Proper Combination for *Alcaligenes xylosoxidans* subsp. *xylosoxidans*

M. Cheron et al. (1) have recently reported on an investigation of hospital-acquired infections due to "*Alcaligenes denitrificans* subsp. *xylosoxidans*." This combination was proposed in the 1984 edition of *Bergey's Manual of Systematic Bacteriology* (3) for the organism formerly known as *Achromobacter xylosoxidans*. However, in 1986, M. Kiredjian et al. (4) considered the name *Alcaligenes denitrificans* subsp. *xylosoxidans* to be illegitimate because the epithet *xylosoxidans* had priority. To correct this, Kiredjian et al. (4) formally proposed *Alcaligenes xylosoxidans* subsp. *xylosoxidans* Yabuuchi and Yano 1981 comb. nov. It is my understanding that this last combination is the currently accepted nomenclature for this organism and therefore is the correct nomenclature to be used in published reports. The last combination is also used in the 9th edition of *Bergey's Manual of Determinative Bacteriology* (2).

REFERENCES


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**Author's Reply**

Although *A. xylosoxidans* subsp. *xylosoxidans* is used in the ninth edition of *Bergey’s Manual of Determinative Bacteriology*, to the best of my knowledge, the combination proposed by Kiredjian et al. (1) has never been cited in the approved lists of bacterial names regularly edited by the *International Journal of Systematic Bacteriology*, and therefore it has not been validly published. Consequently, the combination *A. denitrificans* subsp. *xylosoxidans* seems to be still in force.

**REFERENCE**


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*Aeromonas caviae* Exhibits Aggregative Adherence to HEp-2 Cells

We read with interest the recent article of Neves et al. (5), who reported the results of a HEp-2 cell adhesion assay (4) with *Aeromonas* species. We have also conducted this assay using a large number of clinical isolates of *A. caviae*. These 24 isolates, recovered from the Sheffield Children’s and Royal Hallamshire Hospitals, Sheffield, United Kingdom, were submitted to extensive identification to the species level by conventional biotyping, esculin production, API20 NE strips, outer membrane profiling, and the suicide phenomenon (6) to ensure that all strains under investigation were *A. caviae*.

Neves et al. (5) reported that none of their three *A. caviae* strains investigated showed the classic "stacked brick" or aggregative adherence pattern described by Mathewson and Crivito (3) for *Escherichia coli*. This was also true for 62.5% of our strains. However, it was observed that the remainder (37.5%) showed adherence patterns similar to those of strains described in the literature as aggregatively adherent. Moreover, our results correspond with those of Namdari and Bottone (4) in that we also observed a gradation in adherence among strains. This was a pattern that we too observed to change with the cell line and growth medium used prior to inoculation. This altered the adherence level from no or very few bacteria per tissue culture cell to an almost confluent mantle of 40 bacteria or more, depending upon the strain under investigation.

Of course we realize that only three strains were examined in the study of Neves et al. (5) and that few studies of this type have previously been performed. Also, it is only recently that identification of *A. caviae* to the species level has been achieved with any degree of confidence. Furthermore, although the methodology we used was the same as that of Neves et al. (5), it is quite likely that geographical variations exist for HEp-2 adherence of strains, as do differences between clinical and environmental strains.
However, we feel that this similarity between some strains of *A. caviae* and *A. hydrophila* and *A. sobria* warrants reporting, as this associates *A. caviae* with these more commonly recognized virulent species, adding weight to the argument that *A. caviae* is pathogenic. While the adhesive mechanisms still remain undefined, the aggregative similarity between some *Aeromonas* strains and enteroadherent-aggregative *E. coli* (1, 7), a proven diarrheagenic agent, reinforces the need for further studies to delineate potential pathogenic mechanisms of *A. caviae*.

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REFERENCES

Author’s Reply
I have read with interest the letter from Dr. Eley and colleagues. I am happy to know their observations about aggregative adherence among *A. caviae* strains, which was not observed with our strains, perhaps because of the small number of isolates analyzed (only three). I also agree that the adherence pattern may change with the cell line and culture medium. Also, geographical variations should be taken into account.

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