

## W POSZUKIWANIU KONCEPCJI GATUNKU BAKTERYJNEGO

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1. Wprowadzenie. 2. Krótka historia taksonomii i koncepcji gatunku bakteryjnego. 3. Współczesne koncepcje gatunku eukariotycznego i ich relacje do koncepcji gatunku bakteryjnego. 4. Wymiana materiału genetycznego u bakterii i ich różnicowanie. 5. Podsumowanie

### **In a search of a bacterial species concept**

*Abstract:* The species concept is still controversial issue for micro- as well as macrobiologists. Prokaryotic species definition has changed many times. It has happened under an influence of new information on bacterial cell deriving from analysis of biochemical properties, chemical composition and more recently, on the basis of data from analysis of genomic DNA by determination of G+C composition (mol%). overall DNA-DNA sequence similarity using hybridization and house-keeping gene sequencing. The prokaryotic species concept, currently in use, is circumscribed by three parameters: phenotype, DNA-DNA similarity, and monophyletic nature of bacteria. It says that bacterial species is a monophyletic, genomically coherent cluster of individual organisms exhibiting a high degree of phenotypic resemblance that is diagnosable by discriminative phenotypic features. This phylo-phenetic species concept is generally acceptable by microbial taxonomists for its usefulness, universality to all bacteria, although, it does not correspond to any concepts designed for eukaryotes.

1. Introduction. 2. Short history of bacterial taxonomy and species concept. 3. Current eukaryotic species concepts and their relations to a bacterial species concepts. 4. Exchange of genetic material in bacteria and their differentiation. 5. Summary

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