

Who amends the *International Code of Botanical Nomenclature*? A response to Applequist & al. (2010)

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Abstract We maintain that a review of the way in which votes that can be cast to influence the amendment of the *International Code of Botanical Nomenclature (ICBN)* are allocated is overdue. Although there will no doubt be resistance to proposed changes that may emanate from such a review, a more representative system of vote allocation to herbaria, among other things, will considerably enhance the credibility and robustness of the voting system. A rebuttal addressing two criteria we suggest as examples of what could be used as part of a review to make the voting system more representative was recently published by Applequist & al. It is regrettable that in the face of unambiguous statistics that show the inadequacy of the current *ICBN* amendment voting system, the need for change is not embraced with due urgency. A fear of power sharing and decentralization may well be the root cause.

Keywords amendments; *International Code of Botanical Nomenclature*; resistance to change

■ INTRODUCTION

In our recent article (Smith & al., 2010) we suggested that the time is ripe for a review of the way in which votes to be cast at Nomenclature Section meetings are allocated to herbaria. Such votes will typically be used to influence the acceptance or rejection of proposed amendments to the *International Code of Botanical Nomenclature (ICBN)*. We argued that the system as it stands currently is biased towards certain regions, with 65% of potential votes being available to herbaria from the northern regions. Following publication of our paper, a rebuttal by Applequist & al. (2010) was published in *Taxon*. Applequist & al.'s (2010) paper needs to be challenged though as it contains statements that are at best misleading, and at worst makes assumptions that were not intended by Smith & al. (2010).

■ RESISTANCE TO CHANGE

Applequist & al.'s (2010) paper contains elements that very clearly demonstrate the prevailing attitude of insensitivity towards less-developed countries and the lack of understanding of correct representation in decision-making. In our paper we addressed the question of what constitutes fair and equitable representation in the *ICBN* voting process. Our figures (see Smith & al., 2010: Table 1) are very clear in showing that the actual representation in the voting process is unfair and skewed, and we suggested ways of improving it. Other researchers that have also looked into the figures and noticed the biased representation, agree that the system has to be changed, and there has even been a proposal subsequently made for eliminating

the institutional votes (Landrum, 2010). Nevertheless, rather unsurprisingly, some taxonomists prefer to maintain the status quo, rather than improving it.

Applequist & al. (2010) argue that the interests of stakeholders in developing countries are well defended when decision-makers are their counterparts in the developed world. This is the well-known 'you-are-well-looked-after'-argument which is often used to deny basic rights. Why give any right of decision-making to others when a superior ruling class or clique (who knows much better) is there to decide for everyone? The argument has been used countless times to maintain unjust systems. Applequist & al. (2010) go as far as saying that what the developing countries need is infrastructure and capacity, not voting rights ("to increase taxonomic infrastructure and research capacity in developing nations, not to redistribute voting rights"), an argument that some of us have heard many times, in political contexts. Nevertheless, the refusal of right to representation in decision-making does not seem to bother Applequist & al. (2010). Incidentally, the need for building taxonomic capacity in the developing world (and parts of the developed world, for that matter), is widely recognised and supported by us (see for example Smith & Figueiredo, 2009).

■ TAXONOMISTS AND NON-TAXONOMISTS

Applequist & al. (2010) state that only experts in nomenclature should be involved in the rule-making process. We disagree with that. It is tantamount to saying that only law enforcement officers and judges should have a say in the making of laws. Obviously it is not our intention to bring a

person off the street, register him or her at the next International Botanical Congress (IBC) and grant them voting rights, but do note that this can in fact be done if anyone desired to do so! Applequist & al. should duly note that such a scenario is indeed possible in the current system. Another flaw of the system is that individual voters from the IAPT voting list are not necessarily taxonomists as no-one checks the credentials of the people who join the association. In the present system decision-making is not restricted to the taxonomists, there are non-taxonomists with voting rights. Therefore, if Applequist & al.'s (2010) views were to be followed, voting rights would have to be restricted to taxonomists. And how would these be identified? By their qualifications, place and type of employment or scientific output? What if they are retired and no longer formally employed? Similarly, should some 'unqualified' and inactive IAPT members then have their voting rights removed?

Our view is that ecologists, conservationists and other specialists (often) make (even more) use of the names decided on by taxonomists, but have no voice in the decision-making process. Although, as we explained above, there is nothing in the process that prevents non-taxonomists from participating, it is unlikely that ecologists and others will join the IAPT or attend the Nomenclature Section meeting at the IBC, therefore their participation is possible but unlikely. Since institutional votes are limited to those institutions with herbaria, non-taxonomists are also less likely to be represented by institutional votes. We think the relevance of this is obvious in the controversial *Acacia* retypification issue (Moore & al., 2010). Applequist & al. (2010) stated: "However, if Smith & al.'s alternate criterion, by which those who have the largest floras should have the greatest power, had been narrowly applied to the number of *Acacia* species at issue, the Australians, with several times more species at issue, would appropriately have had the final say." This is a blatant misunderstanding of our proposal. We proposed two *possible* criteria—biodiversity wealth and population size—not a single criterion. We also did *not* propose that the diversity of specific groups should be considered for specific voting. There may be more species of *Acacia* in Australia than in Africa, but what counts are the overall diversity and population figures of the regions—which reflects the use that is made of the names. Both are much higher in Africa than in Australia. As it has often been argued, it is the *use* of the name *Acacia* that is at stake (see Moore & al., 2010). Acacias are at least as relevant from an economical and social point of view in Africa, and other regions, as they are in Australia. We think it is disingenuous of Applequist & al. to use one criterion in isolation in their response.

■ APPLEQUIST & AL.'S ARGUMENTS

Applequist & al. (2010) argue that if there are no *actual* injustices, the system should be maintained, with all its faults. *Hypothetical* injustices, i.e., those that can occur because the system is inadequate are not to be considered according to these authors. In our view the injustice is simply the numbers presented in our table (Smith & al., 2010: Table 1). That is harm

in and of itself. How can it be not harmful that some parts of the world have more say than other parts of the world—parts of the world with more diversity and population—in the process? In Applequist & al.'s (2010) view, one should also not consider that there is discrimination when the victims do not complain! Institutions who do not complain that they have less votes than they should, are happy living in oblivion that they are being discriminated against, so let them be. That is the case for 16 (30%) African countries who have not been allocated votes—because they don't complain, no votes are allocated to them. It is our view that systems with flaws must be improved so that one limits the possibility of injustice or wrong-doing. Those who have more awareness of rights and injustices should make an effort to change situations where people or organizations are victims of injustice. Applequist & al. (2010) complain that we did not provide examples of *actual injury*. The actual injury is the denial of decision-making rights to people who are affected by whatever decisions are taken by the voting powers.

Applequist & al. (2010) argue that 'our solution' would impose discrimination based on nationality, undermining international cooperation. We argue that it is the present system that discriminates on nationality and historical background. What we proposed to achieve is a correct representation. Do Applequist & al. (2010) also believe that representation based on nationality in bodies such as the Convention on Biological Diversity is discriminating? Surely not. As for *undermining international cooperation* it is not clear how having more representation in decision-making can undermine cooperation, unless what the authors mean is that as democratic rights are expanded consensual decisions are more difficult to achieve. Of course, there is much less conflict when the majority of stakeholders has no saying in decision making. If the system persists with the power of decision taking in the hands of a few, cooperation may be smoother but only until the time comes when some people begin to realize that their rights are very limited. It is also difficult to understand how international cooperation can be damaged when, in Applequist & al.'s (2010) view, votes deal mostly with uncontroversial proposals that are unlikely "to bring the interests of different regions into direct conflict."

Applequist & al. (2010) "categorically reject" the possibility that "committee members from Western institutions vote according to national or cultural interests rather than scientific interests". On the other hand, they state that voting by proxy gives "disproportionate power to the staff of that handful of institutions, whose interests might not be identical to the interests of the smaller herbaria"! So there are in fact other non-scientific interests in the process. In our view, there is no doubt that when deciding on something, it is often at the basis of the voter's decision how that particular decision will affect his or her own life and activities, not the global needs or interests. What would the ICBN be today if, from its beginning, it had been voted by a proper representation of stakeholders? For instance, would we have the imposition of providing a diagnosis/description in a dead European language in an alphabet that is foreign to the majority of the world's population?

We do not understand what is meant by the weird question phrased and left unanswered by Applequist & al. (2010):

“Does plant nomenclature hurt poor people?” “Poor people” is not mentioned anywhere in our paper (Smith & al., 2010) and equating the populations of developing countries with ‘poor people’ is an unacceptable stereotyping of the worst kind. However, the answer to the question is probably “it does not, but it does not put food on their tables either.” In fact, plant nomenclature, because it is in the hands of a few experts who do not accept the interference of other taxonomists, and much less that of non-taxonomists, and persist in maintaining a biased system of decision-making, is as estranged from the common, poor people as it could possibly be.

■ APPLEQUIST & AL.’S EXAMPLES

Applequist & al. (2010) attempted to demonstrate that it is not possible to determine number of votes using criteria that take into account population size and plant diversity. In their simplistic example two countries (South Africa and Poland) that have similar numbers of voting herbaria (9) and votes (15), but have considerably different population sizes and plant diversity figures, were chosen for analysis. They then proceeded by applying a formula based on figures for population size and diversity. The formula was not given in the paper, but apparently consists of half the sum of the rates of population (1.29) and diversity (9.56) for the two countries. According to Applequist & al. (2010) as a result *the voting herbaria* of one of the countries (South Africa) would have 5.4 more votes than those of the other. The rationale is absurd to start with, as it does not take into account the total number of herbaria in these countries (53 in South Africa and 30 in Poland). The total number of herbaria obviously has to influence the number of votes carried by a country. It is our view that all recognised herbaria should be entitled to vote, independently of other criteria used to allocate number of votes. Either that, or institutional votes are altogether eliminated (see Landrum, 2010). Furthermore, there is a limit to the total number of votes for a single institution (7 votes) which Applequist & al. (2010) ignored. The formula in itself is arbitrary and not justified, and the whole exercise is unsound.

In their second example Applequist & al. (2010) apply the same figure of 5.4 obtained from their formula to a total of 30 votes (one assumes this is the total of votes presently given to

the two countries) which resulted in 5 additional votes given to Poland and 25 given to South Africa. They added these to the actual votes of the country (5 + 15 for Poland; 25 + 15 for South Africa). Again this is an absurdity. Why would anyone correct a figure (the number of votes) by adding to that same figure (15 votes) another figure (5 or 25 votes) which was calculated with a basis on the first figure ($30 \times \frac{1}{6}$ or $30 \times \frac{5}{6}$)? Applequist & al. (2010) say that the result of this strange calculation would be a twofold disparity (20/40) between the countries. In fact, this disparity would almost disappear if they had considered the total number of herbaria in the two countries: South Africa would then have 0.7 votes per herbarium and Poland 0.6. It seems that Applequist & al. (2010) are so averse to change that even when trying to devise a formula to prove their point they could not do it without bringing into it the existing status quo (voting herbaria and number of votes) which logically invalidated their results.

■ CONCLUSION

Taxonomists have a unique opportunity to now amend the way in which votes that can be cast to amend the ICBN are allocated. If collectively we are not proactive, animosity will only grow.

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