

Register list for 57 new names including Actinopolariaceae fam. nov.

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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
Class <i>Nanosomnibacteria</i>	[Na.no.som.ni.bac.te'ri.a] N.L. masc. n. <i>Nanosomnibacter</i> , referring to the type genus <i>Nanosomnibacter</i> ; <i>-ia</i> , ending to denote a class; N.L. neut. pl. n. <i>Nanosomnibacteria</i> , the <i>Nanosomnibacter</i> class	The taxon is equivalent to placeholder class c_UBA1384 under the GTDB R220.	<i>Patescibacteriota</i>	<i>Nanosomnibacter</i>	seqco.de/i:51206
Order <i>Actinopolaridales</i>	[Ac.ti.no.po.la.ri.da'les] N.L. fem. n. <i>Actinopolaris</i> , referring to the type genus <i>Actinopolaris</i> ; <i>-ales</i> , ending to denote an order; N.L. fem. pl. n. <i>Actinopolaridales</i> , the <i>Actinopolaris</i> order	The taxon is equivalent to placeholder order o_CADDZG01 under the GTDB R220.	<i>Aridivitia</i>	<i>Actinopolaris</i>	seqco.de/i:51183
Order <i>Actinosomnolentales</i>	[Ac.ti.no.som.no.len.ta'les] N.L. masc. n. <i>Actinosomnolentus</i> , referring to the type genus <i>Actinosomnolentus</i> ; <i>-ales</i> , ending to denote an order; N.L. fem. pl. n. <i>Actinosomnolentales</i> , the <i>Actinosomnolentus</i> order	The taxon is equivalent to placeholder order o_UBA4738 under the GTDB R220.	<i>Aridivitia</i>	<i>Actinosomnolentus</i>	seqco.de/i:51179
Order <i>Bungeriellales</i>	[Bun.ger'i.el.la'les] N.L. fem. n. <i>Bungeriella</i> , a little thing from Bunger Hills, East Antarctica; <i>-ales</i> , ending to denote an order; N.L. fem. pl. n. <i>Bungeriellales</i> , the <i>Bungeriella</i> order	The taxon is equivalent to placeholder order o_JAHWKV01 under the GTDB R220.	<i>Aridivitia</i>	<i>Bungeriella</i>	seqco.de/i:51187
Order <i>Cryogemmatales</i>	[Cry.o.gem.ma.ta'les] N.L. fem. n. <i>Cryogemmata</i> , a Gemmatimonadota from the cold.; <i>-ales</i> , ending to denote	The taxon is equivalent to placeholder order	<i>Gemmatimonadia</i>	<i>Cryogemmata</i>	seqco.de/i:51202

Proposed Taxon	Etymology an order; N.L. fem. pl. n. <i>Cryogemmatales</i> , the	Description o_JACCXV01 under the GTDB R220.	Parent Taxon	Type	Registry URL
	Cryogemmata order				
Order <i>Dormimicrobiales</i>	[Dor.mi.mi.cro.bi.a'les] N.L. neut. n. <i>Dormimicrobium</i> , a dormant microbe; <i>-ales</i> , ending to denote an order; N.L. fem. pl. n. <i>Dormimicrobiales</i> , the <i>Dormimicrobium</i> order	The taxon is equivalent to placeholder order o_JACDCP01 under the GTDB R220.	<i>Gammaproteobacteria</i>	<i>Dormimicrobium</i>	seqco.de/j:51219
Order <i>Nanosomnibacterales</i>	[Na.no.som.ni.bac.te.ra'les] N.L. masc. n. <i>Nanosomnibacter</i> , referring to the type genus <i>Nanosomnibacter</i> ; <i>-ales</i> , ending to denote an order; N.L. fem. pl. n. <i>Nanosomnibacterales</i> , the <i>Nanosomnibacter</i> order	The taxon is equivalent to placeholder order o_CAILIB01 under the GTDB R220.	<i>Nanosomnibacteria</i>	<i>Nanosomnibacter</i>	seqco.de/j:51207
Family <i>Actinopolaridaceae</i>	[Ac.ti.no.po.la.ri.da'ce.ae] N.L. fem. n. <i>Actinopolaris</i> , referring to the type genus <i>Actinopolaris</i> ; <i>-aceae</i> , ending to denote a family; N.L. fem. pl. n. <i>Actinopolaridaceae</i> , the <i>Actinopolaris</i> family	The taxon is equivalent to placeholder family f_WHSQ01 under the GTDB R220.	<i>Actinopolaridales</i>	<i>Actinopolaris</i>	seqco.de/j:51184
Family <i>Actinosomnolentaceae</i>	[Ac.ti.no.som.no.len.ta'ce.ae] N.L. masc. n. <i>Actinosomnolentus</i> , referring to the type genus <i>Actinosomnolentus</i> ; <i>-aceae</i> , ending to denote a family; N.L. fem. pl. n. <i>Actinosomnolentaceae</i> , the <i>Actinosomnolentus</i> family	The taxon is equivalent to placeholder family f_UBA4738 under the GTDB R220.	<i>Actinosomnolentales</i>	<i>Actinosomnolentus</i>	seqco.de/j:51180
Family <i>Bungeriellaceae</i>	[Bun.ger'i.el.la'ce.ae] N.L. fem. n. <i>Bungeriella</i> , a little thing from Bunger Hills, East Antarctica; <i>-aceae</i> , ending to denote a family; N.L. fem. pl. n. <i>Bungeriellaceae</i> , the <i>Bungeriella</i> family	The taxon is equivalent to placeholder family f_JAHWKV01 under the GTDB R220.	<i>Bungeriellales</i>	<i>Bungeriella</i>	seqco.de/j:51188

Proposed Taxon	Etymology	Description	Parent Taxon	Type	Registry URL
Family <i>Cryogemmataceae</i>	[Cry.o.gem.ma.ta'ce.ae] N.L. fem. n. <i>Cryogemmata</i> , a Gemmatimonadota from the cold.; <i>-aceae</i> , ending to denote a family; N.L. fem. pl. n. <i>Cryogemmataceae</i> , the Cryogemmata family	The taxon is equivalent to placeholder family f_JAHWKZ01 under the GTDB R220.	<i>Cryogemmatales</i>	<i>Cryogemmata</i>	seqco.de/i:51203
Family <i>Dormimicrobiaceae</i>	[Dor.mi.mi.cro.bi.a'ce.ae] N.L. neut. n. <i>Dormimicrobium</i> , a dormant microbe; <i>-aceae</i> , ending to denote a family; N.L. fem. pl. n. <i>Dormimicrobiaceae</i> , the Dormimicrobium family	The taxon is equivalent to placeholder family f_JACDCP01 under the GTDB R220.	<i>Dormimicrobiales</i>	<i>Dormimicrobium</i>	seqco.de/i:51220
Family <i>Frigidisphaeraceae</i>	[Fri.gi.di.sphae.ra'ce.ae] N.L. fem. n. <i>Frigidisphaera</i> , referring to the type genus <i>Frigidisphaera</i> ; <i>-aceae</i> , ending to denote a family; N.L. fem. pl. n. <i>Frigidisphaeraceae</i> , the <i>Frigidisphaera</i> family	The taxon is equivalent to placeholder family f_UBA1924 under the GTDB R220.	<i>Phycisphaerales</i>	<i>Frigidisphaera</i>	seqco.de/i:51211
Family <i>Nanosomnibacteraceae</i>	[Na.no.som.ni.bac.te.ra'ce.ae] N.L. masc. n. <i>Nanosomnibacter</i> , referring to the type genus <i>Nanosomnibacter</i> ; <i>-aceae</i> , ending to denote a family; N.L. fem. pl. n. <i>Nanosomnibacteraceae</i> , the <i>Nanosomnibacter</i> family	The taxon is equivalent to placeholder family f_CAILIB01 under the GTDB R220.	<i>Nanosomnibacterales</i>	<i>Nanosomnibacter</i>	seqco.de/i:51208
Family <i>Ventifactibacteraceae</i>	[Ven.ti.fact.i.bac.te.ra'ce.ae] N.L. masc. n. <i>Ventifactibacter</i> , the ventifact bacterium; <i>-aceae</i> , ending to denote a family; N.L. fem. pl. n. <i>Ventifactibacteraceae</i> , the <i>Ventifactibacter</i> family	The taxon is equivalent to placeholder family f_B-1AR under the GTDB R220.	<i>Tepidaquicellales</i>	<i>Ventifactibacter</i>	seqco.de/i:51197
Genus <i>Actinopolaris</i>	[Ac.ti.no.po.la'ris] Gr. gen. n. <i>aktinos</i> , ray; used to refer to Actinomycetota members; N.L. fem. gen. n. <i>polaris</i> , of, or pertaining to, a pole; N.L.	New genus defined based on the lack of proximal relatives within the placeholder family	<i>Actinopolaridaceae</i>	<i>Actinopolaris aerotropha</i> ^{TS}	seqco.de/i:51185

Proposed Taxon	fem. n. <i>Actinopolaris</i> , an Actinomycetota from the pole Etymology	f_WHSO01 Description (=Actinopolaridaceae).	Parent Taxon	Type	Registry URL
Genus <i>Actinosomnolentus</i>	[Ac.ti.no.som.no.len'tus] Gr. gen. n. <i>aktinos</i> , of a ray, used to refer to Actinomycetota; L. masc. adj. <i>somnolentus</i> , sleepy or drowsy; N.L. masc. n. <i>Actinosomnolentus</i> , the dormant/sleepy Actinomycetota	The taxon is equivalent to placeholder genus g_JACDCJ01 under the GTDB R220.	<i>Actinosomnolentaceae</i>	<i>Actinosomnolentus pattersoniae</i> ^{TS}	seqco.de/i:51181
Genus <i>Bungeriella</i>	[Bun.ger'i.el'la] N.L. fem. n. <i>Bungeriella</i> , a little thing from Bunger Hills, East Antarctica	The taxon is equivalent to placeholder genus g_JAJCYE01 under the GTDB R220.	<i>Bungeriellaceae</i>	<i>Bungeriella frigidisoli</i> ^{TS}	seqco.de/i:51189
Genus <i>Cryogemmata</i>	[Cry.o.gem.ma'ta] Gr. neut. n. <i>kryos</i> , icy cold; L. fem. perf. part. <i>gemmata</i> , bejeweled; used to refer to taxa of Gemmatimonadota phylum; N.L. fem. n. <i>Cryogemmata</i> , a Gemmatimonadota from the cold.	New genus defined based on the lack of proximal relatives within the placeholder family f_JAHWKZ01 (=Cryogemmataceae).	<i>Cryogemmataceae</i>	<i>Cryogemmata carboxiditropha</i> ^{TS}	seqco.de/i:51204
Genus <i>Cryolimnoglobus</i>	[Cry.o.lim.no.glo'bus] Gr. neut. n. <i>kryos</i> , icy cold; N.L. masc. n. <i>Limnoglobus</i> , a bacterial genus; N.L. masc. n. <i>Cryolimnoglobus</i> , a <i>Limnoglobus</i> bacterium from the cold	New genus defined based on the lack of proximal relatives within the family (Gemmataceae).	<i>Gemmataceae</i>	<i>Cryolimnoglobus antarcticus</i> ^{TS}	seqco.de/i:51214
Genus <i>Cryoornithinimicrobium</i>	[Cry.o.or.ni.thi.ni.mi.cro'bi.um] Gr. neut. n. <i>kryos</i> , icy cold; N.L. neut. n. <i>Ornithinimicrobium</i> , a bacterial genus; N.L. neut. n. <i>Cryoornithinimicrobium</i> , an <i>Ornithinimicrobium</i> from the cold	The taxon is equivalent to placeholder genus g_Ornithinimicrobium_A under the GTDB R220.	<i>Dermatophilaceae</i>	<i>Cryoornithinimicrobium bungerii</i> ^{TS}	seqco.de/i:51176
Genus	[Cry.o.ter.ri.mi.cro'bi.um] Gr. neut. n. <i>kryos</i> , icy cold; N.L. neut. n. <i>Terrimicrobium</i> , a	New genus defined based on the lack of proximal relatives within the		<i>Cryoterrimicrobium</i>	

<i>Cryoterrimicrobium</i> Proposed Taxon	bacterial genus: N.L. neut. n. Etymology <i>Cryoterrimicrobium</i> , a	family Description (Terrimicrobiaceae).	<i>Terrimicrobiaceae</i> Parent Taxon	<i>chapmaniae</i> ^{Ts} Type	seqco.de/i:51223 Registry URL
	Terrimicrobium from the cold				
Genus <i>Dormimicrobium</i>	[Dor.mi.mi.cro'bi.um] L. v. <i>dormio</i> , sleep; N.L. neut. n. <i>microbium</i> , a microbe; N.L. neut. n. <i>Dormimicrobium</i> , a dormant microbe	The taxon is equivalent to placeholder genus g_JACDCP01 under the GTDB R220.	<i>Dormimicrobiaceae</i>	<i>Dormimicrobium</i> <i>murphyi</i> ^{Ts}	seqco.de/i:51221
Genus <i>Frigidisolicola</i>	[Fri.gi.di.so.li'co.la] L. neut. adj. <i>frigidus</i> , cold, frigid; L. neut. n. <i>solum</i> , soil; L. masc. / fem. suff. <i>-cola</i> , inhabitant of, dweller; N.L. fem. n. <i>Frigidisolicola</i> , dweller of cold soils	New genus defined based on the lack of proximal relatives within the family (Burkholderiaceae).	<i>Burkholderiaceae</i>	<i>Frigidisolicola</i> <i>castellviae</i> ^{Ts}	seqco.de/i:51217
Genus <i>Frigidisphaera</i>	[Fri.gi.di.sphae'ra] L. neut. adj. <i>frigidus</i> , cold, frigid; Gr. fem. n. <i>sphaira</i> , a sphere; N.L. fem. n. <i>Frigidisphaera</i> , a sphere from the cold	The taxon is equivalent to placeholder genus g_JACVCS01 under the GTDB R220.	<i>Frigidisphaeraceae</i>	<i>Frigidisphaera</i> <i>bungerii</i> ^{Ts}	seqco.de/i:51212
Genus <i>Gelisolibacter</i>	[Ge.li.so.li.bac'ter] L. neut. n. <i>gelu</i> , frost, cold; L. neut. n. <i>solum</i> , soil; N.L. masc. n. <i>bacter</i> , a rod; N.L. masc. n. <i>Gelisolibacter</i> , a rod from cold soil	The taxon is equivalent to placeholder genus g_JACDBE01 under the GTDB R220.	<i>Benthobacteraceae</i>	<i>Gelisolibacter</i> <i>meridionalis</i> ^{Ts}	seqco.de/i:51174
Genus <i>Nanosomnibacter</i>	[Na.no.som.ni.bac'ter] Gr. masc. n. <i>nano</i> , a dwarf; L. masc. n. <i>somnus</i> , sleep; N.L. masc. n. <i>bacter</i> , a rod; N.L. masc. n. <i>Nanosomnibacter</i> , a small bacterium of sleep, referring to its likely dormancy	The taxon is equivalent to placeholder genus g_CALBLZ01 under the GTDB R220.	<i>Nanosomnibacteraceae</i>	<i>Nanosomnibacter</i> <i>parvus</i> ^{Ts}	seqco.de/i:51209
Genus <i>Nitrosobungeria</i>	[Ni.tro.so.bun.ge'ri.a] L. masc. adj. <i>nitrosus</i> , full of natron, here intended to mean nitrous; N.L. fem. n. <i>bungeria</i> , in reference to Bunger Hills, location in East Antarctica; N.L. fem. n. <i>Nitrosobungeria</i> , a nitrous	The taxon is equivalent to placeholder genus g_TH5893 under the GTDB R220.	<i>Nitrososphaeraceae</i>	<i>Nitrosobungeria</i> <i>shackeltonensis</i> ^{Ts}	seqco.de/i:51169

Proposed Taxon	Etymology	Description	Parent Taxon	Type	Registry URL
Genus <i>Nitrosomicrobium</i>	[Ni.tro.so.mi.cro'bi.um] L. masc. adj. <i>nitrosus</i> , full of natron, here intended to mean nitrous; N.L. neut. n. <i>microbium</i> , a microbe; N.L. neut. n. <i>Nitrosomicrobium</i> , a nitrous microbe	The taxon is equivalent to placeholder genus g_TA-21 under the GTDB R220.	<i>Nitrososphaeraceae</i>	<i>Nitrosomicrobium frigidum</i> ^{TS}	seqco.de/i:51171
Genus <i>Pseudopontibacter</i>	[Pseu.do.pon.ti.bac'ter] Gr. neut. adj. <i>pseudēs</i> , false; N.L. masc. n. <i>Pontibacter</i> , a bacterial genus; N.L. masc. n. <i>Pseudopontibacter</i> , a false Pontibacter	New genus defined based on the lack of proximal relatives within the family (Hymenobacteraceae).	<i>Hymenobacteraceae</i>	<i>Pseudopontibacter australis</i> ^{TS}	seqco.de/i:51195
Genus <i>Psychroobscuribacter</i>	[Psy.chro.obs.cu.ri.bac'ter] Gr. masc. adj. <i>psychros</i> , cold; N.L. masc. n. <i>Obscuribacter</i> , a bacterial genus; N.L. masc. n. <i>Psychroobscuribacter</i> , an Obscuribacter from the cold	The taxon is equivalent to placeholder genus g_PALSA-1081 under the GTDB R220.	<i>Obscuribacteraceae</i>	<i>Psychroobscuribacter pollutisol</i> ^{TS}	seqco.de/i:51200
Genus <i>Ventifactibacter</i>	[Ven.ti.fact.i.bac'ter] N.L. neut. n. <i>ventifactum</i> , a ventifact, rock that has been eroded by wind carrying sand or ice crystals; N.L. masc. n. <i>bacter</i> , a rod; N.L. masc. n. <i>Ventifactibacter</i> , the ventifact bacterium	New genus defined based on the lack of proximal relatives within the placeholder family f_B-1AR (=Ventifactibacteraceae).	<i>Ventifactibacteraceae</i>	<i>Ventifactibacter hollidayae</i> ^{TS}	seqco.de/i:51198
Genus <i>Wilkeslandia</i>	[Wil.kes.lan'di.a] N.L. fem. n. <i>Wilkeslandia</i> , a bacterium named after the Wilkes Land, district of Australian Antarctic Territory	New genus defined based on the lack of proximal relatives within the family (Chitinophagaceae).	<i>Chitinophagaceae</i>	<i>Wilkeslandia alcanivorans</i> ^{TS}	seqco.de/i:51193
		The type material is the metagenome assembled genome BH-24_ACT26 recovered from soil from Bunger Hills, East Antarctica. The MAG consists of 2.4 Mbp in 93			

Proposed Taxon	Etymology	Description	Parent Taxon	Type	Registry URL
Species <i>Actinopolaris aerotropha</i> ^{Ts}	[ae.ro.tro'pha] Gr. gen. n. <i>aeros</i> , air, gas; Gr. fem. adj. <i>trophos</i> , feeder; N.L. fem. adj. <i>aerotropha</i> , air-eater	contigs with an estimated completeness of 98.12% and 0.45% contamination, 16S (1903 bp), 23S (1773 bp), and 5S (117 bp) genes, and 40 tRNAs (20 unique: 19 standard plus tRNA-SeC). The GC content of this MAG is 67.4%. Predicted to be able to reduce nitrate via NO-forming nitrite reductase and oxidise trace gases, i.e., CO and H ₂ , using the aerobic CO dehydrogenase and high affinity [NiFe]-hydrogenase type 1m.	<i>Actinopolaris</i>	NCBI Assembly: GCA_965611235.1 ^{Ts}	seqco.de/i:51186
Species <i>Actinosomnolentus pattersoniae</i> ^{Ts}	[pat.ter.so'ni.ae] N.L. gen. n. <i>pattersoniae</i> , in honour to Diana Patterson, first woman to lead an Australian Antarctic research station.	The type material is the metagenome assembled genome BH-20_ACT24 recovered from soil from Bunger Hills, East Antarctica. The MAG consists of 2.5 Mbp in 107 contigs with an estimated completeness of 93.99% and 0.16% contamination, 16S (1532 bp), 23S (4576 bp), and 5S (117 bp) genes, and 47 tRNAs (21 unique: 19 standard plus tRNA-fMet and tRNA-SeC). The GC content of this MAG is 68.3%. Predicted to consume H ₂ at atmospheric levels (high affinity [NiFe]-hydrogenase type 1m). Genome also harbours catechol 2,3-dioxygenase [EC:1.13.11.2]. This species is equivalent to the placeholder species s_JACDCJ01	<i>Actinosomnolentus</i>	NCBI Assembly: GCA_965609595.1 ^{Ts}	seqco.de/i:51182

Proposed Taxon	Etymology	Description	Parent Taxon	Type	Registry URL
Species <i>Aquihabitans niveus</i>	[ni've.us] L. masc. adj. <i>niveus</i> , snowy, snow-covered	sp013817655 under the GTDB R220. The type material is the metagenome assembled genome BH-10_ACT1 recovered from soil from Bunger Hills, East Antarctica. The MAG consists of 4.7 Mbp in 189 contigs with an estimated completeness of 97.03% and 1.79% contamination, 16S (1525 bp), partial 23S (457 bp), and 5S (117 bp) genes, and 46 tRNAs (21 unique: 20 standard plus tRNA-fMet). The GC content of this MAG is 71.6%.	<i>Aquihabitans</i>	NCBI Assembly: GCA_965610895.1 ^{Ts}	seqco.de/i:51173
Species <i>Brevundimonas antarctica</i>	[an.tarc'ti.ca] L. fem. adj. <i>antarctica</i> , southern, pertaining to Antarctica	The type material is the metagenome assembled genome BH-09_PSE1 recovered from soil from Bunger Hills, East Antarctica. The MAG consists of 3.2 Mbp in 138 contigs with an estimated completeness of 92.9% and 1.66% contamination, 16S (1463 bp), and 5S (115 bp) genes, and 42 tRNAs (19 unique: 18 standard plus tRNA-fMet). The GC content of this MAG is 67.4%. Predicted to oxidise sulfur (soxB, S-sulfosulfanyl-L-cysteine sulfohydrolase [EC:3.1.6.20]).	<i>Brevundimonas</i>	NCBI Assembly: GCA_965609585.1 ^{Ts}	seqco.de/i:51216
		The type material is the metagenome assembled genome BH-23_ACT12			

Proposed Taxon	Etymology	Description	Parent Taxon	Type	Registry URL
Species <i>Bungeriella frigidisoli</i> ^{Ts}	[fri.gi.di.so'li] L. neut. adj. <i>frigidus</i> , cold, frigid; L. neut. n. solum , soil; N.L. gen. n. <i>frigidisoli</i> , from cold soil	recovered from soil from Bunger Hills, East Antarctica. The MAG consists of 2.4 Mbp in 140 contigs with an estimated completeness of 93.71% and 0.1% contamination, 16S (2399 bp) and 23S (2000 bp) genes, and 44 tRNAs (21 unique: 19 standard plus tRNA-fMet and tRNA-SeC). The GC content of this MAG is 64.7%. Predicted to fix carbon via Calvin-Benson-Bassham cycle using a RuBisCO type IE.	<i>Bungeriella</i>	NCBI Assembly: GCA_965612105.1 ^{Ts}	seqco.de/i:51190
Species <i>Cryogemmata carboxiditropha</i> ^{Ts}	[car.bo.xi.di.tro'pha] N.L. neut. adj. <i>carboxidum</i> , carbon monoxide; Gr. fem. adj. <i>trophos</i> , feeder; N.L. fem. adj. <i>carboxiditropha</i> , carbon monoxide-eater	The type material is the metagenome assembled genome BH-18_GEM1 recovered from soil from Bunger Hills, East Antarctica. The MAG consists of 2.5 Mbp in 116 contigs with an estimated completeness of 94.07% and 0.69% contamination, 16S (1572 bp) gene, and 46 tRNAs (20 unique: 18 standard plus tRNA-fMet and tRNA-SeC). The GC content of this MAG is 67.6%. Predicted to reduce nitrite (NO-forming nitrite reductase) and oxidise CO aerobically.	<i>Cryogemmata</i>	NCBI Assembly: GCA_965609615.1 ^{Ts}	seqco.de/i:51205
		The type material is the metagenome assembled genome BH-11_PLA2 recovered from soil from Bunger Hills, East			

Proposed Taxon Species	Etymology	Description	Parent Taxon	Type	Registry URL
<p><i>Cryolimnoglobus antarcticus</i>^{TS}</p>	<p>[an.tarc'ti.cus] L. masc. adj. <i>antarcticus</i>, southern, pertaining to Antarctica</p>	<p>Antarctica. The MAG consists of 6.6 Mbp in 220 contigs with an estimated completeness of 99.77% and 1.09% contamination, 16S (1504 bp), 23S (2758 bp), and 5S (109 bp) genes, and 57 tRNAs (22 unique: 20 standard plus tRNA-fMet and tRNA-SeC). The GC content of this MAG is 60.2%.</p>	<p><i>Cryolimnoglobus</i></p>	<p>NCBI Assembly: GCA_965609865.1^{TS}</p>	<p>seqco.de/i:51215</p>
<p>Species <i>Cryoornithinimicrobium bungerii</i>^{TS}</p>	<p>[bun.ge.ri'i] N.L. gen. n. <i>bungerii</i>, of Bunge, referring to Lieutenant Commander David E. Bunge, commander of the plane that first landed in Bunge Hills in February 1947</p>	<p>The type material is the metagenome assembled genome BH-23_ACT6 recovered from soil from Bunge Hills, East Antarctica. The MAG consists of 2.9 Mbp in 154 contigs with an estimated completeness of 90.24% and 0.47% contamination, 16S (1522 bp), 23S (3115 bp), and 5S (117 bp) genes, and 43 tRNAs (20 unique: 19 standard plus tRNA-fMet). The GC content of this MAG is 65.8%. Predicted to aerobically oxidise CO.</p>	<p><i>Cryoornithinimicrobium</i></p>	<p>NCBI Assembly: GCA_965610625.1^{TS}</p>	<p>seqco.de/i:51177</p>
<p>Species <i>Cryoterrimicrobium chapmaniae</i>^{TS}</p>	<p>[chap.man'i.ae] N.L. gen. n. <i>chapmaniae</i>, in honour to limnologist Ann Chapman, first woman to lead an Antarctic expedition</p>	<p>The type material is the metagenome assembled genome BH-09_VER1 recovered from soil from Bunge Hills, East Antarctica. The MAG consists of 6.1 Mbp in 69 contigs with an estimated completeness of 96.82% and 1.47% contamination, 16S (1526 bp), 23S (1995 bp), and 5S (116 bp) genes, and 58 tRNAs (21</p>	<p><i>Cryoterrimicrobium</i></p>	<p>NCBI Assembly: GCA_965610505.1^{TS}</p>	<p>seqco.de/i:51224</p>

Proposed Taxon	Etymology	Description	Parent Taxon	Type	Registry URL
		unique: 20 standard plus tRNA-fMet). The GC content of this MAG is 58.7%.			
Species <i>Dormimicrobium murphyi</i> ^{Ts}	[mur.phy'i] N.L. gen. n. <i>murphyi</i> , in honour of Herbet Dyce Murphy, Australian adventurer and explorer.	The type material is the metagenome assembled genome BH-24_PSE2 recovered from soil from Bunger Hills, East Antarctica. The MAG consists of 2.7 Mbp in 49 contigs with an estimated completeness of 100% and 0.1% contamination, 16S (1545 bp), 23S (4142 bp), and 5S (117 bp) genes, and 45 tRNAs (20 unique: 19 standard plus tRNA-fMet). The GC content of this MAG is 64.1%. Predicted to consume H ₂ at atmospheric concentrations (high affinity [NiFe]-hydrogenase type 1l).	<i>Dormimicrobium</i>	NCBI Assembly: GCA_965610025.1 ^{Ts}	seqco.de/i:51222
Species <i>Fimbriimonas antarctica</i>	[an.tarc'ti.ca] L. fem. adj. <i>antarctica</i> , southern, pertaining to Antarctica	The type material is the metagenome assembled genome BH-11_ARM2 recovered from soil from Bunger Hills, East Antarctica. The MAG consists of 4.0 Mbp in 138 contigs with an estimated completeness of 98.05% and 0.03% contamination, 16S (1507 bp), partial 23S (1480 bp), and 5S (117 bp) genes, and 47 tRNAs (22 unique: 20 standard plus tRNA-fMet and tRNA-SeC). The GC content of this MAG is 62.1%.	<i>Fimbriimonas</i>	NCBI Assembly: GCA_965610675.1 ^{Ts}	seqco.de/i:51191

Proposed Taxon	Etymology	Description	Parent Taxon	Type	Registry URL
Species <i>Frigidisolicola castellviae</i> ^{TS}	[cas.tell.vi.ae] N.L. gen. n. <i>castellviae</i> , in honor of Josefina Castellví, the first Spanish woman to participate in and coordinate an international expedition to Antarctica	The type material is the metagenome assembled genome BH-10_PSE17 recovered from soil from Bunger Hills, East Antarctica. The MAG consists of 4.2 Mbp in 112 contigs with an estimated completeness of 94.52% and 0.82% contamination, 16S (1531 bp), 23S (1860 bp), and 5S (114 bp) genes, and 45 tRNAs (21 unique: 19 standard plus tRNA-fMet and tRNA-SeC). The GC content of this MAG is 66.5%. Predicted to degrade hydrocarbons (long-chain alkane monooxygenase [EC:1.14.14.28], and phthalate 4,5-dioxygenase [EC:1.14.12.7]).	<i>Frigidisolicola</i>	NCBI Assembly: GCA_965609575.1 ^{TS}	seqco.de/i:51218
Species <i>Frigidisphaera bungerii</i> ^{TS}	[bun.ge.ri'i] N.L. gen. n. <i>bungerii</i> , of Bunger, referring to Lieutenant Commander David E. Bunger, commander of the plane that first landed in Bunger Hills in February 1947	The type material is the metagenome assembled genome BH-11_PLA1 recovered from soil from Bunger Hills, East Antarctica. The MAG consists of 3.2 Mbp in 39 contigs with an estimated completeness of 90.62% and 0.36% contamination, 16S (1484 bp), 23S (2744 bp), and 5S (107 bp) genes, and 47 tRNAs (21 unique: 20 standard plus tRNA-fMet). The GC content of this MAG is 67.5%.	<i>Frigidisphaera</i>	NCBI Assembly: GCA_965611835.1 ^{TS}	seqco.de/i:51213

Proposed Taxon	Etymology	Description	Parent Taxon	Type	Registry URL
Species <i>Gelisolibacter meridionalis</i> ^{Ts}	[me.ri.dio.na'lis] L. masc. adj. <i>meridionalis</i> , southern; referring to the southern hemisphere	The type material is the metagenome assembled genome BH-24_ACT7 recovered from soil from Bunger Hills, East Antarctica. The MAG consists of 2.8 Mbp in 109 contigs with an estimated completeness of 98.4% and 2.8% contamination, 16S (1526 bp), 23S (3088 bp), and 5S (117 bp) genes, and 50 tRNAs (21 unique: 20 standard plus tRNA-fMet). The GC content of this MAG is 69.7%. Predicted to reduce nitrite (NO-forming nitrite reductase) and oxidise CO aerobically.	<i>Gelisolibacter</i>	NCBI Assembly: GCA_965610425.1 ^{Ts}	seqco.de/i:51175
Species <i>Nanosomnibacter parvus</i> ^{Ts}	[par'vus] L. masc. adj. <i>parvus</i> , small	The type material is the metagenome assembled genome BH-11_PAT4 recovered from soil from Bunger Hills, East Antarctica. The MAG consists of 0.9 Mbp in 17 contigs with an estimated completeness of 93.99% and 0.08% contamination, 16S (1475 bp), 23S (3502 bp), and 5S (117 bp) genes, and 42 tRNAs (21 unique: 20 standard plus tRNA-fMet). The GC content of this MAG is 51.3%.	<i>Nanosomnibacter</i>	NCBI Assembly: GCA_965609665.1 ^{Ts}	seqco.de/i:51210
		The type material is the metagenome assembled genome BH-18_THE2 recovered from soil from Bunger Hills, East			

Proposed Taxon	Etymology	Description	Parent Taxon	Type	Registry URL
Species <i>Nitrosobungeria shackeltonensis</i> ^{Ts}	[shac.kel.ton.en'sis] N.L. fem. adj. <i>shackeltonensis</i> , of the Shackelton ice shelf, East Antarctica, where Bunger Hills are located	Antarctica. The MAG consists of 3.6 Mbp in 204 contigs with an estimated completeness of 99.1% and 1.46% contamination, 16S (1472 bp), 23S (2054 bp), and 5S (120 bp) genes, and 46 tRNAs (21 unique: 20 standard plus tRNA-iMet). The GC content of this MAG is 37.8%. Predicted to be an ammonia oxidising archaeon.	<i>Nitrosobungeria</i>	NCBI Assembly: GCA_965610195.1 ^{Ts}	seqco.de/i:51170
Species <i>Nitrosomicrobium frigidum</i> ^{Ts}	[fri'gi.dum] L. neut. adj. <i>frigidum</i> , cold, frigid	The type material is the metagenome assembled genome BH-18_THE1 recovered from soil from Bunger Hills, East Antarctica. The MAG consists of 2.0 Mbp in 231 contigs with an estimated completeness of 92.59% and 2.56% contamination, 16S (1469 bp), 23S (2048 bp), and 5S (120 bp) genes, and 43 tRNAs (20 unique: 19 standard plus tRNA-iMet). The GC content of this MAG is 35.8%. Predicted to be an ammonia oxidising archaeon. This species is equivalent to the placeholder species s_TA-21 sp023251115 under the GTDB R220.	<i>Nitrosomicrobium</i>	NCBI Assembly: GCA_965610995.1 ^{Ts}	seqco.de/i:51172
		The type material is the metagenome assembled genome BH-09_ACT11 recovered from soil from Bunger Hills, East Antarctica. The MAG			

Proposed Taxon	Etymology	Description	Parent Taxon	Type	Registry URL
Species <i>Nocardioides polaris</i>	[po.la'ris] L. fem. adj. <i>polaris</i> , of, or pertaining to, a pole	consists of 2.5 Mbp in 55 contigs with an estimated completeness of 94.69% and 0% contamination, 16S (1525 bp) and 5S (117 bp) genes, and 42 tRNAs (19 unique standard). The GC content of this MAG is 67%. Predicted to aerobically oxidise CO.	<i>Nocardioides</i>	NCBI Assembly: GCA_965609905.1 ^{Ts}	seqco.de/i:51178
Species <i>Panacibacter polaris</i>	[po.la'ris] L. masc. adj. <i>polaris</i> , of, or pertaining to, a pole	The type material is the metagenome assembled genome BH-10_BAC2 recovered from soil from Bunger Hills, East Antarctica. The MAG consists of 5.9 Mbp in 81 contigs with an estimated completeness of 100% and 0.07% contamination, 16S (1529 bp) and 23S (2541 bp) genes, and 48 tRNAs (21 unique: 20 standard plus tRNA-fMet). The GC content of this MAG is 38.5%. Predicted to aerobically oxidise CO, and reduce nitrite (NO-forming nitrite reductase). Genome also harbours a catechol 2,3-dioxygenase [EC:1.13.11.2] and a sensory rhodopsin.	<i>Panacibacter</i>	NCBI Assembly: GCA_965610815.1 ^{Ts}	seqco.de/i:51192
Species <i>Pseudopontibacter</i>	[aus.tra'lis] L. masc. adj.	The type material is the metagenome assembled genome BH-24_BAC1 recovered from soil from Bunger Hills, East Antarctica. The MAG consists of 5.6 Mbp in 1179 contigs with an estimated completeness	<i>Pseudopontibacter</i>	NCBI Assembly:	seqco.de/i:51196

<i>australis</i> ^{Ts} Proposed Taxon	<i>australis</i> , southern Etymology	of 98.42% and 2.26% Description contamination, 16S	Parent Taxon	GCA_965611985.1 ^{Ts} Type	Registry URL
		(1521 bp), 23S (212 bp), and 5S (112 bp) genes, and 28 tRNAs (17 unique standard). The GC content of this MAG is 54.5%.			
Species <i>Psychroobscuribacter pollutisoli</i> ^{Ts}	[pol.lu.ti.so'li] L. masc. perf. part. <i>pollutus</i> , polluted; L. neut. n. <i>solum</i> , soil; N.L. gen. n. <i>pollutisoli</i> , of polluted soil	The type material is the metagenome assembled genome BH-10_CYA1 recovered from soil from Bunger Hills, East Antarctica. The MAG consists of 7.5 Mbp in 91 contigs with an estimated completeness of 100% and 4.31% contamination, 16S (1508 bp), 23S (2963 bp), and 5S (116 bp) genes, and 66 tRNAs (22 unique: 20 standard plus tRNA-fMet and tRNA-SeC). The GC content of this MAG is 49%. Predicted to be involved in nitrogen cycling (nitrate reductase, NarG; and nitric oxide reductase, NorB). The genome also harbours a sensory rhodopsin but no photosynthetic machinery.	<i>Psychroobscuribacter</i>	NCBI Assembly: GCA_965610205.1 ^{Ts}	seqco.de/i:51201
Species	[hol.li.day'ae] N.L. gen. n. <i>hollidayae</i> , in honour of Dr Louise Holliday, the first	The type material is the metagenome assembled genome BH-10_BAC5 recovered from soil from Bunger Hills, East Antarctica. The MAG consists of 3.4 Mbp in 46 contigs with an estimated completeness of 99.02% and 1.73%			

<i>Ventifactibacter hollidayae</i> Proposed Taxon	<i>Ventifactibacter</i> Etymology	<i>Ventifactibacter</i> Description	<i>Ventifactibacter</i> Parent Taxon	NCBI Assembly: Type GCA_965610795.1 ^{Ts}	seqco.de/i:51199 Registry URL
	woman to winter in Antarctica for the Australian Antarctic Program serving as medical officer at Davis station	contamination, 16S (1518 bp), 23S (2939 bp), and 5S (115 bp) genes, and 42 tRNAs (21 unique: 20 standard plus tRNA-fMet). The GC content of this MAG is 35.2%. Predicted to be able to reduce nitrite (nitrite reductase (NO-forming) [EC:1.7.2.1]).			
Species <i>Verrucomicrobium antarcticum</i>	[an.tarc'ti.cum] L. neut. adj. <i>antarcticum</i> , southern, pertaining to Antarctica	The type material is the metagenome assembled genome BH-11_VER1 recovered from soil from Bunger Hills, East Antarctica. The MAG consists of 5.0 Mbp in 86 contigs with an estimated completeness of 99.66% and 0.58% contamination, 16S (1537 bp), 23S (2844 bp), and 5S (116 bp) genes, and 45 tRNAs (21 unique: 20 standard plus tRNA-fMet). The GC content of this MAG is 55%. Predicted to degrade phthalate (phthalate 4,5-dioxygenase [EC:1.14.12.7]).	<i>Verrucomicrobium</i>	NCBI Assembly: GCA_965611755.1 ^{Ts}	seqco.de/i:51225
	[al.ca.ni'vo.rans] N.L. neut. n. <i>alcanum</i> , alkane, aliphatic	The type material is the metagenome assembled genome BH-09_BAC2 recovered from soil from Bunger Hills, East Antarctica. The MAG consists of 2.6 Mbp in 16 contigs with an estimated completeness of 100% and 0.12% contamination, 16S (1527 bp), 23S (2941			

Species <i>Wilkeslandia alcanivorans</i> ^{TS} Proposed Taxon	Etymology L. part. adj. <i>vorans</i> , devourer; N.L. fem.	Description bp), and 5S (117 bp) genes, and 35 tRNAs (21	<i>Wilkeslandia</i> Parent Taxon	NCBI Assembly: GCA_965609825.1 ^{TS} Type	Registry URL
	part. adj. <i>alcanivorans</i> , devourer of alkanes	unique: 20 standard plus tRNA-fMet). The GC content of this MAG is 37.5%. Predicted to degrade alkanes (alkane 1-monooxygenase) and at least capable of partial denitrification (predicted nitrous-oxide reductase [EC:1.7.2.4], and nitric oxide reductase subunit B [EC:1.7.2.5]).			