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Latest general taxonomic proposal on naming taxa with personal names



Taxonomic proposal 2017.003G Change ICVCN Rule 3.11

I strongly recommend that all members of ICTV vote NO to this proposal!

This proposal aims to change ICVCN Rule 3.11 that provides guidance in naming new taxa:

"No person's name shall be used when devising names for new taxa." It also includes the "Comment: New taxon names shall not be created by adopting a person's name, by adding a formal ending to a person's name or by using part of a person's name to create a stem for a name."

The new proposal, put forward for voting by members of the ICTV, states:

"A person's name may be used when devising a name for new taxon. If the person is alive at the time of the proposal, the person's written consent for use of his/her name must be provided together with the official taxonomic proposal. Whether the use of a person's name for taxon naming is appropriate will be judged by the responsible ICTV Study Group, the respective ICTV Subcommittee, and the ICTV Executive Committee and approved or disapproved following established taxonomic proposal procedures. Furthermore, a) An individual may not propose his/her own name as the basis for any new taxon name; and, b) A taxon may not be named wholly or in part after any current member of an ICTV Study Group or committee."

The current rule has been in place since the origins of ICTV (then known as ICNV) in1966, and is summarized in the First Report as Rule 8 "No person's name shall be used" (Wildy, 1971). The ICNV also made a clear statement that "The code of bacterial nomenclature should not be applied to viruses." (see minutes of the first meeting of the ICNV, Moscow 1966 July 22).

This rule has been applied consistently since that time, and has helped to establish the difference between virus names and taxa names. ICTV is only concerned with naming taxa and has established rules for this.

The naming of viruses is beyond the mandate of ICTV. It is certainly possible that a person's name could be used to name a virus. However, naming a virus taxa after a person, mainly "dead white guys" would be a disservice to the goal of international virus nomenclature. At least in North America, many people, mostly males, have become discredited in recent years, for actions and behavior that are now seen as unacceptable. Trying to "honour major researchers dead or alive " is surely not the role of virus taxonomy.

The merits of the rules of ICTV have recently been noted (Garnett and Christidis, 2017)

Additionally, there is a matter of process involved with this proposal. Currently, the Executive Committee has put forward taxonomic proposals that are in conflict with the current Rule 3.11 (see for example 2017.001B.N.v1.Ackermannviridae). Surely, a rule change should be approved before proposals conflicting with the old rule are put forward by the Executive Committee.

References

Garnett, S. T., and Christidis, L. (2017). Taxonomy anarchy hampers conservation. *Nature* **546**(7656), 25-27.

Wildy, P. (1971). Classification and nomenclature of viruses. First report of the International Committee on Nomenclature of Viruses. *Monographs in Virology* **5**, 1-81.



Offline kropinsk 70.52.236.104 over 4 years ago

Dear ICTV Colleagues,

As the Chair of the Bacterial and Archaeal Viruses Subcommittee (BAVS) I would request that you vote "Yes" on the amendment to Rule 3.11. During the last four years the BAVS has made huge strides to bring the taxonomy of phages into line with that of other viruses. But, since they only cause cell death, and not interesting pathologies, coming up with useful names for higher taxa to say nothing of the hundreds of genera and dozens of subfamilies is a major problem. For example, currently there are over 1500 Mycobacterium phages, therefore our traditional naming system "Mycobacterium virus XYZ" is useless as far as providing added useful information. Over 140 virologists in 34 countries and representing 102 institutions signed the TaxoProp to amend rule 3.11 which could result in a genus called Hendrixvirus - after Roger Hendrix, a former member of ICTV and expert on phages of this genus, who died recently. Without this amendment the creation of phage taxa will flounder which we cannot allow to occur since there are over 5000 unclassified phages in GenBank.

Yours sincerely

Andrew M. Kropinski

Offline Jens H. Kuhn 165.112.246.139 over 4 years ago in reply to kropinsk Dear Eric,

I do not agree with your call to arms. In essence, you are publicly calling for a No vote to a taxonomic proposal co-authored by over a hundred eminent virologists without offering a viable alternative to the problem the proposal is trying to solve. It is easy to say "I don't like it" – it is much harder to find ways to keep the ICTV relevant and functional for the foreseeable future.

Virus taxonomy is radically changing as I write this, with more and more manuscripts appearing that announce the discovery of hundreds to thousands of taxonomically distinct viruses that not only represent an equally high number of novel species, but also dozens of new orders and families. The current ICTV taxonomy release lists a mere 4,404 official species that have been created since 1966. Compare that number to, for instance, a total of novel 1,445 invertebrate viruses representing a roughly equal number of new species in one (!) paper by Shi et al. published in 2016 (PMID: 27880757). A recent study by Anthony et al. (PMID: 24003179) estimated the number of mammalian viruses to be discovered to be around 320,000. Already, there are some 6,000 unclassified prokaryotic viruses in NCBI's database, and a recent analysis of double-stranded DNA virus sequences collected from seawater identified 5,476 distinct virus populations of which a mere 39 corresponded to virus groups that have been classified by the ICTV (PMID: 25999515). Clearly, this is the tip of the iceberg and we really need to anticipate the discovery of millions of viruses.

All of these new viruses will have to classified by very few ICTV experts into taxa – and those taxa will then have to be named. Other taxonomies (prokaryotic, animal, plant, fungal) have realized a long time ago that alphanumerical naming schemes (i.e. simple numbering of taxa) is not only impractical for daily discourse because humans are exceptionally bad at memorizing numbers, but they are also detrimental in the long run as numbers and letters can easily be confused during database input and copy-and-pasting. In addition, future taxonomic rearrangements would require either constant renumbering or accepting deletion of numbers within number chains.

As a consequence, the question arises how one can come up with hundreds or thousands of novel, overall memorizable and distinct taxon names in a reasonable short period of time. Other taxonomies have solved this problem by allowing maximum flexibility in taxon name creation, which includes the explicit permission of organizational names (bacterial genus _Cedecea_ and _Afipia_, named after CDC and Armed Forces Institute of Pathology), researchers (_Escherichia_, _Shigella_, _Burkholderia_, _Yersinia_ are named after Escherich, Shiga, Burkholder, and Yersin), comedians (wasp species _Aleiodes colberti_, named after Steven Colbert), and even the Pope (beetle species _Aegomorphus wojtylai_, named after Karol Wojtyła/Pope John Paul II).

The proposal at hand does not argue for nilly-willy taxon naming after people. It includes specific safe guards to prohibit vanity self-naming. In addition, like any proposal to the ICTV, a naming proposal will have to find the approval of the retrospective ICTV Study Group, then that of the ICTV Executive Committee, and then the approval of the entire membership of the ICTV before it could be implemented. At any given step, taxon name changes could be demanded. These steps alone should ensure that a controversial taxon name based on a particular person's name will not see the light of day.

Taxon names are not more than labels that help communication and one should not read too much into them. But even if a taxon name is chosen that later is deemed inappropriate, then a simple new proposal for a taxon name change can be submitted and the name can be changed. Similarly, we keep many street names named after people and every now and then we change some because the name-giving persons have become discredited.

Taxonomy, and virus taxonomy in particular, will change drastically now on an annual basis for years to come. Nomenclature will probably be a major part of discussions. Taking away flexibility in name creation will make this process even more cumbersome than it already is – and I would argue that the naming of some 400,000 beetle species would have been impossible without including people's names into them. Likewise, we will not be able to name 400,000 virus species without changing Rule 3.11.

I therefore strongly recommend that all members of the ICTV take the above into consideration and vote YES to this proposal - and then help us devise names that are as uncontroversial as possible.

Best, Jens Kuhn

PS:

The ICTV EC has recently created precedence in allowing interdependent taxonomic proposal discussions at the same meeting. Hence, a proposal to change a Rule and another proposal building on the changed Rule can indeed be accepted at the same meeting as long as they are discussed and voted on in succession – which was the case



here. The Rule 3.11. change was accepted by vote by the ICTV EC, followed by accepting the _Ackermannviridae_ proposal applying the changed 3.11 Rule.

Previewing Staged Changes