The epithet *aurantiaca* in *Micromonospora aurantiaca* Sveshnikova *et al.* 1969 (Approved Lists 1980) is illegitimate and requires a replacement epithet. Opinion 89.

Judicial Commission of the International Committee on Systematics of Prokaryotes

B. J. Tindall

Leibniz Institute-DSMZ Deutsche Sammlung von Mikroorganismen und Zellkulturen GmbH, Inhoffenstrasse 7b, 38124 Braunschweig, Germany

The Judicial Commission affirms that the combination *Micromonospora aurantiaca* Sveshnikova *et al.* 1969 (Approved Lists 1980) may not serve as the correct name of the taxon because Rule 12b states that no specific or subspecific epithets within the same genus may be the same if based on different types and the specific epithet *aurantiaca* in *Micromonospora aurantiaca* Sveshnikova *et al.* 1969 (Approved Lists 1980) is the same as the subspecific epithet *aurantiaca* in *Micromonospora carbonacea* subsp. *aurantiaca* Luedemann and Brodsky 1964 (Approved Lists 1980) and the latter has priority. According to Rule 53, the duplication of the same specific or subspecific epithet based on different types creates an illegitimate epithet with the principle of priority determining which is to be replaced as specified in Rule 54. The replacement of the specific epithet *aurantiaca* in *Micromonospora aurantiaca* Sveshnikova *et al.* 1969 (Approved Lists 1980) also requires that the authorship of the original authors is retained. However, action of this nature requires that the original epithet is maintained in the original combination. There currently appears to be no mechanisms where such action can be taken.

Euzéby & Tindall (2004) addressed a Request for an Opinion to the Judicial Commission of the International Committee on Systematics of Prokaryotes requesting that action be taken to deal with the name in *Micromonospora aurantiaca* Sveshnikova *et al.* 1969 because the specific epithet *aurantiaca* is the same as the subspecific epithet *aurantiaca* in *Micromonospora carbonacea* subsp. *aurantiaca* Luedemann and Brodsky 1964, contravening Rule 12b of the International Code of Nomenclature of Bacteria (Lapage *et al.*, 1992), the consequences of which are that the specific epithet *aurantiaca* in *Micromonospora aurantiaca* Sveshnikova *et al.* 1969 is illegitimate, the combination may not serve as a correct name and a replacement epithet must be found.

The use of the epithet *aurantiaca* as the specific and subspecific epithets in the combinations *Micromonospora aurantiaca* Sveshnikova *et al.* 1969 and *Micromonospora carbonacea* subsp. *aurantiaca* Luedemann and Brodsky 1964, both of which are included on the Approved Lists of Bacterial Names (Skerman *et al.*, 1980, 1989), is governed by Rule 12b that forbids use of the same epithet as specific or subspecific epithets within the same genus if based on different types. The principle of priority applies as laid down in Rule 23a, Notes 1 and 2, and the specific epithet *aurantiaca* in *Micromonospora carbonacea* subsp. *aurantiaca* Luedemann and Brodsky 1964 has priority. The consequences are that, according to Rule 53, the specific epithet *aurantiaca* in *Micromonospora aurantiaca* Sveshnikova *et al.* 1969 is illegitimate and the combination may not be used as the correct name, which leaves the taxon without a correct name. Rule 54 provides a solution, indicating that the epithet may be replaced, but also states that ‘the epithet is, however, ascribed to the original author’. The proposal of Euzéby & Tindall (2004) for a replacement epithet (*sandarakina*) would have the consequences that the combination would be cited as ‘*Micromonospora sandarakina*’ (Sveshnikova *et al.* 1969) Anon. However, the International Code of Nomenclature of Bacteria (Lapage *et al.*, 1992) also states that (Rule 3):

‘Names contrary to a Rule cannot be maintained, except that the International Committee on Systematic Bacteriology...’

For the purpose of clarity technical terms that are used in the International Code of Nomenclature of Bacteria are designated in bold type.
(now altered to International Committee on Systematics of Prokaryotes), on the recommendation of the Judicial Commission, may make exceptions to the Rules’.

This would imply that the name *Micromonospora aurantiaca* Sveshnikova *et al.* 1969 cannot be maintained unless action is taken. Presumably, if action is not taken this combination should be rejected. If the combination is rejected, then it is unclear whether the name ‘*Micromonospora sandarakina*’ (Sveshnikova *et al.* 1969) Anon can refer back to the authors of the original epithet as outlined in Rule 53. If this is not the case then one may not be able to replace the epithet and attribute the new epithet to the original authors.

Another alternative to maintain the combination *Micromonospora aurantiaca* Sveshnikova *et al.* 1969 would be to apply the rules of the International Code of Nomenclature of Bacteria (Lapage *et al.*, 1992) such that the name may be maintained. However, there appear to be no mechanisms for taking such an action because there are only two mechanisms by which a name may be conserved. In one instance Rule 56b states:

‘A conserved name (*nomen conservandum*) is a name which must be used instead of all earlier synonyms and homonyms’.

This clearly does not serve the correct purpose because the goal is to maintain an otherwise illegitimate epithet so that a replacement name may be used, which is technically a form of a later synonym. This problem arises because the original epithet is, in the original position, rank and circumscription, illegitimate, which was not the case, for example, when a replacement epithet was created for *Chromohalobacter salarius* Aguilera *et al.* 2007 when it was transferred to the genus Salinicola as *Salinicola halophilus* de la Haba *et al.* 2010 (de la Haba *et al.*, 2010).

The other alternative by which a name may be conserved is for a specific purpose, as is the case for a *nomen periculosum*, which in the case of *Yersinia pestis* (Judicial Commission, 1985) clearly states that this name is to be used for the causative agent of bubonic plague, and there would appear to currently be no way of maintaining any other type of name that does not qualify as a *nomen periculosum*. However, the purpose is to maintain the name *Micromonospora aurantiaca* Sveshnikova *et al.* 1969 in such a way that the name ‘*Micromonospora sandarakina*’ (Sveshnikova *et al.* 1969) Anon can be used and refer back to the original authors. If this is not the case then a new species combination (in the sense of *species novum*) needs to be created without reference to the original combination, which would have to be rejected.

At present there would appear to be no mechanisms by which one can either maintain the name *Micromonospora aurantiaca* Sveshnikova *et al.* 1969 or use a replacement epithet as in ‘*Micromonospora sandarakina*’ (Sveshnikova *et al.* 1969) Anon that may eventually refer back to authors of an epithet that may have to be rejected.

Opinion compiled on behalf of the Judicial Commission by B. J. Tindall.

**Declaration of a potential conflict of interest**

The author is employed by an organization that offers commercially both taxonomic services and biological material to the scientific community. This may be perceived as a potential conflict of interest.

**References**


