International Committee on Systematic Bacteriology Subcommittee on the Taxonomy of Phototrophic Bacteria

Minutes of the Meeting, 10 August 1982, Boston, Massachusetts

Session 1. Closed meeting

Minute 1. Call to order. The closed meeting was called to order by the Chairman, H. G. Trüper, at 16:00 on 10 August 1982.

Minute 2. Record of attendance. The members present were H. G. Trüper (Chairman), R. W. Castenholz, R. L. Gherna, V. M. Gorlenko, E. N. Kondratieva, and B. A. Whitton.

Minute 3. Approval of agenda. The agenda was approved as distributed.

Minute 4. Changes in membership. The Subcommittee noted with sorrow the death on 29 January 1982 of one of its members, R. Y. Stanier. The Subcommittee elected the following to full membership: E. I. Friedmann, J. Komarek, R. Rippka, W. Stam, J. B. Waterbury, and J. Weckesser.

Minute 5. Current membership. The current members of the Subcommittee are: H. G. Trüper (Chairman), Bonn, Federal Republic of Germany; T. A. Hansen (Secretary), Groningen, The Netherlands; R. W. Castenholz, Eugene, Oreg.; E. I. Friedmann, Tallahassee, Fla.; R. L. Gherna, Rockville, Md.; V. M. Gorlenko, Moscow, Union of Soviet Socialist Republics; B. V. Gromov, Leningrad, Union of Soviet Socialist Republics; J. Komarek, Prague, Czechoslovakia; E. N. Kondratieva, Moscow, Union of Soviet Socialist Republics; N. Pfennig, Konstanz, Federal Republic of Germany; R. Rippka, Paris, France; W. R. Sistrom, Eugene, Oreg.; W. Stam, Groningen, The Netherlands; J. B. Waterbury, Woods Hole, Mass.; J. Weckesser, Freiburg, Federal Republic of Germany; R. Whittenbury, Coventry, United Kingdom; and B. A. Whitton, Durham, United Kingdom.

The meeting was adjourned at 16:24.

Session 2. Open meeting

Minute 6. Call to order. The open meeting was called to order by the Chairman, H. G. Trüper, at 16:25 on 10 August 1982.

Minute 7. Record of attendance. The members present were H. G. Trüper (Chairman and Acting Secretary), R. W. Castenholz, E. I. Friedmann, R. L. Gherna, V. M. Gorlenko, E. N. Kondratieva, J. B. Waterbury, and B. A. Whitton.

Minute 8. Phylogeny of phototrophic procaryotes. The insight gained into the phylogeny of procaryotes due to recent developments in chemotaxonomy (16S ribosomal ribonucleic acids, nucleic acid hybridization, protein sequencing, cell wall constituents) forced the Subcommittee to evaluate the necessity of further work. The rather close relationships found between single nonphototrophic species and single phototrophic species has stressed the ancestral importance of the different phototrophic lines in at least the gram-negative branch of the eubacteria. The Subcommittee feels that further work is needed, especially at the genus and species levels of all groups of phototrophic procaryotes, whereas at the higher taxonomic levels some of the phototrophic taxa may be included in nonphototrophic taxa in the future.

Minute 9. Cyanobacteria. J. B. Waterbury and E. I. Friedmann reported on the "blue-green controversy." A compromise between the Botanical Code and the Bacteriological Code appears to be feasible (E. I. Friedmann and L. J. Borowitzka, *Taxon* 31:673–683, 1982). The Botanical Code now contains a recommendation to deposit living cultures of algae (and fungi) in reputable culture collections.

Article 45.4 of the Botanical Code now implies that new taxa of cyanobacteria described under the Bacteriological Code are considered equivalent to validly published taxa under the Botanical Code. The Subcommittee feels that new names of blue-green algae (cyanobacteria) described under the Botanical Code should be submitted to the International Journal of Systematic Bacteriology for validation under the Bacteriological Code.

Minute 10. Chlorobiaceae and Chloroflexaceae. The following is a newly described species: *Chlorobium chlorovibrioides* (emended description by N. N. Puchkova and V. M. Gorlenko [*Mikrobiologiya* 51:118–124, 1982]).

Minute 11. Chromatiaceae. The following is a newly described genus and species: *Lamprobacter modestohalophilus* (V. M. Gorlenko et al., *Izv. Akad. Nauk SSSR Ser. Biol.* 5:755–767, 1979). Other newly described species are *Chromatium purpuratum* (J. F. Imhoff and H. G. Trüper, *Zentralbl. Bakteriologie. Parasitenkd. Infektionskr. Hyg. Abt. 1 Orig. Reihe C* 1:61–69, 1980), *Ectothiorhodospira vacuolata* (J. F. Imhoff et al., *Arch. Microbiol.* 130:237–242, 1981), and *Ectothiorhodospira abdelmalekii* (J. F. Imhoff and H. G. Trüper, *Zentralbl. Bakteriologie. Parasitenkd. Infektionskr. Hyg. Abt. 1 Orig. Reihe C* 2:228–235, 1981).

Minute 12. Rhodospirillaceae. Newly described species are *Rhodopseudomonas blastica* (K. Eckersley and C. S. Dow, *J. Gen. Microbiol.* 119:465–473, 1980), and *Rhodospirillum salexigens* (G. Drews, *Arch. Microbiol.* 130:325–327, 1981). The Subcommittee agrees that a rearrangement of genera and species in this family based on recently collected chemotaxonomic data is necessary. The Chairman and N. Pfennig will design a draft manuscript to be circulated within the Subcommittee for opinions.

Minute 13. Announced new species. Several new organisms have been described, the taxonomic positions of which are as yet unclear; these include a strictly anaerobic, green photoheterotroph with a new bacteriochlorophyll and without chlorosomes, a filamentous, gliding, red photobacterium without chlorosomes and with bacteriochlorophyll *a* as the only bacteriochlorophyll, and a gliding, filamentous, green bacterium probably belonging to the *Chlorobiaceae* rather than to the *Chloroflexaceae*.

Minute 14. Bacteriochlorophyll-containing nonphototrophic bacteria. A bacteriochlorophyll *a*-containing, nonphototrophic bacterial genus and species, *Erythrobacter longus*, has been described (T. Shiba and U. Simidu, *Int. J. Syst. Bacteriol.* 32:211–217, 1982).

Minute 15. Approved Lists of Names. The Subcommittee regrets the inclusion of *Thiocapsaceae* on the Approved Lists and would like a revision in this matter.

Minute 16. *Minimal standards.* A list of minimal data for the description of new species in pure culture was proposed by the Chairman and was thoroughly discussed. The Chairman will prepare a draft of minimal data to be circulated within the Subcommittee for opinions. As a next step,

descriptions of methods for assessment of these data will be circulated.

The meeting was adjourned at 18:30 on 10 August.

H. G. TRÜPER, *Chairman*