

**Taxonomic Outline of the Bacteria and Archaea, Release 7.7 March 6, 2007.**

**Part 6– Phylum “*Proteobacteria*”: The *Deltaproteobacteria* and  
*Epsilonproteobacteria***

**George M. Garrity, Timothy G. Lilburn, James R. Cole,  
Scott H. Harrison, Jean Euzéby, and Brian J. Tindall**

---

**Class *Deltaproteobacteria* <sup>VP</sup>** Kuever et al 2006. N4Lid DOI: 10.1601/nm.3456

**Order *Desulfurellales* <sup>VP</sup>** Kuever et al 2006. N4Lid DOI: 10.1601/nm.3457

**Family *Desulfurellaceae* <sup>VP</sup>** Kuever et al 2006. N4Lid DOI: 10.1601/nm.3458

**Genus *Desulfurella* <sup>VP</sup>** Bonch-Osmolovskaya et al. 1993. N4Lid DOI: 10.1601/nm.3459

*Desulfurella acetivorans* <sup>VP</sup> Bonch-Osmolovskaya et al. 1993. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 51451. High-quality 16S rRNA sequence S000008874 (RDP), X72768 (Genbank). N4Lid DOI: 10.1601/nm.3460

*Desulfurella kamchatkensis* <sup>VP</sup> Miroshnichenko 1998. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 700655. High-quality 16S rRNA sequence S000000228 (RDP), Y16941 (Genbank). N4Lid DOI: 10.1601/nm.3461

*Desulfurella multipotens* <sup>VP</sup> Miroshnichenko et al. 1996. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 8415. High-quality 16S rRNA sequence S000004736 (RDP), Y16943 (Genbank). N4Lid DOI: 10.1601/nm.3462

*Desulfurella propionica* <sup>VP</sup> Miroshnichenko 1998. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 700656. High-quality 16S rRNA sequence S000007307 (RDP), Y16942 (Genbank). N4Lid DOI: 10.1601/nm.3463

**Genus *Hippea* <sup>VP</sup>** Miroshnichenko et al. 1999. N4Lid DOI: 10.1601/nm.3464

*Hippea maritima* <sup>VP</sup> Miroshnichenko et al. 1999. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 700847. High-quality 16S rRNA sequence S000016943 (RDP), Y18292 (Genbank). N4Lid DOI: 10.1601/nm.3465

**Order *Desulfovibrionales* <sup>VP</sup>** Kuever et al 2006. N4Lid DOI: 10.1601/nm.3466

**Family *Desulfovibrionaceae* <sup>VP</sup>** Kuever et al 2006. N4Lid DOI: 10.1601/nm.3467

**Genus *Desulfovibrio* <sup>AL</sup>** Kluyver and van Niel 1936. [≈ \*Desulfovibrio\* \(later heterotypic synonym\)](#), links through 10.1601/nm.3468. N4Lid DOI: 10.1601/nm.3468

*Desulfovibrio desulfuricans* *subsp. desulfuricans* <sup>AL</sup> (Beijerinck 1895) Kluyver and van Niel 1936. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 29577. High-quality 16S rRNA sequence S000006150 (RDP), AF192153 (Genbank). GOLD ID: Gc00315. GCAT ID: 000295\_GCAT. Entrez genome id: 329. Sequenced strain: G20 is from a non-type strain. Genome sequencing is completed. Number of genomes of this species sequenced 1 (GOLD). N4Lid DOI: 10.1601/nm.3469

*Desulfovibrio desulfuricans* *subsp. aestuarii* <sup>AL</sup> Postgate and Campbell 1966. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 29578. N4Lid DOI: 10.1601/nm.3470

*Desulfovibrio acrylicus* <sup>VP</sup> van der Maarel et al. 1997. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 10141. High-quality 16S rRNA sequence S000437480 (RDP), U32578 (Genbank). N4Lid DOI: 10.1601/nm.3471

*Desulfovibrio aespoensis* <sup>VP</sup> Motamedi and Pedersen 1998. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 700646. High-quality 16S rRNA sequence S000112712 (RDP), X95230 (Genbank). N4Lid DOI: 10.1601/nm.3472

*Desulfovibrio africanus* <sup>AL</sup> Campbell et al. 1966. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 19996. High-quality 16S rRNA sequence S000003900 (RDP), X99236 (Genbank). N4Lid DOI: 10.1601/nm.3473

*Desulfovibrio alaskensis* <sup>VP</sup> Feio et al. 2004. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 16109. High-quality 16S rRNA sequence S000560277 (RDP), Y11984 (Genbank). N4Lid DOI: 10.1601/nm.8570

- Desulfovibrio alcohalivorans* <sup>VP</sup> corrig. Qatibi et al. 1995. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 49738. High-quality 16S rRNA sequence S000428080 (RDP), AF050101 (Genbank). N4Lid DOI: 10.1601/nm.3474
- Desulfovibrio alkalitolerans* <sup>VP</sup> Abildgaard et al. 2006. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 16529. High-quality 16S rRNA sequence S000421932 (RDP), AY649785 (Genbank). N4Lid DOI: 10.1601/nm.10047
- Desulfovibrio aminophilus* <sup>VP</sup> Baena et al. 1999. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 12254. High-quality 16S rRNA sequence S000428372 (RDP), AF067964 (Genbank). N4Lid DOI: 10.1601/nm.3475
- Desulfovibrio bastinii* <sup>VP</sup> Magot et al. 2004. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC BAA-903. High-quality 16S rRNA sequence S000461354 (RDP), AY359868 (Genbank). N4Lid DOI: 10.1601/nm.8571
- Desulfovibrio burkinensis* <sup>VP</sup> Ouattara et al. 1999. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 700846. High-quality 16S rRNA sequence S000416204 (RDP), AF053752 (Genbank). N4Lid DOI: 10.1601/nm.3478
- Desulfovibrio carbinolicus* <sup>VP</sup> Nanninga and Gottschal 1995. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC BAA-1241. N4Lid DOI: 10.1601/nm.3479
- Desulfovibrio cuneatus* <sup>VP</sup> Sass et al. 1998. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 11391. N4Lid DOI: 10.1601/nm.3480
- Desulfovibrio dechloracetivorans* <sup>VP</sup> Sun et al. 2001. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 700912. High-quality 16S rRNA sequence S000389681 (RDP), AF230530 (Genbank). N4Lid DOI: 10.1601/nm.3481
- Desulfovibrio ferrireducens* <sup>VP</sup> Vandieken et al. 2006. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 16995. High-quality 16S rRNA sequence S000588198 (RDP), DQ148945 (Genbank). N4Lid 10.1601/nm.9984
- Desulfovibrio frigidus* <sup>VP</sup> Vandieken et al. 2006. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 17176. High-quality 16S rRNA sequence S000588196 (RDP), DQ148943 (Genbank). N4Lid 10.1601/nm.9985
- Desulfovibrio fructosivorans* <sup>VP</sup> corrig. Ollivier et al. 1990. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 49200. N4Lid DOI: 10.1601/nm.3482
- Desulfovibrio furfurialis* <sup>VP</sup> Folkerts et al. 1989. Source of type material recommended for DOE sponsored genome sequencing by the JGI: F1. N4Lid DOI: 10.1601/nm.3483
- Desulfovibrio gabonensis* <sup>VP</sup> Tardy-Jacquenod et al. 1996. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 700201. High-quality 16S rRNA sequence S000437467 (RDP), U31080 (Genbank). N4Lid DOI: 10.1601/nm.3484
- Desulfovibrio giganteus* <sup>VP</sup> Esnault et al. 1988. Synonym links through N4Lid: 10.1601/nm.3485. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 4123. N4Lid DOI: 10.1601/nm.3485
- † *Desulfobacter giganteus* <sup>VP</sup> Esnault et al. 1988. Orthographic error. *Desulfobacter giganteus*. Links through N4Lid 10.1601/8. > Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 4123. N4Lid DOI: 10.1601/nm.3543
- Desulfovibrio gigas* <sup>AL</sup> Le Gall 1963. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 19364. High-quality 16S rRNA sequence S000436230 (RDP), M34400 (Genbank). N4Lid DOI: 10.1601/nm.3486
- Desulfovibrio gracilis* <sup>VP</sup> Magot et al. 2004. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC BAA-904. N4Lid 10.1601/nm.8956
- Desulfovibrio halophilus* <sup>VP</sup> Caumette et al. 1991. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 51179. High-quality 16S rRNA sequence S000011580 (RDP), X99237 (Genbank). N4Lid DOI: 10.1601/nm.3487
- Desulfovibrio hydrothermalis* <sup>VP</sup> Alazard et al. 2003. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 14728. High-quality 16S rRNA sequence S000394495 (RDP), AF458778 (Genbank). N4Lid DOI: 10.1601/nm.3488

*Desulfovibrio indonesiensis* <sup>VP</sup> corrig. Feio et al. 2000. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 15121. High-quality 16S rRNA sequence S000539470 (RDP), AJ621884 (Genbank). N4Lid DOI: 10.1601/nm.3489

*Desulfovibrio inopinatus* <sup>VP</sup> Reichenbecher and Schink 1999. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 10711. High-quality 16S rRNA sequence S000010738 (RDP), AF177276 (Genbank). N4Lid DOI: 10.1601/nm.3490

*Desulfovibrio intestinalis* <sup>VP</sup> Fröhlich et al. 1999. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 11275. High-quality 16S rRNA sequence S000016406 (RDP), Y12254 (Genbank). N4Lid DOI: 10.1601/nm.3491

*Desulfovibrio litoralis* <sup>VP</sup> Sass et al. 1998. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 11393. N4Lid DOI: 10.1601/nm.3492

*Desulfovibrio longreachensis* <sup>VP</sup> corrig. Redburn and Patel 1995. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ACM 3958. High-quality 16S rRNA sequence S000130468 (RDP), Z24450 (Genbank). N4Lid DOI: 10.1601/nm.3493

*Desulfovibrio longus* <sup>VP</sup> Magot et al. 1992. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 51456. High-quality 16S rRNA sequence S000461353 (RDP), AY359867 (Genbank). N4Lid DOI: 10.1601/nm.3494

*Desulfovibrio magneticus* <sup>VP</sup> Sakaguchi et al. 2002. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 700980. High-quality 16S rRNA sequence S000413803 (RDP), D43944 (Genbank). GOLD ID: Gi00729. GCAT ID: 001001\_GCAT. Entrez genome id: 15681. Sequenced strain: ATCC 700980 is type material. Genome sequencing is incomplete. Number of genomes of this species sequenced 1 (GOLD) 1 (NCBI). N4Lid DOI: 10.1601/nm.3495

*Desulfovibrio mexicanus* <sup>VP</sup> Hernandez-Eugenio et al. 2001. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 13116. High-quality 16S rRNA sequence S000010910 (RDP), AF227984 (Genbank). N4Lid DOI: 10.1601/nm.3496

*Desulfovibrio oxamicus* <sup>VP</sup> (Postgate and Campbell 1966) López-Cortés et al. 2006. <==

*Desulfovibrio vulgaris* subsp. *oxamicus* (basonym). Synonym links through N4Lid: 10.1601/ex.3509. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 33405. High-quality 16S rRNA sequence S000584779 (RDP), DQ122124 (Genbank). N4Lid 10.1601/nm.9781

† *Desulfovibrio vulgaris* subsp. *oxamicus* <sup>AL</sup> Postgate and Campbell 1966. ==> *Desulfovibrio oxamicus* (new combination). Synonym links through N4Lid: 10.1601/ex.3509. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 33405. High-quality 16S rRNA sequence S000584779 (RDP), DQ122124 (Genbank). N4Lid DOI: 10.1601/nm.3509

*Desulfovibrio oxyclinae* <sup>VP</sup> Krekeler et al. 2000. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 11498. N4Lid DOI: 10.1601/nm.3497

*Desulfovibrio piger* <sup>VP</sup> (Moore et al. 1976) Loubinoux et al. 2002. <== *Desulfomonas piger* (basonym). Synonym links through N4Lid: 10.1601/ex.3527. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 29098. High-quality 16S rRNA sequence S000001126 (RDP), AF192152 (Genbank). GOLD ID: Gi01734. GCAT ID: 000680\_GCAT. Sequenced strain: ATCC 29098 is type material. Genome sequencing is incomplete. Number of genomes of this species sequenced 1 (GOLD). N4Lid 10.1601/nm.9219

† *Desulfomonas piger* <sup>AL</sup> Moore et al. 1976. ==> *Desulfovibrio piger* (new combination). Synonym links through N4Lid: 10.1601/ex.3527. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 29098. High-quality 16S rRNA sequence S000001126 (RDP), AF192152 (Genbank). GOLD ID: Gi01734. GCAT ID: 000680\_GCAT. Sequenced strain: ATCC 29098 is type material. Genome sequencing is incomplete. Number of genomes of this species sequenced 1 (GOLD) 0 (NCBI). N4Lid DOI: 10.1601/nm.3527

"*Desulfovibrio piger*" † <== Synonym links through N4Lid: 10.1601/ex.3527. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 29098. High-quality 16S rRNA sequence S000001126 (RDP), AF192152 (Genbank). GOLD ID: Gi01734. GCAT ID: 000680\_GCAT. Sequenced strain: ATCC 29098 is type material. Genome sequencing is incomplete. Number of genomes of this species sequenced 1 (GOLD) 0 (NCBI). N4Lid DOI: 10.1601/nm.3498

*Desulfovibrio profundus* <sup>VP</sup> Bale et al. 1997. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 11384. High-quality 16S rRNA sequence S000438770 (RDP), U90726 (Genbank). N4Lid DOI: 10.1601/nm.3499

*Desulfovibrio putealis* <sup>VP</sup> Basso et al. 2005. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC BAA-905. High-quality 16S rRNA sequence S000475288 (RDP), AY574979 (Genbank). N4Lid DOI: 10.1601/nm.8573

*Desulfovibrio salexigens* <sup>AL</sup> Postgate and Campbell 1966. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 14822. High-quality 16S rRNA sequence S000436231 (RDP), M34401 (Genbank). N4Lid DOI: 10.1601/nm.3500

*Desulfovibrio sapovorans* <sup>VP</sup> Widdel 1981. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 33892. High-quality 16S rRNA sequence S000436232 (RDP), M34402 (Genbank). N4Lid DOI: 10.1601/nm.3501

"*Desulfobutulus sapvorans*" † *Desulfovibrio sapvorans* (invalid name), links through 10.1601/nm.3501. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 33892. High-quality 16S rRNA sequence S000436232 (RDP), M34402 (Genbank). N4Lid DOI: 10.1601/nm.3564

*Desulfovibrio senezii* <sup>VP</sup> Tsu et al. 1999. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 8436. High-quality 16S rRNA sequence S000428079 (RDP), AF050100 (Genbank). N4Lid DOI: 10.1601/nm.3502

*Desulfovibrio simplex* <sup>VP</sup> Zellner et al. 1990. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 4141. N4Lid DOI: 10.1601/nm.3503

*Desulfovibrio sulfodismutans* <sup>VP</sup> Bak and Pfennig 1988. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 43913. High-quality 16S rRNA sequence S000012355 (RDP), Y17764 (Genbank). N4Lid DOI: 10.1601/nm.3504

*Desulfovibrio termitidis* <sup>VP</sup> Trinkerl et al. 1991. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 49858. High-quality 16S rRNA sequence S000004739 (RDP), X87409 (Genbank). N4Lid DOI: 10.1601/nm.3505

*Desulfovibrio vietnamensis* <sup>VP</sup> Dang et al. 2002. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 10520. High-quality 16S rRNA sequence S000083867 (RDP), X93994 (Genbank). N4Lid DOI: 10.1601/nm.3507

*Desulfovibrio vulgaris subsp. *vulgaris** <sup>AL</sup> Postgate and Campbell 1966. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 29579. High-quality 16S rRNA sequence S000436229 (RDP), M34399 (Genbank). GOLD ID: Gc00184. GCAT ID: 000426\_GCAT. Entrez genome id: 51. Sequenced strain: ATCC 29579 is type material. Genome sequencing is completed. Number of genomes of this species sequenced 2 (GOLD) 2 (NCBI). N4Lid DOI: 10.1601/nm.3508

*Desulfovibrio zosterae* <sup>VP</sup> Nielsen et al. 1999. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 11974. High-quality 16S rRNA sequence S000020196 (RDP), Y18049 (Genbank). N4Lid DOI: 10.1601/nm.3510

Genus †*Desulfomonas* <sup>AL</sup> Moore et al. 1976. ≈ *Desulfovibrio* (earlier heterotypic synonym), links through 10.1601/nm.3468. N4Lid DOI: 10.1601/nm.3526

Genus *Bilophila* <sup>VP</sup> Baron et al. 1990. N4Lid DOI: 10.1601/nm.3511

*Bilophila wadsworthia* <sup>VP</sup> Baron et al. 1990. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 49260. N4Lid DOI: 10.1601/nm.3512

Genus *Lawsonia* <sup>VP</sup> McOrist et al. 1995. N4Lid DOI: 10.1601/nm.3513

*Lawsonia intracellularis* <sup>VP</sup> McOrist et al. 1995. Source of type material recommended for DOE sponsored genome sequencing by the JGI: NCTC 12656. High-quality 16S rRNA sequence S000437459 (RDP), U30147 (Genbank). GOLD ID: Gc00382. GCAT ID: 000228\_GCAT. Entrez genome id: 183. Sequenced strain: NCTC 12657 is from a non-type strain. Genome sequencing is completed. Number of genomes of this species sequenced 1 (GOLD) 1 (NCBI). N4Lid DOI: 10.1601/nm.3514

Family *Desulfomicrobiaceae* <sup>VP</sup> Kuever et al 2006. N4Lid DOI: 10.1601/nm.3515

Genus *Desulfomicrobium* <sup>VP</sup> Rozanova et al. 1994. N4Lid DOI: 10.1601/nm.3516

*Desulfomicrobium baculum* <sup>VP</sup> corrig. (Rozanova and Nazina 1984) Rozanova et al. 1994. <== *Desulfovibrio baculatus* (basonym). Synonym links through N4Lid: 10.1601/ex.3477. Source of

type material recommended for DOE sponsored genome sequencing by the JGI: DSM 4028. High-quality 16S rRNA sequence S000427865 (RDP), AF030438 (Genbank). N4Lid DOI: 10.1601/nm.3517

† *Desulfovibrio baculatus* <sup>VP</sup> Rozanova and Nazina 1984. ==> *Desulfomicrobium baculum* (new combination). Synonym links through N4Lid: 10.1601/ex.3477. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 4028. High-quality 16S rRNA sequence S000427865 (RDP), AF030438 (Genbank). N4Lid DOI: 10.1601/nm.3477

*Desulfomicrobium apsheronum* <sup>VP</sup> Rozanova et al. 1994. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 5918. High-quality 16S rRNA sequence S000438109 (RDP), U64865 (Genbank). N4Lid DOI: 10.1601/nm.3518

*Desulfomicrobium escambiense* <sup>VP</sup> corrig. Sharak Gentner et al. 1996. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 51164. High-quality 16S rRNA sequence S000436976 (RDP), U02469 (Genbank). N4Lid DOI: 10.1601/nm.3519

*Desulfomicrobium macestii* <sup>VP</sup> (Gogotova and Vainshtein 1989) Hippe et al. 2003. <==  
*Desulfovacterium macestii* (basonym). Synonym links through N4Lid: 10.1601/ex.3556. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 4194. High-quality 16S rRNA sequence S000137299 (RDP), AJ237604 (Genbank). N4Lid DOI: 10.1601/nm.3520

† *Desulfovacterium macestii* <sup>VP</sup> Gogotova and Vainstein 1989. ==> *Desulfomicrobium macestii* (new combination). Synonym links through N4Lid: 10.1601/ex.3556. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 4194. High-quality 16S rRNA sequence S000137299 (RDP), AJ237604 (Genbank). N4Lid DOI: 10.1601/nm.3556

*Desulfomicrobium norvegicum* <sup>VP</sup> Gentner et al. 1997. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 1741. High-quality 16S rRNA sequence S000138146 (RDP), AJ277897 (Genbank). N4Lid DOI: 10.1601/nm.3521

*Desulfomicrobium orale* <sup>VP</sup> Langendijk et al. 2001. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 12838. High-quality 16S rRNA sequence S000008660 (RDP), AJ251623 (Genbank). N4Lid DOI: 10.1601/nm.3522

**Family Desulfohalobiaceae** <sup>VP</sup> Kuever et al 2006. N4Lid DOI: 10.1601/nm.3523

**Genus Desulfohalobium** <sup>VP</sup> Ollivier et al. 1991. N4Lid DOI: 10.1601/nm.3524

*Desulfohalobium retbaense* <sup>VP</sup> Ollivier et al. 1991. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 49708. High-quality 16S rRNA sequence S000437689 (RDP), U48244 (Genbank). N4Lid DOI: 10.1601/nm.3525

*Desulfohalobium utahense* <sup>VP</sup> Jakobsen et al. 2006. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 17720. High-quality 16S rRNA sequence S000556967 (RDP), DQ067421 (Genbank). N4Lid DOI: 10.1601/nm.10281

**Genus Desulfonatronovibrio** <sup>VP</sup> Zhilina et al. 1997. N4Lid DOI: 10.1601/nm.3528

*Desulfonatronovibrio hydrogenovorans* <sup>VP</sup> Zhilina et al. 1997. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 9292. High-quality 16S rRNA sequence S000002343 (RDP), X99234 (Genbank). N4Lid DOI: 10.1601/nm.3529

**Genus Desulfonauticus** <sup>VP</sup> Audiffrin et al. 2003. N4Lid DOI: 10.1601/nm.3530

*Desulfonauticus submarinus* <sup>VP</sup> Audiffrin et al. 2003. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 15269. High-quality 16S rRNA sequence S000431412 (RDP), AF524933 (Genbank). N4Lid DOI: 10.1601/nm.3531

**Genus Desulfothermus** <sup>VP</sup> Kuever et al. 2006. N4Lid DOI: 10.1601/nm.3532

*Desulfothermus naphthae* <sup>VP</sup> Kuever et al. 2006. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 13418. High-quality 16S rRNA sequence S000010081 (RDP), X80922 (Genbank). N4Lid DOI: 10.1601/nm.3533

**Family "Desulfonatronaceae"** N4Lid DOI: 10.1601/nm.3534

**Genus Desulfonatronum** <sup>VP</sup> Pikuta et al. 1998. N4Lid DOI: 10.1601/nm.3535

*Desulfonatronum lacustre* <sup>VP</sup> Pikuta et al. 1998. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 10312. High-quality 16S rRNA sequence S000003106 (RDP), Y14594 (Genbank). N4Lid DOI: 10.1601/nm.3536

***Desulfonatronum cooperativum*** <sup>VP</sup> Zhilina et al. 2005. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 16749. High-quality 16S rRNA sequence S000549637 (RDP), AY725424 (Genbank). N4Lid 10.1601/nm.9421

***Desulfonatronum thiodismutans*** <sup>VP</sup> Pikuta et al. 2003. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC BAA-395. High-quality 16S rRNA sequence S000539197 (RDP), AF373920 (Genbank). N4Lid DOI: 10.1601/nm.3537

**Order *Desulfobacterales*** <sup>VP</sup> Kuever et al 2006. N4Lid DOI: 10.1601/nm.3538

**Family *Desulfobacteraceae*** <sup>VP</sup> Kuever et al 2006. N4Lid DOI: 10.1601/nm.3539

**Genus *Desulfobacter*** <sup>VP</sup> Widdel 1981. N4Lid DOI: 10.1601/nm.3540

***Desulfobacter postgatei*** <sup>VP</sup> Widdel 1981. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 33911. High-quality 16S rRNA sequence S000393859 (RDP), AF418180 (Genbank). N4Lid DOI: 10.1601/nm.3541

***Desulfobacter curvatus*** <sup>VP</sup> Widdel 1988. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 43919. High-quality 16S rRNA sequence S000436243 (RDP), M34413 (Genbank). N4Lid DOI: 10.1601/nm.3542

***Desulfobacter halotolerans*** <sup>VP</sup> Brandt and Ingvorsen 1998. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 11383. High-quality 16S rRNA sequence S000003902 (RDP), Y14745 (Genbank). N4Lid DOI: 10.1601/nm.3544

***Desulfobacter hydrogenophilus*** <sup>VP</sup> Widdel 1988. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 43915. High-quality 16S rRNA sequence S000436242 (RDP), M34412 (Genbank). N4Lid DOI: 10.1601/nm.3545

***Desulfobacter latus*** <sup>VP</sup> Widdel 1988. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 43918. High-quality 16S rRNA sequence S000436244 (RDP), M34414 (Genbank). N4Lid DOI: 10.1601/nm.3546

***Desulfobacter vibrioformis*** <sup>VP</sup> Lien and Beeder 1997. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 8776. High-quality 16S rRNA sequence S000437115 (RDP), U12254 (Genbank). N4Lid DOI: 10.1601/nm.3547

**Genus *Desulfatibacillum*** <sup>VP</sup> Cravo-Laureau et al. 2004. N4Lid DOI: 10.1601/nm.3548

***Desulfatibacillum aliphaticivorans*** <sup>VP</sup> Cravo-Laureau et al. 2004. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC BAA-743. High-quality 16S rRNA sequence S000400333 (RDP), AY184360 (Genbank). N4Lid DOI: 10.1601/nm.3549

***Desulfatibacillum alkenevorans*** <sup>VP</sup> Cravo-Laureau et al. 2004. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC BAA-924. High-quality 16S rRNA sequence S000420138 (RDP), AY493562 (Genbank). N4Lid DOI: 10.1601/nm.8569

**Genus *Desulfobacterium*** <sup>VP</sup> Bak and Widdel 1988. N4Lid DOI: 10.1601/nm.3550

***Desulfobacterium indolicum*** <sup>VP</sup> Bak and Widdel 1988. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 43938. High-quality 16S rRNA sequence S000088673 (RDP), AJ237607 (Genbank). N4Lid DOI: 10.1601/nm.3551

***Desulfobacterium anilini*** <sup>VP</sup> Schnell et al. 1990. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 49792. High-quality 16S rRNA sequence S000137583 (RDP), AJ237601 (Genbank). N4Lid DOI: 10.1601/nm.3552

***Desulfobacterium autotrophicum*** <sup>VP</sup> Brysch et al. 1988. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 43914. High-quality 16S rRNA sequence S000436239 (RDP), M34409 (Genbank). GOLD ID: Gi00194. GCAT ID: 000998\_GCAT. Entrez genome id: 109. Sequenced strain: HRM2 is type material. Genome sequencing is incomplete. Number of genomes of this species sequenced 1 (GOLD) 1 (NCBI). N4Lid DOI: 10.1601/nm.3553

***Desulfobacterium catecholicum*** <sup>VP</sup> Szewzyk and Pfennig 1988. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 43955. High-quality 16S rRNA sequence S000089909 (RDP), AJ237602 (Genbank). N4Lid DOI: 10.1601/nm.3554

***Desulfobacterium niaci*** <sup>VP</sup> Kuever et al. 2006. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 2650. N4Lid DOI: 10.1601/nm.3557

***Desulfobacterium vacuolatum*** <sup>VP</sup> Kuever et al. 2006. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 3385. High-quality 16S rRNA sequence S000436238 (RDP), M34408 (Genbank). N4Lid DOI: 10.1601/nm.3559

**Genus *Desulfobacula* <sup>VP</sup>** Rabus et al. 2000. N4Lid DOI: 10.1601/nm.3560

*Desulfobacula toluolica* <sup>VP</sup> Rabus et al. 2000. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 7467. High-quality 16S rRNA sequence S000112434 (RDP), X70953 (Genbank). N4Lid DOI: 10.1601/nm.3561

*Desulfobacula phenolica* <sup>VP</sup> (Bak and Widdel 1988) Kuever et al. 2001. <== *Desulfobacterium phenolicum* (basionym). Synonym links through N4Lid: 10.1601/ex.3558. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 43956. High-quality 16S rRNA sequence S000137584 (RDP), AJ237606 (Genbank). N4Lid DOI: 10.1601/nm.3562

† *Desulfobacterium phenolicum* <sup>VP</sup> Bak and Widdel 1988. ==> *Desulfobacula phenolica* (new combination). Synonym links through N4Lid: 10.1601/ex.3558. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 43956. High-quality 16S rRNA sequence S000137584 (RDP), AJ237606 (Genbank). N4Lid DOI: 10.1601/nm.3558

**Genus "Desulfobotulus" †** Invalid name. DOI: 10.1601/nm.3563

**Genus *Desulfocella* <sup>VP</sup>** Brandt et al. 1999. N4Lid DOI: 10.1601/nm.3565

*Desulfocella halophila* <sup>VP</sup> Brandt et al. 1999. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 700426. High-quality 16S rRNA sequence S000427693 (RDP), AF022936 (Genbank). N4Lid DOI: 10.1601/nm.3566

**Genus *Desulfococcus* <sup>VP</sup>** Widdel 1981. N4Lid DOI: 10.1601/nm.3567

*Desulfococcus multivorans* <sup>VP</sup> Widdel 1981. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 33890. High-quality 16S rRNA sequence S000436235 (RDP), M34405 (Genbank). N4Lid DOI: 10.1601/nm.3568

*Desulfococcus biacutus* <sup>VP</sup> Platen et al. 1991. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 5651. High-quality 16S rRNA sequence S000018513 (RDP), AJ277887 (Genbank). N4Lid DOI: 10.1601/nm.3569

**Genus *Desulfofaba* <sup>VP</sup>** Knoblauch et al. 1999. ≈ *Desulfofaba* (later heterotypic synonym), links through 10.1601/nm.3570. N4Lid DOI: 10.1601/nm.3570

*Desulfofaba gelida* <sup>VP</sup> Knoblauch et al. 1999. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 12344. High-quality 16S rRNA sequence S000428876 (RDP), AF099063 (Genbank). N4Lid DOI: 10.1601/nm.3571

*Desulfofaba fastidiosa* <sup>VP</sup> Abildgaard et al. 2004. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC BAA-815. High-quality 16S rRNA sequence S000441050 (RDP), AY268891 (Genbank). N4Lid DOI: 10.1601/nm.3572

*Desulfofaba hansenii* <sup>VP</sup> (Finster et al. 2001) Abildgaard et al. 2004. <== *Desulfomusa hansenii* (basionym). Synonym links through N4Lid: 10.1601/ex.3578. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 700811. High-quality 16S rRNA sequence S000391502 (RDP), AF321820 (Genbank). N4Lid DOI: 10.1601/nm.3573

† *Desulfomusa hansenii* <sup>VP</sup> Finster et al. 2001. ==> *Desulfofaba hansenii* (new combination). Synonym links through N4Lid: 10.1601/ex.3578. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 700811. High-quality 16S rRNA sequence S000391502 (RDP), AF321820 (Genbank). N4Lid DOI: 10.1601/nm.3578

**Genus † *Desulfomusa* <sup>VP</sup>** Finster et al. 2001. ≈ *Desulfofaba* (earlier heterotypic synonym), links through 10.1601/nm.3570. N4Lid DOI: 10.1601/nm.3577

**Genus *Desulfofrigus* <sup>VP</sup>** Knoblauch et al. 1999. N4Lid DOI: 10.1601/nm.3574

*Desulfofrigus oceanense* <sup>VP</sup> Knoblauch et al. 1999. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 12341. High-quality 16S rRNA sequence S000428877 (RDP), AF099064 (Genbank). N4Lid DOI: 10.1601/nm.3575

*Desulfofrigus fragile* <sup>VP</sup> Knoblauch et al. 1999. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 12345. High-quality 16S rRNA sequence S000428878 (RDP), AF099065 (Genbank). N4Lid DOI: 10.1601/nm.3576

**Genus *Desulfonema* <sup>VP</sup>** Widdel 1981. N4Lid DOI: 10.1601/nm.3579

*Desulfonema limicola* <sup>VP</sup> Widdel 1981. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 33961. High-quality 16S rRNA sequence S000437653 (RDP), U45990 (Genbank). N4Lid DOI: 10.1601/nm.3580

*Desulfonema ishimotonii* <sup>VP</sup> corrug. Fukui et al. 2000. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 9680. High-quality 16S rRNA sequence S000437655 (RDP), U45992 (Genbank). N4Lid DOI: 10.1601/nm.3581

*Desulfonema magnum* <sup>VP</sup> Widdel 1981. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 35288. High-quality 16S rRNA sequence S000437652 (RDP), U45989 (Genbank). N4Lid DOI: 10.1601/nm.3582

**Genus *Desulforegula*** <sup>VP</sup> Rees and Patel 2001. N4Lid DOI: 10.1601/nm.3583

*Desulforegula conservatrix* <sup>VP</sup> Rees and Patel 2001. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC BAA-134. High-quality 16S rRNA sequence S000389920 (RDP), AF243334 (Genbank). N4Lid DOI: 10.1601/nm.3584

**Genus *Desulfosarcina*** <sup>VP</sup> Widdel 1981. N4Lid DOI: 10.1601/nm.3585

*Desulfosarcina variabilis* <sup>VP</sup> Widdel 1981. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 33932. High-quality 16S rRNA sequence S000436147 (RDP), M26632 (Genbank). N4Lid DOI: 10.1601/nm.3586

*Desulfosarcina cetonica* <sup>VP</sup> corrug. (Galushko and Rozanova 1994) Kuever et al. 2006. <==  
*Desulfobacterium cetonicum* (basonym). Synonym links through N4Lid: 10.1601/ex.3555. Source of type material recommended for DOE sponsored genome sequencing by the JGI: JCM 12296. High-quality 16S rRNA sequence S000088251 (RDP), AJ237603 (Genbank). N4Lid 10.1601/nm.9792

† *Desulfobacterium cetonicum* <sup>VP</sup> Galushko and Rozanova 1994. ==> *Desulfosarcina cetonica* (new combination). Synonym links through N4Lid: 10.1601/ex.3555. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 7267. High-quality 16S rRNA sequence S000088251 (RDP), AJ237603 (Genbank). N4Lid DOI: 10.1601/nm.3555

"*Desulfosarcina cetonium*" Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 7267. High-quality 16S rRNA sequence S000088251 (RDP), AJ237603 (Genbank). N4Lid DOI: 10.1601/nm.3587

*Desulfosarcina ovata* <sup>VP</sup> Kuever et al. 2006. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 13228. N4Lid DOI: 10.1601/nm.3588

**Genus *Desulfospira*** <sup>VP</sup> Finster et al. 1997. N4Lid DOI: 10.1601/nm.3589

*Desulfospira joergensenii* <sup>VP</sup> Finster et al. 1997. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 700409. High-quality 16S rRNA sequence S000015339 (RDP), X99637 (Genbank). N4Lid DOI: 10.1601/nm.3590

**Genus *Desulfotignum*** <sup>VP</sup> Kuever et al. 2001. N4Lid DOI: 10.1601/nm.3591

*Desulfotignum balticum* <sup>VP</sup> Kuever et al. 2001. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC BAA-19. High-quality 16S rRNA sequence S000389726 (RDP), AF233370 (Genbank). N4Lid DOI: 10.1601/nm.3592

*Desulfotignum phosphitoxidans* <sup>VP</sup> Schink et al. 2002. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 13687. High-quality 16S rRNA sequence S000393881 (RDP), AF420288 (Genbank). N4Lid DOI: 10.1601/nm.3593

**Family *Desulfobulbaceae*** <sup>VP</sup> Kuever et al 2006. N4Lid DOI: 10.1601/nm.3594

**Genus *Desulfobulbus*** <sup>VP</sup> Widdel 1981. N4Lid DOI: 10.1601/nm.3595

*Desulfobulbus propionicus* <sup>VP</sup> Widdel 1981. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 33891. High-quality 16S rRNA sequence S000436240 (RDP), M34410 (Genbank). N4Lid DOI: 10.1601/nm.3596

*Desulfobulbus elongatus* <sup>VP</sup> Samain et al. 1985. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 43118. High-quality 16S rRNA sequence S000126615 (RDP), X95180 (Genbank). N4Lid DOI: 10.1601/nm.3597

*Desulfobulbus mediterraneus* <sup>VP</sup> Sass et al. 2002. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 13871. High-quality 16S rRNA sequence S000392134 (RDP), AF354663 (Genbank). N4Lid DOI: 10.1601/nm.3598

*Desulfobulbus rhabdoformis* <sup>VP</sup> Lien et al. 1998. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 700652. High-quality 16S rRNA sequence S000437114 (RDP), U12253 (Genbank). N4Lid DOI: 10.1601/nm.3599

**Genus *Desulfocapsa*** <sup>VP</sup> Janssen et al. 1997. N4Lid DOI: 10.1601/nm.3600

***Desulfocapsa thiozymogenes*** <sup>VP</sup> Janssen et al. 1997. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 7269. High-quality 16S rRNA sequence S000128257 (RDP), X95181 (Genbank). N4Lid DOI: 10.1601/nm.3601

***Desulfocapsa sulfexigens*** <sup>VP</sup> corrug. Finster et al. 2000. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 700424. High-quality 16S rRNA sequence S000130725 (RDP), Y13672 (Genbank). N4Lid DOI: 10.1601/nm.3602

**Genus *Desulfocustis*** <sup>VP</sup> Friedrich et al. 1996. N4Lid DOI: 10.1601/nm.3603

***Desulfocustis glycolicus*** <sup>VP</sup> Friedrich et al. 1996. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 700454. High-quality 16S rRNA sequence S000381437 (RDP), X99707 (Genbank). N4Lid DOI: 10.1601/nm.3604

**Genus *Desulforhopalus*** <sup>VP</sup> Isaksen and Teske 1999. N4Lid DOI: 10.1601/nm.3605

***Desulforhopalus vacuolatus*** <sup>VP</sup> Isaksen and Teske 1999. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 700480. High-quality 16S rRNA sequence S000435986 (RDP), L42613 (Genbank). N4Lid DOI: 10.1601/nm.3606

***Desulforhopalus singaporenensis*** <sup>VP</sup> Lie et al. 2000. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 12130. High-quality 16S rRNA sequence S000429262 (RDP), AF118453 (Genbank). N4Lid DOI: 10.1601/nm.3607

**Genus *Desulfotalea*** <sup>VP</sup> Knoblauch et al. 1999. N4Lid DOI: 10.1601/nm.3608

***Desulfotalea psychrophila*** <sup>VP</sup> Knoblauch et al. 1999. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 12343. High-quality 16S rRNA sequence S000428875 (RDP), AF099062 (Genbank). GOLD ID: Gc00207. GCAT ID: 000023\_GCAT. Entrez genome id: 12751. Sequenced strain: DSM 12343 is type material. Genome sequencing is completed. Number of genomes of this species sequenced 1 (GOLD) 1 (NCBI). N4Lid DOI: 10.1601/nm.3609

***Desulfotalea arctica*** <sup>VP</sup> Knoblauch et al. 1999. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 12342. High-quality 16S rRNA sequence S000428874 (RDP), AF099061 (Genbank). N4Lid DOI: 10.1601/nm.3610

**Family *Nitrospinaceae*** <sup>VP</sup> Garrity et al 2006. N4Lid DOI: 10.1601/nm.3611

**Genus *Nitrospina*** <sup>AL</sup> Watson and Waterbury 1971. N4Lid DOI: 10.1601/nm.3612

***Nitrospina gracilis*** <sup>AL</sup> Watson and Waterbury 1971. Source of type material recommended for DOE sponsored genome sequencing by the JGI: No viable type strain.. High-quality 16S rRNA sequence S000414629 (RDP), L35504 (Genbank). GOLD ID: Gi00860. GCAT ID: 001273\_GCAT. Entrez genome id: 13445. Sequenced strain: Nb 211 is from a non-type strain. Genome sequencing is incomplete. Number of genomes of this species sequenced 1 (GOLD) 1 (NCBI). N4Lid DOI: 10.1601/nm.3613

**Order *Desulfarculales*** <sup>VP</sup> N4Lid DOI: 10.1601/nm.3614

**Family *Desulfarculaceae*** <sup>VP</sup> Kuever et al 2006. N4Lid DOI: 10.1601/nm.3615

**Genus *Desulfarculus*** <sup>VP</sup> Kuever et al. 2006. N4Lid DOI: 10.1601/nm.3616

***Desulfarculus baarsii*** <sup>VP</sup> (Widdel 1981) Kuever et al. 2006. <=> *Desulfovibrio baarsii* (basonym). Synonym links through N4Lid: 10.1601/ex.3476. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 33931. High-quality 16S rRNA sequence S000436233 (RDP), M34403 (Genbank). N4Lid DOI: 10.1601/nm.3617

† ***Desulfovibrio baarsii*** <sup>VP</sup> Widdel 1981. ==> *Desulfarculus baarsii* (new combination).

Synonym links through N4Lid: 10.1601/ex.3476. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 33931. High-quality 16S rRNA sequence S000436233 (RDP), M34403 (Genbank). N4Lid DOI: 10.1601/nm.3476

**Order *Desulfuromonadales*** <sup>VP</sup> Kuever et al. 2006. N4Lid DOI: 10.1601/nm.3618

**Family *Desulfuromonadaceae*** <sup>VP</sup> Kuever et al. 2006. N4Lid DOI: 10.1601/nm.3619

**Genus *Desulfuromonas*** <sup>AL</sup> Pfennig and Biebl 1977. N4Lid DOI: 10.1601/nm.3620

***Desulfuromonas acetoxidans*** <sup>AL</sup> Pfennig and Biebl 1977. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 684. High-quality 16S rRNA sequence S000436149 (RDP), M26634 (Genbank). GOLD ID: Gi00197. GCAT ID: 001002\_GCAT. Entrez genome id: 12551. Sequenced strain: DSM 684 is type material. Genome sequencing is

incomplete. Number of genomes of this species sequenced 1 (GOLD) 1 (NCBI). N4Lid DOI: 10.1601/nm.3621

***Desulfuromonas acetexigens*** <sup>VP</sup> Finster et al. 1997. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 1397. N4Lid DOI: 10.1601/nm.3622

***Desulfuromonas chloroethenica*** <sup>VP</sup> Krumholz 1997. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 700295. High-quality 16S rRNA sequence S000381082 (RDP), U49748 (Genbank). N4Lid DOI: 10.1601/nm.3623

***Desulfuromonas palmitatis*** <sup>VP</sup> Coates et al. 2000. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 51701. High-quality 16S rRNA sequence S000437417 (RDP), U28172 (Genbank). N4Lid DOI: 10.1601/nm.3624

***Desulfuromonas svalbardensis*** <sup>VP</sup> Vandieken et al. 2006. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 16958. High-quality 16S rRNA sequence S000457290 (RDP), AY835388 (Genbank). N4Lid DOI: 10.1601/nm.10052

***Desulfuromonas thiophila*** <sup>VP</sup> Finster et al. 1997. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 700367. High-quality 16S rRNA sequence S000007761 (RDP), Y11560 (Genbank). N4Lid DOI: 10.1601/nm.3625

**Genus *Desulfuromusa*** <sup>VP</sup> Liesack and Finster 1994. N4Lid DOI: 10.1601/nm.3626

***Desulfuromusa kysingii*** <sup>VP</sup> Liesack and Finster 1994. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 7343. High-quality 16S rRNA sequence S000015699 (RDP), X79414 (Genbank). N4Lid DOI: 10.1601/nm.3627

***Desulfuromusa bakii*** <sup>VP</sup> Liesack and Finster 1994. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 7345. High-quality 16S rRNA sequence S000016405 (RDP), X79412 (Genbank). N4Lid DOI: 10.1601/nm.3628

***Desulfuromusa ferrireducens*** <sup>VP</sup> Vandieken et al. 2006. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 16956. High-quality 16S rRNA sequence S000457294 (RDP), AY835392 (Genbank). N4Lid DOI: 10.1601/nm.10053

***Desulfuromusa succinoxidans*** <sup>VP</sup> Liesack and Finster 1994. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 8270. High-quality 16S rRNA sequence S000006970 (RDP), X79415 (Genbank). N4Lid DOI: 10.1601/nm.3629

**Genus *Malonomonas*** <sup>VP</sup> Dehning and Schink 1990. N4Lid DOI: 10.1601/nm.3630

***Malonomonas rubra*** <sup>VP</sup> Dehning and Schink 1990. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 5091. High-quality 16S rRNA sequence S000010833 (RDP), Y17712 (Genbank). N4Lid DOI: 10.1601/nm.3631

**Genus *Pelobacter*** <sup>VP</sup> Schink and Pfennig 1983. N4Lid DOI: 10.1601/nm.3632

***Pelobacter acidigallici*** <sup>VP</sup> Schink and Pfennig 1983. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 49970. High-quality 16S rRNA sequence S000003147 (RDP), X77216 (Genbank). N4Lid DOI: 10.1601/nm.3633

***Pelobacter acetylenicus*** <sup>VP</sup> Schink 1986. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 3246. High-quality 16S rRNA sequence S000009676 (RDP), X70955 (Genbank). N4Lid DOI: 10.1601/nm.3634

***Pelobacter carbinolicus*** <sup>VP</sup> Schink 1984. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 2380. High-quality 16S rRNA sequence S000008920 (RDP), X79413 (Genbank). GOLD ID: Gc00306. GCAT ID: 000304\_GCAT. Entrez genome id: 13337. Sequenced strain: DSM 2380 is type material. Genome sequencing is completed. Number of genomes of this species sequenced 1 (GOLD) 1 (NCBI). N4Lid DOI: 10.1601/nm.3635

***Pelobacter massiliensis*** <sup>VP</sup> Schnell et al. 1991. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 49973. N4Lid DOI: 10.1601/nm.3636

***Pelobacter propionicus*** <sup>VP</sup> Schink 1984. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 2379. High-quality 16S rRNA sequence S000005137 (RDP), X70954 (Genbank). GOLD ID: Gc00467. GCAT ID: 000142\_GCAT. Entrez genome id: 13384. Sequenced strain: DSM 2379 is type material. Genome sequencing is completed. Number of genomes of this species sequenced 1 (GOLD) 1 (NCBI). N4Lid DOI: 10.1601/nm.3637

***Pelobacter venetianus*** <sup>VP</sup> Schink and Stieb 1984. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 35615. High-quality 16S rRNA sequence S000437600 (RDP), U41562 (Genbank). N4Lid DOI: 10.1601/nm.3638

**Family *Geobacteraceae*** <sup>VP</sup> Holmes et al 2004. N4Lid DOI: 10.1601/nm.3639

**Genus *Geobacter*** <sup>VP</sup> Lovley et al. 1995. GOLD ID: Gi00944. GCAT ID: 001102\_GCAT. Entrez genome id: 16263. Sequenced strain: FRC-32 is from a non-type strain. Genome sequencing is incomplete. Number of genomes of this species sequenced 3 (GOLD) 3 (NCBI). N4Lid DOI: 10.1601/nm.3640

***Geobacter metallireducens*** <sup>VP</sup> Lovley et al. 1995. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 53774. High-quality 16S rRNA sequence S000414324 (RDP), L07834 (Genbank). GOLD ID: Gc00314. GCAT ID: 000296\_GCAT. Entrez genome id: 177. Sequenced strain: GS-15 is from a non-type strain. Genome sequencing is completed. Number of genomes of this species sequenced 1 (GOLD) 1 (NCBI). N4Lid DOI: 10.1601/nm.3641

***Geobacter bimidiensis*** <sup>VP</sup> Nevin et al. 2005. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC BAA-1014. High-quality 16S rRNA sequence S000571800 (RDP), AY187307 (Genbank). GOLD ID: Gi01650. GCAT ID: 001103\_GCAT. Entrez genome id: 17707. Sequenced strain: ATCC BAA-1014 is type material. Genome sequencing is incomplete. Number of genomes of this species sequenced 1 (GOLD) 1 (NCBI). N4Lid 10.1601/nm.9537

***Geobacter bremensis*** <sup>VP</sup> Straub and Buchholz-Cleven 2001. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC BAA-607. High-quality 16S rRNA sequence S000438915 (RDP), U96917 (Genbank). N4Lid DOI: 10.1601/nm.3642

***Geobacter chapellei*** <sup>VP</sup> Coates et al. 2001. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 51744. High-quality 16S rRNA sequence S000437599 (RDP), U41561 (Genbank). N4Lid DOI: 10.1601/nm.3643

***Geobacter grbiciae*** <sup>VP</sup> Coates et al. 2001. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC BAA-45. High-quality 16S rRNA sequence S000391801 (RDP), AF335182 (Genbank). N4Lid DOI: 10.1601/nm.3644

***Geobacter hydrogenophilus*** <sup>VP</sup> Coates et al. 2001. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 51590. High-quality 16S rRNA sequence S000437418 (RDP), U28173 (Genbank). N4Lid DOI: 10.1601/nm.3645

***Geobacter pelophilus*** <sup>VP</sup> Straub and Buchholz-Cleven 2001. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC BAA-603. High-quality 16S rRNA sequence S000438916 (RDP), U96918 (Genbank). N4Lid DOI: 10.1601/nm.3646

***Geobacter psychrophilus*** <sup>VP</sup> Nevin et al. 2005. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC BAA-1013. High-quality 16S rRNA sequence S000548805 (RDP), AY653548 (Genbank). N4Lid 10.1601/nm.9538

***Geobacter sulfurreducens*** <sup>VP</sup> Caccavo et al. 1995. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 51573. High-quality 16S rRNA sequence S000437158 (RDP), U13928 (Genbank). GOLD ID: Gc00166. GCAT ID: 000444\_GCAT. Entrez genome id: 192. Sequenced strain: ATCC 51573 is type material. Genome sequencing is completed. Number of genomes of this species sequenced 1 (GOLD) 1 (NCBI). N4Lid DOI: 10.1601/nm.3647

**Genus *Geopsychrobacter*** <sup>VP</sup> Holmes et al. 2005. N4Lid 10.1601/nm.9283

***Geopsychrobacter electrodiphilus*** <sup>VP</sup> Holmes et al. 2005. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC BAA-880. High-quality 16S rRNA sequence S000440962 (RDP), AY187303 (Genbank). N4Lid 10.1601/nm.9282

**Genus *Geothermobacter*** <sup>VP</sup> Kashefi et al. 2005. N4Lid 10.1601/nm.9285

***Geothermobacter ehrlichii*** <sup>VP</sup> Kashefi et al. 2005. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC BAA-635 and DSM 15274. High-quality 16S rRNA sequence S000398534 (RDP), AY155599 (Genbank). N4Lid 10.1601/nm.9284

**Genus *Trichlorobacter*** <sup>VP</sup> De Wever et al. 2001. N4Lid DOI: 10.1601/nm.3648

***Trichlorobacter thiogenes*** <sup>VP</sup> De Wever et al. 2001. *Geobacter thiogenes* (new combination). Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC

BAA-34. High-quality 16S rRNA sequence S000389424 (RDP), AF223382 (Genbank). N4Lid DOI: 10.1601/nm.3649

**Order *Syntrophobacterales*** <sup>VP</sup> Kuever et al 2006. N4Lid DOI: 10.1601/nm.3650

**Family *Syntrophobacteraceae*** <sup>VP</sup> Kuever et al 2006. N4Lid DOI: 10.1601/nm.3651

**Genus *Syntrophobacter*** <sup>VP</sup> Boone and Bryant 1984. N4Lid DOI: 10.1601/nm.3652

*Syntrophobacter wolinii* <sup>VP</sup> Boone and Bryant 1984. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 2805. High-quality 16S rRNA sequence S000004801 (RDP), X70905 (Genbank). N4Lid DOI: 10.1601/nm.3653

*Syntrophobacter fumaroxidans* <sup>VP</sup> Harmsen et al. 1998. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 10017. High-quality 16S rRNA sequence S000022640 (RDP), X82874 (Genbank). GOLD ID: Gc00453. GCAT ID: 000156\_GCAT. Entrez genome id: 13013. Sequenced strain: MPOB is type material. Genome sequencing is completed. Number of genomes of this species sequenced 1 (GOLD) 1 (NCBI). N4Lid DOI: 10.1601/nm.3654

*Syntrophobacter pfennigii* <sup>VP</sup> Wallrabenstein et al. 1996. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 10092. High-quality 16S rRNA sequence S000017105 (RDP), X82875 (Genbank). N4Lid DOI: 10.1601/nm.3655

*Syntrophobacter sulfatireducens* <sup>VP</sup> Chen et al. 2005. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 16706. High-quality 16S rRNA sequence S000548711 (RDP), AY651787 (Genbank). N4Lid 10.1601/nm.9452

**Genus *Desulfacinum*** <sup>VP</sup> Rees et al. 1995. N4Lid DOI: 10.1601/nm.3656

*Desulfacinum infernum* <sup>VP</sup> Rees et al. 1995. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 9756. High-quality 16S rRNA sequence S000414554 (RDP), L27426 (Genbank). N4Lid DOI: 10.1601/nm.3657

*Desulfacinum hydrothermale* <sup>VP</sup> Sievert and Kuever 2000. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 13146. High-quality 16S rRNA sequence S000388514 (RDP), AF170417 (Genbank). N4Lid DOI: 10.1601/nm.3658

**Genus *Desulforhabdus*** <sup>VP</sup> Oude Elferink et al. 1997. N4Lid DOI: 10.1601/nm.3659

*Desulforhabdus amnigena* <sup>VP</sup> corrig. Oude Elferink et al. 1997. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 51979. High-quality 16S rRNA sequence S000010018 (RDP), X83274 (Genbank). N4Lid DOI: 10.1601/nm.3660

**Genus *Desulfoviroga*** <sup>VP</sup> Tanaka et al. 2000. N4Lid DOI: 10.1601/nm.3661

*Desulfoviroga adipica* <sup>VP</sup> Tanaka et al. 2000. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 12016. N4Lid DOI: 10.1601/nm.3662

**Genus *Thermodesulforhabdus*** <sup>VP</sup> Beeder et al. 1996. N4Lid DOI: 10.1601/nm.3663

*Thermodesulforhabdus norvegica* <sup>VP</sup> corrig. Beeder et al. 1996. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 51998. High-quality 16S rRNA sequence S000437365 (RDP), U25627 (Genbank). N4Lid DOI: 10.1601/nm.3664

**Family *Syntrophaceae*** <sup>VP</sup> Kuever et al 2006. N4Lid DOI: 10.1601/nm.3665

**Genus *Syntrophus*** <sup>VP</sup> Mountfort et al. 1984. N4Lid DOI: 10.1601/nm.3666

*Syntrophus buswellii* <sup>VP</sup> Mountfort et al. 1984. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 2612A. High-quality 16S rRNA sequence S000015757 (RDP), X85131 (Genbank). N4Lid DOI: 10.1601/nm.3667

*Syntrophus aciditrophicus* <sup>VP</sup> Jackson et al. 2001. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 700169. High-quality 16S rRNA sequence S000438631 (RDP), U86447 (Genbank). GOLD ID: Gc00341. GCAT ID: 000269\_GCAT. Entrez genome id: 16258. Sequenced strain: SB is from a non-type strain. Genome sequencing is completed. Number of genomes of this species sequenced 2 (GOLD) 1 (NCBI). N4Lid DOI: 10.1601/nm.3668

*Syntrophus gentianae* <sup>VP</sup> Wallrabenstein et al. 1996. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 8423. High-quality 16S rRNA sequence S000004383 (RDP), X85132 (Genbank). N4Lid DOI: 10.1601/nm.3669

**Genus *Desulfobacca*** <sup>VP</sup> Oude Elferink et al. 1999. N4Lid DOI: 10.1601/nm.3670

***Desulfobacca acetoxidans*** <sup>VP</sup> Oude Elferink et al. 1999. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 700848. High-quality 16S rRNA sequence S000386891 (RDP), AF002671 (Genbank). N4Lid DOI: 10.1601/nm.3671

**Genus *Desulfomonile*** <sup>VP</sup> DeWeerd et al. 1991. N4Lid DOI: 10.1601/nm.3672

***Desulfomonile tiedjei*** <sup>VP</sup> DeWeerd et al. 1991. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 49306. High-quality 16S rRNA sequence S000436150 (RDP), M26635 (Genbank). N4Lid DOI: 10.1601/nm.3673

***Desulfomonile limimaris*** <sup>VP</sup> Sun et al. 2001. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 700979. High-quality 16S rRNA sequence S000389682 (RDP), AF230531 (Genbank). N4Lid DOI: 10.1601/nm.3674

**Genus *Smithella*** <sup>VP</sup> Liu et al. 1999. N4Lid DOI: 10.1601/nm.3675

***Smithella propionica*** <sup>VP</sup> Liu et al. 1999. Source of type material recommended for DOE sponsored genome sequencing by the JGI: OCM 661. High-quality 16S rRNA sequence S000387293 (RDP), AF126282 (Genbank). N4Lid DOI: 10.1601/nm.3676

**Order *Bdellovibrionales*** <sup>VP</sup> Garrity et al 2006. N4Lid DOI: 10.1601/nm.3677

**Family *Bdellovibrionaceae*** <sup>VP</sup> Garrity et al 2006. N4Lid DOI: 10.1601/nm.3678

**Genus *Bdellovibrio*** <sup>AL</sup> Stolp and Starr 1963. N4Lid DOI: 10.1601/nm.3679

***Bdellovibrio bacteriovorus*** <sup>AL</sup> Stolp and Starr 1963. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 15356. High-quality 16S rRNA sequence S000130039 (RDP), AJ292759 (Genbank). GOLD ID: Gc00168. GCAT ID: 000442\_GCAT. Entrez genome id: 9637. Sequenced strain: ATCC 15356 is type material. Genome sequencing is completed. Number of genomes of this species sequenced 2 (GOLD) 1 (NCBI). N4Lid DOI: 10.1601/nm.3680

**Genus *Micavibrio*** <sup>VP</sup> Lambina et al. 1989. N4Lid DOI: 10.1601/nm.3686

***Micavibrio admirandus*** <sup>VP</sup> Lambina et al. 1989. Source of type material recommended for DOE sponsored genome sequencing by the JGI: VKM B-1619. N4Lid DOI: 10.1601/nm.3687

**Genus *Vampirovibrio*** <sup>VP</sup> Gromov and Mamkayeva 1980. N4Lid DOI: 10.1601/nm.3688

***Vampirovibrio chlorellavorus*** <sup>VP</sup> (ex Gromov and Mamkayeva 1972) Gromov and Mamkayeva 1980. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 29753. N4Lid DOI: 10.1601/nm.3689

**Family *Bacteriovoracaceae*** <sup>VP</sup> Davidov and Jurkevitch 2004. N4Lid 10.1601/nm.8976

**Genus *Bacteriovorax*** <sup>VP</sup> Baer et al. 2000. N4Lid DOI: 10.1601/nm.3683

***Bacteriovorax stolpii*** <sup>VP</sup> (Seidler et al. 1972) Baer et al. 2000. <== *Bdellovibrio stolpii* (basonym). Synonym links through N4Lid: 10.1601/ex.3682. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 27052. High-quality 16S rRNA sequence S000436219 (RDP), M34125 (Genbank). N4Lid DOI: 10.1601/nm.3684

† ***Bdellovibrio stolpii*** <sup>AL</sup> Seidler et al. 1972. ==> *Bacteriovorax stolpii* (new combination). Synonym links through N4Lid: 10.1601/ex.3682. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 27052. High-quality 16S rRNA sequence S000436219 (RDP), M34125 (Genbank). N4Lid DOI: 10.1601/nm.3682

***Bacteriovorax litoralis*** <sup>VP</sup> Baer et al. 2004. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC BAA-684. High-quality 16S rRNA sequence S000365693 (RDP), AF084859 (Genbank). N4Lid DOI: 10.1601/nm.8507

***Bacteriovorax marinus*** <sup>VP</sup> Baer et al. 2004. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC BAA-682. High-quality 16S rRNA sequence S000365691 (RDP), AF084854 (Genbank). GOLD ID: Gi00066. GCAT ID: 000763\_GCAT. Entrez genome id: 12622. Sequenced strain: SJ is type material. Genome sequencing is incomplete. Number of genomes of this species sequenced 1 (GOLD) 1 (NCBI). N4Lid DOI: 10.1601/nm.8508

**Genus *Peredibacter*** <sup>VP</sup> Davidov and Jurkevitch 2004. N4Lid 10.1601/nm.8769

***Peredibacter starrii*** <sup>VP</sup> (Seidler et al. 1972) Davidov and Jurkevitch 2004. <== *Bdellovibrio starrii* (basonym). Synonym links through N4Lid: 10.1601/ex.3681. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 15145. High-quality 16S rRNA sequence S000428666 (RDP), AF084852 (Genbank). N4Lid 10.1601/nm.8770

† *Bacteriovorax starrii* <sup>VP</sup> (Seidler et al. 1972) Baer et al. 2000. <== *Bdellovibrio starrii* (basonym). *Peredibacter starrii* (new combination). Synonym links through N4Lid: 10.1601/ex.3681. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 15145. High-quality 16S rRNA sequence S000428666 (RDP), AF084852 (Genbank). N4Lid DOI: 10.1601/nm.3685

† *Bdellovibrio starrii* <sup>AL</sup> Seidler et al. 1972. ==> *Bacteriovorax starrii* (new combination). Synonym links through N4Lid: 10.1601/ex.3681. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 15145. High-quality 16S rRNA sequence S000428666 (RDP), AF084852 (Genbank). N4Lid DOI: 10.1601/nm.3681

**Order Myxococcales** <sup>AL</sup> Tchan et al 1948. N4Lid DOI: 10.1601/nm.3690

**Suborder "Cystobacterineae"** N4Lid DOI: 10.1601/nm.3691

**Family Cystobacteraceae** <sup>AL</sup> McCurdy 1970. N4Lid DOI: 10.1601/nm.3692

**Genus Cystobacter** <sup>AL</sup> Schroeter 1886. N4Lid DOI: 10.1601/nm.3693

*Cystobacter fuscus* <sup>AL</sup> Schroeter 1886. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 25194. High-quality 16S rRNA sequence S000436919 (RDP), M94276 (Genbank). N4Lid DOI: 10.1601/nm.3694

"*Cystobacter armeniaca*" Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 14710. N4Lid DOI: 10.1601/nm.3695

"*Cystobacter badius*" Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 17723. N4Lid DOI: 10.1601/nm.3696

"*Cystobacter disciformis*" <==Synonym links through N4Lid: 10.1601/ex.3697. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 33172. N4Lid DOI: 10.1601/nm.3697

† *Angiococcus disciformis* <sup>VP</sup> (Thaxter 1904) Hook et al. 1980. <== *Myxococcus disciformis* (basonym). Synonym links through N4Lid: 10.1601/ex.3697. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 33172. N4Lid DOI: 10.1601/nm.9089

† *Myxococcus disciformis* <sup>AL</sup> Thaxter 1904. ==> *Angiococcus disciformis* (new combination). Synonym links through N4Lid: 10.1601/ex.3697. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 33172. N4Lid DOI: 10.1601/nm.3722

*Cystobacter ferrugineus* <sup>AL</sup> (Krzemieniewska and Krzemieniewski 1927) McCurdy 1970. Source of type material recommended for DOE sponsored genome sequencing by the JGI: Windsor M-203. High-quality 16S rRNA sequence S000539278 (RDP), AJ233901 (Genbank). N4Lid DOI: 10.1601/nm.3698

"*Cystobacter gracilis*" Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 14753. N4Lid DOI: 10.1601/nm.3699

"*Cystobacter miniatus*" Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 14712. N4Lid DOI: 10.1601/nm.3700

"*Cystobacter minor*" Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 14751. N4Lid DOI: 10.1601/nm.3701

"*Cystobacter velatus*" Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 14718. N4Lid DOI: 10.1601/nm.3702

"*Cystobacter violaceus*" Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 14727. N4Lid DOI: 10.1601/nm.3703

**Genus Anaeromyxobacter** <sup>VP</sup> Sanford et al. 2002. GOLD ID: Gi01322. GCAT ID: 001731\_GCAT. Entrez genome id: 17729. Sequenced strain: Fw109-5 is from a non-type strain. Genome sequencing is incomplete. Number of genomes of this species sequenced 2 (GOLD) 1 (NCBI). N4Lid DOI: 10.1601/nm.3704

*Anaeromyxobacter dehalogenans* <sup>VP</sup> Sanford et al. 2002. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC BAA-258. High-quality 16S rRNA sequence S000392790 (RDP), AF382396 (Genbank). GOLD ID: Gc00340. GCAT ID: 000270\_GCAT. Entrez genome id: 12634. Sequenced strain: 2CP-C is from a non-type strain. Genome sequencing is completed. Number of genomes of this species sequenced 2 (GOLD) 1 (NCBI). N4Lid DOI: 10.1601/nm.3705

**Genus *Archangium* <sup>AL</sup>** Jahn 1924. N4Lid DOI: 10.1601/nm.3706

*Archangium gephyra* <sup>AL</sup> Jahn 1924. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 25201. High-quality 16S rRNA sequence S000436916 (RDP), M94273 (Genbank). N4Lid DOI: 10.1601/nm.3707

**Genus "Hyalangium"** N4Lid DOI: 10.1601/nm.3708

"*Hyalangium minutum*" Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 14724. N4Lid DOI: 10.1601/nm.3709

**Genus *Melittangium* <sup>AL</sup>** Jahn 1924. N4Lid DOI: 10.1601/nm.3710

*Melittangium boletus* <sup>AL</sup> Jahn 1924. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 14713. High-quality 16S rRNA sequence S000539285 (RDP), AJ233908 (Genbank). N4Lid DOI: 10.1601/nm.3711

*Melittangium alboraceum* <sup>AL</sup> (Peterson 1959) McCurdy 1971. Source of type material recommended for DOE sponsored genome sequencing by the JGI: No viable type strain.. N4Lid DOI: 10.1601/nm.3712

*Melittangium lichenicola* <sup>AL</sup> (Thaxter 1892) McCurdy 1971. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 25944. High-quality 16S rRNA sequence S000436920 (RDP), M94277 (Genbank). N4Lid DOI: 10.1601/nm.3713

**Genus *Stigmatella* <sup>AL</sup>** Berkeley and Curtis 1875. N4Lid DOI: 10.1601/nm.3714

*Stigmatella aurantiaca* <sup>AL</sup> Berkeley and Curtis 1875. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 25190. High-quality 16S rRNA sequence S000436924 (RDP), M94281 (Genbank). GOLD ID: Gi00604. GCAT ID: 001526\_GCAT. Sequenced strain: DW4 /3-1 is from a non-type strain. Genome sequencing is incomplete. Number of genomes of this species sequenced 2 (GOLD) 1 (NCBI). N4Lid DOI: 10.1601/nm.3715

*Stigmatella erecta* <sup>AL</sup> (Schroeter 1886) McCurdy 1971. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 25191. High-quality 16S rRNA sequence S000540099 (RDP), AJ970180 (Genbank). N4Lid DOI: 10.1601/nm.3716

"*Stigmatella hybrida*" Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 14722. N4Lid DOI: 10.1601/nm.3717

**Family *Myxococcaceae* <sup>AL</sup>** Jahn 1924. N4Lid DOI: 10.1601/nm.3718

**Genus *Myxococcus* <sup>AL</sup>** Thaxter 1892. N4Lid DOI: 10.1601/nm.3719

*Myxococcus fulvus* <sup>AL</sup> (Cohn 1875) Jahn 1911. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 25199. N4Lid DOI: 10.1601/nm.3720

*Myxococcus flavescens* <sup>VP</sup> Yamanaka et al. 1990. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 51243. N4Lid DOI: 10.1601/nm.3723

*Myxococcus macrosporus* <sup>AL</sup> (Krzemieniewska and Krzemieniewski 1926) Zahler and McCurdy 1974. Source of type material recommended for DOE sponsored genome sequencing by the JGI: Windsor M271. N4Lid DOI: 10.1601/nm.3724

*Myxococcus stipitatus* <sup>AL</sup> Thaxter 1897. Source of type material recommended for DOE sponsored genome sequencing by the JGI: Windsor M78. N4Lid DOI: 10.1601/nm.3725

*Myxococcus virescens* <sup>AL</sup> Thaxter 1892. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 25203. N4Lid DOI: 10.1601/nm.3726

*Myxococcus xanthus* <sup>AL</sup> Beebe 1941. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 25232. High-quality 16S rRNA sequence S000750061 (RDP). GOLD ID: Gc00391. GCAT ID: 000219\_GCAT. Entrez genome id: 1421. Sequenced strain: DK 1622 is from a non-type strain. Genome sequencing is completed. Number of genomes of this species sequenced 2 (GOLD) 1 (NCBI). N4Lid DOI: 10.1601/nm.3727

**Genus †*Angiococcus* <sup>VP</sup>** (ex Jahn 1924) Hook et al. 1980. Unified with *Myxococcus*, links through 10.1601/nm.3719. N4Lid 10.1601/nm.9088

**Genus "Corallococcus"** N4Lid DOI: 10.1601/nm.3728

"*Corallococcus coralloides*" <=Synonym links through N4Lid: 10.1601/ex.3721. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 25202. High-quality 16S rRNA sequence S000367196 (RDP), AJ811588 (Genbank). N4Lid DOI: 10.1601/nm.3729

† *Myxococcus coralloides*<sup>AL</sup> Thaxter 1892. ==> *Corallococcus coralloides* (new combination).

Synonym links through N4Lid: 10.1601/ex.3721. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 25202. High-quality 16S rRNA sequence S000367196 (RDP), AJ811588 (Genbank). N4Lid DOI: 10.1601/nm.3721

"*Corallococcus exiguum*" Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 14696. High-quality 16S rRNA sequence S000367206 (RDP), AJ811598 (Genbank). N4Lid DOI: 10.1601/nm.3730

"*Corallococcus macrosporus*" Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 14697. N4Lid DOI: 10.1601/nm.3731

Genus "*Pyxicoccus*" N4Lid DOI: 10.1601/nm.3732

"*Pyxicoccus fallax*" Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 14698. N4Lid DOI: 10.1601/nm.3733

Suborder "*Sorangineae*" N4Lid DOI: 10.1601/nm.3734

Family *Polyangiaceae*<sup>AL</sup> Jahn 1924. N4Lid DOI: 10.1601/nm.3735

Genus *Polyangium*<sup>AL</sup> Link 1809. N4Lid DOI: 10.1601/nm.3736

*Polyangium vitellinum*<sup>AL</sup> Link 1809. Source of type material recommended for DOE sponsored genome sequencing by the JGI: TC 4564. N4Lid DOI: 10.1601/nm.3737

*Polyangium aureum*<sup>VP</sup> (ex Krzemieniewska and Krzemieniewski 1930) Brockman 1989. Source of type material recommended for DOE sponsored genome sequencing by the JGI: No viable type strain.. N4Lid DOI: 10.1601/nm.3738

*Polyangium fumosum*<sup>AL</sup> Krzemieniewska and Krzemieniewski 1930. Source of type material recommended for DOE sponsored genome sequencing by the JGI: Windsor M257. N4Lid DOI: 10.1601/nm.3740

*Polyangium luteum*<sup>VP</sup> (ex Krzemieniewska and Krzemieniewski 1927) Brockman 1989. Source of type material recommended for DOE sponsored genome sequencing by the JGI: No viable type strain.. N4Lid DOI: 10.1601/nm.3741

*Polyangium parasiticum*<sup>VP</sup> (ex Geitler 1924) Brockman 1989. Source of type material recommended for DOE sponsored genome sequencing by the JGI: No viable type strain.. N4Lid DOI: 10.1601/nm.3743

*Polyangium sorediatum*<sup>VP</sup> (ex Thaxter 1904) Brockman 1989. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 14670. N4Lid DOI: 10.1601/nm.3745

*Polyangium spumosum*<sup>VP</sup> (ex Krzemieniewska and Krzemieniewski 1927) Brockman 1989. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 14734. N4Lid DOI: 10.1601/nm.3746

Genus "*Byssvorax*" N4Lid DOI: 10.1601/nm.3747

"*Byssvorax cruenta*" Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 14553. High-quality 16S rRNA sequence S000417333 (RDP), AJ833647 (Genbank). N4Lid DOI: 10.1601/nm.3748

Genus *Chondromyces*<sup>AL</sup> Berkeley and Curtis 1874. N4Lid DOI: 10.1601/nm.3749

*Chondromyces crocatus*<sup>AL</sup> Berkeley and Curtis 1874. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 14714. N4Lid DOI: 10.1601/nm.3750

*Chondromyces apiculatus*<sup>AL</sup> Thaxter 1897. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 14605. High-quality 16S rRNA sequence S000539315 (RDP), AJ233938 (Genbank). N4Lid DOI: 10.1601/nm.3751

*Chondromyces catenulatus*<sup>AL</sup> Thaxter 1904. Source of type material recommended for DOE sponsored genome sequencing by the JGI: TC 4517. N4Lid DOI: 10.1601/nm.3752

*Chondromyces lanuginosus*<sup>AL</sup> Kofler 1913. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 14631. High-quality 16S rRNA sequence S000539316 (RDP), AJ233939 (Genbank). N4Lid DOI: 10.1601/nm.3753

*Chondromyces pediculatus*<sup>AL</sup> Thaxter 1904. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 14607. N4Lid DOI: 10.1601/nm.3754

"*Chondromyces robustus*" Source of type material recommended for DOE sponsored genome sequencing by the JGI: No viable type strain.. High-quality 16S rRNA sequence S000539319 (RDP), AJ233942 (Genbank). N4Lid DOI: 10.1601/nm.3755

**Genus "*Haploangium*"** N4Lid DOI: 10.1601/nm.3756

"*Haploangium rugiseptum*" <==Synonym links through N4Lid: 10.1601/ex.3744. Source of type material recommended for DOE sponsored genome sequencing by the JGI: UMH Peterson 51. N4Lid DOI: 10.1601/nm.3757

† *Polyangium rugiseptum* <sup>AL</sup> (Peterson 1959) McCurdy 1970. ==> *Haploangium rugiseptum* (new combination). Synonym links through N4Lid: 10.1601/ex.3744. Source of type material recommended for DOE sponsored genome sequencing by the JGI: UMH Peterson 51. N4Lid DOI: 10.1601/nm.3744

"*Haploangium minus*" <==Synonym links through N4Lid: 10.1601/ex.3742. Source of type material recommended for DOE sponsored genome sequencing by the JGI: UMH Peterson 41. N4Lid DOI: 10.1601/nm.3758

† *Polyangium minor* <sup>AL</sup> (Peterson 1959) McCurdy 1970. ==> *Haploangium minus* (new combination). Synonym links through N4Lid: 10.1601/ex.3742. Source of type material recommended for DOE sponsored genome sequencing by the JGI: UMH Peterson 41. N4Lid DOI: 10.1601/nm.3742

**Genus "*Jahnia*"** N4Lid DOI: 10.1601/nm.3759

"*Jahnia thaxteri*" Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 14626. N4Lid DOI: 10.1601/nm.3760

**Genus "*Sorangium*"** N4Lid DOI: 10.1601/nm.3761

"*Sorangium cellulosum*" <==Synonym links through N4Lid: 10.1601/ex.3739. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 14627. GOLD ID: Gi00561. GCAT ID: 001504\_GCAT. Sequenced strain: So ce56 is from a non-type strain. Genome sequencing is incomplete. Number of genomes of this species sequenced 1 (GOLD). N4Lid DOI: 10.1601/nm.3762

† *Polyangium cellulosum* <sup>VP</sup> (ex Imshenetski and Solntseva 1936) Brockman 1989. ==> *Sorangium cellulosum* (new combination). Synonym links through N4Lid: 10.1601/ex.3739. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 14627. GOLD ID: Gi00561. GCAT ID: 001504\_GCAT. Sequenced strain: So ce56 is from a non-type strain. Genome sequencing is incomplete. Number of genomes of this species sequenced 1 (GOLD) 0 (NCBI). N4Lid DOI: 10.1601/nm.3739

**Suborder "*Nannocystinae*"** N4Lid DOI: 10.1601/nm.3763

**Family *Nannocystaceae* <sup>VP</sup>** Reichenbach 2006. N4Lid DOI: 10.1601/nm.3764

**Genus *Nannocystis* <sup>AL</sup>** Reichenbach 1970. N4Lid DOI: 10.1601/nm.3765

"*Nannocystis excedens* subsp. *excedans*" Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 25963. N4Lid DOI: 10.1601/nm.3766

"*Nannocystis excedens* subsp. *aggregans*" Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 25963. N4Lid DOI: 10.1601/nm.3767

"*Nannocystis excedens* subsp. *cinnabarina*" Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 14641. N4Lid DOI: 10.1601/nm.3768

"*Nannocystis excedens* subsp. *glomerata*" Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 14640. N4Lid DOI: 10.1601/nm.3769

"*Nannocystis excedens* subsp. *pulla*" Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 14629. N4Lid DOI: 10.1601/nm.3770

"*Nannocystis pusilla*" Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 14622. N4Lid DOI: 10.1601/nm.3771

**Genus *Enhygromyxa* <sup>VP</sup>** Iizuka et al. 2003. N4Lid DOI: 10.1601/nm.3772

*Enhygromyxa salina* <sup>VP</sup> Iizuka et al. 2003. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 15217. High-quality 16S rRNA sequence S000385672 (RDP), AB097590 (Genbank). N4Lid DOI: 10.1601/nm.3773

**Genus *Plesiocystis* <sup>VP</sup>** Iizuka et al. 2003. N4Lid DOI: 10.1601/nm.3774

***Plesiocystis pacifica*** <sup>VP</sup> Iizuka et al. 2003. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 14875. High-quality 16S rRNA sequence S000384935 (RDP), AB083432 (Genbank). GOLD ID: Gi01444. GCAT ID: 000909\_GCAT. Sequenced strain: SIR-1 is type material. Genome sequencing is incomplete. Number of genomes of this species sequenced 1 (GOLD). N4Lid DOI: 10.1601/nm.3775

**Family "Haliangiaceae"** N4Lid DOI: 10.1601/nm.3776

**Genus *Haliangium*** <sup>VP</sup> Fudou et al. 2002. N4Lid DOI: 10.1601/nm.3777

***Haliangium ochraceum*** <sup>VP</sup> Fudou et al. 2002. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 14365. High-quality 16S rRNA sequence S000382370 (RDP), AB016470 (Genbank). N4Lid DOI: 10.1601/nm.3778

***Haliangium tepidum*** <sup>VP</sup> Fudou et al. 2002. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 14436. High-quality 16S rRNA sequence S000022588 (RDP), AB062751 (Genbank). N4Lid DOI: 10.1601/nm.3779

**Family "Kofleriaceae"** N4Lid DOI: 10.1601/nm.3780

**Genus "Kofleria"** N4Lid DOI: 10.1601/nm.3781

**"*Kofleria flava*"** Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 14601. N4Lid DOI: 10.1601/nm.3782

**Class *Epsilonproteobacteria*** <sup>VP</sup> Garrity et al 2006. N4Lid DOI: 10.1601/nm.3783

**Order *Campylobacterales*** <sup>VP</sup> Garrity et al 2006. N4Lid DOI: 10.1601/nm.3784

**Family *Campylobacteraceae*** <sup>VP</sup> Vandamme and De Ley 1991. N4Lid DOI: 10.1601/nm.3785

**Genus *Campylobacter*** <sup>AL</sup> Sebald and Véron 1963. N4Lid DOI: 10.1601/nm.3786

***Campylobacter fetus subsp. fetus*** <sup>AL</sup> (Smith and Taylor 1919) Véron and Chatelain 1973. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 19438. High-quality 16S rRNA sequence S000414266 (RDP), L04314 (Genbank). GOLD ID: Gc00466. GCAT ID: 000143\_GCAT. Entrez genome id: 16293. Sequenced strain: 82-40 is from a non-type strain. Genome sequencing is completed. Number of genomes of this species sequenced 2 (GOLD) 2 (NCBI). N4Lid DOI: 10.1601/nm.3787

***Campylobacter fetus subsp. venerealis*** <sup>AL</sup> (Florent 1959) Véron and Chatelain 1973. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 19438. N4Lid DOI: 10.1601/nm.3795

***Campylobacter coli*** <sup>AL</sup> (Doyle 1948) Véron and Chatelain 1973.  $\approx$  ***Campylobacter hyoilei*** (later heterotypic synonym), links through 10.1601/nm.3790. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 33559. High-quality 16S rRNA sequence S000436447 (RDP), M59073 (Genbank). GOLD ID: Gi00118. GCAT ID: 000819\_GCAT. Entrez genome id: 12516. Sequenced strain: ATCC BAA-1061 is from a non-type strain. Genome sequencing is incomplete. Number of genomes of this species sequenced 1 (GOLD) 1 (NCBI). N4Lid DOI: 10.1601/nm.3790

**† *Campylobacter hyoilei*** <sup>VP</sup> Alderton et al. 1995.  $\approx$  ***Campylobacter coli*** (earlier heterotypic synonym), links through 10.1601/nm.3790. Source of type material recommended for DOE sponsored genome sequencing by the JGI: CCUG 33450. N4Lid DOI: 10.1601/nm.3799

***Campylobacter concisus*** <sup>VP</sup> Tanner et al. 1981. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 33237. High-quality 16S rRNA sequence S000414274 (RDP), L04322 (Genbank). GOLD ID: Gi01266. GCAT ID: 000829\_GCAT. Entrez genome id: 17159. Sequenced strain: 13826 is from a non-type strain. Genome sequencing is incomplete. Number of genomes of this species sequenced 1 (GOLD) 1 (NCBI). N4Lid DOI: 10.1601/nm.3791

***Campylobacter curvus*** <sup>VP</sup> (Tanner et al. 1984) Vandamme et al. 1991.  $<=>$  ***Wolinella curva*** (basonym). Synonym links through N4Lid: 10.1601/ex.3862. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 35224. High-quality 16S rRNA sequence S000414265 (RDP), L04313 (Genbank). GOLD ID: Gi01267. GCAT ID: 000830\_GCAT. Entrez genome id: 17161. Sequenced strain: 526 is from a non-type strain. Genome sequencing is incomplete. Number of genomes of this species sequenced 1 (GOLD) 1 (NCBI). N4Lid DOI: 10.1601/nm.3793

**† *Wolinella curva*** <sup>VP</sup> Tanner et al. 1984.  $=>$  ***Campylobacter curvus*** (new combination). Synonym links through N4Lid: 10.1601/ex.3862. Source of type material recommended for DOE

sponsored genome sequencing by the JGI: ATCC 35224. High-quality 16S rRNA sequence S000414265 (RDP), L04313 (Genbank). GOLD ID: Gi01267. GCAT ID: 000830\_GCAT. Entrez genome id: 17161. Sequenced strain: 526 is from a non-type strain. Genome sequencing is incomplete. Number of genomes of this species sequenced 1 (GOLD) 1 (NCBI). N4Lid DOI: 10.1601/nm.3862

*Campylobacter gracilis* <sup>VP</sup> (Tanner et al. 1981) Vandamme et al. 1995. <== *Bacteroides gracilis* (basonym). Synonym links through N4Lid: 10.1601/ex.7954. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 33236. High-quality 16S rRNA sequence S000414272 (RDP), L04320 (Genbank). N4Lid DOI: 10.1601/nm.3796

† *Bacteroides gracilis* <sup>VP</sup> Tanner et al. 1981. ==> *Campylobacter gracilis* (new combination). Synonym links through N4Lid: 10.1601/ex.7954. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 33236. High-quality 16S rRNA sequence S000414272 (RDP), L04320 (Genbank). N4Lid DOI: 10.1601/nm.7954

*Campylobacter helveticus* <sup>VP</sup> Stanley et al. 1993. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 51209. High-quality 16S rRNA sequence S000437001 (RDP), U03022 (Genbank). N4Lid DOI: 10.1601/nm.3797

*Campylobacter hominis* <sup>VP</sup> Lawson et al. 2001. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC BAA-381. High-quality 16S rRNA sequence S000004853 (RDP), AJ251584 (Genbank). GOLD ID: Gi01268. GCAT ID: 000831\_GCAT. Sequenced strain: LMG 19568 is type material. Genome sequencing is incomplete. Number of genomes of this species sequenced 1 (GOLD). N4Lid DOI: 10.1601/nm.3798

*Campylobacter hyoilealis subsp. hyoilealis* <sup>VP</sup> Gebhart et al. 1985. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 35217. High-quality 16S rRNA sequence S000436628 (RDP), M65010 (Genbank). N4Lid DOI: 10.1601/nm.3800

*Campylobacter hyoilealis subsp. lawsonii* <sup>VP</sup> On et al. 1995. Source of type material recommended for DOE sponsored genome sequencing by the JGI: CCUG 34538. High-quality 16S rRNA sequence S000428836 (RDP), AF097685 (Genbank). N4Lid DOI: 10.1601/nm.3801

*Campylobacter insulaenigrae* <sup>VP</sup> Foster et al. 2004. Source of type material recommended for DOE sponsored genome sequencing by the JGI: CCUG 48653. High-quality 16S rRNA sequence S000440230 (RDP), AJ620504 (Genbank). N4Lid 10.1601/nm.8943

*Campylobacter jejuni subsp. jejuni* <sup>VP</sup> (Jones et al. 1931) Véron and Chatelain 1973. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 33560. High-quality 16S rRNA sequence S000414431 (RDP), L14630 (Genbank). GOLD ID: Gc00025. GCAT ID: 000585\_GCAT. Entrez genome id: 8. Sequenced strain: NCTC 11168 is from a non-type strain. Genome sequencing is completed. Number of genomes of this species sequenced 10 (GOLD) 10 (NCBI). N4Lid DOI: 10.1601/nm.3802

*Campylobacter jejuni subsp. doylei* <sup>VP</sup> Steele and Owen 1988. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 49349. High-quality 16S rRNA sequence S000690671 (RDP). GOLD ID: Gi01293. GCAT ID: 000828\_GCAT. Entrez genome id: 17163. Sequenced strain: 270 is from a non-type strain. Genome sequencing is incomplete. Number of genomes of this species sequenced 1 (GOLD) 1 (NCBI). N4Lid DOI: 10.1601/nm.3803

*Campylobacter lanienae* <sup>VP</sup> Logan et al. 2000. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC BAA-633. High-quality 16S rRNA sequence S000428017 (RDP), AF043425 (Genbank). N4Lid DOI: 10.1601/nm.3804

*Campylobacter lari* <sup>VP</sup> corrig. Benjamin et al. 1984. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 35221. High-quality 16S rRNA sequence S000414268 (RDP), L04316 (Genbank). GOLD ID: Gi00122. GCAT ID: 000832\_GCAT. Entrez genome id: 12517. Sequenced strain: ATCC BAA-1060 is from a non-type strain. Genome sequencing is incomplete. Number of genomes of this species sequenced 1 (GOLD) 1 (NCBI). N4Lid DOI: 10.1601/nm.3805

*Campylobacter mucosalis* <sup>VP</sup> (Lawson et al. 1981) Roop et al. 1985. <== *Campylobacter sputorum subsp. mucosalis* (basonym). Synonym links through N4Lid: 10.1601/ex.3815. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 43264. N4Lid DOI: 10.1601/nm.3806

† *Campylobacter sputorum subsp. mucosalis* <sup>VP</sup> (ex Lawson and Rowland 1974) Lawson et al. 1981. ==> *Campylobacter mucosalis* (new combination). Synonym links through N4Lid: 10.1601/ex.3815. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 43264. N4Lid DOI: 10.1601/nm.3815

*Campylobacter rectus* <sup>VP</sup> (Tanner et al. 1981) Vandamme et al. 1991. <== *Wolinella recta* (basonym). Synonym links through N4Lid: 10.1601/ex.3863. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 33238. High-quality 16S rRNA sequence S000414269 (RDP), L04317 (Genbank). N4Lid DOI: 10.1601/nm.3811

† *Wolinella recta* <sup>VP</sup> Tanner et al. 1981. ==> *Campylobacter rectus* (new combination). Synonym links through N4Lid: 10.1601/ex.3863. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 33238. High-quality 16S rRNA sequence S000414269 (RDP), L04317 (Genbank). N4Lid DOI: 10.1601/nm.3863

*Campylobacter showae* <sup>VP</sup> Etoh et al. 1993. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 51146. High-quality 16S rRNA sequence S000414317 (RDP), L06974 (Genbank). N4Lid DOI: 10.1601/nm.3812

*Campylobacter sputorum subsp. sputorum* <sup>AL</sup> (Prévot 1940) Véron and Chatelain 1973. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 33562. High-quality 16S rRNA sequence S000021698 (RDP), X67775 (Genbank). N4Lid DOI: 10.1601/nm.3813

*Campylobacter sputorum subsp. bubulus* <sup>AL</sup> (Florent 1953) Véron and Chatelain 1973. Source of type material recommended for DOE sponsored genome sequencing by the JGI: CCUG 11289. N4Lid DOI: 10.1601/nm.3814

*Campylobacter upsaliensis* <sup>VP</sup> Sandstedt and Ursing 1991. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 43954. High-quality 16S rRNA sequence S000414429 (RDP), L14628 (Genbank). GOLD ID: Gi00123. GCAT ID: 000833\_GCAT. Entrez genome id: 12518. Sequenced strain: ATCC BAA-1059 is from a non-type strain. Genome sequencing is incomplete. Number of genomes of this species sequenced 1 (GOLD) 1 (NCBI). N4Lid DOI: 10.1601/nm.3816

Genus *Arcobacter* <sup>VP</sup> Vandamme et al. 1991. N4Lid DOI: 10.1601/nm.3817

*Arcobacter nitrofigilis* <sup>VP</sup> (McClung et al. 1983) Vandamme et al. 1991. <== *Campylobacter nitrofigilis* (basonym). Synonym links through N4Lid: 10.1601/ex.3808. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 33309. High-quality 16S rRNA sequence S000414428 (RDP), L14627 (Genbank). N4Lid DOI: 10.1601/nm.3818

† *Campylobacter nitrofigilis* <sup>VP</sup> McClung et al. 1983. ==> *Arcobacter nitrofigilis* (new combination). Synonym links through N4Lid: 10.1601/ex.3808. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 33309. High-quality 16S rRNA sequence S000414428 (RDP), L14627 (Genbank). N4Lid DOI: 10.1601/nm.3808

*Arcobacter butzleri* <sup>VP</sup> (Kiehlbauch et al. 1991) Vandamme et al. 1992. <== *Campylobacter butzleri* (basonym). Synonym links through N4Lid: 10.1601/ex.3788. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 49616. N4Lid DOI: 10.1601/nm.3819

† *Campylobacter butzleri* <sup>VP</sup> Kiehlbauch et al. 1991. ==> *Arcobacter butzleri* (new combination). Synonym links through N4Lid: 10.1601/ex.3788. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 49616. N4Lid DOI: 10.1601/nm.3788

*Arcobacter cibarius* <sup>VP</sup> Houf et al. 2005. Source of type material recommended for DOE sponsored genome sequencing by the JGI: CCUG 48482. High-quality 16S rRNA sequence S000471105 (RDP), AJ607391 (Genbank). N4Lid DOI: 10.1601/nm.9357

*Arcobacter cryaerophilus* <sup>VP</sup> (Neill et al. 1985) Vandamme et al. 1991. <== *Campylobacter cryaerophilus* (basonym). Synonym links through N4Lid: 10.1601/ex.3792. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 43158. High-quality 16S rRNA sequence S000414425 (RDP), L14624 (Genbank). N4Lid DOI: 10.1601/nm.3820

† *Campylobacter cryaerophilus* <sup>VP</sup> corrig. Neill et al. 1985. ==> *Arcobacter cryaerophilus* (new combination). Synonym links through N4Lid: 10.1601/ex.3792. Source of type material

recommended for DOE sponsored genome sequencing by the JGI: ATCC 43158. High-quality 16S rRNA sequence S000414425 (RDP), L14624 (Genbank). N4Lid DOI: 10.1601/nm.3792

***Arcobacter halophilus*** <sup>VP</sup> Donachie et al. 2005. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC BAA-1022. High-quality 16S rRNA sequence S000543775 (RDP), AF513455 (Genbank). N4Lid 10.1601/nm.9451

***Arcobacter skirrowii*** <sup>VP</sup> Vandamme et al. 1992. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 51132. High-quality 16S rRNA sequence S000414426 (RDP), L14625 (Genbank). N4Lid DOI: 10.1601/nm.3821

**Genus †*Dehalospirillum*** <sup>VP</sup> Scholz-Muramatsu et al. 2002.  $\approx$  *Sulfurospirillum* (earlier heterotypic synonym), links through 10.1601/nm.3824. N4Lid DOI: 10.1601/nm.3822

**Genus *Sulfurospirillum*** <sup>VP</sup> Schumacher et al. 1993.  $\approx$  *Sulfurospirillum* (later heterotypic synonym), links through 10.1601/nm.3824. N4Lid DOI: 10.1601/nm.3824

***Sulfurospirillum deleyianum*** <sup>VP</sup> Schumacher et al. 1993. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 51133. High-quality 16S rRNA sequence S000128537 (RDP), Y13671 (Genbank). N4Lid DOI: 10.1601/nm.3825

***Sulfurospirillum arcachonense*** <sup>VP</sup> Finster et al. 1997. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 700423. High-quality 16S rRNA sequence S000018038 (RDP), Y11561 (Genbank). N4Lid DOI: 10.1601/nm.3826

***Sulfurospirillum arsenophilum*** <sup>VP</sup> Stolz et al. 1999. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 700056. High-quality 16S rRNA sequence S000438625 (RDP), U85964 (Genbank). N4Lid DOI: 10.1601/nm.3827

***Sulfurospirillum barnesii*** <sup>VP</sup> Stolz et al. 1999. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 700032. High-quality 16S rRNA sequence S000427973 (RDP), AF038843 (Genbank). N4Lid DOI: 10.1601/nm.3828

***Sulfurospirillum halorespirans*** <sup>VP</sup> Luijten et al. 2003. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC BAA-583. High-quality 16S rRNA sequence S000389334 (RDP), AF218076 (Genbank). N4Lid DOI: 10.1601/nm.3829

***Sulfurospirillum multivorans*** <sup>VP</sup> (Scholz-Muramatsu et al. 2002) Luijten et al. 2003.  $\leftarrow\rightleftharpoons$  *Dehalospirillum multivorans* (basonym). Synonym links through N4Lid: 10.1601/ex.3823. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 12446. N4Lid DOI: 10.1601/nm.3830

**†*Dehalospirillum multivorans*** <sup>VP</sup> Scholz-Muramatsu et al. 2002.  $\Rightarrow$  *Sulfurospirillum multivorans* (new combination). Synonym links through N4Lid: 10.1601/ex.3823. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 12446. N4Lid DOI: 10.1601/nm.3823

**Family *Helicobacteraceae*** <sup>VP</sup> Garrity et al 2006. N4Lid DOI: 10.1601/nm.3831

**Genus *Helicobacter*** <sup>VP</sup> Goodwin et al. 1989. N4Lid DOI: 10.1601/nm.3832

***Helicobacter pylori*** <sup>VP</sup> (Marshall et al. 1985) Goodwin et al. 1989.  $\leftarrow\rightleftharpoons$  *Campylobacter pylori* *subsp. pylori* (basonym). Synonym links through N4Lid: 10.1601/ex.3809. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 43504. High-quality 16S rRNA sequence S000014640 (RDP), Z25741 (Genbank). GOLD ID: Gc00007. GCAT ID: 000603\_GCAT. Entrez genome id: 233. Sequenced strain: ATCC 700392 is from a non-type strain. Genome sequencing is completed. Number of genomes of this species sequenced 6 (GOLD) 3 (NCBI). N4Lid DOI: 10.1601/nm.3833

**†*Campylobacter pylori* *subsp. pylori*** <sup>VP</sup> Marshall et al. 1985.  $\Rightarrow$  *Helicobacter pylori* (new combination). Synonym links through N4Lid: 10.1601/ex.3809. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 43504. High-quality 16S rRNA sequence S000436866 (RDP), M88157 (Genbank). GOLD ID: Gc00007. GCAT ID: 000603\_GCAT. Entrez genome id: 233. Sequenced strain: ATCC 700392 is from a non-type strain. Genome sequencing is completed. Number of genomes of this species sequenced 6 (GOLD) 3 (NCBI). N4Lid DOI: 10.1601/nm.3809

**†*Helicobacter nemestrinae*** <sup>VP</sup> Bronsdon et al. 1991.  $\approx$  *Helicobacter pylori* (earlier heterotypic synonym), links through 10.1601/nm.3833. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 49396. N4Lid DOI: 10.1601/nm.3849

*Helicobacter acinonychis* <sup>VP</sup> corrug. Eaton et al. 1993. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 51101. High-quality 16S rRNA sequence S000363188 (RDP), M88148 (Genbank). GOLD ID: Gc00403. GCAT ID: 000212\_GCAT. Entrez genome id: 17251. Sequenced strain: Sheeba is from a non-type strain. Genome sequencing is completed. Number of genomes of this species sequenced 1 (GOLD) 1 (NCBI). N4Lid DOI: 10.1601/nm.3834

*Helicobacter anseris* <sup>VP</sup> Fox et al. 2006. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC BAA-1299. High-quality 16S rRNA sequence S000651603 (RDP), DQ415545 (Genbank). N4Lid DOI: 10.1601/nm.10315

*Helicobacter aurati* <sup>VP</sup> Patterson et al. 2002. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC BAA-1. High-quality 16S rRNA sequence S000390922 (RDP), AF297868 (Genbank). N4Lid DOI: 10.1601/nm.3835

*Helicobacter bilis* <sup>VP</sup> Fox et al. 1997. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 51630. High-quality 16S rRNA sequence S000363265 (RDP), U18766 (Genbank). N4Lid DOI: 10.1601/nm.3836

*Helicobacter bizzozeronii* <sup>VP</sup> Hänninen et al. 1996. Source of type material recommended for DOE sponsored genome sequencing by the JGI: CCUG 35545. High-quality 16S rRNA sequence S000145295 (RDP), Y09404 (Genbank). N4Lid DOI: 10.1601/nm.3837

*Helicobacter brantae* <sup>VP</sup> Fox et al. 2006. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC BAA-1298. High-quality 16S rRNA sequence S000651604 (RDP), DQ415546 (Genbank). N4Lid DOI: 10.1601/nm.10316

*Helicobacter canadensis* <sup>VP</sup> Fox et al. 2002. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 700968. High-quality 16S rRNA sequence S000390281 (RDP), AF262037 (Genbank). N4Lid DOI: 10.1601/nm.3838

*Helicobacter canis* <sup>VP</sup> Stanley et al. 1994. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 51401. High-quality 16S rRNA sequence S000414408 (RDP), L13464 (Genbank). N4Lid DOI: 10.1601/nm.3839

*Helicobacter cetorum* <sup>VP</sup> Harper et al. 2006. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC BAA-540. High-quality 16S rRNA sequence S000390782 (RDP), AF292378 (Genbank). N4Lid DOI: 10.1601/nm.10317

*Helicobacter cholecystus* <sup>VP</sup> Franklin et al. 1997. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 700242. High-quality 16S rRNA sequence S000437657 (RDP), U46129 (Genbank). N4Lid DOI: 10.1601/nm.3840

*Helicobacter cinaedi* <sup>VP</sup> (Totten et al. 1988) Vandamme et al. 1991. *<=> Campylobacter cinaedi* (basonym). Synonym links through N4Lid: 10.1601/ex.3789. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC BAA-847. High-quality 16S rRNA sequence S000334505 (RDP), M88150 (Genbank). N4Lid DOI: 10.1601/nm.3841

† *Campylobacter cinaedi* <sup>VP</sup> Totten et al. 1988. *=> Helicobacter cinaedi* (new combination). Synonym links through N4Lid: 10.1601/ex.3789. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC BAA-847. High-quality 16S rRNA sequence S000334505 (RDP), M88150 (Genbank). N4Lid DOI: 10.1601/nm.3789

*Helicobacter cynogastricus* <sup>VP</sup> Van den Bulck et al. 2006. Source of type material recommended for DOE sponsored genome sequencing by the JGI: LMG 23188. High-quality 16S rRNA sequence S000536639 (RDP), DQ004689 (Genbank). N4Lid DOI: 10.1601/nm.10159

*Helicobacter felis* <sup>VP</sup> Paster et al. 1991. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 49179. High-quality 16S rRNA sequence S000375738 (RDP), M57398 (Genbank). N4Lid DOI: 10.1601/nm.3842

*Helicobacter fennelliae* <sup>VP</sup> (Totten et al. 1988) Vandamme et al. 1991. *<=> Campylobacter fennelliae* (basonym). Synonym links through N4Lid: 10.1601/ex.3794. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 35684. High-quality 16S rRNA sequence S000363190 (RDP), M88154 (Genbank). N4Lid DOI: 10.1601/nm.3843

† *Campylobacter fennelliae* <sup>VP</sup> Totten et al. 1988. *=> Helicobacter fennelliae* (new combination). Synonym links through N4Lid: 10.1601/ex.3794. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 35684. High-quality 16S rRNA sequence S000363190 (RDP), M88154 (Genbank). N4Lid DOI: 10.1601/nm.3794

***Helicobacter ganmani*** <sup>VP</sup> Robertson et al. 2001. Source of type material recommended for DOE sponsored genome sequencing by the JGI: CCUG 43526. High-quality 16S rRNA sequence S000386802 (RDP), AF000221 (Genbank). N4Lid DOI: 10.1601/nm.3845

**"*Helicobacter heilmannii*"** O'Rourke et al. 2004. Source of type material recommended for DOE sponsored genome sequencing by the JGI: No viable deposit available. High-quality 16S rRNA sequence S000014116 (RDP), AF506786 (Genbank). N4Lid 10.1601/nm.8973

***Helicobacter hepaticus*** <sup>VP</sup> Fox et al. 1994. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 51448. High-quality 16S rRNA sequence S000334525 (RDP), U07574 (Genbank). GOLD ID: Gc00139. GCAT ID: 000471\_GCAT. Entrez genome id: 185. Sequenced strain: ATCC 51449 is from a non-type strain. Genome sequencing is completed. Number of genomes of this species sequenced 1 (GOLD) 1 (NCBI). N4Lid DOI: 10.1601/nm.3844

***Helicobacter marmotae*** <sup>VP</sup> Fox et al. 2006. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC BAA-546. High-quality 16S rRNA sequence S000391774 (RDP), AF333341 (Genbank). N4Lid DOI: 10.1601/nm.10318

***Helicobacter mastomysinus*** <sup>VP</sup> Shen et al. 2006. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC BAA-1046. High-quality 16S rRNA sequence S000505602 (RDP), AY742307 (Genbank). N4Lid DOI: 10.1601/nm.10319

***Helicobacter mesocricetorum*** <sup>VP</sup> Simmons et al. 2000. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 700932. High-quality 16S rRNA sequence S000428427 (RDP), AF072471 (Genbank). N4Lid DOI: 10.1601/nm.3846

***Helicobacter muridarum*** <sup>VP</sup> Lee et al. 1992. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 49282. High-quality 16S rRNA sequence S000334502 (RDP), M80205 (Genbank). N4Lid DOI: 10.1601/nm.3847

***Helicobacter mustelae*** <sup>VP</sup> (Fox et al. 1988) Goodwin et al. 1989. <== *Campylobacter pylori* *subsp. mustelae* (basonym). Synonym links through N4Lid: 10.1601/ex.3810. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 43772. High-quality 16S rRNA sequence S000363169 (RDP), M35048 (Genbank). GOLD ID: Gi00294. GCAT ID: 001133\_GCAT. Entrez genome id: 13426. Sequenced strain: ATCC 43772 is type material. Genome sequencing is incomplete. Number of genomes of this species sequenced 1 (GOLD) 1 (NCBI). N4Lid DOI: 10.1601/nm.3848

† ***Campylobacter mustelae*** <sup>VP</sup> (Fox et al. 1988) Fox et al. 1989. <== *Campylobacter pylori* *subsp. mustelae* (basonym). *Helicobacter mustelae* (new combination). Synonym links through N4Lid: 10.1601/ex.3810. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 43772. High-quality 16S rRNA sequence S000363169 (RDP), M35048 (Genbank). GOLD ID: Gi00294. GCAT ID: 001133\_GCAT. Entrez genome id: 13426. Sequenced strain: ATCC 43772 is type material. Genome sequencing is incomplete. Number of genomes of this species sequenced 1 (GOLD) 1 (NCBI). N4Lid DOI: 10.1601/nm.3807

† ***Campylobacter pylori* *subsp. mustelae*** <sup>VP</sup> Fox et al. 1988. ==> *Campylobacter mustelae* (new combination). Synonym links through N4Lid: 10.1601/ex.3810. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 43772. High-quality 16S rRNA sequence S000363169 (RDP), M35048 (Genbank). GOLD ID: Gi00294. GCAT ID: 001133\_GCAT. Entrez genome id: 13426. Sequenced strain: ATCC 43772 is type material. Genome sequencing is incomplete. Number of genomes of this species sequenced 1 (GOLD) 1 (NCBI). N4Lid DOI: 10.1601/nm.3810

***Helicobacter pamerensis*** <sup>VP</sup> Dewhurst et al. 1994. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 51478. High-quality 16S rRNA sequence S000363187 (RDP), M88147 (Genbank). N4Lid DOI: 10.1601/nm.3850

***Helicobacter pullorum*** <sup>VP</sup> Stanley et al. 1995. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 51801. High-quality 16S rRNA sequence S000622336 (RDP), L36141 (Genbank). N4Lid DOI: 10.1601/nm.3851

***Helicobacter rodentium*** <sup>VP</sup> Shen et al. 1997. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 700285. High-quality 16S rRNA sequence S000438897 (RDP), U96296 (Genbank). N4Lid DOI: 10.1601/nm.3852

***Helicobacter salomonis*** <sup>VP</sup> Jalava et al. 1997. Source of type material recommended for DOE sponsored genome sequencing by the JGI: CCUG 37845. High-quality 16S rRNA sequence S000438741 (RDP), U89351 (Genbank). N4Lid DOI: 10.1601/nm.3853

***Helicobacter trogontum*** <sup>VP</sup> Mendes et al. 1996. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 700114. High-quality 16S rRNA sequence S000438115 (RDP), U65103 (Genbank). N4Lid DOI: 10.1601/nm.3854

***Helicobacter typhlonius*** <sup>VP</sup> Franklin et al. 2002. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC BAA-367. High-quality 16S rRNA sequence S000387334 (RDP), AF127912 (Genbank). N4Lid DOI: 10.1601/nm.3855

**Genus *Sulfuricurvum*** <sup>VP</sup> Kodama and Watanabe 2004. N4Lid 10.1601/nm.8871

***Sulfuricurvum kujiense*** <sup>VP</sup> Kodama and Watanabe 2004. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC BAA-921. High-quality 16S rRNA sequence S000383585 (RDP), AB053951 (Genbank). N4Lid 10.1601/nm.8872

**Genus *Sulfurimonas*** <sup>VP</sup> Inagaki et al. 2003. N4Lid DOI: 10.1601/nm.3856

***Sulfurimonas autotrophica*** <sup>VP</sup> Inagaki et al. 2003. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC BAA-671. High-quality 16S rRNA sequence S000252003 (RDP), AB088431 (Genbank). N4Lid DOI: 10.1601/nm.3857

***Sulfurimonas denitrificans*** <sup>VP</sup> (Timmer-ten Hoor 1975) Takai et al. 2006. <== *Thiomicrospira denitrificans* (basonym). Synonym links through N4Lid: 10.1601/ex.2331. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 33889. High-quality 16S rRNA sequence S000435956 (RDP), L40808 (Genbank). GOLD ID: Gc00328. GCAT ID: 000282\_GCAT. Entrez genome id: 13019. Sequenced strain: ATCC 33889 is type material. Genome sequencing is completed. Number of genomes of this species sequenced 1 (GOLD) 1 (NCBI). N4Lid 10.1601/nm.9790

† ***Thiomicrospira denitrificans*** <sup>AL</sup> Timmer-ten Hoor 1975. ==> *Sulfurimonas denitrificans* (new combination). Synonym links through N4Lid: 10.1601/ex.2331. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 33889. High-quality 16S rRNA sequence S000435956 (RDP), L40808 (Genbank). GOLD ID: Gc00328. GCAT ID: 000282\_GCAT. Entrez genome id: 13019. Sequenced strain: ATCC 33889 is type material. Genome sequencing is completed. Number of genomes of this species sequenced 1 (GOLD) 1 (NCBI). N4Lid DOI: 10.1601/nm.2331

***Sulfurimonas paralvinellae*** <sup>VP</sup> Takai et al. 2006. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 17229. High-quality 16S rRNA sequence S000650635 (RDP), AB252048 (Genbank). N4Lid DOI: 10.1601/nm.10230

**Genus *Sulfurovum*** <sup>VP</sup> Inagaki et al. 2004. N4Lid 10.1601/nm.8873

***Sulfurovum lithotrophicum*** <sup>VP</sup> Inagaki et al. 2004. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC BAA-797. High-quality 16S rRNA sequence S000415023 (RDP), AB091292 (Genbank). N4Lid 10.1601/nm.8874

**Genus *Thiovulum*** <sup>AL</sup> Hinze 1913. N4Lid DOI: 10.1601/nm.3858

***Thiovulum majus*** <sup>AL</sup> Hinze 1913. Source of type material recommended for DOE sponsored genome sequencing by the JGI: no culture isolated. N4Lid DOI: 10.1601/nm.3859

**Genus *Wolinella*** <sup>VP</sup> Tanner et al. 1981. N4Lid DOI: 10.1601/nm.3860

***Wolinella succinogenes*** <sup>VP</sup> (Wolin et al. 1961) Tanner et al. 1981. <== *Vibrio succinogenes* (basonym). Synonym links through N4Lid: 10.1601/ex.3006. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 29543. High-quality 16S rRNA sequence S000363191 (RDP), M88159 (Genbank). GOLD ID: Gc00158. GCAT ID: 000452\_GCAT. Entrez genome id: 445. Sequenced strain: DSM 1740 is type material. Genome sequencing is completed. Number of genomes of this species sequenced 1 (GOLD) 1 (NCBI). N4Lid DOI: 10.1601/nm.3861

† ***Vibrio succinogenes*** <sup>AL</sup> Wolin et al. 1961. ==> *Wolinella succinogenes* (new combination). Synonym links through N4Lid: 10.1601/ex.3006. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 29543. High-quality 16S rRNA sequence S000363191 (RDP), M88159 (Genbank). GOLD ID: Gc00158. GCAT ID: 000452\_GCAT. Entrez genome id: 445. Sequenced strain: DSM 1740 is type material. Genome sequencing is completed. Number of genomes of this species sequenced 1 (GOLD) 1 (NCBI). N4Lid DOI: 10.1601/nm.3006

**Family "Hydrogenimonaceae"** N4Lid DOI: 10.1601/nm.3864

**Genus *Hydrogenimonas*** <sup>VP</sup> Takai et al. 2004. N4Lid DOI: 10.1601/nm.3865

***Hydrogenimonas thermophila* VP** Takai et al. 2004. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC BAA-737. High-quality 16S rRNA sequence S000252415 (RDP), AB105048 (Genbank). N4Lid DOI: 10.1601/nm.3866

**Order *Nautiales* VP** Miroshnichenko et al 2004. N4Lid DOI: 10.1601/nm.3867

**Family *Nautiliaceae* VP** Miroshnichenko et al 2004. N4Lid DOI: 10.1601/nm.3868

**Genus *Nautilia* VP** Miroshnichenko et al. 2002. GOLD ID: Gi00397. GCAT ID: 001255\_GCAT. Entrez genome id: 13240. Sequenced strain: Am-H is from a non-type strain. Genome sequencing is incomplete. Number of genomes of this species sequenced 1 (GOLD) 1 (NCBI). N4Lid DOI: 10.1601/nm.3869

***Nautilia lithotrophica* VP** Miroshnichenko et al. 2002. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 13520. High-quality 16S rRNA sequence S000083785 (RDP), AJ404370 (Genbank). N4Lid DOI: 10.1601/nm.3870

**Genus *Caminibacter* VP** Alain et al. 2002. N4Lid DOI: 10.1601/nm.3871

***Caminibacter hydrogenophilus* VP** Alain et al. 2002. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 14510. High-quality 16S rRNA sequence S000131276 (RDP), AJ309655 (Genbank). N4Lid DOI: 10.1601/nm.3872

***Caminibacter mediatlanticus* VP** Voordeckers et al. 2005. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 16658. High-quality 16S rRNA sequence S000505089 (RDP), AY691430 (Genbank). GOLD ID: Gi01407. GCAT ID: 000863\_GCAT. Sequenced strain: DSM 16658 is type material. Genome sequencing is incomplete. Number of genomes of this species sequenced 1 (GOLD). N4Lid 10.1601/nm.9362

***Caminibacter profundus* VP** Miroshnichenko et al. 2004. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 15016. High-quality 16S rRNA sequence S000264512 (RDP), AJ535664 (Genbank). N4Lid DOI: 10.1601/nm.3873

**Genus *Lebetimonas* VP** Takai et al. 2005. N4Lid 10.1601/nm.8666

***Lebetimonas acidiphila* VP** Takai et al. 2005. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 16356. High-quality 16S rRNA sequence S000469711 (RDP), AB167820 (Genbank). N4Lid 10.1601/nm.8667

**Genus *Nitratiractor* VP** Nakagawa et al. 2005. N4Lid 10.1601/nm.9374

***Nitratiractor salsuginis* VP** Nakagawa et al. 2005. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 16511. High-quality 16S rRNA sequence S000496333 (RDP), AB175500 (Genbank). N4Lid 10.1601/nm.9373

**Genus *Nitratiruptor* VP** Nakagawa et al. 2005. N4Lid 10.1601/nm.9372

***Nitratiruptor tergarcus* VP** Nakagawa et al. 2005. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 16512. High-quality 16S rRNA sequence S000496332 (RDP), AB175499 (Genbank). N4Lid 10.1601/nm.9371

**Genus *Thioreductor* VP** Nakagawa et al. 2005. N4Lid 10.1601/nm.9347

***Thioreductor micantisoli* VP** Nakagawa et al. 2005. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 16661. High-quality 16S rRNA sequence S000496331 (RDP), AB175498 (Genbank). N4Lid 10.1601/nm.9346