

Co-occurring nitrifying symbionts of marine sponges

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Table 1: Complete list of names proposed in the current register list.

Proposed Taxon	Etymology	Description	Parent Taxon	Type	Registry URL
Genus <i>Nitrosokoinonia</i>	[Ni.tro.so.ko.i.no'ni.a] N.L. pref. <i>nitroso-</i> , full of natron, nitrous; Gr. fem. n. <i>koinonia</i> , fellowship, joint participation, partnership; N.L. fem. n. <i>Nitrosokoinonia</i> , partner that consumes ammonia		<i>Nitrosopumilaceae</i>	<i>Nitrosokoinonia keratosae</i> ^{Ts}	seqco.de/i:33354
Genus <i>Nitrosymbium</i>	[Ni.tro.sym.bi'um] N.L. pref. <i>nitro-</i> , pertaining to nitrate; Gr. pref. <i>sym-</i> , together; Gr. masc. n. <i>bios</i> , life; N.L. neut. n. <i>Nitrosymbium</i> , nitrate-forming symbiont	nitrite-oxidizing bacteria associated with marine sponges; they gain energy for CO ₂ fixation via the oxidation of nitrite to nitrate; belonging to the lineage IVb <i>Nitrospirales</i> (previously referred to as “bin75”); members of this genus are predominantly associated with marine sponges (i.e., <i>Aplysina aerophoba</i> , <i>Coscinoderma matthewsi</i> , <i>Ircinia ramosa</i> , <i>Ircinia</i> sp., and <i>Stylissa flabelliformis</i>).	<i>Nitrospiraceae</i>	<i>Nitrosymbium coscinodermae</i> ^{Ts}	seqco.de/i:33379
Species <i>Nitrosokoinonia keratosae</i> ^{Ts}	[ke.ra.to'sae] N.L. gen. n. <i>keratosae</i> , of <i>Keratos</i> , a subclass of <i>Demospongiae</i> , comprising horny sponges with a spongin skeleton and without spicules, referring to the subclass of the host organism	An ammonia-oxidizing, nitrite-producing archaeon associated with keratose sponges. Phylogenetically affiliated with the order <i>Nitrosopumilales</i> , phylum <i>Thermoproteota</i> (syn. <i>Crenarchaeota</i>). The metagenome-assembled genome (MAG) is 97.57% complete and has 0.00% contamination. It consists of 162 scaffolds, with a total of 1 505 883 bp. The DNA G + C content is 45.56%. <i>Nitrosokoinonia keratosae</i> was recovered from the tissue of two closely related marine sponge species (<i>I. ramosa</i> and <i>C. matthewsi</i>), collected at Great Barrier Reef in Queensland (Australia).	<i>Nitrosokoinonia</i>	NCBI Assembly: GCA_009843815.1 ^{Ts}	seqco.de/i:54845
		Phylogenetically affiliated with the order			

Proposed Taxon	Etymology	Description	Parent Taxon	Type	Registry URL
Species <i>Nitrosymbium coscinodermæ</i> ^{Ts}	gen. n. <i>coscinodermæ</i> , [cos.ci.no.der mæ] N.L. of <i>Coscinoderma</i> , referring to the sponge host genus	<i>Nitrospirales</i> , phylum <i>Nitrospirota</i> . The MAG is 98.64% complete Description 98.64% contamination. It consists of 38 scaffolds, with a total of 2 506 777 bp. The DNA G + C content is 56.70%. <i>Nitrosymbium coscinodermæ</i> was recovered from the tissue of the marine sponge <i>Coscinoderma matthewsi</i> , collected at the in-shore coral reef location Falcon Island (Great Barrier Reef, Queensland, Australia).	<i>Nitrosymbium</i>	NCBI Assembly: GCA_011523385.1 ^{Ts}	seqco.de/i:54846