International Committee on Systematic Bacteriology Subcommittee on Phototrophic Bacteria

Minutes of the Meeting, 4 September 1978

Munich, F.R.G.

Session 1. Closed meeting

Minute 1. Call to order. The meeting was called to order by the Chairman, H. G. Trüper at 1400 on 4 September 1978.

Minute 2. Record of attendance. Members present were: H. G. Trüper (Chairman), N. Pfennig (acting as Secretary), R. L. Gherna, V. M. Gorlenko, T. A. Hansen, and E. N. Kondratieva.

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

Minute 4. Changes in membership and officers. K. E. Eimhjellen resigned from membership in a letter to the Chairman, dated 27 September 1977. The subcommittee elected for full membership B. V. Gromov and the present coopted members R. W. Castenholz, R. Y. Stanier, and B. A. Whitton, effective from the end of the XII International Congress. H. G. Trüper was re-elected as Chairman, and T. A. Hansen was elected as Secretary.

Minute 5. Current membership. The current membership of the Subcommittee is as follows: H. G. Trüper (Chairman), Bonn, F.R.G.; T. A. Hansen (Secretary), Groningen, The Netherlands; R. W. Castenholz, Eugene, Ore., U.S.A.; V. M. Gorlenko, Moscow, U.S.S.R.; B. V. Gromov, Leningrad, U.S.S.R.; E. N. Kondratieva, Moscow, U.S.S.R.; N. Pfennig, Göttingen, F.R.G.; W. R. Sistrom, Eugene, Ore., U.S.A.; R. Y. Stanier, Paris, France; R. Whittenbury, Coventry, U.K.; B. A. Whitton, Durham, U.K.

Minute 6. Adjournment. The meeting was adjourned at 1445.

Session 2. Open meeting

Minute 7. Call to order. The meeting was called to order by the chairman, H. G. Trüper, at 1445 on 4 September 1978.

Minute 8. Record of attendance. Those present were the same as in Minute 2.

Minute 9. Status of the taxonomy of the cyanobacteria. It was agreed that the Subcommittee shall intensify its efforts to set up a taxonomy of cyanobacteria based upon type cultures. It is necessary to collect a list—similar to the *Approved Lists of Bacterial Names*—of all cyanobacterial species at present in pure culture.

Minute 10. Higher taxa of phototrophic bacteria. The publications by N. E. Gibbons and R. G. E. Murray (Int. J. Syst. Bacteriol. 28:1–6 and 332–333) were discussed with respect to their consequences for the phototrophic bacteria.

Minute 11. Criteria for genera and species of phototrophic bacteria. The Subcommittee decided that the most important criteria for genus and species differentiation in phototrophic bacteria should be cell morphology (size, shape, flagella, type of division), fine

structure (membranes, gas vacuoles) aggregate formation/life cycles, pigments (chlorophylls, carotenoids), and deoxyribonucleic acid (DNA) base ratios. It is stated that still too few data are available on DNA/DNA and DNA/ribonucleic acid hybridization, ribosomal constituents, cell wall constituents, and amino acid sequences of cytochromes and enzymes.

Minute 12. New genera and species in purple and green bacteria. The Subcommittee agreed that most of the genera and species newly described since the 8th edition of *Bergey's Manual* are acceptable taxa and therefore to be considered as validly and legitimately published under the rules of the ICNB. All efforts should be taken to obtain pure cultures of *Thiopedia rosea*, *Chloronema giganteum*, *Oscillochloris chrysea*, *Ancalochloris perflievii*, and *Pelodictyon clathratiforme*, all organisms that are well described and easily recognized in natural samples and enrichment cultures. The Subcommittee agreed that the newly described *Chromatium vanda* (Osnitzkaya and Chudina, Mikrobiologiya 47:131–137, 1978) is obviously very similar to *C. vinosum*. If not clearly differentiated from the latter, it must be regarded as a later synonym. The mere occurrence in an antarctic habitat is not accepted as a reason for a new species description.

Minute 13. Inconsistencies in the families of anoxygenic phototrophic bacteria. The Subcommittee agreed that there exist inconsistencies within the families *Rhodospirillaceae* (with respect to fine structure and cell division, within the genera *Rhodospirillum* and *Rhodopseudomonas*), *Chromatiaceae* (position of *Ectothiorhodospira*), and *Chlorobiaceae* (importance of prosthecae and gas vacuoles for genus or species differentiation). No action, however, will be taken by the Subcommittee in these matters unless more data are supplied.

Minute 14. Second draft of the Approved List of Names. The Subcommittee corrected the second draft of the Approved List of Names provided by V. B. D. Skerman and decided to delete from the list *Chloronema spiroideum* and the genera *Thiosarcina* and *Chromopseudomonas* (mistaken for *Chloropseudomonas*). It was decided to add to the list *Chlorobium chlorovibrioides*, *Ectothiorhodospira halochloris*, *Rhodopseudomonas sulfoviridis*, the genus *Oscillochloris*, and *Oscillochloris chrysea*.

Minute 15. Varia. The Subcommittee agreed that the occurrence of bacteriochlorophyll in the facultative methylotrophic bacteria *Protaminobacter ruber* and *Pseudomonas AM1*, as reported by K. Sato (FEBS Lett. 85:207–210, 1978), has to be confirmed before taxonomic implications can be discussed.

Minute 16. Adjournment. The meeting was adjourned at 1730.

N. PFENNIG, Acting Secretary