

## SYSTEMATYKA BAKTERYJNYCH PATOGENÓW ROŚLIN

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### Taxonomy of plant pathogenic bacteria

*Abstract.* Bacterial taxonomy includes three interrelated activities: classification which involves the allocation of organisms into groups; nomenclature - the naming of taxa defined by classification, and identification - the process by which unidentified organisms are referred to a taxa. There are three alternative concepts of classification: phenetic, phylogenetic and polyphasic. The polyphasic approach to a classification has a widespread support, though there is a tendency to allow comparative sequence analyses of 16S rDNA to determine classifications contrary to the indications of other data. The latest revisions of bacterial classification based on 16S rDNA data, which in consequence lead to incomplete and sometimes confusing revisions of nomenclature. These trends in systematics also concern plant pathogenic bacteria. In February 2002 the International Committee for the Systematics of Prokaryotes concluded that both phenotype and genotype play important role in the species description. The ecological role can also decide on the species status. For example plant pathogen which caused unique and dangerous for plants symptoms, may continue to bear names that are not necessarily in agreement with their genomic relatedness in order to avoid confusion among plant pathologists.

1. Introduction. 2. Systematic of plant pathogenic bacteria. 2.1. Nomenclature. 2.2. Identification. 2.3. Classification. 2.3.1. Phenetic classification. 2.3.2. Phylogenetic classification. 2.3.4. Polyphasic classification. 2.3.5. Official classification. 3. Species and genus definition. 3.1. Intraspecific and suprageneric classification - pathovars. 4. Implication of horizontal gene transfer for bacterial taxonomy. 5. Summary

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