



International Committee on Systematics of Prokaryotes

Minutes of the open plenary meeting, Tuesday 11th October, 2022 via Zoom

Chair:

I. C. SUTCLIFFE
Northumbria University
U.K.

Vice-Chair:

E. R. B. MOORE
University of Gothenburg
Sweden

Executive Secretary:

A. OREN
Hebrew University of Jerusalem
Israel

Secretary for Subcommittees:

S. L. W. ON
Lincoln University
New Zealand

Treasurer:

P. NIELSEN
Novozymes, Copenhagen
Denmark

Members at Large:

R. HAHNKE
Leibniz Institute DSMZ
Germany

Y. SHOUCHE
National Centre for Microbial
Resource
India

Members of the Judicial Committee

Chair:

D. R. ARAHAL
University of Valencia
Spain

Vice-Chair:

R. ROSSELLÓ-MÓRA
Mediterranean Institute for
Advanced Studies
Illes Balears Spain

Secretary:

M. GÖKER
Leibniz Institute DSMZ
Germany

Minute 1. Call to order

ICSP Chair I.C. Sutcliffe called the meeting to order at 8.00 a.m. UK time.

Minute 2. Record of attendance

The meeting was attended by I.C. Sutcliffe (Chair ICSP), A. Oren (Executive Secretary ICSP), S.L.W. On (Secretary of Subcommittees, ICSP), D.R. Arahal (Chair Judicial Commission), M. Göker (Secretary Judicial Commission), R. Hahnke (Member at Large), M. Trujillo (Editor-in-Chief, IJSEM), M. Birbir, C. Brady, H. Christensen, G. Felis, K. Jangid, C. Manaia, M. Picardeau, O. Prakash, P. Rahi, R. Riesco Jarrín, P. Švec, E. Tóth, F. Venter, A. Ventosa, and P. Young.

Apologies were received from P. Nielsen (Treasurer ICSP), B. Duim, and W.B. Whitman, who appointed K. Jangid as alternate.

Minute 3. Chair's report on ICSP activities

I.C. Sutcliffe reported on the different activities and achievements of the ICSP since 2020.

Membership:

- ICSP Life Member R.G.W. Murray has recently died. His many contributions to the work of the ICSP were acknowledged.
- Two life members, J.P. Euzéby and K.-H. Schleifer, have been appointed.

The International Code of Nomenclature of Prokaryotes (ICNP):

- The large backlog of proposals to emend the ICNP that built up post 2008 has been dealt with (see Minute 4). The Chair thanked A. Oren for his outstanding work in bringing this to completion.
- The status of the *Cyanobacteria* under the rules of the ICNP has been resolved (see Minute 4).
- The rank of phylum was included in the ICNP (see Minute 4). This was followed by the valid publication of 42 names of phyla, and it was emphasized that this wasn't an ICSP action, but has led to some ill-informed criticism of the ICSP, both on social media and via publications in Nature Reviews Microbiology and in mBio, to which we have published responses. A. Oren took part in an online BISMIS dialogue to explain the situation (<https://www.youtube.com/watch?v=Qjoe6aOGgFQ>).

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- The Judicial Commission has cleared the backlog of Requests for Opinions that accumulated in the period 2008-2018, with more than 30 Opinions issued since 2020. For this outstanding effort, massive thanks to D.R. Arahal, M. Göker and all the commissioners. A new class of commissioners has to be elected next year. In addition, two other commissioners wish to end their term. Thus, we will need six volunteers to join the Judicial Commission in 2023.

The International Journal of Systematic and Evolutionary Microbiology (IJSEM):

- A new 10-year publishing agreement was signed with the Microbiology Society and IUMS. The negotiations also served to improve our contact with IUMS.
- Martha Trujillo was reappointed Editor-in-Chief of the IJSEM for a second five-year term.
- Submissions remain dominated by papers from China (~40%) and Korea (15%).
- The impact factor remains steady at ~2.7.
- “Publish and Read” agreements with the Microbiology Society are increasingly important, but the number of open access articles is still low.
- New Instructions for Authors have been published online. To reduce ‘salami slicing’, authors are encouraged to combine descriptions of taxa from same sampling or experimental series.
- *Candidatus* lists are now being published. I.C. Sutcliffe thanked A. Oren and co-authors. Useful reviews about the *Candidatus* status have been published by M. Pallen (in the IJSEM) and A. Oren (in New Microbes and New Infections).
- G.M. Garrity has retired and been replaced as List Editor by M. Göker. Prof. Garrity has been thanked for his many contributions to the work of the ICSP.

Subcommittees on Taxonomy:

- There are currently 15 active subcommittees, and one newly formed one (on the *Myxobacteria/Myxococcota*).
- I.C. Sutcliffe thanked S.L.W. On, Secretary of Subcommittees, and all the chairs of the subcommittees for their work. S.L.W. On noted that an Editorial on the current status of the subcommittees was published in IJSEM in 2021.

Openness and outreach:

Despite some ill-informed criticisms published in different fora, the Chair asserted his belief that the ICSP acts in an open and transparent way:

- Open email discussions were held regarding introduction of the rank of phylum and the status of the Cyanobacteria under the rules of the ICNP.
- The minutes of the monthly meetings of the Executive Board and other reports are posted on the ICSP website in a timely way.
- We used the Slack platform to effectively debate emendations of the ICSP; a general channel is still open on the Slack platform for comments.
- The minutes of the earlier ICSP plenaries, Judicial Commission minutes and subcommittee minutes are published in the IJSEM.
- We thank M. Chuvochina for setting up the ICSP Twitter account: https://twitter.com/ICSP_news.
- The Executive Board has published a response to a critical commentary in Nature Microbiology about issues caused by Rule 30 of the ICNP. Problems caused by the Nagoya

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protocol remain, but we have an active working group to assist those affected.

Financial support for LPSN:

As in the past, the ICSP will continue to provide financial support to the List of Prokaryotic names with Standing in Nomenclature (LPSN) in view of the great importance of this database and website for the work of the ICSP and IJSEM.

Challenges ahead and plans for the future:

- The ICSP intends to organize a session during the 10th FEMS Congress of European Microbiologists in Hamburg in July 2023.
- Ongoing debates about introducing new regulations under the Convention on Biological Diversity about use of digital sequence information could be the next major issue.
- In view of the ongoing criticism about lack of representativeness and diversity in the ICSP membership, proposals are being to expand the ICSP membership. See Minute 5.
- Revision of the ICSP statutes will be necessary to change the membership structure and to further clarify and improve the ways the ICSP, the Judicial Commission and other bodies regulated by the statutes should function.

Minute 4. New revision of the ICNP - outcome and reflections on the ballot

The Editor-in-Chief of the International Code of Nomenclature of Prokaryotes, A. Oren, presented the progress made toward the publication of the 2022 revision of the Code:

- Fourteen years have passed since the ICSP, at its plenary meeting in Istanbul in 2008, approved the previous version of the ICNP. We thank its editors C.T. Parker, B.J. Tindall, and G.M. Garrity for overseeing its publication in 2019.
- Updating the Code was long overdue in view of the large number of subsequent proposals to amend the General Considerations, Principles, Rules and Recommendations, and Appendices of the Code. In the period 2008-2020, 45 such proposals were published in the IJSEM. Most of those were only recently discussed and voted on by the members of the ICSP, following the adoption of revised statutes in 2019, which transferred responsibility for dealing with proposed emendations from the Judicial Commission of the ICSP to the editorial board of the ICNP.
- The editorial board of the 2022 revision of the ICNP consists of A. Oren (Editor-in-Chief), ex officio members D.R. Arahall, E.R.B. Moore, R. Rossello-Mora and I.C. Sutcliffe, and co-opted member M. Göker.
- The editorial board prepared the proposals for emendation of the Code, which were submitted for balloting among the full and co-opted members of the ICSP, in accordance with its statutes. To comply with Article 4(d) of the statutes of the ICSP that state that the business of the ICSP should be conducted publicly, the voting was preceded by a six-month period (July-December 2021), announced in IJSEM, during which anyone interested could post comments via the Slack platform. Numerous suggestions and ideas to improve the text of the Code were brought forward during this public discussion and many were incorporated in the current revision.
- The ballot on revisions to the ICNP was held 1 April – 30 June 2022. A 403-page document was presented that contained the text of the 2008 Revision, the proposed 2022 Revision, and

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explanatory notes. Of the 28 voting members of the ICSP, 26 completed the ballot form. Members were given two options: (1) To endorse the version proposed by the Editorial Board 'en bloc', with exception of eight issues for which separate votes were requested. This option was used by 15 voting members.

(2) To vote on each proposed change separately. This option was used by 11 voting members.

- Based on the outcome of the ballot, the Editorial Board of the ICNP has finalized the 2022 Revision of the ICNP. The document was submitted on 1 August for publication in the IJSEM and accepted for publication on 12 August. It is currently with the typesetters

- Major changes included in the 2022 revision include the addition of the rank of phylum to the ranks covered by the rules of the ICNP (as approved by the ICSP in a separate ballot held in 2021, following a public discussion), and the formal inclusion of the *Cyanobacteria* in the rules of the Code. This change required modification of numerous rules to harmonize the treatment of the nomenclature of the *Cyanobacteria* with the relevant rules of the *International Code of Nomenclature for algae, fungi, and plants*. This change was also approved by the ICSP in a separate ballot held in 2021, following a public discussion.

- Numerous additions have been made in Appendix 9 – Orthography to assist authors in proposing correctly formed names that comply with the rules of the Code.

- Appendix 11 has been emended to better explain the provisional status of *Candidatus*. The nomenclature of *Candidatus* taxa is not formally incorporated in the Rules of the ICNP and such names have no standing in prokaryote nomenclature. It was noted that a proposal to allow the use of genome (or gene) sequences as nomenclatural types for naming of prokaryotes was rejected by the ICSP in 2020, following a public discussion.

- We aimed to shorten and simplify the ICNP where possible. Therefore, we have not reprinted the prefaces to the earlier versions of the Code and have deleted the detailed information about the older versions of the different codes of nomenclature (Appendix 1), the recipients of the van Niel International Prize prior to 2014 (Appendix 12) and activities of the congresses prior to 2019 (Appendix 13). The earlier information is available in the 2008 revision of the ICNP.

- The ICNP is a 'living document' and we anticipate – indeed welcome – proposals for emendations to further refine it, which should be made following the process outlined in Article 13(b) of the ICSP statutes.

- A paper with newly proposed emendations, not published in time to be included in the 2022 Revision of the ICNP ('Proposals to emend Rules 8, 15, 22, 25a, 30(3)(b), 30(4), 34a, and Appendix 7 of the International Code of Nomenclature of Prokaryotes', authored by the members of the ICNP editorial board, is now in press in the IJSEM. These proposed emendations deal with the nomenclatural type of taxa above genus; the suitability of names published in supplementary material or in papers published on e-print servers for effective publication; the number of culture collection designations to be included in an effective publication of a name of a species or subspecies to qualify for validation of the name; the kinds of restrictions that may be attached to deposits of type strains; and the question whether elevation of a subspecies to the rank of species or lowering of a species to the rank of subspecies establish new combinations.

Minute 5. Discussion of new membership structures

I.C. Sutcliffe presented an overview of the current membership of the ICSP. Membership

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categories of the ICSP are currently as specified in Article 2.a–c of the Statutes, which allow for the appointment of Full Member delegates representing IUMS member societies, Co-opted delegates and non-voting Life Members. The relatively small membership of ICSP (typically less than 30 voting members) has led to criticisms that we lack appropriate disciplinary and geographic diversity. Noticeably, ICSP has no delegates representing societies in North America, and only one from a South American and one from an African society. Despite the predominant volume of taxonomic activity in Asia, only three delegates come from eastern Asian societies. We have a statutory requirement (Article 3a) to “represent the diversity of interests of different microbiological disciplines on matters concerning the nomenclature of prokaryotes”. Thus, it can be argued that the functioning of ICSP, and its decision-making, will benefit from having a membership that is as broad and diverse as possible, in order to better represent the diversity of interests and priorities of the global systematics community. It was noted that significant changes to our membership structure will require the approval of IUMS, and changes to the ICSP Statutes.

It was reported that attempts to secure delegates from IUMS member societies that lack representation are ongoing, with requests sent by the Executive Secretary to multiple Societies lacking delegates. Whilst this will continue, historically this approach has been hampered by [1] difficulty in obtaining an accurate list of Member Societies/contacts from IUMS, and [2] a lack of engagement from the IUMS Member Societies. The attendees were encouraged, through their personal networks, to identify suitable and willing candidates in countries where a member society is known to lack a delegate, and then those contacts should be encouraged to ask their IUMS member society to nominate them.

The current mechanism for co-option is detailed in Article 2.b. of the statutes and requires nomination of candidates with the support of two Full members, followed by approval by vote of the Full Members. It was noted that it is unclear from Article 2.b.1. whether or not “Proposals for co-opted membership” can come from outside the ICSP membership, including self-nomination, so long as the proposal is supported by two Full Members. Any members co-opted from Sept 2022 would only serve until 31st March 2023, as their terms of membership are tied into the same cycle as those for Full Members (Article 2.b.2). This inherently limits the effectiveness of co-option in the less than six months remaining in the current term, although co-options could be renewed. The Statutes could be revised to make co-option a more straightforward process, so that it could be more effectively deployed early in the next term. Article 2.b.1. could be clarified to allow self-nominations (if supported by two Full Members). Moreover, approval of candidates for co-option could be expedited by making this the responsibility of the Executive Board, rather than requiring a vote of the Full Members.

This option was discussed. There was little enthusiasm for the idea of greater use of co-option as a means to expand the number of ICSP members. The idea of having the Executive Board rather than all voting members of the ICSP approve nominations for new co-opted members did not receive much support.

Other Committees (‘ComCofs’) of IUMS operate with entirely different membership structures. For example, the International Committee on Taxonomy of Viruses has a complex membership structure that permits multiple delegates from a particular country, whereas membership of the International Commission on the Taxonomy of Fungi “is by invitation of the Commission”,

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which seems equivalent to co-option of all members. Both these examples indicate that IUMS are amenable to membership structures distinct from than the ICSP membership scheme.

The '1 IUMS Member Society = 1 delegate' formula in part explains why we are not as representative as we should be: a large Society (e.g., Chinese Society for Microbiology) has the same number of delegates as a much smaller Society. The ICSP Statutes could be revised to amend the '1 IUMS Member Society = 1 delegate' formula such that IUMS Member Societies could be permitted to delegate more than one member to ICSP, proportionate to their size. Limitations of this model are likely to be [1] our ability to gather accurate information from IUMS about sizes of their Member Societies, although we can ask the societies themselves for this information; and, [2] whether IUMS Member Societies will actually delegate more than one representative.

Discussion of these options didn't lead to a clear consensus. Some participants favoured the idea of increasing the number of delegates proportionate to the Member Society size, although some did not.

Suggestions were invited as to additional mechanisms that could improve the diversity of the ICSP membership.

Minute 6. Questions and Answers with the members

There was no other business and there were no further question.

The meeting was adjourned at 09.40.

Minutes prepared by A. Oren – 13th October 2022