NOTES

Proposal of Ancylobacter gen. nov. as a Substitute for the Bacterial Genus Microcyclus Ørskov 1928

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The bacterial genus Microcyclus Ørskov 1928 is illegitimate because of precedence of the fungal genus Microcyclus Saccardo 1904. Therefore, a new genus name, Ancylobacter, is proposed as a substitute for the bacterial genus. Thus, the type species Microcyclus aquaticus Ørskov becomes Ancylobacter aquaticus Ørskov Raj comb. nov.

In 1928, Ørskov (7) isolated nonmotile, gram-negative, vibrioid bacteria which under certain cultural conditions formed ringlike and horse-shoe-shaped structures. He isolated these bacteria first from woodlake waters and later from freshwater ponds and occasionally from soil. Ørskov created a new genus, Microcyclus (Gr. micros very small; cyclos circle), for these bacteria primarily on the basis of their unique ringlike morphology and to differentiate them from Vibrio and Spirillum. Because of the mostly aquatic habitat of these organisms, Ørskov named the only species in this genus Microcyclus aquaticus. Morphologically similar bacteria had been observed previously by Weibel (12–15) in nasal mucus and by Sturges (W. S. Sturges, Abstr. Bacteriol. 7:11, 1923) in the floras of ham-curing brines.

The genus Microcyclus and the type species proposed by Ørskov have been formally recognized for more than 30 years (1, 2). However, a literature search has shown that the same genus name was assigned by Pietro Andrea Saccardo to some fungi in 1904 (9, 11); one of the nine fungal Microcyclus species, Microcyclus ulei (basonym, Dothidella ulei), has long been known as a plant pathogen that causes South American leaf blight of the Para rubber tree (Hevea brasiliensis) (4).

According to Rule 51B(4) of the International Code of Nomenclature of Bacteria concerning the historical precedence of a given taxon (5), the bacterial genus Microcyclus Ørskov 1928 should be considered illegitimate and should be rejected even though it was on the Approved Lists of Bacterial Names (10). Since ringlike shapes are formed very infrequently by these curvy bacteria (3, 6, 8), I propose that the bacterial genus name Microcyclus be replaced by Ancylobacter gen. nov. (an.cy.lo.bac’ter. Gr. ankylos sharply curved, crooked; Gr. bakterion little rod; M. L. mas. n. Ancylobacter a sharply curved rod) and that M. aquaticus Ørskov, which is the only species recognized (6, 8), be transferred to the new genus as its type species, Ancylobacter aquaticus (Ørskov) Raj comb. nov., with strain Ørskov (= ATCC 25396) as the type strain. The genus and species descriptions characterizing these curvy aquatic bacteria are the same as the descriptions for Microcyclus and M. aquaticus Ørskov (6).

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LITERATURE CITED


