Taxonomic Note

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Proposal to replace the illegitimate genus name *Bryantella* Wolin *et al.* 2004^{VP} with the genus name *Marvinbryantia* gen. nov. and to replace the illegitimate combination *Bryantella formatexigens* Wolin *et al.* 2004^{VP} with *Marvinbryantia formatexigens* comb. nov.

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The prokaryote generic name *Bryantella* Wolin *et al.* 2004^{VP} is illegitimate because it is a later homonym of *Bryantella* Chickering, 1946 (Animalia, Arthropoda, Arachnida, Araneae, Salticidae, Dendryphantinae, Dendryphantini) and a later homonym of *Bryantella* Britton, 1957 (Animalia, Arthropoda, Scarabaeoidea, Scarabaeidae, Melolonthinae) [Principle 2, Rule 51b(4) of the Bacteriological Code (1990 Revision)]. *Bryantella* represents a genus of jumping spiders within the family Salticidae and a genus of melolonthine scarab beetles within the family Scarabaeidae. Therefore, a new genus name, *Marvinbryantia* gen. nov., is proposed for this taxon. As a result, a new combination, *Marvinbryantia formatexigens* comb. nov., is required for the type species to replace the illegitimate combination *Bryantella formatexigens* Wolin *et al.* 2004^{VP}.

On 14 August 1999, the Judicial Commission of the International Committee on Systematic Bacteriology (ICSB) (De Vos & Trüper, 2000) recommended that the following change in the wording of Principle 2 of the Bacteriological Code, proposed by Tindall (1999), be accepted: 'The nomenclature of prokaryotes is not independent of botanical and zoological nomenclature. When naming new taxa in the rank of genus or higher, due consideration is to be given to avoiding names which are regulated by the Zoological Code and the International Code of Botanical Nomenclature.'

Furthermore, the addition of the following Note to Principle 2 was proposed: 'Note. This principle takes effect with publication of acceptance of this change by the ICSB and is not retroactive.'

Later, the ICSB (now the International Committee on Systematics of Prokaryotes; ICSP) voted unanimously in favour of this proposal (Labeda, 2000). The minutes of the meetings of the Judicial Commission and the minutes of the meetings of the ICSB were published in the November 2000 issue of the *International Journal of Systematic and Evolutionary Microbiology* and, for all practical purposes, the new Principle 2 applies from 1 January 2001.

Wolin *et al.* (2003, 2004) published the description of a new taxon, *Bryantella formatexigens* gen. nov., sp. nov., representing a separate phylogenetic line of descent within

the *Clostridium coccoides* rRNA gene cluster in the *Firmicutes* group of prokaryotes. This bacterium depends on formate for growth and homoacetogenic fermentation. It was isolated from human faeces (Wolin *et al.* 2003).

Recently, we discovered that the name *Bryantella* was illegitimate because it is a later homonym of *Bryantella* Chickering, 1946 (Animalia, Arthropoda, Arachnida, Araneae, Salticidae, Dendryphantinae, Dendryphantini) and a later homonym of *Bryantella* Britton, 1957 (Animalia, Arthropoda, Scarabaeoidea, Scarabaeidae, Melolonthinae). See Principle 2 [index to Organism Names (Thompson BIOSIS) at <http://www.organismnames.com>; Australian Faunal Directory at <http://www.environment.gov.au/biodiversity/abrs/online-resources/fauna/afd/search.html>].

According to Principle 6 of the Bacteriological Code (1990 Revision) (Lapage *et al.*, 1992), the correct name of a taxon is based upon valid publication, legitimacy and priority of publication. An illegitimate name cannot be a correct name, and must be replaced. The fact that the generic name is illegitimate does not affect the legitimacy of the species epithets (Rule 32b and Rule 51a). As a result, reference to the authors of the species epithet has been retained in the authorship of the resulting new combination (Rule 54).

The illegitimate genus name *Bryantella* was chosen to honour the American microbiologist Marvin P. Bryant (1925–2000) in recognition of his outstanding contributions to the

microbial ecology of anaerobic ecosystems. The replacement genus name, *Marvinbryantia*, was also chosen to honour him.

There is no indication that the genus name *Marvinbryantia* has been used previously to designate taxa of bacteria [Krieg & Holt (1984) and subsequent volumes; <http://www.bacterio.cict.fr>; <http://www.dsmz.de>], protists (Kudo, 1966; Lee *et al.*, 1985; Adl *et al.*, 2005), algae (Irvine & John, 1984; Krammer & Lange-Bertalot, 1991; Simonsen, 1987; Reichardt, 1995; Lange-Bertalot & Genkal, 1999; Witkowski *et al.*, 2000; Metzeltin & Lange-Bertalot, 2002; Krammer, 2003), fungi [Ainsworth *et al.*, 1973; Jong & Gantt, 1984; Index Fungorum (<http://www.indexfungorum.org>)], plants [Index Nominum Genericorum (ING) (<http://ravenel.si.edu/botany/ing/ingForm.cfm>)] or viruses (Mayo & Horcinek, 1998). Computer searches of abstracts, titles and keywords of publication databases (BIOSIS, 1970–2004; Zoological Record, 1979–1999; SciSearch, 1975–2004; Medline, 1970–2004; ICTVdB, 2002) indicate that the genus name *Marvinbryantia* has not been used previously. The new genus name seeks to conserve the meaning of the illegitimate name as originally published.

Description of *Marvinbryantia* gen. nov.

Marvinbryantia [Mar.vin.bry.an'ti.a. N.L. fem. n. *Marvinbryantia* in honour of Marvin P. Bryant (1925–2000), in recognition of his outstanding contributions to the microbial ecology of anaerobic ecosystems].

Previous illegitimate name: *Bryantella* Wolin *et al.* 2004.

The description of the genus is as given for *Bryantella* by Wolin *et al.* (2003). The type species is *Marvinbryantia formatexigens*.

Description of *Marvinbryantia formatexigens* comb. nov.

Marvinbryantia formatexigens (for.mat.ex'i.gens. N.L. n. *formas -atis* formate, L. part. adj. *exigens* demanding; N.L. fem. part. adj. *formatexigens* formate-demanding).

Illegitimate homotypic synonym: *Bryantella formatexigens* Wolin *et al.* 2004.

The description of the species is as given for *Bryantella formatexigens* by Wolin *et al.* (2003). The type strain is I-52^T = DSM 14469^T = CCUG 46960^T. Isolated from human faeces.

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