldehydirespiratoraceae* » *Aldehydirespirator* » *Aldehydirespirator catecholifindens*^{Ts}

References

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

Registry URL

<https://seqco.de/i:24017>

Species *Hopanoidiivorans cymbastelae*^{Ts}**Etymology**

[cym.bas.te'lae] N.L. gen. n. *cymbastelae*, from the sponge genus *Cymbastela*

Nomenclatural type

[NCBI Assembly: GCA_028283145.1](#)^{Ts}

Description

A highly host-specific sponge symbiont, found so far exclusively in *C. coralliophila*. Predicted capacity to produce hopanoids.

Classification

Bacteria » *Actinomycetota* » *Acidimicrobiia* » *Acidimicrobiales* » *Hopanoidiivorantaceae* » *Hopanoidiivorans* » *Hopanoidiivorans cymbastelae*^{Ts}

References

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

Registry URL

<https://seqco.de/i:23657>

References

1. Nguyen et al. (2023). Identification, classification, and functional characterization of novel sponge-associated acidimicrobiial species. *Systematic and Applied Microbiology*. [DOI:10.1016/j.syapm.2023.126426](https://doi.org/10.1016/j.syapm.2023.126426)

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.v1sky3wb submitted by **Thomas, Torsten** and including 16 new names has been successfully validated.

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