TAXONOMIC NOTE

Change of the names *Haloanaerobiales*, *Haloanaerobiaceae* and *Haloanaerobium* to *Halanaerobiales*, *Halanaerobiaceae* and *Halanaerobium*, respectively, and further nomenclatural changes within the order *Halanaerobiales*

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A formal proposal is made to rename the order *Haloanaerobiales* as *Halanaerobiales*, the family *Haloanaerobiaceae* as *Halanaerobiaceae*, the genera *Haloanaerobium* and *Haloanaerobacter* as *Halanaerobium* and *Halanaerobacter*, respectively, and to change the specific epithets of *Halanaerobium acetothylicum*, *Halanaerobacter lacunaris*, *Halocella cellulolytica* and *Halanaerobium chitinovorans* to *acetethylicum*, *lacunarum*, *cellulosilytica* and *chitinivorans*, respectively. These changes are required in view of Rule 61, Appendix 9, of the Bacteriological Code.

Keywords: *Halanaerobiales*, *Halanaerobiaceae*, *Halanaerobium*, *Halanaerobacter*, *Halocella cellulosilytica*

The present nomenclature of the obligatory anaerobic, moderately halophilic bacteria of the order *Haloanaerobiales* (Rainey and Zhilina 1995, 879^{VP}) contains a number of errors that need to be corrected according to Rule 61 of the Bacteriological Code. Suggestions toward the correction of these names have been made by J. P. Euzéby (see <http://www.bacterio.cict.fr>). A formal proposal to correct several names is made below.

1. Order *Halanaerobiales*

According to Rule 61, the original spelling *Haloanaerobiales* (Rainey and Zhilina 1995, 879^{VP}) should be changed to *Halanaerobiales* because the second compound starts with a vowel and no extra connecting vowel is required (Appendix 9) (see *Halanaerobium* below).

2. Family *Halanaerobiaceae*

According to Rule 61, the original spelling *Haloanaerobiaceae* (Oren, Paster and Woese 1984, 503^{VP}) should be changed to *Halanaerobiaceae* because the second compound starts with a vowel and no extra connecting vowel is required (Appendix 9) (see *Halanaerobium* below).

3. Genus *Halanaerobium*

According to Rule 61, the original spelling *Haloanaerobium* (Zeikus, Hegge, Thompson, Phelps and Langworthy 1984, 503^{VP}) should be changed to *Halanaerobium* (Gr. n. *hals* salt; Gr. pref. *an* not; Gr. n. *aer* air; Gr. n. *bios* life; N.L. neut. n. *Halanaerobium* salt organism which lives in the absence of air) because the second compound starts with a vowel and no extra connecting vowel is required (Appendix 9).

4. Genus *Halanaerobacter*

According to Rule 61, the original spelling *Haloanaerobacter* (Liaw and Mah 1996, 362^{VP}) should be changed to *Halanaerobacter* (Gr. n. *hals* salt; Gr. pref. *an* not; Gr. n. *aer* air; N.L. masc. n. *Halanaerobacter* salt rod which grows in the absence of air) because the second compound starts with a vowel and no extra connecting vowel is required (Appendix 9).

5. Species *Halanaerobium acetethylicum*

According to Rule 61, the original spelling of the specific epithet *acetoethylicum* (Rengpipat, Langworthy and Zeikus 1989, 205^{VP}) should be changed to *acetethylicum* because the second compound starts

with a vowel and no extra connecting vowel is required (Appendix 9).

6. Species *Halocella cellulositytica*

The original spelling of the specific epithet *cellulolytica* (Simankova, Chernych, Osipov and Zavarzin, 1994, 182^{VP}) should be changed to *cellulositytica* (N.L. n. *cellulosum* cellulose; Gr. adj. *lytos* loosening, dissolving; N.L. adj. *lyticus* dissolving; N.L. fem. adj. *cellulositytica* cellulose-dissolving) (Buchanan, 1960).

7. Species *Halanaerobacter lacunarum*

According to Rule 61, the original spelling of the specific epithet *lacunaris* (basonym: *Halobacteroides lacunaris* Zhilina, Miroshnikova, Osipov and Zavarzin 1992, 327^{VP}) should be changed to *lacunarum* (L. n. *lacuna* hole; L. gen. pl. n. *lacunarum* of holes).

8. Species *Halanaerobacter chitinivorans*

According to Rule 61, the original spelling of the specific epithet *chitinovorans* (Liaw and Mah 1996, 362^{VP}) should be changed to *chitinivorans* (N.L. n. *chitinum* chitin; L. v. *voro* devour; N.L. part. adj. *chitinivorans* chitin-devouring).

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