

# Register list for 44 new names including *Fervidifonticulator octavus* sp. nov.

Submitted by Liu, Lan

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

| Proposed Taxon                      | Etymology   | Description  | Parent Taxon            | Type                   | Registry URL  |
|-------------------------------------|---|--|-------------------------|------------------------|---|
| Phylum <i>Sysuimicrobiota</i>       | [Sy.su.i.mic.ro'bi.o'ta] N.L. neut. n. <i>Sysuimicrobium</i> , type genus of the phylum; <i>-ota</i> , ending to denote a phylum; N.L. pl. neut. n. <i>Sysuimicrobiota</i> , the <i>Sysuimicrobium</i> phylum                     | A phylum established on the basis of AAI, ANI, dDDH and phylogenomic analyses.   | <i>Bacteria</i>         | <i>Sysuimicrobium</i>  | <a href="https://seqco.de/i:32755">seqco.de/i:32755</a> |
| Class <i>Sysuimicrobiia</i>         | [Sy.su.i.mic.ro'bi.ia] N.L. neut. n. <i>Sysuimicrobium</i> , referring to the type genus <i>Sysuimicrobium</i> ; <i>-ia</i> , ending to denote a class; N.L. neut. pl. n. <i>Sysuimicrobiia</i> , the <i>Sysuimicrobium</i> class | A class established on the basis of AAI, ANI, dDDH and phylogenomic analyses, and is classified as a member of the <i>Sysuimicrobiota</i> phylum.  | <i>Sysuimicrobiota</i>  | <i>Sysuimicrobium</i>  | <a href="https://seqco.de/i:32781">seqco.de/i:32781</a> |
| Order <i>Sysuimicrobiales</i>       | [Sy.su.i.mi.cro'bi.a'les] N.L. neut. n. <i>Sysuimicrobium</i> , type genus of the order; <i>-ales</i> , ending to denote an order; N.L. fem. pl. n. <i>Sysuimicrobiales</i> , the <i>Sysuimicrobium</i> order                     | A order established on the basis of AAI, ANI, dDDH and phylogenomic analyses, and is classified as a member of the <i>Sysuimicrobiia</i> class.    | <i>Sysuimicrobiia</i>   | <i>Sysuimicrobium</i>  | <a href="https://seqco.de/i:32782">seqco.de/i:32782</a> |
| Family<br><i>Kaftiobacteriaceae</i> | [Kaf.ti.o.bac.te.ri.a.ce'ae] N.L. neut. n. <i>Kaftiobacterium</i> , type genus of the family; L. suff. <i>aceae</i> , ending to denote a family; N.L. fem. pl. n. <i>Kaftiobacteriaceae</i> , the <i>Kaftiobacterium</i> family   | A family established on the basis of AAI, ANI, dDDH and phylogenomic analyses, and is classified as a member of the <i>Sysuimicrobiales</i> order. | <i>Sysuimicrobiales</i> | <i>Kaftiobacterium</i> | <a href="https://seqco.de/i:32799">seqco.de/i:32799</a> |
| Family<br><i>Sysuimicrobiaceae</i>  | [Sy.su.i.mi.cro.bi.a.ce'ae] N.L. neut. n. <i>Sysuimicrobium</i> , type genus of the family; <i>-aceae</i> , ending to denote a family; N.L. fem. pl. n. <i>Sysuimicrobiaceae</i> , the <i>Sysuimicrobium</i> family               | A family established on the basis of AAI, ANI, dDDH and phylogenomic analyses, and is classified as a member of the <i>Sysuimicrobiales</i> order. | <i>Sysuimicrobiales</i> | <i>Sysuimicrobium</i>  | <a href="https://seqco.de/i:32783">seqco.de/i:32783</a> |

| Proposed Taxon                        | Etymology  | Description  | Parent Taxon              | Type   | Registry URL  |
|---------------------------------------|--|--|---------------------------|--|---|
| Family<br><i>Segetimicrobiaceae</i>   | [Se.ge'ti.mi.cro.bi.a.ce'ae] N.L. neut. n. <i>Segetimicrobium</i> , type genus of the family; <i>-aceae</i> , ending to denote a family; N.L. fem. pl. n. <i>Segetimicrobiaceae</i> , the <i>Segetimicrobium</i> family  | A family established on the basis of AAI, ANI, dDDH and phylogenomic analyses, and is classified as a member of the <i>Sysuimicrobiales</i> order.   | <i>Sysuimicrobiales</i>   | <i>Segetimicrobium</i>                             | <a href="https://seqco.de/i:32796">seqco.de/i:32796</a> |
| Family <i>Humicultoraceae</i>         | [Hu.mi.cul.tor.a.ce'ae] N.L. masc. n. <i>Humicultor</i> , type genus of the family; L. suff. <i>-aceae</i> , ending to denote a family; N.L. fem. pl. n. <i>Humicultoraceae</i> , the <i>Humicultor</i> family   | A family established on the basis of AAI, ANI, dDDH and phylogenomic analyses, and is classified as a member of the <i>Sysuimicrobiales</i> order.   | <i>Sysuimicrobiales</i>   | <i>Humicultor</i>                                  | <a href="https://seqco.de/i:32808">seqco.de/i:32808</a> |
| Family<br><i>Thermofontiventaceae</i> | [Ther.mo.fon.ti.vi.ven.ta.ce'ae] N.L. masc. n. <i>Thermofontivivens</i> , referring to the type genus <i>Thermofontivivens</i> ; <i>-aceae</i> , ending to denote a family; N.L. fem. pl. n. <i>Thermofontiventaceae</i> , the <i>Thermofontivivens</i> family | A family established on the basis of AAI, ANI, dDDH and phylogenomic analyses, and is classified as a member of the <i>Sysuimicrobiales</i> order.   | <i>Sysuimicrobiales</i>   | <i>Thermofontivivens</i>                           | <a href="https://seqco.de/i:32792">seqco.de/i:32792</a> |
| Genus <i>Calidihabitans</i>           | [Ca.li.di.ha.bi'tans] L. masc. adj. <i>calidus</i> , hot; L. pres. part. <i>habitans</i> , inhabiting; N.L. masc. n. <i>Calidihabitans</i> , inhabitants of hot environments   | A genus established on the basis of AAI, ANI, dDDH and phylogenomic analyses, and is classified as a member of the <i>Kaftiobacteriaceae</i> family. The type species of the genus is <i>Calidihabitans tengchongensis</i> . | <i>Kaftiobacteriaceae</i> | <i>Calidihabitans tengchongensis</i> <sup>TS</sup> | <a href="https://seqco.de/i:32806">seqco.de/i:32806</a> |
| Genus <i>Humicultor</i>               | [Hu.mi.cul'tor] L. fem. n. <i>humus</i> , soil; L. masc. n. <i>cultor</i> , an inhabitant; N.L. masc. n. <i>Humicultor</i> , an inhabitant of soil   | A genus established on the basis of AAI, ANI, dDDH and phylogenomic analyses, and is classified as a member of the <i>Humicultoraceae</i> family. The type species of the genus is <i>Humicultor riflensis</i> .             | <i>Humicultoraceae</i>    | <i>Humicultor tengchongensis</i> <sup>TS</sup>     | <a href="https://seqco.de/i:32809">seqco.de/i:32809</a> |
| Genus <i>Kaftiobacterium</i>          | [Kaf.ti.o.bac.te.ri.um] Gr. adj. <i>kafti</i> , hot; N.L. neut. n. <i>bacterium</i> , rod or staff and, in biology a bacterium; N.L. neut. n. <i>Kaftiobacterium</i> , a bacterium in hot environment  | A genus established on the basis of AAI, ANI, dDDH and phylogenomic analyses, and is classified as a member of the <i>Kaftiobacteriaceae</i> family. The type species of the genus is <i>Kaftiobacterium primum</i> .        | <i>Kaftiobacteriaceae</i> | <i>Kaftiobacterium secundum</i> <sup>TS</sup>      | <a href="https://seqco.de/i:32800">seqco.de/i:32800</a> |

| Proposed Taxon                       | Etymology  | Description   | Parent Taxon                  | Type   | Registry URL  |
|--------------------------------------|--|---|-------------------------------|--|---|
| Genus<br><i>Thermofontivivens</i>    | [Ther.mo.fon.ti.vi'vens] Gr. <b>masc. adj.</b> <i>thermos</i> , hot; L. <b>masc. n.</b> <i>fons</i> , a spring; L. <b>pres. part.</b> <i>vivens</i> , living; N.L. <b>masc. n.</b> <i>Thermofontivivens</i> , living in a hot spring                               | A genus established on the basis of AAI, ANI, dDDH and phylogenomic analyses, and is classified as a member of the <i>Thermofontiviventaceae</i> family. The type species of the genus is <i>Thermofontivivens primum</i> .     | <i>Thermofontiviventaceae</i> | <i>Thermofontivivens primum</i> <sup>TS</sup>          | <a href="https://seqco.de/i:32793">seqco.de/i:32793</a> |
| Genus <i>Fervidifonticultor</i>      | [Fer.vi.di.fon.ti.cul'tor] L. <b>masc. adj.</b> <i>fervidus</i> , hot, burning; L. <b>masc. n.</b> <i>fons</i> , a spring, fountain; L. <b>masc. n.</b> <i>cultor</i> , an inhabitant; N.L. <b>masc. n.</b> <i>Fervidifonticultor</i> , inhabitant of a hot spring | A genus established on the basis of AAI, ANI, dDDH and phylogenomic analyses, and is classified as a member of the <i>Humicultoraceae</i> family. The type species of the genus is <i>Fervidifonticultor primum</i> .           | <i>Humicultoraceae</i>        | <i>Fervidifonticultor primum</i> <sup>TS</sup>         | <a href="https://seqco.de/i:32815">seqco.de/i:32815</a> |
| Genus <i>Segetimicrobium</i>         | [Se.ge.ti.mi.cro'bi.um.] L. <b>gen. n.</b> <i>segetis</i> , of the soil; N.L. <b>neut. n.</b> <i>microbium</i> , microbe; N.L. <b>neut. n.</b> <i>Segetimicrobium</i> , a microbe of the earth   | A genus established on the basis of AAI, ANI, dDDH and phylogenomic analyses, and is classified as a member of the <i>Segetimicrobiaceae</i> family. The type species of the genus is <i>Segetimicrobium genomatis</i> .        | <i>Segetimicrobiaceae</i>     | <i>Segetimicrobium genomatis</i> <sup>TS</sup>         | <a href="https://seqco.de/i:32797">seqco.de/i:32797</a> |
| Genus <i>Caldifonticola</i>          | [Cal.di.fon.ti'co.la] L. <b>adj.</b> <i>calidus</i> , hot; L. <b>masc. n.</b> <i>fons</i> , a spring; N.L. <b>masc. suff.</b> <i>cola</i> , an inhabitant; N.L. <b>masc. n.</b> <i>Caldifonticola</i> , inhabitant of a hot spring                                 | A genus established on the basis of AAI, ANI, dDDH and phylogenomic analyses, and is classified as a member of the <i>Sysuimicrobiaceae</i> family. The type species of the genus is <i>Caldifonticola tengchongensis</i> .     | <i>Sysuimicrobiaceae</i>      | <i>Caldifonticola tengchongensis</i> <sup>TS</sup>     | <a href="https://seqco.de/i:32788">seqco.de/i:32788</a> |
| Genus<br><i>Tepidifontimicrobium</i> | [Te.pi.di.fon.ti.mi.cro'bi.um] L. <b>masc. adj.</b> <i>tepidus</i> , moderately warm; L. <b>masc. n.</b> <i>fons</i> , a spring; N.L. <b>neut. n.</b> <i>microbium</i> , microbe; N.L. <b>neut. n.</b> <i>Tepidifontimicrobium</i> , a microbe from a warm spring  | A genus established on the basis of AAI, ANI, dDDH and phylogenomic analyses, and is classified as a member of the <i>Sysuimicrobiaceae</i> family. The type species of the genus is <i>Tepidifontimicrobium thermophilum</i> . | <i>Sysuimicrobiaceae</i>      | <i>Tepidifontimicrobium thermophilum</i> <sup>TS</sup> | <a href="https://seqco.de/i:32790">seqco.de/i:32790</a> |

| Proposed Taxon   | Etymology  | Description   | Parent Taxon               | Type  | Registry URL  |
|--|--|---|----------------------------|---|---|
| Genus <i>Geohabitans</i>                                   | [Ge.o.ha.bi.tans] Gr. n. <i>geo</i> , the earth; L. pres. part. <i>habitans</i> , inhabiting; N.L. masc. n. <i>Geohabitans</i> , an inhabitant of Earth  | A genus established on the basis of AAI, ANI, dDDH and phylogenomic analyses, and is classified as a member of the <i>Humicultoraceae</i> family. The type species of the genus is <i>Geohabitans tengchongensis</i> .    | <i>Humicultoraceae</i>     | <i>Geohabitans tengchongensis</i> <sup>Ts</sup> | <a href="https://seqco.de/i:32812">seqco.de/i:32812</a> |
| Genus <i>Sysuimicrobium</i>                                | [Sy.su.i.mi.cro.bi.um] N.L. neut. n. <i>microbium</i> , microbe; N.L. neut. n. <i>Sysuimicrobium</i> , arbitrary name from the acronym of Sun Yat-Sen University, SYSU where the identification of microbial metagenome was done | A genus established on the basis of AAI, ANI, dDDH and phylogenomic analyses, and is classified as a member of the <i>Sysuimicrobiaceae</i> family. The type species of the genus is <i>Sysuimicrobium thermophilum</i> . | <i>Sysuimicrobiaceae</i>   | <i>Sysuimicrobium calidum</i> <sup>Ts</sup>     | <a href="https://seqco.de/i:32784">seqco.de/i:32784</a> |
| Species <i>Fervidifonticulator primus</i> <sup>Ts</sup>    | [pri'mus] L. masc. adj. <i>primus</i> , first, to represent the first genome bin from of the genus   | A species established on the basis of AAI, ANI, dDDH and phylogenomic analyses, and is classified as a member of the <i>Fervidifonticulator</i> genus.  | <i>Fervidifonticulator</i> | INSDC Nucleotide: JAVKHP000000000 <sup>Ts</sup> | <a href="https://seqco.de/i:32816">seqco.de/i:32816</a> |
| Species <i>Fervidifonticulator tertius</i>                 | [ter'ti.us.] L. masc. adj. <i>tertius</i> , third, to represent the third genome bin of the genus  | A species established on the basis of AAI, ANI, dDDH and phylogenomic analyses, and is classified as a member of the <i>Fervidifonticulator</i> genus.  | <i>Fervidifonticulator</i> | NCBI Assembly: GCA_031459235.1 <sup>Ts</sup>    | <a href="https://seqco.de/i:32818">seqco.de/i:32818</a> |
| Species <i>Sysuimicrobium tengchongense</i>                | [teng.chong.en'se] N.L. neut. adj. <i>tengchongense</i> , referring to Tengchong   | A species established on the basis of AAI, ANI, dDDH and phylogenomic analyses, and is classified as a member of the <i>Sysuimicrobium</i> genus.   | <i>Sysuimicrobium</i>      | NCBI Assembly: GCA_031460175.1 <sup>Ts</sup>    | <a href="https://seqco.de/i:32786">seqco.de/i:32786</a> |
| Species <i>Calidihabitans tengchongensis</i> <sup>Ts</sup> | [teng.chong.en'sis] N.L. masc. adj. <i>tengchongensis</i> , pertaining to Tengchong, the source of the metagenomic sample  | A species established on the basis of AAI, ANI, dDDH and phylogenomic analyses, and is classified as a member of the <i>Calidihabitans</i> genus.   | <i>Calidihabitans</i>      | INSDC Nucleotide: JAVKIE000000000 <sup>Ts</sup> | <a href="https://seqco.de/i:32807">seqco.de/i:32807</a> |
| Species <i>Geohabitans tengchongensis</i> <sup>Ts</sup>    | [teng.chong.en'sis] N.L. masc. adj. <i>tengchongensis</i> , pertaining to Tengchong, the source of the metagenomic sample  | A species established on the basis of AAI, ANI, dDDH and phylogenomic analyses, and is classified as a member of the <i>Terrahabitans</i> genus.  | <i>Geohabitans</i>         | NCBI Assembly: GCA_031459625.1 <sup>Ts</sup>    | <a href="https://seqco.de/i:32814">seqco.de/i:32814</a> |

| Proposed Taxon  | Etymology  | Description   | Parent Taxon                | Type  | Registry URL  |
|---|--|---|-----------------------------|---|---|
| Species<br><i>Tepidifontimicrobium thermophilum</i> <sup>Ts</sup> | [ther.mo'phi.lum] Gr. <b>fem. adj.</b> <i>thermé</i> , heat; <b>N.L. neut. adj.</b> <i>philum</i> , loving; <b>N.L. neut. adj.</b> <i>thermophilum</i> , heat loving | A species established on the basis of AAI, ANI, dDDH and phylogenomic analyses, and is classified as a member of the <i>Tepidifontimicrobium</i> genus. | <i>Tepidifontimicrobium</i> | INSDC Nucleotide: JAVKHO000000000 <sup>Ts</sup> | <a href="https://seqco.de/i:32791">seqco.de/i:32791</a> |
| Species<br><i>Humicultor tengchongensis</i> <sup>Ts</sup>         | [teng.chong.en'sis] <b>N.L. masc. adj.</b> <i>tengchongensis</i> , pertaining to Tengchong, the source of the metagenomic sample                                     | A species established on the basis of AAI, ANI, dDDH and phylogenomic analyses, and is classified as a member of the <i>Humicultor</i> genus.           | <i>Humicultor</i>           | INSDC Nucleotide: JAVKIA000000000 <sup>Ts</sup> | <a href="https://seqco.de/i:32811">seqco.de/i:32811</a> |
| Species<br><i>Thermofontivivens primus</i> <sup>Ts</sup>          | [pri'mus] <b>L. masc. adj.</b> <i>primus</i> , first, to represent the first genome bin from of the genus  | A species established on the basis of AAI, ANI, dDDH and phylogenomic analyses, and is classified as a member of the <i>Thermofontivivens</i> genus.    | <i>Thermofontivivens</i>    | INSDC Nucleotide: JAVKJW000000000 <sup>Ts</sup> | <a href="https://seqco.de/i:32794">seqco.de/i:32794</a> |
| Species<br><i>Sysuimicrobium calidum</i> <sup>Ts</sup>            | [ca'li.dum] <b>L. neut. adj.</b> <i>calidum</i> , indicating the origin of the metagenome from hot spring  | A species established on the basis of AAI, ANI, dDDH and phylogenomic analyses, and is classified as a member of the <i>Sysuimicrobium</i> genus.       | <i>Sysuimicrobium</i>       | NCBI Assembly: GCA_031459935.1 <sup>Ts</sup>    | <a href="https://seqco.de/i:32787">seqco.de/i:32787</a> |
| Species<br><i>Segetimicrobium genomatis</i> <sup>Ts</sup>         | [ge.no.ma'tis] <b>N.L. gen. n.</b> <i>genomatis</i> , of a genome  | A species established on the basis of AAI, ANI, dDDH and phylogenomic analyses, and is classified as a member of the <i>Segetimicrobium</i> genus.      | <i>Segetimicrobium</i>      | INSDC Nucleotide: VBAK000000000 <sup>Ts</sup>   | <a href="https://seqco.de/i:32798">seqco.de/i:32798</a> |
| Species<br><i>Kaftiobacterium secundum</i> <sup>Ts</sup>          | [se.cun'dum] <b>L. neut. adj.</b> <i>secundum</i> , second, to represent the second genome bin of the genus  | A species established on the basis of AAI, ANI, dDDH and phylogenomic analyses, and is classified as a member of the <i>Kaftiobacterium</i> genus.      | <i>Kaftiobacterium</i>      | INSDC Nucleotide: JAVKHY000000000 <sup>Ts</sup> | <a href="https://seqco.de/i:32802">seqco.de/i:32802</a> |
| Species<br><i>Fervidifonticultor secundus</i>                     | [se.cun'dus] <b>L. masc. adj.</b> <i>secundus</i> , second, to represent the second genome bin of the genus  | A species established on the basis of AAI, ANI, dDDH and phylogenomic analyses, and is classified as a member of the <i>Fervidifonticultor</i> genus.   | <i>Fervidifonticultor</i>   | NCBI Assembly: GCA_031459385.1 <sup>Ts</sup>    | <a href="https://seqco.de/i:32817">seqco.de/i:32817</a> |
| Species<br><i>Fervidifonticultor quartus</i>                      | [qu.ar'tus] <b>L. masc. adj.</b> <i>quartus</i> , fourth, to represent the fourth genome bin of the genus  | A species established on the basis of AAI, ANI, dDDH and phylogenomic analyses, and is classified as a member of the <i>Fervidifonticultor</i> genus.   | <i>Fervidifonticultor</i>   | NCBI Assembly: GCA_031458775.1 <sup>Ts</sup>    | <a href="https://seqco.de/i:32819">seqco.de/i:32819</a> |

| Proposed Taxon   | Etymology   | Description   | Parent Taxon          | Type  | Registry URL  |
|--|---|---|-----------------------|---|---|
| Species <i>Caldifonticola tengchongensis</i> <sup>Ts</sup> | [teng.chong.en'sis] N.L. masc. adj. <i>tengchongensis</i> , pertaining to Tengchong, the source of the metagenomic sample | A species established on the basis of AAI, ANI, dDDH and phylogenomic analyses, and is classified as a member of the <i>Caldifonticola</i> genus. | <i>Caldifonticola</i> | INSDC Nucleotide: JAVKGX000000000 <sup>Ts</sup> | <a href="https://seqco.de/i:32789">seqco.de/i:32789</a> |